



RESULTS  
OF THE  
MAGNETICAL AND METEOROLOGICAL  
OBSERVATIONS

MADE AT  
THE ROYAL OBSERVATORY, GREENWICH,  
IN THE YEAR  
1922.

UNDER THE DIRECTION OF  
SIR FRANK DYSON, M.A., LL.D., F.R.S.,  
ASTRONOMER ROYAL.

PUBLISHED BY ORDER OF THE BOARD OF ADMIRALTY, IN OBEDIENCE TO  
HIS MAJESTY'S COMMAND.

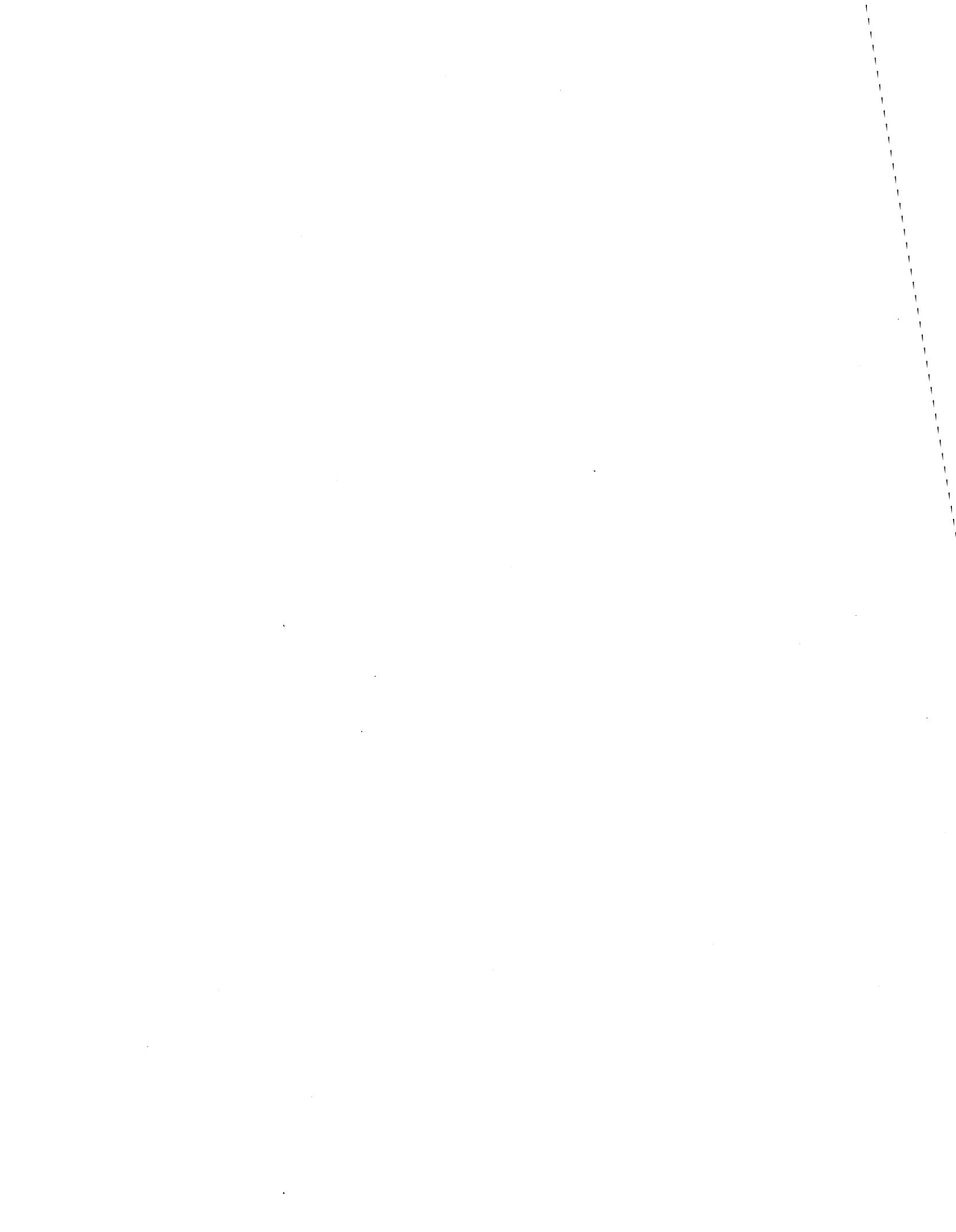


LONDON :  
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE  
To be purchased directly from H.M. STATIONERY OFFICE at the following addresses :  
Adastral House, Kingsway, London, W.C.2; 28, Abingdon Street, London, S.W.1;  
York Street, Manchester; 1, St. Andrew's Crescent, Cardiff;  
or 120, George Street, Edinburgh;  
or through any Bookseller.

---

1924.

*Price 13s. 6d. Net.*



# INDEX.

INTRODUCTION.	PAGE
PERSONAL ESTABLISHMENT AND ARRANGEMENTS .. .. .	E i
GENERAL DESCRIPTION OF THE BUILDINGS AND INSTRUMENTS .. .. .	E i
NEW MAGNETOGRAPH HOUSE .. .. .	E ii
SUBJECTS OF OBSERVATION .. .. .	E iii
MAGNETIC INSTRUMENTS—	
DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS .. .. .	E iii
ABSOLUTE HORIZONTAL FORCE INSTRUMENT .. .. .	E iv
DIP INDUCTOR .. .. .	E iv
THE DECLINATION VARIOMETER .. .. .	E iv
THE NORTH FORCE VARIOMETER .. .. .	E v
THE QUARTZ-THREAD VERTICAL FORCE VARIOMETER .. .. .	E vii
MAGNETIC REDUCTIONS .. .. .	
TABLE OF MAGNETIC ELEMENTS DETERMINED AT GREENWICH FROM 1841 .. .. .	E xi
METEOROLOGICAL INSTRUMENTS—	
STANDARD BAROMETER .. .. .	E xii
PHOTOGRAPHIC BAROMETER .. .. .	E xii
DRY AND WET BULB THERMOMETERS .. .. .	E xiii
PHOTOGRAPHIC DRY AND WET BULB THERMOMETERS .. .. .	E xiv
RADIATION THERMOMETERS .. .. .	E xv
EARTH THERMOMETERS .. .. .	E xv
OSLER'S ANEMOMETER.. .. .	E xv
ROBINSON'S ANEMOMETER .. .. .	E xvi
RAIN-GAUGES .. .. .	E xvii
ELECTROMETER.. .. .	E xvii
SUNSHINE RECORDER .. .. .	E xvii
NIGHT-SKY RECORDER .. .. .	E xviii
METEOROLOGICAL REDUCTIONS .. .. .	
	E xix

INDEX.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS IN TABULAR ARRANGEMENT :—	PAGE
RESULTS OF MAGNETICAL OBSERVATIONS .. .. .	E 1
TABLE I.—Hourly Means of Magnetic Declination West for each Civil Day .. ..	E 2
TABLE II.—Hourly Means of North Component of Magnetic Force .. .. .	E 8
TABLE III.—Hourly Means of Vertical Component of Magnetic Force .. .. .	E 14
TABLE IV.—Monthly and Annual Mean Diurnal Inequalities of Magnetic Declination West	E 20
TABLE V.—Diurnal Range of Declination on each Civil Day, as deduced from Table I ..	E 20
TABLE VI.—Monthly and Annual Mean Diurnal Inequalities of Magnetic Declination West from Hourly Ordinates, on Selected Quiet Days in each Month .. .. .	E 21
TABLE VII.—Monthly and Annual Mean Diurnal Inequalities of Magnetic Declination West from Hourly Ordinates, on Selected Disturbed Days in each Month .. ..	E 21
TABLE VIII.—Monthly and Annual Mean Diurnal Inequalities of Magnetic North Force ..	E 22
TABLE IX.—Diurnal Range of Magnetic North Force on each Civil Day, as deduced from Table II .. .. .	E 22
TABLE X.—Monthly and Annual Mean Diurnal Inequalities of Magnetic North Force from Hourly Ordinates, on Selected Quiet Days in each Month .. .. .	E 23
TABLE XI.—Monthly and Annual Mean Diurnal Inequalities of Magnetic North Force from Hourly Ordinates, on Selected Disturbed Days in each Month .. .. .	E 23
TABLE XII.—Monthly and Annual Diurnal Inequalities of Vertical Magnetic Force ..	E 24
TABLE XIII.—Diurnal Range of Vertical Magnetic Force on each Civil Day, as deduced from Table III .. .. .	E 24
TABLE XIV.—Monthly and Annual Mean Diurnal Inequalities of Vertical Magnetic Force from Hourly Ordinates, on Selected Quiet Days in each Month .. .. .	E 25
TABLE XV.—Monthly and Annual Mean Diurnal Inequalities of Vertical Magnetic Force from Hourly Ordinates, on Selected Disturbed Days in each Month .. .. .	E 25
TABLE XVI.—Values of the Coefficients and Phase Angles in the Periodical Expression— $V_t = m + a_1 \cos t + b_1 \sin t + a_2 \cos 2t + b_2 \sin 2t + a_3 \cos 3t$ $+ b_3 \sin 3t + a_4 \cos 4t + b_4 \sin 4t$ $= m + c_1 \sin (t + \alpha_1) + c_2 \sin (2t + \alpha_2) + c_3 \sin (3t + \alpha_3)$ $+ c_4 \sin (4t + \alpha_4) \dots \dots \dots$	E 26
TABLE XVII.—Results of Observations of Magnetic Declination, with Deduced Values of the Base-Line of the Declination Magnetograms .. .. .	E 27
TABLE XVIII.—Results of Determinations of the Absolute Value of Horizontal Magnetic Force in the Year 1922, from Observations made with the Gibson Instrument in the Magnetic Pavilion, with Deduced Values of the Base-Line of the North Force Magnetograms .. .. .	E 29

INDEX.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS— <i>continued.</i>	PAGE
TABLE XIX.—Results of Observations of Magnetic Dip made with the Dip Inductor in the Year 1922, with Deduced Values of the Base-Line of the Vertical Force Magnetograms .. .. .	E 30
TABLE XX.—Annual Summary of the Magnetic Elements .. .. .	E 30
MAGNETIC DISTURBANCES .. .. .	E 31
Brief description of Magnetic Movements (superposed on the ordinary diurnal movement) exceeding 3' in Declination, 20 $\gamma$ in North Force, or 12 $\gamma$ in Vertical Force, taken from the Photographic Register .. .. .	E 32
Explanation of the Plates .. .. .	E 50
PLATES I.-III., photo-lithographed from tracings of the Photographic Registers of Magnetic Disturbances.	
RESULTS OF METEOROLOGICAL OBSERVATIONS .. .. .	E 51
Daily Results of the Meteorological Observations .. .. .	E 52
Highest and Lowest Readings of the Barometer .. .. .	E 76
Highest and Lowest Readings of the Barometer for each Month.. .. .	E 76
Monthly Results of Meteorological Elements .. .. .	E 77
Monthly Mean Reading of the Barometer at every Hour of the Day .. .. .	E 78
Monthly Mean Temperature of the Air at every Hour of the Day .. .. .	E 78
Monthly Mean Temperature of Evaporation at every Hour of the Day.. .. .	E 79
Monthly Mean Temperature of the Dew-Point at every Hour of the Day .. .. .	E 79
Monthly Mean Degree of Humidity at every Hour of the Day .. .. .	E 80
Total Amount of Sunshine registered in each Hour of the Day in each Month.. .. .	E 80
Readings of Thermometers on the Ordinary Stand in the Magnetic Pavilion Enclosure.	E 81
Amount of Rain collected in each Month by the different gauges .. .. .	E 84
Mean Hourly Measures of the Horizontal Movement of the Air in each Month, and Greatest and Least Hourly Measures as derived from the Records of Robinson's Anemometer.. .. .	E 84



# GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1922.

---

---

## INTRODUCTION.

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

### § 1. *Personal Establishment and Arrangements.*

During the year 1922 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided by three Computers. The Computers employed during the year were:—G. F. Wells, E. H. Tibbitts, and Miss E. W. Clack.

### § 2. *General Description of the Buildings and Instruments of the Magnetical and Meteorological Observatory.*

The Magnetic Pavilion is constructed of non-magnetic materials, and stands in an enclosure in Greenwich Park, 350 yards to the east of the Observatory, on a site carefully chosen for its freedom from abnormal magnetic conditions. 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, three rain-gauges, and the sunshine recorder are fixed above the roof of the Octagon Room (the ancient part of the Observatory).

For a detailed description of the New Magnetograph House, which was completed in 1914, reference should be made to the Greenwich Observations for 1915.

The New Magnetograph House stands 50 feet north-west of the Magnetic Pavilion in which the absolute magnetic observations are made. The recording instruments are situated in a small 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 centres of the three instrument piers are situated as follows: For the north force instrument, 2 feet south and 2 feet 6 inches east of the north-west angle of the room; for the declination instrument, 5 feet 6 inches south and 5 feet east of the same angle; for the vertical force instrument, 2 feet north and 3 feet west of the south-east angle. The two piers which support the recording mechanism occupy the north-east and south-west corners of the room, their longer sides being in the direction of 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 north force instrument, by means of a small telescope, projecting into the room.

The Magnetograph House contains also the photographic and standard barometers. The former is mounted on the south wall of the instrument room,  $5\frac{1}{2}$  feet from the south-east corner of the room. The standard barometer is situated in the passage way, being supported on a board screwed to the north-west corner pillar of the inner room.

The north force and declination instruments record on the north-east drum; the vertical force instrument and the barometer record 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 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 east and west 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 time, the current being controlled by a relay connected to the Mean Solar clock in the Clock Room of the Observatory. The effect is to produce narrow dark hour lines right across the photographic records.

### § 3. *Subjects of Observation in the year 1922.*

The observations comprise determinations of absolute magnetic declination, horizontal force, and dip; continuous photographic record of the variations of declination and vertical force, and of the north component of horizontal force; 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; 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, and occasional phenomena.

A camera recording the trace of stars in the neighbourhood of the celestial Pole was brought into regular use at the beginning of 1920, with a view to obtaining an indication of the amount of cloud in the night sky.

Since 1885, Greenwich civil time, reckoning from midnight to midnight, and counting from 0 to 24 hours, has been employed throughout the magnetical and meteorological sections, except in regard to the sunshine registers (see p. E xvii).

### § 4. *Magnetic Instruments.*

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS.—Since 1899 January 1, regular observations of declination have been made in the Magnetic Pavilion. The hollow cylindrical magnet Elliott No. 75 is used in conjunction with a telescope by Troughton and Simms, placed on a pier about 2 feet south of the magnet. The magnet is about 4 inches long, and at one end is an engraved glass scale for collimation. The telescope is 21 inches long, and the aperture of its object-glass is 2 inches; its horizontal circle is 16.6 inches in diameter, divided to 5' and read by verniers to 5". It has no vertical circle. The eye-piece has one fixed horizontal wire and one vertical wire, moved by a micrometer screw, the value of one revolution of which is 1' 34".2. The adopted collimation reading was 10<sup>r</sup>.140.

The vertical axis of the telescope is adjusted by means of a fixed level, one division of which corresponds to  $1''\cdot 15$ . The level correction for inequality of the pivots of the axis of the telescope was found in 1898 to be  $-6^{\text{dir}}\cdot 0$  or  $-6''\cdot 9$ .

Since 1913 September the magnet has been suspended by a tungsten wire of 0.02 mm. diameter, and about 25 cm. length. The effect of  $90^\circ$  of torsion is to turn the magnet through about  $4'$ . The torsion is found to change little or not at all; it is checked at intervals, and a correction on this account is made when necessary. The collimation error is eliminated by reversing the magnet in the middle of each month (by turning the magnet through  $180^\circ$  in its carrier, about the longitudinal axis), so that half the observations are made with the scale direct and half with the scale reversed.

The reading of the azimuth circle corresponding to the astronomical meridian is determined by observations of Polaris which, weather permitting, is observed once a week.

Declination observations have been made at least thrice weekly throughout 1922.

ABSOLUTE HORIZONTAL FORCE INSTRUMENT.—This instrument is of the Kew unifilar pattern, and rests on a slate slab in the Magnetic Pavilion. A full account of its construction and use is given in earlier volumes, and will not be repeated here.

Observations of the absolute horizontal magnetic force are made twice weekly. Observations of the moment of inertia of the deflecting magnet are made occasionally.

DIP INDUCTOR.—The dip inductor is used in conjunction with a Broca mirror galvanometer, with electric light and scale. Observations are made in four positions to eliminate any small errors arising from slight asymmetry in the instrument. After the first adjustment, the ring is reversed about a horizontal axis and a second adjustment obtained: the instrument is then reversed in azimuth and two further adjustments made. The circles for the measurement of inclination and azimuth are each 8 inches in diameter, and are 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.

The observations are made thrice weekly.

THE DECLINATION VARIOMETER.—This instrument consists essentially of a magnet and mirror suspended by a fine phosphor-bronze strip 30 cm. long. The

torsion head to which the top of the fibre is attached is adjusted so that there shall be no torsion in the mean position of the magnet. A quarter revolution of the torsion head deflects the magnet through  $8'$ .

The magnet consists of nine short pieces of steel 4.5 cm. long and of 1 mm. diameter, supported in an aluminium holder. The mounting of the movable mirror attached to this holder is also of aluminium. It can be turned relative to the magnet, so that the beam of light can be suitably adjusted in azimuth. The fixed mirror for base-line registration is situated beneath the magnet and mirror system. Both mirrors are of silvered glass, 2.5 cm. long and 1 cm. wide, and possess the necessary adjustments for tilt and orientation. The magnet is surrounded by copper blocks, rendering the instrument almost dead-beat.

The instrument rests on three foot-screws, which provide adjustment for level. It is completely enclosed by a tall brass cylinder with lid, resting on the concrete pier; this protects the instrument from dust, draughts, and accidental displacements. The lens which focusses the beam of light passing from lamp to mirror and mirror to drum is mounted in the side of this cylinder, the mirror chamber of the instrument itself being closed by a plane glass window.

The distance from the mirrors to the centre of the slit of the drum box is such that the scale value at the middle of the photographic sheets is  $0' \cdot 58$  per millimetre; at the present time this angle represents  $3 \cdot 11 \gamma$ , in terms of force. Since the beam of light, when directed towards the centre of the slit, makes an angle  $11^\circ \cdot 42'$  with the normal to the drum, the scale value is not the same right across the sheet, the percentage difference of scale between the centre and edges being 0.4. This is allowed for, when necessary, in measuring the photographic traces.

The photographic sheets are changed generally at about 11 a.m. The time scale is 15 mm. per hour. The base-line value is determined from the absolute declination observations.

THE NORTH FORCE VARIOMETER.—The general construction of this instrument resembles that of the declination variometer. The suspension is of quartz, however, 20 cm. long, and the magnet system contains a single magnet similar to those in the declination instrument. In other respects the magnet and mirror systems of the two instruments are identical.

The torsion head is adjusted so that the magnetic axis of the magnet system is kept in the (geographical) east-west direction. The angle between this direction

and the line joining the mirror to the middle of the slit of the drum is  $7^{\circ}30'$ . The mirror was adjusted relative to the magnetic axis so that the angle between the latter and the normal to the mirror agreed with the above angle to within a few minutes of arc. The magnet can consequently be maintained in the right direction by keeping the beam of light directed towards the middle of the photographic sheet.

The instrument is enclosed in a brass cylinder, in which is mounted the focussing lens, as in the case of the declination variometer. Through apertures in this casing also project two arms, one to the north and the other to the south of the instrument, to which they are attached. These are designed to support a deflecting magnet for the determination of the scale value of the variometer. The deflecting magnet is similar to those in the magnet system itself, but is cased in brass so as to be preserved from rust and made convenient for handling; its external diameter and length are 5 mm. and 7 cm. respectively. Deflections are made at two distances along both north and south arms, and in each position the magnet is used with its axis directed to the north and also to the south. Thus eight deflections are involved in each determination of scale value. The deflected positions are recorded on the photographic sheet, and the measurement is performed subsequently. The two adopted distances of the deflecting magnet from the magnet system are 27 cm. and 32 cm. The deflecting forces at these two distances are determined monthly by deflecting the absolute horizontal force magnet in the same way; the moment of the latter being known, the angle of deflection enables the deflecting force to be calculated readily in absolute measure. It is found that the magnetic moment of the deflecting magnet is slowly diminishing; the deflecting forces at the above two distances were  $229.7 \gamma$  and  $139.2 \gamma$  in the mean of 1922, and the present rates of diminution of their values are  $3.0 \gamma$  and  $1.8 \gamma$  per year.

The scale value determinations for the north force instrument are made once weekly. The adopted scale value for 1922 was  $3.36 \gamma$  per mm. It has been treated as constant throughout the year, the difference from month to month being very small.

The base-line value of the instrument is determined by means of the absolute horizontal force observations, together with the absolute and photographic declination determinations. The base line is steadily changing (though at a decreasing rate), owing to the gradual diminution of the moment of the magnet system. The mean daily rate of change of base-line value during 1922 was  $0.39 \gamma$ . The progressive change of base-line value is allowed for in the reductions.

The instrument is kept at a constant temperature, and therefore the records require no temperature correction in general. The temperature correction of the instrument was determined from observations secured when the whole room was heated up to a high temperature. It was found that a rise of temperature through  $1^{\circ}\text{C}$ . increased the base-line value of the instrument by  $2\gamma$ . During the periods when the thermostat was out of order and under repair, the observations were corrected for temperature according to this determination.

THE QUARTZ-THREAD VERTICAL FORCE VARIOMETER.—A new instrument was brought into regular use on 1921 October 29, replacing the one which had been on loan from the Meteorological Office. For a detailed description of this instrument reference may be made to the *Philosophical Magazine*, vol. vii., sixth series, p. 393, 1904. 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. The latter 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 attached 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 adjusting the centre of gravity of the movable system. For this purpose a small vertical quartz arm is fixed to one of the rods attached to the mirror and a small piece of brass can slide on this arm, being fixed into any desired position by means of a little shellac.

SCALE VALUE OF VERTICAL FORCE VARIOMETER.—The scale value of the instrument is determined by the method of deflections, which in this case are produced electro-magnetically. The deflecting coil consists of two equal parallel circular rings of wire separated by a distance equal to their own radii. The wire is laid in V-grooves on a vulcanised fibre framework which rests permanently on the instrument pier. The leads and connections between the two separate rings are laid side by side. With such an arrangement a very uniform magnetic field

is produced at the centre of the coil, when an electric current circulates in the same direction round the two circles. The diameter of each circular turn of wire is 55·7 cm., and the distance between their two centres is 27·7 cm. If  $x$ ,  $\rho$  represent axial and radial co-ordinates, measured in cms. from the centre of the coil as origin, the value of the axial magnetic force at  $(x, \rho)$ , due to a current of strength  $A$  ampères, is—

$$3239A \left[ 1 - 0.0129 \frac{x^2 - \frac{1}{2}\rho^2}{R^2} - 1.782 \frac{x^4 - 3x^2\rho^2 + \frac{3}{8}\rho^4}{R^4} \dots \right]$$

where  $R$  is 31·06 cms., being the distance from the centre of the coil to a point on the circumference of either ring. The coil is placed so that its centre plane is horizontal, and with its centre as nearly as possible coincident with the vertical force magnets; there is no horizontal magnetic field produced by the coil in the plane of the magnets, and the vertical force produced is constant to within 0·5 per cent. throughout the space occupied by the magnets. Within this limit of error, also, an inclination of the magnets to the horizontal even by several degrees would not affect the vertical force to which they would be subject; and the horizontal forces on them, besides being inappreciable, would have a force and not a couple resultant.

In making scale value determinations, the current is supplied by a small portable battery, and is measured by an ammeter. Current strengths of 50 and 100 milliampères are used, which from the above formula, allowing for the slight noncentrality of the magnets with respect to the coil, are found to produce deflecting forces of 161·5  $\gamma$  and 323  $\gamma$  respectively.

The scale value determinations are made weekly. The scale value is found to remain nearly constant, but is not quite uniform across the sheet. The variation in force is computed from the scale value observations as a quadratic function of the ordinate.

The base line value is determined from the dip observations, in conjunction with the recorded values of north force and declination.

#### § 5. *Magnetic Reductions.*

The results given in the magnetic section refer to the civil day, commencing at midnight.

Before the photographic records of magnetic declination, north force, and vertical force are discussed, they are divided into two groups—one including

all days on which the traces show no very great disturbance, and which, therefore, are suitable for the determination of diurnal inequality; the other comprising days of unusual and violent disturbance, when the traces are so irregular that it appears impossible to treat them except by the exhibition of every motion of each magnet through the day.

The separation hitherto adopted has been based upon the judgment of the Superintendent of the department guided by the principle that, in general, a day on which a variation of more than  $300 \gamma$  in horizontal force occurs, or, correspondingly, a variation of more than one degree in declination, is to be classed as a day of great disturbance. Days on which the variations exceed half these quantities are classed as days of lesser disturbance.

Following the principle thus defined, no days in the year 1922 are classed as days of great disturbance. Days of lesser disturbance are January 24-25; March 14; April 21-22; May 16-17; September 14-15; October 5. When two days are mentioned together, it is to be understood that the reference is usually to one set of photographic sheets extending from 11 a.m. to 11 a.m., and including the last half and the first half respectively of two consecutive civil days.

The mean ordinates for each hour are measured 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, for each calendar month, 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 mean ordinates. Tables I to XV contain the results for declination, north force, and vertical force. For each element the mean daily value and daily range are given for every day of the year, together with the monthly and annual mean diurnal inequalities for all days and for quiet and disturbed days (as selected by the International Committee). In the formation of diurnal inequalities it is unimportant whether a day omitted be a complete civil day, or the parts of two successive civil days making together a whole day, although in the latter case the results are not available for daily values. No days were omitted on account of great disturbance in the formation of these Tables.

The variations of declination are given in arc and those of north force and vertical force in C.G.S. measure.

The magnetic diurnal inequalities of declination, north force, and vertical force, for each month and for the year, as given in Tables IV, VIII, and XII, have been treated by the method of harmonic analysis, and the results are given in Table XVI.

**E x**      **INTRODUCTION TO GREENWICH MAGNETICAL OBSERVATIONS, 1922.**

The results of the absolute observations of declination, horizontal force and dip are given in Tables XVII, XVIII and XIX respectively. These tables contain also the values of the base-lines of the declination, north force and vertical force magnetograms respectively, deduced from the absolute observations.

Table XX contains an annual summary of the magnetic elements, giving the mean monthly values of declination, horizontal force and dip ; also of the west, north and vertical components of the total force. The monthly mean diurnal ranges and the sums of hourly deviations from means of declination, north force and vertical force are also given.

In Tables VI, X, and XIV are given mean diurnal inequalities of declination, horizontal force, and vertical force derived from five quiet days each month. In Tables VII, XI, and XV are given similar inequalities derived from five disturbed days each month, both sets of days being selected by the International Committee.

Reduced copies of the magnetograms for certain disturbed days (mentioned on p. E ix) have been printed in each volume since 1882. The list of these days since the year 1889 has been selected in concert with M. Mascart, or his successor M. Angot, so that the two Observatories of Val Joyeux (formerly of the Parc Saint Maur) and Greenwich should publish the magnetic registers for the same days of disturbance with a view to the comparison of the results. As far as possible the days of greater disturbance are those selected by the International Committee.

The plates are followed by a brief description of other 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 usually given, viz. : declination, north force, and vertical force.

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

The subjoined table gives the values of Magnetic Elements determined at the Royal Observatory, Greenwich :—

[TABLE

MAGNETIC ELEMENTS.

Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡	Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡
1841	23 16.2	..	..	1881	18 27.1	0.1807	67 34.7
1842	23 14.6	..	..	1882	18 22.3	0.1806	67 34.2
1843	23 11.7	..	69 0.6	1883	18 15.0	0.1812	67 31.7
1844	23 15.3	..	69 0.3	1884	18 7.6	0.1814	67 29.7
1845	22 56.7	..	68 57.5	1885	18 1.7	0.1817	67 28.0
1846	22 49.6	0.1731	68 58.1	1886	17 54.5	0.1818	67 27.1
1847	22 51.3	0.1736	68 59.0	1887	17 49.1	0.1819	67 26.6
1848	22 51.8	0.1731	68 54.7	1888	17 40.4	0.1822	67 25.6
1849	22 37.8	0.1733	68 51.3	1889	17 34.9	0.1823	67 24.3
1850	22 23.5	0.1738	68 46.9	1890	17 28.6	0.1825	67 23.0
1851	22 18.3	0.1744	68 40.4	1891	17 23.4	0.1827	67 21.5
1852	22 17.9	0.1745	68 42.7	1892	17 17.4	0.1829	67 20.0
1853	22 10.1	0.1748	68 44.6	1893	17 11.4	0.1831	67 17.9
1854	22 0.8	0.1749	68 47.7	1894	17 4.6	0.1831	67 17.4
1855	21 48.4	0.1756	68 44.6	1895	16 57.4	0.1834	67 16.1*
1856	21 43.5	0.1759	68 43.5	1896	16 51.7*	0.1835*	67 15.1*
1857	21 35.4	0.1769	68 31.1	1897	16 45.8*	0.1838	67 13.5*
1858	21 30.3	0.1762	68 28.3	1898	16 39.2*	0.1840	67 12.1
1859	21 23.5	0.1761	68 26.9	1899	16 34.2	0.1843	67 10.5
1860	21 14.3	..	68 30.1	1900	16 29.0	0.1846	67 8.8
		0.1773	68 24.6	1901	16 26.0	0.1850	67 6.4
1861	21 5.5	0.1759	68 15.8	1902	16 22.8	0.1852	67 3.8
1862	20 52.6	0.1763	68 9.6	1903	16 19.1	0.1852	67 1.2
1863	20 45.9	0.1764	68 7.0	1904	16 15.0	0.1854	66 57.6
1864	..	0.1767	68 4.1	1905	16 9.9	0.1854	66 56.3
1865	20 33.9	0.1767	68 2.7	1906	16 3.6	0.1854	66 55.6
1866	20 28.0	0.1773	68 1.3	1907	15 59.8	0.1855	66 56.2
1867	20 20.5	0.1777	67 57.2	1908	15 53.5	0.1854	66 56.3
1868	20 13.1	0.1779	67 56.5	1909	15 47.6	0.1854	66 54.1
1869	20 4.1	0.1782	67 54.8	1910	15 41.2	0.1855	66 52.8
1870	19 53.0	0.1784	67 52.5	1911	15 33.0	0.1855	66 52.1
1871	19 41.9	0.1786	67 50.3	1912	15 24.3	0.1855	66 51.8
1872	19 36.8	0.1789	67 47.8	1913	15 15.2	0.1853	66 50.5
1873	19 33.4	0.1793	67 45.8	1914	15 6.3	0.1853	66 51.3
1874	19 28.9	0.1797	67 43.6	1915	14 56.5	0.1851	66 52.0
1875	19 21.2	0.1797	67 42.4	1916	14 46.9	0.1848	66 52.8
1876	19 8.3	0.1799	67 41.0	1917	14 37.1	0.1848	66 53.0
1877	18 57.2	0.1800	67 39.7	1918	14 27.8	0.1846	66 52.8
1878	18 49.3	0.1802	67 38.2	1919	14 18.2	0.1845	66 53.3
1879	18 40.5	0.1805	67 37.0	1920	14 8.6	0.1845	66 53.6
1880	18 32.6	0.1805	67 35.7	1921	13 57.6	0.1845	66 53.0
				1922	13 46.7	0.1844	66 52.3

\* Corrected for the effect of the iron in the new buildings.

† The values of the Horizontal Force from 1861 differ from those given in previous volumes, on account of the correction mentioned on p. E iv, 1914 volume.

‡ These values of the dip differ slightly in some instances from those given in previous volumes, on account of the correction mentioned on p. E v, 1912 volume.

In 1861 the 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.

§ 6. *Meteorological Instruments.*

STANDARD BAROMETER.—The standard barometer is Newman No. 64. Its tube is 0<sup>in.</sup>·565 in diameter, and the depression of the mercury due to capillary action is 0<sup>in.</sup>·002, 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<sup>in.</sup>·05, subdivided by vernier to 0<sup>in.</sup>·002. 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.

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

THE PHOTOGRAPHIC BAROMETER.—In consequence of the use of a horizontal drum for the new vertical force instrument, it became necessary to modify the lever mechanism of the photographic barometer on its removal to the Magnetograph House in 1916. On account of the optical magnification associated with a moving mirror at some distance from the instrument, the new mechanism had to be such as would reduce the motion of the plunger to a smaller amount at the end of the lever which carried the mirror. In the actual arrangement two levers are used, the one connected to the arm of the plunger resting in the free surface of the mercury, being 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. This mirror is 2·5 cm. long and 1 cm. wide, and is mounted horizontally in a suitable frame attached to the lever, just above its pivots. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. 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, which also illuminates the vertical force variometer, 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 level and azimuth and tilt of the base line and moving beams of light.

The barometer is mounted on the south wall of the instrument chamber, at a distance of 3 feet from the vertical force instrument. The levers and optical parts are screwed to a brass plate supported on a small shelf by the side of the barometer. The instrument is 12 feet from the recording drum, and consequently the scale value of the record is 3 cm. on the sheet for 1 cm. change of height of the mercury column of the standard barometer. In the photographic barometer both arms are, near the surface of the mercury, of the same bore, so that the plunger moves through only half the change of height of the standard barometer.

The photographic sheets being 24 cm. wide, the whole range of barometric motion can be included without changing the zero, as was formerly necessary, when the scale value was 4 to 1 in place of 3 to 1 as now.

The metal parts of the instrument are all of brass or aluminium, except the cast-iron plunger disc (which is 24 mm. in diameter and 4 mm. thick) and four small pivot screws, which are of steel. These are sufficiently far from the vertical force instrument to ensure that they do not affect its records. 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. There is some evidence of a slight difference of behaviour according to whether the barometer is rising or falling.

The scale value of the instrument is actually determined experimentally by comparison with the readings of the standard photographic barometer. Readings of the latter are taken four times daily, and from them the base-line value of the barometer is adopted, having regard to the tendency referred to in the preceding paragraph.

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.

#### E xiv INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1922.

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, usually once each year for the whole extent of scale actually employed, by observations at  $32^{\circ}$  in pounded ice and 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  $-0^{\circ}\cdot4$  has been applied to the readings of this thermometer. The wet-bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction  $-0^{\circ}\cdot2$  has been applied to the readings of this thermometer.

The dry- and wet-bulb thermometers are read at 9<sup>h</sup>, 12<sup>h</sup> (noon), 15<sup>h</sup>, 21<sup>h</sup> (civil reckoning) every day. Readings of the maximum and minimum thermometers are taken at 9<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> 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, and from 1899 to 1917 stood in the same position in the Magnet Ground. 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 already described in connection with the magnetometers. The traces consist of broad bands, due to the free passage of light to the drum, above the mercury column in the dry-bulb, and through an air-bubble in that of the wet-bulb, crossed by fine lines caused by the shadows of the graduations on 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  $10^{\circ}$  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 self-registering mercurial maximum thermometer on Negretti and Zambra's principle, with its bulb blackened, and the thermometer enclosed in a glass sphere from which the air has been exhausted. The thermometer employed was Negretti and Zambra, No. 165157. The thermometer for radiation to the sky was a self-registering spirit minimum thermometer, Negretti and Zambra, No. 165654. 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 and 1 feet below the surface. Both thermometers are read daily at noon, the readings of the longer being given in the daily results. The description of the deep sunk thermometers previously in use will be found in earlier volumes. A discussion by Professor Everett of the observations up to 1859 was given in an appendix to the volume for 1860.

OSLER'S ANEMOMETER.—This self-registering anemometer, devised by A. Follett 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 the same as that of the magnetic registers, 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 magnetic registers, and the sheet is changed daily at noon.

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

$$V=4\cdot0+2\cdot0 v,$$

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  $V=3 v$  will continue to be used. In this volume, however, the greatest hourly measures (p. E 84) are given according to both formulæ, and the least hourly measures omitted.

RAIN GAUGES.—During the year 1922 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 Snowden 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, No. 8 is used as a check on the readings of No. 6. No. 6 is read daily, usually at 9<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> Greenwich civil time, and No. 8 at 9<sup>h</sup> 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 84 of the Meteorological Results.

ELECTROMETER.—The electric potential of the atmosphere is measured by means of a Thomson self-recording quadrant electrometer, made by White, of Glasgow. It is situated in a small hut in the Magnetic Enclosure and has the usual arrangements for photographic registration. The time scale is the same as for the magnetic registers, the hourly break of trace being made by the driving-clock itself. The Electrometer is connected by a fine wire directly with a small radium collector, carried on an insulated support, at a height of about 7 feet.

SUNSHINE RECORDER.—The instrument in use is of the Campbell-Stokes pattern, with 4-inch glass globe. 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. The hourly results relate to *apparent* time.

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.

From 1921 January 1 a new and larger camera was in regular use. 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, which extends 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  $10^\circ$  below the horizon. The period thus centres approximately to apparent midnight, but in practice the mean times of commencing and ending the exposure are not varied at intervals of less than seven days.

The traces of Polaris and of  $\delta$  Ursæ Minoris are ordinarily selected for measurement. The measurement is effected by means of a glass scale, on which there are photographically imprinted pairs of concentric circles whose radii are slightly greater and slightly less than the radius of the trace to be measured, the circles being 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 marked 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. When the sky is not clear, the last difference so obtained is used, due allowance being made for the daily acceleration of sidereal time over mean time. Variations in the error of orientation are found seldom to exceed two or three minutes of time, and are unimportant to the records.

§ 7. *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 minimum thermometers at 9<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> (civil reckoning), 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 mean daily temperature of the dew-point and degree of humidity are deduced from the mean daily temperatures of the air and of evaporation by use of Glaisher's *Hygrometrical Tables*. The table of factors for this purpose may be found in the Introductions for 1910 and previous years.

In the same way the mean hourly values of the dew-point temperature and degree of humidity in each month (pages E 79 and E 80) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages E 78 and E 79).

The excess of the mean temperature of the air on each day above the average of 65 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.

E xx INTRODUCTION TO GREENWICH METEOROLOGICAL OBSERVATIONS, 1922.

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<sup>h</sup>, 15<sup>h</sup>, and 21<sup>h</sup> Greenwich civil time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9<sup>h</sup> are to be placed to the same, or to the preceding 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<sup>h</sup> 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 77 and E 84, 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·<sup>in</sup>·005.

The indications of atmospheric electricity are derived from Thomson's Electrometer.

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 53 to E 75, and in the abstract table, page E 77, is the mean found from observations made at 9<sup>h</sup>, 12<sup>h</sup> (noon), 15<sup>h</sup>, and 21<sup>h</sup> of each civil day.

For understanding the divisions of time under the headings "Clouds and Weather" and "Electricity," the following remarks are necessary:—In regard to Clouds and Weather, 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<sup>h</sup>, and those following it to the interval from 6<sup>h</sup> 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. In regard to Electricity, the results are included in one column; in this case the colons divide the whole period of 24 hours (midnight to midnight).

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

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

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

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

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.

The following is the notation employed for electricity :—

N, <i>negative</i>	m, <i>moderate</i>	s, <i>strong</i>
P, <i>positive</i>	w, <i>weak</i>	v, <i>variable</i>
ss, <i>very strong</i>	ww, <i>very weak</i>	vv, <i>very variable</i>

Zero potential is indicated by 0, and a dash (—) indicates accidental failure of the apparatus.

F. W. DYSON.

ROYAL OBSERVATORY, GREENWICH  
1924, April 30



ROYAL OBSERVATORY, GREENWICH.

---

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1922.

---

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION.

	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	Mean.	
<b>January.</b>																											
13° + Tabular Quantities.																											
1	51.8	51.6	51.8	52.0	52.0	52.2	52.2	52.2	51.8	51.5	52.5	53.3	53.5	54.2	54.2	53.8	53.0	51.5	52.2	52.0	51.9	51.8	51.2	51.5	52.3		
2	51.8	52.2	52.2	52.5	52.8	52.8	52.8	52.2	52.2	51.8	51.8	52.5	53.0	54.0	53.7	53.5	53.3	53.5	53.8	51.5	51.0	49.2	48.5	50.5	52.8		
3*	51.5	51.8	52.2	52.2	53.0	53.2	52.8	52.5	51.8	51.8	52.0	53.0	53.8	54.5	54.2	53.5	53.2	53.0	52.5	52.2	51.8	51.5	51.8	51.8	51.8		
4*	51.0	50.2	51.8	52.0	52.2	52.3	52.5	52.3	52.2	52.7	54.0	54.2	54.5	54.0	53.3	53.4	53.5	53.5	53.3	53.0	52.0	50.8	50.8	52.6			
5	50.8	50.5	50.5	51.8	52.2	53.0	52.8	52.8	52.0	52.5	53.5	55.0	55.8	55.0	54.0	53.2	53.2	53.5	54.0	54.0	52.8	52.0	51.8	51.5	52.8		
6	52.2	51.5	51.8	52.0	52.0	52.9	52.5	52.2	52.2	52.6	53.8	55.0	55.8	55.2	54.5	54.2	55.2	56.5	55.8	53.8	51.5	51.0	50.7	50.5	53.2		
7	50.0	46.5	52.0	48.2	50.2	53.3	52.8	53.0	54.5	56.2	53.5	54.0	55.8	55.0	53.7	53.0	52.8	52.5	52.0	51.9	51.8	51.2	51.5	51.8	52.4		
8**	52.0	52.0	52.2	53.0	53.2	52.0	52.2	52.2	51.5	52.0	53.5	55.8	56.0	55.7	55.5	50.3	49.5	56.0	48.5	40.8	48.8	44.8	44.8	54.0	51.8		
9**	56.0	50.0	50.2	51.2	53.5	56.4	58.5	52.8	52.8	53.2	54.0	53.8	56.0	54.2	53.5	49.8	51.8	46.0	50.2	51.5	47.8	49.2	51.5	52.4			
10	52.5	50.0	54.5	53.2	52.8	55.2	55.5	53.5	53.8	55.0	55.5	53.2	54.2	53.5	54.0	52.5	52.0	50.7	50.8	51.2	51.5	46.5	50.0	49.8	52.6		
11	52.0	53.8	50.5	51.8	53.2	55.2	54.5	54.8	52.5	54.2	54.4	54.5	55.2	52.5	53.0	51.8	50.5	52.0	51.8	51.3	50.5	50.8	51.0	52.0	52.7		
12	52.2	53.8	53.0	51.5	51.8	51.9	52.0	52.0	52.2	52.8	53.5	53.7	55.0	54.5	53.2	52.5	52.2	51.5	50.8	51.2	51.8	51.2	51.5	50.5	52.3		
13	51.8	50.0	52.0	52.5	52.3	52.3	52.0	51.7	51.4	52.0	52.7	53.0	53.2	53.5	52.5	52.8	53.0	52.8	52.2	51.2	50.8	51.0	50.8	51.0	51.8		
14	52.0	52.2	52.2	52.0	52.5	52.0	52.2	51.8	51.0	51.7	52.5	52.8	54.0	55.0	54.2	53.2	52.8	52.0	50.8	50.9	51.0	50.8	51.0	51.2	52.1		
15*	51.5	52.2	52.5	53.0	52.8	52.2	51.8	50.8	50.2	50.2	50.5	51.8	53.7	54.0	53.3	52.5	52.0	51.8	51.8	51.8	51.5	51.5	51.2	50.5	51.9		
16	51.5	51.8	52.5	53.0	52.5	52.5	52.5	53.0	51.8	52.0	53.0	53.8	55.8	56.5	55.8	54.0	57.2	54.5	55.5	50.3	47.8	46.7	44.0	42.5	52.1		
17	44.0	45.2	46.3	49.5	50.5	52.4	52.7	53.0	53.5	52.0	51.5	52.2	53.5	53.5	54.2	55.3	55.5	52.5	52.0	50.8	51.4	51.5	51.0	51.3	51.5		
18	50.0	50.5	50.8	52.5	51.5	51.6	51.8	52.0	51.8	52.0	52.5	54.0	54.2	54.8	54.0	53.5	53.0	53.2	51.2	46.8	51.0	48.5	47.2	51.0	51.6		
19	51.0	51.2	50.8	50.7	50.5	52.2	51.8	51.8	52.0	52.5	52.3	52.8	54.5	54.0	53.5	53.0	53.2	53.2	53.0	48.5	46.2	50.5	51.0	50.0	51.6		
20	52.5	50.5	50.8	51.5	51.0	50.8	51.5	51.3	51.8	52.5	53.5	54.8	55.5	54.5	54.2	52.2	49.5	52.5	52.2	51.5	51.0	51.2	50.2	51.5	52.0		
21*	51.2	50.8	51.2	51.0	51.5	51.2	51.3	51.5	51.2	52.0	52.8	53.5	55.0	54.8	53.5	52.2	52.2	52.0	51.7	51.5	51.3	50.5	50.0	51.8	51.9		
22*	51.2	51.0	51.2	51.3	51.2	51.1	51.0	50.8	50.8	51.0	51.7	54.0	55.2	54.5	53.5	52.8	52.5	52.2	51.8	51.7	51.3	51.2	51.2	51.0	51.9		
23	51.0	50.5	50.0	50.3	50.2	50.8	51.2	51.0	51.2	51.5	53.0	55.0	55.8	54.5	53.2	52.2	52.8	53.0	53.2	53.5	53.8	52.8	52.0	48.5	52.1		
24**	48.5	47.5	46.8	44.5	44.8	49.0	50.8	51.0	53.6	52.8	53.0	56.2	57.2	59.0	58.5	51.5	46.0	43.7	54.0	52.5	50.8	51.2	49.8	49.0	51.0		
25**	50.0	45.5	45.7	49.5	51.8	51.2	59.0	56.2	55.0	55.2	55.5	53.8	53.8	54.0	53.0	51.5	50.5	48.0	47.8	50.5	52.0	51.0	50.2	50.8	51.7		
26	49.0	46.5	49.0	50.8	52.2	51.8	51.5	52.2	53.0	56.0	54.5	56.3	55.5	54.8	53.0	52.2	52.0	51.8	52.0	51.5	50.5	49.2	48.8	53.8	52.0		
27	50.0	49.7	49.5	50.2	50.5	51.8	52.0	51.5	51.4	51.5	52.3	53.0	54.4	54.0	52.8	52.0	51.7	51.6	51.5	51.5	50.8	50.2	49.8	50.5	51.4		
28	51.0	51.3	51.5	51.7	51.5	51.8	51.2	51.2	50.8	51.0	51.8	52.5	53.5	53.2	52.5	51.8	51.7	51.5	51.0	50.9	50.8	50.5	48.5	49.2	51.3		
29	50.0	50.0	51.5	51.7	51.3	51.7	51.2	51.2	50.8	51.0	52.0	52.8	52.8	53.0	52.3	51.7	52.0	50.2	48.5	50.8	51.5	51.4	51.3	51.2	51.3		
30	51.2	51.8	52.0	51.7	51.5	51.3	51.2	51.2	51.3	51.5	52.0	53.0	54.2	53.2	52.0	51.5	52.0	52.2	51.0	50.8	51.5	50.2	49.8	49.5	51.1		
31**	47.8	48.2	50.0	51.8	51.0	50.2	50.0	50.2	51.8	53.0	55.0	56.2	58.5	56.0	57.7	60.0	57.7	58.2	55.0	52.2	50.5	50.0	47.2	45.4	52.7		
Mean	50.9	50.3	50.9	51.3	51.6	52.2	52.5	52.1	52.1	52.5	53.0	53.8	54.8	54.5	53.9	53.1	52.4	52.2	52.1	51.3	50.8	50.4	49.9	50.5	52.0		
Mean*	51.3	51.2	51.8	51.9	52.1	52.0	51.9	51.6	51.3	51.4	51.9	53.3	54.4	54.5	53.7	52.9	52.7	52.5	52.4	52.2	51.9	51.4	50.9	51.2	52.2		
Mean**	50.9	48.6	49.0	50.0	50.9	51.8	54.1	52.5	53.1	53.1	54.1	54.7	56.3	55.8	55.7	54.3	50.9	50.2	51.8	50.8	49.1	49.8	48.2	50.1	51.9		
<b>February.</b>																											
13° + Tabular Quantities.																											
1	44.5	45.8	49.2	49.0	50.3	50.0	50.8	51.0	51.7	53.0	54.5	54.8	55.0	54.2	52.2	50.5	51.3	52.5	51.7	51.8	51.2	53.3	49.5	48.2	51.1		
2	50.8	50.2	49.5	47.2	46.2	49.5	50.3	51.5	53.0	53.8	54.8	54.5	54.9	55.0	53.0	50.5	50.7	51.8	50.5	51.2	51.0	50.7	50.5	50.6	51.3		
3**	51.0	50.8	51.2	51.5	51.8	51.2	51.0	51.2	51.8	53.2	55.0	54.2	55.0	54.5	55.2	54.3	50.5	51.8	51.8	46.4	43.5	43.8	47.0	48.2	51.2		
4	51.5	53.3	53.5	47.7	51.0	52.8	52.0	53.0	51.5	52.8	54.2	53.5	52.8	53.5	53.0	52.2	51.0	48.2	47.8	49.5	49.8	50.2	47.2	47.5	51.2		
5	49.3	50.8	51.0	51.5	51.8	53.3	51.5	50.8	51.0	52.0	52.5	53.8	53.5	53.8	53.8	52.2	53.2	53.2	53.5	52.5	51.6	50.2	48.5	47.5	51.8		
6	50.5	51.2	51.2	52.0	54.2	54.2	51.4	50.6	51.0	51.8	53.5	52.5	54.0	54.0	50.2	50.8	52.0	51.8	49.5	47.2	50.8	48.5	49.8	51.2	51.4		
7*	52.0	52.0	50.2	50.8	51.0	51.1	51.2	51.2	51.3	51.5	52.4	53.2	53.5	53.8	53.2	52.0	51.8	51.8	52.0	51.5	51.5	51.2	51.2	51.2	51.8		
8	51.2	51.0	51.3	51.5	50.2	50.2	50.2	50.5	50.8	51.2	53.0	53.4	52.5	53.0	51.5	50.7	53.0	55.0	53.2	48.8	44.5	49.0	50.5	48.8	51.0		
9**	50.2	51.7	51.0	49.2	53.5	52.8	51.8	53.0	53.2	53.5	55.0	56.8	57.5	55.8	52.8	53.0	52.5	46.7	51.5	50.5	43.6	42.8	44.0	47.5	51.3		
10	49.8	51.5	54.5	51.8	49.8	50.2	51.0	50.8	50.8	51.5	52.8	53.5	53.3	52.8	51.8	50.8	51.0	51.2	50.8	51.0	51.0	49.8	49.5	50.5	51.3		
11*	51.0	51.3	51.3	51.4	51.2	51.0	50.7	51.2	51.2	51.0	51.8	54.0	54.8	53.8	52.8	52.0	51.5	51.3	50.0	50.7	50.8	50.8	51.0	50.2	51.5		
12**	49.5	45.2	47.8	50.5	50.8	50.5	50.2	50.5	51.0	50.8	52.0	53.1	55.5	53.5	52.8	51.9	51.8	51.0	52.5	48.0	40.2	45.8	44.5	47.0	49.8		
13	50.0	51.0	49.8	47.0	46.7	50.2	50.8	51.5	53.4	54.5	55.0	53.2	53.2	54.2	52.0	52.2	52.2	52.0	49.5	47.3	48.0	49.2	48.8	51.0			
14	48.5	50.0	50.8	51.2	50.2	50.3	51.2	51.8	53.0	53.2	52.8	53.2	53.3	53.4	53.5	54.2	53.8	54.2	53.2	49.2	44.0	47.0	48.5	50.2	51.3		

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
March. <span style="float:right;">13° + Tabular Quantities.</span> <span style="float:right;">Mean.</span>																											
1	49.8	49.8	48.2	51.3	53.0	52.0	51.5	52.2	50.2	50.2	52.0	53.2	54.5	57.8	57.8	56.0	50.0	48.5	52.2	50.7	44.0	41.9	39.2	41.2	50.3		
2	47.5	51.0	51.0	50.8	56.2	53.8	52.2	49.8	50.0	49.3	52.1	53.0	53.8	54.2	54.0	52.8	51.5	51.4	51.5	48.2	48.3	49.0	48.7	45.5	51.1		
3	49.0	47.2	47.8	49.0	49.2	49.8	50.0	49.9	49.2	49.0	49.0	51.5	54.0	54.8	54.8	54.2	53.2	51.8	51.0	46.7	51.5	42.8	43.5	45.8	49.7		
4	45.5	46.0	49.2	50.0	50.5	49.8	49.0	50.3	48.8	48.2	50.8	54.2	54.8	53.8	53.0	51.8	50.4	50.5	51.5	51.2	50.8	50.2	50.0	49.8	50.4		
5**	49.5	49.5	49.8	49.6	49.6	49.8	49.8	49.8	49.2	48.5	50.5	51.2	58.2	59.8	57.8	54.5	49.8	49.7	46.2	47.0	46.2	42.5	46.2	50.0	50.2		
6	51.8	49.8	50.0	50.8	51.8	50.2	49.8	49.5	50.5	51.2	51.5	54.8	56.0	55.2	54.5	53.0	50.8	50.8	50.6	50.5	49.4	49.5	50.2	49.8	51.3		
7*	49.5	49.2	49.3	49.2	49.5	49.5	49.8	49.2	48.5	49.0	50.0	51.2	53.2	53.6	53.2	52.2	51.0	50.8	51.2	51.2	51.0	50.0	49.5	50.8	50.5		
8*	50.5	50.3	50.2	50.0	49.8	50.5	49.0	49.5	49.7	50.5	53.8	55.5	57.2	55.9	55.0	53.5	51.2	50.5	50.8	50.7	50.5	50.4	50.5	50.2	51.5		
9*	50.8	49.3	49.2	50.7	48.8	48.8	48.8	49.0	47.7	47.8	50.7	53.5	54.0	53.8	53.5	52.5	50.8	50.0	51.2	51.0	50.8	50.2	50.5	50.6	50.6		
10**	50.2	50.0	49.7	48.8	49.5	50.2	50.0	49.2	51.2	49.8	50.5	52.8	54.7	55.5	55.3	55.2	54.3	53.3	52.0	49.1	49.3	49.8	46.2	46.0	50.9		
11	49.2	50.2	50.3	50.3	50.2	50.8	50.8	50.0	49.2	50.5	52.7	54.0	55.5	54.8	55.0	53.8	52.0	51.5	51.2	48.8	45.0	47.0	46.2	46.7	50.7		
12	49.3	49.5	48.7	48.8	48.5	48.3	48.2	47.5	46.7	47.5	50.0	54.5	58.0	56.8	56.2	54.5	52.2	45.8	50.2	50.5	48.8	43.8	46.5	47.7	49.9		
13**	48.2	45.0	38.0	44.7	48.5	48.8	47.5	48.0	52.8	47.0	51.2	56.5	61.2	66.0	62.0	56.0	52.5	50.5	40.0	40.2	46.0	48.0	46.8	49.8	49.8		
14**	45.5	50.0	55.5	52.0	49.8	48.2	47.8	49.2	52.8	52.0	53.5	54.0	56.8	54.2	56.5	49.2	46.5	47.0	49.8	44.2	43.5	38.2	46.0	47.5	49.6		
15	48.0	51.7	49.0	48.8	49.2	49.2	49.0	48.6	48.2	48.8	51.0	53.4	54.8	54.3	53.5	52.2	51.2	51.0	51.4	50.8	50.8	50.8	50.4	49.5	50.6		
16	49.5	49.5	49.6	49.8	49.7	49.7	49.8	48.8	47.2	47.2	50.0	51.8	53.8	53.4	52.5	51.4	50.5	50.3	50.2	50.2	50.0	50.1	49.8	49.5	50.2		
17	49.5	49.7	49.5	49.8	49.8	50.0	50.5	50.5	49.2	48.6	49.0	52.7	56.0	54.8	55.5	56.8	53.5	50.2	50.0	44.5	42.8	44.8	41.0	43.8	49.7		
18	44.8	45.2	48.8	50.5	49.2	49.5	49.8	50.2	51.6	50.0	52.8	54.4	54.3	53.7	53.5	48.8	47.5	50.2	48.0	47.0	47.2	48.7	48.8	49.8	49.8		
19	47.5	49.5	50.8	49.7	51.7	50.8	49.5	49.0	48.2	48.3	50.5	53.8	54.2	56.0	53.8	55.5	53.4	52.5	52.2	48.2	49.0	46.5	46.9	50.2	49.7		
20	51.5	49.2	47.5	51.8	49.5	47.2	47.8	48.0	48.7	50.5	51.8	53.2	54.8	55.8	54.8	53.5	52.0	50.2	46.8	44.5	43.0	44.5	47.4	47.2	49.6		
21	49.5	49.8	49.8	49.2	47.8	48.4	49.5	48.4	48.2	47.5	48.8	52.0	54.7	56.2	56.1	55.0	52.8	51.5	50.8	49.4	48.3	49.8	49.5	49.5	50.5		
22	49.2	49.2	49.2	48.8	48.8	48.8	49.4	48.5	47.5	47.8	49.0	51.8	54.2	55.5	54.0	53.0	52.2	51.6	47.0	44.8	47.2	49.2	48.2	47.5	49.7		
23*	47.2	49.2	48.8	49.0	49.5	49.0	48.8	48.1	46.5	46.2	47.7	50.2	52.8	54.0	54.2	53.0	51.3	50.8	50.5	50.2	49.8	47.7	49.8	49.8	49.8		
24*	49.5	49.7	49.2	49.2	49.5	49.8	49.2	48.0	46.0	45.5	47.0	50.8	54.0	55.8	55.8	53.3	51.5	50.4	49.8	49.2	49.6	49.0	48.8	50.0	49.8		
25	48.8	48.5	50.0	51.2	47.8	45.2	49.2	52.8	45.8	46.8	47.2	54.5	58.2	57.5	57.2	54.0	52.4	50.5	49.2	48.6	43.8	46.5	45.2	47.5	49.9		
26	50.5	49.2	48.2	47.8	47.0	47.8	49.5	50.2	48.2	47.0	47.8	50.8	53.0	55.8	55.5	53.8	51.8	50.2	50.0	49.4	48.4	48.2	48.2	48.2	49.9		
27	48.5	48.5	48.8	49.0	48.4	48.2	47.8	46.8	45.8	45.2	47.5	51.1	53.8	56.2	56.0	54.8	52.3	51.5	50.7	49.5	45.6	48.4	44.0	47.5	49.4		
28	49.5	49.0	49.2	48.3	47.2	47.5	47.8	47.0	45.4	46.0	47.2	52.0	55.6	57.2	57.3	56.2	54.6	53.0	52.8	51.8	50.6	49.4	49.4	50.6	49.4		
29	49.4	48.3	48.7	48.8	50.8	49.8	49.2	47.0	45.2	45.0	46.5	47.4	50.2	53.8	56.2	56.8	55.2	53.5	50.7	50.0	49.5	49.4	49.2	49.2	50.0		
30**	48.5	47.2	49.5	48.2	49.2	49.8	50.2	52.8	51.8	48.0	49.5	53.5	56.8	58.8	58.5	53.0	48.8	45.5	49.7	50.7	42.8	44.0	43.8	43.2	49.7		
31	43.5	46.8	49.2	48.5	48.0	48.8	53.0	50.2	44.2	45.8	46.7	49.0	53.2	54.0	51.8	53.0	52.0	50.1	48.5	50.0	47.5	45.2	45.8	48.2	48.9		
Mean	48.7	48.9	49.1	49.8	49.3	49.3	49.5	49.3	48.5	48.3	49.9	52.7	55.1	55.8	55.3	53.8	51.6	50.4	49.9	48.9	47.5	47.3	47.4	48.0	50.2		
Mean*	49.5	49.5	49.3	49.6	49.4	49.5	49.1	48.8	47.7	47.8	49.8	52.2	54.2	54.6	54.3	52.9	51.2	50.5	50.7	50.6	50.3	49.6	49.9	50.0	50.5		
Mean**	48.4	48.3	48.5	48.7	49.3	49.4	48.9	49.8	51.6	49.1	51.0	53.6	57.5	58.9	58.0	53.6	50.4	49.2	47.5	46.2	45.6	44.7	46.0	46.7	50.0		
April. <span style="float:right;">13° + Tabular Quantities.</span> <span style="float:right;">Mean.</span>																											
1	50.5	50.0	50.0	53.0	55.2	49.2	50.2	50.0	47.8	48.0	49.0	51.5	55.2	54.6	54.4	52.2	50.0	51.5	50.8	50.5	48.5	47.5	48.8	47.8	50.7		
2	48.8	49.2	49.8	50.5	50.2	48.6	48.4	48.2	47.6	47.2	47.5	51.0	53.5	56.8	56.5	56.5	51.8	51.0	50.2	42.8	48.5	50.0	48.8	47.8	50.2		
3	49.5	49.2	49.0	49.0	49.2	48.8	48.5	47.0	45.7	46.0	47.0	50.8	52.0	54.5	54.8	53.5	50.8	50.2	50.0	49.6	49.5	49.4	49.2	49.8	49.7		
4*	49.2	49.3	49.3	49.0	48.8	48.6	48.8	47.4	46.0	45.2	46.5	50.5	53.2	54.5	54.2	53.2	52.0	51.2	50.8	50.5	50.0	49.5	49.6	49.8	49.9		
5*	49.8	49.5	49.0	48.5	48.2	48.5	48.5	46.5	45.0	45.8	48.5	51.8	55.0	56.5	55.5	53.5	52.0	51.0	51.0	50.8	50.7	50.2	50.2	50.0	50.2		
6*	49.8	49.2	49.2	48.8	48.5	48.5	48.5	47.0	45.8	46.8	48.2	52.2	54.2	54.8	53.5	52.0	50.5	49.8	49.8	49.8	50.0	50.0	49.8	49.8	49.8		
7*	49.5	49.2	49.0	48.5	48.5	48.0	47.3	46.2	46.0	46.5	49.0	50.2	52.7	53.6	53.2	52.0	50.6	49.9	49.6	49.4	49.2	48.4	48.2	47.9	49.3		
8	47.6	46.2	46.2	46.2	46.0	43.9	44.9	44.2	43.6	45.6	49.6	52.9	55.0	57.9	55.9	56.1	54.2	53.4	50.7	46.4	43.2	47.6	48.4	46.9	48.9		
9**	38.9	42.4	41.6	47.9	48.9	47.6	46.9	47.4	47.6	48.9	50.4	52.6	53.6	54.9	52.2	52.4	50.6	44.4	45.9	47.9	47.2	48.4	45.9	49.9	48.1		
10	47.4	46.0	47.9	50.2	44.2	44.9	47.2	52.6	49.9	51.2	51.9	53.9	55.9	55.2	53.4	53.4	51.7	49.6	47.9	39.9	47.2	48.5	45.6	45.9	49.2		
11	44.6	45.4	44.6	47.6	45.6	45.9	47.2	45.9	44.9	46.2	48.9	52.9	56.4	56.6	54.2	51.9	50.4	49.2	48.2	47.6	42.4	43.1	44.4	43.9	47.8		
12**	44.2	41.9	46.0	46.2	46.8	46.9	45.9	46.4	45.6	46.9	47.7	52.6	55.7	56.6	55.4	54.4	51.2	48.9	50.6	45.7	42.6	43.1	44.4	43.9	47.6		
13	41.9	49.4	45.2	45.6	46.6	45.8	44.9	45.4	43.4	44.2	46.4	50.6	54.9	54.9	54.2	54.1	50.9	48.6	48.7	42.9	44.2	46.6	48.6	45.4	47.6		
14	46.9	45.2	42.9	46.4	45.6	46.2	46.2	45.4	44.4	45.9	49.4	51.6	54.2	56.4	56.9	56.4	54.2	51.6	51.2	46.9	44.2	45.9	45.5	44.9			

HOURLY MEANS OF MAGNETIC DECLINATION

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION—continued.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>May.</b>																										
13° + Tabular Quantities.																										
Mean.																										
1	47.4	48.2	47.6	46.9	47.2	46.4	46.2	45.6	44.9	45.4	46.4	48.9	51.6	52.2	51.4	50.4	49.4	48.6	47.9	47.8	47.4	46.6	46.4	45.9	47.7	
2*	46.4	46.9	46.7	46.7	46.2	45.2	44.6	44.2	44.6	45.9	47.4	50.2	51.9	52.9	52.6	51.6	50.6	49.4	48.4	48.2	48.2	48.0	47.4	46.9	48.0	
3**	46.9	46.9	47.2	46.2	45.7	45.2	44.6	44.9	45.4	46.4	47.2	48.7	50.1	50.6	51.2	51.2	50.4	49.6	48.4	48.2	48.2	48.2	47.7	47.4	47.8	
4	47.4	47.4	47.1	46.7	45.9	45.2	44.6	44.4	45.9	46.8	48.2	49.9	51.9	52.4	51.2	50.5	49.7	49.1	48.6	48.4	48.3	48.2	47.7	47.4	47.8	
5	43.9	42.6	44.2	44.4	44.2	42.4	44.7	44.4	45.1	45.9	48.1	49.2	50.8	50.9	50.6	49.9	48.8	48.6	48.1	47.7	44.5	43.4	46.0	44.6	46.4	
6	43.9	44.4	45.9	45.6	46.2	44.6	44.4	45.4	47.9	49.2	50.4	53.6	53.0	52.6	51.6	50.2	48.9	48.2	47.6	47.2	46.2	43.9	45.9	46.4	47.6	
7**	46.9	47.2	45.6	44.6	45.6	46.2	46.7	46.4	46.4	50.6	48.6	51.6	54.2	53.9	54.2	53.1	50.4	50.6	49.9	47.7	45.6	43.9	36.6	34.9	47.6	
8**	32.9	37.2	44.2	43.4	46.2	50.2	44.4	44.9	45.6	47.2	49.9	51.2	51.9	51.9	50.2	49.9	49.6	45.4	46.2	45.6	45.4	42.7	39.9	40.9	45.7	
9**	43.6	43.4	43.6	44.2	43.6	43.4	42.6	41.9	42.6	44.6	46.4	47.4	47.4	51.2	55.9	57.2	56.6	53.6	51.9	48.9	46.2	42.2	45.4	36.9	46.1	
10	44.2	47.9	48.9	45.2	45.2	45.4	43.2	43.4	47.6	47.6	47.9	50.6	51.9	51.9	52.2	52.1	50.7	49.9	44.1	40.4	43.6	45.3	46.2	39.9	46.8	
11	47.9	47.2	47.6	47.4	44.4	44.6	44.6	44.2	44.4	45.2	46.9	49.2	52.7	52.9	52.1	50.6	50.2	48.6	47.6	46.9	47.9	44.4	46.2	46.6	47.5	
12	46.6	49.5	46.9	45.6	45.2	45.6	46.1	44.9	44.2	44.4	46.9	49.4	51.6	53.4	53.6	52.8	51.6	49.1	48.4	47.8	47.4	46.2	44.9	43.9	47.7	
13	44.2	45.2	45.4	47.6	46.2	44.6	45.4	43.2	41.4	43.2	45.9	49.6	52.2	53.4	53.6	52.4	51.6	49.6	48.4	47.6	47.2	45.9	46.6	46.9	47.4	
14	46.6	46.6	46.0	45.6	44.9	43.6	42.9	42.9	41.4	42.2	41.4	42.2	48.4	51.2	52.6	53.4	53.2	51.9	49.9	48.2	45.6	43.9	44.2	44.6	46.6	
15*	44.9	44.9	46.6	46.9	47.2	45.2	43.6	42.6	42.4	44.2	46.4	49.6	53.6	54.6	53.4	52.1	55.2	49.9	48.0	47.4	47.2	46.4	46.6	46.4	47.7	
16**	47.4	46.4	46.6	46.9	45.2	44.4	43.9	43.4	42.9	44.6	46.4	49.6	53.2	54.3	54.9	55.2	55.2	51.2	50.1	34.2	37.9	42.0	42.4	36.1	46.4	
17	43.6	41.9	43.7	42.9	43.2	43.4	43.8	43.6	42.9	44.6	46.9	51.2	54.4	55.2	52.7	50.6	48.9	48.6	48.0	44.6	45.7	46.6	46.4	46.2	46.6	
18	46.0	46.2	46.2	46.9	45.6	44.6	44.2	43.6	43.6	46.2	48.3	50.2	51.2	50.9	49.9	49.2	48.4	48.2	47.1	46.9	47.4	47.1	46.2	47.2	47.1	
19	44.6	45.6	45.4	42.2	42.2	41.4	42.2	43.2	44.2	44.2	46.2	48.4	50.9	52.9	53.6	51.9	50.7	50.4	48.1	48.4	48.2	47.9	47.2	45.4	45.9	
20	46.9	45.9	45.7	44.9	43.9	43.4	43.9	45.2	45.4	45.6	47.7	49.4	51.2	51.2	50.9	49.9	49.2	48.2	48.6	48.2	48.3	47.9	48.0	47.4	47.4	
21**	45.6	43.9	41.4	36.9	40.6	42.4	44.7	44.6	45.2	46.9	50.1	54.2	55.9	55.2	55.2	54.9	51.7	50.4	49.1	47.6	46.9	46.6	47.6	47.0	47.7	
22	43.6	45.6	45.8	45.6	47.2	44.2	42.4	41.4	41.4	44.2	45.6	50.2	52.7	52.9	52.6	51.7	50.9	48.4	47.9	47.6	47.2	44.2	44.9	45.4	46.8	
23	46.4	47.1	47.2	47.2	46.4	45.2	46.6	47.2	46.4	45.7	47.2	50.2	52.4	52.2	52.2	49.5	49.4	48.6	47.6	45.6	44.6	46.9	47.6	48.4	47.7	
24	45.9	47.9	46.6	45.2	44.6	44.4	44.4	45.2	46.4	48.3	50.2	52.1	52.4	51.5	51.6	50.0	47.9	48.1	48.7	48.2	46.4	46.9	47.9	48.4	47.9	
25	48.6	48.0	47.2	46.2	45.4	43.2	43.2	44.2	44.6	47.2	50.4	52.6	54.4	54.9	52.2	49.2	48.9	48.9	43.6	45.9	47.7	48.2	47.9	47.9	47.9	
26	48.4	48.2	47.6	46.6	46.0	44.6	43.4	44.4	44.2	47.2	49.2	51.9	53.6	53.2	53.2	52.2	48.4	48.1	47.9	48.6	47.4	47.2	47.6	45.4	48.1	
27	47.6	46.4	48.2	49.9	50.4	46.9	43.4	44.2	45.2	46.4	49.4	51.2	53.4	51.9	51.2	50.4	48.9	47.6	47.9	47.6	46.4	46.4	45.9	44.2	48.0	
28	46.2	48.4	47.2	45.8	46.7	46.4	45.1	43.8	42.9	43.6	46.4	49.6	51.4	52.2	52.9	52.4	51.2	49.9	48.2	47.6	47.0	46.6	46.9	47.6	47.7	
29	47.6	47.8	48.4	47.6	44.6	43.6	43.2	43.6	44.9	44.9	47.2	49.4	50.9	51.9	51.9	51.6	50.4	49.2	48.4	47.7	47.7	47.6	48.2	47.4	47.7	
30*	46.9	46.9	45.6	45.6	46.6	44.9	43.4	43.1	42.6	44.6	47.4	50.4	51.9	52.2	51.8	50.9	50.2	49.2	48.4	47.8	47.7	47.9	47.9	47.6	47.6	
31*	47.2	47.4	47.7	48.2	46.6	44.9	43.4	41.9	41.7	44.2	47.6	50.2	51.6	52.6	52.0	51.2	50.0	49.2	48.9	48.6	48.4	48.0	47.9	47.6	47.8	
Mean	45.7	46.1	46.3	45.7	45.5	44.7	44.2	44.1	44.3	45.8	47.7	50.4	52.4	52.8	52.4	51.5	50.4	49.0	48.0	46.7	46.4	46.1	45.8	45.0	47.4	
Mean*	46.5	46.6	46.8	46.7	46.5	45.1	43.9	43.3	43.3	45.1	47.2	49.9	51.8	52.6	52.2	51.4	51.3	49.5	48.4	48.0	47.9	47.7	47.5	47.2	47.8	
Mean**	43.3	43.6	44.3	43.2	44.2	45.3	44.5	44.2	44.5	47.8	48.3	50.8	53.3	54.2	54.3	53.9	52.1	49.9	48.8	44.3	43.6	44.1	40.5	38.7	46.7	
<b>June.</b>																										
13° + Tabular Quantities.																										
Mean.																										
1	47.4	47.4	47.2	47.6	46.6	44.9	44.6	44.4	44.2	44.9	46.9	48.9	51.2	52.9	53.2	51.6	51.2	50.4	49.4	48.9	48.7	48.4	48.2	46.9	48.2	
2	46.6	46.4	46.2	46.2	44.6	42.9	41.2	43.6	43.6	45.4	48.2	51.6	54.2	55.4	54.4	55.2	55.2	52.2	48.6	48.9	47.7	47.4	41.4	39.9	47.8	
3**	43.9	39.4	43.9	44.6	49.1	48.4	47.1	44.7	44.6	45.4	47.9	49.4	50.6	53.9	53.9	53.7	48.4	50.2	50.2	50.2	47.4	43.4	44.2	44.4	47.5	
4	45.2	46.2	47.4	45.2	44.2	42.4	42.6	43.6	44.4	45.4	47.2	48.9	50.9	51.2	49.6	49.6	48.8	48.4	48.6	45.6	43.2	45.4	43.9	46.6	46.6	
5**	46.4	49.6	45.9	43.2	45.2	43.9	41.9	44.2	45.4	47.2	47.4	51.7	52.6	52.6	51.6	48.4	48.6	42.2	45.0	47.2	46.4	47.4	47.0	46.6	47.0	
6	49.6	44.6	43.6	44.0	44.8	43.6	44.6	43.8	43.2	45.6	49.9	52.8	53.4	53.4	53.2	50.4	50.2	46.2	45.4	48.2	45.3	44.2	46.4	47.9	47.3	
7	50.6	46.2	45.9	45.2	46.9	45.6	43.4	43.4	43.9	44.9	46.6	48.6	50.0	51.0	51.2	50.6	49.9	48.2	47.6	47.6	47.6	46.9	45.6	44.4	47.2	
8	45.2	45.6	45.9	45.6	43.6	42.4	42.9	43.4	44.6	47.2	49.4	51.9	52.6	52.2	51.2	49.6	49.2	48.6	48.4	47.9	46.6	46.2	46.4	48.2	47.3	
9	47.2	42.4	42.9	43.6	43.2	42.9	43.2	43.9	43.6	44.9	46.2	48.7	50.9	52.2	52.2	50.8	49.9	49.0	47.4	46.6	46.0	46.6	47.2	47.2	46.6	
10*	46.9	47.9	46.6	46.0	45.2	44.2	43.2	42.4	42.4	44.9	46.8	49.9	51.6	52.2	52.6	51.6	50.2	48.6	47.9	48.4	47.6	46.9	46.9	47.2	47.4	
11*	46.4	46.6	45.9	45.8	44.6	43.2	43.2	42.6	41.6	43.0	45.4	49.6	51.9	52.2	51.6	50.6	49.9	49.6	48.4	48.2	45.6	46.9	47.5	47.6	47.0	
12	47.2	46.9	46.4	46.2	46.2	47.4	47.2	43.4	45.2	46.2	48.4	50.6	51.7	53.4	53.9	52.9	51.2	49.9	48.6	48.2	47.4	47.2	45.4	46.2	48.2	
13	45.9	46.4	45.4	46.4	45.2	43.2	42.6	44.4	45.2	45.8	47.6	51.2	52.6	53.4	53.2	52.9	51.9	50.6	49.4	47.6	47.6	46.2	45.2	43.4	47.6	
14	43.9	44.2	43.6	42.2	42.2	42.4	41.6	42.2	43.6	44.6	47.8	50.2	51.2	51.2	50.6	49.4	48.6	48.4	48.1	47.6	47.4	47.4	46.6	46.6	46.3	
15*	46.6	46.6	45.8	45.6	45.4	44.2	44.4	43.8	43.4	44.9	47.1	49.9	51.4	52.6	51.9	50.7	50.2	48.9	48.1	47.4	47.1	46.9	47.0	45.2	4	

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION—continued.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.			
13° + Tabular Quantities.																													
July.																													
1*	44.2	45.9	46.2	45.2	46.1	44.9	43.2	41.9	42.9	43.6	45.6	48.6	50.6	52.4	51.6	50.8	51.6	46.9	47.6	48.6	47.2	48.1	45.9	45.6	47.2	44.9	46.4	46.9	46.9
2	49.4	48.6	44.6	43.4	44.9	44.2	43.2	42.9	44.4	45.2	46.9	47.4	48.9	51.2	51.1	49.6	49.0	47.2	48.1	45.9	45.6	46.6	46.2	46.9	46.1	46.6	46.6	46.6	
3	44.9	45.4	48.6	46.6	40.9	40.2	42.6	43.6	45.2	44.2	45.6	48.4	49.7	50.8	51.9	51.5	49.9	48.6	47.9	46.6	46.2	46.9	46.4	46.4	47.2	46.4	46.6	46.6	
4	45.6	43.9	45.2	47.2	44.4	42.9	42.8	42.2	42.6	44.4	45.9	46.2	47.0	48.6	49.2	48.9	47.0	45.8	46.6	47.6	46.6	46.9	46.4	46.4	47.2	46.4	46.6	46.6	
5	45.4	45.2	45.6	44.1	42.9	41.9	43.2	43.4	44.1	46.2	47.2	48.9	51.1	51.6	52.4	52.5	52.6	51.4	48.2	47.6	47.9	45.6	46.2	46.2	44.2	44.2	47.1	46.9	
6	43.7	43.9	43.4	43.1	41.6	40.4	41.9	46.6	44.6	45.2	47.0	48.9	51.9	53.4	51.6	49.9	48.8	47.6	47.6	46.4	45.6	46.4	46.0	46.0	45.4	46.3	46.3	46.3	
7	46.6	47.4	45.2	43.9	42.7	42.4	44.4	45.2	44.9	45.6	46.8	49.2	50.9	53.2	54.2	52.5	51.4	49.6	48.2	47.6	46.9	46.6	46.1	46.4	46.6	46.2	46.6	46.6	
8*	45.6	45.4	45.1	44.9	44.2	42.9	42.2	42.9	42.6	44.6	47.2	48.9	51.1	52.4	51.9	50.4	48.7	47.4	46.7	46.6	47.1	46.4	46.6	46.2	46.2	46.6	46.6	46.6	
9	46.2	46.0	46.2	45.4	45.2	42.4	42.2	42.4	41.2	43.2	46.6	50.2	53.4	53.6	52.6	50.6	49.5	47.9	46.7	47.4	47.2	46.9	46.6	46.2	46.6	46.2	46.9	46.9	
10	45.4	45.2	45.6	44.9	43.2	43.9	42.6	42.2	42.9	44.9	47.2	49.6	52.4	54.2	54.7	53.2	51.6	49.2	46.6	45.2	46.2	46.2	46.2	46.2	46.2	46.2	46.9	47.1	46.9
11*	45.6	44.9	44.6	44.2	43.9	43.4	43.4	43.6	43.9	45.4	46.9	51.2	52.9	53.6	51.9	50.2	49.1	47.9	46.7	46.7	45.9	45.3	46.2	46.0	45.2	46.7	46.7	46.7	
12*	44.7	44.9	44.9	45.1	44.6	42.9	41.2	40.9	41.1	43.4	44.9	48.2	50.6	52.4	52.6	51.6	49.6	47.2	45.9	46.1	46.2	46.5	46.1	46.1	46.1	46.1	46.1	46.1	
13	46.2	46.2	46.4	46.1	44.6	43.8	43.2	43.8	44.9	45.6	46.6	50.9	53.1	53.4	52.6	51.2	50.2	49.4	48.6	48.4	47.2	46.6	46.6	46.4	46.4	47.6	47.6	47.6	
14	42.6	40.4	43.2	43.1	42.6	44.4	44.4	42.8	43.4	42.6	44.6	46.9	50.1	51.9	52.6	52.3	51.9	49.4	48.5	47.6	44.2	45.9	43.6	42.9	45.9	45.9	45.9	45.9	
15	45.6	45.2	45.9	50.6	43.2	40.9	40.2	42.2	44.2	44.4	45.4	47.6	49.2	50.4	51.4	50.2	48.4	47.9	47.8	47.2	46.6	46.2	46.4	45.9	46.4	45.9	46.4	46.4	
16**	45.2	44.4	44.2	45.8	44.9	43.0	42.2	42.9	43.4	45.2	47.4	48.6	50.2	52.6	52.9	51.2	50.3	50.1	45.4	44.2	48.0	47.9	47.7	47.9	47.7	47.9	46.9	46.9	
17	45.6	43.6	47.2	46.9	44.6	42.8	42.4	41.9	43.0	44.6	45.6	47.6	50.7	53.2	53.4	52.6	50.4	48.6	45.8	47.4	47.2	47.2	44.8	45.4	45.2	46.7	46.7	46.7	
18	44.9	44.4	44.2	44.1	43.7	44.1	41.6	41.2	42.6	43.9	45.4	49.6	50.4	50.9	50.6	46.9	48.4	47.6	46.7	46.6	45.7	45.9	47.1	46.2	45.9	46.2	45.9	46.4	
19	46.2	46.9	44.4	44.2	43.6	42.6	45.2	44.4	43.2	44.4	45.0	48.2	50.4	51.2	50.4	50.6	49.6	48.1	46.6	47.6	45.6	44.6	45.2	45.6	45.6	46.4	46.4	46.4	
20	46.7	47.1	47.9	44.2	43.2	42.2	40.8	41.4	40.6	42.7	45.4	48.2	49.6	51.9	50.9	48.9	47.6	46.7	46.9	46.4	45.4	44.2	44.2	43.2	44.9	45.7	45.7	45.7	
21*	45.9	46.2	46.1	45.2	44.6	42.6	42.4	43.3	44.2	45.6	46.9	48.0	48.8	48.9	48.4	48.0	47.2	46.7	47.1	47.4	46.2	46.2	46.4	46.2	46.4	46.9	46.2	46.2	
22*	47.6	45.2	44.6	44.4	44.0	44.4	44.2	42.6	42.9	45.2	47.2	48.9	51.6	52.2	50.6	48.9	47.7	46.6	46.2	46.4	46.4	46.2	46.2	46.4	46.2	46.4	46.2	46.2	
23	46.1	45.6	45.2	45.2	44.7	44.9	44.2	43.2	43.9	45.2	46.6	49.2	50.4	50.9	49.9	48.9	48.6	47.6	47.6	47.8	48.0	47.8	44.9	45.4	46.7	46.7	46.5	46.5	
24	39.6	37.2	41.6	43.6	42.4	41.2	40.9	42.4	43.2	45.4	48.7	51.9	54.2	55.6	53.6	52.1	49.9	46.8	45.9	46.2	45.7	45.3	44.2	45.2	45.9	45.9	45.9	45.9	
25	45.2	44.6	43.7	43.1	43.2	41.9	42.0	43.2	45.2	47.2	49.2	50.9	51.2	50.9	49.9	48.2	47.2	46.8	46.4	46.7	46.4	46.4	44.2	44.2	44.4	46.2	46.2	46.2	
26**	42.9	43.2	44.4	45.6	41.1	39.7	40.2	40.6	43.1	46.4	47.9	50.2	51.6	51.9	53.7	54.4	52.6	51.2	50.5	50.4	49.2	37.4	39.4	46.9	46.4	46.4	46.4	46.4	
27**	40.2	39.9	45.9	43.2	40.1	38.6	42.8	47.9	50.0	49.4	50.2	52.5	53.9	53.4	53.2	49.4	49.2	44.6	45.6	47.2	47.3	47.3	43.2	41.6	41.6	41.6	41.6	41.6	
28**	42.8	37.4	42.4	39.5	40.1	40.2	41.4	44.2	46.4	46.2	47.4	49.9	52.1	52.4	51.2	50.2	48.6	47.6	45.7	43.4	46.4	45.6	41.2	38.6	45.0	45.0	45.0	45.0	
29	46.2	46.2	46.2	43.4	44.6	43.2	44.2	43.6	42.4	44.4	46.6	49.5	50.4	50.4	50.3	49.9	49.6	45.6	41.9	46.4	46.6	46.7	44.6	43.2	46.1	46.1	46.1	46.1	
30	45.4	42.9	43.4	45.4	45.2	45.1	44.4	41.4	40.4	40.6	43.2	46.4	50.2	53.4	52.6	51.0	50.1	48.9	47.7	43.6	43.7	43.4	46.2	42.4	45.7	45.7	45.7	45.7	
31	42.9	45.0	43.2	43.6	44.7	44.7	43.9	43.4	43.4	43.6	44.9	46.7	48.9	50.2	50.4	49.6	49.2	48.1	47.4	47.2	46.9	46.4	44.6	44.4	46.0	46.0	46.0	46.0	
Mean	45.0	44.5	45.0	44.7	43.5	42.7	42.7	43.0	43.6	44.8	46.5	48.9	50.9	52.0	51.8	50.5	49.5	47.7	46.9	46.7	46.5	46.3	46.4	45.3	45.1	46.4	46.4	46.4	
Mean*	45.9	45.3	45.1	47.8	44.3	43.2	42.7	42.7	42.9	44.8	46.6	49.0	51.0	51.9	51.1	49.8	48.5	47.2	46.5	46.5	46.3	46.4	46.4	46.2	46.4	46.4	46.4	46.4	
Mean**	43.1	42.2	44.6	43.9	42.5	41.3	42.0	43.5	45.2	46.2	47.7	50.0	51.7	52.5	52.5	51.2	50.5	49.0	46.8	46.4	47.6	44.6	43.6	44.4	46.4	46.4	46.4	46.4	
13° + Tabular Quantities.																													
August.																													
1	44.4	44.4	43.6	42.7	44.4	42.9	42.9	43.6	47.2	48.9	48.6	49.6	50.9	50.9	49.9	49.4	48.6	47.7	46.9	46.4	46.1	46.2	46.2	43.4	46.5	46.5	46.5	46.5	
2*	43.6	43.4	45.2	44.4	43.6	43.4	45.9	46.6	45.2	45.4	46.6	49.2	49.6	49.4	48.6	48.4	48.2	47.6	46.7	46.6	46.6	46.4	45.9	45.4	45.4	46.3	46.3	46.3	
3*	45.4	46.9	45.2	45.9	45.2	43.4	43.4	43.1	42.9	44.2	45.4	46.6	47.9	48.4	49.2	48.6	47.4	46.6	46.2	45.8	45.4	44.7	44.9	44.4	44.4	45.7	45.7	45.7	
4	44.9	44.9	44.4	43.9	43.7	42.4	42.6	43.6	44.4	44.4	45.9	46.9	49.2	49.9	49.9	48.9	47.9	46.7	45.6	42.6	44.9	44.9	44.7	45.4	45.5	45.5	45.5	45.5	
5	45.6	45.4	44.9	43.9	43.1	43.4	44.4	44.2	45.4	47.2	48.9	52.4	55.4	52.2	51.9	49.6	47.9	46.9	43.6	44.9	45.9	45.9	45.6	45.6	46.8	46.8	46.8	46.8	
6	45.2	45.2	46.2	44.2	44.6	41.9	41.9	41.9	42.9	45.9	47.6	49.4	51.2	51.4	50.1	48.9	47.4	45.7	45.6	43.4	45.4	43.6	43.6	44.4	45.7	45.7	45.7	45.7	
7	45.4	45.0	44.2	44.0	44.1	42.9	42.2	42.6	42.7	45.9	48.4	50.4	51.6	50.9	49.2	47.2	46.6	46.4	45.7	42.1	44.9	46.2	46.4	45.9	45.9	45.9	45.9	45.9	
8	45.4	45.2	44.7	44.2	43.6	42.0	41.8	41.6	42.6	43.6	44.8	46.4	48.6	50.6	51.4	50.2	48.2	45.6	45.9	45.9	45.6	42.2	43.2	44.9	45.3	45.3	45.3	45.3	
9	44.6	44.7	44.6	44.4	43.2	41.7	41.4	42.2	44.4	46.9	48.9	51.2	52.4	52.9	52.2	51.6	51.6	48.2	47.4	45.9	39.2	41.4	43.1	42.4	46.1	46.1	46.1	46.1	

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION—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	Mean.
<b>September.</b>																										
13° + Tabular Quantities.																										
1	43.4	43.9	43.1	42.9	42.7	42.2	42.0	42.0	43.4	46.6	49.2	50.2	50.9	51.1	49.2	47.3	45.2	42.6	40.9	43.9	45.4	45.1	44.9	44.6	45.1	45.1
2*	44.6	44.6	44.4	42.2	41.9	42.2	41.6	41.9	43.0	45.6	47.4	50.6	51.7	50.9	48.6	46.2	45.2	44.9	44.8	45.9	44.2	44.4	44.4	43.8	45.2	45.2
3	46.6	44.6	41.4	40.4	41.6	40.9	40.4	40.6	41.2	42.8	46.9	50.6	52.4	50.6	47.9	45.4	44.0	43.7	44.9	45.2	44.6	41.2	42.0	43.6	44.3	44.3
4	44.4	44.6	43.4	43.2	43.2	42.6	42.6	42.6	43.2	45.7	46.9	49.9	49.6	48.2	47.4	46.6	46.2	45.6	45.9	41.4	43.6	44.2	44.1	43.9	45.0	45.0
5	44.2	43.6	43.7	43.4	42.6	43.2	41.6	41.4	40.9	42.2	44.9	47.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7**	42.2	42.7	42.9	42.9	41.4	41.6	42.2	41.1	44.2	46.6	47.9	49.9	52.4	52.2	49.9	48.2	45.6	45.4	44.8	44.6	43.8	43.2	41.8	40.8	—	—
8**	44.2	44.4	46.4	44.6	44.2	43.2	43.4	41.5	40.9	46.2	51.1	52.1	56.9	52.9	49.6	47.6	43.7	40.2	43.6	43.4	43.2	40.2	35.9	43.6	45.1	45.1
9**	43.6	48.9	46.6	40.6	41.6	42.2	42.9	46.6	45.6	48.9	49.4	50.2	51.4	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	44.0	44.2	45.2	40.8	42.4	43.3	44.2	44.5	45.9	47.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	43.8	43.2	43.1	43.2	45.9	46.4	46.8	45.9	41.1	44.2	48.4	44.8	48.6	49.5	49.3	47.6	46.0	45.0	44.3	44.6	44.4	43.5	41.3	43.6	45.2	45.2
14**	41.4	46.8	47.8	51.0	49.4	51.8	52.8	51.2	48.6	47.5	49.1	51.6	52.8	54.9	52.6	47.8	48.1	33.2	39.4	40.3	40.2	38.1	30.5	—	—	—
15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17	43.6	43.2	43.1	42.9	42.6	42.8	42.7	42.6	42.8	44.6	48.0	49.1	51.0	48.0	46.1	44.9	44.4	43.8	42.1	41.3	40.5	39.7	39.1	40.4	42.9	42.9
18	42.7	43.3	42.5	42.8	43.7	42.3	41.2	40.8	41.3	42.8	44.7	46.3	47.2	47.2	46.6	45.6	45.5	46.0	45.6	44.9	44.8	44.9	43.0	41.8	44.1	44.1
19	42.0	40.9	39.8	39.9	41.4	42.1	42.3	41.4	42.0	44.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20**	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	40.0	37.6	38.8	42.1	40.2	42.0	42.6	42.7	43.6	43.8	44.6	50.3	52.4	49.0	46.9	47.2	44.4	43.4	42.6	42.5	42.1	42.8	42.6	43.6	43.7	43.7
22*	43.8	43.0	42.8	43.0	42.8	42.8	42.0	41.1	40.7	41.0	44.6	46.3	48.8	49.2	47.8	46.7	45.8	45.4	45.0	43.8	43.8	43.5	43.0	43.1	44.2	44.2
23*	43.4	42.7	42.6	41.9	42.6	42.4	42.6	41.5	40.7	41.6	46.4	47.0	47.4	47.8	47.2	46.4	45.6	42.7	42.6	42.8	42.1	41.5	43.2	44.3	43.7	43.7
24*	44.2	43.2	44.5	43.3	42.6	42.8	43.5	42.6	42.8	43.7	45.8	48.5	49.5	48.9	47.6	45.7	44.3	43.9	44.2	43.9	43.6	43.8	43.3	43.0	44.5	44.5
25	42.3	41.6	41.4	41.1	41.2	42.8	44.3	42.7	42.0	44.3	46.1	47.8	49.5	49.4	47.8	46.6	45.7	44.1	43.8	43.8	43.7	43.6	43.4	43.3	44.3	44.3
26*	42.9	43.5	43.1	42.9	42.8	42.9	42.3	41.6	41.3	42.5	43.3	46.8	48.6	48.3	46.8	45.5	44.8	44.9	44.7	44.7	44.5	43.8	43.5	43.6	44.1	44.1
27	43.6	43.0	42.9	41.3	41.0	42.8	43.3	42.5	41.6	42.0	42.3	43.9	47.0	49.0	—	—	—	—	—	—	—	—	—	—	—	—
28	42.2	36.6	37.5	39.0	46.4	42.0	43.9	43.5	43.4	43.5	45.6	46.8	47.5	48.4	48.2	47.4	46.5	44.3	43.8	37.3	40.4	41.8	41.6	43.8	43.2	43.2
29	41.9	42.8	41.7	41.6	43.0	42.8	42.7	41.9	41.1	41.4	43.3	45.8	47.4	48.6	48.1	47.2	45.9	45.0	44.5	44.7	44.2	43.8	43.5	43.1	44.0	44.0
30	42.6	42.1	34.2	40.6	41.5	42.0	41.8	44.2	43.4	41.8	43.8	46.5	48.6	47.6	46.8	45.8	45.2	43.9	41.5	43.3	42.2	41.9	42.3	42.8	43.2	43.2
Mean	43.2	43.1	42.6	42.4	42.9	43.0	43.1	42.9	42.7	44.3	46.4	48.5	49.9	49.4	48.1	46.9	45.3	43.4	43.7	43.0	42.3	42.5	41.9	43.1	44.4	44.4
Mean*	43.8	43.4	43.5	42.7	42.5	42.6	42.4	41.5	41.7	42.9	45.5	47.8	49.2	49.0	47.6	46.1	45.1	44.4	44.3	44.2	43.6	43.4	43.5	43.6	44.3	44.3
Mean**	42.6	44.6	45.7	46.2	45.0	45.5	46.1	44.6	44.6	46.8	49.4	51.2	54.1	53.7	51.5	48.4	45.3	37.2	41.5	40.0	41.1	40.0	36.2	41.8	45.2	45.2
<b>October.</b>																										
13° + Tabular Quantities.																										
1*	43.0	44.3	42.3	42.1	42.0	42.3	42.2	41.6	41.0	41.8	43.7	46.2	47.1	47.8	47.0	46.1	45.0	44.9	44.4	42.8	43.5	42.7	43.6	43.4	43.8	43.8
2	43.4	43.4	42.9	42.8	42.7	42.8	42.1	41.2	41.4	42.5	42.8	44.9	46.2	48.2	48.1	46.8	44.8	44.3	38.1	39.5	38.6	41.2	43.8	43.6	43.2	43.2
3	40.6	41.3	42.0	42.5	41.1	42.4	42.6	44.6	44.8	44.4	47.5	49.0	49.6	48.8	46.9	45.3	44.6	42.9	38.6	42.0	40.8	41.8	43.7	41.0	43.7	43.7
4	42.7	40.9	41.3	42.1	42.3	42.6	43.0	43.3	43.9	44.8	47.0	48.8	48.9	48.3	47.2	45.0	44.4	44.5	43.7	40.8	42.6	42.1	41.9	39.0	43.8	43.8
5**	38.1	37.6	42.9	38.7	42.3	47.6	53.0	48.4	54.5	52.3	50.1	50.6	50.0	51.8	46.4	50.0	42.6	39.8	39.7	42.4	37.6	33.6	41.3	42.3	44.7	44.7
6**	40.5	43.8	44.6	44.7	43.6	45.0	44.1	43.1	42.8	44.4	43.1	45.3	46.9	46.6	48.3	46.5	37.8	33.6	38.2	41.7	41.4	42.3	42.2	41.0	43.3	43.3
7**	40.6	41.2	44.3	43.1	43.8	47.0	48.3	46.6	44.9	44.2	46.3	49.5	48.6	48.3	47.9	46.0	43.7	40.3	42.8	41.7	41.4	42.3	42.2	41.0	44.4	44.4
8	42.4	40.6	44.0	45.7	43.6	43.0	43.0	42.1	41.0	41.3	44.6	47.7	48.8	47.4	47.6	46.9	45.0	44.3	43.8	43.7	40.2	35.3	37.5	40.6	43.3	43.3
9	39.3	45.3	43.0	42.2	42.9	43.7	44.4	43.8	41.2	40.8	44.2	47.0	47.6	48.7	47.9	46.6	44.5	43.1	43.6	40.0	38.9	39.0	39.1	40.0	43.2	43.2
10	39.8	43.6	41.8	42.2	42.9	43.3	43.3	42.9	42.1	42.0	42.6	45.8	47.0	48.8	48.6	47.5	45.6	43.5	42.6	43.3	41.1	40.1	40.8	42.3	43.5	43.5
11	42.6	43.3	43.2	43.0	43.5	42.7	42.6	41.9	41.7	41.3	42.6	44.3	45.7	46.3	46.6	46.0	44.9	44.3	44.0	43.6	43.2	43.2	41.3	40.8	43.4	43.4
12	40.3	40.8	41.1	40.6	40.5	41.7	42.1	42.0	42.6	42.4	42.8	46.3	48.6	50.1	49.6	49.5	48.8	46.8	45.2	44.0	43.0	42.4	42.5	42.6	44.0	44.0
13	44.6	42.8	40.4	40.9	42.2	42.3	42.3	42.0	41.6	42.0	43.1	46.5	47.8	48.2	47.3	46.1	45.9	45.7	44.9	43.6	40.6	42.8	43.4	43.0	43.7	43.7
14	43.1	43.0	42.4	42.5	42.3	42.0	41.6	41.3	40.6	41.8	43.8	48.3	51.2	50.9	50.8	47.0	47.2	44.7	43.8	43.1	42.3	41.6	41.8	42.2	44.1	44.1
15	42.0	41.6	42.3	41.8	42.4	42.6	42.2	41.0	40.1	40.0	42.5	44.1	46.2	46.6	46.6	45.9	45.8	44.6	41.7	40.6	42.3	43.2	43.0	42.8	43.0	43.0
16*	42.4	42.6	42.2	42.1	43.1	43.7	43.1	41.6	40.8	41.0	42.6	45.2	46.3	46.7	46.4	45.3	44.1	43.8	43.4	43.0	43.0	43.0	43.1	43.2	43.4	43.4
17	43.3	43.4	43.5	42.1	42.6	42.0	42.3	42.6	41.8	42.1	44.5	48.8	50.4	51.3	52.2	50.0	49.1	42.3	44.0	43.1	42.6	40.8	40.3	41.5	44.4	44.4
18*	42.6	42.8	42.8	42.7	43.6	43.5	41.8	41.3																		

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>				
<b>November.</b>																													
13° + Tabular Quantities.																													
																											Mean.		
1**	46.0	42.4	42.2	42.6	42.8	44.6	45.3	44.0	43.3	42.8	45.8	46.2	46.6	47.3	41.9	44.4	44.3	37.8	40.8	40.9	37.8	35.7	39.0	39.0	40.0	43.1			
2**	40.1	39.6	43.3	43.5	44.3	44.7	45.3	43.8	42.1	43.3	43.8	45.8	48.2	43.2	46.0	40.0	42.7	39.6	42.3	41.4	41.4	40.8	39.0	39.8	41.7	42.2			
3**	41.8	38.9	43.1	41.7	42.8	43.5	42.8	42.6	41.9	41.6	42.0	44.0	45.3	46.6	37.8	43.0	43.6	43.3	43.0	40.8	38.6	41.0	41.4	41.7	42.2				
4	43.9	44.6	44.6	42.7	43.2	43.6	42.3	42.4	42.0	42.6	43.6	45.8	45.8	46.3	45.5	43.8	43.6	42.8	42.0	41.7	41.6	41.5	41.5	40.4	43.2				
5	39.8	40.3	42.6	42.8	42.0	42.8	41.8	40.7	39.8	40.1	42.8	44.3	46.2	46.0	45.3	44.6	43.8	43.1	42.6	42.0	40.8	40.8	40.8	41.6	42.4				
6*	42.2	42.4	42.8	—	—	—	—	—	—	—	—	—	—	43.1	44.6	46.2	46.0	45.1	44.6	43.9	43.0	42.8	42.5	42.0	41.4	40.6	41.5	42.0	—
7*	42.3	43.2	41.8	—	—	—	—	—	—	—	—	—	—	45.1	44.6	43.8	43.4	42.8	42.6	41.8	41.8	41.4	41.6	42.0	—				
8	42.4	42.6	42.8	42.9	42.8	42.6	42.4	42.0	41.0	40.8	42.2	44.8	45.6	46.8	46.0	44.8	45.8	44.0	43.3	42.6	42.0	41.8	41.8	42.0	41.8	42.0	43.2		
9	42.6	42.3	42.8	42.8	42.6	42.3	42.0	42.2	41.4	41.4	42.8	44.8	46.1	45.8	44.6	43.6	43.8	42.9	43.3	42.9	42.8	42.3	41.8	41.8	41.8	43.0			
10	41.7	41.2	43.0	38.9	39.8	40.3	40.8	40.8	40.8	41.8	44.6	44.8	46.0	46.6	46.2	45.6	47.0	37.0	40.6	43.5	41.1	38.8	38.3	40.6	42.1				
11	42.0	42.6	42.6	42.8	42.6	42.6	42.3	42.0	41.8	42.6	43.9	44.6	45.6	45.8	44.4	43.7	43.3	43.2	42.8	42.4	41.8	40.8	40.8	41.2	42.8				
12	41.8	42.5	42.3	42.0	42.3	42.1	41.8	41.1	41.2	43.0	44.1	45.6	45.5	45.1	44.1	43.5	43.1	42.8	43.0	41.6	42.5	42.0	41.8	41.8	42.7				
13*	41.6	41.8	42.8	42.3	42.0	41.3	41.4	41.3	41.0	41.6	43.5	44.6	45.5	45.1	44.4	43.6	43.3	43.3	42.8	42.6	42.0	41.4	41.8	42.0	41.8	42.0	42.6		
14	42.0	42.4	42.5	42.2	42.1	41.4	41.5	41.5	41.0	41.8	43.0	44.3	44.6	44.3	43.6	42.9	43.6	43.0	42.8	42.3	42.0	41.8	42.1	42.3	42.5				
15	42.2	42.4	42.6	43.0	43.0	42.6	41.8	41.6	40.8	41.4	42.8	45.0	46.0	46.8	47.0	48.3	43.8	42.8	42.7	42.3	41.9	41.8	41.8	42.0	43.2				
16	42.1	42.3	42.0	42.1	42.0	41.8	41.8	41.5	41.1	41.0	41.6	43.6	44.7	45.4	44.6	43.8	43.2	42.8	42.4	42.1	41.8	41.8	42.0	42.6	42.5				
17	42.7	42.9	43.7	42.0	42.3	42.3	41.8	41.2	40.8	40.6	41.1	43.5	44.8	45.7	44.8	44.0	43.3	42.8	41.8	40.6	41.2	41.6	41.8	42.2	42.5				
18*	42.1	42.4	42.4	43.2	42.8	41.6	41.4	41.4	41.3	41.8	42.1	43.8	45.1	45.1	44.5	43.2	43.1	42.3	41.8	41.7	41.6	40.8	40.8	41.6	42.4				
19	42.4	42.6	42.6	42.6	42.8	41.9	41.5	41.6	41.5	41.6	42.8	44.5	45.0	44.8	44.4	43.6	43.0	42.6	42.3	41.6	41.3	41.1	41.0	40.3	42.5				
20	41.6	42.6	42.2	42.7	43.0	41.0	41.4	41.4	41.2	41.1	42.3	43.6	44.5	44.8	44.2	43.8	43.4	43.0	42.3	42.1	41.5	41.2	41.3	41.5	42.4				
21	41.8	41.7	41.8	41.9	41.8	42.1	41.1	41.8	41.5	41.8	42.3	44.7	44.8	44.0	44.0	43.8	44.4	43.8	43.3	40.6	37.8	40.5	40.1	41.5	42.2				
22	40.3	40.8	39.8	40.4	41.4	41.5	41.6	41.8	41.2	42.3	44.3	45.0	45.3	44.8	43.8	43.5	43.1	42.4	41.3	40.8	41.3	41.5	41.2	41.1	42.1				
23	41.3	41.6	42.0	41.6	42.3	42.3	41.8	41.4	41.5	42.0	42.6	44.8	45.3	44.5	43.3	42.3	42.4	42.2	41.9	41.8	41.4	41.3	41.1	41.2	42.2				
24	41.1	40.6	41.5	41.5	42.0	41.6	41.5	41.2	41.2	41.5	42.8	44.8	45.6	44.5	43.3	42.6	42.8	42.7	41.6	41.8	41.5	40.4	40.5	41.1	42.1				
25	41.5	41.6	42.8	41.8	42.0	41.6	41.6	41.5	41.5	42.2	43.4	44.8	44.8	44.4	43.8	42.8	42.6	42.0	41.0	41.8	41.6	40.8	41.1	41.5	42.3				
26*	41.3	41.5	41.6	41.1	41.5	41.8	41.6	41.4	41.2	42.3	43.8	44.8	45.0	44.3	43.2	42.8	42.6	42.5	42.0	41.9	41.8	41.8	41.9	41.6	42.3				
27	41.6	41.6	41.8	42.2	41.8	41.8	41.6	41.8	41.8	42.5	44.3	45.0	45.3	44.3	43.6	42.5	42.8	42.6	42.9	43.8	36.5	39.0	39.6	40.0	42.1				
28**	49.6	40.0	40.0	41.1	40.8	40.6	41.3	41.3	42.3	43.3	43.8	44.8	44.6	44.6	42.8	42.8	41.3	39.8	41.8	40.0	39.1	39.5	39.8	39.0	41.8				
29**	37.3	38.6	43.0	41.8	38.6	38.5	40.1	45.8	44.8	42.8	44.3	44.8	46.6	47.3	42.1	42.8	38.5	38.8	40.0	32.3	36.6	39.3	38.8	40.6	41.0				
30	38.0	38.6	40.1	41.3	41.3	41.6	42.4	43.0	42.3	43.3	43.8	44.8	45.9	42.7	42.6	41.9	41.6	39.8	38.8	39.6	39.5	38.8	40.6	41.1	41.4				
Mean	41.9	41.5	42.3	42.1	42.1	42.0	41.9	42.0	41.5	41.9	43.2	44.7	45.5	45.2	44.4	43.5	43.2	42.0	42.0	41.4	40.7	40.7	40.8	41.2	42.4				
Mean*	41.7	41.9	42.3	42.2	42.1	41.6	41.5	41.4	41.2	41.9	43.1	44.4	45.2	44.8	44.0	43.2	43.0	42.7	42.2	42.1	41.8	41.3	41.5	41.7	42.4				
Mean**	43.0	39.9	42.3	42.1	41.9	42.4	43.0	43.5	42.9	42.8	43.9	45.2	46.3	45.7	42.1	42.6	42.1	39.9	41.6	38.9	38.7	39.3	39.6	40.2	42.1				
<b>December.</b>																													
13° + Tabular Quantities.																													
																												Mean.	
1	41.6	41.7	41.8	42.2	41.8	41.6	41.0	41.1	41.1	41.2	42.8	42.6	44.0	45.3	43.6	41.0	45.3	43.3	41.8	41.3	41.1	40.1	40.0	40.9	42.0				
2	41.4	42.7	40.6	40.8	40.6	41.3	41.6	42.0	42.1	42.5	43.6	44.6	44.3	43.6	42.8	43.0	42.2	41.6	41.0	40.8	40.8	40.6	40.8	41.0	41.9				
3*	41.8	41.6	41.0	41.1	41.5	41.1	41.0	40.8	41.0	41.8	42.0	43.6	43.8	43.4	42.8	42.0	41.8	41.4	41.0	40.8	40.3	40.6	41.6	41.6	41.6				
4	42.0	41.8	41.7	41.5	41.8	41.4	41.0	41.2	41.3	41.6	42.8	43.5	43.8	43.6	42.8	41.8	41.9	41.6	41.0	41.0	40.8	41.1	41.2	43.5	41.9				
5**	41.6	41.8	42.2	42.0	42.1	42.5	43.8	42.6	42.5	43.6	43.8	43.6	44.5	44.7	44.7	43.9	43.6	43.8	43.4	41.8	40.7	38.3	39.6	38.0	42.5				
6	38.2	39.0	39.0	39.4	40.5	41.2	40.6	42.8	41.3	43.3	43.6	44.0	43.8	44.6	41.9	44.3	43.0	41.2	41.2	40.8	40.0	39.1	39.8	40.0	41.3				
7	40.6	41.1	40.5	41.2	41.6	41.4	41.0	41.2	41.6	42.4	43.8	43.6	43.9	43.6	42.7	42.5	42.6	41.4	41.2	40.7	40.6	40.6	40.6	41.1	41.7				
8*	41.3	41.7	41.8	41.6	41.6	41.5	41.1	41.0	41.3	41.8	42.3	43.0	44.1	44.0	42.8	42.4	41.5	41.8	41.6	41.6	40.9	40.7	40.5						

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>January.</b>																											
1	906	906	910	908	911	916	916	916	914	914	908	904	902	904	905	907	907	907	907	909	907	907	910	914	909		
2	910	909	909	912	912	914	917	919	917	917	912	907	907	907	905	907	911	915	914	912	912	912	909	905	911		
3*	909	907	909	911	911	915	919	919	917	915	911	907	910	910	910	912	910	906	908	910	911	913	913	912	917		
4*	913	923	911	911	915	918	920	920	918	916	910	913	920	922	924	923	923	926	925	920	916	913	910	908	917		
5	908	908	910	913	913	918	923	918	920	918	910	904	902	913	920	920	918	918	910	906	910	908	908	913	913		
6	913	916	913	916	916	916	922	922	916	912	904	903	908	918	920	918	918	916	913	890	908	912	913	918	913		
7	921	925	908	948	938	926	913	918	903	886	900	901	900	901	906	906	903	906	903	906	906	906	906	904	910		
8**	903	905	906	908	910	916	916	918	918	912	903	900	903	908	908	906	888	906	878	886	910	890	893	883	903		
9**	888	903	906	900	883	883	900	908	903	888	870	886	878	878	886	890	900	900	918	913	900	920	908	903	896		
10	903	910	900	901	908	900	918	910	908	882	878	890	896	893	893	891	886	908	910	908	906	928	916	910	902		
11	906	908	913	903	905	903	913	910	906	908	893	893	886	896	900	906	908	913	910	910	918	920	908	908	906		
12	906	913	910	910	908	913	915	913	910	903	893	890	906	906	906	896	888	896	906	908	910	910	910	913	907		
13	915	918	908	908	910	910	912	910	910	908	906	906	906	903	898	900	903	906	903	902	908	913	916	916	908		
14	913	913	911	913	915	918	918	918	913	910	908	908	903	903	903	906	910	913	916	918	910	913	910	910	911		
15*	910	913	913	913	916	918	920	920	913	910	908	903	903	906	908	914	916	918	918	918	916	916	916	918	913		
16	916	920	920	920	922	923	928	928	933	936	923	918	916	910	906	920	893	900	900	918	900	893	896	903	914		
17	940	908	906	896	903	916	918	908	906	898	890	893	893	896	900	883	890	903	906	908	903	908	910	913	904		
18	910	908	896	903	910	908	908	913	910	908	906	903	906	908	900	900	908	913	900	908	888	908	913	896	906		
19	900	900	903	910	910	910	913	913	913	912	910	906	906	910	913	910	908	910	900	916	916	893	906	908	908		
20	903	906	906	906	908	910	910	914	918	918	916	913	908	900	890	893	900	908	910	910	910	910	918	910	908		
21*	908	906	906	908	910	910	910	910	908	908	903	900	903	913	916	918	913	916	916	916	916	913	913	916	911		
22*	908	910	908	912	916	918	915	913	910	903	900	890	893	906	910	910	911	915	916	918	918	918	916	915	910		
23	913	913	912	918	910	914	916	914	910	903	898	903	908	913	916	916	914	916	915	913	906	902	900	903	910		
24**	906	906	903	910	910	910	926	938	938	930	946	928	906	898	893	868	840	856	863	890	893	893	930	933	904		
25**	913	903	908	893	900	908	868	900	903	878	863	873	893	895	901	888	868	888	898	898	900	900	902	910	894		
26	910	928	918	896	893	900	908	910	890	873	886	883	888	896	900	900	900	906	906	908	903	903	903	920	901		
27	916	906	910	912	913	911	913	913	906	902	898	900	903	903	906	908	908	908	913	910	908	908	910	910	908		
28	906	906	908	910	913	913	913	912	900	900	900	906	908	908	910	910	910	910	913	910	912	908	914	918	910		
29	906	908	906	913	918	916	922	918	916	914	910	908	908	906	906	908	906	910	916	916	913	913	913	913	912		
30	910	913	913	915	916	918	920	921	923	923	918	918	918	923	920	918	918	914	912	922	918	913	913	916	917		
31**	906	905	903	905	910	918	925	926	928	922	918	906	906	903	866	840	866	866	878	890	896	898	896	916	900		
Mean	910	910	909	910	911	912	915	916	913	907	903	902	903	905	905	903	901	906	906	909	908	908	910	911	908		
Mean*	910	912	909	911	914	916	917	916	913	910	906	903	906	911	914	915	915	917	916	916	915	914	914	914	913		
Mean**	903	904	905	903	903	907	907	918	918	906	900	899	897	896	891	878	872	883	887	895	900	900	906	909	899		
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>February.</b>																											
1	903	890	896	890	893	896	895	890	890	890	880	890	892	902	902	905	902	902	905	907	899	905	899	904	897		
2	889	895	901	907	917	909	917	915	915	909	901	892	893	895	902	902	907	909	917	915	914	912	909	907	906		
3**	909	907	907	909	912	917	917	917	917	925	924	917	905	909	919	917	885	917	877	887	902	917	902	909	909		
4	899	885	905	912	892	902	909	902	893	887	902	887	895	899	902	907	902	901	895	903	909	907	912	945	903		
5	909	907	909	912	915	909	914	914	911	907	902	902	902	907	892	899	909	915	914	914	912	909	914	929	910		
6	909	909	910	912	917	917	919	915	909	899	899	893	890	905	889	912	907	912	919	912	919	927	912	912	910		
7*	912	919	913	911	912	914	915	917	909	905	904	900	902	907	912	919	912	912	912	913	915	917	917	915	911		
8	915	915	915	919	919	919	922	922	922	919	914	909	910	915	895	887	885	892	904	912	922	904	923	909	911		
9**	907	902	912	909	907	915	917	914	911	899	892	885	875	869	879	895	882	887	885	902	902	897	902	895	897		
10	892	892	892	905	905	907	907	907	909	909	899	892	899	899	899	899	902	907	907	907	909	910	909	907	903		
11*	907	907	909	909	910	914	917	919	917	913	912	907	895	899	907	902	905	909	909	915	919	925	929	924	912		
12**	917	933	909	911	912	919	917	909	921	922	917	912	892	902	914	912	910	905	905	897	912	892	899	895	910		
13	897	917	912	914	915	902	907	911	905	912	907	892	905	897	905	907	902	905	902	907	909	902	905	907	906		
14	909	905	907	905	907	907	909	911	917	921	919	915	914	914	912	907	905	909	922	907	909	905	907	912	911		
15**	909	914	910	905	909	925	904	887	895	875	857	889	892	892	893	891	883	895	892	897	899	901	917	902	897		
16**	902	902	902	902	902	917	883	857	852	863	865	859	867	879	869	867	869	909	889	915	909	895	899	905	887		
17	902	897	899	900	909	907	899	887	899	905	907	894	877	879	892	882	902	881	883	887	889	885	893	887	893		
18	924	905	902	901	894	894	901	903	907	909	912	907	902	899	899	899	899	901	905	907	912	905	895	897	903		
19	912	909	907	907	915	915	914	909	909	911	909	912	909	907	903	895	895	907	909	917	919	919	919	917	910		

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE—continued.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
<b>March.</b>																											
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	907	909	905	899	902	912	917	909	907	909	889	892	887	862	847	857	874	897	899	902	917	937	922	907	899	899	
2	882	882	885	885	869	890	890	885	880	882	881	872	885	889	894	895	897	899	899	899	885	925	895	919	895	890	
3	895	895	895	899	901	905	905	902	899	889	889	885	887	892	892	894	895	902	889	885	925	895	919	895	890	889	
4	902	895	892	889	890	892	893	885	880	882	882	882	870	873	880	880	890	888	884	898	896	898	900	900	889	889	
5**	896	898	898	898	900	903	908	910	906	910	902	900	896	868	866	870	873	866	860	838	848	886	870	870	885	885	
6	870	878	870	871	873	883	888	888	882	874	868	868	873	880	883	883	880	878	886	883	888	888	890	890	880	880	
7*	886	888	888	888	890	893	896	895	896	888	883	880	880	884	884	883	886	890	894	896	900	896	896	896	890	890	
8*	896	896	896	896	898	903	910	910	903	893	883	880	876	880	881	876	881	891	898	900	901	900	900	900	894	894	
9*	900	900	908	898	904	903	908	910	908	906	900	886	888	893	890	891	893	888	891	896	905	905	906	904	899	899	
10**	904	906	910	910	908	933	940	928	918	920	913	900	896	888	886	883	868	886	903	900	883	886	912	908	904	904	
11	888	886	890	890	891	890	891	900	890	884	886	885	887	894	904	899	899	901	907	914	937	913	925	909	898	898	
12	893	897	901	903	905	909	914	911	904	894	884	869	872	884	895	899	893	891	889	903	909	937	931	917	900	900	
13**	907	921	921	894	904	887	889	875	864	869	869	844	819	837	839	864	879	874	894	904	881	909	929	919	883	883	
14**	897	885	879	883	887	891	895	879	859	839	837	847	852	875	878	865	870	870	875	925	920	885	875	892	880	880	
15	882	878	882	882	882	892	896	898	892	888	880	880	885	895	900	898	895	895	900	902	906	915	912	910	893	893	
16	902	903	902	898	902	902	905	908	904	898	892	892	885	898	900	902	904	908	908	910	910	914	913	913	903	903	
17	910	910	910	910	912	912	915	917	913	904	895	882	880	878	884	880	875	890	896	892	900	950	940	895	902	902	
18	905	895	892	895	895	898	916	910	892	882	890	885	880	880	885	885	878	902	902	910	915	912	907	910	897	897	
19	896	898	896	904	894	910	908	904	902	902	898	882	881	884	889	893	887	903	897	906	921	906	911	906	900	900	
20	909	903	899	896	921	919	919	911	903	889	891	889	886	888	893	899	896	901	909	906	909	889	891	895	901	901	
21	898	899	903	906	909	906	913	896	906	905	896	889	881	879	883	889	891	903	909	911	919	916	919	916	902	902	
22	916	916	918	919	921	923	925	929	925	913	903	889	886	892	898	912	918	918	922	930	914	916	916	928	914	914	
23*	924	910	904	906	912	916	920	924	918	908	902	895	898	900	905	910	915	918	920	920	922	922	922	922	913	913	
24*	920	918	918	917	918	922	925	930	926	916	902	895	899	903	904	906	911	915	919	923	923	927	931	929	917	917	
25	929	926	923	933	951	956	921	921	923	913	883	856	863	876	886	886	896	906	909	913	923	921	916	911	910	910	
26	909	917	909	921	909	911	913	916	916	899	891	891	891	887	885	889	899	911	915	913	921	926	919	921	907	907	
27	918	911	909	911	913	914	919	916	916	909	896	889	891	895	891	896	906	911	919	921	933	923	929	931	911	911	
28	921	919	919	921	921	921	925	921	909	893	886	884	889	903	915	921	926	931	936	925	927	931	931	931	917	917	
29	931	929	923	921	921	933	933	933	929	919	903	893	893	896	886	896	893	903	915	921	919	921	919	921	914	914	
30**	936	919	916	923	919	924	925	913	915	899	886	889	883	903	886	893	911	923	909	913	921	921	946	926	913	913	
31	919	909	896	899	909	911	887	891	915	906	893	893	894	862	882	904	907	907	915	914	922	927	924	917	904	904	
Mean	903	903	902	902	904	909	910	907	904	897	889	883	882	884	886	887	891	896	903	906	910	912	914	910	900	900	
Mean*	905	902	901	901	904	907	912	914	910	902	894	887	888	892	893	893	897	900	904	907	910	910	911	910	903	903	
Mean**	908	908	905	902	904	908	911	901	892	887	881	876	869	874	871	875	888	884	888	896	891	897	906	903	893	893	
<b>April.</b>																											
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	921	923	919	883	921	911	908	916	896	889	886	871	879	883	896	906	911	911	913	916	921	926	931	913	906	906	
2	913	914	916	916	919	918	919	915	913	901	891	888	888	881	895	909	909	915	918	916	926	913	913	913	909	909	
3	915	915	913	914	916	921	923	924	919	907	893	886	883	893	897	903	913	918	921	923	921	921	919	916	911	911	
4*	915	914	917	916	919	919	921	923	919	911	899	888	888	895	903	907	911	916	919	919	921	919	921	919	913	913	
5*	923	921	921	921	923	924	927	931	928	913	906	899	906	907	911	916	918	921	919	923	926	925	925	923	919	919	
6*	923	923	924	921	923	926	927	931	927	915	906	898	899	903	908	913	915	919	921	921	921	921	921	921	918	918	
7*	921	919	921	921	921	923	929	931	926	916	(896)	889	891	893	895	899	905	909	909	911	909	915	918	918	912	912	
8	919	917	910	918	917	923	922	915	909	899	892	890	899	894	882	891	894	904	917	894	917	919	916	919	909	909	
9**	974	934	912	909	924	926	902	884	892	884	882	882	884	888	880	899	894	924	926	917	916	919	922	926	908	908	
10	919	910	898	904	926	919	884	882	888	876	856	874	879	886	900	904	896	886	900	922	909	909	934	931	894	894	
11	904	910	906	904	918	912	904	908	904	890	882	882	892	887	897	901	905	909	917	920	923	920	910	920	905	905	
12**	925	905	897	900	903	900	907	897	895	893	883	883	853	877	885	905	893	917	905	930	927	900	897	911	899	899	
13	895	887	907	897	901	903	905	901	899	881	875	870	869	868	891	898	892	904	904	914	911	903	906	908	895	895	
14	911	914	904	898	904	906	906	902	898	888	860	846	847	857	867	883	880	897	905	899	917	901	913	927	892	892	
15	917	907	905	909	901	907	913	899	893	867	870	870	868	874	878	894	900	902	914	906	926	930	910	916	899	899	
16	906	899	906	906	904	908	914	916	910	901	888	881	879	885	891	912	914	919	915	914	914	913	921	907	905	905	
17	912	912	912	909	897	919	919	922	913	905	892	875	873	878	894	901	914	918	918	918	912	926	914	916	906	906	
18	923	912	908	909	909	914	916	914	908	896	884	876	879	887	897	909	919	919	921	921	921	919	922	921	909	909	
19*	923	924	920	917	920	921	923	919	911	897	895	893	893	896	903	913	916	923	928	922	920	921	923	924</			

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE—continued.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>May.</b>																											
1	930	926	926	926	930	928	925	920	912	907	905	904	902	905	919	927	932	932	932	932	932	932	930	934	929	923	
2*	927	926	924	926	929	929	927	922	917	912	907	902	901	911	915	920	925	928	928	929	929	929	929	929	928	922	
3**	933	933	930	930	930	931	930	925	920	916	916	914	914	914	914	917	922	924	932	934	929	926	926	926	924		
4	929	929	930	927	927	928	931	928	926	924	916	912	911	911	907	912	922	933	937	938	937	937	937	938	927		
5	947	937	935	935	937	939	933	931	932	922	917	913	915	913	917	920	927	945	947	938	935	928	932	955	931		
6	942	923	925	925	927	935	920	907	905	905	905	888	896	911	911	914	918	926	933	929	934	930	928	928	919		
7**	928	934	936	934	934	928	918	914	904	898	916	914	901	888	899	908	914	939	946	944	928	944	934	922	922		
8**	914	901	908	933	906	904	911	899	891	886	869	886	917	897	911	913	911	910	920	920	917	927	933	908	908		
9**	907	917	909	905	903	905	907	910	915	912	905	897	868	861	876	872	901	911	928	966	924	956	918	908	908		
10	911	899	911	904	894	898	906	886	864	896	909	898	887	889	899	895	897	913	931	935	911	917	932	947	906		
11	902	915	905	905	909	909	907	901	899	895	895	895	895	885	899	903	915	917	919	919	923	929	927	917	907		
12	917	914	917	917	917	919	919	919	911	899	897	900	901	901	905	918	925	925	925	924	928	930	936	935	916		
13	930	926	926	925	930	930	918	930	928	918	908	900	902	911	914	915	925	927	929	931	929	927	924	924	922		
14	927	933	937	929	932	937	934	925	927	914	909	894	894	901	909	917	919	917	926	932	929	937	936	929	922		
15*	934	929	926	922	925	927	924	923	927	905	897	891	896	902	912	920	922	922	928	934	934	933	933	937	921		
16**	932	927	928	932	936	937	934	926	918	912	906	908	902	908	928	940	925	910	944	958	942	915	932	948	927		
17	934	926	932	928	922	918	904	900	898	885	885	895	893	894	903	913	921	936	921	926	924	921	923	935	913		
18	919	919	919	918	919	919	913	909	899	889	895	899	903	907	911	914	913	926	931	931	923	925	919	925	914		
19	926	921	921	931	935	946	925	911	901	896	896	893	894	894	904	918	934	924	928	928	929	924	929	912	918		
20	930	920	914	918	922	924	920	916	909	908	902	897	898	900	910	922	920	920	937	937	945	930	934	936	919		
21**	932	932	944	950	952	937	922	927	914	904	895	894	892	895	900	890	910	914	914	927	927	916	922	930	918		
22	942	937	914	912	898	906	914	910	904	890	874	877	872	880	890	884	900	909	917	916	918	904	910	908	904		
23	905	904	904	900	902	897	865	872	884	882	884	870	862	869	879	896	907	906	912	911	912	907	909	913	894		
24	914	901	901	901	908	904	899	892	869	855	872	877	877	889	879	869	897	902	902	905	908	903	900	900	893		
25	901	896	893	899	901	901	892	882	890	882	880	860	875	885	888	903	891	913	923	915	903	903	905	895	895		
26	891	891	891	896	901	908	908	901	885	865	871	873	875	885	897	863	897	907	917	908	915	908	920	925	896		
27	895	907	897	890	887	905	907	903	885	883	877	878	886	883	906	908	908	911	914	916	924	926	916	916	901		
28	908	906	909	914	913	908	908	898	894	894	891	888	873	893	898	902	905	910	913	915	917	915	911	909	903		
29	910	910	910	913	915	920	915	907	897	890	883	875	876	886	894	906	914	924	928	924	919	918	916	916	907		
30*	916	913	909	909	911	919	913	899	888	883	879	880	884	886	891	904	908	914	918	916	916	914	911	911	904		
31*	912	914	914	916	918	918	918	910	901	884	874	873	879	882	893	906	908	914	919	919	918	914	913	911	905		
Mean	921	921	918	918	918	920	915	913	904	897	895	892	892	895	903	907	918	920	926	928	924	923	923	923	913		
Mean*	924	923	921	921	923	925	922	916	911	900	895	892	895	899	905	913	917	920	925	926	925	923	922	923	915		
Mean**	923	922	925	931	926	922	918	915	908	902	898	900	896	890	903	905	912	917	930	943	928	932	928	923	917		
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>June.</b>																											
1	911	911	911	914	918	919	919	916	914	911	898	894	888	886	891	908	912	918	926	928	931	934	934	933	914		
2	931	926	924	929	928	926	912	914	908	904	894	896	882	885	879	882	902	925	915	937	927	909	910	932	912		
3**	913	919	902	909	905	905	899	902	887	882	877	879	886	898	886	918	936	921	911	911	914	918	904	898	904		
4	901	902	910	914	914	912	906	894	896	878	866	868	877	884	895	899	909	920	927	922	935	932	920	924	904		
5**	909	917	921	915	913	922	902	882	872	862	865	885	880	895	906	908	928	946	938	950	928	926	924	922	910		
6	916	920	911	908	903	903	896	910	900	893	880	876	873	885	898	911	918	922	932	920	938	928	908	908	906		
7	908	910	911	910	898	903	906	896	890	890	888	888	886	888	900	906	914	918	920	916	916	920	914	926	909		
8	914	912	912	911	911	908	906	896	884	871	871	874	876	888	899	908	916	916	918	926	936	920	918	918	904		
9	928	930	922	916	924	918	912	901	884	876	879	883	885	880	885	899	909	917	919	919	915	915	912	912	906		
10*	917	919	915	912	912	913	911	900	892	879	877	883	887	892	907	912	917	919	917	917	917	923	917	913	907		
11*	917	915	909	911	915	917	912	905	892	882	880	882	891	903	915	913	920	920	924	926	925	924	920	921	910		
12	924	916	916	916	908	910	928	924	914	891	880	883	883	888	890	906	908	928	923	926	930	926	926	926	911		
13	916	910	911	913	923	920	911	898	893	886	878	881	884	891	904	911	917	917	921	919	919	914	914	934	908		
14	927	929	927	919	917	914	911	897	889	889	887	887	889	894	907	909	915	919	926	921	919	921	917	915	910		
15*	915	916	914	914	919	921	922	919	909	901	892	885	882	890	892	915	923	925	925	922	920	922	924	922	912		
16**	922	915	918	918	922	924	922	916	910	892	898	903	910	912	915	925	940	962	968	952	930	930	933	933	924		
17	945	920	930	910	910	912	913	912	902	895	892	888	893	883	899	919	909	915	933	936	936	934	931	946	915		
18	933	941	923	921	941	931	919	899	899	906	916	903	891	899	911	909	915	921	931	929	929	931	939	921	919		
19	923	923	925	927	929	936	929	921	906	896	886																

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE—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	Mean.	
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>July.</b>																											
1**	—	—	—	—	—	—	—	—	—	—	—	—	864	871	879	881	889	904	919	924	926	924	929	919	914	—	—
2	909	924	917	909	903	902	919	889	877	887	877	881	882	892	898	914	922	935	932	942	928	924	926	925	909	909	
3	915	913	902	920	918	910	894	896	882	884	876	868	871	889	901	905	913	919	931	923	925	925	923	919	920	905	
4	919	913	909	906	919	919	913	908	904	893	891	896	900	902	907	920	937	934	924	932	928	924	919	920	914	914	
5	919	919	915	922	924	920	916	922	916	914	914	914	904	904	900	920	917	920	937	937	930	932	922	927	919	919	
6	925	922	922	920	922	917	907	902	897	900	892	887	893	898	905	908	915	915	925	931	928	918	918	920	913	913	
7	919	923	925	925	925	918	905	896	895	903	905	905	896	894	886	902	926	916	930	926	926	926	928	926	914	914	
8	922	921	921	920	921	919	914	902	894	886	886	894	894	909	916	919	924	922	924	926	926	924	924	922	914	914	
9	926	924	922	924	926	928	922	914	904	896	892	894	907	910	913	905	930	923	923	925	925	927	927	923	917	917	
10	923	925	925	925	927	925	933	923	907	880	873	885	892	898	914	909	928	923	944	943	934	929	928	926	917	917	
11*	934	936	924	921	924	926	921	908	891	881	884	894	906	914	928	928	928	924	928	928	926	924	924	924	918	918	
12*	924	921	918	921	926	926	924	914	904	894	891	886	885	902	915	927	929	931	927	925	927	927	927	927	917	917	
13	927	927	927	925	929	927	922	917	912	907	899	897	898	916	928	938	930	936	928	935	936	933	930	930	923	923	
14	938	928	933	936	938	933	936	931	920	923	921	908	896	893	898	913	908	920	926	933	943	933	940	956	925	925	
15	928	932	928	930	930	928	926	895	872	875	868	876	887	897	904	919	919	919	921	923	923	924	927	939	912	912	
16**	924	923	924	924	921	923	921	911	887	889	884	899	908	898	880	913	917	930	932	940	925	925	930	922	915	915	
17	922	912	910	912	918	918	906	908	902	888	890	890	893	896	911	918	928	919	931	923	927	933	926	924	913	913	
18	936	933	923	919	917	913	921	909	893	881	889	886	893	906	906	921	924	914	935	943	933	931	921	926	916	916	
19	929	931	931	926	926	926	911	913	919	911	906	906	904	902	897	917	910	919	934	934	932	952	924	927	921	921	
20	922	922	917	924	930	930	917	912	909	900	887	897	901	901	911	925	927	931	938	935	935	931	923	918	918	918	
21*	921	923	918	918	918	927	918	915	908	903	905	915	915	918	923	928	930	923	919	926	927	928	928	926	920	920	
22*	928	927	923	921	925	915	917	917	911	895	888	895	902	909	921	926	927	919	922	926	926	926	926	926	917	917	
23	924	924	924	926	926	922	916	912	906	902	902	902	909	910	902	918	919	924	932	939	946	939	926	940	920	920	
24	944	929	919	922	931	931	924	904	907	904	909	909	913	927	912	925	925	927	933	935	927	927	923	917	922	922	
25	937	925	923	923	920	925	920	910	893	883	877	885	893	907	915	925	933	933	931	933	929	932	940	930	918	918	
26**	930	925	925	933	943	937	929	920	913	900	900	910	924	928	938	928	901	934	916	920	924	946	931	948	925	925	
27**	946	930	922	938	931	916	896	876	886	894	891	898	892	895	889	905	919	935	932	929	929	947	939	927	915	915	
28**	937	935	895	919	927	925	913	892	894	885	891	885	887	883	892	899	915	927	929	932	925	949	949	931	913	913	
29	891	907	899	907	902	909	885	905	907	899	895	895	906	906	908	910	928	942	958	920	920	924	946	925	912	912	
30	910	918	913	910	910	896	890	900	898	900	884	892	896	900	893	908	914	920	926	948	936	923	923	928	910	910	
31	910	920	923	910	908	908	918	904	905	900	893	906	907	906	907	909	911	917	926	929	929	932	934	923	914	914	
Mean	925	923	919	921	923	921	915	908	900	895	892	895	898	904	907	917	922	925	930	931	929	931	928	927	916	916	
Mean*	926	926	921	920	923	923	919	911	902	892	891	897	900	910	921	926	928	924	924	926	926	926	926	925	917	917	
Mean**	934	928	917	929	931	925	915	900	895	892	892	898	903	901	900	911	913	932	927	930	926	942	937	932	917	917	
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
<b>August.</b>																											
1	927	924	927	926	924	927	924	907	887	881	877	894	889	889	906	911	917	919	921	922	924	926	927	924	913	913	
2*	924	912	916	919	919	912	906	909	911	911	909	911	912	908	908	912	912	912	925	928	928	925	925	922	916	916	
3*	922	920	924	920	918	920	918	915	910	908	910	912	910	912	920	927	928	920	927	930	928	932	928	922	920	920	
4	918	918	918	922	928	932	930	910	915	913	912	918	918	912	912	914	917	922	930	928	923	923	922	920	916	916	
5	920	918	920	922	922	918	934	925	894	912	922	902	883	911	913	926	921	919	929	925	927	925	929	929	919	919	
6	921	911	913	923	913	919	911	906	896	893	891	893	895	898	903	913	919	921	928	929	921	926	924	913	912	912	
7	913	916	916	917	919	919	919	896	889	886	883	886	892	898	902	912	924	927	928	934	924	924	924	922	912	912	
8	922	922	924	922	924	927	922	910	899	896	892	894	897	910	924	922	924	930	930	928	930	937	934	917	917	917	
9	924	922	922	924	926	924	914	904	894	887	887	894	903	913	931	948	939	918	931	935	948	925	921	935	920	920	
10	926	925	931	920	925	935	928	910	887	863	871	878	890	893	893	903	913	915	928	935	921	911	913	925	910	910	
11**	928	923	921	923	925	925	921	918	911	875	891	885	888	895	878	898	911	913	898	908	915	916	913	938	909	909	
12**	921	925	901	905	883	898	908	908	881	878	871	875	885	891	898	898	905	918	921	923	928	948	938	918	906	906	
13**	915	925	938	927	899	915	913	901	881	858	865	867	898	910	894	899	912	914	914	919	929	919	924	939	907	907	
14**	922	916	919	899	929	906	904	876	894	882	884	874	884	899													

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE—continued.

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
<b>September.</b>																											
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	910	910	910	906	906	908	910	906	904	895	886	886	911	911	899	903	914	922	922	923	919	919	917	924	906		
2*	919	914	914	911	914	911	909	904	904	893	897	897	904	907	909	921	929	929	931	930	925	932	930	930	913		
3	933	937	929	925	919	922	921	918	906	901	901	901	900	900	912	917	923	927	933	930	927	933	925	917	919		
4	920	920	917	917	919	917	910	897	890	893	890	900	912	916	912	912	914	916	929	928	927	924	919	919	913		
5	920	917	919	921	923	923	917	907	897	895	887	889	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6	—	—	—	—	—	—	—	—	—	—	—	—	881	878	878	896	898	906	931	924	923	921	921	918	—		
7**	921	924	921	931	931	924	918	888	886	876	878	881	886	888	879	878	894	931	896	911	914	921	928	906	905		
8**	911	911	904	911	908	908	898	906	896	871	851	851	856	871	896	886	896	916	911	951	928	931	928	918	901		
9**	911	913	921	923	908	901	904	893	874	868	868	866	880	—	—	—	—	—	—	—	—	—	—	—	—		
10	—	—	—	—	—	—	—	—	—	—	—	—	—	890	898	894	898	893	904	932	930	904	908	906	—		
11	908	908	914	914	903	902	897	878	883	868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
12	—	—	—	—	—	—	—	—	—	—	—	—	888	886	884	900	913	921	916	926	916	922	914	916	—		
13	918	916	920	915	906	917	904	898	896	892	866	868	890	891	899	903	907	915	922	922	921	925	924	934	907		
14**	934	917	929	927	929	919	887	857	832	827	819	814	811	817	859	879	877	932	875	845	852	857	897	—	(874)		
15	—	—	—	—	—	—	—	—	—	—	—	—	867	862	865	—	—	—	—	—	—	—	—	—	—		
16	—	—	—	—	—	—	—	—	—	—	—	—	877	885	892	895	—	—	—	—	—	—	913	912	910	—	
17	908	906	907	914	913	913	912	911	905	892	879	867	879	889	907	908	909	912	907	901	903	899	910	904	902		
18	905	906	909	910	911	910	917	907	907	901	897	896	902	907	915	913	920	920	918	925	920	917	922	906	911		
19	908	911	918	916	910	920	926	923	908	897	894	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
20**	—	—	—	—	—	—	—	—	—	—	—	—	906	912	916	897	905	911	917	907	945	918	911	930	921	—	
21	927	931	909	908	916	909	908	899	884	871	872	871	879	871	897	904	904	910	917	919	912	913	909	917	902		
22*	909	907	907	906	908	908	907	902	892	886	884	879	888	901	902	903	905	916	918	917	919	919	919	917	905		
23*	914	917	918	917	916	915	914	909	901	891	885	887	886	900	903	907	910	914	908	907	910	914	918	918	907		
24*	922	913	911	913	915	912	912	906	905	896	886	888	894	898	900	908	910	911	918	917	915	918	918	923	909		
25	921	927	917	919	928	920	910	905	900	888	882	888	897	894	889	897	903	910	913	914	916	916	915	913	908		
26*	913	912	913	913	913	914	919	918	905	885	885	886	897	903	909	913	913	912	914	913	912	911	911	913	909		
27	923	918	930	934	933	924	928	925	913	903	896	899	898	897	901	901	905	905	911	941	913	909	920	928	906		
28	912	922	908	910	905	902	902	901	885	891	887	886	891	897	901	901	905	905	911	941	913	909	920	928	906		
29	911	914	910	909	906	912	918	915	910	905	903	893	888	883	897	902	906	910	914	918	913	908	911	913	907		
30	920	940	939	906	910	913	915	897	899	895	893	891	891	892	904	906	908	906	913	917	919	926	911	912	911		
Mean	916	917	916	915	914	913	910	902	894	886	882	882	888	892	899	903	907	915	915	920	915	915	918	917	906		
Mean*	915	912	912	911	913	911	912	907	901	892	887	887	895	901	904	910	912	915	918	917	915	918	918	920	909		
Mean**	922	917	918	923	923	917	901	884	871	858	849	849	851	859	878	881	889	926	894	902	898	903	918	912	893		
<b>October.</b>																											
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1*	909	910	916	912	914	910	909	911	906	900	894	896	898	898	897	897	906	911	912	910	921	916	912	913	907		
2	914	913	914	916	916	918	919	920	916	914	913	906	907	913	910	902	909	910	920	912	907	902	915	925	913		
3	921	907	910	911	924	913	912	899	907	907	899	891	898	902	911	908	912	906	904	935	916	931	918	910			
4	914	911	909	910	909	913	911	904	896	884	875	894	910	910	906	901	912	915	918	924	936	931	926	928	910		
5**	941	911	928	944	941	896	911	870	856	857	843	836	839	871	857	835	826	852	889	885	874	899	915	885	882		
6**	897	897	895	887	893	902	884	894	867	865	878	879	869	878	875	871	902	936	902	895	906	906	920	921	892		
7**	918	896	892	908	894	898	896	884	884	876	875	878	874	887	888	889	896	912	910	908	936	912	912	941	899		
8	918	912	904	900	908	908	907	890	890	881	874	864	857	859	889	898	901	909	909	917	927	964	911	909	900		
9	908	899	910	917	914	914	908	910	901	902	891	882	887	889	891	899	907	906	909	917	943	949	915	919	908		
10	909	902	909	913	911	917	921	917	914	909	905	901	898	894	896	897	893	895	919	910	918	925	910	913	908		
11	910	912	916	912	912	915	916	916	912	902	898	892	890	891	896	901	905	914	918	919	916	921	926	935	910		
12	921	919	918	924	923	931	931	921	909	894	881	877	874	882	887	884	885	897	909	916	920	921	920	919	907		
13	932	934	924	922	921	923	929	930	922	914	909	909	896	897	898	904	910	914	918	917	923	920	921	920	917		
14	917	917	918	918	921	927	924	923	921	908	892	872	875	880	884	905	902	904	913	914	923	923	921	917	909		
15	914	915	916	917	915	920	925	929	925	913	903	895	891	892	897	902	906	910	928	915	916	922	923	921	913		
16*	922	923	921	922	917	918	931	933	923	911	905	898	904	907	911	914	916	922	924	924	924	923	922	922	918		
17	920	921	921	925	923	924	923	925	922	909	884	861	884	893	888	884	892	906	910	909	917	921	922	914	908		
18*	915	916	916	916	922	936	932	924	916	902	896	901	907	911	912	916	914	921	919	922	922	921	921	918			
19*	921	919	921	922	923	923	924	926	922	914	909	912	919	921	920	922	920	922	926	921	922	925	925	925	921		
20**	919	918	929	939	939	935	938	927	917	912	904	905	907	912	914	906	886	886	888	914	919	920	918	938	917		
21	919	915	915	915	918	919	914	926	917	908	901	888	896	900	905	909	914	917	921	921	920	921	921	920	913		
22*	920	918	917	918	918	918	917	914	906	898	895	896	903	910	911	913	916	918	921	920	923	923	925	922	914		
23	920	920	921	921	921	924	925	922	914	906	895	891	900	90													

TABLE II.—HOURLY MEANS OF NORTH COMPONENT OF MAGNETIC FORCE—*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
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																									
<b>November.</b>																								<b>Mean.</b>	
1**	917	907	909	907	909	909	906	914	904	894	892	865	884	890	893	896	889	911	909	905	911	929	935	911	904
2**	924	916	903	916	914	917	913	912	910	897	881	897	889	891	901	885	903	909	913	922	927	919	919	961	910
3**	937	928	922	916	906	920	917	911	904	902	904	891	899	891	893	888	890	899	909	913	923	915	914	918	909
4	917	911	914	917	909	911	917	912	896	881	881	889	891	899	904	907	911	914	917	919	919	917	921	938	909
5	931	915	911	917	921	917	921	919	917	910	894	889	890	891	897	909	911	915	917	916	922	922	922	921	912
6*	920	918	918	—	—	—	—	—	—	—	905	897	900	906	908	910	914	918	917	919	920	921	920	920	—
7*	920	922	926	—	—	—	—	—	—	—	—	—	—	905	911	917	920	922	921	921	920	921	922	921	—
8	920	921	921	922	922	926	929	930	927	921	918	909	906	908	902	900	912	920	917	916	920	920	919	919	918
9	921	920	921	922	923	924	925	926	925	920	910	907	911	916	920	921	920	917	924	927	933	924	919	920	921
10	919	916	932	929	920	924	928	928	912	902	898	896	907	911	916	920	919	903	911	912	913	917	911	909	915
11	911	910	911	912	915	917	921	919	911	904	901	901	903	899	907	911	913	916	917	919	918	919	919	915	912
12	913	915	915	916	918	919	920	921	920	912	909	903	906	907	913	913	917	919	921	919	921	919	921	919	916
13*	919	916	915	919	917	919	923	924	921	911	906	903	909	912	914	914	919	921	924	923	921	920	919	917	917
14	917	917	918	919	920	920	919	913	908	903	905	909	913	916	921	928	929	931	929	928	927	925	923	919	919
15	922	921	920	922	922	926	929	928	919	911	903	901	901	904	903	895	910	922	926	930	927	927	925	924	918
16	922	920	922	924	924	925	926	926	922	916	907	908	914	916	918	926	929	928	927	927	929	926	924	922	922
17	923	923	928	924	924	926	930	932	927	914	912	904	905	908	912	913	914	916	917	921	922	920	920	919	918
18*	919	918	919	920	922	927	929	929	922	918	912	912	912	912	911	912	915	916	917	918	917	920	921	919	918
19	919	922	920	922	922	924	924	923	922	917	914	910	910	913	913	915	914	915	914	915	920	922	923	923	919
20	917	919	921	922	923	927	927	927	926	922	917	913	915	918	914	913	919	925	925	925	921	922	923	921	921
21	921	921	921	921	925	923	928	923	922	921	911	911	916	923	918	919	923	925	925	921	927	921	919	922	921
22	920	922	926	921	921	922	920	915	916	913	908	907	908	914	917	921	923	918	917	923	912	916	920	920	918
23	914	914	915	918	917	920	922	919	913	904	903	901	906	912	915	919	919	924	925	925	924	922	922	924	917
24	919	919	914	919	921	922	922	922	916	912	906	899	904	909	917	919	916	921	921	922	920	927	920	922	917
25	919	921	918	918	919	921	922	921	916	914	910	908	912	915	915	920	920	921	925	925	922	922	921	919	919
26*	919	918	924	924	923	925	925	924	922	919	919	921	922	924	925	924	925	926	927	927	926	925	924	924	923
27	922	921	921	924	923	925	926	925	924	921	917	915	913	918	924	926	930	932	932	924	895	913	911	912	921
28**	893	907	905	903	909	915	917	919	905	909	903	900	904	904	910	912	908	894	896	904	908	912	916	918	908
29**	910	921	909	908	924	930	914	902	914	906	894	876	866	862	885	904	908	914	898	932	926	911	916	918	906
30	924	918	912	904	908	916	916	918	914	913	910	899	889	885	892	905	909	909	926	911	912	931	917	915	911
Mean	919	918	917	918	919	921	922	921	917	910	905	901	904	906	909	912	914	917	919	921	919	921	921	921	916
Mean*	919	917	919	921	921	924	926	926	922	916	912	912	914	916	917	920	921	923	923	921	922	921	920	919	919
Mean**	916	916	910	910	912	918	913	912	907	902	895	886	888	888	896	897	900	905	905	915	915	918	922	925	907
17000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																									
<b>December.</b>																								<b>Mean.</b>	
1	912	915	915	916	918	919	919	921	922	919	917	897	895	895	894	893	890	894	895	896	916	922	923	917	909
2	915	919	932	917	919	916	912	917	920	918	914	909	901	905	901	907	911	916	919	919	919	917	916	916	915
3*	915	915	917	916	916	916	917	918	918	919	917	915	913	913	912	911	916	918	919	918	917	916	916	914	916
4	911	915	916	918	918	919	919	920	918	918	918	919	916	911	912	911	908	914	917	919	920	920	919	918	916
5**	917	917	918	920	927	938	955	947	939	934	920	916	917	919	919	918	923	923	917	919	917	918	917	927	924
6	931	926	928	915	907	916	923	914	918	915	911	909	911	902	904	904	895	916	921	920	922	934	920	915	916
7	911	919	919	917	914	919	919	922	917	913	913	911	910	912	911	912	919	922	923	923	922	921	920	918	917
8*	915	916	918	919	920	922	924	922	920	916	913	912	903	903	908	912	914	918	922	921	922	920	919	918	917
9	915	915	918	919	920	920	920	923	922	914	910	906	911	913	918	921	923	923	925	923	923	923	930	921	919
10**	917	921	924	925	931	930	926	922	923	922	919	916	914	920	922	906	914	915	926	928	932	922	919	915	922
11	916	914	912	917	924	921	930	931	930	924	918	912	918	923	926	925	927	928	928	928	929	924	921	931	924
12	915	917	920	915	918	921	923	924	923	919	905	917	913	905	911	915	914	914	919	905	905	913	916	915	915
13	915	915	917	921	923	925	921	923	923	922	915	910	914	914	919	921	923	926	925	924	922	921	922	922	921
14**	917	918	920	923	931	935	935	934	924	916	914	910	912	900	907	915	923	927	919	925	917	921	919	919	920
15**	915	916	918	923	929	925	925	921	919	913	905	900	905	907	906	905	904	906	908	917	913	914	915	915	914
16*	916	917	917	915	917	919	921	922	919	918	917	916	919	924	925	923	923	924	925	923	922	922	922	921	921
17	919	918	918	921	923	923	924	925	925	924	918	916	920	926	927	923	932	932	925	925	925	927	927	926	923
18	922	923	926	926	927	930	931	932	930	929	929	930	926	930	933	930	929	929	929	929	927	927	926	926	929
19	923	928	926	925	929	932	937	937	936	929	923	920	926	930	932	931	930	929	928	929	928	927	926	930	929
20	924	923	923	925	927	929	938	938	935	930	924	920	926	923	921	921	924	927	927	924	924	926	926	923	927
21	923	923	923	924	927	933	934	934	929	925	919	918	923	923	925	927	928	929	931	930	929	929	927	924	926
22*	926	925	927	928	931	933	933	936	932	923	914	914	920	928	932	931	932	930	92						

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.			
<b>January.</b> 43000 $\gamma$ + Tabular Quantities (in $\gamma$ )																													
1	199	199	197	199	199	199	199	197	197	197	199	199	197	199	204	206	206	206	206	204	204	204	201	199	201				
2	198	198	198	200	200	202	202	202	202	198	196	196	195	199	206	208	206	206	206	203	208	206	203	206	202				
3*	202	202	202	202	204	202	202	204	204	202	198	198	201	203	205	208	210	208	210	210	208	208	205	203	203				
4*	204	200	200	200	202	202	204	204	204	202	200	202	199	199	203	203	205	205	203	203	204	204	206	206	203				
5	204	202	200	197	198	201	201	201	198	198	196	198	199	204	204	204	206	206	208	208	207	207	207	203	202				
6	201	196	198	198	200	200	202	202	202	200	197	193	196	199	201	201	203	205	204	209	211	206	204	202	201				
7	197	192	184	172	174	178	187	193	196	193	191	191	190	197	199	201	203	203	202	202	202	200	200	200	194				
8**	197	195	197	195	195	195	194	193	194	194	194	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
9**	—	—	—	—	—	—	—	—	—	—	—	—	202	202	209	209	207	207	207	204	199	197	197	194	193	—			
10	187	181	181	178	181	182	185	186	186	186	191	191	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
11	—	—	—	—	—	—	—	—	—	—	—	—	196	208	211	213	213	211	211	208	207	207	207	207	207	—			
12	207	205	202	205	204	206	209	209	206	206	204	206	208	210	213	215	217	215	216	214	212	209	209	209	209				
13	206	203	206	206	206	208	207	207	207	205	207	212	209	211	216	216	216	213	212	212	210	210	210	208	209				
14	207	207	207	207	207	207	206	206	203	203	206	203	202	209	212	212	209	207	204	204	204	204	204	204	204				
15*	200	198	200	200	200	200	199	199	197	192	194	194	193	201	205	205	205	203	202	202	200	200	202	200	200				
16	199	196	196	194	196	196	198	195	193	190	185	185	189	197	201	202	204	209	207	212	206	208	211	208	199				
17	193	183	188	188	192	190	192	190	190	192	190	192	191	194	196	201	206	204	204	204	201	198	196	191	194				
18	186	189	191	191	191	196	196	196	194	194	191	191	190	195	197	200	200	200	203	205	208	205	203	200	196				
19	197	195	195	195	195	195	195	195	193	193	193	193	195	197	197	197	200	200	203	203	203	203	205	200	197				
20	197	193	195	195	195	195	197	195	193	188	185	188	190	195	197	197	208	203	200	200	200	197	195	195	196				
21*	193	193	193	193	195	195	197	197	195	193	193	188	188	195	197	197	195	197	197	197	197	197	195	195	195				
22*	193	193	190	193	193	193	190	190	190	190	188	185	185	185	197	195	193	193	190	193	193	193	193	193	191				
23	193	190	190	190	190	190	193	195	195	193	190	188	193	195	195	193	193	193	195	195	195	197	200	200	194				
24**	200	197	195	195	193	193	190	185	183	180	178	173	183	(203)	213	224	267	273	259	241	230	224	215	199	208				
25**	196	194	191	199	207	207	207	204	210	213	215	218	224	224	224	227	235	238	233	227	221	218	218	218	215				
26	210	204	199	199	207	210	213	213	213	213	215	218	218	224	—	—	—	—	—	—	—	—	221	218	213				
27	204	210	210	210	207	210	213	213	215	215	215	218	215	215	220	220	220	220	218	218	218	215	218	218	215				
28	215	213	213	213	213	215	215	215	215	218	215	215	215	215	220	218	218	218	215	215	215	215	215	213	215				
29	210	210	212	210	210	210	207	207	207	207	210	210	210	212	215	215	215	218	218	215	212	212	212	210	211				
30	210	210	212	210	210	212	212	210	210	207	204	207	210	212	212	212	212	212	215	212	212	210	210	212	211				
31**	210	212	215	212	212	210	210	207	201	201	201	204	204	218	240	250	250	253	243	237	232	226	226	221	221				
Mean	200	198	199	198	199	200	200	200	199	198	196	198	199	204	206	208	212	212	210	209	207	207	206	204	203				
Mean*	198	197	197	198	199	198	198	199	198	195	195	193	193	197	201	202	202	201	200	201	200	200	200	199	198				
Mean**	202	201	200	202	204	203	202	199	198	198	198	198	204	215	226	234	251	255	245	235	228	223	220	213	215				
<b>February.</b> 43000 $\gamma$ + Tabular Quantities (in $\gamma$ )																													
1	210	210	212	215	215	218	218	218	215	215	215	215	215	221	224	224	224	221	221	218	221	221	215	218	217				
2	218	218	218	218	215	218	218	215	212	215	218	221	221	224	226	226	226	226	229	221	218	221	218	218	218	220			
3**	215	215	215	215	215	218	218	215	212	212	212	210	215	218	215	224	232	234	243	252	237	232	224	218	222				
4	212	212	210	212	215	221	224	226	226	226	224	221	225	223	223	223	225	228	231	231	225	225	223	214	222				
5	212	215	215	215	215	217	217	215	215	217	217	217	216	219	222	225	222	219	219	219	219	219	222	216	218				
6	210	210	210	207	204	204	204	210	210	213	213	213	212	212	217	217	214	214	214	214	214	212	212	209	209				
7*	206	200	200	203	206	209	212	209	212	212	209	205	205	205	208	208	208	208	208	208	205	205	205	205	207				
8	204	201	201	198	201	201	204	201	204	204	201	201	200	203	206	214	214	211	211	209	209	209	200	195	204				
9**	197	197	192	195	192	195	195	195	192	195	195	200	202	213	224	216	219	222	213	210	210	208	205	205	204				
10	201	201	195	190	193	198	201	198	198	198	198	201	203	203	206	206	208	203	206	203	203	200	200	200	201				
11*	197	197	197	197	197	200	200	197	194	194	194	194	199	202	202	205	202	202	202	199	199	196	196	196	198				
12**	196	191	196	196	196	194	194	191	191	194	188	188	187	193	195	198	201	204	204	204	204	202	207	207	197				
13	204	198	193	190	193	195	195	193	193	193	190	193	192	194	197	200	200	200	200	203	203	200	200	200	197				
14	197	197	197	194	197	197	197	192	192	189	192	189	188	191	191	191	196	196	196	199	207	202	202	199	195				
15**	196	191	188	183	180	177	159	156	172	180	183	193	195	195	201	201	206	209	206	206	204	201	198	195	191				
16**	197	194	194	194	191	186	189	189	191	197	200	203	207	213	219	225	231	231	219	213	199	199	199	199	203				
17	193	193	190	193	196	196	199	196	193	193	193	193	198	201	201	203	215	209	209	209	212	212	209	209	201				
18	195	187	189	189	192	198	198	198	201	198	195	192	195	192	192	198	198	197	197	197	197	200	201	199	196				
19	193	188	191	190	187	187	187	180																					

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE—*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	
<b>March.</b>																										
43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
Mean.																										
1	169	166	164	166	161	161	163	163	163	160	157	154	153	157	175	191	207	200	201	180	181	170	158	148	170	
2	154	157	162	161	152	150	154	158	158	156	156	156	157	159	164	167	169	168	164	166	164	163	152	152	159	
3	146	140	148	151	152	155	155	153	153	147	141	138	137	145	149	154	154	159	166	168	163	160	144	158	152	
4	139	147	151	154	154	155	160	159	160	157	155	149	151	157	161	168	175	169	167	162	162	159	151	159	158	
5**	161	160	158	160	160	158	156	159	161	156	149	148	153	165	190	209	227	227	215	205	200	175	163	154	174	
6	167	161	164	166	167	165	165	165	164	165	164	162	160	165	171	174	181	177	172	172	171	169	168	166	168	
7*	164	164	162	162	162	164	165	167	164	158	152	160	174	174	166	169	169	168	168	168	168	166	166	166	165	
8*	164	163	161	163	164	164	164	167	170	167	161	156	159	162	167	174	177	174	171	169	168	166	166	166	166	
9*	178	161	160	160	158	161	162	179	179	159	150	147	148	153	156	163	169	169	167	167	164	163	161	162	162	
10**	161	159	158	156	156	156	151	154	146	140	138	144	148	157	161	172	179	176	181	186	183	177	172	160	161	
11	156	158	158	157	157	156	156	157	154	150	147	150	154	164	167	169	167	164	162	162	162	158	153	147	158	
12	151	155	156	158	156	156	156	157	156	154	153	148	151	153	161	172	185	193	179	170	167	164	155	145	160	
13**	148	135	125	135	146	134	134	140	141	149	149	143	150	160	194	202	190	191	193	186	180	174	154	146	159	
14**	149	146	146	147	156	162	168	166	166	150	144	145	154	170	173	196	213	206	203	191	165	167	166	166	166	
15	165	156	159	168	168	166	164	164	163	160	160	164	164	165	167	171	174	173	173	172	171	168	169	168	166	
16	168	168	168	170	170	170	172	173	172	166	166	164	163	168	170	173	174	175	174	172	169	169	168	169	170	
17	169	169	168	169	169	171	173	173	171	167	163	(191)	195	193	198	204	211	216	219	221	216	201	183	180	187	
18	174	183	187	190	189	196	192	192	195	192	189	186	187	192	195	204	214	219	211	207	204	202	198	195	196	
19	192	192	192	190	189	183	183	186	186	184	179	184	187	195	199	207	210	210	213	217	204	207	210	199	195	
20	190	195	198	195	184	186	186	190	192	192	183	189	189	192	195	201	207	208	210	210	208	204	207	205	197	
21	204	201	201	198	197	197	197	197	198	198	186	187	184	187	193	201	204	204	202	202	201	199	198	196	197	
22	196	193	190	192	190	190	193	195	193	190	184	174	175	181	186	190	196	199	202	202	201	199	198	198	191	
23*	190	190	193	193	195	196	198	201	199	193	186	178	184	183	190	193	196	198	196	196	196	196	195	195	193	
24*	195	193	193	193	193	193	195	196	193	189	184	181	181	181	186	195	199	199	199	198	196	196	195	195	192	
25	193	193	192	184	181	183	187	181	184	181	178	178	184	189	193	199	202	204	205	204	204	199	198	196	191	
26	197	192	192	192	191	191	188	185	189	189	188	187	183	184	189	193	200	202	200	200	199	199	195	195	192	
27	195	195	195	196	198	199	200	200	199	198	193	184	184	186	195	200	203	203	200	200	198	198	198	195	196	
28	193	193	195	193	195	196	196	196	195	192	186	183	178	177	183	189	192	195	193	193	195	195	195	193	191	
29	192	190	190	190	189	190	192	192	189	186	174	169	172	186	198	203	205	202	198	198	196	195	195	193	191	
30**	187	184	186	189	192	195	196	196	192	189	183	178	172	181	193	210	230	227	210	201	201	200	187	175	194	
31	169	163	168	181	191	196	193	190	193	188	187	185	190	190	203	204	209	209	207	204	201	199	196	194	192	
Mean	173	172	172	173	174	174	175	176	175	171	167	167	168	173	179	187	193	193	191	189	186	182	178	175	178	
Mean*	178	174	174	174	174	176	177	182	181	173	167	164	169	171	172	178	182	182	180	180	178	177	177	177	176	
Mean**	161	157	155	157	162	161	161	163	158	156	152	153	155	167	182	198	208	206	200	194	186	178	169	160	171	
<b>April.</b>																										
43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
Mean.																										
1	190	184	181	181	175	179	189	190	195	195	192	185	186	186	192	201	207	201	197	196	196	196	185	184	190	
2	187	189	190	189	187	189	192	190	186	184	178	175	174	179	183	191	193	199	199	200	194	188	185	185	187	
3	184	184	183	185	185	185	187	186	184	179	177	174	176	172	175	181	187	189	186	186	185	181	178	177	182	
4*	176	176	173	175	175	175	176	174	170	166	160	153	150	153	158	160	167	169	168	167	164	164	163	162	166	
5*	159	159	158	160	160	160	161	159	157	149	145	136	132	137	146	152	154	157	155	155	152	151	148	148	152	
6*	147	146	145	146	148	148	148	144	141	137	132	128	131	136	141	147	145	143	141	139	140	140	137	137	141	
7*	136	136	134	135	137	137	137	139	136	134	—	—	—	—	—	—	—	—	136	137	137	134	134	131	—	
8	128	128	128	126	125	123	122	121	121	119	111	108	108	110	118	130	134	142	141	144	145	136	136	137	127	
9**	123	93	103	103	87	83	82	88	90	90	97	108	115	119	123	138	141	150	143	133	130	123	125	128	113	
10	117	123	127	119	123	132	135	141	141	145	146	145	149	151	156	165	175	182	182	175	168	161	156	148	148	
11	146	146	150	151	148	150	155	153	151	145	140	131	133	139	148	152	155	157	157	155	155	154	151	145	149	
12**	117	116	116	143	147	147	146	146	143	138	137	136	142	150	154	162	168	174	171	168	162	159	157	147	148	
13	142	141	136	147	154	157	159	161	156	150	145	145	148	157	162	166	172	182	177	175	172	166	166	155	158	
14	151	148	149	157	158	160	162	165	163	158	154	152	152	155	164	170	176	176	178	180	180	175	169	161	163	
15	156	157	162	164	165	167	171	173	171	165	162	160	154	160	168	175	178	182	185	185	178	171	169	166	169	
16	163	165	168	168	168	168	169	172	166	160	154	152	148	152	160	165	169	176	176	175	176	173	170	167	166	
17	163	159	159	160	159	157	160	158	160	160	157	156	156	161	167	172	175	178	179	189	182	173	173	172	166	
18	165	165	166	168	173	174	176	174	171	165	160	152	149	160	169	174	180	188	191	188	184	183	181	175	172	
19*	172	171	167	171	174	178	178	178	172	166	161	161	164	170	173	176	179	182	182	181	179	179	179	176	174	
20	177	173	171	171	177	180	180	179	176	173	165	161	161	164	170	172	175	178	178	184	191	186	186	181	175	
21	179	176	173	171	171	171	175	175	173	164	159	158	157	166	174	182	193	208	223	224	215	212	200	186	183	

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>
<b>May.</b>																									
43000 γ + Tabular Quantities (in γ).																									
<b>Mean.</b>																									
1	225	223	225	226	231	233	233	230	224	217	217	214	210	215	224	231	235	237	235	235	231	233	231	228	227
2*	228	228	230	230	230	237	237	232	229	227	221	217	215	224	229	234	236	238	235	231	230	230	227	227	229
3**	226	226	224	226	229	233	231	227	225	216	216	211	208	211	219	227	229	231	234	231	229	227	226	226	224
4	224	223	223	225	230	230	225	223	217	209	204	201	200	206	214	227	232	230	230	229	224	224	224	223	221
5	218	215	218	221	225	223	220	219	217	217	211	207	208	216	219	222	224	229	234	232	236	232	229	214	221
6	210	213	215	218	221	221	218	217	215	205	199	194	198	209	217	219	224	224	226	228	226	228	226	221	216
7**	218	214	212	209	202	199	198	201	203	200	201	201	200	210	220	233	230	230	233	239	225	225	203	206	212
8**	179	167	168	180	184	186	200	206	205	198	195	205	209	209	217	220	228	240	246	240	229	222	204	210	206
9**	201	193	196	206	211	218	215	213	211	202	192	187	194	209	220	227	233	243	240	235	219	209	195	201	212
10	206	208	198	203	199	208	207	205	200	199	196	196	201	206	219	224	221	227	237	237	229	221	195	194	210
11	190	192	197	200	204	214	217	215	212	202	196	193	196	204	216	219	221	221	221	223	220	213	210	208	209
12	210	210	205	210	212	212	214	214	209	201	196	188	190	195	205	211	216	220	218	218	216	213	211	208	209
13	204	207	205	204	204	204	205	207	209	204	194	191	191	196	204	206	213	216	216	216	212	210	208	207	206
14	205	205	202	205	204	204	204	204	202	197	194	188	190	196	200	206	210	213	215	216	213	210	205	203	204
15*	197	195	197	199	204	205	205	204	202	192	189	176	180	186	194	204	209	211	208	206	204	203	201	196	199
16**	189	193	195	197	200	200	203	203	197	189	177	174	176	181	192	202	212	215	225	236	214	206	196	176	198
17	173	173	173	176	183	192	196	196	194	188	188	189	187	191	200	205	208	213	214	218	211	208	205	198	195
18	195	197	197	199	200	202	204	202	200	187	176	168	170	183	196	203	203	208	208	209	204	203	201	193	196
19	190	190	192	192	195	188	190	188	188	185	182	179	181	187	197	201	204	204	204	201	201	199	194	194	193
20	186	183	186	190	191	191	196	191	190	186	180	181	187	195	199	202	202	202	199	195	195	194	192	190	191
21**	188	181	180	175	176	176	176	176	173	165	162	162	166	174	190	200	210	220	221	215	203	197	193	187	187
22	176	174	176	182	186	191	192	191	189	186	186	187	191	195	195	204	211	209	211	209	208	204	201	195	194
23	195	195	195	196	198	201	200	191	188	181	181	181	190	197	203	207	205	205	208	207	203	199	194	190	196
24	176	171	176	179	186	188	186	176	173	167	163	157	166	175	195	201	206	205	200	195	192	188	180	183	183
25	174	173	173	174	174	177	171	165	155	136	130	136	144	154	164	167	172	173	173	167	157	151	148	144	161
26	146	146	148	148	146	144	141	135	132	128	129	120	125	131	140	147	151	150	150	140	139	134	127	120	138
27	121	112	112	118	113	116	124	126	121	113	107	109	111	118	126	129	129	129	128	126	125	123	117	117	120
28	114	113	114	116	117	119	119	120	114	110	101	90	98	109	116	118	127	127	127	126	124	121	118	115	116
29	116	116	118	116	118	121	123	124	121	113	103	106	103	108	117	123	126	129	126	123	120	118	118	117	119
30*	115	115	115	120	123	123	128	123	120	114	111	108	113	122	124	128	130	131	133	128	125	122	122	121	121
31*	122	122	122	124	127	128	125	124	124	122	116	108	106	118	124	130	133	133	133	130	127	127	126	124	124
Mean	184	184	183	186	188	190	190	189	186	179	175	175	177	181	187	196	200	203	204	201	197	190	188	185	188
Mean*	178	177	178	180	183	185	185	182	180	174	171	164	164	172	178	185	187	189	189	185	183	182	180	179	180
Mean**	195	190	190	193	195	196	198	200	199	191	185	186	189	197	207	216	223	230	233	233	220	209	200	194	203
<b>June.</b>																									
43000 γ + Tabular Quantities (in γ).																									
<b>Mean.</b>																									
1	124	124	126	127	132	133	135	135	133	130	121	112	111	112	112	120	122	128	131	131	126	126	125	123	126
2	125	125	128	126	129	131	123	131	129	126	117	114	119	127	128	131	147	154	163	158	152	146	134	124	133
3**	118	100	114	121	118	120	127	126	124	124	121	120	131	137	147	158	155	152	152	148	140	134	132	131	131
4	132	132	132	126	129	131	131	131	129	131	129	130	131	135	141	141	144	146	146	144	141	139	133	135	135
5**	133	127	124	125	131	130	128	128	125	125	125	122	132	138	143	143	153	162	162	161	146	150	137	137	137
6	125	120	129	133	139	139	137	136	133	129	129	129	135	138	149	159	167	174	174	164	160	151	152	151	144
7	140	140	144	148	152	152	154	154	151	149	149	148	153	159	163	161	163	164	166	164	163	161	163	161	155
8	158	159	159	163	164	166	166	166	163	159	159	155	157	163	168	175	177	175	172	173	168	168	168	163	165
9	153	153	156	162	166	167	167	169	166	161	154	153	153	163	173	181	183	184	183	176	176	175	175	168	168
10*	173	170	170	173	178	176	178	176	175	170	163	160	164	170	175	175	178	184	184	182	179	177	173	173	174
11*	173	172	175	179	180	179	177	176	171	168	166	161	164	170	177	179	182	186	182	181	181	178	174	172	175
12	170	170	171	176	179	175	168	168	167	161	163	164	166	168	170	170	177	181	183	183	180	169	168	168	171
13	163	167	170	172	169	166	171	172	168	157	152	153	156	160	174	179	182	180	190	189	179	177	176	163	170
14	161	161	161	161	167	161	161	163	161	155	150	150	154	159	165	171	172	173	173	172	169	169	168	169	164
15*	166	166	168	171	170	172	170	169	165	165	164	159	149	153	163	170	169	171	174	176	170	170	166	166	167
16**	165	167	167	169	173	173	173	169	158	151	144	146	142	147	155	161	163	160	168	180	189	179	172	164	164
17	159	134	129	149	158	162	170	170	161	154	152	152	147	153	158	171	182	191	186	177	174	173	168	154	162
18	149	150	153	146	147	151	152	159	158	151	146	147	150	159	162	160	169	176	178	180	174	170	160	155	158
19	157	160	156	159	161	159	162	161	158	150	143	146	152	160	170	173	173	171	169	167	163	162	162	161	161
20	161	161	159	159	161	163	163	163	155	157	142	140	143	148	158	168	168	169	165	163	163	161	159	157	159
21	154	151	151	155	153	158	155	150																	

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
<b>July.</b> 43000 γ + Tabular Quantities (in γ).																											
1**	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—	—	—	—	—	178	180	187	189	193	200	202	207	205	201	199	197	195	—
6	191	190	191	194	196	196	191	186	183	182	183	183	183	183	191	202	205	205	200	198	198	196	191	190	190	192	
7	189	184	183	186	188	190	189	189	185	178	176	176	183	196	201	194	196	200	199	197	195	191	188	186	189	—	
8*	184	185	185	187	187	186	185	183	178	177	176	175	178	183	185	188	190	189	190	189	187	187	187	187	186	184	
9	185	183	184	186	187	187	185	184	178	174	166	158	160	172	183	183	190	187	189	191	188	184	183	181	181	—	
10	181	179	178	182	185	187	187	185	183	170	163	156	159	165	172	179	186	185	187	186	183	179	177	176	178	—	
11*	174	170	170	173	178	181	182	183	178	174	164	156	160	165	173	178	181	182	185	184	183	181	179	177	175	—	
12*	175	174	174	177	182	182	178	181	177	173	166	160	164	167	170	174	181	183	182	176	174	173	172	172	174	—	
13	171	171	171	173	176	179	179	178	175	173	168	162	162	168	175	183	185	185	184	183	178	176	175	174	175	—	
14	172	173	174	175	177	175	172	172	172	175	167	166	171	171	172	178	185	192	194	190	187	183	178	166	177	—	
15	160	158	155	148	142	162	173	175	176	171	168	176	175	178	181	178	181	185	184	183	183	181	178	173	172	—	
16**	170	172	173	174	172	177	177	175	168	164	162	166	162	166	177	183	202	202	205	204	194	186	181	162	178	—	
17	165	168	170	169	173	181	181	178	175	172	170	166	168	172	176	182	185	190	194	188	186	183	182	175	177	—	
18	172	165	166	171	175	178	181	178	174	172	167	156	156	164	173	182	183	183	182	184	182	179	178	177	174	—	
19	174	170	168	172	176	176	176	176	174	170	168	167	164	174	188	194	196	195	191	183	182	176	172	170	177	—	
20	168	168	164	168	173	171	172	168	164	164	158	152	152	158	164	174	176	173	172	175	175	172	171	169	168	—	
21*	168	166	166	168	172	172	171	172	168	168	166	164	165	169	176	177	179	178	175	174	174	171	172	172	171	—	
22*	169	168	167	170	172	174	175	176	175	168	163	158	158	161	170	176	178	177	174	173	172	172	171	172	170	—	
23	172	172	173	174	174	174	172	173	170	165	160	156	154	162	171	176	181	178	176	176	174	176	177	171	171	—	
24	154	158	165	170	173	175	173	174	170	165	162	162	164	167	170	178	183	185	179	174	172	172	171	170	170	—	
25	167	162	164	168	171	170	170	168	167	162	162	154	156	156	163	173	175	175	170	166	165	165	163	162	166	—	
26**	161	162	162	158	158	161	159	160	155	148	150	148	148	148	162	173	189	204	213	201	188	177	176	158	167	—	
27**	152	156	158	152	158	161	162	156	149	145	145	148	153	160	164	179	185	187	181	181	170	165	150	151	161	—	
28**	146	134	122	136	154	158	156	158	154	153	152	150	150	148	154	164	171	172	176	177	172	162	146	134	154	—	
29	127	132	141	149	154	158	160	162	158	156	151	146	146	144	152	158	163	171	185	174	166	162	154	148	155	—	
30	146	149	152	152	151	151	146	153	152	149	148	148	141	146	148	152	154	158	162	158	154	142	140	140	150	—	
31	140	136	136	140	144	145	149	150	150	147	146	143	142	144	150	154	154	156	154	152	148	148	144	143	146	—	
Mean	167	166	166	168	171	173	173	173	170	166	162	160	161	161	172	177	178	184	184	182	178	175	171	168	171	—	
Mean*	174	173	172	175	178	179	178	179	175	172	167	163	165	169	175	179	182	182	181	179	178	177	176	176	175	—	
Mean**	157	156	154	155	161	164	164	162	157	153	152	153	153	156	164	175	185	191	194	191	181	173	163	151	165	—	
<b>August.</b> 43000 γ + Tabular Quantities (in γ).																											
1	182	181	180	180	182	182	183	182	180	174	177	177	173	175	186	196	201	201	201	200	201	199	191	188	186	—	
2*	188	185	185	188	190	192	192	188	182	179	177	175	178	186	192	196	196	200	201	196	194	194	192	182	188	—	
3*	190	187	186	185	183	186	187	190	183	182	181	183	183	192	196	196	192	191	190	188	188	187	186	187	—		
4	187	187	187	187	190	190	190	190	186	179	174	169	165	173	183	192	192	191	196	200	198	195	194	192	187	—	
5	190	190	189	190	192	192	189	188	185	183	179	175	181	188	196	—	—	—	—	—	—	196	195	188	—	—	
6	186	186	186	185	190	188	188	186	186	181	177	175	179	183	188	192	200	201	201	—	—	199	194	192	—	—	
7	192	192	193	194	194	194	195	199	—	196	188	185	187	194	203	—	—	—	—	—	—	—	—	—	—	—	
8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9	173	175	179	179	182	185	182	175	169	162	159	155	165	169	172	182	175	179	182	181	182	179	175	165	174	—	
10	146	146	149	152	151	152	159	162	165	159	157	160	165	172	179	181	183	185	185	187	179	179	173	170	167	—	
11**	165	163	163	163	172	172	175	172	165	165	165	165	172	179	194	216	234	241	229	209	185	175	170	160	182	—	
12**	146	149	159	165	163	152	160	163	163	162	159	162	159	167	173	179	185	195	187	185	179	170	163	162	167	—	
13**	159	139	142	146	150	157	163	165	162	159	162	162	169	175	183	182	185	185	177	172	172	169	157	165	—		
14**	157	159	157	146	155	162	166	165	162	157	155	160	165	173	183	179	182	182	183	182	179	182	169	165	168	—	
15	165	165	166	169	166	166	172	170	165	162	155	151	155	162	185	185	185	185	182	175	172	170	169	166	169	—	
16	169	166	165	165	169	170	172	169	165	162	159	154	158	161	168	169	171	171	171	172	169	171	164	161	166	—	
17*	164	162	161	161	166	168	168	164	166	164	158	161	161	163	167	170	168	168	171	171	170	166	164	167	—		
18*	164	167	165	163	170	173	173	168	161	158	160	160	159	166	169	169	169	167	163	166	163	166	163	162	165	—	
19	162	159	159	160	164	163	162	159	159	156	152	156	151	149	159	162	172	176	176	172	170	169	167	166	163	—	
20	163	162	159	162	160	162	163	160	160	166	166	157	161	168	175	181	185	183	178	175	173	171	171	165	168	—	
21	161	161	165	165	165	165	162																				

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	Mean.	
<b>September.</b> 43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	170	170	170	170	173	175	175	171	166	160	154	156	163	166	170	173	176	181	180	173	168	171	170	166	166	169	
2*	167	166	164	175	167	171	171	167	157	154	154	157	162	168	178	182	185	180	182	178	178	177	178	175	171	166	
3	173	159	159	163	166	166	168	169	164	160	153	149	152	160	169	175	177	174	172	170	170	170	169	169	166	166	
4	168	168	168	168	170	171	173	171	168	159	155	156	162	169	176	176	176	176	172	172	171	169	166	166	166	169	
5	164	167	167	168	167	172	173	172	167	160	157	153	159	161	165	171	174	178	174	171	168	168	168	165	167	167	
6	165	162	165	168	168	171	171	168	161	148	146	148	155	163	169	179	185	182	177	172	169	169	166	163	166	166	
7**	161	161	163	161	166	167	167	166	163	161	161	151	156	167	177	187	201	211	197	187	179	167	161	164	171	171	
8**	166	165	168	163	165	168	169	166	162	150	152	155	163	176	188	189	191	193	184	179	163	156	153	151	168	168	
9**	157	144	146	154	157	162	167	165	164	160	155	157	161	169	175	181	179	179	185	179	175	168	161	158	165	165	
10	152	153	152	155	155	156	160	165	165	161	158	156	162	169	179	189	189	189	184	177	166	167	166	166	166	166	
11	167	167	162	160	168	170	173	173	168	160	158	160	164	171	174	175	174	171	171	169	168	168	171	166	168	168	
12	167	167	167	169	165	167	169	170	165	164	160	154	153	166	173	180	181	184	181	177	176	173	171	170	170	170	
13	171	171	171	171	169	167	167	171	166	159	156	158	163	173	182	178	176	175	175	175	175	173	172	168	170	170	
14**	159	157	149	146	139	141	149	152	162	167	175	185	198	213	239	265	261	263	227	227	228	169	163	147	187	187	
15	153	153	163	173	179	184	186	183	179	177	174	174	175	177	180	190	192	194	197	192	192	185	174	169	179	179	
16	166	175	178	176	176	181	182	185	182	181	178	168	169	172	176	179	179	182	182	182	182	180	180	180	178	178	
17	179	177	177	177	176	176	176	179	176	174	172	167	167	173	178	180	180	183	188	193	188	188	187	183	179	179	
18	180	179	179	179	176	177	177	176	176	166	163	166	168	173	176	178	178	176	176	178	176	175	176	178	175	175	
19	177	177	175	174	174	175	170	169	170	172	174	164	169	171	173	174	177	176	177	177	176	176	179	176	174	174	
20**	177	176	176	169	173	173	173	173	169	166	168	164	160	163	167	170	173	179	179	183	186	178	175	172	173	173	
21	159	154	162	167	165	168	168	172	170	168	170	165	166	174	184	182	182	181	178	174	174	172	172	169	171	171	
22*	171	169	171	171	174	175	175	177	174	169	161	156	157	160	163	170	173	174	173	170	170	170	170	166	169	169	
23*	166	168	168	170	170	170	166	165	158	153	153	153	151	152	159	167	169	170	172	173	170	172	169	165	165	165	
24*	160	160	162	162	162	164	164	160	159	159	156	158	164	166	168	168	168	166	168	166	168	164	161	159	163	163	
25	155	151	153	153	155	155	158	159	156	150	148	142	148	152	157	160	160	163	160	160	160	155	154	152	155	155	
26*	150	152	152	154	154	154	152	150	150	144	142	133	133	140	146	153	157	157	156	154	153	151	154	151	150	150	
27	148	145	142	144	145	147	148	150	148	147	136	134	135	138	143	149	152	157	160	160	147	149	151	135	146	146	
28	125	107	125	135	138	139	144	146	141	138	141	138	137	138	145	150	150	151	153	151	146	146	143	137	140	140	
29	137	134	137	137	140	142	143	146	146	143	140	138	136	134	139	139	141	142	144	141	142	144	141	139	140	140	
30	139	122	114	123	129	133	136	139	137	136	129	128	125	128	132	135	136	138	138	136	136	135	133	135	132	132	
Mean	162	159	160	162	163	164	166	166	163	159	157	155	158	163	170	172	173	171	172	173	170	167	165	162	165	165	
Mean*	163	163	163	166	165	166	166	165	161	157	154	151	152	157	162	168	170	170	170	169	167	166	166	163	164	164	
Mean**	164	161	160	159	160	162	165	164	164	161	162	162	168	178	189	198	201	205	194	191	186	168	163	158	173	173	
<b>October.</b> 43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1*	135	131	130	130	128	131	130	131	130	127	125	122	123	128	132	137	136	137	139	139	137	136	137	134	132	132	
2	135	133	133	133	133	135	133	135	132	127	123	120	119	128	134	138	141	141	144	144	145	144	139	126	134	134	
3	123	129	132	132	132	133	133	136	133	130	127	129	128	130	136	139	146	149	152	150	144	134	124	116	134	134	
4	125	132	135	138	138	142	143	142	138	134	132	129	130	133	139	146	149	146	148	146	143	141	139	130	138	138	
5**	125	131	120	108	108	110	110	116	128	128	131	142	162	162	191	232	246	232	201	162	162	152	130	135	151	151	
6**	144	138	130	136	140	143	150	153	153	150	150	148	154	162	170	148	184	175	164	161	157	154	148	129	152	152	
7**	130	133	136	139	142	142	141	145	149	149	145	144	156	163	161	167	169	156	156	151	146	145	140	149	149	149	
8	132	137	138	135	137	140	143	144	146	140	135	138	148	161	158	163	161	158	155	157	141	136	135	145	145	145	
9	134	134	137	143	146	148	151	146	143	140	132	138	144	149	154	160	162	160	160	154	144	141	141	141	146	146	
10	142	142	147	147	150	151	155	155	156	153	150	142	140	146	149	157	169	169	167	162	163	157	157	155	153	153	
11	155	155	153	153	156	158	161	163	161	158	153	151	151	155	159	162	165	165	164	165	162	160	159	159	158	158	
12	153	155	156	156	156	160	160	163	161	160	158	160	161	161	166	172	177	177	177	166	172	170	169	167	164	164	
13	163	152	157	158	162	163	165	165	162	155	149	153	158	164	172	174	176	176	176	176	172	172	169	165	165	165	
14	168	166	166	168	169	171	172	176	172	169	166	166	170	173	180	186	183	184	182	182	180	178	176	175	174	174	
15	175	173	172	170	172	172	172	173	173	169	168	163	159	164	168	175	178	178	180	177	179	177	177	175	172	172	
16*	173	171	170	170	170	168	169	169	170	167	161	159	160	161	164	171	174	173	175	176	173	172	172	170	169	169	
17	170	169	169	166	166	169	170	173	170	167	162	162	164	166	169	174	182	189	183	183	179	176	175	175	172	172	
18*	171	170	168	170	167	164	167	169	170	167	164	161	158	161	164	166	171	172	172	172	170	169	171	168	168	168	
19*	169	167	167	165	165	166	166	170	172	165	162	154	155	161	161	169	171	170	168								

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

	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon.	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
<b>November.</b>																											
43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
																									Mean.		
1**	164	167	171	172	174	171	174	176	177	179	180	177	185	187	197	194	194	191	191	189	187	180	174	171	180		
2**	167	164	165	165	167	171	172	176	177	177	176	176	179	185	192	197	194	192	189	184	180	177	177	172	178		
3**	155	159	159	157	160	165	174	174	172	171	169	174	187	201	204	197	194	191	189	187	184	184	180	178			
4	182	177	171	176	177	177	180	177	179	174	174	179	184	184	185	187	187	184	182	180	182	182	179	180			
5	171	171	174	174	176	174	177	180	177	171	167	167	174	179	184	187	187	185	185	184	184	184	182	178			
6*	179	179	180	180	180	184	184	185	187	180	176	171	177	184	187	187	187	187	187	184	182	184	182	182			
7*	180	179	177	177	180	180	180	182	182	179	171	174	174	180	184	184	185	187	184	184	184	180	180	182			
8	177	180	180	177	180	182	184	184	180	179	176	174	174	180	184	191	191	191	191	191	187	187	185	184			
9	184	180	180	180	180	184	187	187	184	179	177	176	177	182	185	189	191	191	191	189	187	185	184	187			
10	185	184	179	177	179	184	187	191	187	184	184	182	187	189	191	191	194	208	211	199	201	197	195	190			
11	191	191	191	189	191	194	194	197	194	191	189	191	194	199	201	201	201	197	197	197	197	199	195	194			
12	193	193	191	193	193	193	193	191	193	190	188	190	190	190	193	197	199	199	199	199	199	199	199	197			
13*	191	191	191	189	191	194	194	194	191	191	191	191	190	193	197	197	200	198	198	198	197	198	197	194			
14	196	192	189	189	192	194	192	197	196	192	192	194	191	195	195	195	195	193	195	195	193	191	191	193			
15	191	188	188	188	188	191	191	191	191	189	188	188	190	194	195	194	197	194	190	187	187	188	187	190			
16	187	187	185	184	184	185	187	187	187	187	184	182	183	186	189	186	186	186	186	186	186	183	183	183			
17	182	180	178	178	178	180	182	182	182	178	176	175	177	181	184	184	181	185	184	184	184	182	181	181			
18*	181	181	177	177	177	177	177	177	179	174	172	170	174	178	183	181	181	180	180	180	180	180	178	176			
19	178	174	176	176	176	176	174	173	171	169	169	173	179	182	182	182	182	182	182	182	182	180	180	179			
20	176	176	176	176	174	174	176	174	171	171	167	170	173	177	177	178	180	178	177	177	177	175	173	175			
21	172	172	172	172	172	172	174	176	174	170	165	169	171	173	175	175	178	178	176	176	178	176	175	175			
22	169	168	169	171	173	175	175	176	173	171	169	166	167	174	175	177	177	178	180	182	184	182	180	177			
23	177	175	177	175	178	178	180	180	178	177	177	177	179	183	183	183	181	181	179	179	179	176	174	178			
24	173	173	173	174	176	176	177	177	176	176	173	173	173	176	178	176	176	178	180	178	178	175	175	176			
25	173	172	172	173	175	176	178	178	175	172	172	178	177	177	175	177	177	177	174	174	174	174	174	175			
26*	174	172	171	172	172	171	171	169	169	167	165	167	171	172	167	171	171	174	174	174	172	172	172	171			
27	171	169	167	167	169	169	171	169	165	164	160	162	167	167	167	165	167	167	171	172	177	174	171	169			
28**	149	147	157	164	165	169	169	167	167	165	164	160	164	167	169	171	172	177	174	174	174	171	171	167			
29**	167	162	160	157	160	159	162	160	159	160	159	160	164	169	169	181	177	175	174	174	171	169	167	159			
30	151	147	145	152	157	159	160	159	157	154	149	154	160	171	172	172	171	171	171	169	167	164	164	161			
Mean	176	175	175	175	176	178	179	180	178	176	174	174	177	181	184	185	185	185	185	184	183	182	180	179			
Mean*	181	180	179	179	181	181	181	181	182	178	175	175	177	181	184	184	185	185	185	184	183	183	182	181			
Mean**	160	160	162	163	165	167	170	171	171	171	170	169	174	179	188	189	186	186	184	181	179	176	173	168			
<b>December.</b>																											
43000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
																									Mean.		
1	164	164	164	162	162	164	164	164	162	157	157	160	164	169	172	182	177	177	179	179	174	171	167	167			
2	167	165	157	157	160	162	164	164	162	164	160	164	171	172	174	174	174	172	171	171	171	171	169	167			
3*	169	167	165	165	164	164	164	160	160	160	160	162	165	167	171	174	174	174	171	171	171	171	171	167			
4	169	171	171	171	169	171	171	169	167	164	165	165	167	171	172	174	177	177	174	174	174	171	172	171			
5**	171	171	171	171	169	171	164	164	162	157	160	165	167	175	171	174	174	177	177	179	179	177	172	171			
6	165	167	167	167	171	174	177	174	171	167	167	171	172	177	181	181	184	189	184	184	182	177	174	174			
7	177	174	174	175	177	179	179	174	172	172	171	174	177	181	181	181	184	184	182	182	181	177	177				
8*	177	177	179	177	177	181	181	179	177	174	172	174	177	181	182	182	184	184	184	184	182	181	179	179			
9	177	177	177	177	179	181	181	179	174	174	172	171	174	181	182	184	184	182	181	181	181	179	175	174			
10**	174	172	172	171	171	171	174	171	171	169	169	171	167	171	175	177	179	181	181	179	177	177	174	175			
11	171	169	169	169	171	174	171	171	165	164	160	160	164	166	170	171	173	173	170	170	170	170	166	169			
12	166	166	166	166	166	168	170	170	170	170	166	166	170	173	170	171	173	173	173	176	174	176	173	171			
13	170	168	166	166	166	168	168	170	170	166	166	164	165	167	169	169	169	169	169	169	169	170	169	165			
14**	165	163	163	162	163	163	165	165	163	162	162	165	169	175	177	175	173	175	177	180	180	173	172	169			
15**	170	170	165	162	162	169	169	172	172	172	175	175	179	179	179	179	181	181	185	186	183	179	178	175			
16*	178	176	174	174	174	178	178	176	176	174	174	178	179	181	181	183	181	179	179	179	179	181	178	178			
17	178	178	178	178	178	178	176	176	178	178	178	181	182	185	184	184	185	187	184	184	184	184	184	181			
18	180	182	180	180	182	184	180	180	177	178	177	178	180	182	184	184	182	184	184	184	182	180	182	181			
19	180	180	180	180	180	180	184	184	184	187	182	178	180	184	184	184	187	185	185	184	184	184	184	182			
20	184	182	184	184	185	187	185	185	184	180	180	184	181	183	186	188	190	190	188	191	190	186	186	185			
21	186	186	184	186	186	186	184	186	184	179	179	183	183	186	186	190	190	190	190	188							

TABLE IV.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC DECLINATION WEST.  
(The results in each month are diminished by the smallest hourly value.)

1922.													
Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	1.0	1.2	1.4	0.8	1.6	3.1	2.3	2.0	1.3	0.8	1.2	1.0	0.57
1h.	0.4	1.4	1.6	1.1	2.0	2.7	1.8	1.7	1.2	1.5	0.8	1.4	0.56
2	1.0	1.6	1.8	0.9	2.2	2.2	2.3	1.6	0.7	1.7	1.6	1.4	0.67
3	1.4	1.1	2.5	1.5	1.6	2.0	2.0	1.7	0.5	1.5	1.4	1.4	0.64
4	1.7	1.2	2.0	1.7	1.4	1.4	0.8	1.2	1.0	1.8	1.4	1.2	0.49
5	2.3	1.7	2.0	1.7	0.6	0.3	0.0	0.3	1.1	2.5	1.3	1.2	0.34
6	2.6	2.6	2.2	1.4	0.1	0.0	0.0	0.0	1.2	2.2	1.2	1.3	0.32
7	2.2	3.0	2.0	0.9	0.0	0.2	0.3	0.2	1.0	1.6	1.3	1.6	0.28
8	2.2	3.0	1.2	0.0	0.2	0.7	0.9	1.1	0.8	1.3	0.8	1.7	0.25
9	2.6	3.6	1.0	0.7	1.7	2.1	2.1	2.9	2.4	1.4	1.2	2.0	1.07
10	3.1	4.6	2.6	2.5	3.6	4.1	3.8	4.8	4.5	3.1	2.5	2.8	2.59
11	3.9	5.1	5.4	5.4	6.3	6.6	6.2	6.8	6.6	5.9	4.0	3.4	4.56
Noon	4.9	5.5	7.8	7.9	8.3	8.2	8.2	8.5	8.0	7.1	4.8	3.9	6.01
13h.	4.6	5.3	8.5	8.9	8.7	9.4	9.3	8.8	7.5	7.3	4.5	3.8	6.31
14	4.0	4.4	8.0	8.0	8.3	9.0	9.1	8.3	6.2	6.6	3.7	3.1	5.65
15	3.2	3.5	6.5	7.0	7.4	8.1	7.8	6.8	5.0	5.3	2.8	2.6	4.59
16	2.5	3.0	4.3	5.3	6.3	7.1	6.8	5.6	3.4	3.9	2.5	2.1	3.49
17	2.3	2.5	3.1	3.8	4.9	5.8	5.0	3.9	1.5	2.1	1.3	1.9	2.27
18	2.2	2.8	2.6	2.9	3.9	5.0	4.2	3.4	1.8	1.6	1.3	1.3	1.84
19	1.4	1.4	1.6	0.9	2.6	4.8	4.0	2.4	1.1	1.4	0.7	0.2	0.97
20	0.9	0.1	0.2	0.5	2.3	3.6	3.8	1.8	0.4	0.4	0.0	0.2	0.27
21	0.5	0.1	0.0	1.1	2.0	2.9	3.2	1.7	0.6	0.0	0.0	0.0	0.10
22	0.0	0.0	0.1	1.1	1.7	3.1	2.6	1.9	0.0	0.3	0.1	0.0	0.00
23	0.6	0.5	0.7	1.3	0.9	2.9	2.4	1.9	1.2	0.8	0.5	0.3	0.26
Means	2.15	2.47	2.88	2.80	3.27	3.97	3.70	3.30	2.46	2.59	1.70	1.66	1.84

TABLE V.—DIURNAL RANGE of DECLINATION, on each CIVIL DAY, as deduced from Table I.

1922.													
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
d.													
1	3.0	10.5	18.6	7.7	7.3	9.0	10.5	8.2	10.2	6.8	11.6	5.3	
2	5.5	8.8	10.7	14.0	8.7	15.5	8.3	6.2	10.1	10.1	9.2	4.0	
3	3.0	11.5	12.0	9.1	6.6	14.5	11.7	6.3	12.0	11.0	8.8	3.5	
4	4.3	7.0	9.3	9.3	8.0	8.8	7.0	7.5	8.5	9.9	5.9	3.0	
5	5.3	6.3	17.3	11.5	8.5	10.7	10.7	12.3	—	20.9	6.4	6.7	
6	6.0	7.0	6.6	9.0	9.7	10.2	13.0	9.5	—	14.7	—	6.4	
7	9.7	3.6	5.1	7.6	19.3	7.8	11.8	9.5	16.8	9.2	—	3.4	
8	15.2	10.5	8.2	14.7	19.0	10.2	10.2	9.8	21.0	13.5	6.0	3.6	
9	12.5	14.7	6.3	16.0	22.8	9.8	12.4	13.7	—	9.8	4.7	3.6	
10	9.0	5.0	9.5	16.0	12.3	10.2	12.5	9.8	—	9.0	10.0	6.4	
11	4.7	4.8	10.5	14.2	8.7	10.6	10.2	17.3	—	5.8	5.0	11.8	
12	4.5	15.3	14.2	17.2	9.7	10.5	11.7	9.7	—	9.8	4.5	6.2	
13	3.5	8.3	28.0	13.0	12.2	10.8	10.2	11.2	8.4	7.8	4.5	3.6	
14	4.2	10.2	18.6	14.0	12.0	9.6	12.2	9.5	—	10.6	3.6	17.7	
15	3.8	15.3	6.8	11.5	12.8	9.2	11.2	4.5	—	6.6	7.5	7.6	
16	14.7	21.5	6.6	11.7	21.0	9.7	10.7	7.3	—	5.9	4.4	2.5	
17	11.5	9.8	15.8	10.0	13.3	13.8	11.5	6.0	11.9	11.9	5.1	2.6	
18	8.0	7.4	9.6	12.2	7.6	9.0	9.7	7.2	6.4	5.9	4.3	1.6	
19	8.3	8.0	9.5	8.7	12.2	9.4	8.6	11.5	—	6.3	4.7	3.4	
20	6.0	5.3	12.8	10.2	7.8	8.5	11.3	11.7	—	14.1	3.8	4.0	
21	5.0	8.2	8.7	15.0	19.0	7.7	6.5	14.3	14.8	8.8	7.0	4.2	
22	4.4	6.0	10.7	18.5	11.5	7.8	9.6	15.5	8.5	6.5	5.5	3.7	
23	7.3	4.7	8.0	12.2	7.8	10.2	7.7	15.7	7.1	9.0	4.2	2.6	
24	15.3	6.0	10.3	12.7	8.0	11.1	18.4	10.7	6.9	16.7	5.2	5.0	
25	13.5	4.0	14.4	9.2	11.7	10.0	9.3	14.7	8.4	12.8	4.0	5.7	
26	9.8	9.0	8.8	13.8	10.2	9.8	17.0	13.3	7.3	7.1	3.9	11.3	
27	4.9	9.0	12.2	10.0	10.0	13.2	15.3	11.8	—	6.9	8.8	3.2	
28	5.0	14.5	11.9	7.8	10.0	11.0	15.0	11.5	11.8	10.2	10.6	5.2	
29	4.5	—	11.8	10.0	8.7	18.3	8.5	14.0	7.5	6.2	15.0	8.0	
30	4.7	—	16.0	13.0	9.6	16.2	13.0	14.2	14.4	10.5	7.9	7.3	
31	14.6	—	10.5	—	10.9	—	7.5	13.3	—	23.0	—	3.1	
Means	7.5	9.0	11.6	12.0	11.5	10.8	11.1	10.9	10.6	10.2	6.1	5.4	

The mean of the twelve monthly values is 9.73.

TABLE VI.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC DECLINATION WEST from HOURLY ORDINATES, on SELECTED QUIET DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on (in general) five quiet days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are:—

January 3, 4, 15, 21, 22.      April 4, 5, 6, 7, 19.      July 8, 11, 12, 21, 22.      October 1, 16, 18, 19, 22.  
 February 7, 11, 23, 24, 25.      May 2, 3, 15, 30, 31.      August 2, 3, 17, 18, 28.      November 13, 18, 26.  
 March 7, 8, 9, 23, 24.      June 10, 11, 15, 24, 25.      September 2, 22, 23, 24, 26.      December 3, 8, 16, 22, 23.

1922.

Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	0.4	0.9	1.8	3.2	3.2	4.3	3.2	1.5	2.3	1.5	0.5	0.8	1.73
1h.	0.3	1.0	1.8	3.0	3.3	4.4	2.6	1.9	1.9	1.9	0.7	1.1	1.75
2	0.9	0.6	1.6	2.9	3.5	3.5	2.4	1.6	2.0	1.5	1.1	0.9	1.64
3	1.0	0.7	1.9	2.5	3.4	3.1	2.1	1.2	1.2	1.5	1.0	1.0	1.48
4	1.2	0.4	1.7	2.4	3.2	2.5	1.6	0.6	1.0	1.9	0.9	0.9	1.29
5	1.1	0.0	1.8	2.3	1.8	1.0	0.5	0.0	1.1	1.9	0.4	0.7	0.81
6	1.0	0.1	1.4	2.1	0.6	0.4	0.0	0.2	0.9	1.4	0.3	0.6	0.51
7	0.7	0.6	1.1	0.7	0.0	0.0	0.0	0.2	0.0	0.7	0.2	0.5	0.15
8	0.4	0.9	0.0	0.0	0.0	0.3	0.2	0.2	0.2	0.0	0.0	0.7	0.00
9	0.5	1.1	0.1	0.4	1.8	1.9	2.1	1.4	1.4	0.4	0.7	1.3	0.85
10	1.0	2.1	2.1	2.5	3.9	3.8	3.9	3.1	4.0	2.3	1.9	2.0	2.48
11	2.4	3.3	4.5	5.4	6.6	6.8	6.3	4.7	6.3	4.6	3.2	2.6	4.49
Noon.	3.5	4.0	6.5	7.9	8.5	8.7	8.3	6.1	7.7	6.0	4.0	3.0	5.94
13h.	3.6	3.8	6.9	8.8	9.3	9.6	9.2	6.6	7.5	6.1	3.6	2.7	6.24
14	2.8	3.1	6.6	8.1	8.9	9.3	8.4	6.4	6.1	5.6	2.8	2.1	5.61
15	2.0	1.9	5.2	6.7	8.1	8.3	7.1	5.4	4.6	4.4	2.0	1.3	4.51
16	1.8	1.4	3.5	5.5	8.0	7.5	5.8	4.4	3.6	3.5	1.8	1.0	3.74
17	1.6	1.2	2.8	4.7	6.2	6.4	4.5	3.4	2.9	3.5	1.5	1.0	3.07
18	1.5	1.0	3.0	4.4	5.1	5.7	3.8	2.7	2.8	2.9	1.0	0.8	2.65
19	1.3	0.9	2.9	4.1	4.7	5.4	3.8	2.4	2.7	2.3	0.9	0.5	2.42
20	1.0	0.7	2.6	4.1	4.6	4.6	3.6	2.2	2.1	2.1	0.6	0.3	2.14
21	0.5	0.6	1.9	3.7	4.4	4.6	3.7	2.2	1.9	1.7	0.1	0.0	1.87
22	0.0	0.7	2.2	3.5	4.2	4.7	3.7	2.0	2.0	1.7	0.3	0.0	1.84
23	0.3	0.6	2.3	3.4	3.9	4.4	3.5	1.8	2.1	1.8	0.5	0.6	1.86
Means	1.28	1.32	2.76	3.84	4.47	4.63	3.76	2.59	2.85	2.55	1.25	1.10	2.46

TABLE VII.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC DECLINATION WEST from HOURLY ORDINATES, on SELECTED DISTURBED DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on (in general) five disturbed days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are:—

January 8, 9, 24, 25, 31.      April 9, 12, 22, 24, 26.      July 1, 16, 26, 27, 28.      October 5, 6, 7, 20, 31.  
 February 3, 9, 12, 15, 16.      May 7, 8, 9, 16, 21.      August 11, 12, 13, 14, 23.      November 1, 2, 3, 28, 29.  
 March 5, 10, 13, 14, 30.      June 3, 5, 16, 29, 30.      September 7, 8, 9.      December 5, 10, 14, 15, 26.

1922.

Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	2.7	5.7	3.7	0.0	4.6	0.5	1.8	2.9	6.4	1.9	4.3	4.2	1.29
1h.	0.4	5.0	3.6	1.6	4.9	0.8	0.9	0.8	8.4	4.1	1.2	4.6	1.09
2	0.8	5.6	3.8	2.3	5.6	0.8	3.3	0.2	9.5	4.6	3.6	5.0	1.82
3	1.8	6.3	4.0	2.9	4.5	0.4	2.6	1.7	10.0	3.5	3.4	4.4	1.85
4	2.7	6.6	4.6	5.4	5.5	1.2	1.2	1.5	8.8	5.3	3.2	3.7	2.20
5	3.6	7.1	4.7	7.9	6.6	0.6	0.0	1.7	9.3	9.0	3.7	4.2	2.93
6	5.9	10.0	4.2	7.3	5.8	0.0	0.7	0.3	9.9	8.1	4.3	5.0	3.19
7	4.3	10.3	5.1	6.1	5.5	0.1	2.2	0.5	8.4	6.5	4.8	6.0	3.04
8	4.9	9.0	6.9	5.3	5.8	0.5	3.9	1.0	8.4	7.5	4.2	6.4	3.38
9	4.9	9.6	4.4	5.4	9.1	2.6	4.9	3.3	10.6	7.3	4.1	6.4	4.11
10	5.9	10.2	6.3	6.8	9.6	5.4	6.4	5.7	13.2	7.5	5.2	6.6	5.46
11	6.5	10.6	8.9	9.4	12.1	7.0	8.7	6.8	15.0	9.9	6.5	7.0	7.09
Noon.	8.1	10.4	12.8	10.8	14.6	8.3	10.4	7.6	17.9	9.9	7.6	7.9	8.59
13h.	7.6	9.5	14.2	11.4	15.5	10.7	11.2	8.7	17.5	10.5	7.0	7.5	9.00
14	7.5	9.0	13.3	10.8	15.6	10.0	11.2	9.8	15.3	8.8	3.4	6.8	8.19
15	6.1	7.7	8.9	9.8	15.2	9.4	9.9	8.2	12.2	8.7	3.9	6.3	6.92
16	2.7	6.6	5.7	7.5	13.4	7.5	9.2	6.5	9.1	4.8	3.4	4.3	4.79
17	2.0	3.6	4.5	5.9	11.2	6.0	7.7	3.2	1.0	0.0	1.2	5.5	2.38
18	3.6	6.5	2.8	5.4	10.1	5.1	5.5	3.4	5.3	0.9	2.9	4.1	2.69
19	2.6	2.7	1.5	3.3	5.6	5.3	5.1	3.2	3.8	3.0	0.2	0.0	1.09
20	0.9	0.0	0.9	2.4	4.9	3.1	6.3	0.0	4.9	1.2	0.0	1.2	0.21
21	1.6	2.1	0.0	3.2	5.4	0.4	3.3	0.1	3.8	1.3	0.6	2.2	0.06
22	0.0	2.7	1.3	3.5	1.8	2.2	2.3	2.0	0.0	3.7	0.9	2.9	0.00
23	1.9	3.8	2.0	4.2	0.0	2.5	3.1	3.0	7.6	2.7	1.5	3.1	1.01
Means	3.71	6.69	5.34	5.78	8.04	3.77	5.08	3.42	9.01	5.45	3.38	4.80	3.44

TABLE VIII.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC NORTH FORCE.  
(The results in each case are diminished by the smallest hourly value.)

1922.													
Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	9γ	10γ	21γ	38γ	29γ	33γ	33γ	32γ	34γ	28γ	18γ	6γ	24·2γ
1h.	9	9	21	34	29	32	31	29	35	25	17	6	23·0
2	8	10	20	32	26	31	27	29	34	27	16	8	22·2
3	9	11	20	28	26	30	29	29	33	29	17	8	22·3
4	10	11	22	31	26	31	31	29	32	29	18	10	23·2
5	11	13	27	34	28	31	29	30	31	30	20	12	24·6
6	14	12	28	31	23	26	23	28	28	31	21	14	23·2
7	15	10	25	26	21	20	16	17	20	27	20	14	19·2
8	12	10	22	23	12	12	8	8	12	20	16	12	13·8
9	6	8	15	13	5	4	3	2	4	12	9	7	7·2
10	2	4	7	4	3	4	0	0	0	5	4	3	2·9
11	1	0	1	0	0	0	3	2	0	0	0	0	0·0
Noon	2	0	0	1	0	5	6	7	6	1	3	2	2·7
13h.	4	2	2	5	3	8	12	11	10	8	5	2	5·9
14	4	3	4	11	11	16	15	15	17	10	8	3	9·7
15	2	3	5	22	15	24	25	21	21	12	11	2	13·5
16	0	2	9	25	26	32	30	26	25	14	13	5	17·1
17	5	6	14	32	28	36	33	28	33	22	16	7	21·6
18	5	6	21	35	34	39	38	33	33	25	18	8	24·5
19	8	9	24	37	36	39	39	36	38	24	20	9	26·5
20	7	11	28	37	32	40	37	36	33	32	18	9	26·6
21	7	10	30	36	31	37	39	35	33	33	20	9	26·6
22	9	13	32	37	31	33	36	36	36	31	20	9	26·8
23	10	11	28	37	31	35	35	35	35	31	20	8	26·2
Means	7·0	7·7	17·8	25·4	21·1	24·9	24·1	23·1	24·3	21·1	14·5	7·2	18·1

TABLE IX.—DIURNAL RANGE of MAGNETIC NORTH FORCE, on each CIVIL DAY, as deduced from Table II.  
(The results are corrected for Temperature and are expressed in C.G.S. units.)

1922.													
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
d.													
1	14γ	27γ	90γ	60γ	32γ	48γ	—γ	50γ	38γ	27γ	70γ	33γ	
2	14	28	38	45	28	53	65	22	39	23	80	31	
3	13	48	40	41	20	59	63	22	36	44	49	8	✓
4	18	60	32	35	31	69	46	22	39	61	57	12	✓
5	21	37	72	32	42	88	37	51	—	118	42	39	
6	32	38	22	33	54	65	44	38	—	71	—	29	
7	62	19	20	42	58	40	44	51	55	62	—	13	
8	40	38	34	41	64	65	40	45	100	107	30	21	
9	50	48	24	92	105	54	38	61	—	67	26	19	
10	50	18	72	78	83	46	71	72	—	31	36	18	
11	34	34	53	41	44	46	55	50	—	45	22	19	
12	27	41	68	77	39	50	46	77	—	57	18	19	
13	20	25	112	46	31	56	41	81	68	38	21	16	
14	15	17	88	81	43	42	60	62	—	55	28	35	
15	17	68	35	63	46	43	71	52	—	38	35	29	
16	43	65	29	42	56	76	56	39	—	35	22	10	
17	57	32	75	53	51	58	45	35	47	64	28	16	✓
18	25	30	38	47	42	50	62	28	29	40	18	12	✓
19	23	24	40	35	53	50	55	29	—	17	14	14	✓
20	28	25	35	37	48	48	51	41	—	53	14	18	✓
21	18	38	40	40	60	42	27	50	60	38	17	16	✓
22	28	15	44	98	70	35	40	48	40	30	19	22	✓
23	20	19	29	56	51	42	44	100	33	36	24	17	✓
24	106	25	36	84	59	49	40	62	37	56	28	16	
25	50	13	100	67	63	43	63	55	45	50	17	24	
26	55	44	41	72	62	41	48	50	34	35	9	54	
27	18	46	44	73	49	45	71	50	—	64	37	13	
28	18	40	52	51	44	55	66	48	56	29	26	19	
29	16	47	58	53	53	115	73	60	35	48	70	21	
30	13	63	47	39	39	—	64	59	49	28	46	42	
31	88	65			46		41	57		92		18	
Means	33·3	34·4	50·9	55·6	50·5	54·4	52·2	50·6	44·7	50·3	32·3	21·7	

The mean of the twelve monthly values is 44·2γ

TABLE X.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC NORTH FORCE from HOURLY ORDINATES, on SELECTED QUIET DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on (in general) five quiet days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are :—

January 3, 4, 15, 21, 22.      April 4, 5, 6, 7, 19.      July 8, 11, 12, 21, 22.      October 1, 16, 18, 19, 22.  
 February 7, 11, 23, 24, 25.      May 2, 3, 15, 30, 31.      August 2, 3, 17, 18, 28.      November 13, 18, 26.  
 March 7, 8, 9, 23, 24.      June 10, 11, 15, 24, 25.      September 2, 22, 23, 24, 26.      December 3, 8, 16, 22, 23.

1922.

Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	7γ	9γ	18γ	28γ	32γ	33γ	35γ	20γ	28γ	17γ	7γ	4γ	18.5γ
1h.	9	10	15	27	31	33	35	16	25	17	5	4	17.6
2	6	9	14	28	29	31	30	18	25	18	7	6	17.1
3	8	8	14	26	29	30	29	18	24	18	9	6	17.0
4	11	11	17	28	31	31	32	18	26	19	9	7	18.7
5	13	12	20	32	33	32	32	16	24	21	12	9	20.0
6	14	13	25	32	30	29	28	14	25	23	14	10	20.1
7	13	13	27	34	24	22	20	10	20	23	14	11	18.0
8	10	11	23	29	19	13	11	5	14	16	10	8	12.8
9	7	10	15	17	8	4	1	1	5	8	4	5	5.8
10	3	8	7	7	3	0	0	0	0	1	0	1	1.2
11	0	4	0	0	0	1	6	5	0	0	0	0	0.0
Noon	3	0	1	2	3	5	9	9	8	5	2	2	2.8
13h.	8	2	5	6	7	16	19	9	14	9	4	5	7.4
14	11	5	6	11	13	26	30	15	17	10	5	7	11.7
15	12	5	6	17	21	33	35	20	23	12	5	7	15.0
16	12	3	10	20	25	36	37	22	25	15	8	9	17.2
17	14	4	13	25	28	39	33	22	28	17	9	10	18.9
18	13	7	17	26	33	41	33	25	31	21	11	11	21.1
19	13	9	20	26	34	39	35	29	30	19	11	10	21.6
20	12	11	23	26	33	38	35	28	28	22	9	9	21.5
21	11	14	23	27	31	39	35	28	31	22	10	8	22.0
22	11	15	24	29	30	38	35	26	31	21	9	8	21.8
23	11	13	23	28	31	37	34	24	33	21	8	6	21.1
Means	9.7	8.6	15.3	22.1	23.3	26.9	26.2	26.6	21.5	15.6	7.6	6.8	15.4

TABLE XI.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC NORTH FORCE from HOURLY ORDINATES, on SELECTED DISTURBED DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on (in general) five disturbed days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are :—

January 8, 9, 24, 25, 31.      April 9, 12, 22, 24, 26.      July 16, 26, 27, 28.      October 5, 6, 7, 20, 31.  
 February 3, 9, 12, 15, 16.      May 7, 8, 9, 16, 21.      August 11, 12, 13, 14, 23.      November 1, 2, 3, 28, 29.  
 March 5, 10, 13, 14, 30.      June 3, 5, 16, 29.      September 7, 8, 14.      December 5, 10, 14, 15, 26.

1922.

Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	31γ	23γ	39γ	67γ	33γ	40γ	42γ	55γ	73γ	44γ	30γ	13γ	34.4γ
1h.	32	26	39	45	32	44	36	53	68	34	30	15	31.4
2	33	22	36	42	35	42	25	50	69	41	24	17	29.9
3	31	21	33	32	41	42	37	45	74	47	24	19	30.8
4	31	22	35	34	36	42	39	42	74	43	26	24	30.9
5	35	33	39	39	32	44	33	43	68	40	32	25	32.2
6	35	22	42	24	28	34	23	48	52	39	27	28	27.1
7	46	11	32	10	25	26	8	34	35	26	26	23	18.8
8	46	13	23	16	18	14	3	24	22	10	21	20	12.8
9	34	11	18	14	12	0	0	5	9	6	16	13	5.1
10	28	5	12	6	8	1	0	0	0	4	9	9	0.4
11	27	6	7	0	10	9	6	7	0	0	0	5	0.0
Noon	25	0	0	3	6	17	11	20	2	0	2	6	1.3
13h.	24	4	5	12	0	27	9	31	10	16	2	2	5.4
14	19	9	2	12	13	28	8	30	29	12	10	3	8.2
15	6	10	6	27	15	37	19	31	32	6	11	0	10.3
16	0	0	9	28	22	55	21	38	40	6	14	11	13.9
17	11	17	15	41	27	64	40	43	77	29	19	11	26.4
18	15	4	19	43	40	61	35	46	45	29	19	11	24.2
19	23	14	27	51	53	60	38	49	53	29	29	20	30.8
20	18	19	23	51	38	56	34	55	49	46	29	16	29.8
21	28	14	18	39	42	51	50	54	54	38	32	14	29.8
22	34	18	37	43	38	42	45	51	69	42	36	13	32.6
23	37	14	34	49	33	41	40	57	63	47	39	14	32.6
Means	27.0	14.1	22.9	30.4	26.6	36.6	25.1	38.0	44.5	26.4	21.1	13.8	20.8

TABLE XII.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES OF VERTICAL MAGNETIC FORCE.  
(The results are expressed in C.G.S. units, and in each case are diminished by the smallest hourly value.)

1922.													
Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	4γ	3γ	6γ	8γ	9γ	10γ	7γ	5γ	7γ	2γ	2γ	3γ	5.1γ
1h.	2	2	5	8	9	7	6	4	4	2	1	3	4.0
2	3	1	5	8	8	8	6	6	5	2	1	2	4.2
3	2	0	6	7	11	11	8	6	7	2	1	2	4.8
4	3	0	7	10	13	14	11	9	8	3	2	2	6.4
5	4	2	7	9	15	15	13	11	9	3	4	4	7.6
6	4	2	8	11	15	14	13	10	11	5	5	4	8.1
7	4	1	9	12	14	14	13	12	11	7	6	3	8.4
8	3	1	8	14	11	11	10	8	8	6	4	2	6.7
9	2	1	4	10	4	5	6	4	4	3	2	1	3.4
10	0	0	0	3	0	1	2	2	2	0	0	0	0.4
11	2	0	0	0	0	0	0	0	0	1	0	2	0.0
Noon	3	1	1	2	2	3	1	1	3	2	3	3	1.7
13h.	8	4	6	6	6	8	1	7	8	6	7	7	5.7
14	10	7	12	13	12	14	12	16	15	11	10	7	11.2
15	12	10	20	20	21	19	17	22	17	16	11	9	15.8
16	16	11	26	25	25	24	18	25	18	20	11	10	18.7
17	16	11	26	30	28	26	24	26	16	20	11	10	19.9
18	14	11	24	29	29	27	24	25	17	18	11	9	19.4
19	13	10	22	28	26	25	22	26	18	16	10	9	18.4
20	11	9	19	26	22	22	18	19	15	14	9	8	15.6
21	11	9	15	22	15	19	15	20	12	10	8	7	13.2
22	10	7	11	19	13	15	11	16	10	8	6	6	10.6
23	8	5	8	14	10	12	8	9	7	5	5	5	7.6
Means	6.9	4.5	10.6	13.9	13.3	13.5	11.1	12.0	9.7	7.6	5.4	4.9	9.0

TABLE XIII.—DIURNAL RANGE of VERTICAL MAGNETIC FORCE, on each CIVIL DAY, as deduced from Table III.  
(The results are corrected for Temperature and expressed in C.G.S. units.)

1922.												
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d.												
1	9γ	14γ	54γ	32γ	27γ	24γ	—γ	28γ	27γ	17γ	33γ	25γ
2	13	17	19	26	23	49	—	26	31	26	33	17
3	12	42	31	15	26	58	—	15	28	36	49	14
4	7	21	36	26	32	20	—	35	21	24	16	13
5	12	13	79	29	29	40	—	—	25	138	20	22
6	18	13	21	19	34	54	23	—	39	55	16	24
7	31	12	22	—	41	26	25	—	60	39	16	13
8	—	16	21	37	79	22	15	—	43	29	17	12
9	—	32	32	68	56	31	32	30	41	30	15	13
10	—	18	48	65	43	24	31	41	37	29	34	14
11	—	11	22	26	33	25	29	81	17	14	12	14
12	15	25	48	58	32	22	23	49	31	24	11	10
13	13	14	77	46	25	38	23	46	26	27	11	6
14	10	19	71	32	28	23	28	37	126	20	8	18
15	13	53	18	31	35	27	43	34	44	21	10	24
16	27	45	12	28	62	47	43	18	19	17	7	9
17	23	25	58	26	45	57	29	12	26	27	10	11
18	22	14	45	42	41	34	28	11	17	14	13	7
19	12	21	38	21	25	30	32	27	15	18	13	9
20	23	17	27	30	22	29	24	28	26	42	13	11
21	9	15	20	67	59	30	15	46	30	19	13	12
22	10	12	28	77	37	30	20	36	21	15	18	7
23	9	16	23	49	27	32	27	41	19	25	9	7
24	100	18	18	52	49	29	31	38	12	38	7	6
25	47	16	27	37	44	25	21	24	21	32	6	11
26	—	36	19	63	31	33	65	28	24	13	9	31
27	16	30	19	41	22	33	42	26	26	18	21	10
28	7	11	19	27	37	34	55	23	46	12	30	10
29	11	—	36	39	26	38	58	32	12	17	30	14
30	11	—	58	36	25	—	21	40	25	18	27	15
31	52	—	46	—	27	—	20	27	—	57	—	10
Means	20.5	21.3	35.2	39.1	36.2	33.2	30.9	32.6	31.2	29.4	17.6	13.5

The mean of the twelve monthly values is 28.4 γ

TABLE XIV.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of VERTICAL MAGNETIC FORCE from HOURLY ORDINATES, on SELECTED QUIET DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers on (in general) five quiet days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are :—

January 3, 4, 15, 21, 22. April 4, 5, 6, 19. July 8, 11, 12, 21, 22. October 1, 16, 18, 19, 22.  
 February 7, 11, 23, 24, 25. May 2, 3, 15, 30, 31. August 2, 3, 17, 18, 28. November 6, 7, 13, 18, 26.  
 March 7, 8, 9, 23, 24. June 10, 11, 15, 24, 25. September 2, 22, 23, 24, 26. December 3, 8, 16, 22, 23.

1922.													
Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	5γ	4γ	14γ	19γ	14γ	13γ	11γ	8γ	12γ	12γ	6γ	4γ	9.9γ
1h.	4	3	10	19	13	12	10	7	12	11	5	3	8.8
2	4	2	10	17	14	12	9	7	12	10	4	2	8.3
3	5	3	10	19	16	15	12	7	15	10	4	2	9.5
4	6	3	10	20	19	17	15	10	14	9	6	3	10.7
5	5	6	12	21	21	17	16	13	15	8	6	5	11.8
6	5	7	13	22	21	16	15	13	15	9	6	5	12.0
7	6	5	18	20	18	15	16	11	14	11	6	3	11.6
8	5	3	17	18	16	12	12	8	10	11	7	2	9.8
9	2	3	9	12	10	8	9	4	6	7	3	1	5.9
10	2	1	3	7	7	3	4	0	3	4	0	0	2.5
11	0	0	0	1	0	0	0	1	0	0	0	2	0.0
Noon	0	2	5	0	0	0	2	1	1	1	2	4	1.2
13h.	4	5	7	4	8	6	6	4	6	5	6	7	5.3
14	8	7	8	10	14	11	12	11	11	8	9	7	9.4
15	9	10	14	14	21	15	16	15	17	13	9	8	13.1
16	9	11	18	17	23	19	19	16	19	14	10	8	15.0
17	8	10	18	18	25	22	19	15	19	14	10	8	15.2
18	7	9	16	18	25	22	18	15	19	15	10	8	14.9
19	8	8	16	17	21	20	16	14	18	14	9	7	13.7
20	7	7	14	15	19	17	15	12	16	13	8	6	12.1
21	7	7	13	15	18	15	14	11	15	13	8	6	11.5
22	7	6	13	13	16	13	13	10	15	12	7	5	10.5
23	6	6	13	12	15	11	13	9	12	11	6	4	9.5
Means	5.4	5.3	11.7	14.5	15.6	13.0	12.2	9.3	12.3	9.8	6.1	4.6	9.7

TABLE XV.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of VERTICAL MAGNETIC FORCE from HOURLY ORDINATES, on SELECTED DISTURBED DAYS in each MONTH.

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on (in general) five disturbed days in each month, selected by the International Committee for comparison with results at other Observatories. The results in each case are diminished by the smallest hourly value. The days included are :—

January 24, 25, 31. April 9, 12, 22, 24, 26. July 16, 26, 27, 28. October 5, 6, 7, 20, 31.  
 February 3, 9, 12, 15, 16. May 7, 8, 9, 16, 21. August 11, 12, 13, 14, 23. November 1, 2, 3, 28, 29.  
 March 5, 10, 13, 14, 30. June 3, 5, 16, 29. September 7, 8, 9, 14, 20. December 5, 10, 14, 15, 26.

1922.													
Greenwich Civil Time. Hour commencing	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.*
Midnight	4γ	11γ	9γ	9γ	10γ	13γ	6γ	4γ	6γ	9γ	0γ	5γ	3.8γ
1h.	3	9	5	2	5	0	5	0	3	5	0	4	0.0
2	2	8	3	5	5	5	3	2	2	3	2	3	0.2
3	4	8	5	13	8	9	4	3	1	2	3	2	1.8
4	6	6	10	11	10	12	10	7	2	3	5	2	3.6
5	5	5	9	0	11	13	13	9	4	0	7	3	3.2
6	4	2	9	0	13	13	13	13	7	3	10	3	4.1
7	1	0	11	3	15	14	11	13	6	9	11	3	4.7
8	0	3	6	9	14	9	6	9	6	12	11	1	3.8
9	0	7	4	8	6	5	2	5	3	12	11	0	1.9
10	0	7	0	10	0	3	1	5	4	11	10	2	1.0
11	0	10	1	12	1	2	2	6	4	13	9	5	2.0
Noon	6	12	3	18	4	2	2	8	10	25	14	6	5.8
13h.	17	17	15	22	12	9	5	16	20	28	19	11	12.5
14	28	22	30	28	22	16	13	25	31	37	28	13	21.0
15	36	24	46	39	31	22	24	35	40	45	29	15	28.8
16	53	29	56	43	38	29	34	41	43	55	26	15	35.1
17	57	31	54	49	45	30	40	44	47	53	26	15	37.5
18	47	28	48	47	48	31	43	39	36	42	24	16	34.0
19	37	28	42	45	48	33	40	33	33	33	21	16	30.7
20	30	23	34	39	35	30	30	25	28	26	19	14	24.4
21	25	21	26	35	24	24	22	21	10	18	16	12	17.8
22	22	18	17	34	15	15	12	14	5	13	13	10	12.3
23	15	16	8	32	9	12	0	5	0	9	8	9	6.9
Means	16.8	14.4	18.8	21.4	16.2	14.6	14.2	15.9	14.6	19.4	13.4	7.7	12.4

TABLE XVI.—VALUES of the COEFFICIENTS and PHASE ANGLES in the PERIODICAL EXPRESSION.

$$V_t = m + a_1 \cos t + b_1 \sin t + a_2 \cos 2t + b_2 \sin 2t + a_3 \cos 3t + b_3 \sin 3t + a_4 \cos 4t + b_4 \sin 4t$$

$$= m + c_1 \sin (t + \alpha_1) + c_2 \sin (2t + \alpha_2) + c_3 \sin (3t + \alpha_3) + c_4 \sin (4t + \alpha_4),$$

in which  $t$  represents the time from Greenwich mean midnight converted into arc at the rate of  $15^\circ$  to each hour, and  $V_t$  the annual or monthly mean hourly value of the magnetic element at time  $t$ , as given in Tables IV, VIII and XII.

The coefficients,  $a, b, c$ , are given in units of  $1\gamma$  (0.00001 C.G.S. units) for N.F. and V.F. and in minutes of arc ( $1' = 5.37 \gamma$ ) for Declination.

If the inequalities are expressed relative to time reckoned from apparent midnight, the new phase angles  $\alpha'_1, \alpha'_2, \alpha'_3, \alpha'_4$  may be obtained from  $\alpha_1, \alpha_2, \alpha_3, \alpha_4$  by adding respectively,  $\alpha, 2\alpha, 3\alpha, 4\alpha$ , the value of  $\alpha$  for each month being as follows:—

Jan. + 2°.19'	April + 0°. 4'	July + 1°.21'	Oct. - 3°.28'
Feb. + 3°.29'	May - 0°.52'	Aug. + 0°.59'	Nov. - 3°.47'
Mar. + 2°.12'	June + 0°. 4'	Sept. - 1°.11'	Dec. - 1°. 6'

Month, 1922.	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$	$c_1$	$\alpha_1$	$c_2$	$\alpha_2$	$c_3$	$\alpha_3$	$c_4$	$\alpha_4$
DECLINATION WEST.																
January ..	- 1.66	- 0.39	+ 0.11	+ 0.45	- 0.26	- 0.22	+ 0.29	+ 0.20	1.71	256.8	0.46	13.7	0.34	229.8	0.34	55.4
February ..	- 2.11	- 0.58	+ 0.41	+ 0.41	- 0.07	+ 0.22	+ 0.32	+ 0.32	2.19	254.6	0.58	45.0	0.24	342.4	0.45	45.0
March ..	- 2.47	- 0.89	+ 0.61	+ 1.99	- 0.31	- 0.71	+ 0.29	+ 0.56	2.63	250.2	2.08	17.0	0.77	203.6	0.63	27.4
April ..	- 2.45	- 1.60	+ 0.77	+ 1.96	- 0.26	- 0.96	+ 0.28	+ 0.30	2.93	236.9	2.11	21.4	0.99	195.1	0.41	43.0
May ..	- 2.32	- 2.26	+ 1.00	+ 1.78	- 0.54	- 0.29	+ 0.07	+ 0.08	3.24	225.8	2.04	29.3	0.61	241.8	0.10	41.2
June ..	- 1.91	- 2.84	+ 1.17	+ 1.52	- 0.38	- 0.23	+ 0.09	+ 0.16	3.42	213.9	1.92	37.6	0.44	238.8	0.20	29.4
July ..	- 2.07	- 2.72	+ 1.18	+ 1.43	- 0.42	- 0.42	- 0.21	+ 0.20	3.42	217.3	1.85	39.5	0.60	225.0	0.28	313.6
August ..	- 2.54	- 1.90	+ 1.46	+ 1.41	- 0.36	- 0.21	+ 0.06	0.00	3.17	233.2	2.03	46.0	0.41	239.7	0.06	90.0
September ..	- 2.64	- 0.81	+ 1.39	+ 1.07	- 0.50	- 0.44	+ 0.44	+ 0.22	2.76	252.9	1.75	52.4	0.66	228.7	0.49	63.4
October ..	- 2.34	- 0.54	+ 0.73	+ 1.49	- 0.40	- 0.65	+ 0.35	+ 0.32	2.40	257.0	1.66	26.1	0.76	211.6	0.46	47.6
November	- 1.44	- 0.17	+ 0.58	+ 0.92	- 0.32	- 0.23	+ 0.30	+ 0.16	1.45	263.3	1.09	32.2	0.40	234.3	0.34	61.9
December	- 1.36	+ 0.03	+ 0.46	+ 0.65	- 0.10	+ 0.11	+ 0.14	+ 0.12	1.36	271.3	0.79	35.3	0.14	317.7	0.16	49.4
For the Year	- 2.12	- 1.14	+ 0.82	+ 1.26	- 0.33	- 0.33	+ 0.20	+ 0.20	2.40	241.7	1.50	33.1	0.46	225.0	0.28	45.0
NORTH FORCE.																
January ..	+ 2.8	+ 3.4	- 1.6	- 1.5	+ 1.3	- 1.4	- 0.1	+ 1.6	4.4	39.5	2.2	226.8	1.9	137.1	1.6	356.4
February	+ 4.4	+ 2.5	- 1.3	- 1.6	+ 0.5	- 0.9	- 0.6	0.0	5.1	60.4	2.1	219.1	1.0	150.9	0.6	270.0
March ..	+ 10.9	+ 3.2	- 4.4	- 6.0	+ 1.4	- 2.2	- 0.3	+ 0.2	11.4	73.6	7.5	216.2	2.6	147.5	0.4	303.7
April ..	+ 15.4	- 1.3	- 7.2	- 1.7	+ 3.2	- 0.4	+ 0.4	+ 0.7	15.5	94.8	7.4	256.7	3.2	97.1	0.8	29.7
May ..	+ 14.1	- 3.3	- 7.1	- 0.6	+ 1.1	- 0.1	+ 1.1	+ 0.4	14.5	103.1	7.1	265.2	1.1	95.2	1.2	70.0
June ..	+ 14.9	- 5.6	- 7.8	+ 1.2	+ 0.7	- 0.6	+ 0.9	+ 0.1	15.9	110.6	7.9	278.8	1.0	130.6	0.9	42.0
July ..	+ 14.8	- 6.7	- 6.2	+ 1.5	+ 0.1	- 2.0	+ 1.3	- 0.3	16.2	114.4	6.4	283.6	2.0	177.2	1.4	103.0
August ..	+ 14.7	- 4.4	- 5.6	+ 1.4	0.0	- 3.1	+ 1.5	+ 0.5	15.3	106.7	5.8	284.0	3.1	180.0	1.6	71.6
September	+ 15.5	- 3.0	- 6.2	+ 2.5	+ 0.8	- 1.4	+ 0.9	+ 1.1	15.8	101.0	6.7	292.0	1.6	150.3	1.4	39.3
October ..	+ 12.5	+ 2.4	- 5.6	- 2.4	+ 1.3	- 2.7	+ 0.3	- 0.8	12.7	79.1	6.1	246.8	3.0	154.3	0.8	159.4
November	+ 6.8	+ 0.9	- 4.4	- 1.6	+ 1.9	- 1.3	0.0	+ 0.9	6.9	82.6	4.7	250.0	2.3	124.4	0.9	0.0
December	+ 2.4	+ 2.4	- 3.2	- 2.1	+ 0.9	- 0.9	- 0.1	+ 0.8	3.4	45.0	3.8	236.7	1.3	135.0	0.8	352.9
For the Year	+ 10.8	- 0.8	- 5.1	- 0.9	+ 1.2	- 1.5	+ 0.3	+ 0.6	10.8	94.2	5.2	260.0	1.9	141.3	0.7	26.6
VERTICAL FORCE.																
January	+ 0.8	- 6.0	- 2.7	+ 0.1	+ 1.1	- 0.8	+ 0.1	- 0.4	6.1	172.4	2.7	272.1	1.4	126.0	0.4	166.0
February	+ 2.3	- 5.1	- 1.9	- 0.2	+ 1.1	- 0.9	+ 0.2	0.0	5.6	155.7	1.9	264.0	1.4	129.3	0.2	90.0
March ..	+ 1.7	- 8.3	- 5.4	+ 0.3	+ 1.9	+ 0.5	- 0.7	- 0.3	8.5	168.4	5.4	273.2	2.0	75.2	0.8	246.8
April ..	+ 3.5	- 8.6	- 7.0	- 2.8	+ 1.7	+ 1.4	- 1.3	- 0.4	9.3	157.9	7.5	248.2	2.2	50.5	1.4	252.9
May ..	+ 3.2	- 6.5	- 8.8	0.0	+ 1.5	+ 0.1	+ 0.2	+ 0.6	7.3	153.8	8.8	270.0	1.5	86.2	0.6	18.4
June ..	+ 3.3	- 6.4	- 7.6	- 0.5	+ 1.2	- 1.0	- 0.2	0.0	7.2	152.7	7.6	266.2	1.6	129.8	0.2	270.0
July ..	+ 2.6	- 5.2	- 7.5	- 1.2	+ 1.4	+ 0.1	- 0.2	0.0	5.8	153.4	7.6	260.9	1.4	85.9	0.2	270.0
August ..	+ 2.0	- 8.5	- 7.4	- 0.7	+ 1.7	- 1.0	- 1.0	- 0.6	8.7	166.8	7.4	264.6	2.0	120.5	1.2	239.0
September	+ 0.8	- 4.9	- 4.9	+ 0.2	+ 1.5	- 1.5	- 0.9	+ 0.6	4.9	170.7	4.9	272.4	2.1	135.0	1.1	303.7
October ..	- 0.1	- 7.2	- 4.9	- 0.1	+ 1.7	+ 0.1	- 0.6	0.0	7.2	180.8	4.9	268.8	1.7	86.6	0.6	270.0
November	- 0.3	- 4.3	- 2.7	- 0.1	+ 1.3	- 1.4	- 0.4	+ 0.6	4.3	184.0	2.7	267.9	1.9	137.1	0.8	326.3
December	+ 0.3	- 3.8	- 1.6	+ 0.4	+ 0.6	- 0.8	+ 0.2	+ 0.3	3.8	175.5	1.7	284.0	1.0	143.1	0.4	33.7
For the Year	+ 1.5	- 6.2	- 5.4	- 0.4	+ 1.4	- 0.5	- 0.4	0.0	6.4	166.4	5.4	265.8	1.5	109.7	0.4	270.0

TABLE XVII.—RESULTS of OBSERVATIONS of MAGNETIC DECLINATION, with DEDUCED VALUES of the BASE-LINE of the DECLINATION MAGNETOGRAMS.

Greenwich Civil Time, 1922.			Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1922.			Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1922.			Declination.	Deduced value of Base-line.						
d	h	m	°	°	d	h	m	°	°	d	h	m	°	°						
Jan.	3.	12.	0	13.	53.4	14.	11.7	13.	55.4	14.	12.4	May	22.	19.	22	13.	48.3	14.	9.3	
		12.	45		53.9		11.9		55.7		12.1		23.	11.	59		52.4		9.4	
	4.	11.	47		54.0		12.0		56.3		12.9			13.	50		53.4		9.4	
	5.	11.	47		54.9		11.9		07	14.	13.1			14.	20		52.9		9.6	
	6.	12.	0		55.4		12.1		56.2	13.	12.3		24.	13.	45		52.5		9.5	
		12.	30		55.8		12.1		56.1		12.6		25.	11.	0		52.5		9.0	
	7.	11.	51		54.0		11.9		57.5		12.5		26.	11.	0		50.9		9.2	
	10.	14.	0		54.1		12.1		56.2		12.3			11.	45		53.7		9.7	
		15.	0		52.8		11.8		54.3		13.1		29.	11.	0		48.9		9.9	
	11.	11.	50		56.5		12.5		55.9		12.4			11.	45		50.7		9.3	
		12.	0		56.3		12.1		54.9		12.4									
	12.	12.	0		54.6		12.0		54.5		12.3		June	1.	11.	2	13.	47.6	14.	8.4
	13.	12.	51		53.9		12.4		53.4		12.3			2.	10.	4		47.7		8.5
		13.	0		53.9		12.4		55.6		12.4				11.	0		51.2		8.5
	14.	11.	51		52.9		12.4		51.2		12.0			7.	12.	0		49.9		8.6
	17.	12.	42		53.6		12.3		48.7		12.4				13.	40		51.3		8.3
		13.	0		54.0		12.2		52.9		12.4				14.	0		52.1		8.8
		13.	44		53.8		12.1		56.5		12.5			8.	11.	0		50.4		8.5
	18.	12.	36		54.6		12.6		55.7		12.4			9.	11.	0		47.5		8.3
	19.	10.	51		52.3		11.9		49.7		12.0				11.	40		49.7		8.9
	20.	12.	0		55.6		12.1							12.	11.	40		51.2		8.4
		12.	38		55.5		12.1		49.5	13.	12.3			13.	10.	0		46.7		8.3
	21.	12.	0		54.4		12.1		52.7		12.2				11.	0		49.0		8.3
	24.	12.	0		56.4		12.2		52.3		12.3				12.	0		52.3		8.6
		13.	0		57.6		11.9		53.6		8.4			14.	11.	0		48.8		8.4
	26.	11.	0		56.2		12.2		45.5		9.1			15.	11.	0		48.1		8.2
		12.	25		55.5		12.1		49.0		8.8				11.	50		50.5		8.5
	27.	14.	0		53.4		12.0		53.4		9.0			20.	10.	55		46.3		8.2
		15.	0		51.9		11.9		52.1		9.0				12.	45		51.5		8.9
	30.	16.	20		52.0		11.9		53.9		9.1			22.	11.	0		48.9		8.9
	31.	12.	48		57.8		11.5		56.4		9.4				13.	0		50.6		8.3
		13.	0		58.7		12.4		50.9		8.7			23.	11.	0		46.9		8.2
		13.	21		57.1		11.8		51.4		9.2				11.	40		49.6		8.8
									53.1		9.2			25.	13.	54		53.1		8.9
Feb.	2.	13.	0	13.	56.7	14.	12.7	13.	55.2	14.	12.3			27.	11.	0		49.1		8.1
	3.	12.	0		54.6		12.2		46.3		8.9				11.	30		50.4		8.4
		12.	33		56.5		12.8		51.0		9.0			30.	11.	0		50.2		8.4
	7.	13.	0		54.1		12.3		51.9		9.4				11.	30		50.3		8.3
		14.	35		53.6		12.5		50.9		9.2									
	9.	16.	0		52.9		12.2		52.8		8.9		July	4.	13.	0	13.	48.9	14.	7.9
	10.	12.	0		54.4		12.4		54.0		9.0				13.	40		48.0		8.0
		12.	40		54.1		12.6		49.7		8.9			5.	11.	26		48.3		7.8
	11.	12.	17		56.4		13.2		54.2		9.2			7.	11.	0		47.2		7.8
	14.	12.	30		55.1		13.3		50.1		8.8				11.	42		49.3		8.2
		14.	0		54.3		12.8		49.7		8.5			11.	10.	0		46.2		7.7
		15.	0		54.5		13.0		51.4		9.1				11.	35		51.2		8.2
	16.	12.	5		57.0		12.9		53.2		9.2				12.	0		51.6		8.3
		15.	57		49.2		12.2							13.	11.	0		48.3		7.9
	17.	12.	0		54.9		12.8		49.6	13.	9.6			14.	11.	0		45.7		7.9
		13.	0		54.0		12.9		54.1		9.6				12.	0		47.9		7.9
	18.	12.	30		53.5		12.4		54.2		9.7			15.	11.	15		46.1		7.6
	21.	12.	0		53.0		12.5		50.2		9.5			18.	9.	0		42.1		7.5
		13.	0		53.5		12.3		51.8		9.4				11.	0		47.6		7.6
	22.	12.	0		55.3		12.6		56.2		9.4				13.	42		50.7		7.7
	24.	12.	0		54.2		12.7		52.9		9.7				14.	10		50.5		8.0
		12.	30		55.3		13.0		58.0		9.7			20.	11.	4		47.6		8.0
	25.	12.	0		54.2		12.8		57.2		9.7			21.	11.	0		47.2		7.7
	28.	14.	0		56.1		12.8		51.8		9.4				11.	40		47.5		7.7
		14.	40		55.6		13.1							25.	11.	27		51.0		8.5
									51.2		9.7				14.	33		49.5		8.5
Mar.	1.	12.	0	13.	54.2	14.	12.2	13.	54.6	14.	9.8				15.	0		48.7		7.9
	2.	12.	0		53.3		12.3		55.4		9.8			27.	11.	0		48.5		8.0
	3.	12.	0		55.7		12.7		55.5		9.5			28.	10.	0		45.4		7.9
		12.	30		55.3		12.5		48.9		9.5				10.	40		47.1		8.1
	7.	12.	0		52.7		11.9		55.0		10.0			29.	11.	0		48.0		8.0
		13.	0		53.7		12.3		55.6		9.6									
	8.	16.	0		51.8		11.8		50.9		9.9		Aug.	1.	12.	0	13.	50.5	14.	7.5
	9.	12.	0		54.3		12.3		51.0		10.0				12.	25		49.7		7.7
	10.	12.	0		54.5		12.5		52.2		9.9			2.	13.	14		49.4		8.1



TABLE XVIII.—RESULTS of DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE from OBSERVATIONS made with the GIBSON INSTRUMENT in the MAGNETIC PAVILION, with DEDUCED VALUES of the BASE-LINE of the NORTH FORCE MAGNETOGRAMS.

Greenwich Civil Time, 1922.		In C.G.S. Units.		Greenwich Civil Time, 1922.		In C.G.S. Units.		Greenwich Civil Time, 1922.		In C.G.S. Units.	
		Value of observed Horizontal Force.	Deduced value of North Force Base-line.			Value of observed Horizontal Force.	Deduced value of North Force Base-line.			Value of observed Horizontal Force.	Deduced value of North Force Base-line.
d	h m h m	·18000+	·17000+	d	h m h m	·18000+	·17000+	d	h m h m	·18000+	·17000+
Jan. 3.	12 9-12 51	448	896	May 2.	13 33-14 17	443	915	Sept. 1.	14 7-14 51	421	756
6.	11 57-12 43	460	905	5.	13 37-14 19	451	924	5.	11 2-11 45	423	767
10.	14 20-15 7	428	895	9.	14 13-14 57	419	929	8.	10 24-11 6	383	763
13.	12 43-13 27	438	892	12.	13 13-13 56	433	918	12.	10 55-11 37	420	768
17.	12 33-13 34	440	903	16.	13 0-13 55	454	925	15.	11 24-12 23	394	766
20.	11 55-12 45	449	898	19.	10 37-11 22	420	922	19.	10 55-11 38	438	780
24.	12 23-13 12	448	899	23.	13 44-14 27	434	946	22.	11 2-11 45	405	764
27.	14 7-14 56	442	895	26.	11 7-11 49	435	968	26.	10 56-11 40	419	773
31.	12 41-13 26	459	907	29.	11 11-11 53	418	954	29.	10 21-11 30	420	766
Feb. 3.	11 53-12 40	452	893	June 2.	10 39-11 24	434	949	Oct. 3.	11 20-12 4	424	772
7.	14 28-15 13	452	899	7.	13 34-14 17	445	961	10.	11 32-12 17	429	781
10.	12 0-12 42	445	904	9.	11 4-11 47	425	954	13.	11 28-12 9	437	789
14.	14 6-15 4	452	899	13.	11 18-12 2	421	951	18.	11 43-12 50	427	780
17.	12 12-12 55	415	896	15.	10 55-11 53	414	946	20.	12 1-12 44	436	783
21.	12 25-13 6	431	889	22.	13 57-14 44	448	949	25.	12 4-12 46	415	781
24.	14 4-12 37	438	891	23.	11 1-11 44	445	952	27.	11 46-12 34	384	763
28.	14 4-14 47	453	904	27.	10 53-11 36	424	951	31.	12 2-12 46	410	795
Mar. 3.	11 52-12 35	434	902	30.	10 50-11 32	386	942	Nov. 3.	12 3-12 45	420	784
7.	12 25-13 7	436	913	July 4.	13 1-13 45	438	745	7.	14 24-15 6	444	791
10.	11 51-12 35	447	911	7.	11 3-11 44	439	751	10.	11 59-12 44	431	786
14.	14 6-15 6	413	899	11.	11 28-12 11	436	747	14.	11 41-12 29	435	793
17.	15 8-15 52	432	911	14.	11 6-12 2	436	750	17.	11 44-12 51	439	797
21.	15 2-15 44	433	902	18.	13 35-14 18	438	752	21.	11 39-12 23	441	792
24.	12 17-12 59	441	901	21.	11 4-11 46	440	746	24.	11 33-12 24	434	794
29.	11 15-11 59	415	888	25.	14 26-15 8	458	758	28.	11 44-12 31	433	797
31.	13 13-13 54	385	875	28.	10 5-10 46	413	752	Dec. 1.	11 42-12 28	423	800
April 4.	11 31-12 17	419	895	Aug. 1.	11 47-12 29	429	761	5.	12 2-12 51	442	797
8.	9 7-9 53	444	930	4.	11 0-11 45	449	758	8.	11 29-12 14	428	794
11.	13 23-14 7	437	919	9.	11 0-11 43	428	757	12.	11 48-12 35	438	800
13.	11 14-12 12	414	925	11.	10 44-11 40	424	765	15.	11 38-12 41	430	804
19.	11 35-12 19	426	914	29.	14 10-14 54	436	775	19.	12 3-12 46	445	800
21.	13 56-14 38	433	912					22.	12 14-12 55	444	804
25.	12 59-13 45	417	913					27.	14 20-15 3	431	798
28.	11 0-11 42	400	900					29.	12 44-13 29	437	809

TABLE XIX.—RESULTS of OBSERVATIONS of MAGNETIC DIP made with the DIP INDUCTOR, with DEDUCED VALUES of the BASE-LINE of the VERTICAL FORCE MAGNETOGRAMS.

Greenwich Civil Time, 1922.	Magnetic Dip.	Deduced Value of Vertical Force Base-line.	Greenwich Civil Time, 1922.	Magnetic Dip.	Deduced Value of Vertical Force Base-line.	Greenwich Civil Time, 1922.	Magnetic Dip.	Deduced Value of Vertical Force Base-line.	Greenwich Civil Time, 1922.	Magnetic Dip.	Deduced Value of Vertical Force Base-line.
d h	° ' "	·42800+	d h	° ' "	·42800+	d h	° ' "	·42800+	d h	° ' "	·42800+
Jan. 3. 11·9	66 53·0	488	April 4. 11·2	66 53·6	308	July 4. 11·5	66 51·4	—	Oct. 3. 11·1	66 52·2	163
6. 11·7	66 52·2	468	6. 15·4	66 52·1	300	7. 10·8	66 52·3	379	4. 10·8	66 52·4	103
10. 12·7	66 52·3	—	8. 8·8	66 52·7	209	8. 11·0	66 52·8	370	6. 10·9	66 53·5	140
13. 12·4	66 51·4	357	11. 13·2	66 50·3	116	11. 11·2	66 53·7	434	10. 10·9	66 54·9	261
14. 11·8	66 53·1	426	12. 11·0	66 53·0	242	13. 10·8	66 52·7	379	12. 11·4	66 53·7	157
17. 12·3	66 52·9	388	13. 11·0	66 53·5	210	14. 10·9	66 53·8	449	13. 11·2	66 53·1	204
20. 11·6	66 52·4	424	19. 9·5	66 53·2	242	18. 11·2	66 53·3	414	18. 11·5	66 52·7	156
24. 12·1	66 51·4	412	20. 11·3	66 53·4	278	20. 11·2	66 53·1	450	19. 11·8	66 52·0	181
27. 12·7	66 52·3	310	21. 11·5	66 52·6	240	21. 10·8	66 51·2	345	20. 11·8	66 51·7	142
31. 12·5	66 53·1	352	21. 13·7	66 52·9	265	25. 11·3	66 54·1	430	25. 11·8	66 52·2	103
Feb. 2. 13·0	66 52·9	307	25. 11·0	66 54·2	260	27. 11·2	66 52·4	428	26. 12·1	66 53·3	123
3. 11·7	66 52·7	342	27. 12·1	66 55·1	283	28. 9·8	66 52·4	362	27. 11·5	66 54·5	136
7. 14·3	66 54·7	414	28. 10·8	66 56·1	320	Aug. 1. 11·6	66 53·4	416	31. 11·8	66 56·8	132
9. 15·9	66 54·0	344	May 2. 11·1	66 54·3	269	2. 13·6	66 52·5	404	Nov. 2. 11·8	66 54·9	181
10. 11·8	66 54·0	348	4. 11·1	66 51·8	213	4. 10·8	66 52·6	412	3. 11·9	66 54·5	152
14. 12·3	66 51·5	316	5. 13·4	66 51·3	189	8. 14·7	66 52·2	136	7. 14·2	66 51·7	83
17. 11·9	66 54·5	364	9. 11·8	66 51·8	187	9. 9·9	66 53·6	152	9. 12·0	66 53·0	138
18. 12·4	66 53·7	359	11. 15·1	66 53·5	213	11. 9·8	66 54·8	144	10. 11·8	66 53·5	115
21. 12·1	66 53·3	343	12. 11·6	66 51·7	181	15. 10·9	66 53·6	179	14. 11·5	66 53·7	116
22. 11·8	66 52·0	318	16. 11·1	66 53·7	267	17. 15·3	66 51·4	152	16. 12·2	66 53·1	94
24. 11·6	66 51·0	266	18. 11·1	66 51·9	188	18. 10·6	66 53·2	180	17. 11·5	66 53·0	111
28. 12·5	66 51·7	222	19. 10·4	66 53·8	233	23. 10·4	66 55·9	112	21. 11·4	66 52·5	107
Mar. 2. 12·0	66 53·8	283	23. 11·8	66 54·9	200	25. 10·4	66 54·2	160	23. 11·2	66 52·3	75
3. 11·6	66 53·5	306	25. 11·3	66 53·6	193	29. 13·8	66 53·3	134	24. 11·3	66 53·3	105
7. 12·2	66 53·1	245	26. 10·9	66 52·4	180	31. 10·9	66 54·8	150	28. 11·5	66 52·8	112
9. 12·0	66 54·0	305	29. 11·0	66 53·7	235	Sept. 1. 11·5	66 54·1	163	29. 12·2	66 55·4	102
10. 11·6	66 54·4	366	June 1. 11·3	66 50·2	142	5. 9·1	66 53·4	150	Dec. 1. 11·5	66 53·8	121
14. 12·7	66 54·2	256	2. 10·2	66 51·4	177	6. 11·0	66 53·7	180	5. 11·8	66 53·3	150
16. 11·9	66 53·1	305	7. 13·3	66 53·6	202	8. 9·8	66 54·0	100	7. 12·2	66 53·0	113
17. 12·5	66 52·5	237	8. 10·9	66 54·1	184	12. 10·7	66 54·2	147	8. 11·2	66 53·3	112
21. 12·3	66 53·5	279	9. 10·8	66 54·5	207	14. 13·2	66 56·9	91	12. 11·6	66 51·4	67
23. 14·1	66 51·3	244	13. 11·1	66 52·6	141	15. 11·2	66 57·1	209	13. 12·3	66 52·3	105
24. 12·1	66 53·1	310	13. 14·8	66 51·1	128	19. 10·6	66 53·7	205	15. 11·4	66 52·9	90
29. 11·0	66 53·5	304	14. 11·0	66 52·6	149	20. 13·2	66 52·3	183	19. 11·8	66 51·8	82
30. 15·2	66 53·1	289	15. 10·7	66 53·8	172	22. 10·8	66 54·6	195	20. 11·5	66 53·3	134
31. 13·0	66 53·7	315	20. 12·1	66 53·9	146	26. 10·6	66 53·5	162	22. 12·0	66 52·5	103
			22. 12·9	66 53·6	162	27. 10·7	66 53·7	198	27. 14·1	66 53·3	130
			23. 10·8	66 50·4	76	29. 14·0	66 52·2	166	30. 11·9	66 51·5	49
			27. 10·7	66 51·6	59						
			28. 10·0	66 51·6	79						
			30. 10·6	66 53·1	23						

TABLE XX.—ANNUAL SUMMARY OF THE MAGNETIC ELEMENTS.

Month. 1922.	Mean Value of						Monthly Mean Diurnal Range of			Sum of Hourly Deviations from Means of		
	Declination.	Horizontal Force.	Dip.	West Force.	North Force.	Vertical Force.	Declination.	North Force.	Vertical Force.	Declination.	North Force.	Vertical Force.
January ....	13. 52·0	·18446	66. 52·8	·04421	·17908	·43203	4·9	15γ	16γ	25·3	79γ	107γ
February ..	13. 51·2	·18442	66. 52·7	·04416	·17906	·43193	5·5	13	12	33·6	84	88
March ....	13. 50·2	·18435	66. 52·8	·04409	·17900	·43178	8·5	33	26	47·1	204	161
April .....	13. 48·6	·18442	66. 52·3	·04402	·17909	·43176	8·9	39	30	52·4	251	176
May .....	13. 47·4	·18445	66. 52·4	·04396	·17913	·43188	8·7	36	29	56·6	240	154
June .....	13. 47·2	·18445	66. 51·4	·04395	·17913	·43151	9·4	40	27	56·9	262	146
July .....	13. 46·4	·18446	66. 51·9	·04392	·17916	·43171	9·3	39	24	54·9	262	134
August ....	13. 45·7	·18440	66. 52·2	·04386	·17911	·43171	8·8	36	26	54·3	250	173
September ..	13. 44·4	·18434	66. 52·5	·04378	·17906	·43165	8·0	37	18	48·4	259	108
October ....	13. 43·5	·18436	66. 52·3	·04374	·17910	·43164	7·3	33	20	42·3	216	132
November ..	13. 42·4	·18441	66. 52·4	·04370	·17916	·43179	4·8	21	11	25·7	122	80
December ..	13. 41·5	·18445	66. 52·0	·04366	·17921	·43175	3·9	14	10	21·6	73	66
For the Year.	13. 46·7	·18442	66. 52·3	·04392	·17911	·43176	7·3	29·7	20·8	43·3	191·4	127·1

ROYAL OBSERVATORY, GREENWICH.

---

MAGNETIC DISTURBANCES.

---

1922.

MAGNETIC DISTURBANCES IN DECLINATION, NORTH FORCE, and VERTICAL FORCE,  
recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1922.

The following notes give a brief description of all magnetic movements (superposed on the ordinary diurnal movement) exceeding  $3'$  in Declination,  $20\gamma$  in North Force, or  $12\gamma$  in Vertical Force, as taken from the photographic records of the respective Magnetometers. The movements in North and Vertical Force are expressed in C. G. S. units. When any one of the three elements is not specifically mentioned, it is to be understood that the movement, if any, was insignificant. Any failure or want of register is specially indicated.

The term "wave" is used to indicate a movement in one direction and return; "double wave" a movement in one direction and return with continuation in the opposite direction and return; "two successive waves" consecutive wave movement in the same direction; "oscillations" a number of movements in both directions. The extent and direction of the movement are indicated in brackets, + denoting an increase, and - a decrease of the magnetic element. In the case of oscillations the sign  $\pm$  denotes positive and negative movements of generally equal extent.

Magnetic movements which do not admit of brief description in this way are exhibited on accompanying plates.

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

1922.

January

$2^d$   $12\frac{1}{2}^h$  to  $13\frac{1}{2}^h$  Increase in V.F. (+ 12).  $19\frac{1}{2}^h$  to  $20\frac{3}{4}^h$  Wave in Dec. (- 6').  $20\frac{3}{4}^h$  to  $21\frac{1}{2}^h$  Decrease in Dec. (- 4').  $4^d$   $1^h$  to  $2\frac{1}{4}^h$  Wave in N.F. (+ 20).  $6^d$   $16^h$  to  $17^h$  Increase in Dec. (+ 3').  $18\frac{1}{2}^h$  to  $20\frac{1}{2}^h$  Slow wave in N.F. (- 30).  $19^h$  to  $20^h$  Irregular decrease in Dec. (- 5').  $7^d$   $0\frac{1}{2}^h$  to  $0\frac{3}{4}^h$  Wave in N.F. (- 20).  $1^h$  to  $3\frac{1}{2}^h$  Double wave in Dec. (- 6', + 8').  $1\frac{3}{4}^h$  to  $3\frac{1}{4}^h$  Double-crested wave in N.F. (- 40).  $2\frac{3}{4}^h$  to  $3\frac{1}{4}^h$  Decrease in V.F. (- 20), gradually recovering till  $7^h$ .  $3\frac{1}{2}^h$  to  $5\frac{1}{2}^h$  Increase in Dec. (+ 8').  $8\frac{1}{2}^h$  to  $9\frac{1}{4}^h$  Decrease in N.F. (- 30).

$8^d$   $3^h$  to  $3\frac{1}{2}^h$  Wave in Dec. (+ 3').  $16\frac{1}{4}^h$  to  $17\frac{1}{2}^h$  Wave in N.F. (- 30).  $16\frac{1}{4}^h$  to  $18^h$  Wave in Dec. (- 12').  $17\frac{3}{4}^h$  to  $18\frac{1}{2}^h$  Decrease in N.F. (- 50), followed immediately till  $20^h$  by a serrated truncated wave (+ 35).  $18^h$  to  $19\frac{1}{2}^h$  Decrease in Dec. (- 12'), temporarily recovering at  $19^h$ , and followed till  $20^h$  by an increase (+ 4').  $20\frac{1}{4}^h$  to  $21\frac{1}{2}^h$  Double wave in Dec. (16', + 7'), with a small wave superposed at  $20\frac{3}{4}^h$  (- 3').  $20\frac{1}{4}^h$  to  $21\frac{1}{2}^h$  Steep wave in N.F. (+ 90), with a secondary wave superposed at  $21^h$  (+ 40).  $21\frac{1}{2}^h$  to  $22^h$  Wave in Dec. (- 4').  $21\frac{1}{2}^h$  to  $22\frac{1}{4}^h$  Wave in N.F. (+ 30).  $22^h$  to  $24^h$  Double wave in Dec. (- 13', + 8').  $22\frac{1}{4}^h$  to  $23\frac{1}{4}^h$  Double-crested wave in N.F. (+ 40, + 20).

$8^d$   $10\frac{3}{4}^h$  to  $9^d$   $11\frac{1}{4}^h$  V.F., register lost through stoppage of the driving clock of the recording cylinder. The extreme range of the trace during the period is seen to have been not greater than  $70\gamma$ .

$9^d$   $0^h$  to  $1^h$  Sharp wave in Dec. (+ 10').  $0^h$  to  $1\frac{1}{2}^h$  Double wave in N.F. ( $\mp$  25).  $1\frac{1}{2}^h$  to  $2\frac{1}{2}^h$  Truncated wave in Dec. (- 6').  $1\frac{1}{2}^h$  to  $2^h$  Increase in N.F. (+ 20).  $3\frac{3}{4}^h$  to  $4\frac{3}{4}^h$  Decrease in N.F. (- 30).  $4^h$  to  $5^h$  Wave in Dec. (+ 4'), followed till  $6\frac{1}{2}^h$  by a general increase (+ 7').  $6\frac{1}{2}^h$  to  $7^h$  Rapid decrease in Dec. (- 9').  $9\frac{1}{4}^h$  to  $11^h$  Slow wave in N.F. (- 30).  $13^h$  to  $14^h$  Fluctuating decrease in Dec. (- 5').  $16\frac{1}{4}^h$  to  $17\frac{1}{4}^h$  Wave in Dec. (- 7').  $18^h$  to  $19\frac{1}{2}^h$  Double-crested wave in Dec. (- 8', - 7').  $18\frac{1}{4}^h$  to  $19\frac{1}{2}^h$  Truncated wave in N.F. (+ 35).  $21^h$  to  $22^h$  Irregular wave in Dec. (- 6').  $21\frac{1}{4}^h$  to  $22\frac{1}{4}^h$  Wave in N.F. (+ 40).

$10^d$   $0^h$  to  $0\frac{3}{4}^h$  Wave in N.F. (- 20).  $1^h$  to  $3^h$  Double wave in Dec. (- 8', + 4').  $5^h$  to  $6\frac{1}{2}^h$  Irregular wave in N.F. (- 20).  $6\frac{1}{2}^h$  to  $7^h$  Decrease in Dec. (- 4').  $9^h$  to  $9\frac{1}{2}^h$  Decrease in N.F. (- 35).  $10\frac{1}{2}^h$  to  $11\frac{1}{4}^h$  Increase in N.F. (+ 20).  $14^h$  to  $14\frac{1}{2}^h$  Several sharp oscillations in N.F. about  $20\gamma$ .  $16\frac{3}{4}^h$  to  $17\frac{3}{4}^h$  Wave in Dec. (- 5').  $16\frac{3}{4}^h$  to  $17^h$  Rapid increase in N.F. (+ 20).  $18^h$  to  $18\frac{3}{4}^h$  Wave in Dec. (+ 4').  $18\frac{1}{2}^h$  to  $19\frac{1}{2}^h$  Wave in N.F. (+ 20).  $20\frac{3}{4}^h$  to  $22\frac{1}{2}^h$  Wave in Dec. (- 8').  $21^h$  to  $22^h$  Wave in N.F. (+ 50).  $23\frac{1}{2}^h$  to  $24^h$  Increase in Dec. (+ 4').

$10^d$   $12^h$  to  $11^d$   $12^h$  Loss of V.F. register.

$11^d$   $1^h$  to  $1\frac{1}{2}^h$  Increase in Dec. (+ 3').  $1\frac{3}{4}^h$  to  $2\frac{1}{2}^h$  Decrease in Dec. (- 6').  $10\frac{1}{2}^h$  to  $11\frac{1}{4}^h$  Wave in N.F. (- 20).  $1^h$  to  $3^h$  Wave in Dec. (+ 5').  $13^h$  to  $13\frac{1}{4}^h$  Increase in N.F. (+ 20).  $16\frac{1}{2}^h$  to  $17\frac{1}{4}^h$  Wave in Dec. (- 3').

$12^d$   $1\frac{1}{2}^h$  to  $2\frac{1}{2}^h$  Wave in Dec. (+ 3').  $23^h$  to  $24^h$  Wave in Dec. (- 3').

$13^d$   $0\frac{1}{2}^h$  to  $1\frac{3}{4}^h$  Wave in N.F. (+ 25).  $1^h$  to  $2^h$  Wave in Dec. (- 3').

$14^d$   $18\frac{1}{2}^h$  to  $19\frac{1}{2}^h$  Wave in Dec. (- 3').

1922.  
January
- 16<sup>d</sup> 13<sup>h</sup> to 14<sup>h</sup> Wave in Dec. (- 3'). 14<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (- 25). 14<sup>h</sup> to 16<sup>h</sup> Domed wave in Dec. (- 4'). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (- 30). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 3'). 19<sup>h</sup> to 21<sup>h</sup> Double wave in N.F. (+ 40, - 30). 18<sup>h</sup> to 19<sup>h</sup> Decrease in Dec. (- 8'), followed by a series of small oscillations till 23<sup>h</sup>. 23<sup>h</sup> to 24<sup>h</sup> Double wave in Dec. (- 6', + 5'). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 40).
- 17<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Irregular wave in N.F. (+ 85). 0<sup>h</sup> to 0<sup>h</sup> Decrease in V.F. (- 20). 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 5'). 1<sup>h</sup> to 2<sup>h</sup> Domed wave in N.F. (+ 25). 2<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 5'). 4<sup>h</sup> to 5<sup>h</sup> Increase in Dec. (+ 3'). 7<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 20). 15<sup>h</sup> to 16<sup>h</sup> Truncated wave in N.F. (- 20). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 5'). 23<sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 12).
- 18<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 3'), with wave in N.F. (- 20). 18<sup>h</sup> to 19<sup>h</sup> Double wave in N.F. (∓ 25). 18<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 8'), with a further wave superposed at 19<sup>h</sup> (- 4'). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 50). 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'), followed immediately till 23<sup>h</sup> by a double-crested wave (- 8', - 7').
- 19<sup>d</sup> 18<sup>h</sup> to 18<sup>h</sup> Sharp wave in V.F. (+ 15). 19<sup>h</sup> to 21<sup>h</sup> Serrated wave in Dec. (- 14'). 19<sup>h</sup> to 20<sup>h</sup> Truncated wave in N.F. (+ 65). 22<sup>h</sup> Sudden decrease in V.F. (- 12). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 3').
- 20<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'). 15<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 7'). 22<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 25).
- 23<sup>d</sup> 23<sup>h</sup> to 24<sup>h</sup> 0<sup>h</sup> Wave in Dec. (- 3').
- 24<sup>d</sup> 4<sup>h</sup> to 5<sup>h</sup> Increase in Dec. (+ 6'). 6<sup>h</sup> to 7<sup>h</sup> Increase in N.F. (+ 25).
- 24<sup>d</sup> 11<sup>h</sup> to 25<sup>d</sup> 11<sup>h</sup>. See Plate I.
- 25<sup>d</sup> 11<sup>h</sup> to 11<sup>h</sup> Irregular decrease in Dec. (- 6'), with corresponding increase in N.F. (+ 30). 15<sup>h</sup> to 17<sup>h</sup> Irregular decrease in N.F. (- 50). 15<sup>h</sup> to 18<sup>h</sup> Slow wave in V.F. (+ 16). 17<sup>h</sup> Sudden increase in N.F. (+ 105), with an oscillating partial return (- 55, + 25, - 40) till 18<sup>h</sup>, and a further wave till 18<sup>h</sup> (+ 25). 17<sup>h</sup> to 18<sup>h</sup> Three consecutive waves in Dec. (- 10', - 6', - 5'), the first two steep. 23<sup>h</sup> to 26<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 35). 23<sup>h</sup> to 26<sup>d</sup> 0<sup>h</sup> Domed wave in Dec. (- 3').
- 26<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in N.F. (+ 40). 0<sup>h</sup> to 2<sup>h</sup> Serrated wave in Dec. (- 5'). 0<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- 12). 8<sup>h</sup> to 10<sup>h</sup> Wave in N.F. (- 25), with corresponding wave in Dec. (+ 4'). 13<sup>h</sup> to 21<sup>h</sup> Loss of register in V.F. 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 22<sup>h</sup> to 24<sup>h</sup> Double wave in N.F. (∓ 20). 23<sup>h</sup> to 27<sup>d</sup> 0<sup>h</sup> Double-crested wave in Dec. (+ 8', + 6'). 23<sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 18).
- 27<sup>d</sup> 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 3').
- 28<sup>d</sup> 22<sup>h</sup> to 24<sup>h</sup> Slow wave in N.F. (+ 20). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 4').
- 29<sup>d</sup> 17<sup>h</sup> to 19<sup>h</sup> Slow double-crested wave in Dec. (- 3', - 4').
- 30<sup>d</sup> 18<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 3'). 23<sup>h</sup> to 24<sup>h</sup> Sharp wave in N.F. (+ 20). 23<sup>h</sup> to 31<sup>d</sup> 2<sup>h</sup> Two consecutive slow waves in Dec. (- 3').
- 31<sup>d</sup> 11<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 15<sup>h</sup> Accelerated increase in V.F. (+ 50). 13<sup>h</sup> to 14<sup>h</sup> Serrated wave in Dec. (- 7'). 13<sup>h</sup> to 15<sup>h</sup> Oscillating decrease in N.F. (- 85), with a similar partial recovery till 17<sup>h</sup> (+ 50). 15<sup>h</sup> to 16<sup>h</sup> Three consecutive waves in Dec. (+ 3', + 4', + 3'). 17<sup>h</sup> to 17<sup>h</sup> Truncated wave in Dec. (+ 3'). 17<sup>h</sup> to 22<sup>h</sup> General decrease in V.F. (- 28). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (+ 3'), followed till 20<sup>h</sup> by a decrease (- 5'). 18<sup>h</sup> to 18<sup>h</sup> Rapid increase in N.F. (+ 30). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 6'), followed immediately till 23<sup>h</sup> by a decrease (- 6'), and then till 24<sup>h</sup> by a small double-crested wave (+ 3'). 22<sup>h</sup> to 23<sup>h</sup> Domed wave in N.F. (- 20). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 20). 23<sup>h</sup> to Feb. 1<sup>d</sup> 1<sup>h</sup> Irregular decrease in V.F. (- 20).
- February
- 1<sup>d</sup> 1<sup>h</sup> to 1<sup>h</sup> Rapid increase in Dec. (+ 4'). 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 3'). 20<sup>h</sup> to 20<sup>h</sup> Accelerated decrease in Dec. (- 3'), followed till 23<sup>h</sup> by a steep wave (+ 10'). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 25). 21<sup>h</sup> to 22<sup>h</sup> Decrease in V.F. (- 12).
- 2<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Flattened double-crested wave in Dec. (- 4'). 2<sup>h</sup> to 3<sup>h</sup> Decrease in Dec. (- 5'). 4<sup>h</sup> to 5<sup>h</sup> Increase in Dec. (+ 6'). 13<sup>h</sup> to 16<sup>h</sup> Steady decrease in Dec. (- 8'), followed till 17<sup>h</sup> by a similar increase (+ 3'). 17<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 14). 19<sup>h</sup> to 20<sup>h</sup> Rapid decrease in V.F. (- 12).
- 3<sup>d</sup> 10<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 3'). 15<sup>h</sup> to 15<sup>h</sup> Sharp wave in Dec. (+ 4'). 15<sup>h</sup> to 16<sup>h</sup> Irregular decrease in N.F. (- 60). 15<sup>h</sup> to 19<sup>h</sup> General increase in V.F. (+ 40), accelerated after 18<sup>h</sup>. 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 8'). 16<sup>h</sup> to 18<sup>h</sup> Irregular wave in N.F. (+ 60). 18<sup>h</sup> to 21<sup>h</sup> General increase in N.F. (+ 40), with continuous small oscillations. 19<sup>h</sup> to 19<sup>h</sup> Rapid decrease in Dec. (- 5'). 19<sup>h</sup> to 24<sup>h</sup> Steady decrease in V.F. (- 40). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 21<sup>h</sup> to 22<sup>h</sup> Serrated, truncated wave in N.F. (+ 20). 21<sup>h</sup> to 23<sup>h</sup> Fluctuating increase in Dec. (+ 7'). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 5'). 23<sup>h</sup> to 4<sup>d</sup> 1<sup>h</sup> Two consecutive waves in N.F. (+ 20).

1922.  
February

- 4<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Decrease in Dec. (- 3'), followed till 3<sup>h</sup> by a flattened wave (+ 8'). 1<sup>h</sup> to 2<sup>h</sup> Increase in N.F. (+ 30). 3<sup>h</sup> to 4<sup>h</sup> Decrease in N.F. (- 25). 3<sup>h</sup> to 5<sup>h</sup> General increase in Dec. (+ 7'). 7<sup>h</sup> to 8<sup>h</sup> Truncated wave in N.F. (- 20). 8<sup>h</sup> to 8<sup>h</sup> Decrease in Dec. (- 4'). 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 3'). 17<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 3'). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 5'). 22<sup>h</sup> to 5<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 60), with steep ascent.
- 5<sup>d</sup> 21<sup>h</sup> to 21<sup>h</sup> Decrease in Dec. (- 3'). 22<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 40). 23<sup>h</sup> to 6<sup>d</sup> 0<sup>h</sup> Increase in Dec. (+ 5').
- 6<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 3'). 5<sup>h</sup> to 6<sup>h</sup> Decrease in Dec. (- 4'). 10<sup>h</sup> to 11<sup>h</sup> Wave in N.F. (- 20). 13<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (- 45). 14<sup>h</sup> to 15<sup>h</sup> Truncated wave in Dec. (- 4'). 17<sup>h</sup> to 18<sup>h</sup> Domed wave in Dec. (- 3'), followed till 20<sup>h</sup> by a further wave (- 7'). 18<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 30). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 3').
- 7<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 4'), with steep rise and slow fall.
- 8<sup>d</sup> 14<sup>h</sup> to 15<sup>h</sup> Wave in Dec. (- 4'). 14<sup>h</sup> to 16<sup>h</sup> Double-crested wave in N.F. (- 30). 15<sup>h</sup> to 17<sup>h</sup> General increase in Dec. (+ 5'). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (- 20). 17<sup>h</sup> to 19<sup>h</sup> General decrease in Dec. (- 5'). 19<sup>h</sup> to 20<sup>h</sup> Irregular flattened wave in N.F. (+ 25). 19<sup>h</sup> to 21<sup>h</sup> Triple-crested wave in Dec. (- 5'). 22<sup>h</sup> to 24<sup>h</sup> Triple wave in Dec. (- 3', + 3', - 3'). 22<sup>h</sup> to 23<sup>h</sup> Two consecutive waves in N.F. (+ 40, + 20). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 20).
- 9<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> General increase in Dec. (+ 5'). 2<sup>d</sup> to 4<sup>h</sup> Irregular wave in Dec. (- 6'). 12<sup>h</sup> to 14<sup>h</sup> Accelerated increase in V.F. (+ 28), followed till 17<sup>h</sup> by a slow, flattened wave (- 14), and then till 24<sup>h</sup> by a general decrease (- 24). 14<sup>h</sup> to 14<sup>h</sup> Rapid decrease in Dec. (- 7'), partially recovering till 15<sup>h</sup> (+ 4'). 14<sup>h</sup> to 14<sup>h</sup> Rapid increase in N.F. (+ 30), preceded by two small rapid oscillations. 16<sup>h</sup> to 18<sup>h</sup> Double wave in N.F. (- 35, + 20), the intermediate portion being steep. 16<sup>h</sup> to 17<sup>h</sup> Sharp wave in Dec. (- 12'). 19<sup>h</sup> to 22<sup>h</sup> Two consecutive double waves in N.F. (± 25, ± 20). 19<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 10'). 23<sup>h</sup> to 23<sup>h</sup> Increase in Dec. (+ 5'), followed till 10<sup>d</sup> 1<sup>h</sup> by a further general increase (+ 5').
- 10<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 4').
- 12<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Truncated wave in N.F. (+ 30). 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 7'). 11<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 5'). 12<sup>h</sup> to 13<sup>h</sup> Wave in N.F. (- 20). 19<sup>h</sup> to 21<sup>h</sup> Double wave in N.F. (- 25', + 20), the second part truncated. 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 20'), the return being incomplete (+ 13'). 23<sup>h</sup> to 24<sup>h</sup> Increase in Dec. (+ 6').
- 13<sup>d</sup> 1<sup>h</sup> to 1<sup>h</sup> Increase in N.F. (+ 20). 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 4'). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (- 3'). 4<sup>h</sup> to 5<sup>h</sup> Decrease in Dec. (- 20). 4<sup>h</sup> to 5<sup>h</sup> Increase in Dec. (+ 4'). 10<sup>h</sup> to 11<sup>h</sup> Wave in N.F. (- 20). 10<sup>h</sup> to 11<sup>h</sup> Wave in Dec. (- 4'). 12<sup>h</sup> to 14<sup>h</sup> Slow wave in N.F. (- 20). 12<sup>h</sup> to 14<sup>h</sup> Domed wave in Dec. (+ 4'). 19<sup>h</sup> to 22<sup>h</sup> Two consecutive irregular waves in Dec. (- 4'). 19<sup>h</sup> to 21<sup>h</sup> Two consecutive waves in N.F. (+ 20), the first truncated.
- 14<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 3'). 17<sup>h</sup> to 19<sup>h</sup> Increase in N.F. (+ 25), followed till 19<sup>h</sup> by a rapid decrease (- 35). 18<sup>h</sup> to 19<sup>h</sup> Increase in Dec. (+ 3'), followed till 21<sup>h</sup> by a wave (- 16'), the return being incomplete (+ 9'). 19<sup>h</sup> to 20<sup>h</sup> Increase in V.F. (+ 14). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 30). 21<sup>h</sup> to 22<sup>h</sup> Domed wave in Dec. (- 3').
- 15<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Domed wave in Dec. (- 4'). 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 5'). 3<sup>h</sup> to 4<sup>h</sup> Slow wave in N.F. with second small wave superposed at 3<sup>h</sup> (- 25). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (- 4'), the return continuing as a further decrease till 4<sup>h</sup> (- 4'). 5<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 16'). 5<sup>h</sup> to 6<sup>h</sup> Wave in N.F. (+ 60), with very steep ascent. 5<sup>h</sup> to 8<sup>h</sup> Flattened wave in V.F. (- 28). 9<sup>h</sup> to 10<sup>h</sup> Rapid decrease in N.F. (- 50). 8<sup>h</sup> to 10<sup>h</sup> General fluctuating increase in Dec. (+ 7'). 10<sup>h</sup> to 11<sup>h</sup> Rapid increase in N.F. (+ 30). 16<sup>h</sup> to 16<sup>h</sup> Decrease in Dec. (- 3'), followed till 18<sup>h</sup> by a steady increase (+ 5'). 18<sup>h</sup> to 18<sup>h</sup> Rapid decrease in Dec. (- 6'), followed till 19<sup>h</sup> by a partial recovery (+ 3'). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 30), with steep ascent. 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4').
- 16<sup>d</sup> 4<sup>h</sup> to 5<sup>h</sup> Wave in Dec. (+ 3'). 5<sup>h</sup> to 7<sup>h</sup> Accelerated increase in Dec. (+ 11'), accompanied by a similar decrease in N.F. (- 60). 7<sup>h</sup> to 8<sup>h</sup> Fluctuating decrease in Dec. (- 7'), with partial return till 8<sup>h</sup> (+ 4'). 11<sup>h</sup> to 13<sup>h</sup> Fluctuating decrease in Dec. (- 8'). 12<sup>h</sup> to 17<sup>h</sup> General increase in V.F. (+ 35), followed till 20<sup>h</sup> by a similar decrease (- 35). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (- 20). 14<sup>h</sup> to 16<sup>h</sup> Oscillating decrease in Dec. (- 9'), followed till 18<sup>h</sup> by a steep wave (- 15'). 16<sup>h</sup> to 16<sup>h</sup> Rapid increase in N.F. (+ 30). 17<sup>h</sup> to 18<sup>h</sup> Steep wave in N.F. (+ 60). 18<sup>h</sup> to 21<sup>h</sup> Double-crested serrated wave in Dec. (- 15', - 13'), with accompanying double-crested wave in N.F. (+ 70, + 55).
- 17<sup>d</sup> 6<sup>h</sup> to 8<sup>h</sup> Increase in Dec. (+ 7'). 11<sup>h</sup> to 12<sup>h</sup> Decrease in N.F. (- 30). 15<sup>h</sup> to 17<sup>h</sup> Double wave in N.F. (± 30), the intermediate portion very steep. 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 12'), extremely steep at the beginning. 15<sup>h</sup> to 16<sup>h</sup> Accelerated increase in V.F. (+ 15). 19<sup>h</sup> to 21<sup>h</sup> Accelerated decrease in Dec. (- 10'). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 20). 22<sup>h</sup> to 23<sup>h</sup> Domed wave in Dec. (- 5'). 23<sup>h</sup> to 18<sup>d</sup> 0<sup>h</sup> Double wave in Dec. (+ 4', - 3'). 23<sup>h</sup> Very rapid increase in N.F. (+ 40).
- 18<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in N.F. (+ 35). 0<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- 16), gradually recovering till 5<sup>h</sup>. 19<sup>h</sup> to 20<sup>h</sup> Decrease in Dec. (- 4').

1922.  
February
- 19<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (+ 4'). 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 25). 23<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (- 30).
- 20<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Two consecutive waves in Dec. (+ 3'). 2<sup>h</sup> to 3<sup>h</sup> Decrease in V.F. (- 15). 2<sup>h</sup> to 4<sup>h</sup> Double-crested wave in N.F. (+ 20). 8<sup>h</sup> to 11<sup>h</sup> Wave in N.F. (- 25). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 3'). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 3'). 23<sup>h</sup> to 24<sup>h</sup> Incomplete wave in N.F. (+ 25).
- 21<sup>d</sup> 5<sup>h</sup> to 6<sup>h</sup> Increase in Dec. (+ 5'). 5<sup>h</sup> to 6<sup>h</sup> Wave in N.F. (- 25). 19<sup>h</sup> to 20<sup>h</sup> Rapid decrease in Dec. (- 6'). 19<sup>h</sup> to 21<sup>h</sup> Increase in N.F. (+ 30). 22<sup>h</sup> to 24<sup>h</sup> Decrease in N.F. (- 30). 21<sup>h</sup> to 22<sup>h</sup> Increase in Dec. (+ 10').
- 22<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Decrease in Dec. (- 5').
- 26<sup>d</sup> 12<sup>h</sup> to 20<sup>h</sup> General increase in V.F. (+ 35), with a sharp wave at 15<sup>h</sup> (+ 16). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 5'). 20<sup>h</sup> to 22<sup>h</sup> Irregular increase in N.F. (+ 60), followed till 23<sup>h</sup> by a general decrease (- 25). 21<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 16).
- 27<sup>d</sup> 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 4'). 9<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 40). 12<sup>h</sup> to 17<sup>h</sup> General increase in V.F. (+ 30). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (- 25), the return rapid. 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 10'), the return incomplete (+ 6').
- 28<sup>d</sup> 13<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 40). 20<sup>h</sup> to 22<sup>h</sup> Serrated double wave in N.F. (- 35, + 25). 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 13'). 21<sup>h</sup> to 21<sup>h</sup> Increase in V.F. (+ 15).
- March
- 1<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Irregular increase in Dec. (+ 7'). 4<sup>h</sup> to 5<sup>h</sup> Wave in Dec. (+ 3'). 11<sup>h</sup> to 14<sup>h</sup> General increase in Dec. (+ 7'), with wave at 12<sup>h</sup> to 13<sup>h</sup> (+ 3'), very sharp wave at 13<sup>h</sup> (+ 3'), and wave at 14<sup>h</sup> to 14<sup>h</sup> (+ 3'). 12<sup>h</sup> to 14<sup>h</sup> Oscillating decrease in N.F. (- 50). 13<sup>h</sup> to 16<sup>h</sup> Accelerated increase in V.F. (+ 50), temporarily interrupted at 14<sup>h</sup> to 15<sup>h</sup>, and followed till 23<sup>h</sup> by a general decrease (- 65). 15<sup>h</sup> to 17<sup>h</sup> Double wave in N.F. (- 25). 16<sup>h</sup> to 18<sup>h</sup> Double-crested wave in Dec. (- 9', - 10'). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 3'), followed immediately till 20<sup>h</sup> by a rapid decrease (- 7'), and till 21<sup>h</sup> by a further irregular decrease (- 4'). 20<sup>h</sup> to 23<sup>h</sup> Three consecutive waves in N.F. (+ 40). 21<sup>h</sup> to 23<sup>h</sup> Irregular triple wave in Dec. (+ 4', - 6', + 3'), followed till 2<sup>d</sup> 0<sup>h</sup> by a fluctuating increase (+ 7').
- 2<sup>d</sup> 0<sup>h</sup> to 4<sup>h</sup> Flattened wave in V.F. (+ 20). 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 5'). 3<sup>h</sup> to 4<sup>h</sup> Increase in Dec. (+ 10'), followed till 7<sup>h</sup> by an oscillating decrease of equal amount. 6<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (+ 20). 18<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 5'). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 5'). 21<sup>h</sup> to 3<sup>d</sup> 1<sup>h</sup> Four successive waves in N.F. (+ 20, + 15, + 30, + 20).
- 3<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 6'). 0<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- 12), recovering by 3<sup>h</sup>. 13<sup>h</sup> to 19<sup>h</sup> General increase in V.F. (+ 25), with a marked fluctuation 17<sup>h</sup> to 18<sup>h</sup> (- 12). 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 8'). 20<sup>h</sup> to 21<sup>h</sup> Sharp wave in N.F. (+ 80). 20<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 14'), with incomplete return (+ 7'). 20<sup>h</sup> to 21<sup>h</sup> Truncated wave in Dec. (- 3'). 21<sup>h</sup> to 22<sup>h</sup> Double wave in Dec. ( $\pm$  4'). 21<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 60), with a superposed small wave at beginning and end (+ 20). 22<sup>h</sup> to 23<sup>h</sup> Double wave in Dec. (- 3', + 6'). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 20). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 40), partially recovering till 4<sup>d</sup> 2<sup>h</sup> (+ 28).
- 4<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Two consecutive waves in Dec. (- 4', - 5'). 3<sup>h</sup> to 3<sup>h</sup> Rapid increase in Dec. (+ 4'). 11<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 16<sup>h</sup> Steady increase in V.F. (+ 30).
- 5<sup>d</sup> 8<sup>h</sup> to 10<sup>h</sup> Decrease in V.F. (- 16). 10<sup>h</sup> to 10<sup>h</sup> Wave in Dec. (+ 4'). 10<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 20). 12<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 12<sup>h</sup> to 15<sup>h</sup> Accelerated increase in V.F. (+ 55). 12<sup>h</sup> to 13<sup>h</sup> Oscillating decrease in N.F. (- 50), followed till 16<sup>h</sup> by four consecutive waves (+ 25, + 25, + 20, + 20), the last two truncated. 13<sup>h</sup> to 14<sup>h</sup> Two consecutive waves in Dec. (+ 3', + 5'). 14<sup>h</sup> to 16<sup>h</sup> Two consecutive waves in Dec. (- 7', - 5'). 15<sup>h</sup> to 16<sup>h</sup> Accelerated increase in V.F. (+ 25), followed immediately by a sharp wave (+ 30). 16<sup>h</sup> to 17<sup>h</sup> Serrated wave in Dec. (- 11'). 16<sup>h</sup> to 17<sup>h</sup> Steep wave in N.F. (+ 80). 17<sup>h</sup> to 17<sup>h</sup> Double-crested wave in Dec. (- 5'), followed till 18<sup>h</sup> by a steep wave (- 18'). 18<sup>h</sup> to 18<sup>h</sup> Irregular wave in N.F. (+ 70). 18<sup>h</sup> to 18<sup>h</sup> Decrease in V.F. (- 18). 18<sup>h</sup> to 19<sup>h</sup> Rapid decrease in Dec. (- 7'). 19<sup>h</sup> to 22<sup>h</sup> Accelerated decrease in V.F. (- 60). 19<sup>h</sup> to 21<sup>h</sup> Very serrated wave in Dec. (- 5'). 21<sup>h</sup> to 22<sup>h</sup> Serrated truncated wave in N.F. (+ 70), followed till 23<sup>h</sup> by a further small wave (+ 20). 21<sup>h</sup> to 22<sup>h</sup> Double-crested wave in Dec. (- 10', - 8'), followed till 22<sup>h</sup> by a wave (- 7'). 22<sup>h</sup> to 23<sup>h</sup> Increase in V.F. (+ 15).
- 6<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 20). 13<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 20).
- 7<sup>d</sup> 8<sup>h</sup> to 10<sup>h</sup> Decrease in V.F. (- 18). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 3').
- 8<sup>d</sup> 5<sup>h</sup> to 6<sup>h</sup> Increase in N.F. (+ 20). 9<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 5'). 11<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 3'). 16<sup>h</sup> to 18<sup>h</sup> Increase in N.F. (+ 20).
- 9<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Decrease in Dec. (- 3'). 14<sup>h</sup> to 17<sup>h</sup> Increase in V.F. (+ 18).

1922.  
March

- 10<sup>d</sup> 5 $\frac{1}{2}$ <sup>h</sup> Sudden increase in Dec. (+ 8') and in N.F. (+ 30), accompanied by a sharp wave in V.F. (+ 12), and followed immediately by a partial return in Dec. (- 5'), and in N.F. (- 20). 5 $\frac{1}{2}$ <sup>h</sup> to 7<sup>h</sup> Two consecutive waves in Dec. (- 7', - 5'), followed till 7 $\frac{1}{2}$ <sup>h</sup> by numerous small oscillations superposed on a wave (+ 5'). 5 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 30), followed till 7<sup>h</sup> by a double-crested wave (+ 20). 7 $\frac{1}{2}$ <sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Sharp wave in Dec. (+ 8'). 7 $\frac{1}{2}$ <sup>h</sup> to 8 $\frac{3}{8}$ <sup>h</sup> Double wave in N.F. ( $\pm$  30), the second very sharp. 8<sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Decrease in V.F. (- 12). 11<sup>h</sup> to 16<sup>h</sup> Steady increase in V.F. (+ 45). 15 $\frac{1}{2}$ <sup>h</sup> to 17 $\frac{1}{2}$ <sup>h</sup> Irregular double-crested wave in N.F. (- 20, - 30). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (+ 25). 19<sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Flattened wave in Dec. (- 3'). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Double-crested wave in N.F. (+ 45, + 30), accompanied by a double-crested wave in Dec. (- 3', - 4'). 22 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 15).
- 11<sup>d</sup> 12<sup>h</sup> to 13 $\frac{3}{4}$ <sup>h</sup> Increase in V.F. (+ 15). 13<sup>h</sup> to 13 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 20). 19 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Sharp wave in Dec. (- 10'). 19 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in N.F. (+ 40, + 25). 22<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 45). 22<sup>h</sup> to 23<sup>h</sup> Double wave in Dec. ( $\pm$  3'), followed immediately till 24<sup>h</sup> by a further wave (- 3'). 22<sup>h</sup> to 22 $\frac{3}{8}$ <sup>h</sup> Decrease in V.F. (- 15).
- 12<sup>d</sup> 9<sup>h</sup> to 12 $\frac{1}{2}$ <sup>h</sup> Irregular increase in Dec. (+ 13'). 12<sup>h</sup> to 14 $\frac{1}{4}$ <sup>h</sup> Increase in N.F. (+ 40). 14 $\frac{1}{4}$ <sup>h</sup> to 15<sup>h</sup> Wave in Dec. (+ 3'). 14 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{3}{8}$ <sup>h</sup> Double-crested wave in N.F. (+ 25, + 30). 14<sup>h</sup> to 20<sup>h</sup> Slow wave in V.F. (+ 40). 17<sup>h</sup> to 17 $\frac{3}{8}$ <sup>h</sup> Wave in N.F. (+ 40). 15 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Oscillating decrease in Dec. (- 5'). 17<sup>h</sup> to 18<sup>h</sup> Two consecutive waves in Dec. (- 10', - 5'). 20 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Two consecutive waves in N.F. (+ 50). 20 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Two consecutive waves in Dec. (- 8', - 4'), the second wave truncated. 22 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Decrease in V.F. (- 18).
- 13<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Wave in V.F. (- 30). 0 $\frac{3}{4}$ <sup>h</sup> to 1 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4'); 0 $\frac{3}{4}$ <sup>h</sup> to 3 $\frac{1}{4}$ <sup>h</sup> Serrated wave in N.F. (+ 45) with a second wave superposed from 1<sup>h</sup> to 1 $\frac{1}{2}$ <sup>h</sup> (- 20). 1 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 13'). 4 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 30). 4 $\frac{3}{4}$ <sup>h</sup> to 5 $\frac{3}{8}$ <sup>h</sup> Irregular wave in Dec. (+ 5'). 5<sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Decrease in V.F. (- 15), followed till 10<sup>h</sup> by a fluctuating increase (+ 25). 6<sup>h</sup> to 7 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 25). 6 $\frac{1}{2}$ <sup>h</sup> to 7 $\frac{1}{4}$ <sup>h</sup> Truncated wave in Dec. (+ 3'). 7 $\frac{1}{2}$ <sup>h</sup> to 9 $\frac{1}{4}$ <sup>h</sup> Serrated wave in Dec. (+ 9'). 8 $\frac{1}{4}$ <sup>h</sup> to 8 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (- 20). 9 $\frac{1}{4}$ <sup>h</sup> to 11 $\frac{1}{4}$ <sup>h</sup> Rapid increase in Dec. (+ 13'). 10 $\frac{3}{4}$ <sup>h</sup> to 14<sup>h</sup> Serrated wave in N.F. (- 50). 12 $\frac{1}{4}$ <sup>h</sup> to 12 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 4'). 13<sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Oscillating increase in V.F. (+ 55), with a wave superposed at 14 $\frac{1}{4}$ <sup>h</sup> (- 12). 14 $\frac{3}{4}$ <sup>h</sup> Sharp wave in V.F. (+ 15), followed till 22<sup>h</sup> by a general decrease, with continuous small oscillations (- 30). 13 $\frac{1}{4}$ <sup>h</sup> to 15<sup>h</sup> Dec. and N.F., traces very disturbed. 14<sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Four consecutive waves in Dec. (+ 3', + 5', + 5', + 3'). 14<sup>h</sup> to 14 $\frac{1}{4}$ <sup>h</sup> Rapid decrease in N.F. (- 50). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Three consecutive waves in N.F. (+ 35, + 35, + 30), the first two very steep. 15<sup>h</sup> to 17<sup>h</sup> Fluctuating decrease in Dec. (- 10'). 15 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Increase in N.F. (+ 45), with a very sharp wave at 16 $\frac{1}{2}$ <sup>h</sup> (+ 20). 17<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in N.F. (- 25, - 40). 17 $\frac{3}{8}$ <sup>h</sup> to 21<sup>h</sup> Large double-crested wave in Dec. (- 14'), the two crests being at 18 $\frac{3}{8}$ <sup>h</sup> and 19 $\frac{3}{8}$ <sup>h</sup> respectively. 19 $\frac{1}{4}$ <sup>h</sup> to 20<sup>h</sup> Two consecutive sharp waves in N.F. (+ 30). 20 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (- 20). 21 $\frac{1}{2}$ <sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 40), followed immediately till 23 $\frac{1}{2}$ <sup>h</sup> by an irregular double-crested wave (+ 50). 21 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Double wave in Dec. (+ 8', - 4'). 22<sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Rapid decrease in V.F. (- 15). 23 $\frac{1}{4}$ <sup>h</sup> Sudden decrease in Dec. (- 5'), with a partial return, followed immediately till 14<sup>d</sup> 0 $\frac{3}{8}$ <sup>h</sup> by a wave (- 9').
- 14<sup>d</sup> 0<sup>h</sup> to 15<sup>d</sup> 0<sup>h</sup>. See Plate I.
- 15<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Wave in V.F. (- 12). 0 $\frac{1}{2}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Serrated wave in Dec. (+ 5').
- 16<sup>d</sup> 11 $\frac{3}{8}$ <sup>h</sup> to 13<sup>h</sup> Wave in Dec. (+ 4'). 12<sup>h</sup> to 13<sup>h</sup> Irregular wave in (N.F. - 20).
- 17<sup>d</sup> 13<sup>h</sup> to 20<sup>h</sup> Increase in V.F. (+ 30). 15 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Accelerated decrease in Dec. (- 7'). 18 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Truncated wave in Dec. (- 6'). 20<sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Irregular serrated wave in Dec. (- 7'). 20 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Very rapid increase in N.F. (+ 25). 20<sup>h</sup> to 22<sup>h</sup> Accelerated decrease in V.F. (- 30). 21<sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Two consecutive waves in N.F. (+ 35, + 45). 21 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Two consecutive double waves in Dec. ( $\mp$  5', - 6', + 4'). 21 $\frac{3}{4}$ <sup>h</sup> to 24<sup>h</sup> Fluctuating decrease in V.F. (- 12). 23<sup>h</sup> to 23 $\frac{3}{8}$ <sup>h</sup> Wave in V.F. (- 50).
- 18<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'). 0<sup>h</sup> to 6<sup>h</sup> Fluctuating increase in V.F. (+ 25). 1 $\frac{1}{2}$ <sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Increase in Dec. (+ 4'). 2<sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Three consecutive waves in Dec. (+ 3', + 3', + 4'). 7<sup>h</sup> to 9<sup>h</sup> Decrease in N.F. (- 40). 9 $\frac{1}{2}$ <sup>h</sup> to 10<sup>h</sup> Decrease in Dec. (- 3'). 10 $\frac{1}{2}$ <sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 12<sup>h</sup> to 17<sup>h</sup> Increase in V.F. (+ 42), gradually declining till 24<sup>h</sup>. 16<sup>h</sup> to 17<sup>h</sup> Increase in N.F. (+ 30). 16 $\frac{1}{4}$ <sup>h</sup> to 18<sup>h</sup> Irregular double-crested wave in Dec. (- 5', - 6'). 19<sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Two consecutive waves in Dec. (- 5', - 7'). 19 $\frac{1}{4}$ <sup>h</sup> to 20<sup>h</sup> Increase in N.F. (+ 25). 21<sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Decrease in N.F. (- 20). 23 $\frac{3}{4}$ <sup>h</sup> to 19<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Domed wave in Dec. (- 3').
- 19<sup>d</sup> 3 $\frac{3}{8}$ <sup>h</sup> to 4 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (- 20). 12 $\frac{3}{4}$ <sup>h</sup> to 20<sup>h</sup> General increase in V.F. (+ 35), with a small double wave at 17 $\frac{3}{8}$ <sup>h</sup> ( $\mp$  12). 14<sup>h</sup> to 15 $\frac{3}{4}$ <sup>h</sup> Flattened wave in Dec. (- 3'). 15 $\frac{3}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Decrease in Dec. (- 5'). 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Double-Crested wave in N.F. (- 20). 18 $\frac{3}{8}$ <sup>h</sup> to 19 $\frac{1}{8}$ <sup>h</sup> Decrease in Dec. (- 5'). 19 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Three consecutive waves in N.F. (+ 45, + 40, + 30). 20 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 3'). 20<sup>h</sup> to 20 $\frac{3}{8}$ <sup>h</sup> Decrease in V.F. (- 15). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 3'). 23<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 7'). 22 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 25). 22 $\frac{3}{8}$ <sup>h</sup> to 20<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Decrease in V.F. (- 20).
- 20<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Irregular decrease in Dec. (- 7'). 2 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Slow double waves in N.F. ( $\mp$  20). 2 $\frac{1}{2}$ <sup>h</sup> to 5<sup>h</sup> Irregular flattened wave in Dec. (+ 6'). 18 $\frac{1}{8}$ <sup>h</sup> to 19 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 3'), followed till 20<sup>h</sup> by a rapid decrease (- 7').

1922.  
March

- 21<sup>d</sup> 20<sup>1</sup>/<sub>4</sub><sup>h</sup> to 21<sup>h</sup> Increase in Dec. (+ 3').
- 22<sup>d</sup> 18<sup>1</sup>/<sub>2</sub><sup>h</sup> to 20<sup>1</sup>/<sub>4</sub><sup>h</sup> Wave in Dec. (- 7'), accompanied by a wave in N.F. (+ 35). 23<sup>h</sup> to 23<sup>d</sup> 1<sup>h</sup> Wave in N.F. (+ 30).
- 23<sup>d</sup> 0<sup>1</sup>/<sub>8</sub><sup>h</sup> to 1<sup>h</sup> Increase in Dec. (+ 4'). 20<sup>3</sup>/<sub>4</sub><sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 3').
- 25<sup>d</sup> 2<sup>1</sup>/<sub>4</sub><sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 4'). 3<sup>h</sup> to 4<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in N.F. (+ 35). 4<sup>1</sup>/<sub>4</sub><sup>h</sup> to 5<sup>1</sup>/<sub>2</sub><sup>h</sup> Oscillating decrease in Dec. (- 4'). 5<sup>3</sup>/<sub>4</sub><sup>h</sup> to 7<sup>3</sup>/<sub>4</sub><sup>h</sup> Wave in N.F. (- 70). 6<sup>h</sup> to 7<sup>3</sup>/<sub>4</sub><sup>h</sup> Wave in V.F. (+ 12). 6<sup>h</sup> to 8<sup>3</sup>/<sub>2</sub><sup>h</sup> Wave in Dec. (+ 11)'. 9<sup>1</sup>/<sub>4</sub><sup>h</sup> to 11<sup>h</sup> Rapid decrease in N.F. (- 60). 10<sup>1</sup>/<sub>2</sub><sup>h</sup> to 11<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in Dec. (+ 9'), followed till 13<sup>h</sup> by a double wave (∓ 3'). 11<sup>1</sup>/<sub>4</sub><sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 30). 12<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (- 20). 19<sup>1</sup>/<sub>2</sub><sup>h</sup> to 20<sup>h</sup> Rapid decrease in Dec. (- 5'), followed immediately by a double wave (∓ 5'). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 20). 21<sup>1</sup>/<sub>4</sub><sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 20).
- 26<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 7'), with very steep rise. 2<sup>3</sup>/<sub>4</sub><sup>h</sup> to 4<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (+ 20).
- 27<sup>d</sup> 19<sup>3</sup>/<sub>4</sub><sup>h</sup> to 21<sup>1</sup>/<sub>4</sub><sup>h</sup> Wave in Dec. (- 5'). 13<sup>h</sup> to 15<sup>3</sup>/<sub>4</sub><sup>h</sup> Increase in V.F. (+ 20). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 25). 22<sup>1</sup>/<sub>2</sub><sup>h</sup> to 23<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in Dec. (- 7'). 22<sup>1</sup>/<sub>2</sub><sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 22).
- 28<sup>d</sup> 19<sup>3</sup>/<sub>4</sub><sup>h</sup> Rapid decrease in N.F. (- 20).
- 29<sup>d</sup> 11<sup>h</sup> to 13<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in Dec. (+ 7'), followed till 14<sup>1</sup>/<sub>2</sub><sup>h</sup> by a double-crested wave (+ 4', + 5'). 10<sup>1</sup>/<sub>2</sub><sup>h</sup> to 12<sup>h</sup> Decrease in V.F. (- 15), followed till 16<sup>h</sup> by a fluctuating accelerated increase (+ 35). 13<sup>1</sup>/<sub>2</sub><sup>h</sup> to 14<sup>1</sup>/<sub>2</sub><sup>h</sup> Double-crested wave in N.F. (+ 20). 15<sup>h</sup> to 17<sup>3</sup>/<sub>4</sub><sup>h</sup> Fluctuating decrease in Dec. (- 8'). 15<sup>1</sup>/<sub>4</sub><sup>h</sup> to 16<sup>1</sup>/<sub>4</sub><sup>h</sup> Wave in N.F. (+ 22). 17<sup>h</sup> to 17<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in N.F. (+ 25). 17<sup>1</sup>/<sub>4</sub><sup>h</sup> to 17<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in V.F. (+ 12).
- 30<sup>d</sup> 0<sup>h</sup> to 1<sup>3</sup>/<sub>8</sub><sup>h</sup> Wave in N.F. (+ 25), with rather steep rise. 1<sup>1</sup>/<sub>2</sub><sup>h</sup> to 2<sup>h</sup> Increase in Dec. (+ 4'). 7<sup>h</sup> to 7<sup>3</sup>/<sub>4</sub><sup>h</sup> Rapid decrease in N.F. (- 40), partially recovering till 8<sup>1</sup>/<sub>4</sub><sup>h</sup>. 6<sup>3</sup>/<sub>4</sub><sup>h</sup> to 8<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in Dec. (+ 7'), followed till 9<sup>h</sup> by a rapid decrease (- 9'). 10<sup>h</sup> to 14<sup>h</sup> Increase in Dec. (+ 13'), with marked oscillations at 10<sup>3</sup>/<sub>4</sub><sup>h</sup>, 11<sup>1</sup>/<sub>2</sub><sup>h</sup>, 12<sup>1</sup>/<sub>4</sub><sup>h</sup>. 10<sup>h</sup> to 12<sup>1</sup>/<sub>2</sub><sup>h</sup> Decrease in V.F. (- 18), followed till 16<sup>1</sup>/<sub>2</sub><sup>h</sup> by a rapid increase (+ 60). 12<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in N.F. (+ 30). 14<sup>h</sup> to 15<sup>h</sup> Decrease in Dec. (- 4'). 14<sup>h</sup> to 14<sup>1</sup>/<sub>4</sub><sup>h</sup> Decrease in N.F. (- 20). 15<sup>h</sup> to 15<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in N.F. (+ 25), followed till 16<sup>h</sup> by a wave (- 30). 15<sup>1</sup>/<sub>2</sub><sup>h</sup> to 15<sup>3</sup>/<sub>8</sub><sup>h</sup> Very rapid decrease in Dec. (- 9'). 16<sup>3</sup>/<sub>4</sub><sup>h</sup> to 18<sup>h</sup> Double wave in N.F. (∓ 20), the intermediate movement very rapid. 16<sup>3</sup>/<sub>4</sub><sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 12'), with steep rise. 17<sup>1</sup>/<sub>4</sub><sup>h</sup> to 19<sup>1</sup>/<sub>2</sub><sup>h</sup> Decrease in V.F. (- 25). 19<sup>1</sup>/<sub>2</sub><sup>h</sup> to 20<sup>3</sup>/<sub>8</sub><sup>h</sup> Accelerated decrease in Dec. (- 14'). 21<sup>h</sup> to 22<sup>1</sup>/<sub>4</sub><sup>h</sup> Double-crested wave in Dec. (+ 6', + 7'), followed till 23<sup>h</sup> by a further wave (+ 7'). 22<sup>h</sup> to 23<sup>h</sup> Sharp wave in N.F. (+ 60). 21<sup>h</sup> to 23<sup>h</sup> Accelerated decrease in V.F. (- 30).
- 31<sup>d</sup> 0<sup>h</sup> to 1<sup>1</sup>/<sub>2</sub><sup>h</sup> Double wave in Dec. (∓ 4'), followed till 2<sup>3</sup>/<sub>8</sub><sup>h</sup> by an increase (+ 6'). 1<sup>1</sup>/<sub>2</sub><sup>h</sup> to 2<sup>h</sup> Decrease in N.F. (- 30). 1<sup>1</sup>/<sub>2</sub><sup>h</sup> to 5<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in V.F. (+ 40). 5<sup>1</sup>/<sub>2</sub><sup>h</sup> to 6<sup>3</sup>/<sub>8</sub><sup>h</sup> Irregular decrease in N.F. (- 35), followed till 10<sup>h</sup> by a broad wave (+ 50). 6<sup>h</sup> to 6<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in Dec. (+ 5'), followed till 8<sup>h</sup> by an oscillating decrease (- 10'). 11<sup>1</sup>/<sub>2</sub><sup>h</sup> to 12<sup>1</sup>/<sub>2</sub><sup>h</sup> Loss of register of all traces. 12<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>h</sup> Increase in Dec. (+ 4'). 13<sup>h</sup> to 15<sup>h</sup> Sharp wave in N.F. (- 70). 13<sup>1</sup>/<sub>2</sub><sup>h</sup> to 15<sup>h</sup> Wave in Dec. (- 4'). 13<sup>3</sup>/<sub>4</sub><sup>h</sup> to 14<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in V.F. (+ 20). 17<sup>1</sup>/<sub>2</sub><sup>h</sup> to 17<sup>3</sup>/<sub>4</sub><sup>h</sup> Decrease in Dec. (- 3'). 17<sup>1</sup>/<sub>2</sub><sup>h</sup> to 18<sup>h</sup> Increase in N.F. (+ 30). 18<sup>h</sup> Sharp wave in V.F. (+ 25). 20<sup>1</sup>/<sub>4</sub><sup>h</sup> to 21<sup>h</sup> Decrease in Dec. (- 5'). 22<sup>3</sup>/<sub>8</sub><sup>h</sup> to April 1<sup>d</sup> 0<sup>1</sup>/<sub>2</sub><sup>h</sup> Oscillating increase in Dec. (+ 6').

April

- 1<sup>d</sup> 2<sup>1</sup>/<sub>2</sub><sup>h</sup> to 5<sup>1</sup>/<sub>2</sub><sup>h</sup> Double wave in N.F. (∓ 35), the first part truncated. 3<sup>h</sup> to 5<sup>1</sup>/<sub>4</sub><sup>h</sup> Wave in Dec. (+ 10'). 5<sup>h</sup> to 6<sup>h</sup> Increase in V.F. (+ 15). 6<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in V.F. (- 15). 7<sup>1</sup>/<sub>2</sub><sup>h</sup> to 8<sup>1</sup>/<sub>4</sub><sup>h</sup> Decrease in N.F. (- 25). 8<sup>h</sup> to 8<sup>3</sup>/<sub>2</sub><sup>h</sup> Decrease in Dec. (- 4'). 10<sup>1</sup>/<sub>2</sub><sup>h</sup> to 10<sup>3</sup>/<sub>4</sub><sup>h</sup> Increase in Dec. (+ 3'). 10<sup>3</sup>/<sub>4</sub><sup>h</sup> to 12<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (- 25). 12<sup>h</sup> to 13<sup>h</sup> Wave in Dec. (+ 4'). 14<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 25). 15<sup>1</sup>/<sub>4</sub><sup>h</sup> to 16<sup>h</sup> Rapid decrease in Dec. (- 8'), partially recovering till 16<sup>1</sup>/<sub>2</sub><sup>h</sup> (+ 3'). 20<sup>1</sup>/<sub>4</sub><sup>h</sup> to 21<sup>h</sup> Decrease in Dec. (- 3'). 21<sup>h</sup> to 23<sup>h</sup> Irregular wave in N.F. (+ 40), accompanied by three small oscillations in Dec. 21<sup>1</sup>/<sub>2</sub><sup>h</sup> to 22<sup>1</sup>/<sub>2</sub><sup>h</sup> Decrease in V.F. (- 12).
- 2<sup>d</sup> 11<sup>h</sup> to 13<sup>h</sup> Rapid increase in Dec. (+ 9'). 12<sup>h</sup> to 17<sup>1</sup>/<sub>2</sub><sup>h</sup> Gradual increase in V.F. (+ 30). 13<sup>3</sup>/<sub>4</sub><sup>h</sup> to 15<sup>1</sup>/<sub>2</sub><sup>h</sup> Increase in N.F. (+ 35). 15<sup>3</sup>/<sub>4</sub><sup>h</sup> to 16<sup>3</sup>/<sub>8</sub><sup>h</sup> Wave in N.F. (- 30). 16<sup>h</sup> to 16<sup>1</sup>/<sub>2</sub><sup>h</sup> Decrease in Dec. (- 5'). 17<sup>1</sup>/<sub>2</sub><sup>h</sup> to 18<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (- 20). 18<sup>3</sup>/<sub>2</sub><sup>h</sup> to 21<sup>h</sup> Sharp wave in Dec. (- 12'). 19<sup>h</sup> to 20<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (+ 30).
- 3<sup>d</sup> 11<sup>h</sup> to 11<sup>3</sup>/<sub>4</sub><sup>h</sup> Decrease in N.F. (- 20). 11<sup>3</sup>/<sub>4</sub><sup>h</sup> to 12<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 12<sup>3</sup>/<sub>8</sub><sup>h</sup> Increase in V.F. (+ 12), followed immediately by a sudden decrease of equal amount. 12<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>h</sup> Increase in Dec. (+ 3'). 14<sup>h</sup> to 16<sup>3</sup>/<sub>4</sub><sup>h</sup> Accelerated decrease in Dec. (- 5').
- 4<sup>d</sup> 6<sup>3</sup>/<sub>8</sub><sup>h</sup> Sharp wave in V.F. (- 20). 9<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>1</sup>/<sub>2</sub><sup>h</sup> Steady increase in Dec. (+ 9').
- 5<sup>d</sup> 10<sup>h</sup> to 13<sup>h</sup> Steady increase in Dec. (+ 9').
- 8<sup>d</sup> 9<sup>1</sup>/<sub>2</sub><sup>h</sup> to 13<sup>h</sup> General increase in Dec. (+ 9'), with a superposed wave from 11<sup>1</sup>/<sub>2</sub><sup>h</sup> to 12<sup>1</sup>/<sub>2</sub><sup>h</sup> (- 3'). 13<sup>3</sup>/<sub>4</sub><sup>h</sup> to 15<sup>1</sup>/<sub>4</sub><sup>h</sup> Increase in V.F. (+ 20). 14<sup>3</sup>/<sub>8</sub><sup>h</sup> to 15<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in N.F. (+ 20). 18<sup>3</sup>/<sub>2</sub><sup>h</sup> to 20<sup>1</sup>/<sub>4</sub><sup>h</sup> Double wave in N.F. (+ 20, - 55). 19<sup>h</sup> to 19<sup>1</sup>/<sub>2</sub><sup>h</sup> Wave in Dec. (- 4'), followed immediately till 21<sup>h</sup> by a second wave (- 13'), the first part very steep. 23<sup>h</sup> to 24<sup>h</sup> Accelerated decrease in Dec. (- 9'). 23<sup>1</sup>/<sub>4</sub><sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 12).

1922.  
April

- 9<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (− 8′). 0<sup>h</sup> to 1<sup>h</sup> Irregular wave in N.F. (+ 100), the rise being very steep. 0<sup>h</sup> to 1<sup>h</sup> Decelerated decrease in V.F. (− 35), followed till 4<sup>h</sup> by a slow wave (+ 15). 0<sup>h</sup> to 2<sup>h</sup> Truncated wave in Dec. (+ 3′). 2<sup>h</sup> to 3<sup>h</sup> Fluctuating increase in Dec. (+ 3′). 3<sup>h</sup> to 3<sup>h</sup> Rapid increase in Dec. (+ 7′). 4<sup>h</sup> to 6<sup>h</sup> Wave in N.F. (+ 25). 6<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (− 30). 7<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (− 4′). 7<sup>h</sup> to 8<sup>h</sup> Sharp wave in N.F. (+ 20). 13<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (− 40). 14<sup>h</sup> to 14<sup>h</sup> Decrease in Dec. (− 5′). 14<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 20), followed immediately till 16<sup>h</sup> by a wave (− 30). 14<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 15). 16<sup>h</sup> to 17<sup>h</sup> Wave in V.F. (+ 12). 16<sup>h</sup> to 18<sup>h</sup> Double wave in N.F. (− 20, + 35). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (− 10′). 22<sup>h</sup> to 10<sup>d</sup> 0<sup>h</sup> Double wave in Dec. (− 3′, + 4′). 23<sup>h</sup> to 24<sup>h</sup> Decreased in V.F. (− 12). 23<sup>h</sup> to 10<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 25).
- 10<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 10′), accompanied by a wave in N.F. (− 35). 6<sup>h</sup> to 8<sup>h</sup> Wave in N.F. (− 30). 6<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 7′). 13<sup>h</sup> to 13<sup>h</sup> Decrease in Dec. (− 3′). 13<sup>h</sup> to 14<sup>h</sup> Increase in N.F. (+ 20). 17<sup>h</sup> to 18<sup>h</sup> Irregular decrease in Dec. (− 5′). 18<sup>h</sup> to 20<sup>h</sup> Serrated wave in Dec. (− 12′). 19<sup>h</sup> to 20<sup>h</sup> Serrated wave in N.F. (+ 30). 22<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 40). 22<sup>h</sup> to 23<sup>h</sup> Double crested wave in Dec. (− 4′, − 3′). 23<sup>h</sup> to 11<sup>d</sup> 1<sup>h</sup> Wave in Dec. (− 4′). 13<sup>h</sup> to 23<sup>h</sup> Slow wave in V.F. (+ 30).
- 11<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Irregular decrease in Dec. (− 4′). 2<sup>h</sup> to 4<sup>h</sup> Flattened wave in N.F. (− 20). 2<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 4′). 10<sup>h</sup> to 13<sup>h</sup> Steady increase in Dec. (+ 12′), followed till 18<sup>h</sup> by a similar decrease (− 11′). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 7′). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4′).
- 12<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Wave in V.F. (− 35). 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 7′). 0<sup>h</sup> to 1<sup>h</sup> Decrease in N.F. (− 25). 1<sup>h</sup> to 2<sup>h</sup> Irregular increase in Dec. (+ 6′). 5<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (+ 25). 7<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 3′). 10<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 10′). 11<sup>h</sup> to 13<sup>h</sup> Double-crested wave in N.F. (− 30, − 35). 13<sup>h</sup> to 15<sup>h</sup> Fluctuating increase in N.F. (+ 40). 15<sup>h</sup> to 17<sup>h</sup> Irregular wave in N.F. (− 45), with steep return. 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (− 5′). 18<sup>h</sup> to 20<sup>h</sup> Oscillating decrease in Dec. (− 8′). 18<sup>h</sup> to 19<sup>h</sup> Fluctuating increase in N.F. (+ 35), followed till 21<sup>h</sup> by a fluctuating decrease (− 35). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (+ 4′). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (− 20). 21<sup>h</sup> to 22<sup>h</sup> Double wave in Dec. (− 7′, + 3′), followed till 24<sup>h</sup> by a further wave (+ 6′). 22<sup>h</sup> to 24<sup>h</sup> Irregular decrease in V.F. (− 25).
- 13<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Irregular wave in N.F. (− 35). 0<sup>h</sup> to 2<sup>h</sup> Double-crested wave in Dec. (+ 8′). 0<sup>h</sup> to 2<sup>h</sup> Wave in V.F. (+ 12). 10<sup>h</sup> to 12<sup>h</sup> General increase in Dec. (+ 10′). 13<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 35). 16<sup>h</sup> to 17<sup>h</sup> Decrease in Dec. (− 5′). 18<sup>h</sup> to 21<sup>h</sup> Double-crested wave in Dec. (− 7′). 19<sup>h</sup> to 20<sup>h</sup> Truncated wave in N.F. (+ 25). 22<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 7′). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (− 15).
- 14<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Two consecutive waves in Dec. (+ 5′, + 3′). 1<sup>h</sup> to 2<sup>h</sup> Wave in N.F. (+ 25). 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 3′). 8<sup>h</sup> to 11<sup>h</sup> Accelerated decrease in N.F. (− 50). 9<sup>h</sup> to 13<sup>h</sup> Irregular increase in Dec. (+ 12′). 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 7′). 19<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 25). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 25).
- 15<sup>d</sup> 8<sup>h</sup> to 9<sup>h</sup> Decrease in N.F. (− 35). 15<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 25). 20<sup>h</sup> to 22<sup>h</sup> Irregular double-crested wave in N.F. (+ 40, + 30). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 5′). 23<sup>h</sup> to 24<sup>h</sup> Decrease in Dec. (− 3′).
- 16<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Irregular increase in Dec. (+ 5′). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 3′). 21<sup>h</sup> to 21<sup>h</sup> Rapid decrease in Dec. (− 7′).
- 17<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Increase in Dec. (+ 4′). 3<sup>h</sup> to 5<sup>h</sup> General increase in Dec. (+ 5′), followed till 5<sup>h</sup> by a decrease (− 5′). 3<sup>h</sup> to 5<sup>h</sup> Wave in N.F. (− 20). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 30). 20<sup>h</sup> to 22<sup>h</sup>. Double-crested wave in Dec. (− 5′, − 4′).
- 18<sup>d</sup> 9<sup>h</sup> to 13<sup>h</sup> Steady increase in Dec. (+ 12′). 12<sup>h</sup> to 16<sup>h</sup> General increase in N.F. (+ 45). 12<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 45). 17<sup>h</sup> to 17<sup>h</sup> Rapid decrease in Dec. (− 7′). 17<sup>h</sup> to 18<sup>h</sup> Domed wave in N.F. (+ 20).
- 20<sup>d</sup> 18<sup>h</sup> to 19<sup>h</sup> Fluctuating decrease in Dec. (− 5′). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 25). 19<sup>h</sup> to 21<sup>h</sup> Truncated wave in Dec. (− 5′).
- 21<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 5′). 8<sup>h</sup> to 9<sup>h</sup> Increase in Dec. (+ 5′).
- 21<sup>d</sup> 12<sup>h</sup> to 22<sup>d</sup> 12<sup>h</sup>.—See Plate II.
- 23<sup>d</sup> 15<sup>h</sup> to 16<sup>h</sup> Sharp wave in N.F. (+ 30). 15<sup>h</sup> to 17<sup>h</sup> Oscillating decrease in Dec. (− 7′). 12<sup>h</sup> to 17<sup>h</sup> General increase in V.F. (+ 45). 19<sup>h</sup> to 20<sup>h</sup> Double wave in Dec. (− 10′, + 3′). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 70). 19<sup>h</sup> to 20<sup>h</sup> Decrease in V.F. (− 15). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4′). 23<sup>h</sup> to 24<sup>d</sup> 1<sup>h</sup> Irregular wave in Dec. (+ 5′).
- 24<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 20). 0<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (− 12). 2<sup>h</sup> to 4<sup>h</sup> Double wave in N.F. (± 30). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 7′). 4<sup>h</sup> to 5<sup>h</sup> Increase in V.F. (+ 15′). 6<sup>h</sup> to 8<sup>h</sup> Domed wave in Dec. (+ 5′). 8<sup>h</sup> to 9<sup>h</sup> Increase in Dec. (+ 6′). 8<sup>h</sup> to 9<sup>h</sup> Irregular decrease in N.F. (− 25). 10<sup>h</sup> to 12<sup>h</sup> Serrated wave in N.F. (− 45). 11<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 5′). 12<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (− 20), followed till 14<sup>h</sup> by a general increase (+ 35). 14<sup>h</sup> to 15<sup>h</sup> Two consecutive waves in N.F. (− 20, − 40). 14<sup>h</sup> to 15<sup>h</sup> Wave in Dec. (− 4′). 15<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 40). 15<sup>h</sup> to 17<sup>h</sup> Serrated wave in Dec. (− 11′). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (+ 40). 16<sup>h</sup> to 17<sup>h</sup> Decrease in V.F. (− 12). 19<sup>h</sup> to 20<sup>h</sup> Double-crested wave in N.F. (+ 40). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 10′), with a second wave superposed from 19<sup>h</sup> to 20<sup>h</sup> (− 3′).

1922.  
April

- 25<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Increase in Dec. (+ 5'). 6<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (+ 20). 13<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (- 25). 14<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 15). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (+ 20). 16<sup>h</sup> to 16<sup>h</sup> Sharp wave in N.F. (+ 25). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 25). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 5'). 21<sup>h</sup> to 22<sup>h</sup> General increase in Dec. (+ 5'). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 25). 22<sup>h</sup> to 23<sup>h</sup> Truncated wave in N.F. (+ 30). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 3'), followed till 26<sup>d</sup> 0<sup>h</sup> by a decrease (- 10'). 23<sup>h</sup> to 26<sup>d</sup> 1<sup>h</sup> Wave in N.F. (+ 40).
- 26<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 11'). 1<sup>h</sup> to 3<sup>h</sup> Wave in V.F. (- 30). 1<sup>h</sup> to 3<sup>h</sup> Wave in N.F. (+ 50). 3<sup>h</sup> to 4<sup>h</sup> Wave in N.F. (+ 20), followed till 5<sup>h</sup> by a fluctuating decrease (- 40). 3<sup>h</sup> to 5<sup>h</sup> Fluctuating increase in Dec. (+ 14'). 5<sup>h</sup> to 6<sup>h</sup> Decrease in Dec. (- 3'). 6<sup>h</sup> to 8<sup>h</sup> Increase in V.F. (+ 30). 6<sup>h</sup> to 7<sup>h</sup> Decrease in Dec. (- 10'). 8<sup>h</sup> to 9<sup>h</sup> Wave in N.F. (- 20). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (- 25). 16<sup>h</sup> to 17<sup>h</sup> Truncated wave in N.F. (+ 25). 16<sup>h</sup> to 17<sup>h</sup> Increase in V.F. (+ 12). 18<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 4'). 17<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 30). 19<sup>h</sup> to 21<sup>h</sup> Serrated wave in Dec. (- 8'), with irregular wave in N.F., slightly truncated (+ 50). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 40). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 20). 22<sup>h</sup> to 24<sup>h</sup> Two consecutive waves in Dec. (- 4'). 23<sup>h</sup> to 27<sup>d</sup> 0<sup>h</sup> Decrease in N.F. (- 40).
- 27<sup>d</sup> 5<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (- 4'), with steep return. 6<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (- 3'). 6<sup>h</sup> to 9<sup>h</sup> Wave in N.F. (- 60). 14<sup>h</sup> to 14<sup>h</sup> Increase in N.F. (+ 20). 16<sup>h</sup> to 18<sup>h</sup> Three consecutive waves in N.F. (+ 25, + 25, + 30), the first truncated. 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 5'), followed till 18<sup>h</sup> by a double wave (± 3'). 17<sup>h</sup> to 18<sup>h</sup> Truncated wave in V.F. (+ 15). 20<sup>h</sup> to 22<sup>h</sup> Double wave in Dec. (- 8', + 5'). 20<sup>h</sup> to 21<sup>h</sup> Sharp wave in N.F. (+ 45). 21<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 15). 22<sup>h</sup> to 28<sup>d</sup> 0<sup>h</sup> Increase in Dec. (+ 9').
- 28<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 4'). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 20).
- 29<sup>d</sup> 8<sup>h</sup> to 10<sup>h</sup> Wave in N.F. (- 30). 12<sup>h</sup> to 12<sup>h</sup> Increase in N.F. (+ 20), with increase in Dec. (+ 3'). 12<sup>h</sup> to 14<sup>h</sup> Serrated wave in N.F. (- 30). 14<sup>h</sup> to 14<sup>h</sup> Decrease in Dec. (- 3'). 14<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 15). 16<sup>h</sup> to 18<sup>h</sup> Double wave in N.F. (± 25). 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 5'). 18<sup>h</sup> to 19<sup>h</sup> Truncated wave in N.F. (+ 20). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 4'). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 35). 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3').
- 30<sup>d</sup> 9<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 14'). 14<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 40). 17<sup>h</sup> to 18<sup>h</sup> Double-crested wave in N.F. (- 20, - 30).

May

- 4<sup>d</sup> 16<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 20).
- 5<sup>d</sup> 4<sup>h</sup> to 6<sup>h</sup> Truncated wave in Dec. (- 3'). 16<sup>h</sup> to 17<sup>h</sup> Increase in N.F. (+ 20). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 22<sup>h</sup> to 6<sup>d</sup> 1<sup>h</sup> Wave in N.F. (+ 35). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 15).
- 6<sup>d</sup> 6<sup>h</sup> to 6<sup>h</sup> Decrease in N.F. (- 20). 11<sup>h</sup> to 13<sup>h</sup> Serrated, truncated wave in N.F. (- 25). 11<sup>h</sup> to 12<sup>h</sup> Wave in Dec. (+ 4'). 20<sup>h</sup> to 22<sup>h</sup> Double-crested wave in Dec. (- 5', - 3').
- 7<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (- 3'). 8<sup>h</sup> to 10<sup>h</sup> Wave in N.F. (- 30). 8<sup>h</sup> to 9<sup>h</sup> Truncated wave in Dec. (+ 3'). 11<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 13<sup>h</sup> Decrease in N.F. (- 40), followed till 18<sup>h</sup> by a general increase (+ 75), with a wave superposed from 15<sup>h</sup> to 15<sup>h</sup> (+ 30). 13<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 30). 15<sup>h</sup> Rapid decrease in Dec. (- 3'). 18<sup>h</sup> to 19<sup>h</sup> Decrease in N.F. (- 20). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 40). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (+ 3'). 20<sup>h</sup> to 21<sup>h</sup> Double wave in Dec. (± 5'), followed immediately till 22<sup>h</sup> by a rapid decrease (- 10'). 21<sup>h</sup> to 8<sup>d</sup> 0<sup>h</sup> Three consecutive waves in N.F. (+ 65, + 50, + 50), the last wave truncated. 21<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 25). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 3'). 22<sup>h</sup> to 8<sup>d</sup> 1<sup>h</sup> Fluctuating decrease in V.F. (- 45).
- 8<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Irregular wave in Dec. (- 5'). 1<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 3'). 1<sup>h</sup> to 2<sup>h</sup> Increase in Dec. (+ 10'). 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (- 3'). 2<sup>h</sup> to 3<sup>h</sup> Increase in N.F. (+ 30). 2<sup>h</sup> to 4<sup>h</sup> Increase in V.F. (+ 25). 3<sup>h</sup> to 3<sup>h</sup> Decrease in Dec. (- 3'). 4<sup>h</sup> to 6<sup>h</sup> Wave in Dec. (+ 10'), accompanied by a wave in N.F. (- 40). 6<sup>h</sup> to 7<sup>h</sup> Increase in V.F. (+ 15). 11<sup>h</sup> to 12<sup>h</sup> Increase in N.F. (+ 40). 16<sup>h</sup> to 17<sup>h</sup> Truncated wave in N.F. (- 20). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 6'). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (+ 6'). 21<sup>h</sup> to 22<sup>h</sup> Two consecutive waves in Dec. (- 4', - 6'). 21<sup>h</sup> to 23<sup>h</sup> Truncated wave in N.F. (+ 35). 22<sup>h</sup> Sudden decrease in V.F. (- 20).
- 9<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 5'). 1<sup>h</sup> to 2<sup>h</sup> Wave in N.F. (+ 20). 9<sup>h</sup> to 14<sup>h</sup> in Dec. (+ 14'). 12<sup>h</sup> to 13<sup>h</sup> Decrease in N.F. (- 40). 12<sup>h</sup> to 17<sup>h</sup> General increase in V.F. (+ 55). 15<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 45). 17<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 30). 17<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 3'), followed till 18<sup>h</sup> by a decrease (- 4'). 18<sup>h</sup> to 20<sup>h</sup> Two consecutive waves in N.F. (+ 40, + 70). 19<sup>h</sup> to 20<sup>h</sup> Steep wave in Dec. (- 14'), followed till 21<sup>h</sup> by an irregularly accelerated decrease (- 14'). 19<sup>h</sup> to 19<sup>h</sup> Wave in V.F. (- 12), followed till 20<sup>h</sup> by a decrease (- 20). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 70). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 5'). 21<sup>h</sup> to 22<sup>h</sup> Accelerated decrease in V.F. (- 30). 22<sup>h</sup> to 10<sup>d</sup> 0<sup>h</sup> General increase in Dec. (+ 12'). 23<sup>h</sup> to 23<sup>h</sup> Domed wave in N.F. (- 20).

1922.  
May

- 10<sup>d</sup> 1<sup>h</sup> to 2<sup>½</sup><sup>h</sup> Double-crested wave in N.F. (− 25). 1<sup>½</sup><sup>h</sup> to 3<sup>h</sup> Serrated wave in Dec. (+ 9'). 7<sup>h</sup> to 10<sup>h</sup> Wave in N.F. (− 45), with two rounded crests. 7<sup>¼</sup><sup>h</sup> to 8<sup>½</sup><sup>h</sup> Increase in Dec. (+ 7'). 17<sup>h</sup> to 17<sup>½</sup><sup>h</sup> Increase in N.F. (+ 30). 18<sup>h</sup> to 19<sup>h</sup> Decrease in Dec. (− 10'). 18<sup>¾</sup><sup>h</sup> to 20<sup>h</sup> Truncated wave in N.F. (+ 30). 19<sup>½</sup><sup>h</sup> to 20<sup>h</sup> Wave in Dec. (+ 4'), followed till 20<sup>¾</sup><sup>h</sup> by an increase (+ 6'). 20<sup>¾</sup><sup>h</sup> to 22<sup>½</sup><sup>h</sup> Accelerated decrease in V.F. (− 45). 21<sup>½</sup><sup>h</sup> to 22<sup>¼</sup><sup>h</sup> Increase in Dec. (+ 6'), followed immediately till 22<sup>¾</sup><sup>h</sup> by a rapid decrease (− 11'). 22<sup>½</sup><sup>h</sup> to 11<sup>d</sup> 1<sup>h</sup> Double wave in N.F. (± 30), the first part truncated.
- 11<sup>d</sup> 0<sup>h</sup> to 0<sup>½</sup><sup>h</sup> Rapid increase in Dec. (+ 16'), followed till 1<sup>h</sup> by a partial return (− 6'). 1<sup>h</sup> to 6<sup>h</sup> Irregular increase in V.F. (+ 30). 20<sup>½</sup><sup>h</sup> to 22<sup>¾</sup><sup>h</sup> Wave in Dec. (− 6'). 21<sup>h</sup> to 22<sup>h</sup> Truncated wave in N.F. (+ 25).
- 12<sup>d</sup> 1<sup>h</sup> to 2<sup>½</sup><sup>h</sup> Wave in Dec. (+ 5').
- 13<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 4').
- 14<sup>d</sup> 19<sup>h</sup> to 19<sup>¾</sup><sup>h</sup> Decrease in Dec. (− 3'). 20<sup>h</sup> to 21<sup>½</sup><sup>h</sup> Wave in Dec. (− 3').
- 16<sup>d</sup> 10<sup>h</sup> to 17<sup>d</sup> 10<sup>h</sup>. See Plate II.
- 17<sup>d</sup> 18<sup>h</sup> to 19<sup>½</sup><sup>h</sup> Wave in N.F. (− 20). 18<sup>½</sup><sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 3').
- 18<sup>d</sup> 12<sup>¼</sup><sup>h</sup> to 15<sup>½</sup><sup>h</sup> Increase in V.F. (+ 40). 18<sup>¼</sup><sup>h</sup> to 19<sup>½</sup><sup>h</sup> Wave in N.F. (+ 20). 18<sup>¼</sup><sup>h</sup> to 18<sup>½</sup><sup>h</sup> Decrease in Dec. (− 3'). 22<sup>¾</sup><sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 5').
- 19<sup>d</sup> 4<sup>h</sup> to 5<sup>½</sup><sup>h</sup> Truncated wave in Dec. (+ 3'). 4<sup>½</sup><sup>h</sup> to 6<sup>h</sup> Truncated wave in N.F. (+ 20). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 25). 21<sup>¾</sup><sup>h</sup> to 22<sup>½</sup><sup>h</sup> Wave in N.F. (+ 25). 22<sup>h</sup> to 23<sup>¼</sup><sup>h</sup> Wave in Dec. (− 4').
- 20<sup>d</sup> 20<sup>½</sup><sup>h</sup> to 21<sup>h</sup> Decrease in N.F. (− 25).
- 21<sup>d</sup> 1<sup>¼</sup><sup>h</sup> to 1<sup>¾</sup><sup>h</sup> Decrease in Dec. (− 3'). 2<sup>½</sup><sup>h</sup> to 4<sup>h</sup> Domed wave in Dec. (− 6'). 4<sup>h</sup> to 5<sup>h</sup> Wave in Dec. (− 3'). 6<sup>½</sup><sup>h</sup> to 7<sup>¾</sup><sup>h</sup> Serrated wave in Dec. (− 4'). 4<sup>¾</sup><sup>h</sup> to 6<sup>¼</sup><sup>h</sup> Decrease in N.F. (− 35). 5<sup>¼</sup><sup>h</sup> to 6<sup>½</sup><sup>h</sup> Irregular increase in Dec. (+ 5'), followed till 7<sup>¾</sup><sup>h</sup> by a wave (− 3'). 11<sup>¾</sup><sup>h</sup> to 12<sup>¾</sup><sup>h</sup> Double wave in N.F. (± 25). 13<sup>h</sup> to 18<sup>h</sup> General increase in V.F. (+ 50). 13<sup>¾</sup><sup>h</sup> to 14<sup>¾</sup><sup>h</sup> Double wave in N.F. (+ 30, − 20), followed till 16<sup>h</sup> by three consecutive waves (− 20, − 15, − 25). 15<sup>¾</sup><sup>h</sup> to 16<sup>¾</sup><sup>h</sup> Decrease in Dec. (− 5'). 16<sup>¾</sup><sup>h</sup> to 16<sup>½</sup><sup>h</sup> Very rapid increase in N.F. (+ 30). 17<sup>¼</sup><sup>h</sup> to 17<sup>½</sup><sup>h</sup> Decrease in Dec. (− 4'). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 3'). 20<sup>h</sup> to 21<sup>½</sup><sup>h</sup> Double-crested wave in Dec. (− 3').
- 22<sup>d</sup> 0<sup>h</sup> to 1<sup>¾</sup><sup>h</sup> Two consecutive waves in N.F. (+ 30, + 35). 0<sup>h</sup> to 1<sup>½</sup><sup>h</sup> Irregular wave in Dec. (− 7'). 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 4'). 3<sup>h</sup> to 4<sup>h</sup> General decrease in Dec. (− 5'). 3<sup>½</sup><sup>h</sup> to 4<sup>½</sup><sup>h</sup> Double wave in N.F. (± 20). 4<sup>h</sup> to 5<sup>h</sup> Domed wave in Dec. (+ 5'). 15<sup>h</sup> to 16<sup>¾</sup><sup>h</sup> Flat wave in N.F. (− 20). 16<sup>½</sup><sup>h</sup> to 17<sup>¼</sup><sup>h</sup> Domed wave in N.F. (− 20). 22<sup>¾</sup><sup>h</sup> to 23<sup>¼</sup><sup>h</sup> Wave in N.F. (+ 20).
- 23<sup>d</sup> 5<sup>¾</sup><sup>h</sup> to 6<sup>¼</sup><sup>h</sup> Decrease in N.F. (− 30). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (+ 20). 14<sup>½</sup><sup>h</sup> to 15<sup>¼</sup><sup>h</sup> Decrease in Dec. (− 4'). 15<sup>¼</sup><sup>h</sup> to 15<sup>½</sup><sup>h</sup> Increase in N.F. (+ 20). 19<sup>¾</sup><sup>h</sup> to 20<sup>½</sup><sup>h</sup> Truncated wave in N.F. (+ 20). 19<sup>¾</sup><sup>h</sup> to 20<sup>¼</sup><sup>h</sup> Wave in Dec. (− 3'). 23<sup>½</sup><sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 3').
- 24<sup>d</sup> 0<sup>¼</sup><sup>h</sup> to 1<sup>¾</sup><sup>h</sup> Irregular serrated wave in Dec. (− 4'). 12<sup>h</sup> to 16<sup>h</sup> General increase in V.F. (+ 50). 12<sup>½</sup><sup>h</sup> to 13<sup>h</sup> Wave in N.F. (− 20). 14<sup>h</sup> to 16<sup>¼</sup><sup>h</sup> Broad wave in N.F. (− 30).
- 25<sup>d</sup> 13<sup>¾</sup><sup>h</sup> to 14<sup>¼</sup><sup>h</sup> Wave in V.F. (+ 12). 14<sup>h</sup> to 15<sup>½</sup><sup>h</sup> Double wave in N.F. (± 25). 14<sup>h</sup> to 15<sup>h</sup> Decrease in Dec. (− 6'). 16<sup>h</sup> to 17<sup>½</sup><sup>h</sup> Wave in N.F. (− 30). 17<sup>½</sup><sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 7'). 18<sup>½</sup><sup>h</sup> to 19<sup>½</sup><sup>h</sup> Wave in N.F. (+ 40).
- 26<sup>d</sup> 8<sup>½</sup><sup>h</sup> to 9<sup>h</sup> Decrease in N.F. (− 25). 9<sup>h</sup> to 10<sup>¼</sup><sup>h</sup> Increase in Dec. (+ 6'). 10<sup>¾</sup><sup>h</sup> to 12<sup>½</sup><sup>h</sup> Increase in Dec. (+ 5'). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (− 55), followed till 18<sup>½</sup><sup>h</sup> by a general increase (+ 35). 15<sup>¾</sup><sup>h</sup> to 16<sup>h</sup> Decrease in Dec. (− 7'). 22<sup>h</sup> to 22<sup>¾</sup><sup>h</sup> Wave in Dec. (+ 4'), followed till 23<sup>h</sup> by an increase (+ 3'). 22<sup>h</sup> to 22<sup>½</sup><sup>h</sup> Wave in N.F. (+ 30). 22<sup>¾</sup><sup>h</sup> to 27<sup>d</sup> 1<sup>h</sup> Double wave in N.F. (± 25). 23<sup>¼</sup><sup>h</sup> to 27<sup>d</sup> 1<sup>h</sup> Wave in Dec. (− 6').
- 27<sup>d</sup> 4<sup>¾</sup><sup>h</sup> to 5<sup>¼</sup><sup>h</sup> Wave in N.F. (− 25). 4<sup>½</sup><sup>h</sup> to 6<sup>h</sup> Decrease in Dec. (− 8'). 12<sup>½</sup><sup>h</sup> to 13<sup>¾</sup><sup>h</sup> Wave in N.F. (− 25). 13<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 15). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4).
- 28<sup>d</sup> 0<sup>¾</sup><sup>h</sup> to 1<sup>h</sup> Rapid increase in Dec. (+ 5'). 11<sup>½</sup><sup>h</sup> to 13<sup>½</sup><sup>h</sup> Wave in N.F. (− 25). 12<sup>h</sup> to 13<sup>h</sup> Increase in V.F. (+ 20).
- 29<sup>d</sup> 3<sup>¼</sup><sup>h</sup> to 4<sup>¼</sup><sup>h</sup> Decrease in Dec. (− 4'). 12<sup>½</sup><sup>h</sup> to 18<sup>¼</sup><sup>h</sup> Steady increase in N.F. (+ 60). 12<sup>½</sup><sup>h</sup> to 16<sup>½</sup><sup>h</sup> Increase in V.F. (+ 30).
- 31<sup>d</sup> 12<sup>½</sup><sup>h</sup> to 16<sup>h</sup> General Increase in V.F. (+ 30).

June

- 2<sup>d</sup> 5<sup>h</sup> to 7<sup>h</sup> Serrated wave in Dec. (− 3'). 14<sup>¾</sup><sup>h</sup> to 16<sup>¼</sup><sup>h</sup> Irregular increase in N.F. (+ 45). 15<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 40), followed till 24<sup>h</sup> by a steady decrease (− 50). 17<sup>h</sup> to 19<sup>h</sup> Double wave in N.F. (− 30, + 40), followed till 20<sup>h</sup> by a wave (+ 30). 17<sup>½</sup><sup>h</sup> to 18<sup>h</sup> Rapid decrease in Dec. (− 6'). 22<sup>h</sup> to 22<sup>½</sup><sup>h</sup> Rapid decrease in Dec. (− 8'), with increase in N.F. (+ 35). 23<sup>h</sup> to 3<sup>d</sup> 0<sup>¾</sup><sup>h</sup> Decrease in N.F. (− 35).

1922.  
June

- 3<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (+ 3'), followed immediately till 2<sup>h</sup> by a double wave ( $\pm 8'$ ). 0<sup>h</sup> to 1<sup>h</sup> Increase in N.F. (+ 20). 0<sup>h</sup> to 3<sup>h</sup> Wave in V.F. (- 28), the first portion rather steep. 1<sup>h</sup> to 2<sup>h</sup> Decrease in N.F. (- 20). 3<sup>h</sup> to 4<sup>h</sup> Rapid increase in Dec. (+ 6'). 6<sup>h</sup> to 7<sup>h</sup> Decrease in Dec. (- 3'). 13<sup>h</sup> to 14<sup>h</sup> Truncated wave in N.F. (+ 20). 13<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 35). 14<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 35). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 7'), with similar wave in N.F. (+ 30). 20<sup>h</sup> to 21<sup>h</sup> Rapid decrease in Dec. (- 6'), partially recovering till 22<sup>h</sup> (+ 3'). 20<sup>h</sup> to 21<sup>h</sup> Irregular wave in N.F. (+ 25).
- 4<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Slow wave in Dec. (+ 3'). 20<sup>h</sup> to 20<sup>h</sup> Rapid decrease in Dec. (- 5'), with similar increase in N.F. (+ 20). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (+ 3'). 21<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 4').
- 5<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Two consecutive waves in N.F. (- 20). 0<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 9'). 3<sup>h</sup> to 5<sup>h</sup> Wave in N.F. (- 30). 5<sup>h</sup> to 7<sup>h</sup> Irregular decrease in N.F. (- 50). 5<sup>h</sup> to 7<sup>h</sup> Serrated wave in Dec. (- 5'). 8<sup>h</sup> to 10<sup>h</sup> Wave in N.F. (- 35). 10<sup>h</sup> to 11<sup>h</sup> Wave in V.F. (- 12). 11<sup>h</sup> to 13<sup>h</sup> Wave in N.F. (- 40). 10<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 11<sup>h</sup> to 17<sup>h</sup> Irregular increase in V.F. (+ 45). 15<sup>h</sup> to 17<sup>h</sup> Serrated wave in N.F. (+ 30). 17<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 70). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 9'). 19<sup>h</sup> to 19<sup>h</sup> Rapid decrease in V.F. (- 15). 19<sup>h</sup> to 20<sup>h</sup> Double-crested wave in N.F. (+ 30, + 40). 19<sup>h</sup> to 20<sup>h</sup> Double wave in Dec. (+ 4', - 3'). 21<sup>h</sup> to 22<sup>h</sup> Double-crested wave in Dec. (+ 4', + 7'). 21<sup>h</sup> to 22<sup>h</sup> Irregular decrease in V.F. (- 20). 22<sup>h</sup> to 6<sup>d</sup> 1<sup>h</sup> Wave in Dec. (+ 9').
- 6<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in V.F. (- 15). 9<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 9'). 14<sup>h</sup> to 17<sup>h</sup> Four consecutive waves in N.F. (+ 20), the second and third truncated. 13<sup>h</sup> to 18<sup>h</sup> Steady increase in V.F. (+ 45). 14<sup>h</sup> to 15<sup>h</sup> Decrease in Dec. (- 4'). 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 8'). 17<sup>h</sup> to 19<sup>h</sup> Double-crested wave in N.F. (+ 25, + 35). 20<sup>h</sup> to 22<sup>h</sup> Truncated wave in N.F. (+ 40). 20<sup>h</sup> to 20<sup>h</sup> Decrease in Dec. (- 4').
- 7<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 7'). 0<sup>h</sup> to 2<sup>h</sup> Wave in V.F. (- 12). 23<sup>h</sup> to 8<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 20).
- 8<sup>d</sup> 19<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 20). 23<sup>h</sup> to 9<sup>d</sup> 1<sup>h</sup> Irregular wave in Dec. (+ 6'). 23<sup>h</sup> to 23<sup>h</sup> Increase in N.F. (+ 20).
- 11<sup>d</sup> 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 4').
- 12<sup>d</sup> 5<sup>h</sup> to 6<sup>h</sup> Increase in N.F. (+ 30). 6<sup>h</sup> to 7<sup>h</sup> Decrease in Dec. (- 5'). 8<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 40). 17<sup>h</sup> to 19<sup>h</sup> Two consecutive waves in N.F. (+ 35, + 25). 19<sup>h</sup> to 20<sup>h</sup> Double-crested wave in N.F. (+ 20). 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (+ 3').
- 13<sup>d</sup> 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 5'). 22<sup>h</sup> 50<sup>m</sup> Sudden increase in N.F. (+ 40), and decrease in Dec. (- 4'), returning till 24<sup>h</sup>. 22<sup>h</sup> 50<sup>m</sup> to 24<sup>h</sup> Decrease in V.F. (- 18).
- 14<sup>h</sup> 3<sup>h</sup> Decrease in Dec. (- 3'). 7<sup>h</sup> to 7<sup>h</sup> Increase in Dec. (+ 3').
- 15<sup>h</sup> 11<sup>h</sup> to 15<sup>h</sup> Wave in V.F. (- 15). 23<sup>h</sup> to 16<sup>d</sup> 2<sup>h</sup> Wave in Dec. (- 5').
- 16<sup>d</sup> 16<sup>h</sup> to 17<sup>h</sup> Serrated wave in N.F. (+ 20). 17<sup>h</sup> to 18<sup>h</sup> Serrated wave in N.F. (+ 60), with a wave in Dec. (+ 4'). 18<sup>h</sup> to 19<sup>h</sup> Rapid increase in V.F. (+ 30). 18<sup>h</sup> to 20<sup>h</sup> Double wave in N.F. (+ 50, - 35), the first part truncated. 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 9'). 19<sup>h</sup> to 22<sup>h</sup> Wave in V.F. (+ 12). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 3').
- 17<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Double wave in N.F. ( $\pm 30$ ). 0<sup>h</sup> to 2<sup>h</sup> Two consecutive waves in Dec. (+ 9', + 14'). 0<sup>h</sup> to 4<sup>h</sup> Double-crested wave in V.F. (- 30, - 40). 2<sup>h</sup> to 3<sup>h</sup> Oscillating decrease in N.F. (- 30), with similar increase in Dec. (+ 3'). 14<sup>h</sup> to 15<sup>h</sup> Rapid increase in N.F. (+ 45). 14<sup>h</sup> to 17<sup>h</sup> Increase in V.F. (+ 30). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 20). 17<sup>h</sup> to 18<sup>h</sup> Increase in N.F. (+ 20). 20<sup>h</sup> to 22<sup>h</sup> Flattened wave in Dec. (- 5'), followed till 23<sup>h</sup> by a decrease (- 5'). 22<sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 12). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 40). 23<sup>h</sup> to 18<sup>d</sup> 0<sup>h</sup> Wave in Dec. (+ 3').
- 18<sup>d</sup> 1<sup>h</sup> to 4<sup>h</sup> Double wave in Dec. (- 4', + 6'). 1<sup>h</sup> to 2<sup>h</sup> Truncated wave in N.F. (+ 20). 2<sup>h</sup> to 3<sup>h</sup> Wave in N.F. (- 30). 3<sup>h</sup> to 4<sup>h</sup> Wave in N.F. (+ 20). 5<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 35). 7<sup>h</sup> to 7<sup>h</sup> Increase in Dec. (+ 5'). 17<sup>h</sup> to 18<sup>h</sup> Increase in N.F. (+ 35). 17<sup>h</sup> to 18<sup>h</sup> Truncated wave in Dec. (- 4'). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 5'). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 25).
- 19<sup>d</sup> 15<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 35). 17<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (+ 20).
- 20<sup>d</sup> 13<sup>h</sup> to 14<sup>h</sup> Domed wave in N.F. (- 20). 14<sup>h</sup> to 16<sup>h</sup> General increase in N.F. (+ 35).
- 22<sup>d</sup> 14<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 30). 12<sup>h</sup> to 18<sup>h</sup> Steady increase in V.F. (+ 35). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 3').
- 23<sup>d</sup> 10<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 14<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 30). 18<sup>h</sup> to 20<sup>h</sup> Flat wave in Dec. (- 4').
- 25<sup>d</sup> 17<sup>h</sup> to 18<sup>h</sup> Domed wave in N.F. (+ 20).
- 27<sup>d</sup> 5<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (- 25). 6<sup>h</sup> to 7<sup>h</sup> Oscillating increase in Dec. (+ 9'). 6<sup>h</sup> to 6<sup>h</sup> Wave in V.F. (- 12). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (+ 20). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 20).

1922.

June

28<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Wave in Dec (+ 3') 10<sup>h</sup> to 11<sup>h</sup> Decrease in N.F. (- 20). 15<sup>h</sup> to 16<sup>h</sup> Truncated wave in N.F. (+ 20). 18<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (+ 20). 19<sup>h</sup> to 21<sup>h</sup> Truncated wave in Dec. (- 6'). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 25). 23<sup>h</sup> to 29<sup>d</sup> 0<sup>h</sup> Truncated wave in Dec. (- 4').

29<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Fluctuating decrease in Dec. (- 5'), followed till 1<sup>h</sup> by a further rapid decrease (- 7') which had recovered by 3<sup>h</sup>. 0<sup>h</sup> to 1<sup>h</sup> Two consecutive irregular waves in N.F. (- 20). 0<sup>h</sup> to 1<sup>h</sup> Accelerated decrease in V.F. (- 35), recovering till 5<sup>h</sup>. 8<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (- 3'). 9<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 8'). 9<sup>h</sup> to 11<sup>h</sup> Truncated wave in N.F. (- 50). 14<sup>h</sup> to 15<sup>h</sup> Double wave in N.F. ( $\pm$  20). 15<sup>h</sup> to 16<sup>h</sup> Fluctuating decrease in Dec. (- 6'). 19<sup>h</sup> to 19<sup>h</sup> Decrease in Dec. (- 5'). 20<sup>h</sup> to 20<sup>h</sup> Very rapid decrease in Dec. (- 6'), followed immediately till 22<sup>h</sup> by a double wave (+ 8', - 10'). 20<sup>h</sup> to 21<sup>h</sup> Double wave in N.F. (+ 50, - 30), followed till 23<sup>h</sup> by a decrease (- 40). 20<sup>h</sup> to 21<sup>h</sup> Wave in V.F. (- 15).

30<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Accelerated increase in Dec. (+ 5'). 9<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 5'), with decrease in N.F. (- 40). 11<sup>h</sup> to 12<sup>h</sup> Increase in N.F. (+ 40). 12<sup>h</sup> to 14<sup>h</sup> Increase in Dec. (+ 11'). 12<sup>h</sup> to 14<sup>h</sup> Accelerated increase in V.F. (+ 35). 13<sup>h</sup> to 14<sup>h</sup> Two consecutive waves in N.F. (- 30, - 25). 14<sup>h</sup> to 15<sup>h</sup> Wave in Dec. (- 9'). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 20). 15<sup>h</sup> to 17<sup>h</sup> Fluctuating decrease in Dec. (- 5'). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 7'). 17<sup>h</sup> Sudden decrease in N.F. (- 20), followed immediately till 18<sup>h</sup> by a rapid increase (+ 50). 19<sup>h</sup> to 21<sup>h</sup> Double wave in Dec. (- 6', + 4'). 20<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 35). 20<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 18). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4'), with decrease in V.F. (- 25). 21<sup>h</sup> to July 1<sup>d</sup> 9<sup>h</sup>. Register of N.F. failed.

July

1<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Double wave in Dec. (- 5', + 4'). 0<sup>h</sup> to 2<sup>h</sup> Wave in V.F. (+ 12), followed till 4<sup>h</sup> by an increase (+ 25). 4<sup>h</sup> to 5<sup>h</sup> Wave in Dec. (+ 4'). 12<sup>h</sup> to 17<sup>h</sup> General increase in N.F. (+ 50). 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (+ 3'). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 8'). 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 8'). 13<sup>h</sup> to 22<sup>h</sup> Slow wave in V.F. (+ 50).

2<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Serrated wave in Dec. (+ 7'). 0<sup>h</sup> to 4<sup>h</sup> Wave in V.F. (- 15). 5<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (+ 30). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (- 20). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 4'). 19<sup>h</sup> to 20<sup>h</sup> Double-crested wave in N.F. (+ 20). 18<sup>h</sup> to 20<sup>h</sup> Double-crested wave in Dec. (- 3'). 19<sup>h</sup> to 23<sup>h</sup> Irregular decrease in V.F. (- 30). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 23<sup>h</sup> to 3<sup>d</sup> 0<sup>h</sup> Serrated wave in Dec. (- 4').

3<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Irregular wave in Dec. (+ 8'). 1<sup>h</sup> to 4<sup>h</sup> Double-crested wave in V.F. (- 16), followed till 6<sup>h</sup> by an increase (+ 25). 2<sup>h</sup> to 3<sup>h</sup> Increase in N.F. (+ 30). 5<sup>h</sup> to 6<sup>h</sup> Decrease in N.F. (- 20) 4<sup>h</sup> to 4<sup>h</sup> Decrease in Dec. (- 4'). 6<sup>h</sup> to 7<sup>h</sup> Increase in Dec. (+ 5'). 7<sup>h</sup> to 8<sup>h</sup> Wave in Dec. (- 3'). 20<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 25). 22<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 4'). 4<sup>d</sup> 12<sup>h</sup> to 13<sup>h</sup> Increase in V.F. (+ 12).

5<sup>d</sup> 17<sup>h</sup> to 18<sup>h</sup> Increase in N.F. (+ 30). 17<sup>h</sup> to 18<sup>h</sup> Decrease in Dec. (- 3'). 21<sup>h</sup> to 21<sup>h</sup> Decrease in Dec. (- 3'). 22<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 4').

6<sup>d</sup> 6<sup>h</sup> to 7<sup>h</sup> Irregular increase in Dec. (+ 7').

7<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Increase in Dec. (+ 3'). 12<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 20). 15<sup>h</sup> to 17<sup>h</sup> Increase in N.F. (+ 40), followed till 18<sup>h</sup> by a wave (- 30). 22<sup>h</sup> to 23<sup>h</sup> Incomplete wave in Dec. (- 6').

9<sup>d</sup> 11<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 30). 14<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 25).

10<sup>d</sup> 7<sup>h</sup> to 10<sup>h</sup> Accelerated decrease in N.F. (- 50). 8<sup>h</sup> to 17<sup>h</sup> Slow wave in V.F. (- 25). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 20), followed till 18<sup>h</sup> by an increase (+ 30). 15<sup>h</sup> to 18<sup>h</sup> Decrease in Dec. (- 9').

13<sup>d</sup> 12<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 25). 12<sup>h</sup> to 16<sup>h</sup> Fluctuating increase in N.F. (+ 35).

14<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 7'). 6<sup>h</sup> to 7<sup>h</sup> Serrated wave in Dec. (- 3'). 17<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (+ 40), followed immediately till 18<sup>h</sup> by an increase (+ 30). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'), with a wave in N.F. (+ 30). 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (+ 3'). 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 35), with decrease in V.F. (- 12). 23<sup>h</sup> to 15<sup>d</sup> 0<sup>h</sup> General increase in Dec. (+ 5').

15<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (- 3'). 2<sup>h</sup> to 2<sup>h</sup> Accelerated decrease in Dec. (- 4'), followed immediately till 4<sup>h</sup> by a truncated wave (+ 9'). 2<sup>h</sup> to 3<sup>h</sup> Wave in N.F. (- 25). 3<sup>h</sup> to 6<sup>h</sup> Wave in V.F. (- 25). 6<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 50).

16<sup>d</sup> 7<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 30). 12<sup>h</sup> to 17<sup>h</sup> Irregular increase in V.F. (+ 40). 13<sup>h</sup> to 14<sup>h</sup> Flat wave in N.F. (- 20). 15<sup>h</sup> to 16<sup>h</sup> Oscillating increase in N.F. (+ 40). 14<sup>h</sup> to 15<sup>h</sup> Decrease in Dec. (- 5'). 15<sup>h</sup> to 16<sup>h</sup> Double wave in N.F. ( $\pm$  35). 15<sup>h</sup> to 17<sup>h</sup> Double wave in Dec. ( $\pm$  5'). 17<sup>h</sup> to 18<sup>h</sup> Serrated wave in N.F. (+ 25). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 60). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 25). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 60). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 5').

17<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 3'). 1<sup>h</sup> to 2<sup>h</sup> Increase in Dec. (+ 5'). 14<sup>h</sup> to 16<sup>h</sup> Truncated wave in N.F. (+ 20). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 20). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 20). 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 3'). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 21<sup>h</sup> to 21<sup>h</sup> Truncated wave in N.F. (+ 20).

1922.  
July

- 18<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (− 3′). 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 20). 10<sup>h</sup> to 15<sup>h</sup> Wave in V.F. (− 20). 11<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (− 30). 14<sup>h</sup> to 15<sup>h</sup> Accelerated decrease in Dec. (− 5′). 15<sup>h</sup> to 17<sup>h</sup> Truncated wave in N.F. (+ 20). 17<sup>h</sup> to 18<sup>h</sup> Accelerated increase in N.F. (+ 30). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 5′). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 4′). 20<sup>h</sup> to 20<sup>h</sup> Rapid decrease in N.F. (− 40).
- 19<sup>d</sup> 6<sup>h</sup> to 7<sup>h</sup> Wave in Dec. (+ 3′). 6<sup>h</sup> to 8<sup>h</sup> Wave in N.F. (− 20). 12<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 30). 13<sup>h</sup> to 13<sup>h</sup> Wave in N.F. (+ 20). 13<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (− 25). 15<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (+ 20). 17<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 20). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 25). 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (− 6′). 21<sup>h</sup> to 22<sup>h</sup> Double-crested wave in N.F. (+ 40, + 50).
- 20<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Wave in N.F. (− 20). 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 4′). 14<sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 30).
- 23<sup>d</sup> 21<sup>h</sup> to 22<sup>h</sup> Decrease in N.F. (− 25). 21<sup>h</sup> to 23<sup>h</sup> Truncated wave in Dec. (− 3′). 23<sup>h</sup> to 24<sup>d</sup> 4<sup>h</sup> Wave in V.F. (− 25). 23<sup>h</sup> to 24<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 30). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (− 3′).
- 24<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (− 10′). 6<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (− 30). 7<sup>h</sup> to 13<sup>h</sup> Steady increase in Dec. (+ 15′). 12<sup>h</sup> to 14<sup>h</sup> Double-crested wave in N.F. (+ 30, + 35). 14<sup>h</sup> to 15<sup>h</sup> Truncated wave in N.F. (+ 20).
- 25<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 25).
- 26<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 4′), followed till 4<sup>h</sup> by an irregular decrease (− 7′). 13<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 60), followed till 21<sup>h</sup> by a decrease (− 40). 14<sup>h</sup> to 16<sup>h</sup> Oscillating decrease in N.F. (− 60). 16<sup>h</sup> to 16<sup>h</sup> Decrease in Dec. (− 5′). 16<sup>h</sup> to 18<sup>h</sup> Serrated wave in N.F. (+ 55). 18<sup>h</sup> to 19<sup>h</sup> Irregular wave in Dec. (− 4′), followed till 21<sup>h</sup> by an irregular decrease (− 5′). 19<sup>h</sup> to 19<sup>h</sup> Truncated wave in N.F. (+ 20). 20<sup>h</sup> to 21<sup>h</sup> General increase in N.F. (+ 30). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (− 20′), followed till 27<sup>d</sup> 1<sup>h</sup> by an oscillating decrease (− 15′). 21<sup>h</sup> to 24<sup>h</sup> Irregular triple wave in N.F. (± 30). 23<sup>h</sup> to 24<sup>h</sup> Rapid decrease in V.F. (− 25).
- 27<sup>d</sup> 1<sup>h</sup> to 5<sup>h</sup> Serrated wave in Dec. (+ 12′), followed till 7<sup>h</sup> by a general increase (+ 12′). 2<sup>h</sup> to 3<sup>h</sup> Wave in N.F. (− 20). 2<sup>h</sup> to 4<sup>h</sup> Wave in V.F. (− 12). 5<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (− 60), partially recovering till 9<sup>h</sup> (+ 30). 10<sup>h</sup> to 17<sup>h</sup> General increase in V.F. (+ 50). 13<sup>h</sup> to 14<sup>h</sup> Increase in Dec. (+ 3′), followed till 15<sup>h</sup> by a rapid decrease (− 8′). 14<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (− 25), followed immediately till 15<sup>h</sup> by a domed wave (− 30). 16<sup>h</sup> to 17<sup>h</sup> Irregular increase in N.F. (+ 35). 17<sup>h</sup> to 20<sup>h</sup> Broad truncated wave in Dec. (− 6′). 18<sup>h</sup> to 19<sup>h</sup> Double wave in N.F. (± 20). 19<sup>h</sup> to 22<sup>h</sup> Irregular decrease in V.F. (− 30). 20<sup>h</sup> to 21<sup>h</sup> Oscillating decrease in Dec. (− 5′), followed immediately till 22<sup>h</sup> by a steep domed wave (+ 9′). 21<sup>h</sup> to 22<sup>h</sup> Sharp wave in N.F. (+ 40). 22<sup>h</sup> to 23<sup>h</sup> Serrated wave in N.F. (+ 30). 22<sup>h</sup> to 23<sup>h</sup> Truncated wave in Dec. (+ 4′), followed till 23<sup>h</sup> by a wave (+ 3′). 23<sup>h</sup> to 28<sup>d</sup> 1<sup>h</sup> Double-crested wave in N.F. (+ 30). 23<sup>h</sup> to 28<sup>d</sup> 2<sup>h</sup> Irregular decrease in V.F. (− 25). 23<sup>h</sup> to 28<sup>d</sup> 0<sup>h</sup> Increase in Dec. (+ 5′).
- 28<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Double wave in Dec. (− 9′, + 6′). 2<sup>h</sup> to 3<sup>h</sup> Wave in V.F. (− 25), the increase continuing further till 5<sup>h</sup> (+ 15). 2<sup>h</sup> to 3<sup>h</sup> Irregular wave in N.F. (− 70). 6<sup>h</sup> to 7<sup>h</sup> Increase in Dec. (+ 6′). 10<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 3′). 12<sup>h</sup> to 12<sup>h</sup> Wave in Dec. (+ 3′), with wave in N.F. (+ 30). 18<sup>h</sup> to 18<sup>h</sup> Rapid decrease in Dec. (− 5′), recovering irregularly till 21<sup>h</sup>. 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 20). 21<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 5′). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 40), followed immediately till 23<sup>h</sup> by a second wave (+ 40). 20<sup>h</sup> to 29<sup>d</sup> 5<sup>h</sup> Slow wave in V.F. (− 55). 22<sup>h</sup> to 29<sup>d</sup> 0<sup>h</sup> Wave in Dec. (− 12′), with secondary waves superposed at 23<sup>h</sup> to 23<sup>h</sup> (+ 5′) and at 24<sup>h</sup> (+ 3′). 23<sup>h</sup> to 29<sup>d</sup> 0<sup>h</sup> Oscillating decrease in N.F. (− 50).
- 29<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (− 3′). 0<sup>h</sup> to 1<sup>h</sup> Wave in N.F. (+ 20). 2<sup>h</sup> to 4<sup>h</sup> Wave in N.F. (+ 20). 6<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (− 30). 6<sup>h</sup> to 7<sup>h</sup> Wave in Dec. (+ 4′). 13<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 45). 15<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (+ 20), followed till 17<sup>h</sup> by an increase (+ 40). 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (+ 12′). 17<sup>h</sup> to 17<sup>h</sup> Decrease in N.F. (− 25), followed immediately till 19<sup>h</sup> by a steep wave (+ 85). 19<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (− 20). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 45). 22<sup>h</sup> to 22<sup>h</sup> Decrease in V.F. (− 12).
- 30<sup>d</sup> 0<sup>h</sup> to 0<sup>h</sup> Wave in N.F. (− 25). 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 5′). 10<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (− 30). 9<sup>h</sup> to 13<sup>h</sup> Increase in Dec. (+ 14′). 18<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 40), slightly truncated. 19<sup>h</sup> to 20<sup>h</sup> Irregular wave in Dec. (− 4′). 21<sup>h</sup> to 22<sup>h</sup> Double wave in Dec. (± 4′). 22<sup>h</sup> to 22<sup>h</sup> Decrease in V.F. (− 16). 23<sup>h</sup> to 31<sup>d</sup> 0<sup>h</sup> Domed wave in Dec. (− 5′). 23<sup>h</sup> to 31<sup>d</sup> 1<sup>h</sup> Double-crested wave in N.F. (− 25).
- 31<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 3′). 22<sup>h</sup> to 22<sup>h</sup> Decrease in Dec. (− 3′).

August

- 1<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Increase in Dec. (+ 3′). 7<sup>h</sup> to 9<sup>h</sup> Increase in Dec. (+ 5′). 7<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (− 35). 11<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 4′). 13<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 35). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (− 20). 22<sup>h</sup> to 23<sup>h</sup> Decrease in Dec. (− 4′).
- 2<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Increase in Dec. (+ 3′).
- 3<sup>d</sup> 21<sup>h</sup> to 22<sup>h</sup> Sharp wave in N.F. (+ 20).
- 4<sup>d</sup> 7<sup>h</sup> to 8<sup>h</sup> Wave in N.F. (− 20). 12<sup>h</sup> to 16<sup>h</sup> Increase in V.F. (+ 40). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 4′).

1922.  
August

- 5<sup>d</sup> 5 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 20). 7<sup>h</sup> to 10 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in N.F. (- 40). 10 $\frac{3}{4}$ <sup>h</sup> to 13 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 6'). 11 $\frac{1}{2}$ <sup>h</sup> to 14<sup>h</sup> Serrated wave in N.F. (- 40). 17 $\frac{3}{4}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Increase in N.F. (+ 20). 22 $\frac{1}{4}$ <sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 20). 15<sup>h</sup> to 21<sup>h</sup> No register of V.F.
- 6<sup>d</sup> 4 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (- 4'). 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3'). 21<sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (- 3').
- 7<sup>d</sup> 18 $\frac{3}{4}$ <sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 4'). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 20).
- 7<sup>d</sup> 15<sup>h</sup> to 8<sup>d</sup> 11<sup>h</sup> No register of V.F.
- 8<sup>d</sup> 21 $\frac{1}{4}$ <sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 7').
- 9<sup>d</sup> 11<sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 45). 15 $\frac{1}{2}$ <sup>h</sup> to 17<sup>h</sup> Serrated double wave in N.F. ( $\pm$  20), followed immediately till 18 $\frac{1}{4}$ <sup>h</sup> by another wave (- 30). 19 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Two consecutive waves in N.F. (+ 35, + 35), partially coalescing at 20 $\frac{1}{4}$ . 19<sup>h</sup> to 22<sup>h</sup> Irregular wave in Dec. (- 8'). 23<sup>h</sup> to 10<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Domed wave in N.F. (+ 35), accompanied by a decrease in V.F. (+ 35).
- 10<sup>d</sup> 0<sup>h</sup> to 0 $\frac{3}{8}$ <sup>h</sup> Slightly truncated wave in Dec. (+ 3'). 1<sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 3'). 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (- 3'). 3 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 40). 3 $\frac{1}{2}$ <sup>h</sup> to 5<sup>h</sup> Wave in Dec. (+ 9'). 4 $\frac{1}{2}$ <sup>h</sup> to 4 $\frac{3}{8}$ <sup>h</sup> Decrease in V.F. (- 12). 6<sup>h</sup> to 9 $\frac{1}{4}$ <sup>h</sup> Steady decrease in N.F. (- 70). 19 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 10'), the return incomplete (+ 6'). 19 $\frac{1}{2}$ <sup>h</sup> Rapid increase in N.F. (+ 25), followed immediately till 21<sup>h</sup> by a decrease (- 40).
- 11<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'). 9<sup>h</sup> to 10 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 40), accompanied by a rapid increase in Dec. (+ 8'). 11<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 20), followed by an almost continuous series of oscillations till 24<sup>h</sup>. 12<sup>h</sup> to 21<sup>h</sup> Broad wave in V.F. (+ 75), with many small oscillations superposed. 13<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (+ 25). 13<sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 10'), followed till 14 $\frac{3}{4}$ <sup>h</sup> by a decrease (- 5'). 14<sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 30). 14 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{3}{8}$ <sup>h</sup> Two consecutive waves in N.F. (+ 50, + 60), the second irregular and serrated. 15<sup>h</sup> to 15 $\frac{3}{8}$ <sup>h</sup> Wave in Dec. (+ 6'). 16 $\frac{1}{2}$ <sup>h</sup> to 17 $\frac{1}{2}$ <sup>h</sup> Rapid decrease in Dec. (- 13'), with a marked oscillation midway, followed till 19<sup>h</sup> by a fluctuating partial recovery (+ 6'). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 50). 19 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 7'). 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Oscillating increase in N.F. (+ 35). 20 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Three consecutive waves in N.F. (- 40, - 20, - 20), the third wave flattened. 20 $\frac{3}{8}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Two consecutive waves in Dec. (- 4'). 23<sup>h</sup> to 12<sup>d</sup> 0 $\frac{1}{4}$ <sup>h</sup> Accelerated decrease in V.F. (- 25), gradually recovering till 12<sup>d</sup> 4<sup>h</sup>. 23<sup>h</sup> to 12<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (+ 8'). 23 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> Slightly truncated wave in N.F. (+ 25).
- 12<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (- 7'). 2<sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Decrease in N.F. (- 20). 4<sup>h</sup> to 6 $\frac{1}{4}$ <sup>h</sup> Serrated wave in Dec. (+ 9'), with a similar wave in N.F. (- 60), accompanied by a small irregular wave in V.F. (- 15). 6 $\frac{3}{4}$ <sup>h</sup> to 8 $\frac{1}{4}$ <sup>h</sup> Decrease in N.F. (- 60). 7 $\frac{3}{4}$ <sup>h</sup> to 8 $\frac{3}{8}$ <sup>h</sup> Wave in Dec. (+ 4'). 10 $\frac{3}{4}$ <sup>h</sup> to 11 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 25). 11 $\frac{1}{4}$ <sup>h</sup> to 11 $\frac{3}{4}$ <sup>h</sup> Increase in Dec. (+ 4'). 16<sup>h</sup> to 17 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (- 30). 16 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Irregular wave in Dec. (- 5'). 20 $\frac{3}{4}$ <sup>h</sup> to 21<sup>h</sup> Increase in N.F. (+ 25). 20 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Oscillating decrease in Dec. (- 7').
- 13<sup>d</sup> 0<sup>h</sup> to 2 $\frac{1}{4}$ <sup>h</sup> Double-crested wave in Dec. (+ 9', + 10'). 0 $\frac{1}{2}$ <sup>h</sup> to 3<sup>h</sup> Wave in V.F. (- 25). 1 $\frac{1}{2}$ <sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Increase in N.F. (+ 30). 3 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 30). 3 $\frac{1}{2}$ <sup>h</sup> to 6<sup>h</sup> Wave in Dec. (+ 4'). 10<sup>h</sup> to 11 $\frac{3}{8}$ <sup>h</sup> Wave in N.F. (+ 20), followed till 12<sup>h</sup> by a rapid increase (+ 40). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 30). 19 $\frac{1}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 7'). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 35). 22 $\frac{1}{2}$ <sup>h</sup> to 24<sup>h</sup> steep wave in N.F. (+ 60). 22 $\frac{3}{8}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 5'). 23<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Decrease in V.F. (- 12).
- 14<sup>d</sup> 2<sup>h</sup> to 4 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (+ 6'). 2 $\frac{1}{2}$ <sup>h</sup> to 5 $\frac{1}{2}$ <sup>h</sup> Irregular double wave in N.F. ( $\mp$  25), accompanied by a slow wave in V.F. (- 12). 6 $\frac{3}{8}$ <sup>h</sup> to 8 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (- 35). 6 $\frac{1}{2}$ <sup>h</sup> to 7 $\frac{3}{8}$ <sup>h</sup> Wave in Dec. (+ 4'). 9 $\frac{3}{8}$ <sup>h</sup> to 11<sup>h</sup> Wave in N.F. (+ 25). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{3}{8}$ <sup>h</sup> Domed wave in N.F. (- 30). 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 4'). 17 $\frac{3}{8}$ <sup>h</sup> to 19<sup>h</sup> Irregular wave in N.F. (+ 30). 20 $\frac{1}{4}$ <sup>h</sup> to 21<sup>h</sup> Steep wave in Dec. (- 13'). 20 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{3}{4}$ <sup>h</sup> Irregular steep wave in N.F. (+ 70). 21<sup>h</sup> to 21 $\frac{3}{8}$ <sup>h</sup> Increase in Dec. (+ 4'). 20 $\frac{3}{8}$ <sup>h</sup> to 21<sup>h</sup> Wave in V.F. (+ 12).
- 15<sup>d</sup> 6 $\frac{1}{2}$ <sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Irregular decrease in N.F. (- 40). 11<sup>h</sup> to 12 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 40). 13 $\frac{1}{4}$ <sup>h</sup> to 14<sup>h</sup> Wave in N.F. (- 30). 13<sup>h</sup> to 14 $\frac{3}{8}$ <sup>h</sup> Accelerated increase in V.F. (+ 25). 13 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Wave in Dec. (- 5'). 17 $\frac{1}{2}$ <sup>h</sup> to 18<sup>h</sup> Wave in N.F. (- 20). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 3').
- 16<sup>d</sup> 21<sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 20).
- 20<sup>d</sup> 4 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{1}{4}$ <sup>h</sup> Accelerated decrease in N.F. (- 30). 5<sup>h</sup> to 7 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 7'), followed till 8 $\frac{1}{2}$ <sup>h</sup> by a decrease (- 4'). 8 $\frac{1}{2}$ <sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 10'). 22 $\frac{1}{2}$ <sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 3'). 23 $\frac{1}{4}$ <sup>h</sup> to 24<sup>h</sup> Irregular wave in N.F. (+ 30). 23 $\frac{3}{8}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Rapid decrease in Dec. (- 8').
- 21<sup>d</sup> 0 $\frac{3}{8}$ <sup>h</sup> to 1 $\frac{1}{4}$ <sup>h</sup> Increase in Dec. (+ 4'). 4<sup>h</sup> to 8 $\frac{1}{2}$ <sup>h</sup> Slow wave in N.F. (+ 35). 4<sup>h</sup> to 6<sup>h</sup> Decrease in Dec. (- 5'), followed till 12<sup>h</sup> by a general increase (+ 16'). 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3').
- 22<sup>d</sup> 2 $\frac{1}{2}$ <sup>h</sup> to 3<sup>h</sup> Decrease in Dec. (- 4'). 8 $\frac{1}{2}$ <sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 13'). 12 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 35). 12 $\frac{1}{2}$ <sup>h</sup> to 13 $\frac{3}{8}$ <sup>h</sup> Domed wave in N.F. (+ 20). 12 $\frac{3}{8}$ <sup>h</sup> to 13 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 3'). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (- 30). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{3}{8}$ <sup>h</sup> Decrease in Dec. (- 7'), rapid at first. 22 $\frac{3}{8}$ <sup>h</sup> to 24<sup>h</sup> Truncated wave in N.F. (+ 20). 23 $\frac{1}{2}$ <sup>h</sup> to 23<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (- 3').

1922.  
August

- 23<sup>d</sup> 8<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 70). 9<sup>h</sup> to 12<sup>h</sup> General increase in Dec. (+ 12'). 12<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 40). 13<sup>h</sup> to 14<sup>h</sup> Serrated wave in N.F. (+ 25). 14<sup>h</sup> to 15<sup>h</sup> Serrated wave in N.F. (+ 40), with a secondary wave from 14<sup>h</sup> to 15<sup>h</sup> superposed (- 20). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 20). 19<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 8'). 22<sup>h</sup> to 23<sup>h</sup> Two consecutive waves in Dec. (+ 5', + 4'). 21<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 30). 23<sup>h</sup> to 24<sup>h</sup> Irregular wave in N.F. (+ 40).
- 24<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in V.F. (- 25). 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (+ 5'). 0<sup>h</sup> to 2<sup>h</sup> Truncated wave in Dec. (- 6'). 3<sup>h</sup> to 4<sup>h</sup> Increase in N.F. (+ 25). 7<sup>h</sup> to 9<sup>h</sup> Accelerated decrease in N.F. (- 30). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 40).
- 25<sup>d</sup> 7<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 20). 9<sup>h</sup> to 13<sup>h</sup> Increase in Dec. (+ 12'). 13<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 40). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 6'). 22<sup>h</sup> to 24<sup>h</sup> Truncated wave in N.F. (+ 20). 22<sup>h</sup> to 23<sup>h</sup> Decrease in Dec. (- 5').
- 26<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Truncated wave in N.F. (+ 25). 0<sup>h</sup> to 0<sup>h</sup> Wave in Dec. (+ 4'), the ascent very steep. 2<sup>h</sup> to 5<sup>h</sup> Slow wave in Dec. (+ 7'). 4<sup>h</sup> to 5<sup>h</sup> Wave in N.F. (+ 20). 6<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 30). 8<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 12'). 16<sup>h</sup> to 17<sup>h</sup> Wave in N.F. (- 20). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 4'). 19<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 20).
- 27<sup>d</sup> 2<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 8'). 3<sup>h</sup> to 5<sup>h</sup> Wave in V.F. (- 16). 12<sup>h</sup> to 14<sup>h</sup> Increase in N.F. (+ 30). 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 20). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 3'). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (+ 3').
- 28<sup>d</sup> 18<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (- 20). 18<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 3').
- 29<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Decrease in Dec. (- 5'). 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 8'). 11<sup>h</sup> to 11<sup>h</sup> Decrease in N.F. (- 30). 16<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 30). 16<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 5'). 21<sup>h</sup> to 22<sup>h</sup> Increase in N.F. (+ 30). 22<sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 25).
- 30<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (- 5'), with decrease in N.F. (- 30). 4<sup>h</sup> to 5<sup>h</sup> Flattened wave in N.F. (- 20). 7<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 20). 20<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 11'). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 40).
- 31<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 4'). 18<sup>h</sup> to 21<sup>h</sup> Double-crested wave in Dec. (- 8', - 6'). 19<sup>h</sup> to 20<sup>h</sup> Serrated wave in N.F. (+ 30).

September

- 1<sup>d</sup> 16<sup>h</sup> to 19<sup>h</sup> Two consecutive waves in Dec. (- 3', - 3'). 17<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (+ 20). 3<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 5'). 0<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- 20). 20<sup>h</sup> to 23<sup>h</sup> Irregular wave in Dec. (- 6'). 21<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 20).
- 4<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 7'). 19<sup>h</sup> to 20<sup>h</sup> Irregular wave in N.F. (+ 25).
- 5<sup>d</sup> 16<sup>h</sup> to 6<sup>d</sup> 10<sup>h</sup> No register of Dec. and N.F.
- 6<sup>d</sup> 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 17<sup>h</sup> Increase in V.F. (+ 30). 13<sup>h</sup> to 14<sup>h</sup> Wave in N.F. (- 25). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (- 20). 17<sup>h</sup> to 19<sup>h</sup> Increase in N.F. (+ 30). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 20).
- 7<sup>d</sup> 6<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 40). 7<sup>h</sup> to 8<sup>h</sup> Increase in Dec. (+ 5'). 12<sup>h</sup> to 22<sup>h</sup> Slow wave in V.F. (+ 60), with a sharp peak at 17<sup>h</sup>. 14<sup>h</sup> to 15<sup>h</sup> Domed wave in N.F. (- 35). 16<sup>h</sup> to 17<sup>h</sup> Steep wave in Dec. (- 17'), followed till 18<sup>h</sup> by a slightly truncated wave (- 5'). 16<sup>h</sup> to 17<sup>h</sup> Steep wave in N.F. (+ 105), followed till 18<sup>h</sup> by an irregular wave (+ 25). 18<sup>h</sup> to 19<sup>h</sup> Rapid decrease in Dec. (- 9'), followed till 21<sup>h</sup> by a fluctuating recovery. 21<sup>h</sup> to 22<sup>h</sup> Double-crested wave in Dec. (- 3'), accompanied by a similar wave in N.F. (+ 30).
- 8<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 5'), with wave in N.F. (- 20). 8<sup>h</sup> to 12<sup>h</sup> Irregular increase in Dec. (+ 17'). 9<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 60). 12<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 20). 13<sup>h</sup> to 14<sup>h</sup> Decrease in Dec. (- 7'). 13<sup>h</sup> to 14<sup>h</sup> Sharp wave in N.F. (- 50). 15<sup>h</sup> to 16<sup>h</sup> Decrease in Dec. (- 7'). 15<sup>h</sup> to 16<sup>h</sup> Increase in N.F. (+ 35). 11<sup>h</sup> to 14<sup>h</sup> Accelerated increase in V.F. (+ 30). 16<sup>h</sup> to 17<sup>h</sup> Wave in V.F. (- 15). 16<sup>h</sup> to 16<sup>h</sup> Increase in Dec. (+ 3'), followed immediately till 18<sup>h</sup> by a wave (- 8'). 16<sup>h</sup> to 17<sup>h</sup> Domed wave in N.F. (- 40). 19<sup>h</sup> to 19<sup>h</sup> Steep wave in Dec. (- 14'). 19<sup>h</sup> to 20<sup>h</sup> Irregular wave in N.F. (+ 90), very steep at first. 19<sup>h</sup> to 20<sup>h</sup> Decrease in V.F. (- 20). 20<sup>h</sup> to 21<sup>h</sup> Irregular wave in Dec. (- 4'). 21<sup>h</sup> to 23<sup>h</sup> Truncated wave in Dec. (- 11'). 21<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 25).
- 9<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 8'), with partial return (- 4'). 1<sup>h</sup> to 1<sup>h</sup> Decrease in V.F. (- 16), gradually recovering till 4<sup>h</sup>. 2<sup>h</sup> to 3<sup>h</sup> Decrease in Dec. (- 7'). 3<sup>h</sup> to 4<sup>h</sup> Decrease in N.F. (- 20). 5<sup>h</sup> to 6<sup>h</sup> Wave in N.F. (- 20). 6<sup>h</sup> to 7<sup>h</sup> Irregular increase in Dec. (+ 6'). 7<sup>h</sup> to 9<sup>h</sup> Wave in Dec. (- 3'). 7<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 20). 17<sup>h</sup> to 18<sup>h</sup> Increase in V.F. (+ 15).
- 9<sup>d</sup> 15<sup>h</sup> to 10<sup>d</sup> 13<sup>h</sup> No register of Dec. and N.F.
- 10<sup>d</sup> 13<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (+ 20). 14<sup>h</sup> to 15<sup>h</sup> Accelerated decrease in Dec. (- 3'). 15<sup>h</sup> to 16<sup>h</sup> Wave in N.F. (+ 20). 19<sup>h</sup> to 19<sup>h</sup> Double wave in Dec. (+ 3'). 19<sup>h</sup> to 21<sup>h</sup> Two consecutive waves in N.F. (+ 50, + 40), the second commencing before the completion of the first. 19<sup>h</sup> to 20<sup>h</sup> Decrease in V.F. (- 20). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 6').

- 1922.
- September 11<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Accelerated increase in Dec. (+ 3'), followed till 3<sup>½</sup><sup>h</sup> by a decrease (- 6'). 6<sup>½</sup><sup>h</sup> to 8<sup>½</sup><sup>h</sup> Wave in N.F. (- 20).
- 11<sup>d</sup> 10<sup>h</sup> to 12<sup>d</sup> 10<sup>½</sup><sup>h</sup> No register of Dec. and N.F.
- 12<sup>d</sup> 10<sup>½</sup><sup>h</sup> to 11<sup>½</sup><sup>h</sup> Increase in Dec. (+ 5'). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 4'). 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 5').
- 13<sup>d</sup> 3<sup>h</sup> to 6<sup>½</sup><sup>h</sup> Irregular increase in Dec. (+ 7'), followed till 6<sup>¾</sup><sup>h</sup> by a rapid decrease (- 5'). 7<sup>¾</sup><sup>h</sup> to 10<sup>h</sup> Wave in Dec. (- 6'). 9<sup>h</sup> to 11<sup>h</sup> Decrease in N.F. (- 45). 13<sup>½</sup><sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 15). 23<sup>¾</sup><sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 6'). 23<sup>½</sup><sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 15).
- 14<sup>d</sup> 0<sup>¼</sup><sup>h</sup> to 1<sup>½</sup><sup>h</sup> Increase in Dec. (+ 6'). 1<sup>¾</sup><sup>h</sup> to 2<sup>¼</sup><sup>h</sup> Wave in N.F. (- 30). 1<sup>½</sup><sup>h</sup> to 2<sup>½</sup><sup>h</sup> Wave in Dec. (+ 5'). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 6'). 3<sup>¾</sup><sup>h</sup> to 4<sup>¾</sup><sup>h</sup> Domed wave in N.F. (+ 30). 4<sup>½</sup><sup>h</sup> to 5<sup>½</sup><sup>h</sup> Wave in Dec. (+ 6'). 4<sup>¾</sup><sup>h</sup> to 6<sup>h</sup> Wave in N.F. (+ 25), followed till 8<sup>h</sup> by a rapid irregular decrease (- 70). 5<sup>½</sup><sup>h</sup> to 6<sup>¾</sup><sup>h</sup> Flattened wave in Dec. (+ 3'). 6<sup>¾</sup><sup>h</sup> to 7<sup>¾</sup><sup>h</sup> Wave in Dec. (+ 4').
- 14<sup>d</sup> 11<sup>h</sup> to 15<sup>d</sup> 11<sup>h</sup>. See Plate III.
- 14<sup>d</sup> 22<sup>½</sup><sup>h</sup> to 15<sup>d</sup> 9<sup>h</sup>. No register of Dec. and N.F.
- 15<sup>d</sup> 0<sup>h</sup> to 6<sup>h</sup> Irregular increase in V.F. (+ 35). 21<sup>¾</sup><sup>h</sup> to 24<sup>h</sup> Irregular decrease in V.F. (- 25).
- 15<sup>d</sup> 13<sup>h</sup> to 16<sup>d</sup> 10<sup>¼</sup><sup>h</sup> No register of Dec. and N.F.
- 16<sup>d</sup> 14<sup>h</sup> to 21<sup>h</sup> No register of Dec. and N.F.
- 17<sup>d</sup> 9<sup>h</sup> to 10<sup>½</sup><sup>h</sup> Increase in Dec. (+ 6'). 9<sup>h</sup> to 11<sup>½</sup><sup>h</sup> Decrease in N.F. (- 35). 11<sup>½</sup><sup>h</sup> to 13<sup>½</sup><sup>h</sup> Wave in Dec. (+ 3'). 13<sup>¾</sup><sup>h</sup> to 14<sup>h</sup> Increase in N.F. (+ 25). 19<sup>h</sup> to 20<sup>½</sup><sup>h</sup> Wave in Dec. (+ 5'). 23<sup>h</sup> to 23<sup>½</sup><sup>h</sup> Increase in Dec. (+ 4').
- 18<sup>d</sup> 3<sup>¾</sup><sup>h</sup> to 5<sup>h</sup> Wave in Dec. (+ 3'). 22<sup>h</sup> to 23<sup>¾</sup><sup>h</sup> Wave in Dec. (- 4'). 23<sup>h</sup> to 23<sup>¼</sup><sup>h</sup> Decrease in N.F. (- 20).
- 19<sup>d</sup> 2<sup>h</sup> to 2<sup>½</sup><sup>h</sup> Decrease in Dec. (- 3'). 10<sup>½</sup><sup>h</sup> to 11<sup>h</sup> Decrease in V.F. (- 15).
- 19<sup>d</sup> 11<sup>h</sup> to 20<sup>d</sup> 10<sup>¾</sup><sup>h</sup>. No register of Dec. and N.F.
- 20<sup>d</sup> 10<sup>¾</sup><sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 5'). 14<sup>¾</sup><sup>h</sup> to 14<sup>½</sup><sup>h</sup> Decrease in N.F. (- 20). 14<sup>¾</sup><sup>h</sup> to 15<sup>¾</sup><sup>h</sup> Wave in N.F. (+ 25). 15<sup>½</sup><sup>h</sup> to 16<sup>½</sup><sup>h</sup> Irregular increase in N.F. (+ 25), followed till 17<sup>½</sup><sup>h</sup> by a wave (- 20). 15<sup>h</sup> to 18<sup>h</sup> Steady decrease in Dec. (- 9'). 19<sup>h</sup> Sharp wave in N.F. (+ 20). 19<sup>¾</sup><sup>h</sup> to 21<sup>h</sup> Double wave in N.F. (- 40, + 60). 19<sup>½</sup><sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 21'). 23<sup>¾</sup><sup>h</sup> to 21<sup>d</sup> 0<sup>½</sup><sup>h</sup> Wave in Dec. (- 6'). 23<sup>¾</sup><sup>h</sup> to 21<sup>d</sup> 0<sup>½</sup><sup>h</sup> Wave in N.F. (+ 50). 23<sup>¾</sup><sup>h</sup> to 21<sup>d</sup> 3<sup>h</sup> Wave in V.F. (- 30).
- 21<sup>d</sup> 0<sup>½</sup><sup>h</sup> to 1<sup>½</sup><sup>h</sup> Decrease in Dec. (- 9'). 0<sup>½</sup><sup>h</sup> to 3<sup>h</sup> Irregular wave in N.F. (+ 50). 1<sup>½</sup><sup>h</sup> to 2<sup>h</sup> Truncated wave in Dec. (+ 3'), followed till 3<sup>½</sup><sup>h</sup> by an increase (+ 8'). 3<sup>½</sup><sup>h</sup> to 3<sup>¾</sup><sup>h</sup> Decrease in Dec. (- 4'). 8<sup>h</sup> to 9<sup>h</sup> Decrease in N.F. (- 30). 12<sup>h</sup> to 14<sup>¼</sup><sup>h</sup> Accelerated increase in V.F. (+ 30). 11<sup>h</sup> to 12<sup>¼</sup><sup>h</sup> Increase in Dec. (+ 6'). 12<sup>¾</sup><sup>h</sup> to 14<sup>¼</sup><sup>h</sup> Wave in N.F. (+ 35). 13<sup>h</sup> to 14<sup>h</sup> Decrease in Dec. (- 8'), followed till 14<sup>¼</sup><sup>h</sup> by an increase (+ 3').
- 22<sup>d</sup> 14<sup>¾</sup><sup>h</sup> to 15<sup>¾</sup><sup>h</sup> Several sharp disturbances in V.F. (about + 15).
- 23<sup>d</sup> 17<sup>¾</sup><sup>h</sup> to 18<sup>¼</sup><sup>h</sup> Decrease in Dec. (- 3').
- 24<sup>d</sup> 23<sup>½</sup><sup>h</sup> to 25<sup>d</sup> 0<sup>½</sup><sup>h</sup> Wave in N.F. (+ 25).
- 25<sup>d</sup> 7<sup>h</sup> to 7<sup>½</sup><sup>h</sup> Decrease in Dec. (- 3').
- 27<sup>d</sup> 0<sup>½</sup><sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 3'). 11<sup>h</sup> to 11<sup>¾</sup><sup>h</sup> Accelerated increase in Dec. (+ 4'). 20<sup>h</sup> to 20<sup>¼</sup><sup>h</sup> Decrease in V.F. (- 15). 22<sup>¾</sup><sup>h</sup> to 24<sup>h</sup> Irregular decrease in V.F. (- 25).
- 27<sup>d</sup> 13<sup>h</sup> to 28<sup>d</sup> 0<sup>h</sup>. No register of Dec. and N.F.
- 28<sup>d</sup> 0<sup>½</sup><sup>h</sup> to 3<sup>h</sup> Wave in V.F. (- 30). 0<sup>h</sup> to 1<sup>½</sup><sup>h</sup> Wave in Dec. (+ 10'). 0<sup>h</sup> to 2<sup>h</sup> Wave in N.F. (+ 30). 1<sup>½</sup><sup>h</sup> to 6<sup>h</sup> General increase in Dec. (+ 10'), with three consecutive waves superposed, the second from 2<sup>½</sup><sup>h</sup> to 3<sup>½</sup><sup>h</sup> being the largest (+ 4'). 18<sup>¾</sup><sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 9'), with incomplete return (+ 6'). 18<sup>¾</sup><sup>h</sup> to 20<sup>½</sup><sup>h</sup> Wave in N.F. (+ 40). 21<sup>¾</sup><sup>h</sup> to 22<sup>¼</sup><sup>h</sup> Wave in Dec. (+ 3'). 22<sup>¾</sup><sup>h</sup> to 29<sup>d</sup> 0<sup>¼</sup><sup>h</sup> Wave in N.F. (+ 25), the ascent rather steep. 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (+ 6').
- 30<sup>d</sup> 0<sup>¾</sup><sup>h</sup> to 3<sup>¾</sup><sup>h</sup> Irregular double-crested wave in N.F. (+ 30, + 40). 0<sup>¾</sup><sup>h</sup> to 3<sup>¾</sup><sup>h</sup> Double wave in Dec. (+ 6', - 12'). 1<sup>h</sup> to 3<sup>h</sup> Double-crested wave in V.F. (- 25). 7<sup>h</sup> to 9<sup>h</sup> Flattened wave in Dec. (+ 3'). 6<sup>¾</sup><sup>h</sup> to 7<sup>¾</sup><sup>h</sup> Decrease in N.F. (- 30). 18<sup>¼</sup><sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 5'). 20<sup>¼</sup><sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'), followed till 22<sup>½</sup><sup>h</sup> by a further wave (- 3'), with slow ascent and rather steep decline. 22<sup>h</sup> to 22<sup>½</sup><sup>h</sup> Decrease in N.F. (- 20).
- October 1<sup>d</sup> 19<sup>¾</sup><sup>h</sup> to 20<sup>¾</sup><sup>h</sup> Wave in Dec. (- 3').
- 2<sup>d</sup> 17<sup>½</sup><sup>h</sup> to 18<sup>¾</sup><sup>h</sup> Accelerated decrease in Dec. (- 9'). 18<sup>¾</sup><sup>h</sup> to 19<sup>¾</sup><sup>h</sup> Wave in Dec. (+ 4'). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (- 20). 20<sup>¾</sup><sup>h</sup> to 22<sup>¾</sup><sup>h</sup> Increase in Dec. (+ 7'). 21<sup>¼</sup><sup>h</sup> to 22<sup>¼</sup><sup>h</sup> Increase in N.F. (+ 25). 22<sup>h</sup> to 3<sup>d</sup> 2<sup>h</sup> Slow wave in V.F. (- 30). 22<sup>¾</sup><sup>h</sup> to 23<sup>¾</sup><sup>h</sup> Double wave in Dec. ( $\pm$  3'), followed till 2<sup>d</sup> 0<sup>½</sup><sup>h</sup> by a decrease (- 5'). 23<sup>¼</sup><sup>h</sup> to 3<sup>d</sup> 1<sup>¼</sup><sup>h</sup> Irregular wave in N.F. (+ 25).

1922.  
October

- 3<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Increase in N.F. (+ 20). 4<sup>h</sup> to 5<sup>h</sup> Wave in Dec. (- 4'). 6<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 20). 17<sup>h</sup> to 19<sup>h</sup> Double-crested wave in Dec. (- 6', - 5'). 18<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (+ 25). 19<sup>h</sup> to 23<sup>h</sup> Irregular decrease in V.F. (- 35), gradually recovering until 4<sup>d</sup> 4<sup>h</sup>. 19<sup>h</sup> to 19<sup>h</sup> Increase in N.F. (+ 20). 20<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 50). 20<sup>h</sup> to 21<sup>h</sup> Double wave in Dec. (- 4', + 3'). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 3'). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 20). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 4'). 23<sup>h</sup> to 4<sup>d</sup> 0<sup>h</sup> Wave in N.F. (- 20).
- 4<sup>d</sup> 10<sup>h</sup> to 11<sup>h</sup> Increase in N.F. (+ 45). 18<sup>h</sup> to 20<sup>h</sup> Two consecutive waves in Dec. (- 5', - 3'). 19<sup>h</sup> to 20<sup>h</sup> Increase in N.F. (+ 25). 21<sup>h</sup> Sudden decrease in V.F. (- 12).
- 4<sup>d</sup> 23<sup>h</sup> to 5<sup>d</sup> 23<sup>h</sup>. See Plate III.
- 5<sup>d</sup> 23<sup>h</sup> to 6<sup>d</sup> 0<sup>h</sup> Increase in V.F. (+ 16).
- 6<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Increase in Dec. (+ 6'). 1<sup>h</sup> to 5<sup>h</sup> Slow wave in V.F. (- 15). 1<sup>h</sup> to 1<sup>h</sup> Decrease in N.F. (- 20). 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (- 4'). 5<sup>h</sup> to 7<sup>h</sup> Serrated wave in N.F. (- 25). 8<sup>h</sup> to 8<sup>h</sup> Decrease in N.F. (- 30). 8<sup>h</sup> to 9<sup>h</sup> Wave in Dec. (- 4'). 10<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 12<sup>h</sup> to 13<sup>h</sup> Irregular wave in N.F. (- 35). 12<sup>h</sup> to 13<sup>h</sup> Wave in Dec. (- 3'). 12<sup>h</sup> to 16<sup>h</sup> Irregular increase in V.F. (+ 35). 15<sup>h</sup> to 17<sup>h</sup> Fluctuating decrease in Dec. (- 10'), with a steep wave superposed from 16<sup>h</sup> to 17<sup>h</sup> (- 10'). 16<sup>h</sup> to 16<sup>h</sup> Decrease in N.F. (- 25), followed immediately by a very rapid increase till 16<sup>h</sup> (+ 90); then a decrease till 17<sup>h</sup> (- 30), followed till 18<sup>h</sup> by a serrated truncated wave (+ 40). 17<sup>h</sup> to 18<sup>h</sup> Serrated truncated wave in Dec. (- 7'). 16<sup>h</sup> to 17<sup>h</sup> Wave in V.F. (+ 15). 19<sup>h</sup> to 20<sup>h</sup> Increase in Dec. (+ 6'). 19<sup>h</sup> to 20<sup>h</sup> Increase in N.F. (+ 25). 22<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (+ 5'). 22<sup>h</sup> to 24<sup>h</sup> Irregular deeply serrated wave in N.F. (+ 35). 22<sup>h</sup> to 23<sup>h</sup> Decrease in V.F. (- 20). 23<sup>h</sup> to 23<sup>h</sup> Increase in Dec. (+ 4').
- 7<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Serrated wave in Dec. (- 11'). 1<sup>h</sup> to 3<sup>h</sup> Irregular wave in N.F. (- 40), followed till 4<sup>h</sup> by a decrease (- 25). 5<sup>h</sup> to 5<sup>h</sup> Increase in Dec. (+ 4'). 10<sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 5'). 12<sup>h</sup> to 13<sup>h</sup> Two consecutive waves in N.F. (- 20, - 30). 12<sup>h</sup> to 13<sup>h</sup> Increase in V.F. (+ 18). 14<sup>h</sup> to 15<sup>h</sup> Double-crested wave in N.F. (+ 20), followed till 16<sup>h</sup> by an irregular increase (+ 30). 16<sup>h</sup> to 17<sup>h</sup> Double wave in N.F. (+ 30). 17<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 11'). 20<sup>h</sup> to 20<sup>h</sup> Steep wave in Dec. (- 9'). 20<sup>h</sup> to 21<sup>h</sup> Sharp wave in N.F. (+ 70). 20<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 12). 23<sup>h</sup> to 8<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 40). 23<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 3').
- 8<sup>d</sup> 1<sup>h</sup> to 3<sup>h</sup> Increase in Dec. (+ 7'). 6<sup>h</sup> to 7<sup>h</sup> Decrease in N.F. (- 25). 10<sup>h</sup> to 10<sup>h</sup> Increase in Dec. (+ 4'). 12<sup>h</sup> to 14<sup>h</sup> Truncated wave in N.F. (- 30). 11<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 30). 19<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 4'), followed till 22<sup>h</sup> by an irregular wave (- 13'). 20<sup>h</sup> to 20<sup>h</sup> Double-crested wave in N.F. (+ 20), followed till 22<sup>h</sup> by a slightly truncated wave (+ 80). 20<sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 25), temporarily interrupted at 21<sup>h</sup>. 22<sup>h</sup> to 22<sup>h</sup> Decrease in Dec. (- 3'). 22<sup>h</sup> to 9<sup>d</sup> 0<sup>h</sup> Wave in Dec. (+ 6').
- 9<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Decrease in N.F. (- 25). 0<sup>h</sup> to 1<sup>h</sup> Increase in Dec. (+ 8'), partially returning till 3<sup>h</sup> (- 5'). 6<sup>h</sup> to 7<sup>h</sup> Wave in N.F. (- 20). 8<sup>h</sup> to 9<sup>h</sup> Decrease in Dec. (- 4'). 18<sup>h</sup> to 20<sup>h</sup> Wave in Dec. (- 5'). 19<sup>h</sup> to 20<sup>h</sup> Wave in N.F. (+ 20). 20<sup>h</sup> to 22<sup>h</sup> Double-crested wave in N.F. (+ 40, + 55). 20<sup>h</sup> to 21<sup>h</sup> Serrated wave in Dec. (- 6'). 20<sup>h</sup> to 22<sup>h</sup> Decrease in V.F. (- 25). 21<sup>h</sup> to 22<sup>h</sup> Decrease in Dec. (- 3'). 23<sup>h</sup> to 10<sup>d</sup> 0<sup>h</sup> Wave in N.F. (+ 20).
- 10<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 5'). 17<sup>h</sup> to 18<sup>h</sup> Two consecutive waves in Dec. (- 5', - 3'). 17<sup>h</sup> to 18<sup>h</sup> Rapid increase in N.F. (+ 40). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 6'). 20<sup>h</sup> to 21<sup>h</sup> Wave in N.F. (+ 45). 22<sup>h</sup> to 22<sup>h</sup> Increase in Dec. (+ 4').
- 11<sup>d</sup> 3<sup>h</sup> to 3<sup>h</sup> Decrease in N.F. (- 20). 22<sup>h</sup> to 23<sup>h</sup> Truncated wave in Dec. (- 3'). 22<sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 20).
- 12<sup>d</sup> 6<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 50). 10<sup>h</sup> to 13<sup>h</sup> Increase in Dec. (+ 7').
- 13<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 5'). 19<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 7').
- 14<sup>d</sup> 10<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 8'). 14<sup>h</sup> to 15<sup>h</sup> Double wave in Dec. (+ 4'). 14<sup>h</sup> to 15<sup>h</sup> Wave in N.F. (- 30). 15<sup>h</sup> and 16<sup>h</sup> Sharp waves in V.F. (+ 25).
- 15<sup>d</sup> 17<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 6'). 17<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (+ 40).
- 17<sup>d</sup> 9<sup>h</sup> to 11<sup>h</sup> Irregular increase in Dec. (+ 9'). 9<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 25). 10<sup>h</sup> to 12<sup>h</sup> Wave in N.F. (- 30). 16<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 12'), the return being incomplete (+ 7'). 19<sup>h</sup> to 19<sup>h</sup> Wave in N.F. (- 20).
- 18<sup>d</sup> 4<sup>h</sup> to 6<sup>h</sup> Slow wave in Dec. (+ 3'). 4<sup>h</sup> to 6<sup>h</sup> Increase in N.F. (+ 20).
- 20<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Increase in N.F. (+ 30). 12<sup>h</sup> to 19<sup>h</sup> Increase in V.F. (+ 45), with a wave superposed at 18<sup>h</sup> to 18<sup>h</sup> (- 15). 15<sup>h</sup> to 17<sup>h</sup> Decrease in N.F. (- 40). 16<sup>h</sup> to 18<sup>h</sup> Two consecutive waves in Dec. (- 4', - 3'). 18<sup>h</sup> to 19<sup>h</sup> Wave in Dec. (- 16'). 18<sup>h</sup> to 18<sup>h</sup> Wave in N.F. (- 35), the return continuing further till 19<sup>h</sup> (+ 25). 19<sup>h</sup> to 24<sup>h</sup> Decrease in V.F. (- 40), rather rapid at first. 23<sup>h</sup> to 24<sup>h</sup> Wave in N.F. (+ 40). 22<sup>h</sup> to 23<sup>h</sup> Decrease in Dec. (- 5'), gradually recovering till 21<sup>d</sup> 0<sup>h</sup>.

- 1922.
- October
- 21<sup>d</sup> 6 $\frac{1}{2}$ <sup>h</sup> to 7 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 4'). 6 $\frac{1}{2}$ <sup>h</sup> to 8<sup>h</sup> Double wave in N.F. ( $\mp$  15). 11<sup>h</sup> to 12 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 5').
- 23<sup>d</sup> 18<sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Irregular decrease in Dec. (- 9').
- 24<sup>d</sup> 9 $\frac{3}{4}$ <sup>h</sup> to 13<sup>h</sup> Irregular increase in Dec. (+ 12'). 12 $\frac{1}{2}$ <sup>h</sup> to 17 $\frac{1}{2}$ <sup>h</sup> Increase in V.F. (+ 35). 13 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 40). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (- 5'). 16 $\frac{1}{4}$ <sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 17'). 15 $\frac{1}{2}$ <sup>h</sup> to 18<sup>h</sup> Irregular double wave in N.F. ( $\pm$  20). 17<sup>h</sup> to 24<sup>h</sup> Steady decrease in V.F. (- 30).
- 25<sup>d</sup> 10 $\frac{3}{4}$ <sup>h</sup> to 12<sup>h</sup> Fluctuating increase in Dec. (+ 7'). 17<sup>h</sup> to 20<sup>h</sup> Broad serrated wave in Dec. (- 7'). 17 $\frac{1}{4}$  to 18<sup>h</sup> Wave in N.F. (- 20). 19<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 20). 21<sup>h</sup> to 21 $\frac{3}{8}$ <sup>h</sup> Wave in Dec. (+ 4'). 21<sup>h</sup> to 22 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (+ 50). 21 $\frac{3}{4}$ <sup>h</sup> to 22<sup>h</sup> Decrease in V.F. (- 16).
- 26<sup>d</sup> 5 $\frac{3}{4}$ <sup>h</sup> to 9 $\frac{1}{4}$ <sup>h</sup> No register of Dec. and N.F. 22<sup>h</sup> to 24<sup>h</sup> Wave in Dec. (- 4'). 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 20).
- 27<sup>d</sup> 11<sup>h</sup> to 13 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 45). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (- 20). 14 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 4').
- 28<sup>d</sup> 7<sup>h</sup> to 9 $\frac{3}{4}$ <sup>h</sup> No register of Dec. and N.F. 20<sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 6'). 20<sup>h</sup> to 22<sup>h</sup> Wave in N.F. (+ 40).
- 29<sup>d</sup> 2<sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 3'). 10 $\frac{3}{4}$ <sup>h</sup> to 13<sup>h</sup> Irregular wave in N.F. (- 40).
- 30<sup>d</sup> 19 $\frac{3}{4}$ <sup>h</sup> to 20<sup>h</sup> Rapid decrease in Dec. (- 5'). 19 $\frac{3}{4}$ <sup>h</sup> to 21<sup>h</sup> Irregular double wave in N.F. ( $\mp$  20). 20 $\frac{1}{4}$ <sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 5'). 22<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Oscillations in N.F. (+ 20, + 20, + 50). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 5'). 23 $\frac{1}{2}$ <sup>h</sup> to 31<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Domed wave in N.F. (+ 25).
- 31<sup>d</sup> 0<sup>h</sup> to 2<sup>h</sup> Double wave in Dec. (- 7', + 9'). 0<sup>h</sup> to 3 $\frac{1}{2}$ <sup>h</sup> Wave in V.F. (- 30). 3<sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 16'). 4 $\frac{1}{2}$ <sup>h</sup> to 8<sup>h</sup> Wave in V.F. (- 25). 4 $\frac{1}{2}$ <sup>h</sup> to 9<sup>h</sup> Double-crested wave in N.F. (+ 50). 10 $\frac{3}{4}$ <sup>h</sup> to 11<sup>h</sup> Increase in Dec. (+ 5'). 11<sup>h</sup> to 13<sup>h</sup> Serrated wave in N.F. (- 50). 12<sup>h</sup> to 13<sup>h</sup> Wave in Dec. (- 4'). 11 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Fluctuating increase in V.F. (+ 35). 14<sup>h</sup> to 14 $\frac{1}{4}$ <sup>h</sup> Decrease in N.F. (- 30). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 50). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Truncated wave in Dec. (- 9'). 15 $\frac{1}{2}$ <sup>h</sup> to 16<sup>h</sup> Decrease in Dec. (- 5'). 17<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 15'). 17<sup>h</sup> to 17 $\frac{3}{8}$ <sup>h</sup> Very rapid increase in N.F. (+ 60). 18<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Irregular decrease in N.F. (- 60). 19 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{3}{4}$ <sup>h</sup> Decrease in Dec. (- 9'). 19 $\frac{1}{4}$ <sup>h</sup> to 19 $\frac{3}{4}$ <sup>h</sup> Increase in N.F. (+ 35). 20<sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (- 10'). 20<sup>h</sup> to 21 $\frac{1}{4}$ <sup>h</sup> Irregular wave in N.F. (+ 85). 20 $\frac{3}{4}$ <sup>h</sup> to 21<sup>h</sup> Decrease in V.F. (- 20). 21<sup>h</sup> to 22<sup>h</sup> Wave in Dec. (- 4'), the return continuing further till 22 $\frac{3}{4}$ <sup>h</sup> (+ 5').
- November
- 1<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 7'). 0 $\frac{1}{4}$ <sup>h</sup> to 0 $\frac{3}{4}$ <sup>h</sup> Decrease in V.F. (- 15), gradually recovering till 3<sup>h</sup>. 5 $\frac{1}{2}$ <sup>h</sup> to 6 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (- 30). 11 $\frac{1}{4}$ <sup>h</sup> to 12 $\frac{3}{8}$ <sup>h</sup> Wave in Dec. (- 4'). 10 $\frac{3}{4}$ <sup>h</sup> to 13<sup>h</sup> Wave in N.F. (- 35). 11 $\frac{1}{2}$ <sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Irregular increase in V.F. (+ 25). 13 $\frac{3}{8}$ <sup>h</sup> to 14 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (- 25). 13 $\frac{1}{2}$ <sup>h</sup> to 14 $\frac{3}{4}$ <sup>h</sup> Wave in Dec. (- 9'), with incomplete return (+ 4'). 17 $\frac{1}{4}$ <sup>h</sup> to 18<sup>h</sup> Sharp wave in Dec. (- 8'). 17 $\frac{1}{4}$ <sup>h</sup> to 18 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (+ 50). 20 $\frac{3}{4}$ <sup>h</sup> to 22<sup>h</sup> Two consecutive waves in Dec. (- 4', - 8'). 21 $\frac{1}{4}$ <sup>h</sup> to 23<sup>h</sup> Wave in N.F. (+ 40). 21<sup>h</sup> to 2<sup>d</sup> 1<sup>h</sup> Fluctuating decrease in V.F. (- 25).
- 2<sup>d</sup> 0<sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'), followed immediately till 2<sup>h</sup> by a fluctuating increase (+ 7'). 0<sup>h</sup> to 1 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (+ 35). 12 $\frac{3}{8}$ <sup>h</sup> to 15<sup>h</sup> Wave in Dec. (- 7'). 13<sup>h</sup> to 15 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 40). 15<sup>h</sup> to 17<sup>h</sup> Wave in Dec. (- 10'). 15 $\frac{1}{4}$ <sup>h</sup> to 17<sup>h</sup> Wave in N.F. (+ 40). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (- 10'). 17<sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 50), the return incomplete (- 25). 19<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 4'). 22 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 7'). 22 $\frac{3}{4}$ <sup>h</sup> to 3<sup>d</sup> 1<sup>h</sup> Serrated truncated wave in N.F. (+ 50). 23 $\frac{1}{2}$ <sup>h</sup> to 3<sup>d</sup> 2 $\frac{1}{4}$ <sup>h</sup> Wave in V.F. (- 20).
- 3<sup>d</sup> 0 $\frac{3}{4}$ <sup>h</sup> to 3<sup>h</sup> Double wave in Dec. ( $\mp$  4'). 1<sup>h</sup> to 3 $\frac{3}{8}$ <sup>h</sup> Two consecutive waves in N.F. (+ 25, + 30). 12<sup>h</sup> to 15<sup>h</sup> Increase in V.F. (+ 40), partially returning till 18<sup>h</sup> (- 25). 14<sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Double wave in N.F. ( $\mp$  30). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 15'). 20<sup>h</sup> to 21<sup>h</sup> Wave in Dec. (- 3'). 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 25).
- 4<sup>d</sup> 0 $\frac{1}{4}$ <sup>h</sup> to 1<sup>h</sup> Wave in Dec. (+ 4'). 1<sup>h</sup> to 3<sup>h</sup> Slow wave in Dec. (+ 4'). 7<sup>h</sup> to 10<sup>h</sup> Decrease in N.F. (- 40). 22 $\frac{1}{2}$ <sup>h</sup> to 5<sup>d</sup> 1 $\frac{1}{2}$ <sup>h</sup> Slow wave in N.F. (+ 30), with small oscillations superposed.
- 5<sup>d</sup> 1<sup>h</sup> to 2 $\frac{1}{2}$ <sup>h</sup> Increase in Dec. (+ 5').
- 6<sup>d</sup> 2<sup>h</sup> to 9 $\frac{1}{4}$ <sup>h</sup> No register of Dec. and N.F.
- 7<sup>d</sup> 1<sup>h</sup> to 2<sup>h</sup> Wave in Dec. (+ 3'). 3<sup>h</sup> to 13<sup>h</sup> No register of Dec. and N.F.
- 10<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 4'). 2<sup>h</sup> to 4<sup>h</sup> Wave in N.F. (+ 25). 17<sup>h</sup> to 17 $\frac{3}{4}$ <sup>h</sup> Wave in N.F. (- 50). 17<sup>h</sup> to 17 $\frac{3}{4}$ <sup>h</sup> Accelerated increase in V.F. (+ 20), followed till 20<sup>h</sup> by an irregular return. 17<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 18'). 21<sup>h</sup> to 23<sup>h</sup> Wave in Dec. (- 6').
- 12<sup>d</sup> 19<sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3').
- 15<sup>d</sup> 15 $\frac{3}{4}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (- 6'), with increase in N.F. (+ 40).
- 17<sup>d</sup> 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (- 3').

1922.

- November 20<sup>d</sup> 4 $\frac{1}{2}$ <sup>h</sup> to 5<sup>h</sup> Decrease in Dec. (− 3').
- 21<sup>d</sup> 1<sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 4'). 19<sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Serrated wave in Dec. (− 6'), with a wave superposed 19 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> (+ 3').
- 22<sup>d</sup> 3<sup>h</sup> to 4<sup>h</sup> Increase in Dec. (+ 4').
- 27<sup>d</sup> 19 $\frac{3}{8}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (− 10'), with serrated wave in N.F. (− 45). 20<sup>h</sup> to 20 $\frac{3}{8}$ <sup>h</sup> Increase in V.F. (+ 15). 22 $\frac{3}{4}$ <sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (+ 3'). 23 $\frac{1}{2}$ <sup>h</sup> to 28<sup>d</sup> 2<sup>h</sup> Wave in Dec. (+ 15'), with irregular wave in N.F. (− 35).
- 28<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup> Wave in V.F. (− 30). 2<sup>h</sup> to 2 $\frac{3}{4}$ <sup>h</sup> Increase in Dec. (+ 5'). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{4}$ <sup>h</sup> Increase in Dec. (+ 4'). 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 4'). 16 $\frac{1}{2}$ <sup>h</sup> to 17 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (− 20). 23<sup>h</sup> to 29<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (− 4').
- 29<sup>d</sup> 0 $\frac{3}{8}$ <sup>h</sup> to 1 $\frac{3}{8}$ <sup>h</sup> Double-crested wave in Dec. (+ 4'). 0 $\frac{3}{8}$ <sup>h</sup> to 1 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 30). 2<sup>h</sup> to 4<sup>h</sup> Sharp wave in Dec. (+ 11'), with steep ascent. 4<sup>h</sup> to 5<sup>h</sup> Increase in N.F. (+ 25). 6<sup>h</sup> to 8<sup>h</sup> Fluctuating increase in Dec. (+ 10'). 5 $\frac{3}{4}$ <sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Decrease in N.F. (− 20). 7 $\frac{1}{2}$ <sup>h</sup> Sudden decrease in N.F. (− 25), followed till 8 $\frac{1}{2}$ <sup>h</sup> by an oscillating increase (+ 40). 8<sup>h</sup> to 9<sup>h</sup> Oscillating decrease in Dec. (− 4'). 11 $\frac{1}{2}$ <sup>h</sup> to 12<sup>h</sup> Increase in Dec. (+ 6'). 13 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Fluctuating increase in N.F. (+ 50). 14<sup>h</sup> to 17<sup>h</sup> General decrease in Dec. (− 8'), with a double-crested wave at 14<sup>h</sup> to 15<sup>h</sup> (− 4'). 16 $\frac{1}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Increase in N.F. (+ 20), followed till 18<sup>h</sup> by an equal decrease. 17<sup>h</sup> to 18<sup>h</sup> Irregular increase in Dec. (+ 5'), rapid at first. 18 $\frac{3}{8}$ <sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 12'). 18 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 60). 22<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Truncated wave in Dec. (− 3'). 22 $\frac{3}{4}$ <sup>h</sup> to 24<sup>h</sup> Double wave in N.F. ( $\pm$  25). 15<sup>h</sup> to 24<sup>h</sup> General decrease in V.F. (− 35).
- 30<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> to 0 $\frac{3}{4}$ <sup>h</sup> Decrease in Dec. (− 3'). 1 $\frac{1}{2}$ <sup>h</sup> to 1 $\frac{3}{8}$ <sup>h</sup> Increase in Dec. (+ 6'). 11<sup>h</sup> to 14<sup>h</sup> Increase in V.F. (+ 25). 13<sup>h</sup> to 14<sup>h</sup> Domed wave in Dec. (− 5'). 14 $\frac{1}{2}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Irregular wave in Dec. (− 5'). 14 $\frac{1}{2}$ <sup>h</sup> to 15<sup>h</sup> Increase in N.F. (+ 20). 15 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (− 20). 17 $\frac{1}{2}$ <sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (− 6', − 5'). 17 $\frac{3}{8}$ <sup>h</sup> to 19<sup>h</sup> Truncated wave in N.F. (+ 35). 20 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Flattened double-crested wave in N.F. (+ 20).
- December 1<sup>d</sup> 14 $\frac{3}{8}$ <sup>h</sup> to 16<sup>h</sup> Domed wave in Dec. (− 7'). 14 $\frac{1}{4}$ <sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> wave in N.F. (− 20). 18 $\frac{3}{8}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (+ 3'). 19 $\frac{1}{2}$ <sup>h</sup> to 21<sup>h</sup> Increase in N.F. (+ 40).
- 2<sup>d</sup> 1 $\frac{3}{4}$ <sup>h</sup> to 3 $\frac{1}{4}$ <sup>h</sup> Irregular wave in N.F. (+ 20).
- 5<sup>d</sup> 6<sup>h</sup> to 6 $\frac{1}{2}$ <sup>h</sup> Increase in N.F. (+ 20). 20 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 3'). 23<sup>h</sup> to 23 $\frac{1}{2}$ <sup>h</sup> Rapid decrease in Dec. (− 5'), followed till 6<sup>d</sup> 3<sup>h</sup> by a series of oscillations about 2' in amplitude. 23 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{3}{8}$ <sup>h</sup> Wave in N.F. (+ 20), followed immediately till 6<sup>d</sup> 1<sup>h</sup> by another (+ 30).
- 9<sup>d</sup> 21<sup>h</sup> 53<sup>m</sup> Sudden increase in N.F. (+ 20), returning till 23 $\frac{3}{8}$ <sup>h</sup>.
- 10<sup>d</sup> 15<sup>h</sup> to 16 $\frac{1}{4}$ <sup>h</sup> Serrated wave in N.F. (− 20). 18<sup>h</sup> to 18 $\frac{1}{2}$ <sup>h</sup> Decrease in Dec. (− 4'). 19 $\frac{3}{4}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 4'). 23 $\frac{1}{2}$ <sup>h</sup> to 23 $\frac{3}{4}$ <sup>h</sup> Increase in Dec. (+ 3').
- 11<sup>d</sup> 2 $\frac{1}{4}$ <sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 4'). 3<sup>h</sup> to 4<sup>h</sup> Increase in N.F. (+ 20). 21 $\frac{1}{2}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 9'). 22<sup>h</sup> to 23<sup>h</sup> Wave in V.F. (+ 12). 22 $\frac{1}{2}$ <sup>h</sup> to 12<sup>d</sup> 1<sup>h</sup> Wave in Dec. (− 13'). 22 $\frac{3}{8}$ <sup>h</sup> to 12<sup>d</sup> 0 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 25).
- 12<sup>d</sup> 18 $\frac{3}{8}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 4'). 19<sup>h</sup> to 20 $\frac{1}{4}$ <sup>h</sup> Wave in N.F. (+ 25). 13<sup>d</sup> 20 $\frac{3}{8}$ <sup>h</sup> to 21<sup>h</sup> Wave in Dec. (− 4'). 21 $\frac{3}{8}$ <sup>h</sup> to 22 $\frac{1}{2}$ <sup>h</sup> Wave in N.F. (+ 25).
- 14<sup>d</sup> 18 $\frac{1}{2}$ <sup>h</sup> to 21 $\frac{1}{2}$ <sup>h</sup> Irregular Wave in Dec. (− 20'). 19 $\frac{1}{8}$ <sup>h</sup> to 20 $\frac{1}{8}$ <sup>h</sup> Double-crested wave in N.F. (+ 30, + 25). 19 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Increase in V.F. (+ 12).
- 15<sup>d</sup> 2<sup>h</sup> to 3<sup>h</sup> Wave in Dec. (+ 6'). 3<sup>h</sup> to 4<sup>h</sup> Wave in Dec. (+ 3'). 17<sup>h</sup> to 18<sup>h</sup> Wave in Dec. (+ 3'). 18 $\frac{1}{2}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Double wave in N.F. ( $\mp$  15). 18 $\frac{3}{4}$ <sup>h</sup> to 19 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 7'). 23<sup>h</sup> Sharp deviation in V.F. (+ 15).
- 20<sup>d</sup> 6 $\frac{1}{2}$ <sup>h</sup> Sharp deviation in V.F. (− 30). 7<sup>h</sup> Sharp deviation in V.F. (+ 15).
- 24<sup>d</sup> 20 $\frac{3}{4}$ <sup>h</sup> to 22 $\frac{1}{4}$ <sup>h</sup> Serrated wave in Dec. (− 3').
- 25<sup>d</sup> 14 $\frac{1}{2}$ <sup>h</sup> to 16<sup>h</sup> Wave in N.F. (− 30). 13 $\frac{1}{2}$ <sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 3'). 18 $\frac{1}{2}$ <sup>h</sup> to 20<sup>h</sup> Wave in Dec. (− 5').
- 26<sup>d</sup> 7 $\frac{1}{2}$ <sup>h</sup> to 8<sup>h</sup> Wave in Dec. (+ 6'). 7 $\frac{1}{2}$ <sup>h</sup> to 9<sup>h</sup> Wave in N.F. (+ 30). 12 $\frac{1}{2}$ <sup>h</sup> to 14 $\frac{1}{2}$ <sup>h</sup> Double wave in Dec. ( $\pm$  3'). 12 $\frac{1}{2}$ <sup>h</sup> to 14<sup>h</sup> Decrease in N.F. (− 40). 13<sup>h</sup> to 19<sup>h</sup> Slow wave in V.F. (+ 20). 14<sup>h</sup> to 15 $\frac{1}{2}$ <sup>h</sup> Truncated wave in N.F. (+ 20). 15 $\frac{1}{4}$ <sup>h</sup> to 17 $\frac{1}{4}$ <sup>h</sup> Wave in Dec. (− 13'), with an oscillation superposed at 15 $\frac{3}{4}$ <sup>h</sup> (+ 3'). 15 $\frac{1}{2}$ <sup>h</sup> to 16 $\frac{3}{4}$ <sup>h</sup> Oscillating increase in N.F. (+ 50). 18 $\frac{3}{4}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in Dec. (− 5'). 19<sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Double-crested wave in N.F. (+ 30, + 35).
- 28<sup>d</sup> 21 $\frac{1}{4}$ <sup>h</sup> to 23 $\frac{1}{4}$ <sup>h</sup> Serrated wave in Dec. (− 3').
- 29<sup>d</sup> 19 $\frac{1}{2}$ <sup>h</sup> to 20 $\frac{1}{2}$ <sup>h</sup> Wave in Dec. (− 3'). 21 $\frac{1}{2}$ <sup>h</sup> to 30<sup>d</sup> 1<sup>h</sup> Slow wave in Dec. (− 4').

## EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are those for days of disturbance selected by the International Committee—Jan. 24<sup>d</sup> 11<sup>h</sup> to 25<sup>d</sup> 11<sup>h</sup>. Mar. 14<sup>d</sup>. May 16<sup>d</sup> 10<sup>h</sup> to 17<sup>d</sup> 10<sup>h</sup>. Sept. 14<sup>d</sup> 11<sup>h</sup> to 15<sup>d</sup> 11<sup>h</sup>. Oct. 4<sup>d</sup> 23<sup>h</sup> to 5<sup>d</sup> 23<sup>h</sup>.

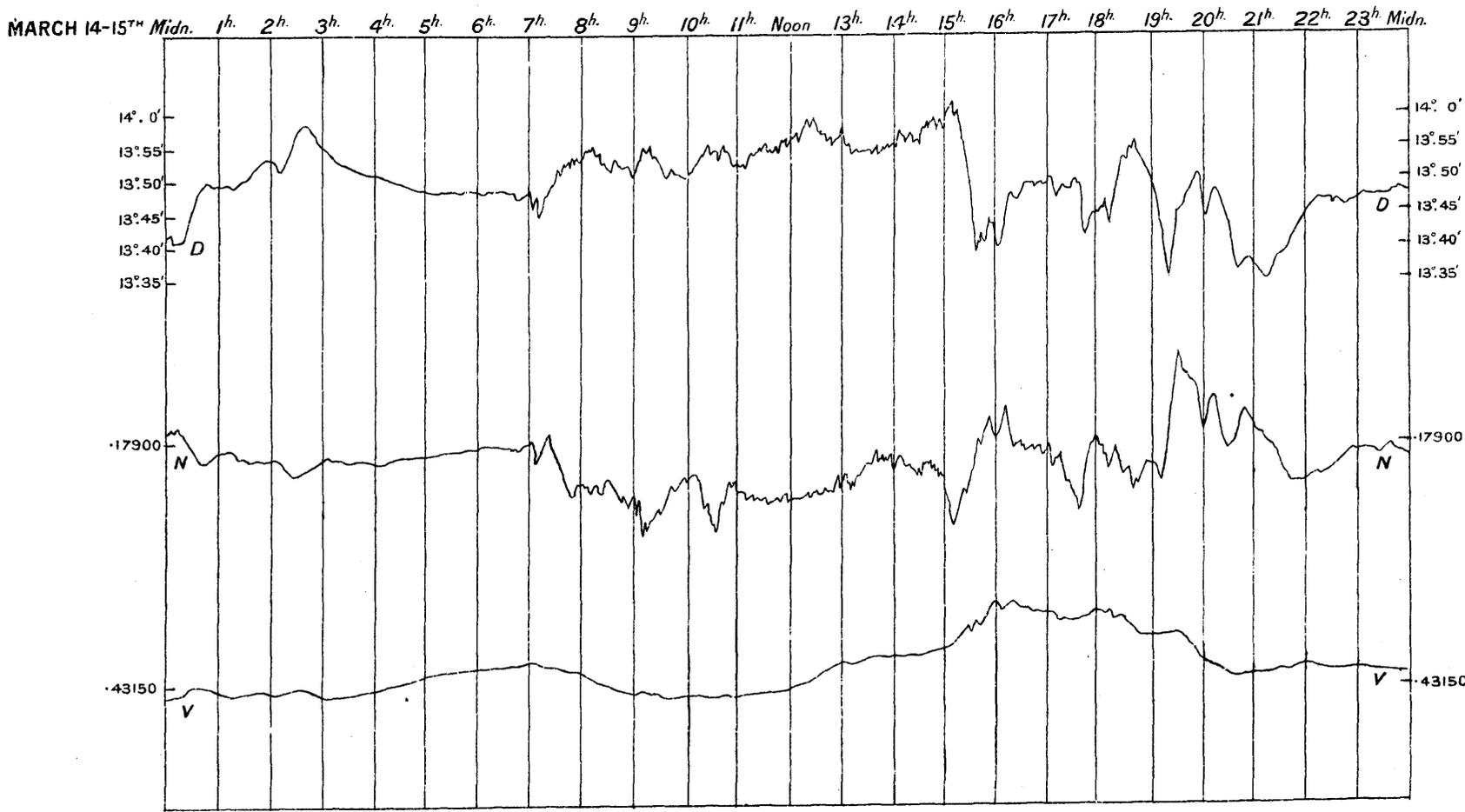
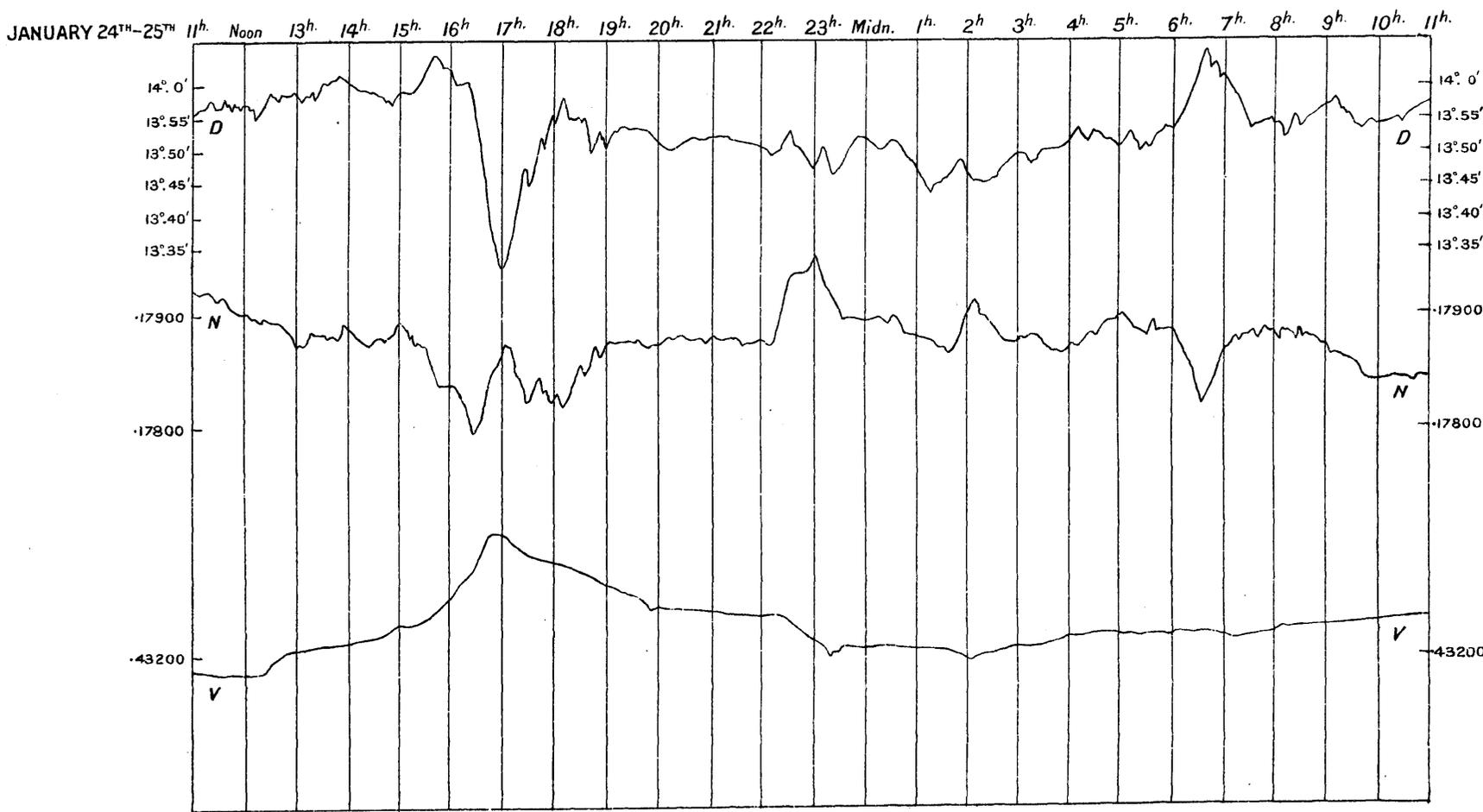
In addition the disturbance on April 21<sup>d</sup> is figured.

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

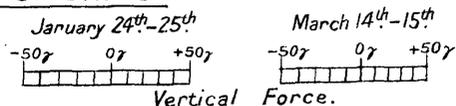
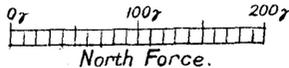
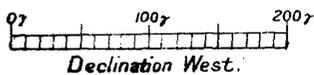
The magnetic declination, north force, and vertical force are indicated by the letters D, N and V, respectively; the declination (west) is expressed in arc, the unit for north and vertical force is  $\gamma$  (0.00001 C.G.S.), the corresponding scales being given on the sides of each diagram. Equal changes of amplitude in the several registers correspond nearly to equal changes of absolute magnetic force, 0.001 of a C.G.S. unit being represented by 0.73<sup>in.</sup> = 18.4<sup>mm.</sup> in the declination curve and by 0.67<sup>in.</sup> = 16.9<sup>mm.</sup> in the north force curve. In the case of the vertical force curve the scale is non-uniform; the mean value for January 24<sup>d</sup> is 0.87<sup>in.</sup> = 22.0<sup>mm.</sup>; for March 14<sup>d</sup>. 0.77<sup>in.</sup> = 19.4<sup>mm.</sup>; for April 21<sup>d</sup> and May 16<sup>d</sup>, 0.72<sup>in.</sup> = 18.0<sup>mm.</sup>; for Sept: 14<sup>d</sup> and Oct: 4<sup>d</sup>, 0.68<sup>in.</sup> = 17.2<sup>mm.</sup>

Upward motion indicates increase of declination, north force and vertical force.

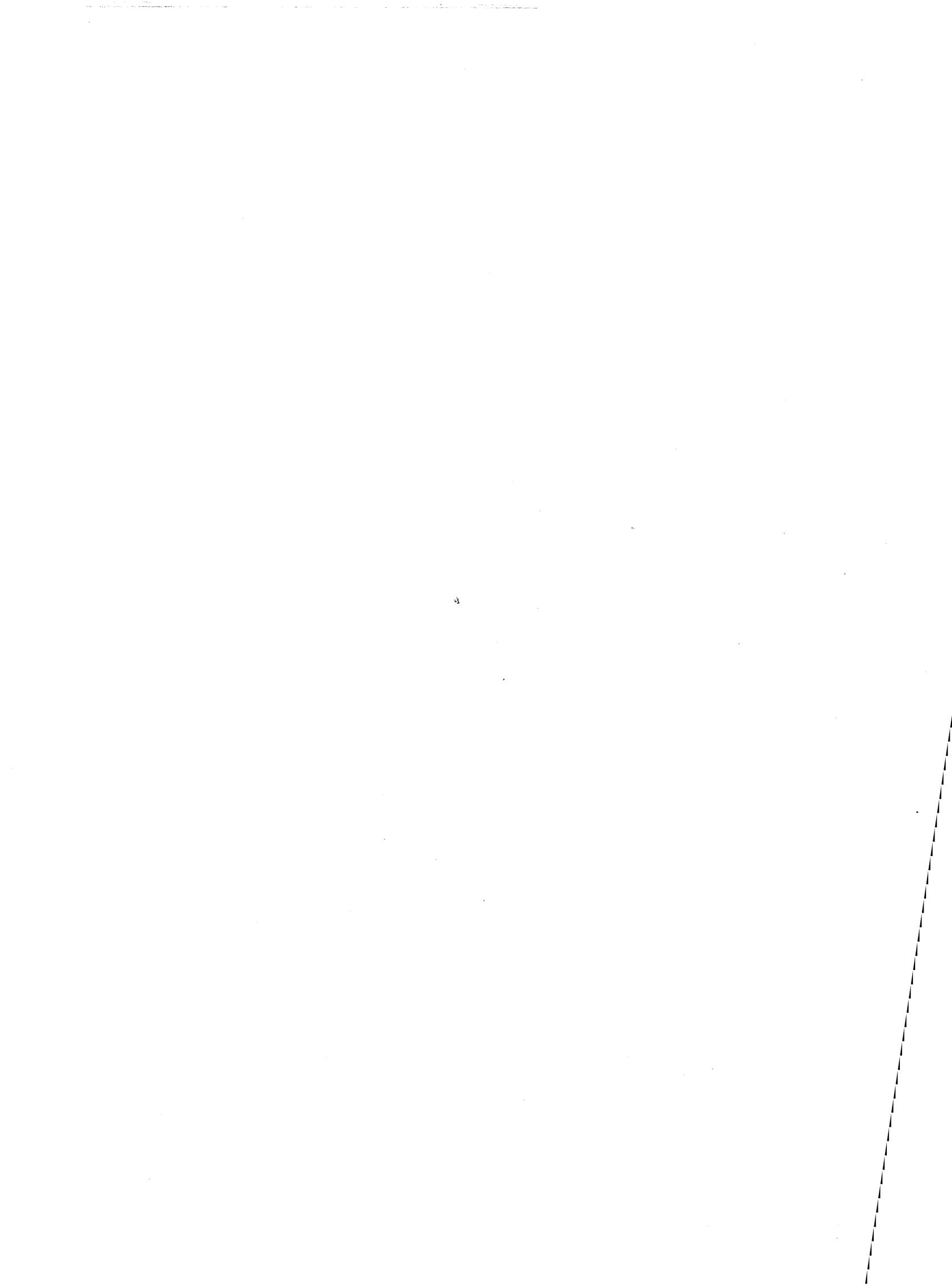
**MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY,  
GREENWICH, 1922.**



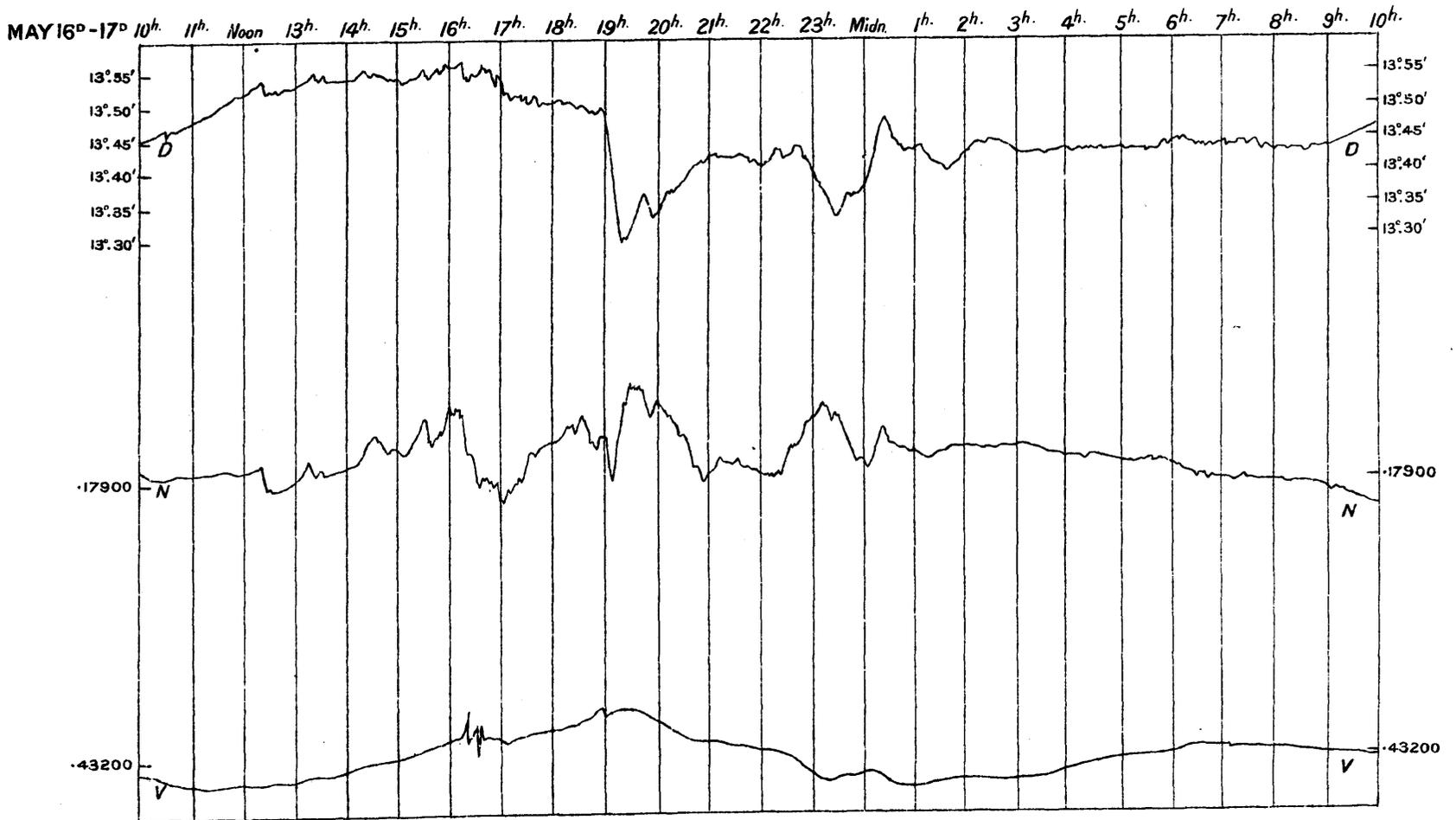
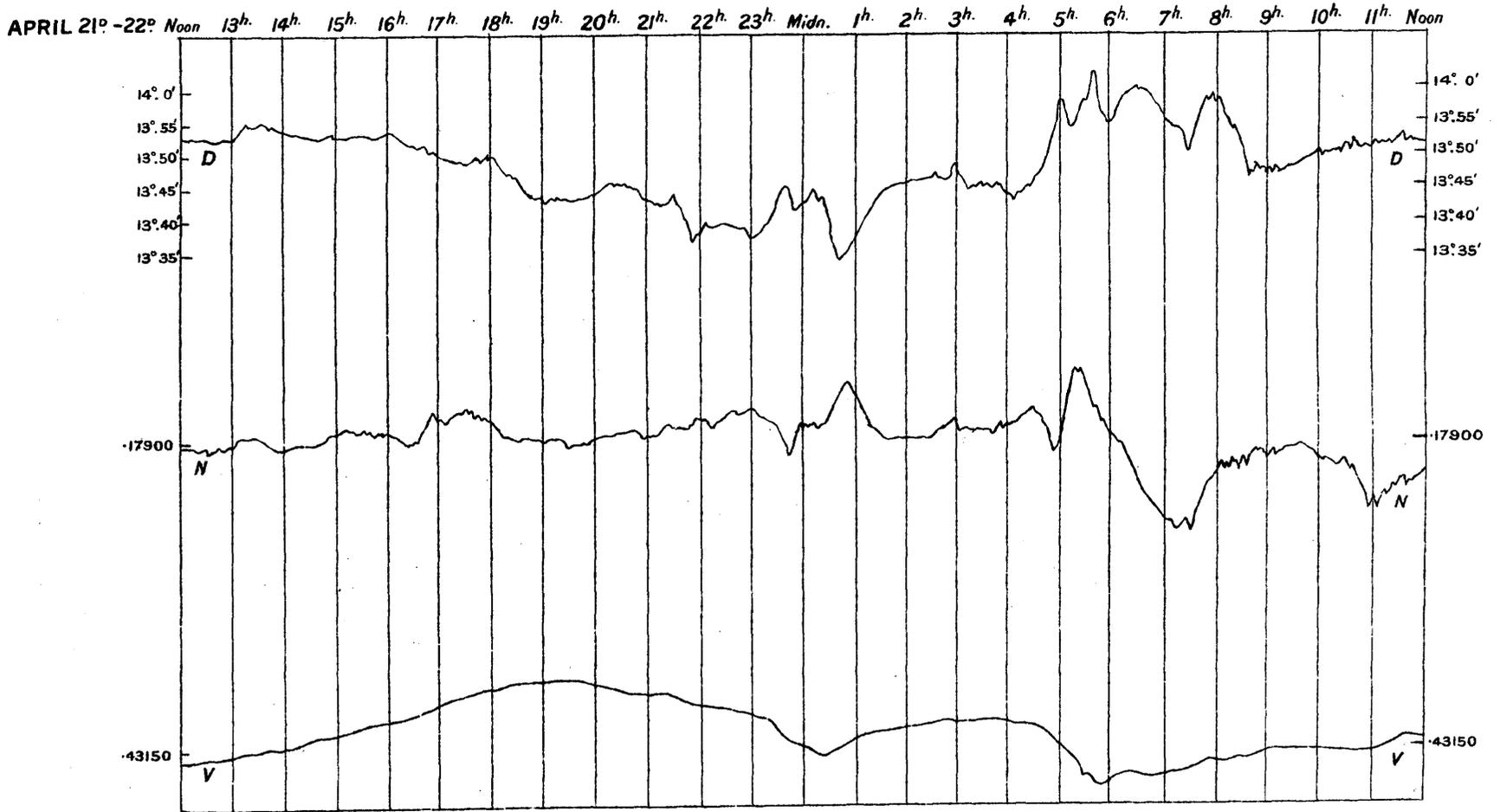
**SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.**



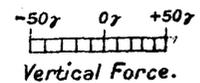
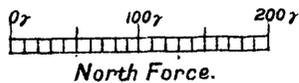
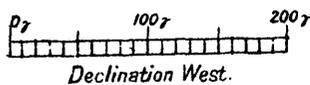
Scale at mean position of trace.



MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY,  
GREENWICH, 1922.



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

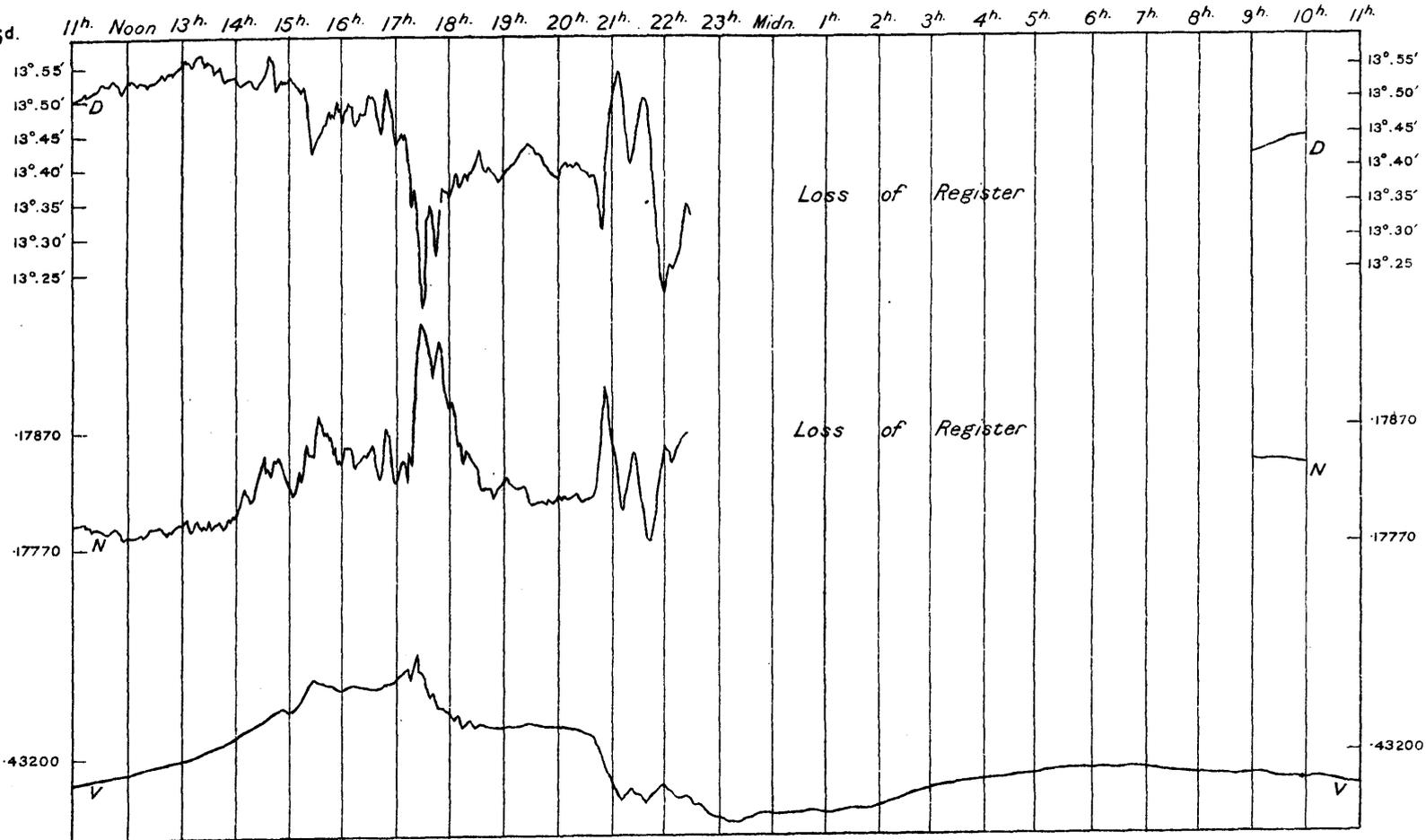


Scale at mean position of trace

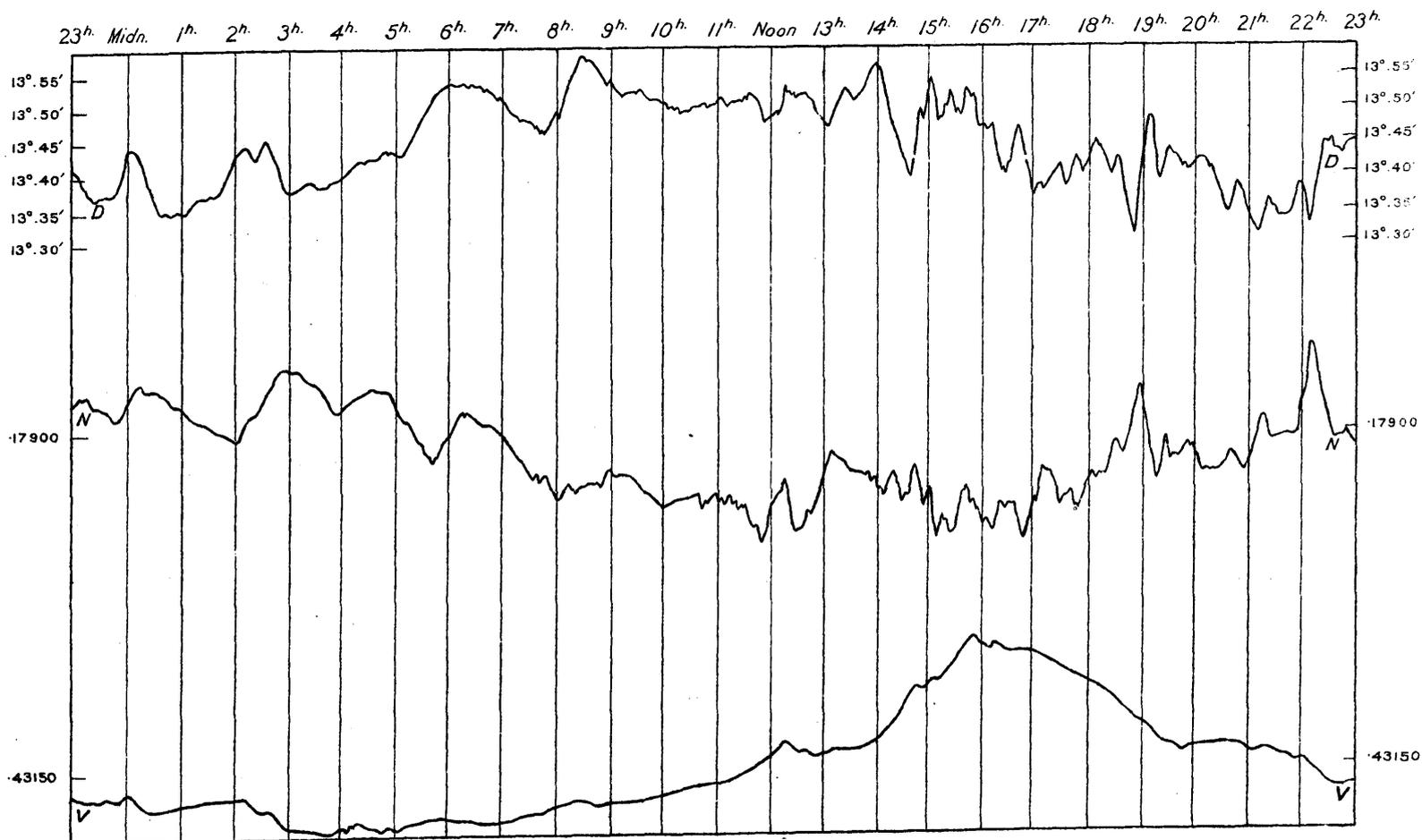


MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY,  
GREENWICH, 1922.

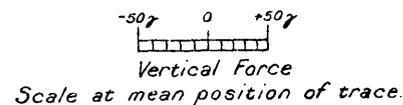
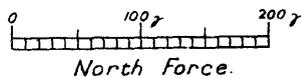
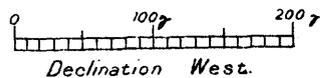
SEPTEMBER 14<sup>d</sup>-15<sup>d</sup>.



OCTOBER 4<sup>d</sup>-5<sup>d</sup>.



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





ROYAL OBSERVATORY, GREENWICH.

---

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

---

1922.

MONTH and DAY, 1922.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.								Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.									
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.	Mean.	Greatest.	Least.	Highest in Sun's Rays.		Lowest on the Grass.						
Jan. 1	29.986	54.5	38.9	15.6	48.7	+10.1	45.8	42.7	6.0	7.4	4.4	80	55.6	30.6	46.9	0.000	..	0.0	7.9	
2	29.700	57.0	43.6	13.4	52.2	+13.8	48.3	44.3	7.9	13.8	4.1	75	65.0	36.7	46.6	0.027	..	0.1	7.9	
3	29.713	43.6	33.9	9.7	39.5	+ 1.2	35.9	31.2	8.3	11.1	6.0	73	52.6	28.8	46.7	0.000	..	0.1	7.9	
4	29.722	35.8	32.1	3.7	33.7	- 4.6	30.9	25.8	7.9	11.9	2.0	72	51.5	26.1	46.4	0.000	..	4.0	7.9	
5	29.770	37.0	31.9	5.1	34.1	- 4.1	31.5	27.0	7.1	11.2	1.0	74	51.5	25.3	46.2	0.000	..	0.7	7.9	
6	29.702	39.6	34.1	5.5	36.6	- 1.5	34.5	31.5	5.1	7.6	0.0	82	50.4	28.6	46.1	0.000	..	0.5	8.0	
7	29.698	44.9	33.2	11.7	39.0	+ 1.0	38.1	36.9	2.1	3.5	1.2	93	43.7	31.9	45.7	0.095	..	0.0	8.0	
8	29.592	54.9	38.5	16.4	46.5	+ 8.6	44.3	41.8	4.7	9.9	0.7	85	71.8	33.2	45.8	0.060	..	0.3	8.0	
9	29.792	55.7	46.2	9.5	52.6	+14.7	50.5	48.4	4.2	6.7	1.2	86	59.0	42.6	45.8	0.034	..	0.0	8.1	
10	30.067	54.4	39.8	14.6	48.3	+10.4	45.8	43.1	5.2	11.4	0.4	83	61.9	31.9	45.6	0.067	..	2.1	8.1	
11	30.117	46.7	35.4	11.3	40.0	+ 2.1	37.1	33.3	6.7	9.9	1.7	77	68.0	30.3	45.6	0.011	..	4.1	8.1	
12	30.095	42.3	33.2	9.1	37.7	- 0.2	34.9	31.1	6.6	9.3	2.7	78	58.7	26.6	45.9	0.000	..	3.9	8.1	
13	29.995	35.5	27.9	7.6	31.5	- 6.5	30.6	28.4	3.1	7.8	0.0	87	44.6	21.2	45.4	0.028*	..	0.0	8.2	
14	29.850	40.6	31.9	8.7	35.9	- 2.1	33.7	30.4	5.5	8.1	3.4	80	62.0	24.5	45.3	0.000	..	1.8	8.2	
15	29.483	36.7	27.4	9.3	31.8	- 6.3	30.4	27.1	4.7	8.0	1.4	81	42.9	18.0	45.0	0.204	..	0.0	8.3	
16	28.965	41.9	33.5	8.4	36.8	- 1.5	34.7	31.7	5.1	8.8	1.3	83	69.4	29.4	44.8	0.114	..	3.8	8.3	
17	29.328	37.1	29.0	8.1	34.2	- 4.3	32.4	29.3	4.9	9.3	0.0	81	45.0	22.7	44.8	0.014	..	0.0	8.3	
18	29.574	43.1	25.2	17.9	35.1	- 3.5	33.9	32.0	3.1	8.6	0.0	88	50.0	17.1	44.3	0.176	..	0.7	8.4	
19	29.393	46.9	39.7	7.2	44.1	+ 5.4	43.4	42.6	1.5	4.5	0.0	95	53.0	37.0	44.1	0.748	..	0.0	8.4	
20	29.521	46.9	36.8	10.1	39.7	+ 0.9	38.6	37.2	2.5	9.2	0.5	91	80.0	29.6	43.9	0.041	..	5.0	8.5	
21	29.607	47.6	40.1	7.5	43.5	+ 4.7	42.4	41.1	2.4	5.1	0.6	91	48.1	36.1	44.0	0.124	..	0.0	8.5	
22	29.929	45.7	33.2	12.5	38.9	+ 0.1	38.3	37.5	1.4	1.4	0.0	95	44.6	29.1	43.9	0.006*	..	2.9	8.6	
23	29.995	39.7	33.6	6.1	36.4	- 2.5	35.3	33.7	2.7	7.7	0.0	91	42.0	32.1	43.9	0.007*	..	0.0	8.6	
24	29.783	33.6	24.4	9.2	28.0	-10.9	25.9	17.3	10.7	14.6	6.7	63	32.7	25.7	43.5	0.003	..	0.0	8.7	
25	29.415	47.9	29.1	18.8	38.6	- 0.5	37.5	36.0	2.6	4.4	1.1	91	47.4	28.9	43.8	0.133	..	0.0	8.7	
26	29.601	48.8	38.6	10.2	44.6	+ 5.3	44.1	43.5	1.1	2.7	0.5	96	58.2	38.4	43.4	0.088	..	0.0	8.8	
27	29.429	43.0	38.5	4.5	40.8	+ 1.3	40.2	39.5	1.3	3.5	0.2	95	46.4	38.3	43.3	0.246	..	0.0	8.8	
28	29.262	52.1	41.5	10.6	45.4	+ 5.8	43.9	42.2	3.2	8.4	0.0	89	88.2	35.5	43.4	0.050	..	4.4	8.9	
29	29.241	50.1	40.8	9.3	45.0	+ 5.3	43.4	41.5	3.5	7.5	0.4	88	81.1	33.6	43.6	0.050	..	0.9	8.9	
30	29.224	49.6	39.2	10.4	44.3	+ 4.6	42.8	41.0	3.3	7.5	0.0	89	79.8	32.4	43.9	0.000	..	1.8	9.0	
31	29.248	50.1	38.9	11.2	43.6	+ 3.9	42.5	41.2	2.4	7.2	0.0	91	75.6	31.6	43.7	0.046*	..	0.5	9.0	
Means	29.639	45.3	35.2	10.1	40.2	+ 1.6	38.4	35.8	4.4	8.0	1.3	84.6	57.4	30.1	44.9	2.372	..	1.2	8.4	
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 13, 22, 23 and 31 are partly or wholly derived from frost, fog or dew.

The mean reading of the Barometer for the month was 29.639, being 0.155 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 57.0 on January 2; the lowest in the month was 24.4 on January 24; and the range was 32.6.

The mean of all the highest daily readings in the month was 45.3, being 2.2 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 35.2, being 1.5 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 10.1, being 0.7 greater than the average for the 65 years, 1841-1905.

The mean for the month was 40.2, being 1.6 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER					
	POLARIS.		URSAR MINORIS.		OSLER'S.			ROBINSON'S.			A.M.	P.M.				
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.							
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.								
Jan. 1	0.0	0.00	0.0	0.00	WSW	W	7.9	0.92	691	v.-cl., w	: 10, s, n, w	10, n, w	: 9, w	: 10, w, m.-r		
2	3.3	0.23	2.5	0.18	W	W : NW	8.3	1.05	689	10, w	: 10, sc, s, w	10, sc, s, oc.-r, w	: v.-cl, w, sh	: 9, w		
3	13.1	0.93	12.6	0.90	NW : WNW	WNW:NNW:NNW	4.6	0.73	553	9, w, sh	: 9	: 10, s, n, w	7, cu, s.-cu, w	: v.-cl, slt.-sh, w	: 0, w	
4	11.5	0.82	11.1	0.79	NNW : N	NNW	9.0	1.00	581	0, w, slt.-ho.-fr	: 0, w, slt.-ho.-fr.	1, ci, cu, w	: v.-cl, w	: v.-cl, n, w		
5	6.3	0.45	2.6	0.18	NNW : N	NNW	4.6	0.56	448	1, w, slt.-ho.-fr	: 1, ci.-s, s, slt.-ho.-fr, w	9, cu, h	: 9, h, ho.-fr. m	: 9, p.-lu.-ha, m, ho.-fr		
6	0.5	0.04	0.4	0.03	NNW : N	N : Calm	1.6	0.09	203	9, m	: 9, s.-cu, h, m	3, s.-cu, h	: 10, th.-cl, slt.-f	: 10, slt.-f		
7	0.8	0.05	0.0	0.00	S	S : SSW : WSW	2.6	0.18	270	10, fq.-r, sl, sn	: 10, sc, s, oc.-m.-r	10, s, oc.-m.-r	: 10, oc.-mr, m	: 9, slt.-m		
8	2.5	0.19	1.1	0.08	SW : SSW	W : SW	4.7	0.33	376	10	: 10, r	: 9, n, oc.-m.-r, w, m	9, n, w	: 0, f	: 10, fq.-r	
9	1.8	0.13	1.1	0.08	SW	WSW	10.2	0.73	566	10, r	: 10, s, n, oc. slt.-r, w	10, w	: 9, w	: 9, s, n, w		
10	13.8	1.00	13.6	0.99	WSW : W:WNW	WNW : WSW	4.3	0.32	394	10, r, w, slt.-m	: 10, n, s, fq.-r, slt.-m	1, cu, h	: 0, d	: 0, d		
11	10.5	0.76	10.2	0.74	WSW : W	WSW : NNW	9.5	0.39	436	1, ho.-fr	: 1, ho.-fr	: 4, ci, ci.-cu	9, cu, s.-cu, w	: 9, hl	: 3, s.-cu, th.-cl	
12	12.4	0.90	9.0	0.66	NNW : N	N	4.3	0.46	369	1	: 1, w	1, cu	: 10, th.-cl, p.-lu.-ha, slt.-m	: 1, slt.-m, ho.-fr		
13	1.5	0.11	0.6	0.04	Calm	WSW : Calm	0.5	0.00	143	0, slt.-m, ho.-fr	: f, ho.-fr	1, slt.-f, ho.-fr, p.-so.-ha	: 10, n, slt.-f, ho.-fr, sn.-sh			
14	4.3	0.32	3.0	0.22	Calm : SSW	Calm : E	0.5	0.01	143	10, ho.-fr	: 10, ho.-fr	: 9, cu	7, cu	: 10, n, th.-cl.		
15	0.0	0.00	0.0	0.00	E : Calm : SSE	SSE : S	4.0	0.27	293	6, ho.-fr	: 9, th.-s, n, ho.-fr	10, fq.-sn.	: 10, sn	: 10, sn, fq.-slt.-r, w		
16	7.1	0.54	6.6	0.50	W	W	4.3	0.55	536	10, r, oc.-m.-r, w	: 9, n, s.-cu, w	2, s, ci.-cu, w	: 2, ho.-fr			
17	13.3	1.00	9.7	0.73	W : NW	WNW : W	1.5	0.20	338	9, sn.-sh	: 9, sn, m	: 9, s, n, h, m	1, cu, ci.-cu, h, ho.-fr	: 1, h, m, ho.-fr		
18	0.0	0.00	0.0	0.00	SW : S	S	3.7	0.22	317	1, ho.-fr	: 1, ho.-fr	: 9, ci.-s, th.-cl	10, s, so.-ha	: oc.-slt.-r	: 10, fq.-slt.-r	: 10, r
19	0.0	0.00	0.0	0.00	S : SSW	SSW : S : SSE	5.4	0.44	365	10, r	: 10, r, w	10, s, n, fq.-r	: 10, n, r			
20	4.6	0.35	2.6	0.19	S : Calm	SSE : S	0.8	0.02	162	10, r	: 10	: m	1, cu	: 0	: v.-cl	
21	2.6	0.20	0.4	0.03	S : SSE	SSE : S	4.0	0.30	330	9, m.-r.-sh	: 10, m.-r.-sh	: 10, n, s, fq.-m.-r.	10, n, s, fq.-m.-r	: 10, fq.-slt.-r	: 10, slt.-r	
22	2.0	0.15	1.3	0.10	SW : Calm	Calm : E	0.6	0.00	121	5, ho.-fr	: 1, m, ho.-fr	: tk.-f	tk.-f	: 10, slt.-f	: 10, slt.-f, hy.-d	
23	0.0	0.00	0.0	0.00	Calm : E	E	3.5	0.30	316	10, slt.-f, hy.-d	: 10, n, s, slt.-m, oc.-m.-r	10, n, s	: 10			
24	0.0	0.00	0.0	0.00	E	ENE : E	5.0	0.60	487	10, w, ho.-fr	: 10, w, ho.-fr	: 10, sc, s, w, fq.-slt.-sn	10, sc, sn, w	: 10, w	: 10	
25	0.4	0.03	0.2	0.02	E : ESE	ESE : SE	5.0	0.33	329	10	: 10, sl, m.-r	: 10, s	10, sc, r	: 10, slt.-r		
26	0.0	0.00	0.0	0.00	Calm : SSE	E	1.4	0.08	194	10, m.-r, r	: 9	: 10, s.-cu, n	10, s, m	: 10, m, fq.-slt.-r	: 10, n, fq.-m.-r, r, m	
27	1.1	0.08	0.9	0.07	E : ESE	ESE	2.4	0.23	287	10, fq.-m.-r, m	: 10, r, m	: 10, n, m, m.-r	10, n, m, fq.-m.-r	: 10, r		
28	4.0	0.31	2.7	0.21	SE : S	S : SE	1.5	0.15	260	10, r	: 3	: 2, ci.-cu, s.-cu, s	8, ci, cu	: 10	: 10, n, fq.-r, m.-r	
29	0.4	0.03	0.0	0.00	S	S : E : N	1.0	0.03	192	9, fq.-r, m.-r	: 9, fq.-r, m.-r	: 6, cu, s	v.-cl, n, s, cu, sh	: 9	: 10, n	
30	7.4	0.57	5.8	0.45	Calm	SSW	0.6	0.01	147	10, slt.-m	: 9	: 9, s.-cu, s	10, n, m.-r.-sh	: 10, sh	: v.-cl, d	
31	9.6	0.74	9.2	0.71	S : SSE	SSW	0.9	0.03	211	v.-cl, th.-cl, d	: 10, d, m	: 10, ci.-s, th.-cl, so.-ho	10, r	: 10, slt.-r	: 1, s.-cu	
Means	..	..	..	..	..	..	..	0.33	347							
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  $38^{\circ}.4$ , being  $1^{\circ}.2$  higher than the mean *Temperature of the Dew Point* for the month was  $35^{\circ}.8$ , being  $0^{\circ}.3$  higher than the mean *Degree of Humidity* for the month was  $84.6$ , being  $3.4$  less than the mean *Elastic force of Vapour* for the month was  $0^{\text{in}}.210$ , being  $0^{\text{in}}.004$  greater than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was  $2^{\text{grs}}.5$ , being  $0^{\text{grs}}.1$  greater than the mean *Weight of a Cubic Foot of Air* for the month was  $549$  grains, being  $5$  grains less than the mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was  $7.4$ . The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was  $0.145$ . The maximum daily amount of *Sunshine* was  $5.0$  hours on January 20. The highest reading of the *Solar Radiation Thermometer* was  $88^{\circ}.2$  on January 28; and the lowest reading of the *Terrestrial Radiation Thermometer* was  $17^{\circ}.1$  on January 18. The *Proportions of Wind* referred to the cardinal points were N. 4, E. 5, S. 9, W. 9. Four days were calm. The *Greatest Pressure of the Wind* in the month was  $10.2$  lbs. on the square foot on January 9. The mean daily *Horizontal Movement of the Air* for the month was  $347$  miles; the greatest daily value was  $691$  miles on January 1; and the least daily value was  $121$  miles on January 22. *Rain* ( $0^{\text{in}}.005$  or over) fell on 22 days in the month, amounting to  $2^{\text{in}}.372$  as measured by gauge No. 6 partly sunk below the ground; being  $0^{\text{in}}.491$  greater than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.	in.				
Feb. 1	29.592	47.1	36.0	11.1	40.6	+ 1.0	38.7	36.3	4.3	11.7	0.0	85	70.3	29.3	43.7	0.0005	..	3.6	9.1
2	29.339	52.4	35.4	17.0	45.3	+ 5.8	44.2	42.9	2.4	4.8	0.7	91	57.2	29.6	43.9	0.369	..	0.1	9.1
3	29.072	51.9	46.8	5.1	49.2	+ 9.7	46.7	44.0	5.2	9.1	2.0	83	72.0	41.3	43.9	0.032	..	0.4	9.2
4	29.422	46.8	30.9	15.9	36.8	- 2.7	35.4	33.5	3.3	5.1	1.3	88	45.5	30.1	43.8	0.264	..	0.0	9.3
5	29.932	32.3	27.3	5.0	30.0	- 9.6	27.8	20.9	9.1	17.1	2.4	67	48.6	21.5	43.8	0.002	..	0.2	9.3
6	30.185	36.0	27.2	8.8	30.5	- 9.1	28.6	23.1	7.4	12.7	1.9	72	73.9	21.5	44.0	0.001*	..	3.2	9.4
7	30.141	40.0	26.0	14.0	31.2	- 8.3	28.8	22.6	8.6	10.6	4.8	69	79.2	18.7	43.6	0.001*	..	1.9	9.4
8	30.101	41.8	26.2	15.6	33.7	- 5.6	30.0	23.2	10.5	16.4	1.6	66	87.0	16.7	43.3	0.000	..	5.8	9.5
9	30.119	42.3	27.9	14.4	35.2	- 3.9	31.7	26.2	9.0	14.6	5.6	68	80.4	17.5	43.0	0.000	..	8.5	9.5
10	30.239	43.9	31.6	12.3	36.1	- 2.8	32.6	27.4	8.7	15.5	3.1	70	76.2	23.8	42.9	0.000	..	6.4	9.6
11	30.219	43.1	29.6	13.5	34.9	- 3.9	32.2	27.8	7.1	14.4	1.2	75	80.9	19.7	42.9	0.000	..	7.8	9.7
12	29.813	35.8	27.0	8.8	32.4	- 6.4	30.8	27.4	5.0	8.9	0.0	81	76.9	21.1	42.3	0.000	..	6.4	9.7
13	29.796	46.7	31.8	14.9	38.6	- 0.4	36.0	32.5	6.1	12.4	1.5	79	86.0	21.9	42.2	0.000	..	2.5	9.8
14	30.010	41.0	25.9	15.1	34.4	- 4.9	31.5	26.6	7.8	12.7	0.0	73	55.6	15.4	41.9	0.003*	..	0.2	9.9
15	29.800	45.3	35.9	9.4	41.3	+ 1.9	39.0	36.1	5.2	10.4	1.1	82	58.4	32.5	41.9	0.135	..	0.0	9.9
16	29.573	53.6	42.1	11.5	47.2	+ 7.7	46.2	45.1	2.1	5.9	0.0	93	79.0	39.4	41.9	0.015	..	0.2	10.0
17	29.489	52.0	40.1	11.9	48.2	+ 8.6	46.4	44.4	3.8	8.8	0.0	87	64.7	34.4	41.7	0.058	..	0.0	10.0
18	29.461	45.9	35.1	10.8	40.5	+ 1.0	36.9	32.3	8.2	13.2	2.8	73	86.4	28.8	41.9	0.178	..	7.1	10.1
19	29.504	50.1	33.7	16.4	41.4	+ 1.9	39.5	37.1	4.3	6.2	1.1	86	56.5	28.1	42.0	0.047	..	0.0	10.2
20	29.534	47.8	36.8	11.0	41.5	+ 2.0	37.8	33.2	8.3	13.5	3.2	73	92.6	30.6	42.3	0.000	..	7.6	10.2
21	29.325	50.5	33.1	17.4	43.0	+ 3.4	40.5	37.5	5.5	13.0	0.0	81	92.4	29.1	42.3	0.297	..	2.3	10.3
22	29.429	51.6	35.1	16.5	42.6	+ 2.9	40.1	37.1	5.5	14.4	0.0	81	97.9	30.9	42.6	0.020	..	5.1	10.4
23	29.695	59.6	49.7	9.9	52.8	+13.0	50.3	47.8	5.0	9.7	2.0	83	91.9	48.7	42.5	0.018	..	1.5	10.4
24	30.014	56.8	47.0	9.8	52.4	+12.4	49.9	47.4	5.0	8.8	3.0	83	81.0	38.4	42.9	0.000	..	0.3	10.5
25	29.894	59.6	43.0	16.6	51.6	+11.5	47.6	43.5	8.1	12.9	1.7	75	107.1	32.3	43.0	0.000	..	9.7	10.5
26	29.587	53.5	45.4	8.1	49.3	+ 9.1	47.0	44.5	4.8	8.0	2.3	84	68.0	38.4	43.2	0.143	..	0.1	10.6
27	29.658	54.1	41.6	12.5	47.4	+ 7.1	44.0	40.2	7.2	13.9	2.0	77	101.1	35.0	43.5	0.007	..	7.6	10.7
28	29.554	54.8	45.1	9.7	48.9	+ 8.6	45.4	41.6	7.3	16.5	0.0	76	97.0	39.4	43.7	0.190	..	6.3	10.8
Means	29.732	47.7	35.5	12.2	41.3	+ 1.8	38.8	35.1	6.2	11.5	1.6	78.6	77.3	29.1	42.9	1.785	..	3.4	9.9
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 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 Glaisher's Hygrometrical Tables. 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 February 6, 7 and 14 are derived from frost.

The mean reading of the *Barometer* for the month was 29<sup>m</sup>.732, being 0<sup>m</sup>.070 lower than the average for the 65 years, 1841-1905

TEMPERATURE OF THE AIR.

The highest in the month was 59°6 on February 23, 25; the lowest in the month was 25°9 on February 14; and the range was 33°7. The mean of all the highest daily readings in the month was 47°7, being 2°5 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 35°5, being 1°2 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 12°2, being 1°2 greater than the average for the 65 years, 1841-1905. The mean for the month was 41°3, being 1°8 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.	
	POLARIS.		δ URSAE MINORIS.		OSLER'S.			ROBINSON'S.				
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.			
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.		A.M.	P.M.	
Feb. 1	7.8	0.60	6.7	0.52	WSW : W	W : SW	2.5	0.09	279	0		3, s.-cu, cu, ci.-s, h, m: 0, m, slt.-ho.-fr
2	3.0	0.23	1.8	0.14	S : SSW	SSW: SW	3.6	0.24	333	9, r		10, s, sc, fq.-r, t, l : 10, s.-cu, m.-r.-sh, w
3	0.6	0.05	0.3	0.02	SW : WSW	W : WSW	5.8	0.56	532	10, oc.-shs, w		9, n, cu.-n, cu.-s, oc.-slt.-r, w: 9, r, w
4	0.0	0.00	0.0	0.00	W : E	E	2.1	0.25	364	10, fq.-r		10, fq.-sn : 10, fq.-slt.-sn: 10
5	5.3	0.42	5.2	0.42	E : ENE	NE	1.8	0.21	339	10		9, s.-cu, oc.-slt.-sn : 1, cu
6	10.3	0.83	7.1	0.57	NE : Calm	SSW : Calm	0.5	0.01	115	10		v.-cl, s.-cu, s : 10, th.-cl, lu.-ha : 10, th.-cl, lu.-ha, ho.-fr, m
7	12.5	1.00	12.4	0.99	S : SSW	SSW : S : SSE	1.5	0.07	188	9, th.-cl, ho.-fr:		9, ho.-fr : 9, s.-cu
8	12.4	0.99	12.1	0.97	Calm : S	S : SE	1.2	0.04	163	th.-cl, ho.-fr :		1, ho.-fr : p.-cl, ci.-cu, s.-cu
9	12.5	1.00	12.5	1.00	ESE : E	E	2.0	0.18	260	1, ho.-fr :		1, ho.-fr, m : 1, ci, ho.-fr
10	12.3	0.99	12.3	0.98	E	E	1.1	0.08	219	1, lu.-has, ho.-fr:		1, ho.-fr : 7, ci.-cu, ci, ho.-fr
11	12.0	1.00	12.0	1.00	E	E	1.5	0.09	200	2, h, ho.-fr :		1, s, h, ho.-fr, m
12	0.0	0.00	0.0	0.00	E	E : Calm	1.9	0.09	194	0, ho.-fr :		0, ho.-fr : 3, s.-cu, ho.-fr
13	10.3	0.85	8.9	0.74	S : SW	W : WSW	2.0	0.10	237	10		9, n, m.-r
14	0.0	0.00	0.0	0.00	WSW : Calm	W : SSW	1.0	0.03	180	0, ho.-fr :		0, ho.-fr : 0, h, f, ho.-fr
15	0.0	0.00	0.0	0.00	SSW	SSW : WSW	3.7	0.31	349	10		10, s, n, slt.-r, w
16	0.0	0.00	0.0	0.00	WSW : SW	SSW : SW	1.8	0.11	249	10, m.-r: 10, fq.-m.-r, slt.-m:		10, s, cu, th.-s, slt.-m
17	5.4	0.45	4.9	0.40	SSW	WSW	3.0	0.37	383	10, fq.-m.-r, r :		10, sc, s, fq.-m.-r
18	9.4	0.82	8.1	0.71	SSW : WSW : W	W : WNW : WSW	5.2	0.50	464	4		9, hy.-r, w: v.-cl, s.-cu, cu, w
19	8.2	0.71	7.7	0.67	WSW : SSW	SSW : SW : WSW	4.8	0.33	385	0, ho.-fr :		v.-cl, ho.-fr : 10, r, n
20	7.5	0.65	5.7	0.49	WSW	WSW : SSW	4.0	0.48	463	2, w, ho.-fr:		1, ho.-fr : 2, ci.-cu, w, ho.-fr
21	7.8	0.67	7.6	0.66	SSW	SSW : SW	5.4	0.59	432	9		9, w : 10, n, fq.-r, p, so, ha, w
22	0.3	0.03	0.1	0.01	SSW : SW	WSW : SSW	3.5	0.46	433	0		1, w : 7, cu.-n, w
23	0.0	0.00	0.0	0.00	SW : WSW	WSW : SW	5.0	0.58	476	9, fq.-r, m.-r, w:		9, fq.-r, m.-r, w: 10, n, s, w
24	10.9	0.95	10.7	0.93	SW	SW	4.4	0.60	453	10		10, s, n, m.-r.-sh, w: 10, w
25	7.0	0.62	6.5	0.58	SW : SSW	SSW : S	4.5	0.48	401	0, d		0, d : 1, s.-cu, w
26	10.4	0.93	9.8	0.87	SW	SSW : SW	7.1	0.67	474	8, d		9, d : 9, n, cu.-n, w, m.-r
27	2.5	0.22	2.2	0.20	SW	SW : SSW	8.2	0.64	487	3		1 : 1, s, cu, w
28	1.7	0.15	1.3	0.11	SSW : WSW	SW : S	7.4	0.80	549	10, fq.-m.-r, oc.-r, w :		3, s, cu, w
Means	..	..	..	..	..	..	..	0.32	343			
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 38° 8, being 1° 1 higher than the average for the 65 years, 1841-1905.  
 The mean *Temperature of the Dew Point* for the month was 35° 1, being 0° 3 lower than the average for the 65 years, 1841-1905.  
 The mean *Degree of Humidity* for the month was 78.6, being 6.9 less than the average for the 65 years, 1841-1905.  
 The mean *Elastic Force of Vapour* for the month was 0.204, being 0.003 less than the average for the 65 years, 1841-1905.  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28.4, being the same as the average for the 65 years, 1841-1905.  
 The mean *Weight of a Cubic Foot of Air* for the month was 550 grains, being 3 grains 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 6.6.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.342. The maximum daily amount of *Sunshine* was 9.7 hours on February 25.  
 The highest reading of the *Solar Radiation Thermometer* was 107° 1 on February 25; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15° 4 on February 14.  
 The *Proportions of Wind* referred to the cardinal points were N. 0, E. 6, S. 11, W. 10. one day was calm.  
 The *Greatest Pressure of the Wind* in the month was 8.2 lbs. on the square foot on February 27. The mean daily *Horizontal Movement of the Air* for the month was 343 miles; the greatest daily value was 549 miles on February 28; and the least daily value was 115 miles on February 6.  
*Rain* (0.005 or over) fell on 15 days in the month, amounting to 1.785 as measured by gauge No. 6 partly sunk below the ground; being 0.305 greater than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER.	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.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evapo-ration.	Of the Dew Point.	Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.								
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun's Rays.	Lowest on the Grass.					
Mar. 1	in. 29.353	53.4	40.7	12.7	48.0	+ 7.6	45.2	42.1	5.9	12.1	0.0	80	99.4	34.8	44.0	0.099	..	1.6	10.8
2	29.880	49.8	39.4	10.4	43.6	+ 3.2	39.9	35.5	8.1	15.1	2.5	74	92.0	30.1	43.9	0.000	..	6.0	10.9
3	29.881	57.9	42.8	15.1	51.2	+ 10.7	49.7	48.2	3.0	5.2	1.7	90	84.0	35.2	44.2	0.100	..	0.0	11.0
4	19.805	54.4	42.8	11.6	49.3	+ 8.6	47.3	45.1	4.2	8.9	0.8	86	93.5	35.0	44.3	0.172	..	0.7	11.0
5	29.681	54.8	42.3	12.5	49.6	+ 8.7	47.3	44.8	4.8	8.5	2.2	84	66.4	34.8	44.5	0.013	..	0.0	11.1
6	29.510	54.7	46.4	8.3	50.2	+ 9.2	47.9	45.5	4.7	10.1	0.4	84	94.3	43.1	44.8	0.111	..	1.0	11.1
7	29.287	49.4	39.8	9.6	44.7	+ 3.7	41.8	38.4	6.3	12.4	1.3	78	101.7	33.8	44.7	0.110	..	4.1	11.2
8	28.991	47.0	39.2	7.8	42.9	+ 1.8	40.2	37.0	5.9	11.7	1.8	80	78.5	36.4	44.8	0.310	..	0.6	11.3
9	29.383	52.4	34.5	17.9	43.0	+ 2.0	38.9	34.0	9.0	19.0	0.5	70	106.3	28.0	45.0	0.000	..	9.2	11.3
10	29.759	45.3	33.5	11.8	39.2	- 1.7	35.5	30.6	8.6	14.7	1.3	72	92.7	27.6	44.7	0.000	..	7.8	11.4
11	30.145	49.0	29.5	19.5	39.9	- 1.1	35.9	30.7	9.2	16.0	2.7	70	80.9	28.1	44.6	0.000	..	5.5	11.5
12	30.194	54.0	32.2	21.8	43.0	+ 1.9	39.8	36.0	7.0	14.2	0.9	77	101.0	27.0	44.6	0.000	..	8.8	11.5
13	30.193	43.7	39.1	4.6	41.6	+ 0.3	39.8	37.5	4.1	7.2	0.7	87	61.0	37.9	44.4	0.000	..	0.3	11.6
14	30.066	51.7	40.1	11.6	44.2	+ 2.7	41.4	38.1	6.1	11.8	1.3	79	100.3	38.1	44.7	0.000	..	5.5	11.7
15	30.086	44.3	40.7	3.6	42.5	+ 0.8	40.6	38.3	4.2	5.9	1.8	86	52.4	40.7	44.2	0.000	..	0.0	11.7
16	30.093	46.0	38.0	8.0	42.6	+ 0.7	40.3	37.5	5.1	7.1	3.1	83	58.4	30.6	44.3	0.000	..	0.0	11.8
17	30.020	43.8	37.9	5.9	40.4	- 1.6	38.9	37.0	3.4	6.4	0.7	88	66.8	36.9	44.3	0.000	..	0.0	11.9
18	29.863	49.1	38.7	10.4	42.5	+ 0.5	40.3	37.6	4.9	9.6	1.1	84	101.6	34.6	44.5	0.000	..	4.9	11.9
19	29.783	44.2	37.7	6.5	41.0	- 0.9	38.6	35.6	5.4	8.1	2.3	81	66.9	37.2	44.3	0.000	..	0.0	12.0
20	29.723	40.9	32.4	8.5	37.9	- 4.0	35.0	31.0	6.9	12.0	2.8	77	58.5	26.3	44.3	0.019	..	0.1	12.1
21	29.806	41.5	30.4	11.1	33.7	- 8.2	31.0	26.1	7.6	12.8	3.2	73	100.8	25.0	44.4	0.002	..	1.6	12.1
22	29.842	40.0	31.1	8.9	33.8	- 8.2	30.5	24.5	9.3	15.7	2.5	68	98.2	26.3	44.2	0.000	..	5.1	12.2
23	29.751	45.3	29.7	15.6	36.3	- 5.9	30.9	23.0	13.3	18.6	10.1	57	102.8	23.2	44.0	0.000	..	8.0	12.2
24	29.501	45.5	32.5	13.0	37.4	- 5.0	33.0	26.9	10.5	16.1	1.2	66	92.0	22.6	44.0	0.007	..	1.1	12.3
25	28.954	47.5	32.1	15.4	40.6	- 2.1	37.3	33.1	7.5	16.4	0.7	75	84.0	23.5	43.9	0.027	..	1.0	12.4
26	29.083	47.6	26.2	21.4	36.4	- 6.6	34.0	30.5	5.9	11.5	0.4	79	86.0	18.6	43.9	0.026	..	0.6	12.5
27	29.319	45.0	34.4	10.6	38.4	- 4.9	35.8	32.3	6.1	12.3	1.3	79	81.3	28.0	43.7	0.000	..	1.6	12.5
28	29.646	46.9	33.5	13.4	38.1	- 5.6	36.4	34.1	4.0	10.4	0.0	86	88.0	28.5	43.6	0.165	..	1.2	12.6
29	29.879	43.5	34.2	9.3	38.1	- 6.0	34.8	30.3	7.8	12.9	2.6	73	79.0	28.8	43.5	0.000	..	1.6	12.6
30	29.631	40.2	34.4	5.8	36.9	- 7.6	34.5	31.1	5.8	9.0	0.8	80	56.5	29.8	43.5	0.134	..	0.0	12.7
31	29.429	40.3	32.6	7.7	35.9	- 9.0	32.8	28.1	7.8	14.3	1.8	73	79.0	32.2	43.3	0.008	..	0.8	12.8
Means	29.695	47.4	36.1	11.3	41.4	- 0.5	38.6	34.9	6.5	11.8	1.8	78.0	84.0	31.1	44.2	1.303	..	2.5	11.8
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	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 Glaisher's Hygrometrical Tables. 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<sup>in</sup>.695, being 0<sup>in</sup>.051 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 57°·9 on March 3; the lowest in the month was 26°·2 on March 26; and the range was 3°·7. The mean of all the highest daily readings in the month was 47°·4, being 2°·4 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 36°·1, being 1°·0 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 11°·3, being 3°·4 less than the average for the 65 years, 1841-1905. The mean for the month was 41°·4, being 0°·5 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.					
	POLARIS.		URSAR MINORIS.		OSLER'S.			Robinson's							
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.								
					A.M.	P.M.			Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.				
A.M.		P.M.						A.M.	P.M.						
Mar. 1	4.6	0.41	4.0	0.35	SW : WSW	SSW : WNW	13.2	1.29	589	IO, m.-r, w : 9, w	: 9, ci.-cu, s.-cu, r	8, cu, cu.-n, sq, sh, w	: IO, r, m.-r, w		
2	4.7	0.42	4.6	0.41	WSW : W	WNW : SW	3.9	0.27	373	3	: 2	: p.-cl, ci.-s	6, s.-cu, cu	: I, th.-cl	
3	0.0	0.00	0.0	0.00	SSW : SW	SW	3.5	0.46	428	IO, r	: IO, r	: io, oc.-slt.-r, sc	io, sc, s.-cu, oc.-m.-r	: IO, n, oc.-m.-r, r	
4	..	..	..	..	SW : WSW	WSW : SW	4.4	0.48	425	IO, r, w	: IO, slt.-r, w	: io, s, n, fq.-slt.-r	IO, s, r	: 0	: I
5	0.9	0.09	0.4	0.04	SSW : SW	SW	14.3	1.08	565	IO	: IO, s, oc.-m.-r, w	IO, s, n, w, sh	: IO, oc.-m.-r, w	: io, sc, cu, fq.-m.-r, w	
6	4.3	0.40	2.4	0.22	SW : W	SSW	7.4	0.34	353	IO, oc.-m.-r, r, w	: io, oc.-m.-r, r	: io, s, oc.-slt.-r	9, s.-cu, n	: 9, th.-cl	: 9, sc, oc.-m.-r, r
7	6.3	0.59	5.9	0.55	SSW : WSW	SW : SSW	9.3	0.59	464	8, oc.-shs, w	: v.-cl, shs, w	: 6, cu, s, cu, cu.-n, w	IO, n, s, slt.-r, so.-ha	: 4	: I
8	7.6	0.70	6.3	0.59	S : SSW : W	W : WSW	11.0	1.23	681	IO, r, w	: IO, n, fq.-r, w, st.-w	IO, s, n, st.-w	: v.-cl, oc.-slt.-r, w	: 9, w, slt.-r	
9	8.3	0.77	7.6	0.71	WSW	WSW : SW	2.0	0.21	333	I	: 3, s.-cu, ci, cu	I, cu	: I, h, m		
10	5.6	0.52	5.0	0.47	N : NNE	NNE : N	2.7	0.29	331	o, slt.-m	: IO	: p.-cl, cu, cu.-s	6, s.-cu, cu	: I, d	: IO, slt.-d
11	3.1	0.31	2.4	0.24	N : NNE : Calm	N : Calm	0.2	0.01	104	v.-cl, h, m, slt.-ho.-fr	: o, h, m, slt.-ho.-fr	o, h, m	: p.-cl, m	: io, th.-s.-cu, m	
12	4.2	0.41	4.2	0.41	Calm : NE	E : ENE	1.4	0.08	162	IO, m	: I, slt.-ho.-fr	I, cu	I	: 0	: 3, lu.-ha
13	0.6	0.06	0.0	0.00	ENE	ENE : E	5.0	0.75	542	IO	: IO, m.-r, w	: io, sc, s, oc.-m.-r, w	IO, SC, S, n, w	: 9, s, n, w	
14	0.9	0.09	0.8	0.08	E : ENE	E	5.3	0.49	423	IO, w	: IO	: I, ci.-s, w,	v.-cl, ci.-s, ci.-cu	: v.-cl	: IO, n
15	0.3	0.03	0.0	0.00	E : ENE	E : ENE	2.7	0.37	390	IO, m.-r.-sh	: IO	: IO, s, n	IO, s, n	: IO, oc.-m.-r	: io, n, oc.-m.-r
16	1.1	0.11	1.1	0.11	E : NE	E : ENE	1.2	0.10	230	IO	: IO, s, n	IO, s, n	: IO, d		
17	0.0	0.00	0.0	0.00	E : NE	E	1.5	0.15	249	IO, m.-r.-sh	: IO, oc.-m.-r, m	IO, s, s.-cu	: IO		
18	0.8	0.08	0.8	0.08	E : ESE	E	1.9	0.20	281	IO	: IO, s, s.-cu	I, s.-cu	: I	: IO	
19	0.0	0.00	0.0	0.00	ENE : NE	NE	1.3	0.19	304	IO, l	: IO, s.-cu, s	IO, s	: IO		
20	8.5	0.87	8.4	0.86	NE : NNE	N	6.2	0.49	423	IO	: IO, fq.-r, w	: IO, s, n, w	IO, s, n, oc.-m.-r, w	: p.-cl	: o, slt.-ho.-fr
21	3.5	0.36	3.0	0.31	N : NE	NE : NNE	6.0	0.57	479	v.-cl, slt.-ho.-fr	: IO, n, s, cu.-n, oc.-sn, w	9, n, s, oc.-slt.-sn, w	: 9, w	: v.-cl, w	
22	7.7	0.79	6.9	0.71	NNE : NE	NE : NNE	9.8	1.03	658	IO, oc.-slt.-sn, w	: IO, oc.-slt.-sn, w	: 9, w	p.-cl, s.-cu, cu, w	: p.-cl, w	: 8, s.-cu, w
23	..	..	..	..	NNE : NE	NNE	4.9	0.57	498	I, ho.-fr, w	: I, ho.-fr, w	: 6, cu, s.-cu, ci, oc.-p.-so.-ha, w	p.-cl, cu.-s, ci, w	: 9, w	
24	0.0	0.00	0.0	0.00	N : NW : W	SW : S	2.4	0.15	250	9	: 9	: 9, s.-cu, h	9, s.-cu, h	: IO	: IO, fq.-m.-r, r
25	9.1	0.98	7.6	0.82	S : W : NW	NW : W	2.1	0.15	262	IO, r, m.-r	: IO, oc.-m.-r, m	: 9, cu, cu.-n, m	IO, s, n, shs, hl, m, h	: o, ho.-fr, m, h	
26	3.3	0.36	1.6	0.18	Calm : NW	NNW : N	2.5	0.16	205	o, ho.-fr	: o, m, ho.-fr	: 7, h, m, oc.-p.-so.-ha	7, s.-cu, m, slt.-r, h	: IO, oc.-slt.-r	: IO, m.-r
27	4.5	0.49	4.5	0.49	NNW : W : NW	NNW : N	2.9	0.18	267	I	: 9, m	: 9, s.-cu, n, h	8, cu, h	: IO, shs	: I, ci, ci.-cu, ho.-fr
28	3.5	0.38	3.1	0.34	N : NE	NE : NNE	2.6	0.17	261	IO, r, m.-r, sn	: IO, s.-cu, n, h, m, fq.-shs, hl	8, fq.-r, cu.-n, r, hl	: IO, slt.-r	: I	
29	1.6	0.17	1.0	0.11	N	N	1.6	0.18	262	IO, m.-r	: 8, cu, h	IO, s, n, oc.-slt.-r	: IO	: IO, s.-cu	
30	0.0	0.00	0.0	0.00	NNW : NW	W : SW : N	0.8	0.05	207	9	: 9, s, m, h	IO, s, n, slt.-m, oc.-slt.-r	: IO, r, m.-r, sn, m	: IO, m.-r, r, m	
31	0.0	0.00	0.0	0.00	NE : E	ESE : E	2.0	0.17	273	IO, r, m.-r	: IO	: 9, s.-cu, n	IO, s, n, so.-ha	: IO	
Means	..	..	..	..	..	..	..	0.40	364						
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 38°.6, being 0°.8 lower than  
 The mean *Temperature of the Dew Point* for the month was 34°.9, being 1°.4 lower than  
 The mean *Degree of Humidity* for the month was 78.0, being 2.5 less than  
 The mean *Elastic Force of Vapour* for the month was 0.203 being 0.011 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28.4, being 0.8 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 549 grains, being equal to  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.6.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.215. The maximum daily amount of *Sunshine* was 9.2 hours on March 9.  
 The highest reading of the *Solar Radiation Thermometer* was 106°.3 on March 9; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°.6 on March 26.  
 The *Proportions of Wind* referred to the cardinal points were N. 9, E. 8, S. 5, W. 7. Two days were calm.  
 The *Greatest Pressure of the Wind* in the month was 14.3 lbs. on the square foot on March 5. The mean daily *Horizontal Movement of the Air* for the month was 364 miles; and the greatest daily value was 681 miles on March 8; and the least daily value was 104 miles on March 11.  
*Rain* (0.005 or over) fell on 14 days in the month, amounting to 1.303, as measured by gauge No. 6 partly sunk below the ground; being 0.217 less than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.					
Apr. 1	29.527	43.2	30.7	12.5	37.5	- 7.8	33.6	28.2	9.3	14.7	3.6	69	100.0	23.0	43.2	0.000	..	4.3	12.9
2	29.612	50.0	24.7	25.3	36.5	- 9.2	32.4	26.5	10.0	17.5	3.3	67	113.2	14.5	43.2	0.000	..	10.0	12.9
3	29.035	38.0	32.7	5.3	34.5	-11.5	33.2	31.0	3.5	8.7	0.0	86	39.9	24.6	43.0	0.729	..	0.0	13.0
4	29.303	35.2	34.0	11.2	38.7	- 7.5	35.5	31.3	7.4	15.5	1.3	75	90.2	26.3	43.0	0.000	..	4.1	13.0
5	29.574	51.0	31.2	19.8	40.2	- 6.1	36.7	32.2	8.0	15.0	2.1	73	96.0	22.9	43.0	0.010	..	5.1	13.1
6	29.706	49.3	34.7	14.6	40.9	- 5.4	37.5	33.3	7.6	15.7	0.9	75	99.2	28.7	42.9	0.148	..	2.8	13.2
7	29.542	43.9	34.2	9.7	38.8	- 7.5	37.3	35.3	3.5	8.0	0.0	88	61.1	28.6	42.9	0.053	..	0.0	13.3
8	29.479	44.0	35.8	8.2	40.4	- 5.7	39.0	37.2	3.2	7.2	0.9	89	58.8	32.2	42.9	0.186	..	0.0	13.3
9	29.765	48.0	32.4	15.6	39.1	- 6.9	37.3	35.0	4.1	10.9	0.0	86	106.6	26.7	42.8	0.000	..	2.8	13.4
10	29.578	50.7	30.9	19.8	40.6	- 5.3	38.0	34.7	5.9	12.9	0.0	80	102.8	25.9	43.0	0.000	..	4.7	13.4
11	29.330	53.6	34.3	19.3	44.3	- 1.5	40.1	35.2	9.1	17.1	1.8	70	116.7	28.0	43.0	0.000	..	8.6	13.5
12	29.309	53.6	37.8	15.8	47.3	+ 1.4	45.6	43.7	3.6	7.5	0.6	88	70.1	26.2	43.1	0.219	..	0.6	13.6
13	29.368	57.5	43.7	13.8	49.4	+ 3.3	45.9	42.2	7.2	15.5	0.0	76	120.1	41.6	43.3	0.367	..	4.9	13.6
14	29.323	70.0	53.1	16.9	59.6	+13.2	53.4	47.9	11.7	19.8	3.4	66	123.0	49.6	43.8	0.007	..	4.0	13.7
15	29.334	59.2	43.4	15.8	52.7	+ 5.9	46.9	41.1	11.6	17.5	6.2	66	114.7	43.0	43.9	0.000	..	6.9	13.7
16	29.576	52.1	41.2	10.9	44.8	- 2.4	42.0	38.7	6.1	11.6	2.0	79	104.0	40.6	44.2	0.126	..	1.7	13.8
17	30.093	48.0	35.7	12.3	41.5	- 6.1	38.2	34.1	7.4	11.6	4.1	76	102.3	30.7	44.4	0.033	..	4.9	13.9
18	30.244	49.0	35.4	13.6	41.3	- 6.7	38.1	34.1	7.2	12.6	2.3	76	91.0	30.6	44.9	0.000	..	3.9	13.9
19	30.216	58.8	37.7	21.1	47.3	- 1.0	41.9	35.9	11.4	19.8	3.2	65	120.4	27.6	45.0	0.000	..	11.0	14.0
20	30.113	58.0	31.1	26.9	43.3	- 5.2	39.5	35.0	8.3	20.7	0.0	73	117.2	21.6	45.0	0.000	..	9.8	14.1
21	29.931	55.9	33.2	22.7	43.8	- 4.9	39.8	35.1	8.7	17.8	0.0	72	124.0	22.3	45.0	0.000	..	6.2	14.1
22	29.679	46.0	37.2	8.8	41.5	- 7.2	40.2	38.6	2.9	5.2	1.6	90	60.3	25.9	44.9	0.236	..	0.0	14.2
23	29.646	57.7	37.2	20.5	46.6	- 2.0	42.7	38.3	8.3	15.8	2.1	74	106.1	29.1	44.5	0.004	..	5.0	14.3
24	29.433	55.0	41.0	14.0	46.9	- 1.7	42.2	36.9	10.0	18.3	3.8	69	112.6	33.7	45.2	0.039	..	6.3	14.3
25	29.467	56.9	39.7	17.2	45.2	- 3.4	40.8	35.8	9.4	18.2	0.9	70	113.6	32.5	45.1	0.304	..	6.7	14.4
26	29.114	52.8	37.1	15.7	43.0	- 5.6	40.3	37.1	5.9	13.0	1.3	80	104.5	31.4	45.2	0.095	..	3.6	14.5
27	29.271	52.0	37.3	14.7	42.5	- 6.2	39.8	36.5	6.0	11.6	1.8	80	101.4	31.5	45.2	0.120	..	2.7	14.5
28	29.473	54.1	35.1	19.0	43.1	- 5.7	39.4	35.0	8.1	14.8	0.7	73	113.5	27.7	45.3	0.000	..	4.4	14.6
29	29.685	59.9	33.0	26.9	46.2	- 2.8	41.3	35.7	10.5	20.4	0.8	68	128.9	27.7	45.3	0.000	..	9.3	14.6
30	29.675	56.0	38.0	18.0	45.7	- 3.4	41.4	36.5	9.2	17.2	1.9	71	103.2	27.0	45.2	0.066	..	3.0	14.7
Means	29.580	52.3	36.1	16.2	43.4	- 3.8	40.0	35.9	7.5	14.4	1.7	75.7	100.5	29.4	44.0	Sum 2.742	..	4.6	13.8
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 29.580, being 0.168 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 70.0 on April 14; the lowest in the month was 24.7 on April 2; and the range was 45.3.  
 The mean of all the highest daily readings in the month was 52.3, being 4.9 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 16.2, being 2.0 less than the average for the 65 years, 1841-1905.  
 The mean for the month was 43.4, being 3.9 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.	
	POLARIS.		δ URSAE MINORIS.		OSLER'S.			Robinson's			
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.				
					A.M.	P.M.		Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.	
hours.		hours.				lbs.	lbs.	miles.	A.M.	P.M.	
Apr. 1	7.3	0.83	6.9	0.79	ESE : ENE : E	NE	5.7	0.45	362	10, oc.-slt.-sn : 9, n, s, cu, oc.-slt.-sn	9, cu, s.-cu, oc.-slt.-sn : p.-cl, n, ho.-fr, oc.-slt.-sn
2	4.6	0.52	4.2	0.48	Calm : SE	SSE : ESE	1.2	0.03	136	1, ho.-fr : 1, ho.-fr : 1, ci	7, cu, ci : 1, lu.-ha
3	0.0	0.00	0.0	0.00	E	ENE : NE	4.5	0.44	428	7 : 10, fq.-r, m.-r, sl : 10, n, s, sn, r	10, sc, sn : 10, fq.-sn, oc.-r : 10, sn, r
4	8.4	0.96	8.4	0.96	NNE : N	NNW : WSW	3.6	0.36	354	10 : 8, s.-cu, n	8, s.-cu, cu, n : 9, oc.-slt.-r, h : 3, slt.-m
5	1.4	0.16	0.9	0.10	WSW	WSW : Var.	1.0	0.05	190	1, ho.-fr : 1, m, ho.-fr, sn : p.-cl, m, h,	9, cu, cu.-n, n, sh : 9 : 10, th.-cl, lu.-ha
6	5.6	0.64	4.8	0.55	WSW : N	N : Calm	1.4	0.08	209	10, r : 10 : 10, s, n	p.-cl, cu, n, h : v.-cl, m : p.-cl, cu, m
7	0.0	0.00	0.0	0.00	SE	ESE : E : ENE	2.4	0.17	259	10, lu.-ha, slt.-ho.-fr : 10 : 10, s, n, slt.-r, r	10, s, n, r : 10, fq.-slt.-r : 10, fq.-m.-r
8	1.5	0.19	0.5	0.06	NNE : N	NNW : Calm	1.9	0.03	173	10, m.-r, r : 10, r, slt.-m : 10, n, slt.-m, oc.-m.-r	10, s, n, oc.-slt.-r, slt.-m : 10, oc.-slt.-r, slt.-m : 10, s, n, slt.-m, r
9	7.8	0.97	7.3	0.91	Calm : E	SE : Calm	1.0	0.02	148	9, slt.-m : 9, slt.-m : 10, s, n, slt.-m	6, s.-cu, cu, n : 7, sh : 1, s
10	6.2	0.78	5.9	0.74	Calm : SE	ESE : E	2.0	0.10	218	1, slt.-ho.-fr : 9 : 9, s, cu, th.-cl, p.-so.-ha	8, cl.-s.-cu, p.-so.-ha : 9, th.-cl : 9, th.-s.-cl.-s.-cu
11	4.3	0.54	3.5	0.44	Calm : E	ESE : Calm	0.9	0.03	156	1, h : 1, ci.-s	p.-cl, s.-cu, cu, ci.-s : 10 : 9
12	4.8	0.59	4.4	0.55	SW : SSW	SSW : SW	8.8	0.54	423	v.-cl, lu.-ha : 9, th.-cl, s, n, r, m.-r	10, s, n, r : 10, n, r
13	0.0	0.00	0.0	0.00	SW : WSW	WSW : ESE : SW	6.0	0.38	396	p.-cl, th.-cl, m.-r : 9, r : 1, cu, s, ci.-s, p.-so.-ha	9, s, n, r : 10, r : 10, r, w
14	1.3	0.16	1.0	0.12	SSW : S	S : SSW	7.0	0.60	461	10, m.-r, sh, w : 10 : 9, s.-cu, so.-ha	7, cu, cu.-s, cl.-cu, th.-cl, w : 10, oc.-m.-r : 9, r, w
15	3.2	0.43	2.7	0.36	SW	SW	16.1	0.17	731	9, w : 9, w : 9, cl, cu, w	8, cu, s.-cu, w : 8, cu, w
16	0.0	0.00	0.0	0.00	SSW : WSW	SW : NNE	5.0	0.49	427	9, shs, w : 9, cu, n, w	10, s, n : 10, slt.-r, r : 10, slt.-r
17	6.5	0.87	5.4	0.72	N : NNE	N	4.5	0.48	381	10, fq.-r, slt.-r : 9 : 9, s.-cu, cu.-n, oc.-r	8, s.-cu, cu.-n, oc.-hl, oc.-shs : 8, oc.-shs.-hl : 1
18	0.6	0.07	0.4	0.05	N	N : NNE	5.2	0.56	434	10 : 10 : 1, cu	1 : 3, cu.-s, cu : 0
19	7.1	0.94	6.6	0.88	NNE : NE	NE	5.0	0.36	375	p.-cl, ho.-fr : 9, m, ho.-fr : 1, cu, ci, m	1, cu : th.-cl : 1, cl, slt.-d, ho.-fr
20	6.7	0.89	6.4	0.86	NE : N	NE : ESE : Calm	1.1	0.05	153	v.-cl, th.-cl, ho.-fr : 9, m, ho.-fr : 1, m	1, cu, ci : 1, ci, slt.-d, slt.-ho.-fr
21	4.4	0.59	4.1	0.54	Calm : NE	E : Calm : S	0.7	0.03	132	0, slt.-ho.-fr : 9, s.-cu, ci	6, cu, s.-cu : 8 : 1, slt.-d
22	0.6	0.09	0.1	0.01	Calm : N	N : NNW	1.9	0.08	200	7, oc.-slt.-r : 10, r, m.-r : 10, r, slt.-m	10, n, cu.-n, r : 10, n, fq.-r
23	1.7	0.24	1.4	0.20	NW : W	WSW : SW	4.3	0.31	378	9 : 1 : 9, th.-s.-cu, oc.-slt.-r	9, cu.-n, s.-cu, oc.-r, w : 9, n, oc.-shs, w
24	5.8	0.83	5.4	0.78	WSW : W : WNW	WNW : NW	9.3	0.83	574	8 : 7, w : 9, cu, n, oc.-shs, w	9, oc.-shs, hl, w : 8, oc.-shs, w, t : 1, s
25	0.0	0.00	0.0	0.00	W : WNW	W : SW : S	4.3	0.52	475	1 : v.-cl, w, sh : 6, cu, n	8, cu, s.-cu, n, slt.-r : 10, fq.-r : 10, n, r
26	0.0	0.00	0.0	0.00	WSW : NW	Var. : Calm	4.6	0.31	336	10, r : 10 : 10, s, n, glm	10, s, n, r, oc.-m.-r : 10, oc.-m.-r : 10, n
27	3.9	0.55	3.5	0.50	NW : N : W	W : N : Calm	1.9	0.09	204	10, m.-r, r : 10, fq.-r : 9, s.-cu, n, h	9, n, s, oc.-slt.-r, glm : 10, fq.-r, oc.-m.-r : 6
28	5.0	0.71	4.9	0.70	Calm : N	N : E	1.9	0.05	150	1 : 8, cu.-n, cu.-s	8, ci, cu.-n, s.-cu : 8, th.-cl, sh : 1, d
29	5.2	0.81	5.2	0.81	Calm : SW	Calm : Var.	1.0	0.01	114	1, slt.-ho.-fr : 1, slt.-ho.-fr : 5, cu.-s, h	7, cu.-n, h : 9, h, d : 1, d
30	5.3	0.82	5.1	0.78	NNE : N	N	1.3	0.05	189	1, slt.-ho.-fr : 1, slt.-ho.-fr : 9, s.-cu	9, cu.-n, r, hl : 5, h, d : 1, d
Means	..	..	..	..	..	..	..	0.26	306		
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°.0, being 3°.9 lower than the mean *Temperature of the Dew Point* for the month was 35°.9, being 4°.2 lower than the mean *Degree of Humidity* for the month was 75.7, being 0.1 less than the mean *Elastic Force of Vapour* for the month was 0.211, being 0.037 less than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2.775, being 0.4 less than the mean *Weight of a Cubic Foot of Air* for the month was 54.5 grains, being 2 grains greater than the mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.6. The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.332. The maximum daily amount of *Sunshine* was 11.0 hours on April 19. The highest reading of the *Solar Radiation Thermometer* was 128°.9 on April 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 14°.5 on April 2. The *Proportions of Wind* referred to the cardinal points were N. 9, E. 6, S. 5, W. 6. Four days were calm. The *Greatest Pressure of the Wind* in the month was 16.1 lbs. on the square foot on April 15. The mean daily *Horizontal Movement of the Air* for the month was 306 miles; the greatest daily value was 731 miles on April 15; and the least daily value was 114 miles on April 29. *Rain* (0.005 or over) fell on 16 days in the month, amounting to 2.742, as measured by gauge No. 6 partly sunk below the ground; being 1.176 greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER.	TEMPERATURE.										Difference between the Air Temperature and Dew Point Temperature.	Degree of Humidity (Saturation = 100).	TEMPERATURE.			Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evapo-ration.	Of the Dew Point.	Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.								
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.			Highest in Sun's Rays.	Lowest on the Grass.									
May 1	29.613	52.6	37.5	15.1	44.1	- 5.2	41.5	38.4	5.7	13.3	0.0	80	110.9	29.5	45.5	0.052	..	3.0	14.8
2	29.641	55.0	39.7	15.3	45.3	- 4.2	42.3	38.8	6.5	13.5	0.5	78	106.9	30.2	45.7	0.006	..	2.2	14.8
3	29.712	55.5	38.4	17.1	47.5	- 2.3	45.4	43.1	4.4	8.6	1.4	86	80.0	29.0	45.8	0.186	..	0.0	14.8
4	29.700	63.4	44.0	19.4	50.6	+ 0.6	46.8	42.8	7.8	19.2	0.0	76	130.0	35.7	45.8	0.132	..	10.7	14.9
5	29.828	59.3	43.3	16.0	49.3	- 1.0	44.4	39.1	10.2	17.7	4.3	68	115.5	35.1	45.8	0.069	..	5.9	15.0
6	30.212	66.2	39.7	26.5	53.4	+ 2.9	47.9	42.4	11.0	18.0	3.1	67	126.5	29.7	46.0	0.000	..	12.6	15.0
7	30.342	73.8	40.1	33.7	57.7	+ 7.0	49.7	42.5	15.2	24.9	1.8	57	135.0	28.1	46.2	0.000	..	12.8	15.1
8	30.243	81.2	44.2	37.0	64.2	+ 13.2	54.5	46.5	17.7	31.8	2.8	52	138.5	34.2	46.6	0.000	..	12.6	15.1
9	30.169	71.5	50.3	21.2	60.2	+ 9.0	54.3	49.1	11.1	17.4	4.4	67	112.0	39.4	46.9	0.000	..	10.2	15.2
10	29.991	55.9	42.0	13.9	48.8	- 2.7	45.7	42.4	6.4	12.1	1.3	79	103.2	37.2	47.1	0.000	..	0.7	15.2
11	29.819	50.3	41.3	9.0	45.6	- 6.2	41.9	37.6	8.0	13.2	4.6	74	68.9	36.4	47.4	0.000	..	0.0	15.3
12	29.703	54.5	38.6	15.9	45.1	- 7.0	40.7	35.6	9.5	18.0	2.0	70	125.5	30.3	47.8	0.010	..	6.1	15.4
13	29.937	57.5	35.5	22.0	45.6	- 6.8	39.6	32.7	12.9	17.8	4.7	61	124.5	26.0	47.8	0.000	..	12.1	15.4
14	30.004	65.3	37.2	28.1	51.2	- 1.4	45.1	38.8	12.4	19.4	0.5	63	127.0	22.7	47.8	0.000	..	12.6	15.5
15	29.945	69.3	40.0	29.3	54.6	+ 1.8	47.9	41.4	13.2	20.5	2.9	61	133.0	24.4	48.0	0.000	..	13.9	15.5
16	29.769	69.1	43.0	26.1	55.1	+ 2.1	48.5	42.2	12.9	19.4	4.6	62	137.0	29.0	48.0	0.000	..	14.2	15.5
17	29.575	62.8	47.4	15.4	52.7	- 0.4	50.6	48.5	4.2	9.8	0.4	86	105.3	37.0	48.0	0.164	..	1.3	15.6
18	29.767	64.6	48.3	16.3	55.4	+ 2.1	51.0	46.8	8.6	17.8	1.0	73	127.0	41.4	48.4	0.006	..	4.8	15.6
19	29.968	71.9	49.4	22.5	57.8	+ 4.3	53.8	50.2	7.6	18.9	1.0	76	137.0	41.5	48.8	0.004	..	6.8	15.7
20	30.140	77.2	50.5	26.7	62.3	+ 8.5	56.8	52.1	10.2	20.3	1.2	70	145.9	39.6	49.0	0.000	..	14.1	15.8
21	29.957	85.6	51.5	34.1	69.6	+ 15.4	61.4	55.1	14.5	28.4	1.0	59	146.8	40.1	49.2	0.000	..	14.4	15.8
22	29.754	90.2	58.7	31.5	75.1	+ 20.5	65.3	58.3	16.8	31.7	3.2	56	149.5	49.0	49.9	0.000	..	13.4	15.8
23	29.728	88.6	58.3	30.3	73.7	+ 18.8	64.7	58.1	15.6	32.3	0.9	59	151.0	51.0	50.1	0.014	..	11.5	15.9
24	29.800	90.6	58.9	31.7	73.2	+ 17.9	65.2	59.3	13.9	28.2	2.1	62	146.6	48.4	50.8	0.000	..	12.8	15.9
25	29.937	76.7	57.9	18.8	65.8	+ 10.3	62.1	59.0	6.8	16.0	0.0	79	123.4	47.0	51.0	0.453	..	6.2	16.0
26	30.046	73.7	54.1	19.6	62.7	+ 6.9	57.7	53.5	9.2	18.6	2.2	72	135.2	46.8	51.6	0.000	..	7.3	16.0
27	30.193	73.3	50.1	23.2	62.2	+ 6.2	54.0	46.9	15.3	24.1	3.2	57	138.5	38.6	52.0	0.000	..	14.4	16.1
28	30.224	72.7	46.3	26.4	59.0	+ 2.8	51.4	44.7	14.3	24.2	2.9	59	141.0	36.3	52.2	0.000	..	14.8	16.1
29	30.228	78.9	45.3	33.6	63.2	+ 6.8	54.4	47.0	16.2	28.2	1.3	56	148.5	34.0	52.8	0.000	..	14.6	16.1
30	30.197	79.0	48.7	30.3	66.2	+ 9.5	58.5	52.3	13.9	24.5	1.0	61	127.0	37.8	52.9	0.000	..	10.5	16.1
31	30.008	81.9	54.1	27.8	68.4	+ 11.3	60.1	53.6	14.8	25.5	2.3	59	131.4	43.4	53.0	0.000	..	7.8	16.2
Means	29.940	69.9	46.3	23.7	57.6	+ 4.5	51.7	46.4	11.2	20.4	2.0	67.3	126.7	36.4	48.6	1.096	..	9.2	15.5
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	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 Glaisher's Hygrometrical Tables. 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 29.940, being 0.146 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 90.6 on May 24; the lowest in the month was 35.5 on May 13; and the range was 55.1. The mean of all the highest daily readings in the month was 60.9, being 6.0 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 46.3, being 2.6 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 23.7, being 3.4 greater than the average for the 65 years, 1841-1905. The mean for the month was 57.6, being 4.6 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.							
	POLARIS.		Ø URSAR MINORIS.		OSLER'S.				Robinson's Horizontal Movement of the Air.									
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.											
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.		A.M.	P.M.							
May 1	hours.	0.17	hours.	0.09	Calm : W	W	lbs.	lbs.	miles.	10	:	9, s.-cu, th.-cl, m, h	9, cu.-n, s	: 10, r, m.-r	: 9, n, r			
2	6.0	0.93	5.6	0.86	Calm : NNE	Calm : W	0.6	0.02	147	10	:	10 : 9, s, s.-cu, n	9, n, glm, r	:	3, d, slt.-m			
3	4.3	0.67	4.3	0.66	W : WSW	WSW : W	3.1	0.20	296	3	:	9 : r, s, n, fq.-slt.-r	10, slt.-r, r, w	:	10, n, fq.-m.-r			
4	6.5	1.00	6.5	1.00	W	W : WNW	6.1	0.45	482	1, m.-r.-sh :	1	:	p.-cl, cu, cu.-s, w	8, n, cu.-s, fq.-hy.-shs, t, w :	2, w	:	0, w	
5	6.5	1.00	5.9	0.91	WSW : WNW	NW : WNW	14.0	0.70	483	1	:	9, r : 9, s.-cu, shs, w	p.-cl, cu, w :	2	:	v.-cl, th.-cl, ci.-s		
6	6.5	1.00	6.5	1.00	W : WSW	WSW	2.3	0.17	281	1	:	2, cu, ci.-s, h	p.-cl, th.-cl, cu, ci, h, so.-ha :	7, th.-cl, h :	1, h, p.-lu.-ha			
7	6.5	1.00	6.5	1.00	Calm : WSW	SW	1.0	0.04	180	1, slt.-ho.-fr :	3, slt.-ho.-fr, h :	7, ci.-s, h, so.-ha	p.-cl, ci.-cu, cu.-s, th.-cl :	6, th.-cl	:	3, th.-cl, lu.-ha		
8	6.5	1.00	6.4	0.99	Calm : W	W : WNW	2.4	0.12	207	v.-cl, th.-cl, lu.-ha, h :	v.-cl, so.-ha :	p.-cl, ci, ci.-cu, so.-ha	2, ci, ci.-cu	:	p.-cl, ci, ci.-cu			
9	4.1	0.63	3.9	0.60	Calm : NE	E : SE	1.2	0.05	158	3, th.-cl, lu.-ha, h :	3, th.-cl, so.-ha :	v.-cl, th.-cl, h, so.-ha	v.-cl, th.-cl, h, s.-cu :	8, th.-cl	:	10, cu.-n		
10	4.9	0.75	4.0	0.61	E : ESE	SE	2.5	0.18	252	10	:	10, s, n	10, s, n	:	9	:	7, s.-cu	
11	0.0	0.00	0.0	0.00	SE : S	ESE : E	1.9	0.16	241	8	:	10 : 10, s	10, s, n	:	10, n, m.-r.-sh			
12	6.5	1.00	6.5	1.00	ENE	NE : NNE	3.8	0.34	350	10, m.-r, r :	9	:	6	9, cu, n	:	8	:	0
13	6.0	1.00	6.0	1.00	NNE	NE : SW	2.1	0.13	225	0	:	0 : 7, cu, cu.-n	p.-cl, cu	:	p.-cl	:	1	
14	6.0	1.00	6.0	1.00	WSW : W	SW : WSW	2.0	0.11	228	1, slt.-ho.-fr :	1, slt.-ho.-fr :	5, cu	6, cu	:	1, s			
15	6.0	1.00	6.0	1.00	WSW : W	W : WNW	2.0	0.14	267	3, th.-cl	:	1, cu	9, th.-cl	:	9, th.-cl	:	0, slt.-d	
16	4.2	0.71	4.2	0.70	W : WSW	WSW	2.8	0.26	318	0	:	1 : 0	1, ci.-s	:	7, th.-cl	:	3, th.-cl	
17	4.6	0.77	4.3	0.71	WSW : SW	SW : WSW	3.2	0.25	306	10, m.-r, r	:	10, n, r	10, n, oc.-slt.-r	:	v.-cl	:	v.-cl	
18	4.6	0.77	4.4	0.74	WSW : W	W	4.4	0.36	366	7	:	9, cu.-n, cu.-s, shs	9, cu.-n, w, oc.-slt.-r	:	7	:	1, ci, s	
19	6.0	1.00	6.0	1.00	W : WSW	W : WNW	8.0	0.55	454	9	:	9, oc.-slt.-r : 10, s, n, oc.-slt.-r	p.-cl, cu, w :	1, w	:	0, w		
20	5.2	0.86	4.9	0.82	W	W : WSW	1.3	0.13	248	2, th.-cl	:	2, cu, ci.-cu	3, cu, cu.-s :	1	:	7, ci.-cu, s, th.-cl, slt.-d		
21	6.0	1.00	6.0	1.00	Calm : SW	SW : SSW	2.2	0.14	204	1	:	1, ci.-cu	1, ci.-cu	:	1	:	0, slt.-d	
22	..	..	..	..	Calm : WSW	WSW : W : E	3.0	0.15	217	0	:	1, th.-ci, p.-so.-ha	1, ci	:	v.-cl, n, slt.-r, l			
23	6.0	1.00	6.0	1.00	Calm : WSW	SW : Calm	1.7	0.09	161	8, l, t.-sm :	1	:	2, s.-cu, ci.-s, slt.-sh	3, sh	:	1, slt.-d		
24	6.0	1.00	5.9	0.99	Calm : ESE	Var : Calm	0.8	0.03	120	1	:	1, h	1, cu	:	1, ci, s			
25	6.0	1.00	6.0	1.00	Calm : NE	SSE : Calm : W	0.9	0.03	137	p.-cl, m, l :	9, t.-sm, l, r :	8, s.-cu, cu.-n, slt.-t	8, s.-cu, n, t.-sm, l, r, by.-hi :	3, h	:	1, s		
26	4.7	0.78	4.7	0.78	W	W : NW : N	2.0	0.13	270	1	:	9, s, th.-cl	8, cu, ci.-cu, th.-cl :	7, cu, n				
27	6.0	1.00	6.0	1.00	N : Calm : NNE	N : NNE : E	1.0	0.09	169	1	:	1 : 1, cu, h	1, cu, h	:	1, h	:	0	
28	6.0	1.00	6.0	1.00	E : Calm : SSE	SE : Calm	0.8	0.05	141	0	:	0 : 1, cu	1, cu	:	1	:	1, s	
29	6.0	1.00	5.9	0.98	Calm	SE : E : Calm	1.0	0.05	106	1	:	1, ci.-cu, ci	1, cu	:	1	:	0, slt.-d, h	
30	5.7	0.95	5.6	0.94	Calm	SE : SW : Calm	0.5	0.01	118	1, th.-cl, h :	1, th.-cl, h :	p.-cl, th.-cl, h	9, th.-cl, h	:	th.-cl, h	:	1	
31	6.0	1.00	6.0	1.00	Calm : WSW	E : Calm	0.8	0.01	127	7, th.-cl	:	8, ci.-cu, th.-cl, h, p.-so.-ha	10, th.-cl, h	:	9, h	:	0, h	
Means	..	..	..	..	..	..	..	0.17	241									
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  $51^{\circ}.7$ , being  $2^{\circ}.7$  higher than the mean *Temperature of the Dew Point* for the month was  $46^{\circ}.4$ , being  $1^{\circ}.4$  higher than the mean *Degree of Humidity* for the month was 67.3, being 6.9 less than the mean *Elastic Force of Vapour* for the month was  $0^m.316$ , being  $0^m.017$  greater than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was  $3^gr.5$ , being  $0^gr.1$  greater than the mean *Weight of a Cubic Foot of Air* for the month was 536 grains, being 2 grains less than the mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5.2. The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.591. The maximum daily amount of *Sunshine* was 14.8 hours on May 28. The highest reading of the *Solar Radiation Thermometer* was  $151^{\circ}.0$  on May 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was  $22^{\circ}.7$  on May 14. The *Proportions of Wind* referred to the cardinal points were N. 3, E. 4, S. 5, W. 12. Seven days were calm. The *Greatest Pressure of the Wind* in the month was 14.0 lbs. on the square foot on May 5. The mean daily *Horizontal Movement of the Air* for the month was 24.1 miles; the greatest daily value was 48.3 miles on May 5; and the least daily value was 1.06 miles on May 29. *Rain* ( $0^m.005$  or over) fell on 10 days in the month, amounting to  $1^m.096$ , as measured by gauge No. 6 partly sunk below the ground; being  $0^m.819$  less than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.					
June 1	29.812	82.8	52.7	30.1	67.6	+10.2	58.5	51.3	16.3	32.3	1.0	56	147.2	40.8	53.2	0.000	wwP : mP, wwP : wP	14.2	16.2
2	29.664	81.6	53.2	28.4	67.7	+9.9	60.3	54.5	13.2	22.3	3.2	62	130.1	41.3	53.4	0.000	wP : sP, wP : sP, wP	0.2	16.3
3	29.861	71.0	53.2	17.8	61.7	+3.6	53.8	47.0	14.7	23.3	7.3	58	141.5	40.5	53.8	0.000	wP, mP : ssP, sP, mP, wP	7.4	16.3
4	30.049	72.1	46.3	25.8	58.9	+0.6	51.2	44.4	14.5	23.9	6.1	58	135.6	30.0	53.7	0.000	wP, wwP	11.1	16.3
5	29.998	76.4	43.9	32.5	61.4	+3.0	53.0	45.7	15.7	26.1	2.0	56	141.0	29.6	54.0	0.000	wwP, wP	13.7	16.3
6	29.935	74.2	48.2	26.0	61.7	+3.4	54.0	47.3	14.4	25.6	2.1	59	145.0	35.8	54.0	0.000	wwP, wP : wP	13.8	16.4
7	29.850	74.2	46.5	27.7	60.6	+2.4	53.4	47.1	13.5	30.4	0.0	61	144.7	31.1	54.1	0.000	wwP, mP : wP	14.9	16.4
8	29.759	68.0	49.2	18.8	57.7	-0.4	53.4	49.5	8.2	18.5	0.0	74	127.7	37.9	54.2	0.000	wwP : mP : wP, wwP	4.1	16.4
9	29.706	78.6	54.1	24.5	63.4	+5.4	57.6	52.8	10.6	21.7	1.2	68	142.3	47.0	54.6	0.000	wwP, wP : mP, wP	9.1	16.4
10	29.698	76.0	52.1	23.9	63.1	+5.0	55.4	48.9	14.2	23.0	4.8	60	136.0	41.1	54.7	0.000	wP, wwP : mP : wP	10.2	16.5
11	29.904	72.2	48.1	24.1	61.8	+3.6	52.7	44.8	17.0	26.4	3.9	54	141.9	35.0	54.7	0.000	wP : wP : wP, wwP	15.2	16.5
12	29.973	78.8	46.7	32.1	63.0	+4.6	53.4	45.3	17.7	31.3	3.8	53	138.0	32.5	54.9	0.000	wN : ssP, sP : sP, —	13.1	16.5
13	29.858	76.0	47.1	28.9	56.4	-2.1	52.7	49.3	7.1	19.5	0.0	77	140.2	38.0	55.0	0.053	.. : mP, wwP : wwP	3.8	16.5
14	29.837	52.5	47.1	5.4	49.7	-9.0	46.8	43.7	6.0	8.7	3.1	80	60.0	46.2	54.9	0.017	wwP	0.0	16.5
15	29.794	56.6	46.9	9.7	51.4	-7.4	49.4	47.4	4.0	7.7	1.1	86	64.5	43.0	55.0	0.507	wwP	0.0	16.5
16	29.892	73.0	45.6	27.4	58.7	-0.2	52.6	47.2	11.5	22.3	1.7	66	139.5	38.8	55.0	0.000	..wwP : sP, ssP : ssP, wP	11.1	16.5
17	29.901	64.0	51.4	12.6	56.3	-2.7	48.9	42.0	14.3	20.8	6.5	58	130.2	41.4	54.9	0.000	wP : sP, ssP : mP	9.6	16.5
18	29.997	69.2	50.5	18.7	57.5	-1.7	50.2	43.6	13.9	22.7	7.9	60	116.6	39.8	54.9	0.000	wP	3.7	16.6
19	30.021	80.2	56.9	23.3	66.9	+7.4	60.1	54.7	12.2	23.4	1.7	65	140.2	48.7	54.9	0.000	wP, wwP : mP, sP : sP, mP	7.3	16.6
20	30.038	73.8	53.2	20.6	60.9	+1.0	55.5	50.8	10.1	20.1	1.8	69	144.9	42.9	54.9	0.000	wwP, wP : mP, sP, wP	8.2	16.6
21	30.028	75.0	54.7	20.3	62.7	+2.4	54.3	47.1	15.6	25.4	4.1	56	146.3	46.0	55.0	0.000	wwP : ssP, mP : ssP, sP	10.7	16.6
22	29.932	71.0	45.8	25.2	57.0	-3.6	52.2	47.8	9.2	19.9	1.9	71	149.4	31.0	55.1	0.013	mP, wP : wP : wwP	6.1	16.6
23	29.664	70.2	52.2	18.0	59.2	-1.7	53.7	48.8	10.4	19.5	2.8	69	141.1	45.3	55.1	0.063	wwP : mP, sP : ssP, mP	6.1	16.6
24	29.701	65.8	50.9	14.9	56.2	-5.0	52.8	49.6	6.6	16.2	0.0	79	123.8	43.9	55.2	0.073	wwP : mP, wP : wwP	4.2	16.6
25	29.525	64.0	49.8	14.2	55.1	-6.3	48.9	42.9	12.2	20.4	5.5	64	130.0	42.4	55.3	0.006	wwP : wP : wP	13.1	16.5
26	29.476	62.6	47.4	15.2	55.4	-6.1	53.1	50.9	4.5	7.9	2.5	86	92.6	39.4	55.1	0.050	wwP	0.2	16.5
27	29.574	70.8	53.7	17.1	59.5	-2.1	55.3	51.6	7.7	14.0	2.5	75	141.7	51.0	55.2	0.000	wwP : mP, wP	5.6	16.5
28	29.536	64.9	50.6	14.3	59.0	-2.6	56.4	54.1	4.9	8.1	0.8	84	90.6	47.7	55.3	0.437	wwP	0.1	16.5
29	29.732	64.0	45.2	18.8	53.5	-8.1	49.3	45.2	8.3	16.8	1.7	73	128.3	38.0	55.2	0.154	wwP : sP, vP : ssP, mP	11.2	16.5
30	29.918	67.1	47.4	19.7	56.6	-4.9	51.5	46.8	9.8	17.3	2.3	69	133.5	38.6	55.2	0.015	wwP : sP, mP : sP, mP	6.9	16.5
Means	29.821	70.9	49.7	21.2	59.4	-0.0	53.3	48.1	11.3	20.5	2.8	66.9	129.5	40.2	54.7	1.388	..	7.8	16.5
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 29.821, being 0.006 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 82.8 on June 1; the lowest in the month was 43.9 on June 5; and the range was 38.9. The mean of all the highest daily readings in the month was 70.9, being 0.2 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 40.7, being 0.2 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 21.2, being 0.4 greater than the average for the 65 years, 1841-1905. The mean for the month was 59.4, being the same as the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.				
	POLARIS.		δ URSAE MINORIS.		OSLER'S.			Robinson's						
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.							
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.	A.M.	P.M.			
June 1	5.9	0.99	5.9	0.99	Calm : SE	SE	2.2	0.11	177	1, m	: 3, th.-cl : 1, cu	1, cu	: 1	
2	2.1	0.35	1.6	0.27	SSE : Calm	SW : Calm : N	1.9	0.04	121	3	: 9, sh : 9, s.-cu	9, s.-cu, cu.-n	: 8	: 9, th.-cl, ci.-s
3	4.6	0.84	4.6	0.84	N : NNE	NNE	2.1	0.25	287	10	: 10, s, n	8, cu	: p.-cl, s, ci	
4	5.5	1.00	5.5	1.00	NE : Calm	Calm : SSW	0.9	0.02	131	1	: 1 : 7, cu	8, s.-cu, cu	: 8	: 1, ci.-s
5	5.5	1.00	5.1	0.93	Calm : E	Calm : ESE	0.8	0.02	116	0	: 1, ci	1, s, cu	: 8, th.-cl	: v.-cl, th.-cl, s, s.-cu
6	5.5	1.00	5.5	1.00	Calm : ESE	SE	2.7	0.16	206	1	: 1, th.-cl : 1, ci.-cu	1	: 1	
7	5.5	1.00	5.5	1.00	ESE	ESE : SE	4.0	0.28	283	1	: 1	1	: 1, s	
8	0.5	0.10	0.3	0.06	ENE : E	E : ESE	3.0	0.24	287	1	: 2, th.-cl : 9, ci, ci.-cu, s.-cu	9, s, n, oc.-slt.-r	: 9	: 9, s.-cu, n
9	5.1	0.93	4.3	0.79	Calm : SW	WSW : SW : W	1.8	0.11	190	10, m.-r.-sh	: 10, s, n	6, cu, s	: 3	: v.-cl, th.-cl
10	3.5	0.63	3.3	0.59	W : NW : N	NNW : N	2.9	0.18	282	3, th.-cl, h	: 6, th.-cl, ph : 6, s, h	8, cu	: 7, s, s.-cu	
11	4.9	0.88	4.8	0.88	N : NNE	NNE : SE	2.1	0.18	238	1	: 1, cu	1, cu, s	: 1, s	
12	5.5	1.00	5.5	1.00	Calm : W : N	N : E	0.8	0.05	158	1	: p.-cl, ci.-cu, h	0, h	: 1, s, h	
13	0.0	0.00	0.0	0.00	Calm : WNW : N	N : NNE	4.0	0.30	323	1, h	: 0, h : 8, s.-cu, h	10, n, s, r, slt.-r	: 10, m.-r	: 10, s, n, m.-r, w
14	0.0	0.00	0.0	0.00	NNE	NE	5.0	0.51	450	10, m.-r, w	: 10, s, n, oc.-m.-r, w	10, s, n, m.-r	: 10	: 10, s
15	4.5	0.81	4.4	0.79	NE : ENE	ENE	1.6	0.16	311	10, r	: 10, r, m.-r, m : 10, q.-m.-r, m	10, s, n	: 10	: v.-cl, s, n
16	0.0	0.00	0.0	0.00	ENE	NE : SE	0.7	0.00	165	1	: 0	5, ci.-cu, s.-cu	: 8	: 10, s.-cu
17	3.6	0.65	3.4	0.61	. . : N	N	3.1	0.32	359	10	: p.-cl, s.-cu	7, cu	: 7	: 1
18	0.0	0.00	0.0	0.00	NNW : N	N : NW : W	1.9	0.17	266	9	: 9, n	7, cu, ci	: 7	: 10
19	5.5	1.00	5.5	1.00	W : NW	WNW : W	1.6	0.12	269	10, oc.-m.-r	: 10 : 9, s.-cu, cu	8, ci, cu, s	: 1	: 0, h
20	3.3	0.61	3.1	0.55	W	W : WSW	2.5	0.22	326	0	: 10, s	8, cu, cu.-s	: p.-cl	: 3, s
21	5.2	0.94	5.1	0.93	W : Calm	W : NW : N	2.4	0.15	227	7	: 8, cu, ci.-s, p.-so.-ha	7, s.-cu, ci, p.-so.-ha	: 7	: 6
22	1.2	0.22	1.1	0.21	WNW : W	WSW	2.6	0.18	269	1	: 1 : 7, cu	10, s, n	: 10, oc.-r	: 10, s.-cu, sh
23	4.6	0.84	4.6	0.83	WSW : W	W : WNW	3.4	0.40	421	9, r, m.-r	: 9, r, w	9, cu, cu.-s, n, w	: 9, slt.-sh, w	: 3, th.-cl
24	0.5	0.09	0.4	0.08	W : WSW	SW : WSW	4.1	0.33	366	3, th.-cl	: 9, s.-cu, n, ci.-cu	10, s, n, fq.-slt.-r, w	: 10, n, oc.-slt.-r	
25	5.3	0.97	5.3	0.96	WSW : W : WNW	WNW : W	6.0	0.66	527	10	: 7, w : 9, s.-cu, oc.-r, f, w	9, cu.-n, s.-cu, oc.-slt.-r	: 3, n, s, th.-cl	
26	1.3	0.23	1.3	0.23	W : WSW	SW : W	1.8	0.21	304	2	: 9, r : 10, n, s, oc.-slt.-r	9, n, oc.-r	: 9, n	
27	0.0	0.00	0.0	0.00	W	WSW	3.8	0.50	435	9, m.-r.-sh	: 10, n, s, sh	9, s.-cu, slt.-sh, w	: 9, n, m.-r.-sh, w	
28	1.8	0.32	1.6	0.29	WSW	WSW : N	4.0	0.39	380	10, w	: 10, m.-r.-sh : 10, n	10, n, fq.-slt.-r	: 10, r	
29	4.4	0.80	4.4	0.80	WNW : W	W : WNW	5.7	0.39	375	1	: 3 : 9, s, cu, n, sh	9, cu, cu.-n, hy.-r, t, l	: v.-cl, hy.-sh	: 1, s
30	0.7	0.13	0.3	0.05	W	W	3.7	0.31	340	7	: 7 : 9, n, cu, cu.-s, slt.-shs	9, n, s.-cu, sh	: 9	: 9, n, th.-s
Means	..	..	..	..	..	..	..	0.23	286					
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 53°.3, being 1°.6 lower than  
 The mean *Temperature of the Dew Point* for the month was 48°.1, being 2°.8 lower than  
 The mean *Degree of Humidity* for the month was 66.9, being 6.7 less than  
 The mean *Elastic Force of Vapour* for the month was 0.12336, being 0.0037 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3.78, being 0.004 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 531 grains, being the same as  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.6.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.475. The maximum daily amount of *Sunshine* was 15.2 hours on June 11.  
 The highest reading of the *Solar Radiation Thermometer* was 149°.4 on June 22; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°.6 on June 5.  
 The *Proportions of Wind* referred to the cardinal points were N. 7, E. 5, S. 3, W. 11. Four days were calm.  
 The *Greatest Pressure of the Wind* in the month was 6.0 lbs. on the square foot on June 25. The mean daily *Horizontal Movement of the Air* for the month was 286 miles; the greatest daily value was 527 miles on June 25; and the least daily value was 116 miles on June 5.  
*Rain* (0.1005 or over) fell on 11 days in the month, amounting to 1.388, as measured by gauge No. 6 partly sunk below the ground; being 0.1650 less than the average fall for the 65 years, 1841-1905.

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

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.					
July 1	in. 29.815	66.0	52.2	13.8	57.7	- 3.8	52.5	47.8	9.9	16.7	4.4	70	121.1	46.0	55.2	0.007	wwP : mP : wP, mP	hours. 0.6	hours. 16.5
2	29.620	68.6	54.0	14.6	59.2	- 2.4	54.1	49.5	9.7	17.4	1.7	70	138.0	48.0	55.2	0.020	wwP, wP : wP : wP, wwP	8.0	16.5
3	29.692	69.9	50.7	19.2	58.6	- 3.2	55.1	51.9	6.7	14.4	0.6	79	128.5	41.4	55.4	0.101	wwP : wP, mP	4.1	16.5
4	29.684	62.5	45.5	17.0	54.9	- 7.2	52.7	50.6	4.3	8.6	1.5	85	87.0	37.1	55.3	0.131	wP, wwP : wwP : wwP	0.6	16.4
5	29.487	64.2	49.5	14.7	56.3	- 6.0	53.8	51.5	4.8	13.1	0.0	84	111.0	43.0	55.3	0.398	wwP : wP, wwP : wwP	3.1	16.4
6	29.165	64.0	50.7	13.3	57.9	- 4.5	54.4	51.3	6.6	13.3	1.5	79	103.0	43.6	55.4	0.441	wwP	2.0	16.4
7	29.838	66.4	48.2	18.2	54.2	- 8.2	50.8	47.5	6.7	16.2	0.0	78	141.0	40.3	55.4	0.263	wwP : var. : wwP	8.5	16.4
8	29.637	69.1	50.4	18.7	57.1	- 5.3	53.2	49.6	7.5	19.4	0.0	76	132.6	42.5	55.6	0.050	wwP : wwP, wP : wP, wwP	3.0	16.3
9	29.517	61.0	51.2	9.8	55.2	- 7.2	51.4	47.8	7.4	12.5	2.0	76	109.2	45.5	55.3	0.260	wwP : wwP : wP	3.0	16.3
10	29.917	72.9	47.3	25.6	57.7	- 4.8	52.1	47.8	9.9	22.0	1.5	68	155.0	40.0	55.7	0.000	wwP : mP : mP, wP	11.6	16.3
11	30.071	71.4	46.8	24.6	57.9	- 4.8	52.7	48.0	9.9	21.7	0.0	70	125.0	37.6	55.4	0.000	wwP : mP : wP	6.0	16.3
12	30.029	76.1	45.7	30.4	62.2	- 0.7	54.5	47.9	14.3	24.9	1.1	59	130.0	34.9	55.8	0.000	wP : sp, mP : sP, mP	11.5	16.2
13	29.780	65.9	52.3	13.6	58.0	- 5.1	54.2	50.8	7.2	15.9	1.4	77	121.7	44.3	55.8	0.025	wP, mP	0.3	16.2
14	29.473	64.3	53.1	11.2	57.0	- 6.3	55.8	54.7	2.3	4.7	1.4	92	93.0	46.4	55.7	0.450	wwP	0.8	16.2
15	29.453	67.3	48.8	18.5	56.5	- 6.9	52.0	47.8	8.7	20.1	0.4	72	133.8	44.3	55.6	0.280	wwP : mP, sP : sP, mP	2.7	16.1
16	29.590	60.3	46.1	14.2	53.8	- 9.6	49.9	46.1	7.7	14.6	2.6	75	103.8	39.9	55.6	0.067	wP, wwP : mP, wwN : wwP	3.5	16.1
17	29.786	68.0	52.8	15.2	58.3	- 5.1	53.0	48.3	10.0	14.9	5.8	69	113.0	43.7	55.8	0.004	wwP, wP : mP, ssP : ssP, mP	3.0	16.1
18	29.765	62.5	50.2	12.3	54.9	- 8.4	51.5	48.2	6.7	13.0	2.2	78	101.4	42.5	55.6	0.088	wwP : wwP, wP : mP	1.4	16.0
19	29.940	72.3	48.0	24.3	60.0	- 3.2	53.9	48.5	11.5	20.2	2.5	66	131.0	40.8	55.8	0.000	wP, wwP : sP : ssP, mP	13.2	16.0
20	29.921	74.4	49.0	25.4	61.4	- 1.8	55.9	51.2	10.2	16.9	2.3	70	142.0	38.0	55.8	0.000	wwP, mP : mP : mP, wP	13.5	15.9
21	29.759	79.2	54.8	24.4	64.6	+ 1.4	59.4	55.1	9.5	20.9	0.6	72	142.2	47.1	55.9	0.006	wwP : mP : sP, wP	8.0	15.9
22	29.670	71.1	55.7	15.4	60.8	- 2.3	58.4	56.3	4.5	9.8	0.4	86	132.0	45.9	55.9	0.025	wwP : mP, wP : wwP	0.2	15.9
23	29.514	70.7	55.6	15.1	60.0	- 3.0	57.3	54.9	5.1	12.1	0.2	84	144.5	49.5	56.0	0.000	wwP, wP : wP	0.5	15.8
24	29.707	61.3	47.7	13.6	54.8	- 8.1	51.9	49.1	5.7	11.6	1.6	81	91.2	35.6	56.1	0.112	wwP : sP, wwP	1.1	15.8
25	29.957	72.1	49.3	22.8	60.6	- 2.1	54.0	48.2	12.4	21.2	0.6	64	128.6	38.3	56.2	0.001	wwP : sP : sP	7.1	15.7
26	29.949	72.6	51.9	20.7	59.9	- 2.6	55.8	52.2	7.7	17.5	1.0	76	147.8	38.2	56.3	0.071	wwP, wP : mP : mP, wwP	5.5	15.7
27	29.908	71.9	55.7	16.2	61.7	- 0.7	57.0	52.9	8.8	17.4	1.3	73	125.0	48.4	56.4	0.016	wwP : wP, mP : mP, wwP	3.8	15.6
28	29.990	73.1	52.5	20.6	61.0	- 1.3	54.5	48.9	12.1	21.7	1.8	65	130.0	38.7	56.5	0.000	wwP : mP, sP : wP, wwP	10.5	15.6
29	29.882	77.0	48.7	28.3	62.6	+ 0.3	58.4	54.8	7.8	17.7	0.0	76	142.5	35.0	56.5	0.000	wwP : wP, mP : wP, wwP	8.2	15.5
30	29.777	68.8	54.4	14.4	63.3	+ 1.0	61.1	59.2	4.1	7.5	1.5	87	101.7	46.7	56.6	0.052	wwP	0.0	15.5
31	29.804	72.0	48.8	23.2	58.7	- 3.5	53.6	49.1	9.6	21.2	2.5	70	140.6	37.2	56.7	0.344	wwP, wP : wP	11.8	15.4
Means	29.745	68.9	50.6	18.4	58.6	- 4.0	54.3	50.6	8.0	16.1	1.4	75.1	124.1	41.9	55.8	3.210	..	5.1	16.0
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	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 Glaisher's Hygrometrical Tables. 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<sup>m</sup>.745, being 0<sup>m</sup>.054 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR

The highest in the month was 79.2 on July 21; the lowest in the month was 45.5 on July 4; and the range was 33.7. The mean of all the highest daily readings in the month was 68.9, being 5.2 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 50.6, being 2.7 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 18.4, being 2.5 less than the average for the 65 years, 1841-1905. The mean for the month was 58.6, being 4.1 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.						CLOUDS AND WEATHER.			
	POLARIS.		δ URSÆ MINORIS.		OSLER'S.				Bobbsen's.		A.M.	P.M.		
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.		Horizontal Movement of the Air.					
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.						
July 1	0.0	0.00	0.0	0.00	WSW : SW	SW : SSW	4.6	0.41	341	9, th.-cl	: 9, n, s, oc.-slt.-r	10, cu.-n	: 9, oc.-m.-r	: 10, s.-cu
2	3.7	0.67	3.3	0.59	SW : W : WSW	SW : WSW	5.6	0.60	431	8, oc.-slt.-r	: 8, cu, oc.-r, w	8, cu, s.-cu, ci, oc.-r, w	: 9, oc.-r	
3	5.5	1.00	5.5	1.00	SW : SSW	WSW : NW : W	4.0	0.36	336	4, shs	: 10, s, n, fq.-m.-r	8, s.-cu, n, oc.-slt.-r	: 1, s, lu.-ha, d	
4	5.3	0.95	4.8	0.87	WSW : SW	SW : WSW	3.7	0.32	307	3, th.-cl	: 10, n, m.-r	10, s, n, r, slt.-r	: 9, r	: p.-cl, ci.-s
5	0.0	0.00	0.0	0.00	WSW : SW	SW : SE : S	6.4	0.34	312	1	: 10, n, s, p.-so.-ha	10, n, r	: 10, r	: 10, r, w
6	5.1	0.92	4.7	0.85	SW : WSW	W : WSW	16.0	1.27	581	10, r, w	: 9, oc.-slt.-r, w : 10, sc, n, oc.-slt.-r, w	10, cu.-s, n, slt.-r, w	: 9, w	: 8, th.-s, n, lu.-ha, slt.-sh
7	3.5	0.64	2.8	0.52	WSW : W	WSW : WNW	6.0	0.33	300	p.-cl, th.-cl	: 3, th.-cl : 8, cu.-n, sh	9, n, cu, ci.-s, r	: 9, r	: 3
8	2.2	0.37	1.2	0.19	SSW : SSE : S	SW	10.7	0.66	370	9, th.-cl	: 9, s, n, sh	10, r, w	: 7, cu, r, m.-r, w	
9	4.2	0.69	3.2	0.53	SW : W	W	6.8	0.87	558	10, m.-r, r, w	: 10, cu.-s, n, fq.-r, w	9, cu.-s, n, shs, w	: 7, cu, n, w	
10	5.4	0.90	3.3	0.55	W	WSW : SW	1.7	0.13	232	3	: 3 : 5, cu	7, cu, ci, s, p.-so.-ha	: 3	: p.-cl, th.-cl, ci.-cu, cu, s, d
11	..	..	..	..	Calm : S	Calm : ESE : SE	0.5	0.01	114	3, th.-cl, d	: 3, th.-cl, d, m : 5, h, m	9, cu	: 1	: 3, cu, s
12	4.7	0.78	2.4	0.40	Calm	W : SW	1.4	0.04	133	1	: 1 : 3, s.-cu, h	7, s.-cu, h	: 8, h	: 3, s.-cu, th.-cl, slt.-h
13	0.7	0.11	0.5	0.09	Calm : SW	SW	1.9	0.10	207	9, th.-cl, lu.-ha, m.-r.-sh	: 9 : 10, n, s, slt.-r	9, s, cu, oc.-r	: 9	: 10, s.-cu
14	1.3	0.22	1.2	0.19	WSW : Calm : S	SSW : Calm : N	0.6	0.02	145	10, sh	: 10, r : 10, n, r	10, s, n, fq.-r	: p.-cl, s, s.-cu, th.-cl	
15	4.2	0.69	4.1	0.68	N : WNW : NNW	NW : NNW : W	2.4	0.19	269	10, m.-r.-sh, r	: 10, r : 9, ci.-s, cu, th.-cl, so.-ha, oc.-sl.-r	p.-cl, ci.-s, cu, n	: 9, sh	: 9, s.-cu, n
16	1.5	0.25	1.4	0.24	W : WNW	WNW	6.1	0.68	496	2	: 9, ci.-s, cu.-n, oc.-slt.-r, w	10, n, fq.-r, w	: 10, n, oc.-r, w	
17	1.0	0.17	0.8	0.13	WNW : NW	W : WNW	3.9	0.28	310	9	: 9 : 9, s.-cu, cu.-n, oc.-th.-cl	9, s.-cu, n	: 9, th.-s, sh	
18	6.0	1.00	6.0	1.00	WSW : NNW	NNW : NW	3.9	0.25	275	10, fq.-shs	: 9, fq.-r : 10, n, shs	10, n, fq.-r	: 9	: 0
19	6.0	1.00	6.0	1.00	W : NNW	NW : WNW : W	2.9	0.27	299	0	: 1 : 6, cu	7, cu, ci.-cu, s.-cu	: p.-cl	: 0
20	4.3	0.72	4.3	0.72	WSW	WSW	1.7	0.14	233	0	: 1 : p.-cl, cu, cu.-s	2, cu.-s	: 1	: 1, s.-cu
21	5.0	0.83	4.3	0.71	WSW : SW	SW : W	2.6	0.14	224	10	: 9, s.-cu	8, cu, ci.-cu, so.-ha	: 9, sh	: p.-cl
22	0.7	0.12	0.7	0.11	Calm	SW	1.2	0.03	113	6	: 10, slt.-sh : 10, s, oc.-slt.-r	10, m, r	: 9, n	
23	0.0	0.00	0.0	0.00	Calm : SW	W : Calm : N	1.0	0.02	146	10, m.-r	: 9 : 9, cu.-n, sh	10, cu.-n, m.-r, sh	: 9	: 10, n
24	2.0	0.33	2.0	0.33	E : NE : NNE	NNE : Calm	2.7	0.21	268	10, m.-r, r	: 10, r, slt.-r : 10, n, slt.-r	10, n	: 9	: 0
25	2.5	0.42	2.5	0.41	W : WNW	NW : N : Calm	2.0	0.13	214	10	: 9, h, sh : 9, cu, n, h	p.-cl, cu, so.-ha	: v.-cl, s.-cu, s, h	
26	0.0	0.00	0.0	0.00	Calm : W	WSW	2.8	0.24	282	9	: 8, cu.-s, n, h	9, s.-cu, n, ci	: 10, m.-r, r	: 10, r
27	1.1	0.18	1.0	0.17	WSW : W	NNE : NE : Calm	1.4	0.10	195	10, shs	: 9 : 8, n, cu.-n	9, cu, n	: 9	: 8, s.-cu
28	6.0	1.00	5.9	0.98	Calm : NNE	N : NW : Calm	0.6	0.03	139	9, slt.-m	: 3, slt.-m : p.-cl, cu, th.-cl, h	7, cu, h	: 6	: 1
29	0.0	0.00	0.0	0.00	Calm : W	W	5.0	0.31	299	1	: 1 : p.-cl, ci, cu	8, cu.-n, cu	: 9	: 10, n, s
30	5.1	0.78	5.0	0.77	W : WNW	WNW : W	1.5	0.13	247	10, r, m.-r	: 10, cu.-n, oc.-r	10, n, s, oc.-slt.-r	: 10	: 7, n, s
31	6.5	1.00	6.5	1.00	W : WNW	W	4.2	0.38	367	1	: 1 : 7, cu.-s, cu	p.-cl, cu.-n, cu.-s, sh	: v.-cl, oc.-hy.-r	: 0
Means	..	..	..	..	..	..	..	0.29	282					
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 54°.3, being 3°.6 lower than  
 The mean *Temperature of the Dew Point* for the month was 50°.6, being 3°.2 lower than  
 The mean *Degree of Humidity* for the month was 75.1, being 2.3 greater than  
 The mean *Elastic Force of Vapour* for the month was 0.369, being 0.046 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4.87, being 0.075 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 531 grains, being 4 grains greater than  
 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 0.316. The maximum daily amount of *Sunshine* was 13.5 hours on July 20.  
 The highest reading of the *Solar Radiation Thermometer* was 155°.0 on July 10; and the lowest reading of the *Terrestrial Radiation Thermometer* was 34°.9 on July 12.  
 The *Proportions of Wind* referred to the cardinal points were N. 4, E. 1, S. 6, W. 16. Four days were calm.  
 The *Greatest Pressure of the Wind* in the month was 16.0 lbs. on the square foot on July 6. The mean daily *Horizontal Movement of the Air* for the month was 282 miles; the greatest daily value was 581 miles on July 6; and the least daily value was 113 miles on July 22.  
*Rain* (0.005 or over) fell on 21 days in the month, amounting to 3.210, as measured by gauge No. 6 partly sunk below the ground; being 0.111 greater than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.								Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evapo-ration.	Of the Dew Point.	Mean.	Greatest.	Least.	Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.						
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.				Highest in Sun's Rays.		Lowest on the Grass.						
Aug. 1	29.891	69.3	47.9	21.2	57.0	- 5.2	52.8	48.9	8.1	17.7	0.0	74	144.5	38.6	56.8	0.006	wwP, wP : mP, sP : mP, wP	10.3	15.4	
2	29.945	71.2	46.1	25.1	57.1	- 5.0	52.0	47.3	9.8	21.5	0.0	70	132.3	34.2	56.7	0.003	wP, wwP : sP, ssP : sP, mP	6.9	15.3	
3	29.934	73.2	49.7	23.5	59.1	- 3.0	54.7	50.8	8.3	19.2	0.4	74	143.6	40.0	56.8	0.010	wP, wwP : mP, wP : wP, wwP	7.1	15.3	
4	29.860	66.0	52.8	13.2	57.1	- 5.0	55.8	54.6	2.5	9.3	0.8	91	106.4	49.1	56.7	0.107	wwP : wP, wwP	0.0	15.2	
5	29.816	70.3	52.1	18.2	59.6	- 2.5	56.7	54.1	5.5	15.3	0.0	83	135.2	42.0	56.8	0.000	wwP : wP : wP	6.2	15.2	
6	29.642	64.0	54.7	9.3	58.8	- 3.4	57.0	55.4	3.4	8.3	0.0	88	104.9	49.3	56.7	0.603	wwP	0.1	15.1	
7	29.478	68.0	53.5	14.5	59.9	- 2.3	57.4	55.2	4.7	13.7	0.0	85	119.8	47.4	56.8	0.040	wwP : wP, wwP	2.4	15.1	
8	29.504	70.5	52.1	18.4	60.3	- 2.0	57.0	54.2	6.1	16.2	0.0	80	137.6	41.1	56.9	0.136	wwP : wP : mP, wP	7.4	15.0	
9	29.615	70.0	51.4	18.6	57.1	- 5.2	53.8	50.7	6.4	13.4	0.8	79	140.0	39.9	57.0	0.163	wwP : wP, v : wP	3.0	15.0	
10	29.989	63.8	48.8	15.0	55.4	- 6.9	51.2	47.2	8.2	14.9	3.5	74	123.8	37.3	56.9	0.000	wP, mP : mP, sP : vP	1.2	14.9	
11	30.041	66.3	43.8	22.5	52.8	- 9.6	50.9	49.0	3.8	13.8	0.0	88	124.0	32.0	57.0	0.132	wwP : wwP, wP : wP, wwP	2.0	14.9	
12	29.900	65.0	47.3	17.7	55.7	- 6.8	53.0	50.5	5.2	11.5	0.2	83	103.4	38.4	56.9	0.139	wwP, wP : wP : wwP	0.4	14.8	
13	29.755	68.8	52.6	16.2	59.9	- 2.6	56.3	53.1	6.8	15.4	0.0	79	127.2	45.9	56.8	0.046	wwP : wP, mP	0.6	14.7	
14	29.767	69.7	46.4	23.3	57.3	- 5.2	53.4	49.8	7.5	17.4	0.4	76	123.5	38.1	56.9	0.000	wwP : mP : sP, wP	2.7	14.7	
15	29.878	68.9	48.1	20.8	58.0	- 4.4	51.9	46.4	11.6	20.5	0.0	66	128.0	37.7	56.7	0.000	wP, wwP : mP, ssP : ssP, mP	10.0	14.6	
16	29.928	70.2	47.5	22.7	58.2	- 4.1	53.9	50.0	8.2	17.1	0.0	74	140.3	36.6	56.7	0.000	wwP : wP, mP : mP, wwP	8.1	14.5	
17	29.787	67.1	52.8	14.3	59.2	- 2.9	54.4	50.1	9.1	19.0	1.5	72	112.0	45.2	56.9	0.005	wwP : sP, mP	3.3	14.5	
18	29.981	69.8	51.2	18.6	58.6	- 3.3	53.8	50.0	8.6	19.8	1.2	75	134.3	43.9	56.9	0.000	wwP : sP : mP, wwP	5.7	14.4	
19	30.083	71.9	46.4	25.5	60.0	- 1.7	56.0	52.5	7.5	15.0	0.2	76	140.7	32.8	56.9	0.000	wwP : mP, sP : mP, wwP	5.9	14.4	
20	30.008	72.7	52.1	20.6	61.9	+ 0.4	58.2	55.1	6.8	14.1	0.4	79	134.2	40.7	56.9	0.000	wwP : wP, mP : wP, wwP	9.4	14.3	
21	29.862	77.6	48.1	29.5	61.5	+ 0.2	57.2	53.5	8.0	17.5	0.0	76	137.0	38.4	57.0	0.000	wwP : wP : wP, wwP	5.0	14.3	
22	29.667	70.8	53.2	17.6	61.1	- 0.0	56.9	53.2	7.9	17.6	0.4	76	123.0	43.1	57.0	0.014	wwP : wP : wP	2.4	14.2	
23	29.606	64.7	51.4	13.3	57.4	- 3.5	51.5	46.1	11.3	19.4	0.8	66	115.8	42.7	57.0	0.111	wwP : wP : wP	9.2	14.1	
24	29.681	66.9	45.4	21.5	55.2	- 5.6	52.1	49.1	6.1	15.8	0.0	81	129.0	34.6	57.0	0.160	wP, wwP : wP : wwP	1.6	14.1	
25	29.661	64.9	51.4	13.5	57.9	- 2.8	53.4	49.3	8.6	13.5	2.5	73	123.3	44.5	57.0	0.000	wwP : wP	1.1	14.0	
26	29.953	68.7	42.6	26.1	55.6	- 5.1	50.4	45.5	10.1	20.2	1.5	69	131.7	29.3	57.0	0.000	wwP : wP, mP : mP, wP	13.1	13.9	
27	29.773	72.1	52.1	20.0	61.5	+ 0.9	56.7	52.6	8.9	17.9	0.6	73	142.6	44.0	57.0	0.000	wwP : wP : wP, wwP	8.4	13.9	
28	29.615	72.2	54.8	17.4	60.7	+ 0.3	58.0	55.6	5.1	14.5	0.0	84	127.0	44.3	57.0	0.139	wwP : wP, wwP	3.2	13.8	
29	29.583	73.6	55.4	18.2	63.3	+ 3.0	59.3	55.9	7.4	16.3	0.0	77	131.9	48.8	57.1	0.020	wwP : wP : mP, wwP	8.2	13.8	
30	29.346	62.6	52.6	10.0	57.4	- 2.7	55.6	54.0	3.4	9.0	0.0	88	98.5	53.4	57.1	0.371	wwP : wP, wwP	0.2	13.7	
31	29.468	65.3	45.9	19.4	53.8	- 6.1	51.6	49.5	4.3	9.4	0.8	85	122.0	37.1	57.1	0.119	wwP : mP, wwP	3.8	13.6	
Means	29.775	68.9	50.0	18.9	58.3	- 3.3	54.6	51.3	7.1	15.6	0.5	77.9	127.0	41.0	56.9	Sum 2.324	..	4.8	14.5	
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	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 Glaisher's Hygrometrical Tables. 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 29.775, being 0.008 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 77.6 on August 21; the lowest in the month was 42.6 on August 26; and the range was 35.0. The mean of all the highest daily readings in the month was 68.9, being 3.8 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 50.0, being 3.0 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 18.9, being 0.8 less than the average for the 65 years, 1841-1905. The mean for the month was 58.3, being 3.3 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.	
	POLARIS.		δ URSAE MINORIS.		OSLER'S.			Robinson's.			
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.				
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.		
A.M.		P.M.						A.M.	P.M.		
Aug. 1	5.60.85	5.50.84	W	WNW : W	2.60.17	279	0	6, s.-cu, cu	9, cu.-n, oc.-slt.-r	p.-cl, n, sh	
2	1.80.27	1.70.26	W : WNW : N	WNW : W	1.40.08	218	0, d	0, d : 8, s.-cu, cu	8, s.-cu, cu : 9, oc.-slt.-r	9, shs	
3	0.00.00	0.00.00	W : Calm	W	1.80.05	179	6, d	4, d : p.-cl, cu, ci.-cu	9, n, s	10, fq.-slt.-r : 10, r	
4	0.40.06	0.00.00	Calm	Calm	0.30.00	76	10, r	10, r : 10, n, fq.-slt.-r	10, cu.-n, n	10, oc.-slt.-r : 10, n, m, d	
5	1.80.25	1.50.22	Calm : E	ESE : SE	1.50.11	176	10, m, d	10, s.-cu, m	p.-cl, cu, ci.-cu	p.-cl : 9, s.-cu	
6	0.00.00	0.00.00	ESE	ESE	3.00.38	323	9	9 : 10, s, n, oc.-r	10, fq.-r	10, r : 10, r	
7	3.20.46	2.00.41	Calm : W	W : WSW	4.00.26	289	10, r	10, m.-r, sh : 10, s, n	9, cu.-n, ci	7 : 1, s.-cu, d	
8	5.00.71	4.30.61	Calm : SW	WSW	2.60.15	227	10, r	9, n, s.-cu	p.-cl, cu, ci.-cu	p.-cl : 1, d	
9	0.00.00	0.00.00	W : WNW	W : NNW : NNE	2.70.23	297	v.-cl, sh	9, cu.-s, n	9, cu, n, oc.-r, oc.-r	9, oc.-slt.-r : 10	
10	4.50.64	4.40.63	NNE	NE : Calm	1.80.08	194	10	10 : 9, n, h	9, cu.-s, n	9, d : v.-cl, d, h	
11	3.30.48	3.10.44	Calm	Calm : WSW	2.40.02	116	v.-cl, h, d, m	7, th.-cl, h, d, m : 10, n, h, m, r	10, h, sh	9 : 10	
12	0.00.00	0.00.00	W : WSW	WSW	3.90.31	328	3	8 : 9, n, s	10, n, r	10, n, w, r	
13	4.40.59	3.60.47	WSW : WNW	NW : W	2.00.07	207	10, r	10, m : 9, s, n	9, s, n, th.-cl, so.-ha	10, s, n, th.-cl, d	
14	1.50.20	1.20.16	Calm : E	Calm : ENE	0.50.00	138	p.-cl, th.-cl, lu.-ha	9, th.-cl, h, m, p.-so.-has	10, s, n	10 : 10	
15	7.51.00	7.51.00	NE : Calm : N	N : Calm : W	1.50.08	212	7, h, d, m	1, h, d, m : p.-cl, cu	7, cu, n	1, d	
16	6.60.88	6.00.80	Calm : WSW	W : WSW	4.00.22	299	0, d	3, th.-cl, d : 7, cu.-n, ci.-cu, slt.-sh	7, cu, s.-cu	8 : 4, s, d	
17	5.60.75	4.80.63	WSW : W	WNW	4.30.32	381	7, th.-cl, d	8, d : 10, n, r	9, s, cu, n, w	3, w : 3, cu	
18	5.20.69	4.80.64	WNW : NW	NW : WNW : NW	3.80.24	378	9	v.-cl, cu, cu.-s	9, n	9 : 10	
19	2.20.27	1.60.20	N : Calm : WNW	W : Calm	0.60.01	171	0, h	2, h : 7, cu, h	10	10	
20	8.01.00	7.90.99	Calm : WNW	W : Calm	1.00.03	190	10	10	2, cu	0 : 0	
21	5.00.62	3.70.46	Calm	Calm	0.20.00	95	0	0, h : 9, h, p.-so.-ha	9, h	10, h, m : 1, cu, h, m	
22	0.00.00	0.00.00	Calm : NW	NW : W : WSW	2.10.16	248	9, m	10, s, h	10, s, n	10, slt.-r	
23	8.00.99	8.00.99	W : NW : N	NNW : NW	6.80.70	500	10, r, m.-r	10 : 7, cu, w	7, cu, w	7, w : 1, cu	
24	3.40.42	1.80.23	NW : W	W : WSW	2.40.23	326	0	6 : 8, s.-cu	10, s, s.-cu, n, r, m.-r	10, r, m.-r : 9, s.-cu	
25	5.00.63	4.80.60	WNW : NW	NW : N	2.90.28	357	10	9, s.-cu, n, m.-r, sh	10, s, n	10	
26	6.50.76	6.10.71	WNW	W : WSW	1.80.07	201	0	p.-cl, h : 1, ci, h	1	0 : v.-cl, s.-cu	
27	2.30.27	2.10.25	WSW	WSW : SW	1.70.13	225	9	9 : 8, s.-cu, cu	p.-cl, cu, ci	7 : 8, s.-cu	
28	1.00.12	0.80.09	Calm : SE	Calm : SW	0.40.00	93	10, r	10, n, r	9, cu, s.-cu	9, s	
29	0.00.00	0.00.00	Calm : WSW	W : Calm	0.40.00	91	9	9 : 8, cu.-s	9, s, so.-ha	9, so.-ha, prh : 10, n, slt.-r, r	
30	5.80.69	5.60.66	Calm : W	SW : S : W	3.70.20	227	10, oc.-r, m.-r	10, n, oc.-r, m.-r	10, cu, n, fq.-slt.-r	10, oc.-slt.-r : 10	
31	8.30.98	8.00.94	SW : SSW	SW : W	2.00.07	189	1, d	9, n, s, th.-cl, oc.-r	8, cu.-n, oc.-r, t	3, ci, d	
Means	..	..	..	..	..	0.15	233				
Number of Columns for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 54°.6, being 2°.9 lower than the mean *Temperature of the Dew Point* for the month was 51°.3, being 2°.7 lower than the mean *Degree of Humidity* for the month was 77.9, being 1.6 greater than the mean *Elastic Force of Vapour* for the month was 0<sup>m</sup> 378, being 0<sup>m</sup> 040 less than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was 48<sup>m</sup> 3, being 08<sup>m</sup> 3 less than the mean *Weight of a Cubic Foot of Air* for the month was 532 grains, being 4 grains greater than the mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.8. The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.330. The maximum daily amount of *Sunshine* was 13.1 hours on August 26. The highest reading of the *Solar Radiation Thermometer* was 144°.5 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 29°.3 on August 26. The *Proportions of Wind* referred to the cardinal points were N. 4, E. 3, S. 3, W. 14. Seven days were calm. The *Greatest Pressure of the Wind* in the month was 6.8 lbs. on the square foot on August 23. The mean daily *Horizontal Movement of the Air* for the month was 233 miles; the greatest daily value was 500 miles on August 23; and the least daily value was 76 miles on August 4. *Rain* (0<sup>m</sup> 005 or over) fell on 18 days in the month, amounting to 2<sup>m</sup> 324, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>m</sup> 020 less than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.					
Sept. 1	29.542	62.2	44.1	18.1	52.2	- 7.6	49.9	47.6	4.6	11.8	0.0	84	117.5	33.2	57.1	0.019	wwP : mP : wwP	3.7	13.6
2	29.696	62.9	43.3	19.6	52.3	- 7.4	50.6	48.9	3.4	12.2	0.0	88	105.0	37.8	57.1	0.045	wwP : wP : wP	1.6	13.5
3	29.931	66.3	43.8	22.5	53.7	- 5.9	51.2	48.8	4.9	14.0	0.2	83	118.0	34.5	57.1	0.000	wP : wwP, mP : mP, wwP	4.1	13.4
4	30.045	58.6	48.3	10.3	55.2	- 4.3	53.6	52.1	3.1	6.1	1.2	90	68.0	39.6	57.0	0.000	wwP : wwP, wP : wwP	0.0	13.4
5	30.060	69.1	54.2	14.9	59.8	+ 0.4	57.3	55.1	4.7	12.1	0.0	85	120.4	46.4	56.9	0.000	wwP : wwP, wP : wP, wwP	0.7	13.3
6	30.125	68.2	48.1	20.1	59.2	- 0.0	54.7	50.7	8.5	19.3	0.0	74	116.5	38.6	56.9	0.000	wwP : wP : wP	5.5	13.2
7	30.167	68.5	42.9	25.6	55.3	- 3.7	50.3	45.6	9.7	23.3	0.0	70	125.3	35.6	56.8	0.000	wwP : sP, mP : mP, wP	9.3	13.2
8	30.186	66.0	49.1	16.9	55.6	- 3.2	51.6	47.8	7.8	16.8	0.2	76	124.8	36.4	56.8	0.000	wwP : mP, ssP : sP, mP	6.2	13.1
9	30.114	59.7	45.2	14.5	51.5	- 7.1	46.9	42.2	9.3	17.2	3.4	71	103.0	39.0	56.6	0.000	wwP : mP, ssP : sP, wP	5.4	13.0
10	30.000	58.6	43.2	15.4	50.6	- 7.8	48.1	45.5	5.1	12.5	0.0	83	98.2	38.3	56.5	0.027	wwP : wP, mP : wwP	2.6	13.0
11	29.896	65.1	43.1	22.0	53.7	- 4.4	50.4	47.2	6.5	20.7	0.4	78	128.5	30.5	56.4	0.000	wwP : ssP : sP, wwP	7.3	12.9
12	29.394	64.8	39.0	25.8	51.6	- 6.4	48.4	45.2	6.4	13.9	0.0	79	113.0	28.8	56.1	0.030	wwP : wP, mP : mP, wwP	3.0	12.9
13	28.873	64.9	44.1	20.8	54.0	- 3.8	51.0	48.1	5.9	15.2	0.0	80	133.2	34.5	56.1	0.253	... : mP, wwP	8.8	12.8
14	29.077	63.6	43.6	20.0	51.4	- 6.3	49.4	47.4	4.0	12.3	0.0	86	106.0	34.0	56.0	0.418	wwP : wwP, mP : wwP	1.9	12.7
15	29.660	60.0	42.5	17.5	53.3	- 4.3	49.1	44.9	8.4	15.2	2.8	73	110.6	36.1	55.9	0.023	wwP : mP, ssP : ssP, sP	3.2	12.7
16	29.905	61.0	37.7	23.3	51.4	- 6.1	48.5	45.5	5.9	13.7	1.6	81	118.8	29.6	55.8	0.000	wwP : mP : wwP	3.0	12.6
17	29.694	67.0	50.3	16.7	58.6	+ 1.4	54.7	51.2	7.4	17.4	1.3	77	125.7	42.5	55.8	0.060	wwP : mP, wP	6.9	12.5
18	30.063	60.6	45.5	15.1	51.8	- 5.1	46.2	40.5	11.3	16.2	4.9	65	113.9	38.5	55.8	0.000	wwP : sP, ssP : sP, mP	10.8	12.5
19	29.952	61.4	51.1	10.3	55.1	- 1.4	53.0	51.0	4.1	7.4	2.1	86	67.0	41.9	55.6	0.463	wP : wwP : wwP	0.0	12.4
20	29.970	70.9	55.8	15.1	63.3	+ 7.1	58.5	54.5	8.8	15.2	3.3	73	124.0	47.1	55.8	0.000	wwP : wP, sP : mP, wP	9.4	12.3
21	30.095	73.1	55.7	17.4	62.1	+ 6.2	59.4	57.1	5.0	14.5	0.0	84	121.3	47.7	55.8	0.002	wwP : wwP, mP	4.4	12.3
22	29.971	65.7	53.5	12.2	59.1	+ 3.5	57.0	55.1	4.0	9.7	0.0	87	90.3	44.6	55.8	0.000	wwP : wP : wP, wwP	1.9	12.2
23	29.916	57.8	52.1	5.7	54.9	- 0.5	53.4	51.9	3.0	5.8	1.8	89	75.0	52.2	55.6	0.116	wwP	0.0	12.1
24	29.712	57.6	42.9	14.7	52.9	- 2.4	51.1	49.3	3.6	9.6	0.0	88	79.1	34.4	55.7	0.010	wwP : wwP : wP, wwP	0.0	12.1
25	29.667	61.0	37.3	23.7	50.7	- 4.5	48.4	46.0	4.7	11.2	0.0	85	104.0	32.3	55.9	0.000	wwP : wP, wwP	1.7	12.0
26	29.413	62.3	53.8	8.5	57.6	+ 2.4	55.2	53.0	4.6	8.3	1.4	85	84.6	46.4	55.8	0.023	wwP	0.2	11.9
27	29.402	61.8	49.2	12.6	54.7	- 0.4	53.6	52.5	2.2	7.9	0.0	92	100.7	44.8	55.8	0.113	wwP	2.1	11.9
28	29.586	66.8	48.3	18.5	57.3	+ 2.4	54.9	52.8	4.5	10.6	0.0	85	104.5	38.0	55.8	0.000	wwP : wP, wwP	1.0	11.8
29	29.945	58.5	44.1	14.4	52.2	- 2.5	47.3	42.3	9.9	15.7	2.5	70	104.0	33.1	55.5	0.000	wwP : mP, ssP : ssP, wP	9.2	11.8
30	30.051	60.3	38.3	22.0	49.3	- 5.1	45.8	42.1	7.2	16.4	1.0	76	105.4	30.7	55.5	0.096	wwP : wwP, ssP : mP, wwP	1.4	11.7
Means	29.804	63.5	46.3	17.1	54.7	- 2.6	51.6	48.7	6.0	13.4	0.9	80.8	106.9	38.2	56.2	1.698	..	3.8	12.6
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	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 Glaisher's Hygrometrical Tables. 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<sup>in</sup>.804, being 0<sup>in</sup>.007 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 73° 1 on September 21; the lowest in the month was 37° 3 on September 25; and the range was 35° 8.

The mean of all the highest daily readings in the month was 63° 5, being 3° 8 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 46° 3, being 2° 8 lower than the average for the 65 years, 1841-1905.

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

The mean for the month was 54° 7, being 2° 6 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.			
	POLARIS.		δ URSAR MINORIS.		OSLER'S.			Pressure on the Square Foot.	Robinson's Horizontal Movement of the Air.	A.M.		P.M.			
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Greatest.			Mean of 24 Hourly Measures.	Miles.	A.M.		P.M.	
					A.M.	P.M.						A.M.		P.M.	
Sept. 1	6.5	0.77	6.3	0.74	W	W : WNW	1.3	0.02	163	I, d	: 3, d	: 9, s.-cu, cu.-n	10, fq.-slt.-r	: 8, m, d	
2	8.1	0.90	7.7	0.85	Calm : NE	NE : E : Calm	2.1	0.04	141	0, d	: 10, m	: 9, m, ci, s.-cu, cu.-n	9, n, cu.-n, fq.-r, t	: 9, oc.-r : 1, cu, m, d	
3	4.7	0.52	4.0	0.45	Calm : NE	NNE : Calm	0.4	0.00	106	I, d	: 10, m	: 10, s, n, s.-cu, h, m	p.-cl, cu, h	: 1, slt.-h, d, m : 7, ci, d, m	
4	0.0	0.00	0.0	0.00	Calm : NE	NE	1.7	0.09	180	9, m	: 9, m	: 10, s, n, oc.-slt.-r	10	: 10	
5	3.6	0.40	3.2	0.36	NE : ENE	ENE : ESE : Calm	0.8	0.03	151	10	: 9, s, n		9, s.-cu, n, t, slt.-sh	: 6, d, m : 7, s, th.-cl, d, m	
6	7.1	0.79	6.7	0.74	Calm : E	SE : SSE : Calm	0.9	0.02	116	10, th.-cl, m	: 10, m	: 3, cu.-s, ci.-cu	9, cu	: 1 : 7, d	
7	6.0	0.67	5.6	0.63	Calm : SE	E : SE : Calm	1.7	0.06	119	3, h, d	: 2, cu, h		p.-cl, cu	: 1, ci, d	
8	4.5	0.50	3.8	0.42	NE	NE	2.7	0.27	289	10	: 9, s.-cu, n		7, s.-cu, cu	: 8 : 9, s.-cu	
9	9.5	1.00	9.3	0.98	NE	NE	3.7	0.45	387	7, d	: 7, cu		9, cu.-s, oc.-slt.-shs	: 3, slt.-sh : 0	
10	4.9	0.52	4.3	0.44	NE	NE : ENE	4.5	0.44	387	1, slt.-d	: 1, slt.-d	: 8, s.-cu, cu, n, w	10, fq.-slt.-r, w	: 10, w, oc.-r : 5, ci.-cu	
11	9.2	0.96	8.8	0.93	ENE : Calm : E	ENE : Calm	0.6	0.01	108	9, m	: 9, m	: p.-cl, cu.-n	6, cu	: 1, d : 0, m, d	
12	0.0	0.00	0.0	0.00	Calm : W	WSW : S	2.3	0.15	210	0, m, d	: 0, tk.-m, d	: p.-cl, s, n, m	9, cu, ci.-cu, ci.-s, n	: 10, m.-r : 10, n, m.-r, r	
13	6.3	0.66	4.6	0.48	S : W	WSW	1.5	0.12	226	10, r	: p.-cl	: 8, cu, s.-cu	9, s.-cu, n, ci.-cu, oc.-shs	: p.-cl, sh : 0, d	
14	0.0	0.00	0.0	0.00	W : NW : N	NNW : N : NNE	2.7	0.20	298	9, th.-cl, m	: 9, m	: 9, n, oc.-r, m	8, cu, cu.-n, ci.-s, oc.-slt.-shs	: 10, r : 10, n, r, w	
15	7.7	0.81	7.3	0.77	NNE : NE	NE : Calm	5.0	0.45	383	10, r, w	: 10, sh, w	: 9, s, cu, n, w	9, cu.-n, s	: 10 : 0, d	
16	0.6	0.06	0.5	0.05	W	W	4.1	0.32	341	0, d	: 0, d	: 9, s, n	10, cu.-n, cu.-s	: 10, s.-cu, oc.-m.-r	
17	9.6	0.96	9.5	0.95	W	WNW	8.4	0.61	524	10, sh	: 10, fq.-r	: 8, cu, n, r, oc.-m.-r, w	p.-cl, cu, w	: 3, w : 1, cu, d	
18	3.3	0.33	2.6	0.26	NW : N : NNE	NNW : WNW : W	2.5	0.23	323	0, d	: 1, d	: 2, cu	3, cu	: 1 : 10, th.-cl, d	
19	0.0	0.00	0.0	0.00	W	W	6.0	0.63	489	10, th.-cl	: 10	: 10, n, r, w	10, n, oc.-r, r, w	: 10, s.-cu, oc.-r, w	
20	7.5	0.75	6.5	0.65	WNW : NW	NW : WNW	4.3	0.39	411	10, oc.-m.-r, w	: 10, oc.-m.-r, w	: 7, cu, n	1, cu	: 0, d	
21	4.0	0.40	3.0	0.30	W	W : WSW	1.6	0.12	236	7, th.-cl, slt.-r	: 10, oc.-slt.-r	: 9, s	6	: 9, th.-cl	
22	0.6	0.06	0.4	0.04	Calm : ENE	ENE	1.7	0.05	155	9, th.-cl	: 9, m, h		10, slt.-sh	: p.-cl, h : 10	
23	0.0	0.00	0.0	0.00	E : ESE	SE : ESE	2.8	0.20	272	9	: 9	: 10, s, n, fq.-m.-r	10, n, fq.-m.-r	: 10, oc.-slt.-r : 10, m.-r, r	
24	10.3	1.00	9.5	0.92	E : ENE	ENE : E : Calm	1.8	0.14	237	10	: 10, n, oc.-slt.-r, m		9, s.-cu, n	: 0, d	
25	0.8	0.07	0.1	0.01	Calm : S	S : SSE	1.0	0.04	123	0, h, m, d	: 0, f, d	: 10, ci.-s, th.-cl, m	10, s, n	: 10 : 10, oc.-m.-r	
26	8.9	0.87	7.3	0.72	S : SSW : SW	SSW : S	2.1	0.13	226	10, sh	: 9, oc.-slt.-r	: 10, cu.-s, n, oc.-r	10, s.-cu, n, oc.-r	: 3, th.-cl, d	
27	4.6	0.44	3.8	0.37	S	SE : Calm	0.7	0.02	149	2, d	: 2, th.-cl, d	: 10, cu, s.-cu, th.-s, fq.-r	10, n, s, fq.-r, m	: 7, cu, ci, m	
28	3.5	0.34	2.7	0.26	Calm : NW	W : WNW : NNW	0.9	0.02	149	9, th.-cl, hy.-d	: 8, th.-cl, hy.-d	: 10, s.-cu	9, s.-cu, n	: 9, oc.-m.-r : 10, n, m.-r	
29	10.3	1.00	10.2	0.99	NNW : N : NNE	N : NW	3.3	0.30	349	9, d	: 2, cu		p.-cl, cu	: 0, slt.-m : 0, slt.-m, d	
30	0.0	0.00	0.0	0.00	WNW	W : WSW	1.6	0.05	215	0, d	: 10, s.-cu, th.-cl, so.-ha		10, th.-cl, so.-ha	: 10, oc.-slt.-r, r	
Means	..	..	..	..	..	..	..	0.19	249						
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 51°.6, being 2°.5 lower than  
 The mean *Temperature of the Dew Point* for the month was 48°.7, being 2°.5 lower than  
 The mean *Degree of Humidity* for the month was 80.8, being 0.6 greater than  
 The mean *Elastic Force of Vapour* for the month was 0.12344, being 0.0033 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3.789, being 0.003 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 536 grains, being 3 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.3.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.304. The maximum daily amount of *Sunshine* was 10.8 hours on September 18.  
 The highest reading of the *Solar Radiation Thermometer* was 133°.2 on September 13; and the lowest reading of the *Terrestrial Radiation Thermometer* was 28°.8 on September 12.  
 The *Proportions of Wind* referred to the cardinal points were N. 6, E. 6, S. 3, W. 9. Six days were calm.  
 The *Greatest Pressure of the Wind* in the month was 8.4 lbs. on the square foot on September 17. The mean daily *Horizontal Movement of the Air* for the month was 249 miles; the greatest daily value was 524 miles on September 17, and the least daily value was 106 miles on September 3.  
*Rain* (0.1005 or over) fell on 14 days in the month, amounting to 1.698, as measured by gauge No. 6 partly sunk below the ground; being 0.450 less than the average fall for the 65 years, 1841-1905.

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

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation.			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.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De-duced 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.				
Oct. 1	29.912	65.2	51.1	14.1	58.9	+ 4.8	57.9	57.0	1.9	6.0	0.0	94	90.2	48.7	55.3	0.178	wwP	0.2	11.6
2	29.920	60.5	44.8	15.7	52.1	- 1.6	50.6	49.1	3.0	8.7	0.0	90	83.6	37.3	55.2	0.000	wwP : wP, wwP	0.5	11.6
3	29.880	65.0	47.4	17.6	56.0	+ 2.7	53.5	51.2	4.8	10.4	0.8	84	106.6	42.4	55.2	0.000	wwP : wP : wwP	2.0	11.5
4	29.817	65.9	55.4	10.5	58.4	+ 5.4	56.5	54.8	3.6	8.7	0.0	88	103.6	51.6	55.1	0.282	wwP	0.7	11.4
5	29.671	66.0	52.7	13.3	57.6	+ 4.8	55.2	53.0	4.6	12.4	0.0	85	119.6	46.6	55.1	0.039	wwP : wwP, wP : wP, wwP	3.7	11.4
6	29.821	55.9	46.2	9.7	51.6	- 0.9	49.4	47.2	4.4	10.5	0.0	85	71.4	40.1	55.1	0.003	wwP	0.0	11.3
7	30.089	58.6	46.8	11.8	51.0	- 1.3	46.9	42.6	8.4	13.6	3.4	73	110.0	38.2	55.1	0.000	wwP : wP, mP : wwP	5.2	11.2
8	30.112	55.7	42.9	12.8	49.8	- 2.2	47.0	44.0	5.8	11.0	1.5	81	86.5	38.5	55.0	0.000	wwP : wwP, wP : wwP	0.4	11.2
9	30.042	58.2	45.1	13.1	51.3	- 0.3	48.1	44.8	6.5	12.2	1.2	79	108.4	36.6	54.8	0.000	wwP : mP : wP, wwP	4.8	11.1
10	29.915	52.9	43.3	9.6	46.8	- 4.5	43.7	40.2	6.6	14.5	0.4	79	82.7	34.3	54.9	0.020	wwP : wwP, mP : wP, wwP	0.2	11.0
11	29.832	55.0	35.1	19.9	44.0	- 6.9	40.1	35.5	8.5	17.0	0.2	72	100.7	26.2	54.5	0.000	wP, wwP : mP, sP : wwP	6.2	11.0
12	29.949	62.1	35.5	26.6	47.2	- 3.4	44.5	41.5	5.7	14.7	0.2	81	107.4	26.9	54.4	0.000	wwP : mP : wwP	8.7	10.9
13	30.061	62.0	41.7	20.3	50.7	+ 0.4	47.2	43.5	7.2	18.3	0.0	77	111.9	29.0	54.0	0.000	..	9.4	10.8
14	30.025	64.3	39.2	25.1	50.1	- 0.0	47.4	44.5	5.6	17.1	0.0	82	112.7	23.3	53.9	0.000	..	9.5	10.8
15	29.913	58.5	37.0	21.5	48.5	- 1.4	46.3	43.9	4.6	13.3	0.0	85	107.3	27.6	53.5	0.003*	..	8.6	10.7
16	29.848	59.0	43.9	15.1	50.9	+ 1.1	48.2	45.4	5.5	12.7	0.0	82	105.6	35.1	53.3	0.005*	..	9.2	10.7
17	29.864	56.2	46.1	10.1	50.5	+ 0.9	46.6	42.5	8.0	14.1	2.5	75	106.2	39.1	53.0	0.000	..	5.8	10.6
18	29.959	53.6	45.1	8.5	48.6	- 0.7	44.3	39.6	9.0	12.9	5.3	71	100.5	40.4	53.0	0.016	..	3.8	10.5
19	29.947	49.8	42.6	7.2	45.7	- 3.4	40.7	35.0	10.7	15.0	6.0	67	95.6	36.0	52.9	0.000	..	5.2	10.4
20	29.808	44.3	40.3	4.0	42.8	- 6.0	41.4	39.7	3.1	9.6	0.0	89	48.8	39.1	52.4	0.231	..	0.0	10.4
21	29.837	54.2	38.1	16.1	45.9	- 2.7	43.4	40.5	5.4	11.3	1.3	82	95.2	32.3	52.4	0.034	..	4.5	10.3
22	29.820	51.1	40.3	10.8	44.5	- 3.8	41.8	38.6	5.9	11.9	0.7	80	94.5	34.1	52.1	0.005	..	1.8	10.3
23	29.789	50.3	38.8	11.5	45.4	- 2.7	42.8	39.8	5.6	10.5	1.8	81	65.0	30.7	52.0	0.002	..	0.0	10.2
24	29.958	53.4	37.4	16.0	44.2	- 3.7	41.6	38.5	5.7	14.3	0.0	80	91.2	28.7	51.7	0.000	..	5.6	10.1
25	29.978	51.1	34.4	16.7	42.7	- 5.0	40.2	37.2	5.5	12.6	0.0	82	100.0	24.9	51.8	0.000	..	4.7	10.1
26	29.849	47.9	24.4	23.5	35.4	-12.2	32.6	28.3	7.1	17.9	0.0	75	88.0	20.1	51.4	0.000	..	5.3	10.0
27	29.654	47.3	32.1	15.2	39.7	- 7.8	37.8	35.3	4.4	8.2	1.2	85	58.5	18.9	51.0	0.068	..	1.3	10.0
28	29.880	45.9	32.7	13.2	37.2	-10.2	34.7	31.2	6.0	11.8	1.8	79	93.0	25.0	50.9	0.004	..	6.6	9.9
29	29.623	42.1	32.1	10.0	38.7	- 8.6	35.3	30.8	7.9	11.2	3.6	73	69.2	24.3	50.3	0.138	..	0.3	9.8
30	29.347	44.8	39.0	5.8	41.8	- 5.4	39.3	36.2	5.6	9.4	1.6	82	54.0	32.7	50.0	0.120	..	0.0	9.8
31	29.779	47.7	38.0	9.7	41.7	- 5.4	38.7	35.0	6.7	12.7	1.6	78	76.2	28.1	49.7	0.000	..	5.9	9.7
Means	29.868	55.0	41.0	14.0	47.4	- 2.6	44.7	41.5	5.9	12.4	1.1	80.5	91.7	33.4	53.2	1.040	..	3.9	10.7
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 October 15, and 16 are derived from dew.

The mean reading of the Barometer for the month was 29<sup>m</sup>.868, being 0<sup>m</sup>.147 higher than the average for the 65 years 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 66°0 on October 5; the lowest in the month was 24°4 on October 26; and the range was 41°6.  
 The mean of all the highest daily readings in the month was 55°0, being 2°5 lower than the average for the 65 years, 1841-1905.  
 The mean of all the lowest daily readings in the month was 41°0, being 2°3 lower than the average for the 65 years, 1841-1905.  
 The mean of the daily ranges was 14°0, being 0°3 less than the average for the 65 years, 1841-1905.  
 The mean for the month was 47°4, being 2°6 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.							CLOUDS AND WEATHER.	
	POLARIS.		δ URSÆ MINORIS.		OSLER'S.			Robinson's.					
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.						
					A.M.	P.M.	Greatest.				Mean of 24 Hourly Measures.	A.M.	P.M.
Oct. 1	5.6	0.52	5.5	0.51	WSW : W : WNW	Calm : NE	2.0	0.05	169	IO, r, m.-r : IO, m.-r : IO, h	IO, glm, sh : IO, shs : IO		
2	4.4	0.41	1.1	0.10	Calm	SE : Calm : W	0.3	0.00	114	I : I, m, f : IO, th.-cl, h, oc.-so.-ha	IO, ci, th.-cl, h : IO, th.-cl, h, d : IO, s, n, th.-cl, d		
3	3.0	0.28	1.9	0.18	Calm : W	W : WSW	0.6	0.02	157	g, th.-cl, m, hy.-d : g, th.-cl, m, hy.-d, p.-so.-ha : 8, s, cu.-s, [ci.-s	9, ci.-s, s : 9, d : IO, s.-cu, d		
4	0.0	0.00	0.0	0.00	W	W	1.6	0.13	268	IO : 9, n, s.-cu, cu	IO, fq.-r		
5	3.2	0.30	2.3	0.21	W : WNW	WNW : W	2.2	0.15	283	IO, oc.-r : 9, s, n	9, ci.-cu, cu, n, shs : 9 : 9, s.-cu		
6	9.0	0.84	8.0	0.75	NNW : NE	ENE : E	4.2	0.31	359	9, m : IO, s, sc, slt.-m, sh	IO, w : 6 : I, cu, d		
7	7.2	0.65	6.8	0.62	ENE : ESE	E : ENE	2.9	0.34	369	p.-cl, d : 3, d : 3, cu	8, s.-cu : 8 : IO, s.-cu		
8	1.9	0.17	0.7	0.06	NE	NE	2.0	0.22	289	v.-cl, d : I, d : 9, s.-cu, n	9, s.-cu, n		
9	7.3	0.67	7.1	0.65	ENE	ENE : SE : E	1.8	0.10	220	9 : 9 : p.-cl, ci, cu, s.-cu	9, n, cu, m.-r.-sh : 8, d : 2, cu, d		
10	1.7	0.15	0.9	0.08	E : ENE	ESE : E	1.7	0.03	193	p.-cl, lu.-ha : IO, oc.-slt.-r, slt.-m : IO, s, n, slt.-m	IO, n : IO, n		
11	11.0	1.00	11.0	1.00	Calm	W : WSW	0.7	0.02	146	8, d : 9, d : 0, h	I, cu, slt.-h : 0, d, slt.-m, ho.-fr		
12	11.0	1.00	11.0	1.00	Calm : SW	WSW : SSW	1.1	0.04	165	0, ho.-fr : I, ho.-fr, slt.-m : 3, s, cu, slt.-m	2, cu, ci.-s : 0, d : 0, d		
13	11.0	1.00	11.0	1.00	S : SSW	SSW : SSE	2.0	0.08	210	0, d : I, ci.-cu	I, ci : 0, d		
14	11.5	1.00	11.5	1.00	Calm : SSE	SE	0.7	0.03	164	0, ho.-fr : 0	0 : 0, d, slt.-m		
15	11.5	1.00	11.5	1.00	SE : Calm	ESE	1.6	0.12	195	0, m, ho.-fr : 0, m	0 : 0, hy.-d		
16	8.1	0.70	7.8	0.68	ESE : SE	SE : ESE	2.5	0.20	273	0, hy.-d : I, cu	0 : 0, d, m		
17	5.0	0.43	4.5	0.39	ESE : SE	ESE : SE	4.7	0.55	423	7, m : 9 : 9 s.-cu, n, w	I, cu, w : 7, s.-cu		
18	6.1	0.53	4.6	0.40	SE : ESE	ESE : E	6.0	0.65	466	7 : 9, oc.-m.-r : 8, cu.-n, cu.-s, oc.-slt.-r, w	v.-cl, cu.-n, oc.-slt.-r, w : 8, oc.-slt.-r, w : IO, sh		
19	0.0	0.00	0.0	0.00	E : ESE	ESE : E : ENE	7.5	0.75	528	IO : v.-cl : 7, cu.-n, w	7, n, cu, w : IO, oc.-slt.-r, w : IO, oc.-m.-r		
20	5.7	0.59	5.4	0.47	ENE	NE	2.7	0.22	312	IO, r : IO, sc.-n, s, oc.-slt.-r, m	IO, oc.-slt.-r, slt.-m : IO : I		
21	4.3	0.36	4.0	0.33	NNE : NE : ENE	ENE : ESE : E	4.4	0.33	349	I : IO, oc.-m.-r : p.-cl, cu.-s, n, oc.-m.-r, w	7, cu.-n, oc.-slt.-r : IO, r, m.-r		
22	6.0	0.50	4.6	0.38	E : ESE	ESE : E	2.8	0.20	312	p.-cl : 9 : 9, cu.-s, n, oc.-m.-r	9, n, cu.-s : I, d : 9, shs		
23	10.6	0.88	10.1	0.84	E : ENE	ENE	2.5	0.28	359	IO, sh : IO, s, n	IO, s : 3, d		
24	6.6	0.55	5.4	0.45	NE : ENE	NE : ENE	1.8	0.12	221	3, th.-cl, d : 9 : 2, s.-cu, cu, h	2, s.-cu, s : I, d, slt.-m		
25	12.0	1.00	12.0	1.00	NE : Calm	ENE : ESE	1.8	0.09	213	7, th.-cl : 9, th.-cl : p.-cl, ci.-cu, n, h	9, s, s.-cu, n, oc.-m.-r : 0, d, ho.-fr		
26	11.5	0.96	8.5	0.71	Calm : ESE	SSE : SE	1.6	0.04	134	0, ho.-fr : 0, ho.-fr, m, f : I, ci.-cu, f, ho.-fr, h	p.-cl, ci, cu.-s, th.-cl : I, ci.-s, slt.-h, ho.-fr		
27	9.1	0.76	8.2	0.68	ESE : E : ENE	ESE : NE	2.3	0.12	246	0, ho.-fr : IO, h, slt.-m : IO, n, s, m, fq.-r	8, cu.-s, cu.-n, oc.-r : 9 : p.-cl, s.-cu, n, d		
28	9.6	0.77	9.0	0.72	NE : E	E : ESE	2.6	0.22	307	I, slt.-ho.-fr : I, cu, cu.-s	p.-cl, cu, cu.-s : p.-cl, ci.-s th.-cl, slt.-sn		
29	0.0	0.00	0.0	0.00	E : ESE : SE	ESE	7.5	0.67	526	2 : 7, cu.-s, w, p.-so.-ha	IO, cu.-n, w : IO, slt.-r, w : IO, n, r, w		
30	8.3	0.67	6.5	0.52	ESE : ENE	ENE : NE	4.4	0.39	453	IO, n, s, fq.-r, m.-r, w	IO, n, s, w : 9, th.-cl : 9, s		
31	8.9	0.71	7.1	0.57	NE : NNE	N : W : WSW	1.2	0.09	234	9 : 9, m : p.-cl, s.-cu, m	7, s.-cu, n, h : v.-cl, m : IO, f, th.-cl, p.-lu.-ha.		
Means	..	..	..	..	..	..	..	0.21	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 44°.7, being 3°.2 lower than  
 The mean *Temperature of the Dew Point* for the month was 41°.5, being 4°.2 lower than  
 The mean *Degree of Humidity* for the month was 80.5, being 4.5 less than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>m</sup>.262, being 0<sup>m</sup>.045 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3<sup>grs.</sup>.1, being 0<sup>grs.</sup>.4 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 545 grains, being 5 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.2.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.364. The maximum daily amount of *Sunshine* was 9.5 hours on October 14.  
 The highest reading of the *Solar Radiation Thermometer* was 119°.6 on October 5; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°.9 on October 27.  
 The *Proportions of Wind* referred to the cardinal points were N. 5, E. 14, S. 4, W. 4. Four days were calm.  
 The *Greatest Pressure of the Wind* in the month was 7.5 lbs. on the square foot on October 19 and 29. The mean daily *Horizontal Movement of the Air* for the month was 279 miles; the greatest daily value was 528 miles on October 19; and the least daily value was 114 miles on October 2.  
*Rain* (0<sup>m</sup>.005 or over) fell on 12 days in the month, amounting to 1<sup>m</sup>.040, as measured by gauge No. 6 partly sunk below the ground; being 1<sup>m</sup>.742 less than the average fall for the 65 years, 1841-1905.

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

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation.			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.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		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. Deducted Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun's Rays.	Lowest on the Grass.					
		in.																	
Nov. 1	29.428	52.9	38.6	14.3	45.8	- 1.2	43.7	41.3	4.5	10.5	0.0	85	54.0	30.5	49.8	0.351	..	0.0	9.6
2	29.613	45.9	33.6	12.3	39.5	- 7.3	35.7	30.7	8.8	13.6	4.0	71	84.7	25.4	49.2	0.000	..	6.5	9.6
3	29.343	42.5	34.3	8.2	38.8	- 7.8	37.4	35.5	3.3	8.0	0.0	89	53.0	27.6	49.1	0.141	..	0.0	9.5
4	29.543	44.6	33.6	11.0	39.3	- 7.1	36.3	32.4	6.9	15.5	0.2	77	73.6	25.1	48.9	0.000	..	6.1	9.5
5	29.822	46.5	29.5	17.0	38.6	- 7.5	36.6	33.9	4.7	10.8	0.0	84	72.3	21.5	48.6	0.241	..	1.3	9.4
6	29.139	55.6	43.4	12.2	48.8	+ 3.0	46.6	44.3	4.5	8.5	1.7	85	79.7	36.7	48.8	0.298	..	2.9	9.4
7	29.334	53.8	40.4	13.4	47.4	+ 2.0	44.4	41.1	6.3	11.0	1.3	79	73.0	32.3	48.4	0.070	..	2.4	9.3
8	29.635	49.9	41.2	8.7	45.3	+ 0.3	43.9	42.3	3.0	4.8	1.5	90	59.6	31.5	48.2	0.003	..	0.0	9.2
9	29.972	47.9	35.5	12.4	42.4	- 2.2	41.2	39.8	2.6	7.0	0.0	90	55.0	26.5	48.1	0.000	..	0.1	9.2
10	29.822	51.3	37.0	14.3	46.8	+ 2.5	45.6	44.3	2.5	6.6	0.0	92	54.8	28.8	48.2	0.136	..	0.0	9.1
11	29.997	51.0	40.2	10.8	46.9	+ 2.9	45.1	43.1	3.8	6.7	0.4	87	59.0	33.7	48.2	0.000	..	0.0	9.1
12	30.264	44.3	33.2	11.1	39.4	- 4.3	38.5	37.3	2.1	3.6	0.4	93	48.9	27.4	48.0	0.000	..	0.0	9.0
13	30.332	45.6	28.5	17.1	39.4	- 4.1	38.0	36.2	3.2	6.5	0.0	89	51.0	25.8	48.0	0.000	..	0.6	9.0
14	30.382	37.7	29.3	8.4	35.4	- 7.9	35.2	34.9	0.5	1.9	0.0	98	38.2	28.1	47.9	0.004*	..	0.0	8.9
15	30.533	47.8	32.2	15.6	41.4	- 1.7	40.7	39.8	1.6	3.0	0.0	95	48.6	27.0	47.8	0.000	..	0.0	8.9
16	30.583	42.4	32.3	10.1	37.4	- 5.4	37.1	36.7	0.7	2.5	0.0	97	41.8	27.1	47.4	0.003*	..	0.0	8.8
17	30.372	49.5	42.2	7.3	45.5	+ 2.9	43.4	41.0	4.5	8.3	2.4	85	50.0	38.9	47.3	0.000	..	0.0	8.8
18	30.122	51.2	42.0	9.2	47.8	+ 5.4	45.6	43.2	4.6	8.9	1.5	85	54.0	34.3	47.3	0.003	..	0.0	8.7
19	30.122	47.0	37.9	9.1	43.6	+ 1.3	41.5	39.0	4.6	6.8	2.1	84	57.8	27.7	47.2	0.000	..	0.1	8.7
20	30.145	47.9	39.5	8.4	45.2	+ 3.0	42.7	39.8	5.4	8.4	3.0	82	53.0	27.6	47.1	0.000	..	0.0	8.6
21	30.290	48.3	43.0	5.3	45.1	+ 3.0	43.6	41.8	3.3	6.1	1.3	89	52.9	41.3	47.2	0.000	..	0.0	8.6
22	30.311	45.9	42.0	3.9	43.7	+ 1.6	42.1	40.2	3.5	6.0	1.3	87	47.7	38.4	47.2	0.000	..	0.0	8.5
23	30.321	48.0	40.3	7.7	43.8	+ 1.8	41.5	38.8	5.0	9.6	1.6	82	56.1	29.9	47.1	0.000	..	0.0	8.5
24	30.406	48.9	34.6	14.3	42.6	+ 0.6	40.4	37.8	4.8	8.9	1.8	84	57.2	25.5	47.2	0.000	.. : : : sP	0.3	8.4
25	30.494	35.9	28.5	7.4	33.1	- 8.8	31.2	27.5	5.6	8.2	3.5	79	38.0	18.4	46.9	0.000	sP : ssP : ssP	1.0	8.4
26	30.097	48.0	31.1	16.9	38.1	- 3.7	36.0	33.2	4.9	8.2	3.7	82	50.7	23.5	46.9	0.040	sP, mP : mP : mP	0.0	8.3
27	30.205	38.6	30.6	8.0	35.0	- 6.7	31.8	26.7	8.3	11.0	5.7	70	50.0	25.2	46.8	0.000	mP, sP : ssP : ssP	4.4	8.3
28	30.055	53.7	32.5	21.2	45.0	+ 3.5	42.4	39.4	5.6	9.1	2.0	81	51.7	27.1	46.4	0.023	sP, mP : sP : sP	0.0	8.2
29	29.998	52.0	43.3	8.7	47.9	+ 6.7	44.9	41.7	6.2	9.8	4.3	80	60.8	30.4	46.2	0.000	sP : ssP : ssP	0.3	8.2
30	30.102	48.0	43.0	5.0	45.3	+ 4.3	42.5	39.3	6.0	9.5	3.1	80	55.0	32.7	46.1	0.000	sP : ssP : ssP	0.0	8.2
Means	30.026	47.4	36.4	11.0	42.5	- 1.0	40.5	38.1	4.4	8.0	1.6	85.0	56.1	29.2	47.7	1.313	Sum	0.9	8.9
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 November 14 and 16 are derived from fog.

The mean reading of the Barometer for the month was 30.026, being 0.268 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 55.6 on November 6; the lowest in the month was 28.5 on November 13 and 25; and the range was 27.1. The mean of all the highest daily readings in the month was 47.4, being 1.6 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 36.4, being 1.5 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 11.0, being 0.1 less than the average for the 65 years, 1841-1905. The mean for the month was 42.5, being 1.0 lower than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.			
	POLARIS.		δ URSAR MINORIS.		OSLER'S.				Robinson's.				
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.						
					A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.		A.M.	P.M.		
Nov. 1	10.8	0.87	10.7	0.86	SW	WSW : N : NW	8.2	0.71	522	v.-cl	: IO, w, oc.-r	: IO, s, sc, r, w	IO, s, sc, r, w : IO, oc.-r, w : o
2	5.4	0.43	3.3	0.26	NW : WNW	WNW : W	2.1	0.18	346	o, ho.-fr	: o		p.-cl, cu.-s : IO : IO, s.-cu
3	1.5	0.12	0.3	0.03	SW : Calm : SSE	Calm : E	0.6	0.00	138	IO, lu.-ha	: io, s, n, oc.-slt.-r, slt.-m		io, s.-cu, n, oc.-slt.-r, m : io, oc.-m.-r, slt.-m : io, fq.-r, m.-r
4	12.5	1.00	12.5	1.00	NE : NNE	NNW : NW : WNW	3.2	0.31	365	IO	: IO	: o, h	p.-cl, cu, h : o, h, slt.-m : o, slt.-m, h, ho.-fr
5	0.0	0.00	0.0	0.00	WNW : W	WSW : SW	2.4	0.07	244	o, slt.-m, ho.-fr, o, slt.-m, ho.-fr, h, g, th.-cl, b, slt.-m, so.-ha			IO, s : IO, r, w
6	8.6	0.69	7.9	0.63	SW : W	W	6.0	0.64	504	IO, m.-r.-sh, w : IO, r	: 8, s.-cu, n, oc.-shs, w		g, n, s.-cu, oc.-shs, w : IO, shs, w : I, sh, w
7	5.3	0.42	4.4	0.35	W : WNW	NW : WNW	3.6	0.40	428	2	: IO, r, w	: 7, s, cu, w	IO, s.-cu, sc, w : v.-cl : v.-cl, cu.-s.-cu, slt.-m
8	4.6	0.37	2.9	0.23	W : Calm	Calm : WNW	0.6	0.00	126	IO	: IO	: IO, oc.-m.-r	IO, s, n, oc.-m.-r : IO, f : io, s.-cu, m.-r.-shs, slt.-f
9	8.5	0.68	7.0	0.56	W : WNW	Calm : SSW	0.3	0.00	169	IO	: 3, d, ho.-fr	: p.-cl, cu, s, h, m	IO, s, n, h, m : v.-cl, ci.-s, m
10	4.9	0.39	3.4	0.27	SSW : SW	SW : WSW	4.2	0.29	344	8	: IO, oc.-slt.-r	: IO, n, w	IO, n, r : IO, fq.-m.-r : IO, oc.-m.-r
11	9.4	0.72	8.4	0.65	Calm : NNW : NNE	NNE : NE	1.0	0.03	182	IO	: v.-cl	: IO, n	IO, s, n : IO : 3
12	0.6	0.05	0.3	0.02	Calm	Calm	0.6	0.00	70	1	: v.-cl, m		f : f, d : IO, n
13	5.1	0.39	0.0	0.00	NE : Calm	Calm	0.2	0.00	81	IO	: o, h, slt.-m		o, h, slt.-f : o, f : o, f, ho.-fr
14	0.0	0.00	0.0	0.00	Calm	Calm	0.2	0.00	78	f, ho.-fr	: f		f
15	6.2	0.47	0.9	0.07	Calm : E	E : ENE	0.9	0.03	135	IO, f	: IO, f	: IO, f, m.-r	IO, cu, n, oc.-m.-r : o, m : o, f, ho.-fr
16	0.0	0.00	0.0	0.00	Calm : WNW	WNW : NNE	0.4	0.01	150		f		f : IO
17	1.2	0.09	1.0	0.08	NE : N : NW	N : NNE	1.1	0.09	233	IO	: IO, s, slt.-f		IO, n, s : IO
18	7.7	0.57	6.1	0.45	NNW : N : NNE	NNE : NE	1.9	0.20	280	IO			IO, n, s, r, oc.-m.-r : IO, oc.-m.-r : p.-cl, n
19	0.3	0.02	0.0	0.00	NNE	N	0.4	0.01	173	v.-cl	: I	: IO, s	IO, cu.-s : IO : IO, s
20	0.0	0.00	0.0	0.00	NNE : N : WNW	NNE : NE	0.6	0.04	157	IO	: IO	: io, s, cu, slt.-m	IO, s, slt.-m : IO, m.-r.-sh : IO
21	0.0	0.00	0.0	0.00	Calm	Calm	0.2	0.00	50	IO	: IO, slt.-m	: IO, s.-cu, m	IO, s, n, glm, m : IO, m : IO, n, slt.-m
22	0.0	0.00	0.0	0.00	Calm	Calm	0.2	0.00	81	IO	: IO, slt.-m		IO
23	8.1	0.60	6.8	0.50	Calm : W	W	0.4	0.00	164	IO, slt.-f	: IO, m	: IO, m	IO, s.-cu, slt.-m : o, slt.-m
24	13.2	0.98	12.4	0.92	WNW : NW : N	NE	1.0	0.11	262	7, d	: IO, th.-cl, h, m		IO, n, cu : o, ho.-fr
25	10.0	0.74	6.5	0.48	NE : Calm	W	0.7	0.02	180	o, ho.-fr	: o, ho.-fr : o, h, slt.-f, ho.-fr		o, h, slt.-f, ho.-fr : o, h, slt.-f, ho.-fr : v.-cl, ho.-fr
26	11.0	0.82	10.0	0.74	W : WNW	NW : NNE	4.5	0.30	400	o, ho.-fr	: 8, ho.-fr : io, s.-cu, th.-cl, w		IO, n, m.-r, r, w : IO : v.-cl, ci.-s
27	4.4	0.32	2.0	0.15	NNE	NNE : W	1.4	0.15	275	o, slt.-ho.-fr	: o, slt.-ho.-fr : v.-cl, s.-cu, ci.-cu, h		I, s.-cu, h : o, slt.-ho.-fr, m, h : 9, slt.-m, slt.-ho.-fr
28	6.6	0.49	5.7	0.42	W : WNW	N : NNW : NW	2.8	0.26	401	IO	: IO, slt.-m	: io, s, n, slt.-m, r, m.-r	io, s, n, m.-r, slt.-m : 9 : 7
29	2.6	0.20	2.5	0.19	WNW : NW : NNW	N : NW	2.8	0.24	344	v.-cl	: IO		r, s.-cu, cu, ci, h, slt.-m, d : IO, h, slt.-m, d
30	2.4	0.18	2.1	0.16	Calm : W	W	1.4	0.03	189	IO	: IO, s, slt.-m		IO, slt.-m : IO : v.-cl, s, th.-cl, lu.-ha
Means	..	..	..	..	..	..	..	0.14	236				
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°.5, being 1°.4 lower than  
 The mean *Temperature of the Dew Point* for the month was 38°.1, being 1°.9 lower than  
 The mean *Degree of Humidity* for the month was 85.0, being 2.3 less than  
 The mean *Elastic Force of Vapour* for the month was 0<sup>m</sup>.230, being 0<sup>m</sup>.017 less than  
 The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 28<sup>gr</sup>.7, being 0<sup>gr</sup>.1 less than  
 The mean *Weight of a Cubic Foot of Air* for the month was 554 grains, being 6 grains greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.9.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.098. The maximum daily amount of *Sunshine* was 6.5 hours on November 2.  
 The highest reading of the *Solar Radiation Thermometer* was 84°.7 on November 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 1°.84 on November 25.  
 The *Proportions of Wind* referred to the cardinal points were N. 8, E. 3, S. 1, W. 10. Eight days were calm.  
 The *Greatest Pressure of the Wind* in the month was 8.2 lbs. on the square foot on November 1. The mean daily *Horizontal Movement of the Air* for the month was 236 miles; the greatest daily value was 522 miles on November 1; and the least daily value was 50 miles on November 21.  
*Rain* (0<sup>m</sup>.005 or over) fell on 8 days in the month, amounting to 1<sup>m</sup>.313, as measured by gauge No. 6 partly sunk below the ground; being 0<sup>m</sup>.907 less than the average fall for the 65 years, 1841-1905.

DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1922.	BARO-METER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.	Mean.	Greatest.	Least.		Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.				
		Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deducted Mean Daily Value.					Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.				
Dec. 1	29.882	49.1	43.9	5.2	45.7	+ 4.8	43.8	41.6	4.1	9.0	0.4	86	62.2	38.1	46.0	0.195	wP : ssP : ..	3.2	8.2
2	30.036	48.0	44.2	3.8	45.7	+ 4.8	43.9	41.8	3.9	6.4	1.3	87	57.5	39.3	46.1	0.000	wP : wP, sP : mP	0.0	8.1
3	30.187	48.0	44.2	3.8	46.9	+ 5.8	43.5	39.7	7.2	10.5	4.9	77	50.0	41.1	46.1	0.000	mP : sP : ssP	0.0	8.1
4	30.280	48.3	42.7	5.6	45.9	+ 4.6	42.9	39.5	6.4	10.3	3.7	79	48.0	38.4	46.1	0.000	sP : ssP : ssP	0.0	8.1
5	30.173	50.0	45.0	5.0	47.6	+ 6.1	44.5	41.4	6.5	8.5	4.7	79	58.1	37.6	46.1	0.000	sP : sP : mP	0.0	8.0
6	30.075	48.4	41.1	7.3	44.8	+ 13.3	40.6	35.7	9.1	11.8	7.1	71	54.8	33.4	46.4	0.000	mP, sP : sP : sP	1.7	8.0
7	30.092	47.2	35.2	12.0	42.0	+ 0.7	39.6	36.6	5.4	7.7	1.0	82	48.3	28.1	46.2	0.000	sP : mP : mP	0.0	8.0
8	29.962	47.1	32.2	14.9	42.3	+ 1.3	40.4	38.1	4.2	6.6	0.5	86	51.5	28.7	46.4	0.033	wP : mP : wP	0.0	7.9
9	30.066	40.2	24.4	15.8	32.2	- 8.4	31.5	30.0	2.2	6.9	0.0	91	36.2	25.2	46.0	0.002*	.. : . . . . .	0.0	7.9
10	30.203	42.9	38.2	4.7	41.0	+ 0.6	38.9	36.3	4.7	7.5	1.6	83	51.9	34.8	46.0	0.015	.. : wP : mP	0.0	7.9
11	30.252	41.0	35.3	5.7	39.0	- 1.2	35.9	31.8	7.2	9.1	4.8	76	41.0	29.5	45.9	0.000	mP, sP : sP : sP	0.0	7.9
12	30.172	45.2	40.6	4.6	43.5	+ 3.2	41.1	38.3	5.2	7.2	2.6	81	52.7	38.5	45.6	0.000	mP : mP : ..	0.0	7.8
13	30.043	50.8	45.1	5.7	48.6	+ 8.1	46.8	44.9	3.7	4.9	2.4	87	56.7	43.4	45.6	0.000	..	0.0	7.8
14	29.965	48.3	41.4	6.9	45.6	+ 4.9	44.1	42.4	3.2	4.7	2.4	89	54.5	33.6	45.4	0.000	..	0.0	7.8
15	29.923	49.9	39.2	10.7	44.1	+ 3.3	42.6	40.8	3.3	9.7	0.0	88	55.0	31.2	45.8	0.000	..	2.0	7.8
16	29.726	48.2	42.4	5.8	45.1	+ 4.4	43.0	40.6	4.5	9.0	1.1	84	55.9	34.0	45.6	0.044	..	0.0	7.8
17	29.485	44.2	38.2	6.0	40.7	+ 0.3	39.3	37.5	3.2	7.4	0.0	89	50.4	33.3	45.5	0.093	..	4.7	7.8
18	29.182	49.5	40.1	9.4	45.0	+ 5.0	43.8	42.4	2.6	4.8	0.6	91	56.5	34.2	45.6	0.103	..	0.7	7.8
19	29.151	48.4	38.8	9.6	42.6	+ 3.1	40.5	38.0	4.6	8.7	0.4	84	62.0	31.9	45.5	0.015	..	3.1	7.8
20	28.897	49.3	38.6	10.7	42.8	+ 3.8	40.5	37.8	5.0	8.1	1.5	83	47.0	31.1	45.6	0.315	..	0.6	7.8
21	29.345	48.0	35.7	12.3	41.3	+ 2.6	39.3	36.8	4.5	6.9	2.5	85	54.6	29.6	45.5	0.407	..	1.7	7.8
22	29.137	49.1	43.6	5.5	45.9	+ 7.5	43.4	40.5	5.4	10.2	0.6	82	59.0	36.5	45.2	0.320	..	4.0	7.8
23	29.258	47.8	39.1	8.7	44.1	+ 5.9	41.0	37.4	6.7	9.1	3.9	76	54.4	30.6	45.2	0.011	..	2.6	7.8
24	29.701	41.8	32.7	9.1	37.3	- 0.9	35.4	32.8	4.5	6.0	0.6	84	50.0	26.8	45.0	0.000	..	4.9	7.7
25	29.674	47.0	32.3	14.7	42.4	+ 4.0	40.7	38.7	3.7	9.2	0.0	87	52.7	26.1	45.0	0.167	..	0.0	7.8
26	29.640	45.9	36.5	9.4	40.9	+ 2.3	38.5	35.5	5.4	8.9	3.5	82	56.7	29.9	44.7	0.000	..	5.0	7.8
27	29.471	46.0	36.0	10.0	40.7	+ 1.9	39.2	37.3	3.4	6.1	2.4	88	50.4	29.8	44.6	0.328	..	0.0	7.8
28	29.370	42.9	35.8	7.1	38.9	- 0.0	36.9	34.2	4.7	8.6	2.2	85	60.5	30.0	44.3	0.040	..	5.5	7.8
29	28.899	49.8	42.2	7.6	46.8	+ 7.8	44.6	42.1	4.7	7.5	1.8	85	63.3	38.2	44.2	0.104	..	2.4	7.8
30	28.660	48.1	39.5	8.6	43.2	+ 4.3	40.7	37.7	5.5	8.0	1.5	81	55.7	32.0	44.4	0.204	..	1.4	7.8
31	28.942	42.9	38.0	4.9	40.5	+ 1.8	39.6	38.5	2.0	4.1	0.9	93	41.0	33.7	44.1	0.523	..	0.0	7.8
Means	29.673	46.9	38.8	8.1	43.0	+ 3.1	40.9	38.3	4.7	7.9	2.0	83.9	53.2	33.2	45.5	2.919	..	1.4	7.9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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 Glaisher's Hygrometrical Tables. 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 December 9 is derived from fog.

The mean reading of the Barometer for the month was 29<sup>in.</sup>673, being 0<sup>in.</sup>.112 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 50°8 on December 13; the lowest in the month was 24°4 on December 9; and the range was 26°4. The mean of all the highest daily readings in the month was 46°9, being 2°7 higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 38°8, being 3°8 higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was 8°1, being 1°1 less than the average for the 65 years 1841-1905. The mean for the month was 43°0, being 3°1 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1922.	RECORD OF THE NIGHT SKY.				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS.					CLOUDS AND WEATHER.					
	POLARIS.		δ URSAE. MINORIS.		OSLER'S.			Robinson's							
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	General Direction.		Pressure on the Square Foot.								
					A.M.	P.M.		Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.					
								A.M.	P.M.						
Dec. 1	1.5	0.11	1.1	0.08	W	NW : NNE	1.9	0.17	313	10, r, m.-r	10, r, m.-r	p.-cl	10, n, fq.-r	10, fq.-r	9
2	0.0	0.00	0.0	0.00	NNE : NE	W : N : NW	0.7	0.03	179	10		10, s, slt.-m	10, s, slt.-m		10, slt.-m
3	0.0	0.00	0.0	0.00	N : NNE : NE	NE : Calm	0.8	0.02	134	10		10, s, slt.-m	10, glm, m		10, n, slt.-m
4	0.0	0.00	0.0	0.00	Calm : WNW	NNE : N	0.9	0.06	177	10		10, s, m			10, s, n
5	8.5	0.62	8.2	0.60	NW : WNW	WNW : NW	3.8	0.25	386	10		9, s.-cu,	9, s.-cu	10, w	6, w
6	13.0	0.94	12.3	0.89	NNW : N	N : NNE	5.0	0.67	556	3, w,		7, cu.-s, w	7, cu.-s, w	0, h	0, h
7	4.3	0.31	3.2	0.23	N : NW : W	NW : N	2.7	0.23	363	3, th.-cl, h, slt.-ho.-fr	10, th.-cl, h		10, s, n		10, s, oc.-m.-r
8	10.4	0.76	9.5	0.69	NNE : NE	ENE : Calm	2.0	0.07	174	8		10, fq.-r, m.-r	10, s, n, r, slt.-m	10, slt.-m	3, h, slt.-m, ho.-fr
9	2.7	0.19	0.8	0.05	Calm	Calm : NNE	0.6	0.00	115	1, m, ho.-fr	f, ho.-fr		f, ho.-fr	10, m, ho.-fr	10, m
10	0.0	0.00	0.0	0.00	NNE	NNE	0.9	0.07	202	9, fq.-r, m.-r	7	9, s, cu.-s, oc.-m.-r	9, s, fq.-m.-r	10, s, oc.-m.-r	10, s
11	1.1	0.08	0.9	0.06	Calm : Var.	W : WSW	0.6	0.02	162	10	10	10, s	10, s.-cu		10
12	0.9	0.06	0.2	0.01	WSW	WSW	2.3	0.30	370	10		10, s, r	10, s, n		10
13	4.9	0.34	4.1	0.28	WSW : W	WSW : W	2.8	0.42	428	10		9, s, sc	10, s, sc		10
14	0.2	0.02	0.0	0.00	W : WSW	WSW : W	1.9	0.32	337	10	3	10, s, s.-cu	10, s, s.-cu, m.-r.-sh		10
15	4.5	0.31	3.2	0.22	WSW : Calm	WSW : Calm	0.6	0.02	134	10		10, th.-cl, v.-cl, ci, cu, slt.-m, p.-so.-ha	9, s.-cu, th.-cl, p.-so.-ha		10, sh, d
16	6.3	0.44	5.5	0.39	WSW : W	W : WNW : WSW	4.5	0.33	367	9	7	10, n, r	10, s, n, m.-r.-sh, w	9, w	10, r, m.-r
17	0.0	0.00	0.0	0.00	WSW : W : WNW	W : SSE	1.4	0.14	286	9, r	8	2, cu, s	9, n		10, r
18	7.7	0.54	6.6	0.46	S : W	W : WSW	1.3	0.13	245	10, r	10, r	7, ci, s	v.-cl, cu	9	10, r
19	4.2	0.30	3.8	0.26	WSW : W	W : WSW : SW	3.3	0.35	366	1	v.-cl,	7, ci, cu, s.-cu	1, cu.-s	2, slt.-shs	9, sh
20	14.3	1.00	13.9	0.98	S : SW : W	WNW : W	15.0	0.95	595	10, r	10, r, slt.-r, w	10, n, w, g	9, cu, g, w	0, w	1, d
21	2.0	0.14	2.0	0.14	W : WSW	S	11.6	0.69	529	0, ho.-fr	1, ho.-fr		10, s, n, oc.-r, w	10, oc.-r, r, w	10, r, w
22	10.5	0.74	9.6	0.67	S	S	11.5	0.56	517	10, r, w	v.-cl, r, w	3, ci.-cu, n, w	9, n, sq, r, w	1, w	1, s
23	12.6	0.89	12.1	0.85	S : SSW	SSW : SW	5.8	0.43	460	9, w	9, oc.-shs, w	3, cu, ci	9		0, d, ho.-fr
24	11.2	0.79	10.7	0.75	SW	SW : SSW	1.4	0.10	270	0, ho.-fr	0, ho.-fr, slt.-m		v.-cl, s, n	3, ho.-fr, m	0, slt.-m, ho.-fr
25	9.3	0.65	8.2	0.58	S	S : SSW	7.2	0.46	490	1	9, ho.-fr	10, s, n, slt.-r, w	10, n, r, oc.-m.-r	10, fq.-slt.-r, r, w	10
26	13.8	0.96	13.5	0.95	SSW	SW : SSW	1.8	0.19	371	1, ho.-fr	0, ho.-fr	p.-cl, s, ci	1, cu, d		1, slt.-ho.-fr
27	12.8	0.90	12.7	0.89	S	S : SW	3.9	0.34	445	1, slt.-ho.-fr	10, n, fq.-r, w		10, n, fq.-r, w	v.-cl, r, w	1
28	0.5	0.04	0.0	0.00	SW	SSW : SSE : SE	1.4	0.17	349	1, ho.-fr	4	1, s.-cu, cu	1, cu	9, th.-cl, r	10, fq.-m.-r
29	3.9	0.27	3.7	0.26	SSW	SSW : S	4.3	0.30	444	9, w	9, w	v.-cl, s.-cu, ci, cu	10, n, s, oc.-r	10, th.-cl	10, oc.-r, w
30	1.0	0.07	0.7	0.05	SSW	SSW : SSE	12.5	0.55	479	10, r, w	4, w	v.-cl, oc.-shs, w	v.-cl, ci.-cu, cu.-s, n, w, sh	10, r, m.-r	10, sh
31	5.3	0.37	3.2	0.23	Calm : NW	NW	1.1	0.09	230	10, r, slt.-r	10, r		10, r		10
Means	..	..	..	..	..	..	..	0.27	338						
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°.9, being 2°.4 higher than the mean *Temperature of the Dew Point* for the month was 38°.3, being 1°.6 higher than the mean *Degree of Humidity* for the month was 83.9, being 4.7 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0<sup>m</sup>.231, being 0<sup>m</sup>.013 greater than the mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2.7878, being 0.1878 greater than the mean *Weight of a Cubic Foot of Air* for the month was 5.17 grains, being 5 grains less than the mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.178. The maximum daily amount of *Sunshine* was 5.5 hours on December 28.

The highest reading of the *Solar Radiation Thermometer* was 63°.3 on December 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°.2 on December 9.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 2, S. 9, W. 12. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 15.0 lbs. on the square foot on December 20. The mean daily *Horizontal Movement of the Air* for the month was 338 miles; the greatest daily value was 595 miles on December 20; and the least daily value was 115 miles on December 9.

*Rain* (0<sup>m</sup>.005 or over) fell on 17 days in the month, amounting to 2<sup>m</sup>.919, as measured by gauge No. 6 partly sunk below the ground; being 1<sup>m</sup>.092 greater than the average fall for the 65 years, 1841-1905.

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

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.		MAXIMA.		MINIMA.	
Greenwich Civil Time, 1922.	Reading.										
January. d. h. m.	in.	January. d. h. m.	in.	April. d. h. m.	in.	April. d. h. m.	in.	September. d. h. m.	in.	September. d. h. m.	in.
3. 0. 45	29.780	2. 12. 20	29.623	18. 7. 0	30.269	24. 5. 0	29.387	8. 9. 0	30.212	13. 2. 0	28.853
5. 10. 30	29.806	3. 19. 35	29.638	25. 8. 0	29.582	26. 1. 45	28.968	16. 2. 15	29.979	17. 11. 20	29.637
7. 2. 0	29.749	6. 14. 0	29.660	29. 9. 0	29.717			18. 20. 0	30.167	20. 1. 55	29.797
11. 1. 45	30.252	8. 11. 0	29.472					21. 0. 20	30.132	22. 11. 40	29.929
12. 10. 40	30.130	11. 18. 25	29.954	May.		May.		22. 23. 10	30.015	27. 3. 20	29.334
14. 22. 40	29.906	14. 6. 0	29.792					30. 10. 0	30.101		
18. 5. 20	29.636	15. 23. 25	28.822	3. 6. 25	29.760	2. 2. 50	29.548	October.		October.	
20. 22. 45	29.641	19. 10. 40	29.350	4. 23. 45	29.768	3. 19. 15	29.629				
23. 9. 45	30.029	21. 13. 30	29.538	7. 9. 0	30.380	5. 8. 55	29.628				
26. 21. 0	29.677	25. 15. 5	29.344	14. 7. 15	30.037	12. 14. 0	29.664	7. 20. 45	30.138	5. 21. 0	29.621
28. 18. 5	29.328	28. 0. 35	29.164	20. 8. 45	30.186	17. 17. 5	29.509	13. 9. 45	30.089	11. 15. 0	29.808
		29. 21. 0	29.106	28. 10. 0	30.259	24. 17. 0	29.709	18. 22. 0	29.993	17. 5. 0	29.820
February.		February.		June.		June.		21. 22. 25	29.885	20. 16. 0	29.770
1. 21. 5	29.721	3. 8. 0	29.011	4. 7. 0	30.093	2. 16. 0	29.624	24. 21. 40	30.017	23. 4. 0	29.744
6. 11. 0	30.231	8. 4. 35	30.079	12. 4. 0	30.019	9. 17. 0	29.659	28. 18. 0	29.929	27. 6. 10	29.615
10. 23. 15	30.305	12. 17. 0	29.678	21. 7. 0	30.071	15. 4. 0	29.739	31. 18. 55	29.926	30. 7. 0	29.285
14. 10. 50	30.049	17. 13. 0	29.440	24. 6. 25	29.780	23. 5. 40	29.611	November.		November.	
17. 22. 0	29.533	18. 5. 40	29.349	27. 11. 35	29.624	26. 15. 15	29.395				
19. 5. 30	29.640	19. 20. 25	29.312	30. 10. 0	29.947	28. 19. 0	29.490	2. 10. 35	29.677	1. 16. 25	29.096
20. 11. 5	29.607	21. 8. 55	29.254	July.		July.		5. 8. 10	29.932	3. 22. 0	29.190
24. 21. 35	30.089	26. 17. 0	29.454	3. 1. 20	29.718	2. 3. 0	29.550	7. 23. 40	29.666	6. 15. 0	29.004
27. 11. 35	29.733	28. 4. 0	29.331	3. 22. 40	29.790	3. 12. 35	29.618	9. 18. 55	30.084	8. 15. 10	29.570
28. 17. 55	29.677	March.		7. 21. 5	29.910	6. 3. 0	28.869	16. 9. 0	30.625	10. 16. 55	29.700
		1. 3. 20	29.323	11. 22. 20	30.099	9. 6. 0	29.300	25. 10. 35	30.566	18. 15. 0	30.070
March.		1. 18. 0	29.260	17. 20. 35	29.836	15. 2. 0	29.387	27. 19. 50	30.264	26. 15. 0	29.940
1. 8. 35	29.432	4. 8. 45	29.760	19. 23. 45	29.982	18. 7. 25	29.672	30. 10. 5	30.164	29. 4. 15	29.937
2. 19. 10	30.047	6. 3. 0	29.489	25. 22. 55	30.002	9. 6. 0	29.479	December.		December.	
4. 22. 35	29.901	7. 6. 45	29.214	28. 12. 0	30.014	15. 2. 0	29.387				
6. 8. 50	29.583	8. 10. 15	28.454	August.		18. 7. 25	29.672	4. 21. 5	30.295	1. 13. 35	29.819
7. 19. 45	29.331	14. 15. 5	30.015	2. 11. 25	29.965	23. 16. 0	29.479	7. 5. 55	30.198	5. 21. 55	29.990
13. 2. 0	30.241	20. 6. 10	29.698	7. 23. 0	29.586	27. 4. 25	29.877	10. 23. 0	30.285	8. 1. 45	29.905
16. 10. 50	30.117	25. 16. 15	28.909	11. 9. 0	30.067	30. 17. 20	29.757	18. 11. 35	29.215	18. 3. 55	29.137
21. 22. 15	29.921	31. 2. 45	29.388	15. 23. 35	29.978	August.		19. 17. 45	29.205	19. 5. 35	29.098
29. 7. 25	29.912	April.		17. 20. 35	29.836	7. 5. 0	29.394	21. 10. 15	29.503	20. 9. 10	28.546
		1. 23. 0	29.728	19. 23. 45	29.982	8. 16. 0	29.459	22. 21. 40	29.192	22. 4. 50	29.083
April.		6. 17. 45	29.778	25. 22. 55	30.002	13. 5. 0	29.705	24. 22. 10	29.873	23. 4. 55	29.079
6. 17. 45	29.778	8. 3. 5	29.382	28. 12. 0	30.014	17. 8. 15	29.726	26. 22. 15	29.703	25. 21. 0	29.525
9. 18. 40	29.834	11. 5. 0	29.306	August.		23. 4. 0	29.479	28. 10. 45	29.496	27. 15. 40	29.283
12. 5. 55	29.425	12. 21. 20	29.087	2. 11. 25	29.965	24. 21. 0	29.511	December.		December.	
13. 17. 20	29.478	14. 23. 50	29.208	7. 23. 0	29.586	30. 19. 20	29.273				
				11. 9. 0	30.067			4. 21. 5	30.295	1. 13. 35	29.819
				15. 23. 35	29.978			7. 5. 55	30.198	5. 21. 55	29.990
				19. 11. 0	30.112			10. 23. 0	30.285	8. 1. 45	29.905
				24. 7. 0	29.790			18. 11. 35	29.215	18. 3. 55	29.137
				26. 9. 50	30.004			19. 17. 45	29.205	19. 5. 35	29.098
								21. 10. 15	29.503	20. 9. 10	28.546
								22. 21. 40	29.192	22. 4. 50	29.083
								24. 22. 10	29.873	23. 4. 55	29.079
								26. 22. 15	29.703	25. 21. 0	29.525
								28. 10. 45	29.496	27. 15. 40	29.283
										30. 0. 50	28.500

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 expressed in civil reckoning, commencing at midnight and counting from 0<sup>a</sup> to 24<sup>a</sup>.

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

HIGHEST and LOWEST READINGS of the BAROMETER in each Month for the YEAR 1922.

	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.....	30.252	30.305	30.241	30.269	30.259	30.093	30.099	30.112	30.212	30.138	30.625	30.295
Lowest.....	28.822	29.011	28.454	28.885	29.509	29.395	28.869	29.273	28.853	29.285	29.004	28.500
Range.....	1.430	1.294	1.787	1.384	0.750	0.698	1.230	0.839	1.359	0.853	1.621	1.795

The highest reading in the year was 30<sup>in</sup>.625. The lowest reading in the year was 28<sup>in</sup>.454. The range of reading in the year was 2<sup>in</sup>.171.

MONTHLY RESULTS OF METEOROLOGICAL ELEMENTS for the YEAR 1922.

MONTH, 1922.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								Mean Temperature of Evaporation.	Mean Temper- ature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above the Average of 65 Years.			
January .....	29.639	57.0	24.4	32.6	45.3	35.2	10.1	40.2	+ 1.6	38.4	35.8	84.6
February .....	29.732	59.6	25.9	33.7	47.7	35.5	12.2	41.3	+ 1.8	38.8	35.1	78.6
March.....	29.695	57.9	26.2	31.7	47.4	36.1	11.3	41.4	- 0.5	38.6	34.9	78.0
April.....	29.580	70.0	24.7	45.3	52.3	36.1	16.2	43.4	- 3.8	40.0	35.9	75.7
May.....	29.940	90.6	35.5	55.1	69.9	46.3	23.7	57.6	+ 4.5	51.7	46.4	67.3
June.....	29.821	82.8	43.9	38.9	70.9	49.7	21.2	59.4	0.0	53.3	48.1	66.9
July.....	29.745	79.2	45.5	33.7	68.9	50.6	18.4	58.6	- 4.0	54.3	50.6	75.1
August.....	29.775	77.6	42.6	35.0	68.9	50.0	18.9	58.3	- 3.3	54.6	51.3	77.9
September.....	29.804	73.1	37.3	35.8	63.5	46.3	17.1	54.7	- 2.6	51.6	48.7	80.8
October.....	29.868	66.0	24.4	41.6	55.0	41.0	14.0	47.4	- 2.6	44.7	41.5	80.5
November.....	30.026	55.6	28.5	27.1	47.4	36.4	11.0	42.5	- 1.0	40.5	38.1	85.0
December.....	29.673	50.8	24.4	26.4	46.9	38.8	8.1	43.0	+ 3.1	40.9	38.3	83.9
Means.....	29.775	Highest 90.6	Lowest 24.4	Annual Range 66.2	57.0	41.8	15.2	49.0	- 0.6	45.6	42.1	77.9

MONTH, 1922.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Tempera- ture at Noon 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 or over).	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	From Osler's Anemometer.								Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.	From Robin- son's Anemo- meter.  Mean Daily Horizontal Movement of the Air.
								Number of Hours of Prevalence of each Wind referred to different Points of Azimuth.										
								N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
January .....	0.210	2.5	549	44.9	7.4	22	2.372	69	6	84	63	147	99	121	69	86	0.33	347
February .....	0.204	2.4	550	42.9	6.6	15	1.785	0	27	103	14	124	262	101	12	29	0.32	343
March.....	0.203	2.4	549	44.2	7.6	14	1.303	124	143	130	12	43	133	70	39	50	0.40	364
April.....	0.211	2.5	545	44.0	7.6	16	2.742	132	84	71	46	55	101	75	54	102	0.26	306
May.....	0.316	3.5	536	48.6	5.2	10	1.096	31	46	39	58	20	147	208	34	161	0.17	241
June.....	0.336	3.8	531	54.7	6.6	11	1.388	109	71	52	56	4	81	190	62	95	0.23	286
July.....	0.369	4.1	531	55.8	8.1	21	3.210	45	19	7	12	25	214	248	74	100	0.29	282
August.....	0.378	4.3	532	56.9	7.8	18	2.324	40	30	30	26	12	78	258	102	168	0.15	233
September...	0.344	3.9	536	56.2	7.3	14	1.698	47	141	54	36	46	27	156	63	150	0.19	249
October.....	0.262	3.1	545	53.2	6.2	12	1.040	11	161	212	125	28	23	75	14	95	0.21	279
November...	0.230	2.7	554	47.7	7.9	8	1.313	97	90	12	3	10	54	148	108	198	0.14	236
December...	0.231	2.7	547	45.5	7.5	17	2.919	73	46	4	13	136	170	154	73	75	0.27	338
Sums.....	..	..	..	..	..	178	23.190	778	864	798	464	650	1389	1804	704	1309	..	..
Means.....	0.275	3.2	542	49.5	7.2	..	..	..	..	..	..	..	..	..	..	..	0.25	292

The greatest recorded pressure of the wind on the square foot in the year was 16.1 lbs., on April 15.  
 The greatest recorded daily horizontal movement of the air in the year was 731 miles, on April 15.  
 The least recorded daily horizontal movement of the air in the year was 50 miles, on November 21.

MONTHLY MEAN READINGS of the BAROMETER at every HOUR of the DAY, as deduced from the PHOTOGRAPHIC RECORDS.

Hour, Greenwich Civil Time.	1922.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	in. 29.658	in. 29.736	in. 29.715	in. 29.575	in. 29.949	in. 29.832	in. 29.758	in. 29.785	in. 29.797	in. 29.873	in. 30.038	in. 29.678	in. 29.783	
1 <sup>h</sup>	29.654	29.734	29.711	29.571	29.946	29.829	29.752	29.781	29.794	29.869	30.034	29.670	29.779	
2	29.653	29.730	29.700	29.566	29.943	29.826	29.743	29.776	29.791	29.865	30.031	29.671	29.775	
3	29.651	29.722	29.691	29.563	29.942	29.824	29.737	29.772	29.788	29.860	30.027	29.665	29.770	
4	29.646	29.715	29.684	29.563	29.941	29.822	29.737	29.769	29.787	29.858	30.023	29.662	29.767	
5	29.643	29.715	29.683	29.568	29.943	29.825	29.738	29.772	29.792	29.859	30.023	29.660	29.768	
6	29.642	29.719	29.680	29.578	29.948	29.828	29.741	29.777	29.797	29.861	30.021	29.661	29.771	
7	29.646	29.726	29.684	29.588	29.951	29.832	29.744	29.782	29.803	29.867	30.025	29.664	29.776	
8	29.647	29.734	29.687	29.593	29.952	29.833	29.747	29.786	29.810	29.877	30.030	29.669	29.780	
9	29.651	29.743	29.687	29.596	29.951	29.832	29.746	29.788	29.815	29.881	30.032	29.678	29.783	
10	29.651	29.746	29.689	29.598	29.949	29.830	29.743	29.787	29.817	29.882	30.032	29.686	29.784	
11	29.649	29.749	29.690	29.595	29.946	29.828	29.742	29.783	29.816	29.877	30.028	29.690	29.783	
Noon	29.638	29.744	29.692	29.589	29.941	29.823	29.743	29.778	29.811	29.871	30.017	29.683	29.778	
1 <sup>h</sup>	29.628	29.736	29.690	29.584	29.935	29.819	29.743	29.775	29.806	29.864	30.010	29.677	29.772	
14	29.624	29.729	29.686	29.578	29.929	29.813	29.743	29.770	29.803	29.857	30.004	29.672	29.767	
15	29.624	29.724	29.684	29.572	29.922	29.807	29.742	29.768	29.798	29.856	30.003	29.672	29.764	
16	29.621	29.721	29.684	29.572	29.921	29.803	29.740	29.764	29.796	29.855	30.006	29.674	29.763	
17	29.626	29.724	29.687	29.570	29.917	29.797	29.739	29.761	29.797	29.859	30.016	29.678	29.764	
18	29.626	29.731	29.696	29.577	29.920	29.799	29.739	29.760	29.800	29.867	30.023	29.679	29.768	
19	29.628	28.735	29.702	29.582	29.927	29.804	29.744	29.762	29.807	29.871	30.033	29.678	29.773	
20	29.629	29.738	29.707	29.587	29.936	29.813	29.749	29.769	29.815	29.873	30.038	29.676	29.777	
21	29.630	29.741	29.712	29.586	29.949	29.825	29.757	29.774	29.817	29.878	30.044	29.670	29.782	
22	29.629	29.741	29.716	29.585	29.954	29.831	29.759	29.776	29.816	29.878	30.043	29.666	29.783	
23	29.631	29.737	29.717	29.584	29.957	29.833	29.758	29.777	29.814	29.875	30.044	29.662	29.782	
24	29.630	29.738	29.715	29.582	29.957	29.832	29.756	29.775	29.810	29.871	30.042	29.657	29.780	
Means	0 <sup>h</sup> .-23 <sup>h</sup> .	29.639	29.732	29.695	29.580	29.940	29.821	29.745	29.775	29.804	29.868	30.026	29.673	29.775
	1 <sup>h</sup> .-24 <sup>h</sup> .	29.638	29.732	29.695	29.580	29.941	29.821	29.745	29.775	29.804	29.868	30.026	29.672	29.775
Number 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.

Hour, Greenwich Civil Time.	1922.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	39.4	39.6	39.5	40.0	50.3	53.9	54.6	54.5	51.1	44.8	40.2	42.6	45.9	
1 <sup>h</sup>	39.2	39.1	39.5	39.6	49.5	53.0	53.9	53.8	50.6	44.4	40.0	42.5	45.4	
2	38.7	38.8	39.3	39.3	48.5	52.4	53.1	53.3	50.2	44.1	39.8	42.4	45.0	
3	38.6	38.8	39.2	38.8	47.7	51.5	52.7	52.5	49.9	43.8	39.8	42.3	44.6	
4	38.4	38.5	39.1	38.4	47.1	51.1	52.3	51.8	49.6	43.4	39.6	42.1	44.3	
5	38.5	38.6	38.9	38.3	47.7	51.6	52.5	51.6	49.4	43.6	39.9	41.9	44.4	
6	38.7	38.8	38.7	38.6	50.4	54.0	54.1	52.7	49.7	43.6	40.1	41.8	45.1	
7	38.9	38.7	39.0	39.9	54.1	56.8	56.3	55.0	51.3	44.1	40.7	41.8	46.4	
8	38.9	39.0	39.9	41.9	57.5	59.7	58.5	57.8	53.5	45.8	41.1	42.0	48.0	
9	39.3	40.4	41.5	44.2	60.3	61.8	60.5	59.8	55.9	48.3	42.5	42.2	49.7	
10	40.1	41.8	42.7	46.0	62.3	63.5	61.9	61.3	57.8	50.2	44.0	43.1	51.2	
11	41.3	43.4	44.0	47.4	64.0	64.7	63.0	63.0	59.1	52.1	45.1	44.2	52.6	
Noon	42.4	44.7	44.6	48.8	65.7	65.9	63.8	64.2	59.6	53.0	45.8	44.8	53.6	
1 <sup>h</sup>	43.0	45.5	45.3	49.3	66.5	66.0	64.2	65.0	60.5	53.2	46.3	45.1	54.2	
14	43.1	45.7	45.6	49.8	67.2	66.5	64.7	65.1	60.7	53.1	46.3	45.0	54.4	
15	42.7	45.3	45.3	49.2	67.1	66.7	64.5	64.3	60.8	52.4	45.7	44.4	54.0	
16	42.1	44.6	44.5	48.2	66.9	66.3	63.8	63.7	59.9	51.3	45.0	43.8	53.3	
17	41.4	43.6	43.6	47.6	65.7	65.5	62.8	62.9	58.7	49.8	44.4	43.3	52.4	
18	40.8	42.5	42.2	45.8	64.1	64.1	61.9	61.4	56.9	48.1	43.7	43.0	51.2	
19	40.5	41.8	41.2	44.3	61.1	62.0	60.6	59.7	55.4	47.0	43.0	42.9	50.0	
20	40.2	41.3	40.4	43.0	57.9	59.5	58.9	58.2	54.2	46.2	42.5	42.8	48.8	
21	40.0	40.7	39.9	42.0	55.5	57.4	57.2	57.0	53.0	45.7	42.0	42.6	47.8	
22	39.7	40.4	39.5	41.3	53.7	55.9	55.9	56.2	52.3	45.3	41.3	42.7	47.0	
23	39.6	40.1	39.2	40.8	52.2	54.8	55.1	55.3	51.7	44.9	40.8	42.8	46.4	
24	39.4	40.0	39.0	40.3	50.8	53.8	54.5	54.5	51.3	44.3	40.4	42.4	45.9	
Means	0 <sup>h</sup> .-23 <sup>h</sup> .	40.2	41.3	41.4	43.4	57.6	59.4	58.6	58.3	54.7	47.4	42.5	43.0	49.0
	1 <sup>h</sup> .-24 <sup>h</sup> .	40.3	41.4	41.4	43.4	57.6	59.3	58.6	58.3	54.7	47.4	42.5	43.0	49.0
Number 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.

Hour, Greenwich Civil Time.	1922.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	37.9	37.8	37.7	38.1	47.6	50.7	52.2	53.1	49.8	43.1	38.7	40.6	43.9	
1 <sup>h</sup>	37.7	37.3	37.7	37.8	47.1	50.2	51.9	52.5	49.3	42.9	38.6	40.5	43.6	
2	37.7	37.1	37.6	37.6	46.8	49.7	51.6	51.9	49.1	42.6	38.4	40.5	43.4	
3	37.5	37.1	37.6	37.1	46.0	49.2	51.2	51.3	48.7	42.3	38.4	40.4	43.1	
4	37.3	36.9	37.4	36.7	45.6	48.9	50.9	50.7	48.4	42.0	38.4	40.0	42.8	
5	37.4	37.0	37.1	36.5	45.9	49.4	50.9	50.6	48.3	42.0	38.6	39.9	42.8	
6	37.5	37.2	37.1	36.7	47.7	51.0	52.1	51.4	48.5	42.2	38.8	40.0	43.4	
7	37.6	37.0	37.3	37.7	49.9	52.5	53.3	52.8	49.8	42.6	39.2	40.0	44.1	
8	37.4	37.3	37.8	39.1	51.9	54.0	54.5	54.4	51.2	43.9	39.6	40.3	45.1	
9	37.8	38.2	38.9	40.5	53.4	54.8	55.4	55.7	52.8	45.5	40.6	40.3	46.2	
10	38.3	39.1	39.6	41.7	54.3	55.3	55.9	56.4	53.8	46.6	41.7	41.0	47.0	
11	39.1	40.1	40.1	42.5	55.1	55.7	56.4	56.9	54.2	47.6	42.4	41.5	47.6	
Noon	39.9	40.8	40.4	43.1	56.1	56.0	56.8	57.4	54.2	47.8	43.0	41.9	48.1	
1 <sup>h</sup>	40.2	41.2	40.8	43.3	56.6	56.2	56.9	57.5	54.5	47.8	43.3	42.0	48.4	
14	40.2	41.4	40.8	43.7	56.8	56.6	57.2	57.6	54.8	47.7	43.2	42.1	48.5	
15	40.0	41.1	40.5	43.2	56.6	56.6	57.3	57.2	54.6	47.4	42.9	41.7	48.3	
16	39.6	40.9	40.0	42.7	56.7	56.4	57.1	57.0	54.3	47.0	42.4	41.3	47.9	
17	39.0	40.3	39.6	42.5	56.0	56.1	56.6	56.8	53.8	46.3	41.9	41.1	47.5	
18	38.8	39.8	38.8	41.6	55.0	55.7	56.3	56.2	53.1	45.3	41.5	40.9	46.9	
19	38.6	39.5	38.4	40.8	53.7	54.8	55.5	55.7	52.4	44.7	41.0	40.9	46.3	
20	38.5	39.1	38.1	40.1	52.3	53.7	54.4	55.0	51.7	44.1	40.7	40.9	45.7	
21	38.2	38.6	37.8	39.5	51.1	52.8	53.8	54.5	51.0	43.7	40.2	40.8	45.2	
22	38.2	38.4	37.4	39.2	50.3	52.1	53.0	54.1	50.6	43.5	39.5	40.9	44.8	
23	38.1	38.2	37.2	38.8	49.2	51.3	52.5	53.6	50.3	43.2	39.1	40.8	44.4	
24	38.1	38.1	37.1	38.4	48.2	50.5	52.2	53.1	50.0	42.6	38.8	40.5	44.0	
Means.	0 <sup>h</sup> .-23 <sup>h</sup> .	38.4	38.8	38.6	40.0	51.7	53.3	54.3	54.6	51.6	44.7	40.5	40.8	45.6
	1 <sup>h</sup> .-24 <sup>h</sup> .	38.4	38.8	38.5	40.0	51.8	53.3	54.3	54.6	51.7	44.6	40.5	40.8	45.6
Number 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 by GLAISHER'S TABLES from the corresponding AIR and EVAPORATION TEMPERATURES.

Hour, Greenwich Civil Time.	1922.												Yearly Means.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Midnight	36.0	35.5	35.4	35.6	44.8	47.6	49.9	51.7	48.5	41.1	36.8	38.2	41.8	
1 <sup>h</sup>	35.8	35.0	35.4	35.5	44.5	47.4	50.0	51.2	47.9	41.1	36.8	38.1	41.6	
2	36.4	34.8	35.4	35.4	45.0	47.0	50.1	50.5	47.9	40.8	36.6	38.2	41.5	
3	36.0	34.8	35.6	34.8	44.1	46.9	49.7	50.1	47.5	40.5	36.6	38.1	41.2	
4	35.8	34.7	35.3	34.4	44.0	46.6	49.5	49.6	47.1	40.3	36.8	37.4	41.0	
5	35.9	34.8	34.7	34.1	43.9	47.2	49.3	49.6	47.1	40.1	36.9	37.4	40.9	
6	35.9	35.0	34.9	34.1	44.9	48.1	50.1	50.1	47.3	40.5	37.1	37.7	41.3	
7	35.9	34.7	35.1	34.8	45.8	48.6	50.5	50.7	48.3	40.8	37.3	37.7	41.7	
8	35.4	35.1	35.1	35.6	46.8	48.9	50.9	51.4	48.9	41.7	37.7	38.2	42.1	
9	35.9	35.4	35.7	36.2	47.3	48.8	51.0	52.1	49.9	42.5	38.3	38.0	42.6	
10	36.0	35.8	35.8	36.8	47.4	48.4	50.8	52.2	50.2	42.8	39.0	38.5	42.8	
11	36.4	36.2	35.5	37.1	47.7	48.3	50.8	51.7	49.8	43.0	39.3	38.3	42.8	
Noon	36.8	36.3	35.5	36.9	48.3	48.0	51.0	51.8	49.4	42.6	39.8	38.5	42.9	
1 <sup>h</sup>	36.8	36.3	35.7	36.9	48.6	48.3	50.9	51.4	49.3	42.4	39.9	38.4	42.9	
14	36.7	36.5	35.4	37.2	48.5	48.6	51.0	51.5	49.7	42.3	39.7	38.7	43.0	
15	36.7	36.3	35.0	36.7	48.2	48.5	51.3	51.3	49.2	42.3	39.7	38.5	42.8	
16	36.5	36.6	34.7	36.7	48.5	48.4	51.5	51.4	49.3	42.5	39.4	38.4	42.8	
17	36.0	36.4	34.9	36.9	48.1	48.4	51.3	51.6	49.5	42.6	39.0	38.5	42.8	
18	36.3	36.5	34.6	36.8	47.4	48.8	51.5	51.7	49.6	42.2	38.9	38.4	42.7	
19	36.2	36.6	34.9	36.7	47.3	48.6	51.1	52.2	49.5	42.1	38.6	38.6	42.7	
20	36.3	36.4	35.1	36.6	47.2	48.6	50.4	52.1	49.3	41.7	38.6	38.7	42.6	
21	35.9	35.9	35.1	36.4	46.9	48.6	50.7	52.2	49.0	41.4	38.0	38.7	42.4	
22	36.2	35.8	34.7	36.6	47.0	48.5	50.3	52.1	48.9	41.4	37.2	38.8	42.3	
23	36.1	35.7	34.6	36.3	46.1	47.9	50.0	51.8	48.9	41.3	37.0	38.5	42.0	
24	36.4	35.6	34.6	36.0	45.5	47.3	49.9	51.7	48.7	40.6	36.8	38.2	41.8	
Means.	0 <sup>h</sup> .-23 <sup>h</sup> .	36.2	35.7	35.2	36.0	46.6	48.1	50.6	51.3	48.8	41.7	38.1	38.3	42.2
	1 <sup>h</sup> .-24 <sup>h</sup> .	36.2	35.7	35.1	36.1	46.6	48.1	50.6	51.3	48.8	41.6	38.1	38.3	42.2



READINGS of THERMOMETERS on the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE in the YEAR 1922.  
(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.				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		Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
JANUARY.										MARCH.											
d	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	
1	53.5	38.7	47.7	51.0	53.0	53.1	45.5	47.8	49.7	50.2	1	53.4	43.6	47.2	50.6	40.5	44.4	44.3	47.7	45.7	43.0
2	57.0	44.1	55.0	56.6	54.7	45.0	52.0	52.1	49.8	38.8	2	49.8	39.4	43.9	49.0	48.0	42.0	41.2	42.8	41.0	37.8
3	45.0	35.2	39.4	40.1	39.8	35.6	36.5	37.4	36.0	33.0	3	57.9	40.5	52.5	55.8	55.2	53.1	51.1	53.2	53.3	51.6
4	35.8	32.1	32.7	35.2	35.5	33.0	31.7	30.0	31.2	31.8	4	54.4	43.7	51.9	51.7	46.6	43.7	50.1	48.5	45.5	41.4
5	37.0	31.9	32.7	36.6	36.3	33.8	30.1	32.3	32.3	30.4	5	54.8	42.3	49.4	51.3	53.6	53.5	46.9	49.1	49.9	50.4
6	39.6	33.8	36.1	38.8	39.0	35.1	33.8	36.0	36.1	34.0	6	54.7	46.4	48.5	52.6	51.6	49.6	45.9	47.7	48.6	47.6
7	44.9	33.2	36.5	38.6	41.9	44.9	33.5	37.6	40.9	44.1	7	50.0	39.8	44.8	48.1	41.7	39.8	39.9	42.6	40.1	37.9
8	54.9	38.5	48.8	54.0	50.6	47.2	48.0	50.1	45.7	44.7	8	47.0	39.2	43.8	39.8	46.3	41.5	42.0	38.3	40.9	39.2
9	55.7	46.2	54.5	54.7	55.2	53.8	52.1	52.0	52.2	50.6	9	52.4	37.7	43.8	48.8	51.5	38.1	40.0	41.9	42.1	37.2
10	54.4	42.4	49.1	48.9	49.0	42.6	47.2	44.6	43.8	40.2	10	45.3	33.5	40.2	44.4	43.7	37.5	36.6	38.1	36.7	34.9
11	46.7	36.8	38.7	44.6	44.5	38.1	36.5	40.4	40.7	34.9	11	49.0	29.5	36.9	44.8	48.7	38.5	34.0	38.0	41.4	36.7
12	42.3	34.2	37.6	41.1	42.0	36.6	34.7	37.2	38.7	34.9	12	54.0	32.2	42.9	52.0	52.5	41.9	40.7	45.5	45.9	40.2
13	36.6	27.9	28.6	30.4	35.5	34.2	28.6	30.1	33.7	31.6	13	43.7	39.1	42.1	41.7	42.4	39.4	41.2	39.5	39.5	37.2
14	40.6	31.9	33.4	39.3	37.7	34.5	31.2	36.4	34.8	32.9	14	51.7	39.2	42.5	49.6	49.2	43.6	40.4	44.0	44.3	42.4
15	34.5	27.4	30.5	33.3	34.1	33.2	29.2	31.8	32.2	32.1	15	44.3	40.7	41.3	43.0	44.3	41.6	38.8	41.0	41.7	39.9
16	41.9	33.0	36.7	40.3	39.1	34.0	34.8	37.3	35.8	31.5	16	46.0	38.0	42.1	44.0	45.4	41.8	40.0	41.5	42.0	40.1
17	37.1	32.2	34.3	35.5	37.1	32.3	32.7	33.1	33.1	31.6	17	43.8	37.9	39.8	40.6	42.9	40.0	39.3	38.6	40.1	38.7
18	41.5	25.2	30.6	39.7	41.1	41.1	29.8	36.7	37.9	40.6	18	49.1	38.7	42.5	44.9	48.7	40.5	40.4	41.9	43.7	39.4
19	46.9	40.9	44.6	46.0	45.7	41.7	43.9	44.5	44.7	41.0	19	44.2	38.7	42.0	43.9	42.6	38.7	39.0	40.3	39.2	36.4
20	46.9	36.8	37.5	41.7	45.6	37.8	37.0	40.8	41.9	36.9	20	40.9	33.4	39.3	39.5	39.9	33.4	37.3	35.4	35.1	31.4
21	47.6	37.0	41.9	43.1	45.3	47.6	40.0	41.7	44.2	46.9	21	41.5	30.4	33.0	39.8	37.8	31.6	31.8	34.4	33.2	29.7
22	47.6	33.2	34.2	37.5	41.8	35.3	33.7	37.0	40.6	34.7	22	40.0	31.1	35.4	36.0	38.3	32.4	33.4	31.1	31.5	29.0
23	39.7	34.0	38.3	36.3	34.7	34.8	37.1	34.8	33.6	31.8	23	45.3	29.7	37.1	42.3	43.8	36.0	32.7	34.4	35.1	30.5
24	34.8	24.4	27.6	26.7	24.6	27.2	25.5	25.0	23.5	25.1	24	45.5	32.5	36.5	40.4	41.9	37.7	31.7	33.6	35.1	35.9
25	47.6	25.7	34.4	39.4	41.4	47.6	33.4	38.3	40.6	46.9	25	47.5	36.6	40.1	43.5	46.5	36.6	38.5	38.3	38.3	33.9
26	48.8	39.6	46.6	48.6	44.2	39.7	45.9	47.3	43.6	39.4	26	47.6	26.2	35.1	42.1	44.4	38.6	32.3	38.4	40.0	37.3
27	43.0	38.5	39.8	41.6	42.8	42.0	39.5	41.2	42.1	41.0	27	45.0	34.8	39.8	42.3	43.5	35.5	37.2	27.9	39.7	34.4
28	52.1	41.5	44.2	49.8	49.8	44.6	42.8	46.8	46.6	43.5	28	46.9	33.5	36.8	41.7	44.1	37.9	35.6	40.7	40.0	35.8
29	50.1	40.8	42.7	47.8	47.8	43.0	41.4	45.7	45.1	42.4	29	43.5	34.2	39.5	40.7	40.5	37.8	36.2	35.6	35.3	34.8
30	49.6	39.2	41.7	48.4	47.2	46.1	40.7	45.3	45.0	44.9	30	40.2	34.4	37.8	39.5	40.1	35.7	34.4	35.9	36.8	35.2
31	50.1	38.9	42.6	48.0	46.7	43.3	42.2	46.2	45.4	42.7	31	40.3	32.6	36.9	39.7	38.4	34.6	33.7	35.1	33.3	31.0
Means	45.3	35.3	39.3	42.4	42.7	40.0	37.8	39.9	40.0	38.2	Means	47.4	36.4	41.5	44.6	45.3	39.9	38.9	40.4	40.5	37.8
FEBRUARY.										APRIL.											
d	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°
1	47.1	37.0	40.0	46.2	45.5	37.6	39.3	41.6	40.6	36.1	1	43.2	33.5	38.3	40.3	40.2	37.6	34.1	36.2	35.6	33.2
2	52.4	35.4	43.6	46.8	51.1	49.7	42.8	46.0	50.2	47.9	2	50.0	24.7	41.7	44.9	44.6	34.8	33.8	38.2	38.3	31.8
3	51.9	47.4	49.0	48.9	50.8	47.9	46.6	47.0	46.3	45.4	3	38.0	32.7	34.8	33.4	33.6	34.4	34.2	32.8	33.3	33.6
4	47.9	31.4	34.5	32.6	32.6	31.6	33.8	32.2	31.4	30.2	4	45.2	34.0	37.3	42.8	44.8	37.2	35.1	37.9	38.4	34.6
5	32.3	27.6	29.9	31.5	31.5	27.9	27.3	29.0	29.3	24.8	5	51.0	31.2	42.6	46.7	48.8	40.9	38.8	40.6	41.5	36.7
6	36.0	27.3	30.1	33.6	34.1	29.1	29.3	29.9	30.6	28.2	6	49.3	37.0	38.1	45.6	47.8	37.2	36.4	39.7	40.0	34.3
7	40.0	26.0	31.9	36.3	35.8	29.8	30.2	31.6	31.9	28.2	7	43.9	34.2	41.0	42.8	40.2	39.6	38.2	39.9	38.8	38.7
8	41.8	26.2	32.8	41.7	40.8	33.7	29.6	35.0	33.7	30.0	8	44.0	37.8	40.2	41.9	42.6	37.8	39.1	39.8	40.0	37.1
9	42.3	27.9	33.5	40.6	41.5	35.7	30.0	35.5	35.0	33.2	9	48.0	33.9	38.7	45.2	45.2	37.4	37.3	42.0	40.8	36.3
10	43.9	31.6	33.6	40.2	43.9	33.8	31.4	35.0	36.8	32.6	10	50.7	30.9	41.8	48.4	47.9	40.4	39.5	43.4	43.0	38.1
11	43.1	29.6	32.3	40.8	42.5	31.7	30.8	36.1	35.9	30.3	11	53.6	34.3	46.4	51.9	52.7	44.7	41.8	43.3	44.6	41.9
12	35.8	27.0	30.3	34.8	35.1	34.2	28.4	31.6	31.7	32.6	12	53.6	37.8	49.7	50.3	52.1	51.2	46.6	48.8	49.9	49.7
13	46.7	33.9	39.6	44.5	43.4	36.1	37.3	39.7	38.0	34.2	13	57.5	43.7	48.3	56.4	54.1	46.0	43.6	48.6	48.1	45.7
14	41.0	25.9	31.2	35.2	41.1	37.5	29.8	32.6	35.3	33.2	14	70.0	46.0	59.7	64.7	69.1	59.2	53.8	57.2	57.8	51.7
15	45.3	35.0	41.4	42.4	43.7	44.8	37.8	39.0	42.5	44.0	15	59.5	43.4	53.2	55.6	56.6	47.6	47.1	48.9	48.2	44.1
16	53.6	42.1	44.8	50.4	51.4	50.8	44.0	47.8	49.7	49.6	16	52.1	41.2	44.9	46.7	46.7	42.0	40.9	42.1	42.8	40.9
17	52.0	42.7	50.2	50.6	48.4	42.8	49.1	49.4	45.8	39.2	17	48.0	37.1	41.9	46.3	46.9	38.3	38.5	40.8	41.6	35.7
18	45.9	37.4	39.2	44.1	44.4	38.4	36.8	38.9	38.1	34.8	18	49.0	35.4	41.2	45.5	47.8	40.6	39.0	41.2	41.9	39.3
19	50.1	33.7	37.7	40.9	46.0	49.3	35.6	39.9	45.0	46.9	19	58.8	39.7	48.2	57.1	55.0	43.6	43.5	46.7	45.8	39.7
20	49.4	36.8	38.6	45.5	44.7	39.8	35.3	39.7	38.8	38.1	20	58.0	31.1	42.4	53.2	57.9	40.0	39.4	45.2	47.1	38.0
21	50.5	33.3	45.4	47.3	48.0	33.4	43.2	43.8	42.7	32.8	21	55.9	33.2	42.4	51.7	53.1	43.6	39.6	44.3	45.1	39.9
22	51.6	33.1	40.9	48.3	49.8	45.7	38.6	43.3	43.2	44.8	22	46.0	37.2	44.3	45.7	42.6	40.6	42.3	43.4	41.0	39.6
23	59.6	45.3	52.5	56.6	56.7	52.4	50.2	52.1	52.9	51.1	23	57.7	37.2	49.2	52.6	53.1	47.4	44.9	46.4	46.3	43.4
24	56.8	50.2	53.2	55.9	53.8	50.2	50.9	52.2	50.7	47.0	24	55.0	43.3	46.1	51.1	53.4	43.6	40.9	45.1	43.8	39.4
25	59.6	43.0	51.6	58.4	58.8	51.4	48.7	51.9	51.8	47.2	25	56.9	39.7	47.6	50.8	49.8	41.3	41.1	42.8	42.8	40.6
26	53.5																				

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 21<sup>h</sup>)

Days of the Month.	Dry Bulb Thermometers, 4 ft. above the Ground.					Wet Bulb Thermometers, 4 ft. above the Ground.				Days of the Month.	Dry Bulb Thermometers, 4 ft. above the Ground.					Wet Bulb Thermometers, 4 ft. above the Ground.					
	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>		21 <sup>h</sup>	Maxi- mum.	Mini- mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>
MAY.										JULY.											
d	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	
1	52.6	37.5	47.3	50.2	51.4	42.5	44.2	44.5	46.1	40.8	1	66.0	52.2	59.6	61.5	60.9	58.4	51.8	53.6	53.7	53.1
2	55.0	39.7	44.7	52.7	47.3	44.0	42.2	46.5	44.7	40.6	2	68.6	54.2	62.7	64.3	65.6	56.6	54.7	56.6	56.1	52.8
3	55.5	38.4	50.5	51.4	50.6	52.1	47.3	48.7	48.2	51.4	3	69.9	52.3	57.9	62.7	65.5	56.3	56.9	59.8	59.8	51.4
4	63.4	44.0	56.1	60.7	51.6	47.6	50.7	52.2	48.8	41.6	4	62.5	45.5	57.8	59.8	59.2	53.6	54.2	57.0	58.1	51.7
5	59.3	43.3	49.9	49.6	58.5	49.4	46.1	45.5	49.2	43.9	5	64.2	49.5	60.7	59.6	54.7	61.6	54.3	54.2	53.4	60.5
6	66.2	39.7	55.1	63.5	65.7	50.5	49.1	54.3	56.7	48.0	6	64.0	52.4	59.0	56.0	58.2	52.7	56.0	51.7	52.6	49.9
7	73.8	40.1	62.4	71.6	73.5	54.7	52.5	58.8	58.4	48.4	7	66.4	48.2	61.0	57.1	63.7	51.9	53.4	52.2	55.3	51.5
8	81.2	44.2	67.8	77.2	79.9	65.4	56.7	61.0	62.5	55.2	8	69.1	50.0	60.6	65.0	66.1	54.7	56.7	56.6	57.2	49.9
9	71.5	50.7	64.7	69.2	67.4	51.9	57.4	59.3	58.9	49.8	9	61.0	51.2	53.5	58.5	57.6	55.6	51.7	54.7	52.8	50.8
10	55.9	44.6	48.6	52.9	51.9	44.6	45.1	47.7	47.1	41.7	10	72.9	47.3	61.4	65.1	65.6	65.7	54.8	54.8	55.1	53.4
11	50.3	41.3	48.5	50.0	48.5	43.4	44.1	44.2	43.1	40.9	11	71.4	46.8	62.3	65.4	67.6	56.3	56.6	57.4	55.2	50.9
12	54.5	40.5	46.6	52.8	50.5	41.3	41.7	44.7	43.0	38.0	12	76.1	45.7	68.6	73.4	72.4	60.7	57.3	59.3	59.2	54.3
13	57.5	35.5	45.5	51.6	55.2	42.7	39.3	42.9	44.7	38.8	13	65.9	52.3	60.8	60.1	63.9	57.0	56.1	55.3	58.0	54.9
14	65.3	37.2	57.6	59.7	60.7	49.4	48.2	49.9	50.8	45.5	14	64.3	53.3	57.3	60.7	59.6	55.6	56.3	58.9	58.7	54.2
15	69.3	40.0	56.6	64.6	68.1	53.8	49.4	54.2	55.2	48.3	15	67.3	48.8	54.9	63.5	63.6	53.9	51.2	54.4	53.8	50.7
16	69.1	43.0	58.5	65.6	67.4	50.5	50.7	54.7	56.0	46.8	16	60.3	46.1	57.9	58.3	55.5	54.2	52.1	50.7	51.0	50.1
17	62.8	47.4	51.4	53.5	56.8	53.2	50.5	52.1	55.2	50.8	17	68.0	52.8	58.6	61.6	65.3	55.1	53.5	55.2	56.8	50.2
18	64.6	48.3	58.6	58.6	62.8	53.4	52.9	52.0	54.4	50.4	18	62.5	50.2	51.2	53.6	56.5	55.6	49.9	50.7	53.6	51.2
19	71.9	49.4	55.7	60.4	70.5	57.4	53.8	57.1	59.9	52.8	19	72.3	48.0	62.0	64.5	69.8	61.1	55.2	55.6	58.7	55.8
20	77.2	50.5	63.7	71.7	73.1	58.7	57.2	62.7	62.5	56.4	20	74.4	49.0	62.6	70.1	70.6	60.5	55.6	59.9	61.7	56.5
21	85.6	51.5	74.8	81.2	84.2	68.2	65.8	68.2	66.9	63.1	21	79.2	54.8	64.7	74.5	75.6	64.1	59.9	64.8	64.1	59.8
22	90.2	58.7	81.6	87.7	87.7	73.2	70.0	70.0	69.1	67.4	22	71.1	56.2	62.8	66.2	64.6	57.6	59.5	62.0	59.8	56.0
23	88.6	58.3	78.8	82.6	87.2	70.6	66.6	68.8	68.0	63.4	23	70.7	55.6	58.8	68.8	62.6	59.6	56.8	62.2	58.8	56.8
24	90.6	58.9	74.1	84.5	89.8	66.9	66.3	71.1	72.3	63.3	24	61.3	49.6	51.6	56.4	58.1	49.6	50.3	52.2	52.0	48.0
25	76.7	57.9	69.7	73.8	69.5	62.6	65.9	64.7	64.4	61.7	25	72.1	47.7	62.1	64.9	71.6	63.2	55.9	57.0	60.5	53.4
26	73.7	54.1	56.5	68.5	72.6	64.5	54.8	60.9	62.3	59.9	26	72.6	51.9	62.6	68.6	66.7	56.6	57.8	59.7	58.4	55.8
27	73.3	51.7	63.1	69.8	70.7	61.9	54.0	57.8	57.7	51.5	27	71.9	56.4	62.8	66.8	67.6	59.4	58.5	58.2	57.9	56.9
28	72.7	46.3	64.6	68.5	69.8	55.2	52.9	55.2	58.0	50.1	28	73.1	52.5	63.0	67.5	69.6	55.9	53.6	55.6	57.8	52.7
29	78.9	45.3	70.6	75.5	77.1	60.3	57.5	60.3	60.9	54.3	29	77.0	48.7	66.6	71.3	71.8	64.5	59.0	62.5	64.3	62.4
30	79.0	48.7	71.8	78.4	78.5	66.4	60.7	64.3	64.7	60.4	30	68.8	60.4	66.6	63.3	65.4	60.6	63.4	61.6	61.9	58.9
31	81.9	54.1	74.2	78.6	80.1	64.5	62.7	65.9	65.0	58.1	31	72.0	48.8	62.9	67.8	64.6	55.3	55.7	57.4	58.8	52.8
Means	69.9	46.5	60.3	65.7	67.1	55.5	53.4	56.1	56.6	51.1	Means	68.9	50.9	60.5	63.8	64.5	57.2	55.4	56.8	57.3	53.8
JUNE.										AUGUST.											
d	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°	°
1	82.8	52.7	76.8	82.3	80.8	61.2	63.5	62.8	64.2	54.2	1	69.3	47.9	61.8	67.2	59.3	56.0	56.0	57.4	54.4	53.0
2	81.6	53.2	69.3	79.3	77.4	67.6	62.8	66.5	66.9	63.5	2	71.2	46.1	60.8	62.6	67.9	56.4	54.4	54.7	56.1	52.1
3	71.0	56.8	58.6	68.6	68.7	57.8	51.4	57.3	56.8	50.5	3	73.2	49.7	62.3	67.6	66.8	56.6	56.6	58.0	57.0	55.4
4	72.1	46.3	62.1	68.0	68.7	55.8	53.5	55.3	55.7	50.5	4	66.0	52.8	57.1	59.9	63.4	57.4	55.8	57.3	59.2	57.0
5	76.4	43.9	65.1	72.0	74.5	59.6	55.9	58.2	58.9	53.7	5	70.3	5.21	59.9	65.0	67.6	58.2	57.9	60.0	60.4	55.9
6	74.2	48.2	67.8	72.4	71.6	58.0	57.8	59.0	58.0	52.8	6	64.0	54.7	63.0	61.8	60.1	58.1	59.1	58.1	58.3	57.5
7	74.2	46.5	68.0	72.2	71.1	55.6	59.1	56.8	54.0	52.4	7	68.0	55.6	56.3	60.4	63.1	57.8	54.9	56.8	57.2	55.6
8	68.0	49.2	65.9	61.9	60.7	57.5	58.4	54.5	52.9	54.3	8	70.5	52.4	63.6	67.2	68.4	57.3	60.8	61.5	59.6	55.2
9	78.6	54.1	61.7	70.7	75.8	62.2	57.4	59.8	62.4	56.8	9	70.0	51.4	57.6	64.3	61.2	55.9	54.0	57.5	55.9	53.3
10	76.0	52.1	62.1	68.8	73.7	63.6	54.2	58.1	60.2	57.2	10	63.8	51.4	53.9	58.5	61.1	53.7	50.7	53.0	53.6	50.4
11	72.2	53.1	63.8	69.2	71.3	54.6	53.1	53.6	55.1	51.6	11	66.3	43.8	52.2	60.9	54.2	52.7	50.8	56.3	53.6	51.8
12	78.8	46.7	64.7	73.4	76.5	58.7	54.5	56.6	57.7	55.3	12	65.0	47.3	59.7	61.9	59.2	56.1	55.6	56.2	56.4	54.7
13	76.0	49.1	68.5	65.7	53.9	49.4	59.5	57.9	51.7	47.9	13	68.8	55.8	59.9	63.7	64.6	57.0	57.3	58.4	56.0	53.6
14	52.5	47.1	50.7	49.7	49.3	50.8	47.2	47.1	47.7	46.9	14	69.7	46.4	57.6	66.1	64.4	57.7	54.2	56.2	55.7	54.8
15	56.6	46.9	49.6	52.8	55.0	53.8	49.0	51.0	52.4	49.7	15	68.9	48.1	59.0	63.4	65.2	54.6	51.3	53.0	54.0	51.5
16	73.0	45.6	60.0	68.5	70.2	57.0	52.3	56.7	58.4	53.8	16	70.2	47.5	60.5	68.2	68.6	56.6	55.2	58.9	59.6	54.3
17	64.0	51.9	58.5	58.5	60.2	53.6	50.2	49.0	50.1	46.1	17	67.1	54.9	60.0	64.7	62.8	56.3	57.8	57.9	54.2	51.5
18	69.2	50.5	55.5	58.1	63.2	60.2	48.6	49.8	53.9	53.5	18	69.8	51.2	60.7	64.7	64.6	58.3	54.6	55.2	55.9	56.0
19	80.2	56.9	67.1	73.5	79.3	65.3	61.8	64.3	67.1	58.4	19	71.9	46.4	63.4	66.6	66.8	61.9	56.9	58.9	60.0	59.9
20	73.8	53.2	57.4	65.8	70.5	60.3	53.9	57.8	59.8	56.0	20	72.7	54.1	62.1	69.1	71.6	57.8	58.4	61.8	63.3	55.9
21	75.0	54.7	62.5	69.4	71.2	59.7	54.9	56.2	57.5	50.2	21	77.6	48.1	65.1	71.1	71.6	61.4	60.4	62.6	63.6	58.0
22	71.0	45.8	64.5	66.7	61.6	56.2	56.1	56.7	54.8	54.1	22	70.8	53.2	66.2	63.1	66.6	60.6	60.2	58.1	58.3	55.8
23	70.2	52.2	60.7	61.7	66.0	57.6	55.6	53.8	56.0	52.3	23	64.7	54.1	58.1	60.2	60.8	54.4	50.6	50.2	50.1	48.8
24	65.8	50.9	61.0	62.8	59.2	52.6	53.6	54.7	54.0	52.0	24	66.9	45.4	56.1	63.5	56.6	59.0	51.2	55.0	53.8	58.4
25	64.0	49.8	57.8	59.4	58.8	53.6	51.3	51.2	49.1	47.8	25										

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 21<sup>h</sup>)

Days of the Month.	Dry Bulb Thermometers, 4 ft. above the Ground.						Wet Bulb Thermometers, 4 ft. above the Ground.				Days of the Month.	Dry Bulb Thermometers, 4 ft. above the Ground.						Wet Bulb Thermometers, 4 ft. above the Ground.												
	Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>		Maxi-mum.	Mini-mum.	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	Noon.	15 <sup>h</sup>	21 <sup>h</sup>									
SEPTEMBER.										NOVEMBER.																				
d	62.2	44.1	56.2	57.3	58.4	50.6	52.0	53.2	54.3	50.0	d	52.9	38.3	48.1	49.8	51.4	42.6	46.6	48.7	50.6	39.0									
1	62.9	43.3	51.9	60.5	54.9	52.7	50.9	55.3	52.8	51.5	2	45.9	33.6	38.0	45.0	43.0	38.4	34.8	39.1	37.8	35.8									
2	66.3	43.8	52.9	59.9	63.5	50.8	51.8	55.0	57.2	49.6	3	42.5	34.3	39.1	41.1	41.8	39.5	37.1	40.3	40.5	38.7									
3	58.6	48.3	55.7	56.8	58.1	58.2	53.6	54.6	55.2	55.8	4	44.6	36.3	38.1	42.7	43.8	37.2	35.5	35.5	39.0	34.9									
4	69.1	54.9	59.8	63.5	66.1	55.2	57.0	59.8	59.8	55.1	5	46.5	29.5	36.2	45.5	45.3	41.3	33.6	40.7	41.2	40.3									
5	68.2	52.1	63.6	66.1	67.4	55.7	58.6	58.8	57.7	50.9	6	55.6	41.1	51.1	54.2	53.5	47.3	50.0	50.3	49.9	44.5									
6	68.5	42.9	61.5	65.2	66.6	50.4	54.7	53.6	53.9	49.2	7	53.8	40.4	48.6	51.6	52.6	46.7	45.6	48.3	47.7	43.8									
7	66.0	49.1	55.6	61.4	61.5	55.7	52.5	54.4	54.8	51.3	8	49.9	41.2	45.4	48.3	48.7	42.6	43.9	46.9	46.6	41.6									
8	59.7	46.5	52.3	53.9	57.1	47.6	47.7	47.7	48.2	44.5	9	47.9	37.8	42.3	47.5	44.7	38.3	41.2	45.1	42.7	37.8									
9	58.6	43.2	52.5	57.1	55.1	51.6	48.7	50.9	51.8	50.8	10	51.2	35.5	49.3	48.2	48.1	51.2	47.0	46.8	47.4	50.8									
10	65.1	47.2	54.6	60.0	63.3	47.3	52.1	53.3	52.7	46.6	11	51.3	43.4	45.9	48.6	48.1	44.6	43.7	45.9	45.4	42.6									
11	64.8	39.0	55.9	58.5	60.3	52.6	53.1	52.9	53.4	50.0	12	44.9	33.2	35.6	40.4	41.6	42.6	35.5	39.3	39.8	42.0									
12	64.9	47.6	56.1	60.0	61.4	47.6	51.9	53.3	54.6	46.5	13	45.6	32.1	39.6	44.3	42.1	33.0	38.1	41.4	40.1	32.6									
13	63.6	43.6	51.5	56.1	61.3	52.8	49.7	52.8	54.8	52.0	14	37.7	28.5	36.3	36.1	37.4	36.4	36.0	35.9	37.2	36.0									
14	60.0	50.6	54.1	56.9	58.7	50.6	49.3	50.8	51.2	45.8	15	47.8	36.2	40.8	47.6	46.6	39.7	40.5	47.1	44.7	39.2									
15	61.0	37.7	53.6	57.0	58.5	57.5	48.4	50.9	52.8	55.8	16	41.4	32.2	38.1	36.4	36.1	41.4	37.8	36.1	36.0	40.8									
16	67.0	52.8	59.5	63.5	62.6	52.8	58.7	57.7	53.8	49.4	17	49.5	41.1	44.6	47.5	49.0	46.9	42.7	44.9	45.3	44.9									
17	60.6	45.5	52.2	55.1	58.0	50.4	45.6	46.1	48.7	45.8	18	51.2	45.3	49.8	51.0	50.0	45.6	47.6	48.1	46.1	43.0									
18	59.8	50.1	52.7	54.1	57.1	59.6	51.7	52.9	55.7	57.8	19	47.0	37.9	42.7	46.6	46.5	46.1	40.8	43.4	43.8	44.5									
19	70.9	57.6	63.8	66.4	70.2	58.1	58.8	58.7	59.9	54.6	20	47.9	39.5	43.3	46.6	47.6	46.2	40.5	43.4	44.8	44.8									
20	73.1	55.7	61.8	67.1	72.2	59.4	59.8	63.0	64.0	57.8	21	48.3	43.0	44.8	47.1	45.7	44.1	44.0	45.0	43.7	43.1									
21	65.7	53.9	61.5	63.5	65.2	56.2	59.4	60.7	60.4	53.8	22	45.9	42.3	43.5	45.4	45.6	43.2	42.5	42.9	42.8	40.9									
22	57.8	52.1	56.8	56.9	56.7	54.2	54.4	54.8	55.4	53.2	23	48.0	40.3	43.5	47.7	47.6	42.3	40.5	42.9	43.8	40.9									
23	57.6	47.9	52.4	55.2	57.1	47.9	51.8	52.2	52.4	47.0	24	48.9	37.3	44.7	47.9	46.8	37.6	43.0	45.0	43.2	34.6									
24	61.0	37.3	51.3	59.1	59.2	54.9	49.7	53.5	53.8	52.6	25	37.9	28.5	31.8	34.2	32.6	34.5	29.9	32.0	31.1	31.8									
25	62.3	53.8	59.7	61.3	59.4	55.0	58.0	57.7	56.8	54.0	26	48.0	31.1	37.6	45.8	46.8	36.6	35.8	42.7	44.5	34.7									
26	61.8	49.2	60.5	59.5	56.2	49.9	57.0	57.6	55.4	49.8	27	38.6	31.7	34.2	38.1	38.5	33.6	31.1	33.7	33.8	31.0									
27	66.8	48.3	59.2	64.5	65.0	57.4	57.4	59.9	59.4	54.8	28	53.7	30.6	45.9	49.7	52.9	49.6	43.5	47.9	49.6	45.6									
28	58.5	46.7	51.7	54.8	55.9	46.7	45.7	46.9	47.7	43.7	29	52.0	43.3	51.0	50.2	50.3	46.7	47.5	46.4	45.8	44.0									
29	60.3	38.3	46.3	56.8	58.2	51.6	43.8	47.9	50.5	50.1	30	48.0	43.0	44.0	47.9	47.2	44.9	42.5	44.0	43.4	41.6									
30											Means	47.5	37.0	42.5	45.8	45.7	42.0	40.6	43.0	42.9	40.2									
Means	63.4	47.4	55.9	59.6	60.8	53.0	52.8	54.2	54.6	51.0	OCTOBER.										DECEMBER.									
d	65.2	51.1	60.4	61.8	61.8	56.6	59.0	59.4	59.2	56.4	d	49.1	43.1	45.1	49.0	44.1	44.6	43.6	45.1	42.8	43.2									
1	60.5	44.8	47.6	58.0	58.6	51.2	47.6	53.2	55.2	50.4	2	47.4	44.2	44.8	46.4	47.0	46.6	43.1	44.3	44.4	45.7									
2	65.0	47.4	57.6	61.8	63.0	56.4	53.7	56.7	57.8	55.6	3	48.0	44.8	46.4	47.7	47.7	44.8	43.9	43.4	43.1	42.8									
3	65.9	55.4	59.2	63.1	60.3	57.3	56.2	58.6	58.8	57.0	4	48.3	42.7	44.7	48.0	48.2	47.3	42.8	44.7	44.0	42.9									
4	66.0	53.5	59.6	64.1	58.2	53.7	57.0	57.0	56.1	51.7	5	50.0	45.0	45.9	49.1	49.2	49.4	43.2	45.7	46.0	46.4									
5	55.9	47.2	54.2	53.6	54.0	47.4	52.8	51.5	49.3	44.8	6	50.0	42.2	43.4	46.9	45.9	42.7	39.6	42.0	41.7	39.5									
6	58.6	46.2	53.4	55.1	57.1	48.6	48.0	49.3	50.7	44.9	7	46.5	35.2	36.1	41.7	45.6	46.5	35.5	39.9	41.8	43.8									
7	55.7	42.9	49.7	54.6	54.1	49.7	46.6	49.5	49.6	48.0	8	47.2	38.5	41.7	42.9	42.5	38.5	40.7	41.0	39.8	36.9									
8	58.2	47.9	53.6	57.3	55.3	48.8	48.0	51.5	50.5	46.4	9	39.4	24.4	30.1	30.6	30.2	36.4	29.8	30.5	29.4	35.6									
9	52.9	43.3	46.8	50.8	49.3	45.6	45.8	45.6	43.6	42.1	10	42.9	35.9	39.3	42.5	42.0	41.4	38.0	40.5	39.8	38.8									
10	55.0	36.6	47.5	49.7	52.6	36.6	42.0	42.6	44.2	35.9	11	41.7	35.3	38.8	38.9	38.7	39.5	34.8	35.3	35.4	37.0									
11	62.1	35.1	51.4	60.5	59.6	44.4	48.8	53.7	52.0	43.8	12	45.2	39.4	43.3	44.6	44.7	44.9	40.7	41.8	42.5	43.3									
12	62.0	41.7	53.1	60.3	60.3	48.2	50.8	52.4	51.4	45.7	13	50.8	44.7	49.4	49.7	49.6	48.4	47.8	47.9	47.8	46.4									
13	64.3	39.2	50.2	62.1	60.7	47.4	48.4	52.9	54.0	46.9	14	48.4	41.4	43.3	46.0	45.9	45.7	42.0	45.0	44.9	44.1									
14	58.5	37.0	49.5	57.8	57.1	48.6	47.7	53.0	51.3	47.8	15	49.9	39.2	39.9	48.1	46.2	41.9	39.6	44.9	43.9	41.2									
15	59.0	43.9	51.0	58.0	58.2	49.9	47.7	53.6	51.5	48.1	16	48.2	41.7	45.9	46.9	46.1	44.3	44.0	43.2	43.3	43.4									
16	56.2	46.1	51.6	54.1	52.7	48.4	47.4	47.6	46.6	43.1	17	45.0	38.2	38.4	42.6	40.2	39.6	37.2	40.1	38.2	38.6									
17	53.6	45.1	49.8	52.4	50.7	45.6	46.6	46.0	45.6	42.7	18	49.5	39.5	45.8	49.5	47.6	44.0	45.0	47.4	46.1	41.8									
18	49.8	42.6	47.1	49.0	46.6	44.5	41.3	41.9	40.8	39.8	19	48.4	38.8	41.9	46.9	46.6	40.7	39.8	43.1	42.8	39.2									
19	44.5	40.3	42.3	43.5	43.7	43.6	41.9	42.6	42.5	42.2	20	49.3	39.1	45.6	40.6	43.2	39.4	43.8	37.8	39.7	36.7									
20	54.2	38.1	47.5	51.8	51.6	45.7	44.0	46.9	47.6	44.5	21	46.1	35.7	37.5	43.6	44.6	45.8	36.1	41.3	41.4	44.7									
21	51.1	40.3	45.1	49.0	47.9	43.4	42.2	44.0	44.5	41.4	22	49.1	43.6	45.0	48.0	47.4	44.2	42.4	44.8	43.3	41.4									
22	50.3	42.2	46.5	49.1	48.8	42.6	43.3	45.2	44.8	40.7	23	47.8	40.0	45.6	46.6	46.1	40.0	43.3	43.1	42.1	37.0									
23	53.4	37.4	44.9	50.8	49.5	42.8	43.1	45.5	44.4	41.1	24	41.8	33.1	36.6	40.5	39.8	33.2	34.5	37.8	38.0	32.8									
24	51.1	37.6	43.6	49.9	47.6	37.6	41.2	44.2	43.1	36.5	25	46.6	32.3	44.8	45.8	44.6	41.4	42.2	42.1	43.0	44.6									
25	47.9	24.4	30.1	46.3	44.3	34.0	29.8	39.7	36.7	31.8	26	47.0	38.3	39.6	43.1	43.9	39.4	37.4	39.8	40.6	37.5									
26	47.3	32.1	41.7	43.0	47.1	40.5	39.9	41.9	4																					

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1922.

Gauges partly sunk in the ground in the Magnetic Pavilion in the Enclosure.	Monthly Amount of Rain collected in each Gauge.														Height of Receiving Surface.	
	Gauge Number.	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	2.372	1.785	1.303	2.742	1.096	1.388	3.210	2.324	1.698	1.040	1.313	2.919	23.190	0 5	149 6	
8	2.359	1.771	1.336	2.676	1.053	1.369	3.152	2.274	1.671	1.023	1.270	2.911	22.865	1 0	150 1	
Number of Rainy Days (0.005 in. or over).	..	22	15	14	16	10	11	21	18	14	12	8	17	178	..	..

MEAN HOURLY MEASURES of the HORIZONTAL MOVEMENT of the AIR in each MONTH, and GREATEST and LEAST HOURLY MEASURES, as derived from the RECORDS of ROBINSON'S ANEMOMETER.

Hour ending,	1922.												Mean for the Year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1	13.4	13.1	13.9	11.9	8.2	9.9	9.9	8.3	8.5	9.4	8.7	13.1	10.7
2	12.6	12.3	13.6	11.7	6.5	9.5	9.3	7.6	8.8	8.9	8.8	13.0	10.2
3	13.6	12.4	13.5	12.1	6.9	10.0	9.4	7.2	9.2	9.4	8.7	13.7	10.5
4	13.6	12.7	13.7	12.3	7.0	9.8	9.8	7.3	9.2	8.9	8.6	14.1	10.6
5	14.2	12.9	14.5	12.7	6.9	10.4	10.0	6.9	9.2	9.0	8.9	14.2	10.8
6	14.0	13.0	13.9	12.0	6.8	9.9	9.9	7.2	8.9	8.5	8.9	13.8	10.6
7	14.6	13.8	14.5	12.4	8.3	11.5	10.5	8.2	9.3	9.4	9.4	14.3	11.4
8	14.6	13.9	14.4	12.8	8.6	11.4	10.7	8.2	9.0	10.3	9.3	13.7	11.4
9	14.6	14.0	14.3	12.6	9.6	11.2	11.5	8.6	9.9	11.1	10.0	13.5	11.7
10	14.8	16.1	16.0	13.6	11.0	12.6	12.5	9.8	11.3	12.9	10.5	14.3	12.9
11	14.9	16.2	16.9	13.9	11.3	13.2	13.6	11.0	12.0	14.7	11.0	15.0	13.6
Noon	15.0	16.9	18.3	14.2	11.7	13.8	14.3	11.0	12.3	16.3	11.2	15.9	14.2
13 <sup>h</sup>	15.9	16.8	17.0	14.2	11.6	13.4	14.3	11.9	12.6	15.8	11.4	15.8	14.2
14	16.0	17.7	17.6	14.7	13.0	13.0	14.2	12.2	12.7	15.4	11.3	15.7	14.5
15	15.7	17.1	17.4	14.1	13.1	13.6	14.2	12.2	12.5	14.6	11.3	15.4	14.3
16	15.6	16.9	17.2	14.0	13.8	13.7	14.6	12.1	13.7	14.5	11.0	14.5	14.3
17	14.8	15.5	16.5	13.3	13.8	13.4	13.7	11.8	12.6	12.8	10.3	13.5	13.5
18	15.0	14.1	15.8	13.2	13.3	13.0	13.3	12.3	11.2	11.5	9.8	14.1	13.1
19	15.2	13.5	14.8	12.8	12.2	14.1	12.6	11.7	9.9	12.0	10.3	13.5	12.7
20	15.0	13.3	14.7	11.9	10.7	13.7	11.8	10.5	9.6	11.6	10.1	13.8	12.2
21	13.8	12.9	14.2	11.3	9.6	12.4	10.9	9.9	9.3	11.0	9.5	12.8	11.5
22	13.9	12.7	14.5	11.0	9.6	12.0	11.0	9.9	9.6	11.0	9.2	13.8	11.5
23	12.9	12.3	13.7	11.0	9.1	10.4	10.3	9.1	8.8	10.3	8.9	13.2	11.1
Midnight	12.8	12.6	12.8	11.6	8.5	10.3	10.0	8.3	8.5	9.9	8.6	13.2	10.6
Means .. ..	14.4	14.3	15.2	12.7	10.0	11.9	11.8	9.7	10.4	11.6	9.8	14.1	12.2
Greatest Hourly Measures	(1) 39	36	43	38	37	31	35	29	36	34	33	41	..
	(2) 30	28	33	29	29	25	27	23	28	27	26	31	..

(1) Deduced from 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.

