RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1915

UNDER THE DIRECTION OF

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ASTRONOMER ROYAL.

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ERRATA.

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p. (xl), col 3,	May 1,	*for*	29·909	*read*	29·934.
	Means	,,	29·908	,,	29·909.
p. (lix), col 2,		,,	29·908	,,	29·909.
p. (lx), col 6,	22^h	,,	29·906	,,	29·916.
	23^h	,,	29·907	,,	29·916.
	Mean 0^h—23^h	,,	29·908	,,	29·909.
	1^h—24^h	,,	29·908	,,	29·909.

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p. E 7. TABLE X.—Heading, *insert* Quiet *before* Days.
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GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS,

1915.

INTRODUCTION.

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

§ 1. *Personal Establishment and Arrangements.*

During the year 1915 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided, till June 20, by one Junior Assistant, David J. R. Edney, and generally by four Computers. The Computers employed during the year were :—R. Walden, A. W. Hills, E. Leary, H. R. Wright, and three Belgian refugees—T. Van Dingenen, R. Dagonnier, and G. Brenez.

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

For detailed historical information regarding the old buildings and instruments, reference should be made to the Introductions to earlier volumes of these observations.

The old instruments for photographic registration of changes in the atmospheric pressure, magnetic declination, and horizontal and vertical magnetic force, are situated in an underground chamber (known as the Magnet Basement); this chamber is kept at a nearly uniform temperature by means of gas stoves. The small variations of temperature are recorded on a Richard thermograph.

In a wooden building (called the Magnet House) above this chamber are placed the standard barometer and a Thomson electrometer for photographic registration of the variations of atmospheric electricity. A platform erected above the roof of the Magnet House is used for nephoscope observations of cloud in connection with International Balloon Ascents.

Near the Magnet House are the earth thermometers, the photographic dry and wet-bulb thermometer apparatus, and a set of dry-bulb, wet-bulb, and maximum and minimum thermometers in a Stevenson screen.

The Magnet House is built of non-magnetic material, but during the years 1891–1898 considerable masses of iron were introduced into its neighbourhood by the building of certain additions to the Observatory. Hence the instruments which were formerly placed in the Magnet House, for absolute determinations of magnetic declination, dip, and horizontal force, were transferred to the Magnetic Pavilion. This building 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, thermometers for solar and terrestrial radiation, 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).

THE NEW MAGNETOGRAPH HOUSE.—The new Magnetograph House stands 50 feet north-west of the Magnetic Pavilion in which the absolute magnetic observations are made. It is built above ground, in order to avoid the dampness to which underground chambers are liable. On the outside the building is 25 feet long by 22 feet wide, the short sides lying due north and south : the height up to the eaves is just under 14 feet. On the south side there is a small annexe 11 feet 4 inches long and 6 feet deep, under a continuation of the roof of the main portion of the building : this contains the entrance lobby and a small photographic dark room. The outer walls of the building are nearly 2 feet thick, consisting of a 12-inch layer of hollow concrete, rough cast on the outside, then a 6-inch layer of slag wool, and on the inner side a 4-inch partition of the partly hollow fibrous plaster known as mack. The foundations and flooring are of concrete, in which is embedded a damp-proof course of thin sheet lead. The ceiling of the chamber consists of two layers of $\frac{3}{4}$-inch deal boarding, between which is a 6-inch layer of slag wool. Above this there is a vacant place up to the rafters. The roof is low pitched, and slopes upwards on all four sides of the building, but the ridge rafter (which is at a height of 20 feet above the ground) is 20 feet long, so that there are two small gable ends above the side portions of the roof. Louvre boarding over these ends permits free ventilation of the space between ceiling and rafters. The roof is covered all over with a layer of sheet zinc. The gutters and rain pipes are of lead. Throughout the construction of the building the greatest care was taken to ensure that no magnetic materials were used.

The recording instruments are situated in a small inner chamber which is 15 feet long, 12 feet wide, and 8 feet high. There are air spaces of 2 feet thickness between its floor and ceiling and the floor and ceiling respectively of the outer chamber, and there is a passage way, 2 feet 10 inches wide, all round. The walls and floor beams of the inner room are supported on small concrete piers ranged round the sides; and other piers, three for the instruments and two larger ones for the recording mechanisms, pass upwards through the floor to a height of 2 feet 6 inches and 2 feet 3 inches respectively within the instrument chamber. The walls of the latter are formed of slabs of mack, 4 inches thick; these are supported by timber framing along top and bottom, together with eight wooden pillars situated at the corners and in the middle of each side of the room. The floor and ceiling each contain a 6-inch layer of slag wool enclosed between layers of deal boarding.

The building is entered by the south doorway of the annexe, which gives admission to a small lobby; from this a door on the right opens into the dark room, while two successive doors in front give access to the passage way round the inner room. The thickness of the outer walls of the building is such as to leave sufficient space between these latter two doors to enable the one to be shut before the other is opened, and this practice is followed by observers on entering or leaving the building. The inner chamber is entered from the passage way by a door on the west side, to which steps lead up from the floor at ground level.

The passage way is dimly lighted in the daytime by four small windows, each 1 foot square, just below the eaves. These are closed by three layers of plate glass 1 inch thick, with air spaces between: one sheet is red, so that photographic paper can be carried in the passage without cover. The developing room also has a red-glazed window, which can be covered up when necessary.

Air vents, which can be closed at will, pass through the outer walls and admit air from the outside into the passage way, and exhaust vents pass up from the latter and from inside the instrument chamber to the space below the rafters. In practice these vents are kept closed, since sufficient air for ventilation finds its way into and out of the building without their aid.

The thermal insulation provided by the special construction of the building greatly reduces the temperature changes within the instrument chamber, and thus lightens the task of the electric heating system by which the room is kept at a constant temperature. 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 current used in the building, for lighting and heating, is alternating (110 volts, 50 alternations per second), and is therefore without effect upon the magnetic registration. The heating elements are 53 in number, of which 37 are mounted on the skirting board round the inner walls of the instrument chamber; while the other 16, mounted in pairs on small teak frames, rest at various places on the floor of the room. Each element consists of a suitably insulated low-temperature non-magnetic metallic resistance strip consuming 25 watts. The heating circuit is divided into three sections, one or more of which can be cut out of the relay circuit, if desired, so that the delicacy of the thermal regulation can be suited to the season of the year.

Before the installation of the instruments and heating system, the north-south and east-west directions within the inner room were determined, and permanently indicated by marks on small porcelain tablets mounted on the four walls of the room. A theodolite was placed south of the entrance doorways leading into the passage, and the zero of its azimuth circle was obtained by observation of the sun. The direction of the meridian was then marked out within the room, the line of sight passing through a small hole which had been made for this purpose in the inner south wall. The perpendicular direction was then obtained by means of a theodolite within the room itself.

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. These piers are octagonal in section, the distance between parallel sides being 18 inches. The two piers which support the recording mechanisms are rectangular in section, 3 feet 6 inches long by 1 foot 9 inches wide. They occupy the north-east and south-west angles of the room, their longer sides being in the direction of the meridian. They are not solid throughout, pits being provided for the weights and pendulums of the driving clocks. These pits are closed on the outer side of the chamber only by removable wooden shutters, and the clocks can be wound up, and the pendulums set swinging, from the passage way, without entering the room. The recording drums can also be inserted and removed in the same way, through shuttered openings just above the piers. Through another such shutter a small telescope projects into the room, and enables the temperature to be read from the inside, from a thermometer attached to the north force instrument; the scale can be illumined at will by a small shaded electric torch controlled by a switch outside the room. Thus the ordinary daily service of the instruments does not necessitate entry into the room.

Besides the three magnetographs already mentioned, the Magnetograph House contains the photographic and standard barometers. The former is mounted on the south wall of the instrument room, 5½ feet from the south-east corner of the room. As the mack partition is hardly substantial enough to carry much weight safely, the back is strengthened by stout boards screwed to and stretching between the wooden pillars in the angle and middle of the south wall. The barometer, and the shelf which supports its lever mechanism and optical parts, rest on a stout board bolted by brass bolts to the strengthening boards on the outer side of the wall. 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 both record on the north-east drum, and the vertical force instrument and the barometer record on the other drum. Both drums are horizontal. The recording mechanisms, which were supplied by the Cambridge Scientific Instrument Co., consist each of a pendulum-and-weight driven clock, which rotates the drum through a two-speed gearing. The drums are 10 inches long and 5½ inches in diameter; their normal period of revolution is 30 hours, which can, however, be reduced to one-twelfth for the purpose of quick-speed runs. The ordinary time scale is 15 mm. to the hour. Each drum is enclosed in a teak box which is inserted and removed with the drum itself. The whole recording mechanism is covered by a large wooden casing, which keeps stray light from the drum and dust from the clockwork. The casing and drum box are pierced by slits of suitable size, and between the two slits there is an adjustable cylindrical lens which brings the registering beams of light to a point focus on the drum. By a system of movable mirrors it is possible to make eye observations of the motion of the beams, from the outside of the chamber. In practice this is not found to be required.

The light for photographic registration is supplied by straight filament tungsten lamps mounted vertically. One lamp suffices for the declination and north force instruments, and is situated on a shelf above the corresponding drum, and another lamp for the vertical force instrument and barometer. The time registration on the photographic sheets is provided for by two horizontal straight filament lamps mounted at suitable heights on the east and west walls of the chamber: each lamp illumines the whole length of the slit of the drum on the opposite wall, and the effect is to produce narrow dark hour lines right across the photographic records. These time lines are found very convenient in the process of measurement. The time lamps are illumined for a period of one second centred at each exact hour of Greenwich time. The current is switched on and off by a relay connected to the Mean Solar Clock in the Clock Room of the Observatory.

Owing to the iron involved in their construction, the relays which control the heating system and the time registration are placed in a box near the gate of the Magnetic Enclosure, at a distance of over 40 yards from the Magnetograph House. The only pieces of iron or steel inside the latter are in the clocks of the driving mechanism and in the photographic barometer mechanism; the total quantity is very small, consisting only of a few small parts for which the substitution of copper or brass would be unsatisfactory.

All the lamps for magnetic and time registration are shielded so as to throw light only towards the instruments or drums, and the room as a whole is usually very dimly illuminated. Ordinary white or ruby electric lamps are also provided in the instrument chamber, passage way, and developing room, for use when necessary.

The construction of the building and the installation of the heating system was completed in 1914. The new declination instrument was in use throughout 1915, and the north force instrument from March 1915. Records were continued with the old instruments for comparative purposes until 1916 September. In 1915 November a fault developed in the thermostat, and during 1916 the temperature of the room was subject to a gradual variation (the whole range during this period being $1^\circ{\cdot}5$ C.). After some modifications, the thermostat and relay were reinstalled in 1916 June. This thermostat was again replaced in 1918 June, having developed the same fault; but the performance of the present thermostat has not been entirely satisfactory, the control temperature having again shown evidence of a slow secular change. The range in any one day is, however, too small to be measured by an ordinary thermometer.

The installation of the vertical force instrument has given considerable trouble. A quartz fibre instrument designed by Prof. W. Watson, and for a time used at the Eskdalemuir Observatory, was in experimental operation for some months during 1916. In September 1916 the quartz fibre was broken, and a second instrument was then tried. This was of the ordinary knife-edge type, and was loaned by Prof. W. Watson of the Imperial College of Science and Technology. After certain optical difficulties in connection with it had been overcome, a means of measuring the scale value was brought into operation, and it was found that the scale was far from uniform, apparently owing to some irregularity in the knife edges. The non-uniformity was such that the use of this instrument was abandoned, and the old vertical force magnetograph remained the standard instrument for the Observatory until the quartz fibre instrument, which was returned after repair in 1917 January, was adjusted and finally adopted as the standard in 1917 March.

The photographic barometer was transferred from the old to the new Magnetograph House on 1916 September 25. The change of arrangements necessitated the reconstruction of the optical parts and lever mechanism. For a time hourly readings of the standard barometer were taken throughout the day and night, while the new apparatus was being got into order. These were finally discontinued on 1917 March 28. The standard barometer was transferred to the new Magnetograph House on 1917 April 3.

The photographic wet and dry bulb thermometers were transferred to the Magnetic Enclosure on 1917 February 21, and after this date all the magnetic and meteorological photographic registers were developed in the dark room of the new Magnetograph House.

§ 3. *Subjects of Observation in the year* 1915.

The observations comprise determinations of absolute magnetic declination, horizontal force, and dip; continuous photographic record of the variations of declination, horizontal force, and vertical 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 electrometer (for atmospheric electricity); 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.

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 58).

§ 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 Elliot 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 $100^{r}\cdot140$.

The vertical axis of the telescope is adjusted by means of a fixed level, one division of which corresponds to 1″·15. The level correction for inequality of the pivots of the axis of the telescope was found in 1898 to be $-6^{div.}\cdot0$ or $-6''\cdot9$.

Since 1913 September the magnet has been suspended by a tungsten fibre of 0·02 mm. diameter, and about 25 cm. length. The effect of 90° of torsion is to turn the magnet through about 4′. The torsion is found to change little or not at all; it is determined monthly, and a correction on this account is made when necessary. The collimation error is also determined monthly. This is done by observing the position of the magnet in its usual position with the scale direct, then with the scale reversed (by turning the magnet through 180° in its carrier, about the longitudinal axis), and again direct.

The reading of the azimuth circle corresponding to the astronomical meridian is determined by observations of Polaris, taken once a week whenever practicable.

Declination observations have been made at least thrice weekly throughout 1915.

ABSOLUTE HORIZONTAL FORCE INSTRUMENT.—This instrument is of the Kew 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 have been made twice weekly since 1915 February. Before 1912 February they were made twice monthly, and from 1912 February to 1915 February weekly. Observations of the moment of inertia of the deflecting magnet are made monthly.

DIP INDUCTOR.—The dip inductor consists essentially of a coil of copper wire which can be rotated about an axis in its plane. The ends of the coil are connected to two brushes which press upon a fixed commutator disc. The electromotive force which arises, in general, upon rotation of the coil, is detected by means of a Broca mirror galvanometer with electric light and scale. This force vanishes only when the axis of rotation lies along the direction of the magnetic field in which the instrument is situated. The spindle of the coil is journalled in a ring which can be moved in azimuth and inclination, and the observation consists in adjusting the direction of this ring and spindle until no electromotive force is indicated by the galvanometer.

The observation is made in four positions; after the first adjustment and circle readings have been made, the ring is reversed about a horizontal axis perpendicular to the spindle, and a second adjustment and readings are made: the instrument is then reversed in azimuth, and two similar observations are taken in the new position of the base. The two sets of double readings determine the magnetic dip and the circle reading corresponding to the vertical position of the spindle, after the application of corrections for level. For the latter purpose two levels are provided, resting on the base of the instrument, parallel and perpendicular to the horizontal axis of the ring. The two reversals eliminate any small errors arising from slight asymmetry in the instrument.

The two circles, for the measurement of inclination and azimuth, are each eight inches in diameter, and are read, by means of two screw micrometers in each case, to one second of arc. The levels on the base can likewise be read to one second.

The driving gear is constructed so that the coil can be rotated by the observer while standing at a distance of six feet from the instrument. In order to minimise strain on the instrument, the tension of the driving cords upon the pulley attached to the coil spindle is exactly balanced by the thrust of a rod against a small knob at the centre of the upper plane surface of the pulley. The spindle has a driving pulley at each end, for use in the direct and reversed positions.

While rotating the coil the observer can also adjust the inclination and azimuth of the spindle ; this is done by means of long rods, suitably supported, which, through the agency of flexible spiral-wire couplings, actuate the slow motions on the instrument. The galvanometer, lamp, and scale are enclosed in a wooden cupboard adjacent to the driving handle and slow motion rods. The scale is viewed through a conical tube projecting from this cupboard, so that the observation may be made in daylight. The coil is rotated and the spindle is simultaneously adjusted until the spot of light comes to rest in its normal position, after which the circles and levels are read.

The adjustment of the spindle is facilitated by the novel form of the commutator in this instrument. The fixed commutator disc is divided into four instead of two parts, and it is oriented so that two of the quadrants are in use during the two quarter-revolutions which are symmetrical about the meridianal positions of the coil. During these fractions of the revolution the electromotive force due to an azimuth error of the spindle is much greater than that due to a similar error in inclination (the latter force, moreover, is not of constant sign). During the remaining half of the revolution the reverse is the case. The two pairs of quadrants are connected to a switchboard near the driving handle, and the galvanometer can be switched into either circuit, thus receiving a rapidly intermittent current of generally constant sign during the rotation of the coil. This renders it possible to correct successively the inclination and azimuth errors of the spindle, and conduces to the speed and accuracy of the observations. The driving cord, thrust rod, and slow motion couplings can be quickly detached for the various reversals of the spindle, and the whole observation of dip and azimuth can be made in ten minutes.

The dip inductor has been adopted as the standard dip instrument from the beginning of 1914, and observations have generally been made thrice weekly since that time.

THE NEW DECLINATION VARIOMETER. This instrument is a slight modification of the standard Cambridge pattern. It consists essentially of a magnet and mirror suspended by a fine phosphor-bronze fibre 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 frame of the instrument is of brass, apart from the magnet chamber, which has thick upper walls for purposes of damping. The remaining space round the magnet was afterwards further reduced by the insertion of copper blocks, which render 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 focuses 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′·585 per millimetre; at the present time (1915–20) this angle represents 3·17 γ, in terms of force. Since the beam of light, when directed towards the centre of the slit, makes an angle 11° 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 0·5. 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° 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 above adjustment was made by taking the magnet and mirror system out of the instrument, suspending it freely so that its magnetic axis should lie along the known direction of the magnetic meridian, and determining the azimuth of the normal to the mirror by means of a telescope and lamp. The mirror was adjusted until the direction of the normal diverged from the magnetic meridian by approximately 7° 30′ (actually it was left at 7° 39′, as the adjustment could not readily be made exact).

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 257·4 γ and 156·6 γ in the mean of 1915, and the present rates of diminution of their values are 4·4 γ and 2·8 γ per year.

The scale value determinations for the north force instrument are made once weekly (prior to 1916 August they were made less frequently). Since the instrument was installed the scale value has been found to be slowly diminishing. It has been treated as constant throughout each month, the difference from month to month being very small (less than ·01 γ per mm.). The adopted scale value for the month of 1916 January was 3·01 γ per mm., and for 1917 January was 3·09 γ per mm.

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 rate of change of base-line value during 1915 was 1·06 γ, and the mean annual decrease in this rate of change is 0·15 γ. 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. When the instrument was first set up, however, its temperature correction was determined by electrically heating the interior of the outer casing by heating coils wrapped round the outside of the latter. It was found that a rise of temperature through $t°$ C. increased the base-line value of the instrument by 5·7 $t\gamma$, no term depending on t^2 being involved. During the periods when the thermostat was out of order and under repair, the observations were corrected for temperature according to this determination.

VERTICAL FORCE VARIOMETER.—The magnet used in this instrument is $1\frac{1}{2}$ feet long, and lozenge-shaped, being broad at the centre and pointed at the ends. The steel knife-edge, which is 8 inches long, and passes through an aperture in the magnet, rests on two agate planes. The magnet is placed unsymmetrically on the knife edge, being nearer to its southern end. The axis of vibration was originally in the magnetic meridian, but is now a few degrees distant, on account of the secular change of declination.

Two steel screw stalks, carrying adjustable screw weights, are attached to the magnet, one being vertical in order to vary the sensitiveness, the other horizontal in order to adjust the balance of the magnet, which should rest in a nearly horizontal position. The magnet and supporting frame are enclosed in a wooden box with suitable glass-covered apertures. The temperature within the box is indicated by a thermometer, the bulb of which projects well into the interior of the box.

The photographic arrangements are described in previous volumes. The cylinder carrying the photographic sheet is vertical, and also receives the record of the variations of barometric pressure. The time scale is the same as for the other magnetic registers.

The scale coefficient of the instrument is determined by the method of vibrations. When the magnet is approximately horizontal, and transverse to the magnetic meridian, the variation of the vertical force, in terms of the whole vertical force, which will produce a small angular motion θ (measured in radians) $=$ cotan dip $\times \left(\frac{T^1}{T}\right)^2 \times \theta$; T and T^1 are the times of vibration of the magnet in the vertical and horizontal planes respectively.

Observations of T are made once a week by means of the telescope and scale provided for eye readings of the position of the magnet. The mean of 48 observations made during 1915 gives the value $17^s{\cdot}390$.

The time of vibration in the horizontal plane (T^1) is determined once every three years, as the observation requires the removal of the magnet from its box. The magnet, with all its attached parts, is suspended from a tripod, with its broad side horizontal. The arc of vibration is kept small. Observations on 1912 January 1 gave for the time of vibration in the horizontal plane $16^s{\cdot}484$. This value has been adopted for the year 1915.

Since the distance between the concave mirror of the magnet and the surface of the cylinder is 100·2 inches, the length on the cylinder, in inches, which corresponds to a change of 0·01 part of the whole vertical force $= 2 \times 100{\cdot}2 \times$ tan dip $\times \left(\frac{T}{T^1}\right)^2 \times 0{\cdot}01$. Taking $T = 17^s{\cdot}390$, $T^1 = 16^s{\cdot}484$, and dip $= 66° \ 51' \ 58''$, this length is found to be 5·220 inches. The cardboard scale, which is used for measuring the curves for the year, is constructed with this as unit.

The temperature in the magnet basement is subject to slow changes during the course of a year, and the vertical force records require correction on this account. The correction is applied to the mean daily and the monthly mean hourly values, using the mean daily and monthly mean hourly values of the temperature as recorded on a Richard thermograph, corrected by comparison with reading of a thermometer with its bulb projecting into the magnet box itself.

The correction (which is constant over the normal temperature range) is $-9{\cdot}20\ \gamma$ per 1° Fahrenheit.

THE QUARTZ-THREAD VERTICAL FORCE VARIOMETER.—For a detailed description of this instrument reference may be made to the *Philosophical Magazine*, vol. vii., sixth series, 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 placed in front of it focusses 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. The sensitiveness adopted until the end of 1919 was $3{\cdot}6\ \gamma$ per mm. on the sheet. At the beginning of 1920 this was increased to $2{\cdot}0\ \gamma$ per mm.

The variometer was not at first compensated for temperature changes and was found to possess a temperature coefficient of $25\ \gamma$ per 1° C. The gradual change in the thermostat control temperature necessitated compensation; the adjustment was made by means of a small stirrup sliding on one of the magnets, and the chamber was alternately heated and cooled until, with a range in temperature of 8° C., there was no measurable displacement of the photographic trace.

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 55·6 cm., and the distance between their two centres is 27·7 cm. If x, ρ represent axial and radial co-ordinates, measured in cms. from the centre of the coil as origin, the value of the axial force magnetic force at (x, ρ), due to a current of strength A ampères, is—

$$3370\mathrm{A}\left[1-0{\cdot}0080\frac{x^2-\frac{1}{2}\rho^2}{\mathrm{R}^2}-1{\cdot}732\frac{x^4-3x^2\rho^2+\frac{3}{8}\rho^4}{\mathrm{R}^4}-\ .\ .\ .\right]$$

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 this making scale value determinations, the current is supplied by a small portable battery, and is measured by an ammeter. The current strength used is 100 milliampères, which produces a deflecting force of 337 γ, and a movement of the trace on the photographic sheets through about 92 mm. The scale value is found to be uniform across the sheets.

The scale value determinations are made weekly. The scale value was found to be constant. The adopted value is 3·66 γ per mm.

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

§ 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, horizontal or north force, and vertical force are discussed, they are divided into two groups—one including all days on which the traces show no particular 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. Following the principle of separation hitherto adopted, there are no days in the year 1915 which are classed as days of great disturbance. Days of lesser disturbance are March 21–22, April 7–8, June 17, September 22–23, October 15, October 23–24, November 5–6, and December 6–7. When two days are mentioned, it is to be understood that the reference is usually to one set of photographic sheets extending from noon to noon, and including the last half and the first half respectively of two consecutive civil days.

The mean ordinates for each complete form are measured by the aid of a transparent celluloid scale, 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.

By means of two stoves placed in the Basement, the temperature has been kept nearly constant throughout the year, the endeavour being to keep it as near to 67° as possible. The results in Tables III. and XII. to XV. are corrected for temperature, the corrections applied (which are mentioned in the description of the vertical force instrument) being founded on the daily and hourly values of temperature given in Tables XVI. and XVII., as mentioned on p. E xv.

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 XVIII.

In Table XIX. the absolute determinations of horizontal force are given, both as observed and also as reduced to the mean value for the month. The latter was effected by application of the difference between the north force ordinate at the time of observation and the mean value for the month, as obtained from the photographic register, taking into account also the change of declination.

As regards magnetic dip, the result of each observation of dip with the dip inductor is given in Table XX.; these have not been reduced to the mean value for the month, but a correction has been applied on account of the diurnal variation of dip (as deduced from Tables VIII. and XII.) in forming the monthly mean values of dip given in Table XXI.

Table XXI. contains an annual summary of the magnetic elements, giving the mean monthly values, the monthly mean diurnal ranges, and sums of hourly deviations from mean.

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 Internationl Committee.

Reduced copies of the magnetograms for certain disturbed days (mentioned on p. E xvii) 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; the vertical force curves are affected, slightly as compared with the amount of motion on disturbed days, by the small recorded changes of temperature of the magnet. The recorded hourly temperatures are inserted on the plates, and the temperature-corrections of the magnet are given at page E xv. Briefly, an increase of temperature of 1° F. throws the vertical force curve downward by about 9·2 γ.

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

Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡	Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡
	° ′		° ′		° ′		° ′
1841	23.16·2	..	..	1878	18.49·3	0·1802	67.38·2
1842	23.14·6	..	..	1879	18.40·5	0·1805	67.37·0
1843	23.11·7	..	69. 0·6	1880	18.32·6	0·1805	67.35·7
1844	23.15·3	..	69. 0·3	1881	18.27·1	0·1807	67.34·7
1845	22.56·7	..	68.57·5	1882	18.22·3	0·1806	67.34·2
1846	22.49·6	0·1731	68.58·1	1883	18.15·0	0·1812	67.31·7
1847	22.51·3	0·1736	68.59·0	1884	18. 7·6	0·1814	67.29·7
1848	22.51·8	0·1731	68.54·7	1885	18. 1·7	0·1817	67.28·0
1849	22.37·8	0·1733	68.51·3	1886	17.54·5	0·1818	67.27·1
1850	22.23·5	0·1738	68.46·9	1887	17.49·1	0·1819	67.26·6
1851	22.18·3	0·1744	68.40·4	1888	17.40·4	0·1822	67.25·6
1852	22.17·9	0·1745	68.42·7	1889	17.34·9	0·1823	67.24·3
1853	22.10·1	0·1748	68.44·6	1890	17.28·6	0·1825	67.23·0
1854	22. 0·8	0·1749	68.47·7	1891	17.23·4	0·1827	67.21·5
1855	21.48·4	0·1756	68.44·6	1892	17.17·4	0·1829	67.20·0
1856	21.43·5	0·1759	68.43·5	1893	17.11·4	0·1831	67.17·9
1857	21.35·4	0·1769	68.31·1	1894	17. 4·6	0·1831	67.17·4
1858	21.30·3	0·1762	68.28·3	1895	16.57·4	0·1834	67.16·1*
1859	21.23·5	0·1761	68.26·9	1896	16.51·7*	0·1835*	67.15·1*
1860	21.14·3	..	68.30·1	1897	16.45·8*	0·1838	67.13·5*
1861	21. 5·5	0·1773	68.24·6	1898	16.39·2*	0·1840	67.12·1
		0·1759	68.15·8	1899	16.34·2	0·1843	67.10·5
1862	20.52·6	0·1763	68. 9·6	1900	16.29·0	0·1846	67. 8·8
1863	20.45·9	0·1764	68. 7·0	1901	16.26·0	0·1850	67. 6·4
1864	..	0·1767	68. 4·1	1902	16.22·8	0·1852	67. 3·8
1865	20.33·9	0·1767	68. 2·7	1903	16.19·1	0·1852	67. 1·2
1866	20.28·0	0·1773	68. 1·3	1904	16.15·0	0·1854	66.57·6
1867	20.20·5	0·1777	67.57·2	1905	16. 9·9	0·1854	66.56·3
1868	20.13·1	0·1779	67.56·5	1906	16. 3·6	0·1854	66.55·6
1869	20. 4·1	0·1782	67.54·8	1907	15.59·8	0·1855	66.56·2
1870	19.53·0	0·1784	67.52·5	1908	15.53·5	0·1854	66.56·3
1871	19.41·9	0·1786	67.50·3	1909	15.47·6	0·1854	66.54·1
1872	19.36·8	0·1789	67.47·8	1910	15.41·2	0·1855	66.52·8
1873	19.33·4	0·1793	67.45·8	1911	15.33·0	0·1855	66.52·1
1874	19.28·9	0·1797	67.43·6	1912	15.24·3	0·1855	66.51·8
1875	19.21·2	0·1797	67.42·4	1913	15.15·2	0·1853	66.50·5
1876	19. 8·3	0·1799	67.41·0	1914	15. 6·3	0·1853	66.51·2
1877	18.57·2	0·1800	67.39·7	1915	14.56·5	0·1851	66.52·0

* Corrected for the effect of the iron in the new buildings (see p. E ii).

† 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, mounted in 1840 on the southern wall of the western arm of the Upper Magnet Room, is Newman No. 64. Its tube is $0^{in.}\cdot565$ in diameter, and the depression of the mercury due to capillary action is $0^{in.}\cdot002$, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to $0^{in.}\cdot05$, subdivided by vernier to $0^{in.}\cdot002$. The height of the barometer above the mean level of the sea is 159 feet.

The barometer is read at 9^h, 12^h (noon), 15^h, 21^h (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.

PHOTOGRAPHIC BAROMETER.—The barometric record is made on the same cylinder as is used for magnetic vertical force. A siphon barometer fixed to the northern wall of the Magnet Basement is employed, the bore of the upper and lower extremities of the tube being about 1·1 inch, and that of the intermediate portion 0·3 inch. A metallic plunger, floating on the mercury in the shorter arm of the siphon, is partly supported by a counterpoise acting on a light lever, leaving a definite part of its weight to be supported by the mercury. The lever carries at its other end a vertical plate of aluminium, having a small horizontal slit, whose distance from the fulcrum is about eight times that of the point of connexion with the float, and whose vertical movement is therefore about four times that of the ordinary barometric column. The light of a gas lamp, passing through this slit and falling on a cylindrical lens, forms a spot of light on the paper. The barometer can, by screw action, be raised or lowered so as to keep the photographic trace in a convenient part of the sheet. A base line is traced on the sheet, and the record is interrupted at each hour by the clock, and occasionally by the observer, in the same way as for the magnetic registers. The length of the time scale is also the same.

The barometric scale, determined by experimentally comparing the measured movement on the paper with the observed movement of the standard barometer, is such that one inch of barometric movement is equivalent to $4^{in.}\cdot16$ on the paper.

The base lines on the barometric sheets are determined from the observations of the standard barometer. Hourly measurements are made from the sheets as in the case of the magnetic registers. As the diurnal change of temperature in the Basement is very small, no appreciable differential effect is produced on the photographic register by the expansion of the column of mercury.

THE NEW 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 G. B. Airy. This, together with details of the thermometers and the corrections applicable to them, may be found fully described in the volumes for 1912 and previous years.

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

The corrections to be applied to the thermometers in ordinary use are determined, usually once each year for the whole extent of scale actually employed, by observations at 32° 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 $-0^{\circ}\cdot 4$ has been applied to the readings of this thermometer. The wet-bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction $-0^{\circ}\cdot 2$ has been applied to the readings of this thermometer.

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

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus which has been in use since 1887 was designed by Sir W. H. M. Christie, and from 1899 to 1917 stood in the same position in the Magnet Ground. 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 in the Magnet Basement, the illumination being by gaslight. 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° 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. 140216. The thermometers are laid on short grass and freely exposed to the sky; they require no correction for index-error.

EARTH THERMOMETERS.—These four thermometers, the bulbs of which are sunk to depths of 25·6, 12·8, 6·4, and 3·2 feet below the surface, are fully described in earlier volumes. The shortest thermometer is read daily at noon, the readings being given (subject to an unknown small index correction) in the daily results. The other thermometers are read weekly on Monday at noon, but the results are not published, as the daily readings previously printed for many years seem to offer all the information which these thermometers are likely to afford. 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 ($9^{ft.}$ $2^{in.}$ 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 two 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 Hersham in 1889, on his whirling machine, it would appear that the relation between V and v is more correctly given by

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

and that the instrument fails to record wind velocities less than 4 miles per hour. The values of the wind velocity given by the formula $V=3\ v$ would thus be too high when V exceeds 12. Since the two formulæ agree, however, for $V=12$, the mean values of the wind velocity (which seldom differ much from 12) will be approximately correct in either case; therefore, for the sake of continuity and simplicity, the formula $V=3\ v$ will continue to be used. In this volume, however, the greatest hourly measures (p. E 62) are given according to both formulæ, and the least hourly measures omitted.

RAIN GAUGES.—During the year 1915 three rain gauges were employed, placed at different elevations above the ground, for which see page E 62 of the Meteorological Results.

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 earlier volumes.

Gauges Nos. 2 and 3 are no longer read, and Nos. 4, 5, and 7 have been removed.

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 new gauge of the same diameter, but of the modified Snowdon pattern adopted by the Meteorological Office, having its receiving surface 1 foot above the ground. It was brought into use 1908 January 1, being fixed SW by W from No. 6 with a clear space of 6 feet between the rims.

No. 6 is the Standard gauge, No. 8 is used as a check on the readings of No. 6. No. 6 is read daily, usually at 9^h, 15^h, and 21^h Greenwich civil time, and No. 8 at 9^h only as a rule.

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

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

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 the Upper Magnet Room, in connection with Lord Kelvin's water-dropping apparatus, and with 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.

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.

Until 1896 the instrument was placed above the Magnetic Observatory, since when it has been situated on the stage, above the Octagon Room, which carries the Robinson Anemometer, about 50 feet above the ground. The glass globe formerly used was replaced in 1897 by a new one presented in 1881 by the late Mr. Campbell, as the records from 1894–1896 showed a notable falling off, pointed out by Mr. Marriott, due to deterioration of the glass of the old globe.

§ 7. *Meteorological Reductions.*

The results given in the Meteorological Section refer to the civil day, commencing at midnight.

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^h, 15^h, and 21^h (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 57 and E 58) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages E 56 and E 57).

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.

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is read at 9^h, 15^h, and 21^h Greenwich civil time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9^h are to be placed to the same, or to the preceding civil day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9^h amount which should be placed to each civil day. The number of days of rain given in the footnotes, and in the abstract tables, pages E 55 and E 62, is formed from the records of this gauge. In this numeration only those days are counted on which the fall amounted to or exceeded $0^{in}\cdot005$.

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 31 to E 53, and in the abstract table, page E 55, is the mean found from observations made at 9^h, 12^h (noon), 15^h, and 21^h of each civil day.

For understanding the divisions of time under the 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^h, and those following it to the interval from 6^h to noon. When there are two colons in the first column, it is to be understood that the twelve hours are divided into three nearly equal parts of four hours each. And similarly for the second column. 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,	*aurora*	h,	*haze*	s,	*stratus*
ci,	*cirrus*	ha,	*halo*	sc,	*scud*
cl,	*clouds*	hl,	*hail*	sh, shs,	*shower (s)*
co,	*corona*	l,	*lightning*	sl,	*sleet*
cu,	*cumulus*	m,	*mist*	sm,	*storm*
d,	*dew*	n,	*nimbus*	sn,	*snow*
f,	*fog*	prh,	*parhelion*	sq, sqs,	*squall (s)*
fr,	*frost*	prs,	*paraselene*	t,	*thunder*
g,	*gale*	r,	*rain*	w,	*wind*
glm,	*gloom*				

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

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

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

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

The following is the notation employed for electricity :—

N,	*negative*	m,	*moderate*	s,	*strong*
P,	*positive*	w,	*weak*	v,	*variable*
ss,	*very strong*	ww,	*very weak*	vv,	*very variable*

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

F. W. DYSON.

ROYAL OBSERVATORY, GREENWICH,
1920 *April* 15.

FOR OFFICIAL USE.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1915.

TABLE I.—MEAN MAGNETIC DECLINATION WEST for each CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic registers.)

1915.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	14°	14°	14°	14°	14°	14°	14°	14°	14°	14°	14°	14°
d	′	′	′	′	′	′	′	′	′	′	′	′
1	62·6	60·8	60·7	60·1	57·6	57·0	56·1	55·9	54·0	54·2	54·3	52·6
2	62·1	61·2	60·8	60·8	57·2	57·6	56·0	55·8	54·3	53·7	52·7	52·3
3	61·9	60·8	60·9	59·5	58·4	57·0	56·1	54·3	54·2	54·0	52·5	51·9
4	62·2	61·3	61·3	59·2	58·8	56·8	55·7	54·6	54·2	53·5	52·6	52·1
5	62·1	61·0	60·7	59·7	59·4	57·0	55·7	54·3	54·4	53·7	52·4	52·2
6	61·6	61·4	61·7	59·6	58·6	57·2	56·1	55·6	53·6	53·1	53·7	52·0
7	61·4	60·9	60·5	59·1	58·2	57·0	56·0	53·0	54·1	53·2	52·4	52·4
8	61·3	62·0	60·0	59·8	58·5	58·8	55·8	54·1	54·0	53·8	52·7	52·1
9	61·5	60·9	60·6	59·1	59·0	57·5	55·2	54·4	54·1	53·7	52·4	51·6
10	61·5	61·1	60·8	59·4	58·3	57·0	56·3	54·1	53·2	52·3	53·5	52·2
11	61·2	60·5	61·7	59·2	58·6	57·6	54·4	55·1	54·0	53·8	52·6	51·7
12	61·1	60·5	61·0	59·3	59·0	57·3	55·9	55·3	53·8	53·9	52·6	51·1
13	60·7	60·6	61·0	59·7	58·7	54·9	55·8	55·2	54·8	53·5	52·5	52·2
14	61·2	60·7	60·9	59·3	58·5	56·2	56·1	54·3	53·8	54·5	52·7	52·3
15	60·8	61·2	61·0	58·9	58·2	56·8	55·1	55·0	54·0	51·8	52·0	51·7
16	61·1	60·6	60·3	59·1	57·8	57·4	55·7	55·0	53·9	51·4	53·3	52·6
17	61·0	60·6	60·2	58·8	58·6	57·9	55·3	54·7	53·6	52·8	54·1	51·5
18	61·0	60·3	61·4	59·4	57·6	55·8	55·4	53·9	52·9	52·9	52·5	51·8
19	60·8	60·9	60·0	58·8	58·2	56·5	55·1	54·0	52·9	53·1	53·1	52·1
20	61·4	59·6	61·5	59·2	57·2	56·4	55·0	54·1	53·0	54·1	52·1	51·8
21	61·0	59·9	59·4	58·8	57·1	57·0	54·8	54·4	53·6	52·4	51·7	51·9
22	61·5	59·8	60·5	57·4	58·0	57·1	55·2	53·5	53·4	51·6	52·4	51·8
23	61·0	59·7	61·1	58·0	58·2	56·8	54·8	54·3	53·5	54·1	52·2	52·3
24	61·4	59·6	59·6	59·2	57·1	56·9	55·0	53·8	53·5	51·2	52·5	51·8
25	60·6	60·4	59·5	58·7	57·4	57·1	54·6	53·6	53·9	53·2	53·0	51·7
26	60·7	59·7	59·7	59·6	57·6	56·3	55·4	52·4	52·3	53·2	52·3	51·6
27	61·2	59·9	59·7	58·8	59·9	56·1	55·6	54·0	53·9	51·7	52·6	51·2
28	60·5	60·5	60·4	58·3	57·0	56·3	55·3	54·6	52·0	51·8	52·5	51·4
29	60·8		60·0	58·7	56·9	56·6	55·3	54·9	52·7	53·2	52·5	51·6
30	60·3		59·8	58·8	56·9	56·2	56·0	54·4	54·6	53·0	52·4	51·8
31	61·2		60·0		56·8		54·9	54·2		52·6		51·1
Means	61·2	60·6	60·5	59·1	58·0	56·9	55·5	54·4	53·7	53·1	52·7	51·9

TABLE II.—MEAN MAGNETIC NORTH FORCE for each CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic registers, expressed in C.G.S. units. The values are corrected for Temperature.)

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	1915.											
	17000 γ +											
1	863 γ	886 γ	879 γ	888 γ	897 γ	881 γ	887 γ	878 γ	887 γ	889 γ	855 γ	896 γ
2	877	899	883	887	890	882	883	871	889	897	869	898
3	880	894	895	889	888	882	879	873	892	900	872	894
4	882	896	893	887	890	892	877	871	890	903	868	894
5	873	887	886	886	891	900	881	871	891	898	884	898
6	881	887	893	891	892	895	886	877	890	876	842	866
7	889	892	885	897	892	903	881	872	889	870	842	868
8	888	885	869	894	896	899	890	868	891	904	850	879
9	884	881	872	889	898	891	889	867	896	899	880	884
10	881	876	877	892	900	893	885	871	892	902	897	892
11	889	877	881	896	898	895	880	879	888	891	898	875
12	888	884	885	893	893	890	874	879	891	899	905	875
13	888	878	886	897	900	880	882	883	890	901	900	882
14	894	880	884	896	900	885	880	888	886	892	884	874
15	897	879	887	893	897	890	884	890	888	847	865	865
16	893	884	888	880	899	892	886	896	884	878	871	878
17	887	888	884	885	891	842	889	897	871	879	849	883
18	884	893	888	892	894	842	891	894	876	878	878	890
19	889	885	883	886	896	858	890	892	879	871	872	889
20	895	885	886	883	895	865	890	890	883	870	879	890
21	897	881	882	887	895	875	894	895	888	881	880	894
22	887	886	875	889	889	875	893	892	881	871	881	894
23	882	873	878	887	888	872	888	889	876	865	883	889
24	884	865	880	889	894	876	890	889	876	862	885	891
25	881	872	882	893	891	883	893	896	879	846	887	889
26	880	866	882	883	896	883	882	878	880	868	895	884
27	881	876	887	890	884	882	880	876	875	878	896	885
28	883	880	887	889	877	885	876	879	878	880	890	886
29	887		890	892	884	881	879	878	883	886	890	888
30	888		886	897	887	882	878	879	880	894	893	887
31	887		885		889		880	884		884		889
Means	885	883	884	890	893	882	884	881	885	883	871	885

TABLE III.—MEAN VERTICAL MAGNETIC FORCE for each CIVIL DAY.

(Each result is the mean of 24 hourly ordinates from the photographic registers, expressed in C.G.S. units. The values are corrected for Temperature.)

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	1915.											
	43000 γ +											
1	324 γ	282 γ	325 γ	300 γ	291 γ	276 γ	305 γ	306 γ	348 γ	346 γ	359 γ	282 γ
2	323	293	323	303	297	271	302	307	337	329	341	280
3	323	299	325	299	287	269	307	302	325	332	333	287
4	313	308	332	301	285	281	311	280	315	326	325	297
5	319	311	335	311	283	275	318	289	313	319	330	293
6	318	332	338	307	296	288	320	294	307	320	327	324
7	327	323	334	312	300	292	322	292	314	320	338	310
8	330	326	342	307	298	290	319	301	312	331	334	308
9	321	333	332	314	298	311	310	305	319	324	332	301
10	319	321	334	299	298	314	313	306	330	330	339	311
11	321	316	330	311	290	315	303	323	332	334	341	308
12	315	306	337	312	301	311	315	331	334	336	334	311
13	326	297	341	307	296	301	302	325	331	333	343	297
14	335	303	342	303	295	301	304	322	333	342	341	298
15	341	295	352	316	288	304	304	318	327	349	345	299
16	334	287	346	322	294	300	303	313	330	336	344	306
17	326	295	342	315	296	343	300	312	336	344	344	304
18	315	300	340	312	295	318	300	309	348	348	352	299
19	314	307	333	316	293	317	300	315	350	350	338	293
20	309	299	322	320	295	308	299	310	335	339	315	293
21	320	304	334	318	301	312	297	312	327	323	307	287
22	314	295	326	322	306	301	304	310	335	341	306	293
23	310	296	325	326	315	297	304	307	335	333	298	301
24	305	287	343	322	320	297	308	314	345	321	295	300
25	307	278	349	318	318	306	309	313	349	333	292	307
26	312	276	335	319	327	309	318	310	337	328	283	293
27	305	278	330	330	327	314	325	316	338	321	274	308
28	295	274	327	330	319	316	322	317	329	326	263	299
29	293		318	328	310	310	309	328	305	314	264	307
30	286		319	331	315	327	311	322	301	311	268	301
31	285		306		309		308	303		307		299
Means	316	301	333	314	301	303	309	310	335	331	320	300

TABLE IV.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC DECLINATION WEST

(*The results in each month are diminished by the smallest hourly value.*)

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	′ 0·7	′ 0·6	′ 1·6	′ 1·9	′ 2·8	′ 3·5	′ 4·0	′ 2·9	′ 0·7	′ 0·3	′ 1·0	′ 0·7	′ 0·85
1h	0·7	0·9	2·0	2·3	3·2	3·3	3·4	2·4	0·9	0·5	1·7	0·9	0·97
2	1·0	0·9	1·8	2·1	2·9	3·2	3·4	2·7	0·5	1·5	2·5	1·2	1·10
3	0·9	1·1	2·1	2·1	2·3	3·1	3·1	2·4	0·9	1·8	2·4	1·3	1·08
4	0·8	1·0	1·7	1·8	1·8	2·1	2·1	1·8	0·7	2·4	2·2	1·4	0·77
5	0·8	0·9	2·0	1·5	0·9	0·9	0·7	0·9	0·5	2·9	2·9	1·4	0·48
6	0·9	1·0	1·7	1·0	0·5	0·4	0·0	0·2	0·3	2·6	3·2	1·5	0·23
7	1·1	1·1	0·8	0·4	0·0	0·0	0·2	0·0	0·0	1·7	3·6	1·6	0·00
8	1·3	1·8	0·0	0·0	0·3	0·6	0·7	0·5	0·0	0·9	3·8	1·7	0·09
9	1·8	2·6	1·2	0·7	1·7	2·0	2·4	2·5	1·5	1·5	4·0	2·3	1·14
10	2·7	3·8	4·1	3·0	4·4	5·2	5·2	5·4	4·0	3·8	5·0	3·1	3·26
11	3·6	5·1	6·5	6·4	7·2	8·2	8·6	8·3	6·9	6·9	6·7	3·8	5·64
Noon	4·1	5·4	8·5	9·2	9·2	10·1	10·9	10·7	8·6	8·2	7·1	4·6	7·17
13h	3·7	5·2	9·0	10·4	9·7	11·1	11·6	11·1	8·7	8·7	6·7	4·4	7·48
14	2·6	4·5	8·2	9·7	8·9	10·6	10·9	10·1	7·5	7·7	6·0	3·8	6·66
15	2·4	3·4	7·0	8·3	7·7	9·6	9·5	8·1	5·4	5·9	5·4	3·5	5·47
16	2·5	2·8	4·7	6·8	6·5	8·3	7·8	6·3	3·2	4·3	4·0	2·7	4·11
17	1·9	1·9	4·0	5·1	5·4	6·3	6·2	4·9	2·5	2·7	3·2	2·3	2·99
18	1·5	1·7	3·2	3·7	4·3	5·7	5·3	4·2	1·9	1·4	2·5	1·4	2·19
19	0·8	1·8	2·7	3·2	4·0	5·1	5·1	3·8	1·9	1·5	1·0	1·2	1·80
20	0·6	0·9	2·0	2·7	3·5	5·0	4·8	3·9	1·1	1·0	0·6	0·4	1·33
21	0·2	0·0	1·3	2·6	3·4	4·9	4·6	3·7	0·5	0·2	0·3	0·1	0·94
22	0·0	0·8	0·8	2·4	2·9	4·4	4·5	3·4	0·4	0·0	0·0	0·0	0·79
23	0·4	0·8	0·7	2·1	3·1	3·7	4·4	3·1	0·7	0·1	0·8	0·2	0·80
Means	1′·54	2′·08	3′·23	3′·73	4′·03	4′·89	4′·98	4′·30	2′·47	2′·85	3′·19	1′·90	2′·39

TABLE V.—DIURNAL RANGE of DECLINATION, on each CIVIL DAY, as deduced from the TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTERS.

1915.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	′ 8·2	′ 8·0	′ 7·3	′ 12·1	′ 17·6	′ 7·6	′ 11·9	′ 15·7	′ 11·9	′ 9·5	′ 24·6	′ 3·4
2	3·7	3·8	7·2	13·5	17·7	7·7	9·2	12·4	11·0	7·4	10·2	4·6
3	4·1	2·7	5·3	13·1	10·0	10·2	11·0	11·6	9·4	11·3	5·9	5·3
4	3·2	4·9	7·3	12·0	10·1	9·6	7·2	10·4	11·6	11·4	5·4	3·7
5	7·7	9·0	7·8	13·5	9·0	8·3	10·5	12·7	13·8	8·0	11·1	3·8
6	6·3	7·6	6·5	9·9	8·0	10·0	11·3	12·5	9·8	8·8	29·8	30·4
7	7·1	3·3	19·2	10·1	9·3	10·5	10·3	15·6	10·8	11·4	10·1	9·8
8	7·0	10·0	18·0	15·1	11·0	11·7	10·7	12·5	11·0	9·5	9·3	6·8
9	2·8	13·5	13·9	9·3	11·3	8·5	13·1	12·2	9·8	9·1	9·0	7·2
10	2·9	3·9	9·4	9·5	9·5	9·6	12·8	15·5	10·7	19·8	7·3	2·2
11	3·5	3·3	7·3	7·3	7·0	11·6	12·3	12·8	9·7	12·8	10·2	6·4
12	8·2	4·4	6·9	9·8	7·9	20·2	12·2	11·5	11·1	9·4	5·6	7·3
13	6·0	3·1	8·0	8·5	13·9	21·0	14·4	9·9	13·5	9·3	4·9	3·1
14	7·3	3·7	8·6	12·1	13·4	9·8	13·9	11·6	9·8	22·3	3·1	9·6
15	5·5	4·0	10·0	16·4	13·0	11·3	12·3	12·4	10·9	24·3	15·5	12·1
16	3·5	2·8	13·1	15·0	14·2	15·1	12·7	12·3	13·0	12·1	23·8	4·0
17	4·6	5·4	15·4	10·2	11·5	32·2	12·1	12·1	17·5	7·7	14·6	4·3
18	3·4	5·1	10·6	10·8	9·3	17·2	15·6	12·7	8·4	8·9	24·7	3·0
19	2·4	11·5	15·9	12·6	10·9	9·5	11·8	13·3	8·6	20·0	7·9	5·9
20	3·5	17·3	14·9	6·3	10·5	11·8	12·5	10·8	8·8	13·9	11·1	3·6
21	2·7	10·7	17·6	14·0	10·4	13·9	12·9	11·2	9·7	12·2	8·4	2·8
22	5·5	15·5	11·3	20·0	10·9	15·5	13·3	12·0	15·8	18·0	9·8	4·6
23	3·3	13·7	11·7	18·3	9·0	10·7	11·2	13·4	17·8	26·0	3·6	6·9
24	5·1	11·6	12·1	8·6	9·8	12·8	12·0	9·9	9·5	18·3	4·5	3·9
25	9·1	7·4	11·6	10·0	10·7	12·3	10·3	14·3	10·7	15·9	5·3	5·3
26	9·0	12·3	12·5	15·9	9·8	10·1	14·4	14·2	14·8	10·6	4·7	10·1
27	7·6	7·9	9·9	9·7	7·1	10·2	15·0	13·8	10·0	10·9	7·5	7·9
28	6·7	5·7	12·0	12·4	11·4	12·5	14·1	10·1	18·8	7·5	9·8	4·1
29	3·5		11·9	12·6	10·6	11·6	17·1	12·8	13·8	6·9	3·0	5·5
30	5·3		14·5	14·3	8·9	11·9	13·8	11·8	13·7	6·0	3·7	5·6
31	4·1		10·2		12·1		11·2	9·3		10·4		5·3
Means	5′·3	7′·6	11′·2	12′·1	10′·8	12′·5	12′·4	12′·4	11′·9	12′·6	10′·1	6′·4

The mean of the twelve monthly values is 10′·44.

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

Each result is the mean of the corresponding hourly ordinates from the photographic register, on 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 2, 3, 18, 19, 31.	April 10, 11, 12, 13, 28.	July 4, 15, 16, 17, 24.	October 2, 5, 9, 18, 29.
February 7, 11, 14, 16, 17.	May 7, 8, 11, 28, 29.	August 5, 13, 14, 15, 24.	November 3, 4, 14, 29, 30.
March 2, 3, 14, 15, 28.	June 3, 4, 10, 20, 30.	September 7, 8, 18, 19, 20.	December 1, 5, 18, 21, 22.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	′	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	0·5	0·5	3·0	3·9	4·5	4·7	3·6	3·7	3·2	2·2	0·1	0·4	2·27
1h	0·7	0·6	3·3	3·7	4·2	4·8	3·0	3·6	2·9	2·8	0·0	0·5	2·25
2	0·7	0·6	2·8	3·2	3·7	4·7	2·8	3·3	2·8	2·7	0·1	0·8	2·09
3	0·8	0·7	2·5	2·9	3·2	4·3	2·7	2·8	2·6	2·6	0·1	0·8	1·91
4	0·7	0·6	2·1	2·0	2·5	3·1	1·9	1·9	2·3	2·4	0·0	0·8	1·43
5	0·5	0·4	2·4	1·8	1·4	2·1	0·5	1·1	1·6	2·2	0·0	0·7	0·97
6	0·2	0·1	1·8	1·3	0·6	1·0	0·0	0·5	0·7	1·9	0·1	0·5	0·47
7	0·1	0·2	0·9	0·4	0·0	0·2	0·3	0·0	0·0	1·1	0·2	0·4	0·06
8	0·1	0·5	0·0	0·0	0·3	0·0	0·7	0·4	0·4	0·0	0·2	0·5	0·00
9	0·7	1·0	1·1	0·3	2·1	1·3	1·8	2·1	2·8	0·4	0·6	1·0	1·01
10	1·5	2·2	3·5	2·5	4·9	4·3	4·3	4·8	5·7	3·0	1·6	1·8	3·08
11	2·7	3·0	6·3	5·6	7·7	8·0	7·6	7·6	8·0	6·1	2·7	2·6	5·40
Noon	3·3	3·2	8·2	8·1	9·4	9·8	9·7	10·0	9·5	7·6	3·2	3·1	6·83
13h	2·9	2·9	8·6	9·3	9·8	10·3	10·1	10·9	9·0	8·1	3·2	2·8	7·07
14	1·9	2·2	7·9	8·4	8·9	10·1	9·6	10·5	7·3	7·0	2·9	2·0	6·30
15	1·5	1·6	6·6	6·8	7·3	8·9	8·6	8·9	5·5	5·7	2·3	1·6	5·18
16	1·4	1·5	4·8	5·5	6·0	7·7	7·4	7·0	4·4	4·5	2·2	1·4	4·23
17	1·3	1·4	4·4	4·6	5·0	6·9	6·2	5·7	4·3	4·1	1·5	1·2	3·63
18	1·0	1·1	4·1	3·7	4·7	6·1	5·5	4·7	4·2	3·7	1·4	1·0	3·18
19	0·7	0·7	3·8	3·6	4·5	5·3	5·2	4·5	4·3	3·4	1·1	0·7	2·89
20	0·4	0·3	3·4	3·6	4·5	5·2	5·0	4·5	4·0	3·1	0·8	0·5	2·68
21	0·2	0·1	3·1	3·8	4·6	5·4	4·9	4·4	3·7	2·7	0·3	0·3	2·53
22	0·0	0·1	3·0	3·7	4·7	5·1	4·7	4·2	3·4	2·6	0·1	0·2	2·39
23	0·2	0·0	3·0	3·6	4·5	5·1	4·2	3·9	2·9	2·3	0·1	0·0	2·23
Means	1′·00	1′·06	3′·78	3′·85	4′·54	5′·18	4′·60	4′·63	3′·98	3′·43	1′·03	1′·07	2′·92

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

Each result is the mean of the corresponding hourly ordinates from the photographic register, on 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 1, 5, 25, 26, 27.	April 7, 8, 15, 22, 26.	July 2, 6, 9, 11, 27.	October 15, 19, 23, 24, 25.
February 8, 19, 20, 23, 24.	May 1, 2, 16, 17, 26.	August 2, 7, 26, 27, 29.	November 1, 5, 6, 16, 17.
March 7, 8, 20, 21, 22.	June 12, 13, 17, 18, 22.	September 22, 23, 24, 28, 29.	December 6, 7, 15, 16, 26.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	′	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	1·6	0·0	2·8	1·1	1·1	1·8	1·8	1·3	1·2	0·8	0·0	3·3	0·00
1h	1·8	1·4	4·4	2·1	2·1	1·9	1·9	0·4	3·0	1·6	1·6	3·8	0·77
2	2·2	1·4	4·3	1·4	1·7	2·8	2·8	1·7	2·3	5·6	4·1	3·9	1·45
3	0·7	1·5	4·6	1·6	1·1	3·4	2·1	3·1	4·2	5·2	3·3	4·9	1·58
4	0·9	2·1	4·9	1·2	1·2	3·2	1·2	3·6	2·3	6·8	2·8	4·4	1·48
5	1·1	1·8	5·0	0·9	0·0	0·3	0·2	2·2	3·8	9·8	6·8	4·3	1·62
6	2·0	2·2	6·2	0·3	0·6	0·2	0·0	0·6	4·8	10·2	7·6	5·1	1·92
7	2·8	2·4	4·7	0·0	0·5	0·0	1·2	0·0	5·2	9·5	7·4	4·8	1·81
8	3·8	3·1	3·2	0·0	1·6	1·6	0·8	1·3	4·8	8·9	9·2	4·7	2·18
9	4·5	4·5	5·1	0·5	3·1	3·9	2·3	3·6	5·7	8·6	9·2	5·2	3·28
10	5·3	6·4	7·7	1·1	6·0	9·8	4·7	6·4	6·8	10·0	9·3	6·0	5·23
11	5·7	8·7	10·0	6·3	8·5	12·9	7·9	9·4	9·0	13·6	13·3	7·0	7·96
Noon	6·2	9·1	12·2	9·7	10·4	15·4	10·5	11·5	10·2	13·8	14·2	9·2	9·63
13h	6·0	8·8	11·9	11·7	10·8	17·5	11·0	11·6	10·9	15·3	13·3	9·3	10·11
14	3·4	8·1	11·7	11·6	10·1	15·2	10·7	10·9	9·8	13·4	12·3	8·4	9·07
15	4·1	7·0	11·6	10·3	9·5	14·0	9·3	8·3	7·0	8·8	12·7	9·2	7·92
16	4·1	5·8	8·0	8·5	8·6	12·9	8·0	6·4	4·1	5·9	9·2	4·9	5·80
17	2·0	2·1	7·9	7·1	7·3	6·9	5·4	5·3	3·9	2·2	6·1	4·6	3·67
18	2·3	3·2	4·5	4·2	4·7	7·7	4·4	4·0	1·2	0·0	3·9	0·9	2·02
19	0·4	3·9	4·2	3·2	3·6	6·5	4·2	2·0	3·4	1·4	0·6	1·3	1·49
20	0·0	2·3	2·2	0·1	2·6	6·7	4·5	2·7	1·2	2·3	1·1	0·7	0·80
21	0·1	0·0	0·0	0·4	1·9	6·5	2·9	3·1	0·3	2·2	0·2	0·0	0·07
22	1·0	2·2	0·3	0·6	1·7	5·2	3·1	4·0	0·0	2·4	0·4	0·0	0·34
23	1·4	2·1	1·7	1·8	2·0	2·4	4·1	3·0	1·2	2·2	1·5	1·4	0·67
Means	2·64	3·75	5·80	3·57	4·20	6·61	4·38	4·43	4·43	6·69	6·25	4·47	3·37

TABLE VIII.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES of MAGNETIC NORTH FORCE.

(The results in each month are diminished by the smallest hourly values.)

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	11 γ	18 γ	36 γ	32 γ	26 γ	39 γ	34 γ	38 γ	35 γ	31 γ	24 γ	8 γ	27·5 γ
1h	11	17	32	29	24	39	32	36	36	31	24	8	26·4
2	12	17	33	28	23	37	31	35	34	28	23	8	25·6
3	13	16	32	27	23	37	32	35	34	29	23	10	25·8
4	15	19	34	29	24	40	34	34	34	30	26	12	27·4
5	17	20	33	30	24	39	34	34	34	30	26	14	27·8
6	17	20	32	31	20	35	29	31	27	29	24	15	25·7
7	16	19	31	30	17	26	24	22	21	27	18	12	21·8
8	13	16	24	25	10	17	15	13	14	19	13	8	15·3
9	7	10	11	14	4	9	7	4	5	9	8	4	7·5
10	2	3	3	5	2	0	0	1	1	1	4	2	1·8
11	0	0	0	0	0	1	0	0	0	0	0	1	0·0
Noon	1	0	2	0	2	5	4	3	3	2	2	0	1·8
13h	3	3	8	4	4	11	9	8	8	5	5	1	5·6
14	5	7	17	10	10	19	18	14	15	10	9	2	11·2
15	5	9	23	18	17	28	25	23	18	13	10	1	15·7
16	5	8	25	24	22	36	30	30	23	14	15	6	19·7
17	9	12	28	29	28	44	36	34	28	19	19	7	24·3
18	10	15	30	30	32	46	39	39	33	25	19	6	26·8
19	12	16	33	32	30	46	40	41	34	24	24	7	28·1
20	13	18	36	31	30	44	40	43	36	28	25	10	29·3
21	13	19	36	32	29	41	38	41	38	30	30	11	29·7
22	11	17	37	31	29	41	35	40	37	32	29	12	29·1
23	11	19	36	33	26	42	34	38	36	33	25	10	28·4
Means	9·7	13·2	25·5	23·1	19·0	30·1	25·8	26·5	24·3	20·8	17·7	7·3	20·2

TABLE IX.—DIURNAL RANGE of NORTH FORCE, on each CIVIL DAY, as deduced from the TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTERS.

(The results are corrected for Temperature and are expressed in C.G.S. units.)

1915.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	82 γ	24 γ	33 γ	37 γ	49 γ	41 γ	47 γ	55 γ	26 γ	53 γ	100 γ	11 γ
2	13	33	24	56	62	41	76	74	37	31	24	16
3	16	17	29	59	52	42	66	67	35	43	28	19
4	22	34	23	45	53	35	29	46	38	23	37	15
5	68	40	31	49	35	30	39	46	43	27	71	15
6	21	20	30	43	30	39	66	72	45	29	18	108
7	41	23	51	57	36	51	37	66	43	49	32	52
8	42	43	77	68	25	64	40	55	47	24	58	28
9	23	48	73	27	23	48	40	36	44	33	39	16
10	37	13	50	27	31	36	64	66	43	28	51	22
11	18	24	48	30	31	34	67	47	37	50	37	25
12	35	28	31	27	33	60	57	42	37	34	48	17
13	28	15	36	27	29	93	51	42	40	40	44	10
14	19	18	52	32	50	55	61	43	38	77	19	48
15	16	21	35	31	49	41	54	40	51	109	32	65
16	19	23	65	48	61	46	49	51	47	40	85	34
17	13	22	70	55	77	312	42	68	67	49	99	29
18	26	27	34	66	32	72	47	48	30	51	68	15
19	23	33	65	64	46	42	39	59	31	68	50	23
20	24	57	63	44	45	52	38	42	42	104	72	10
21	21	51	69	48	47	61	51	39	32	66	52	13
22	28	54	54	62	36	67	38	30	52	50	45	14
23	15	49	80	75	34	56	37	43	81	95	23	21
24	38	81	45	33	36	63	43	41	67	67	28	18
25	98	76	49	32	38	57	40	46	50	94	33	21
26	34	60	59	87	37	57	47	79	67	57	21	65
27	38	27	32	27	49	45	54	72	58	45	26	30
28	18	17	42	32	31	47	54	45	74	29	45	19
29	33		56	36	29	63	87	73	81	34	20	19
30	19		59	32	20	43	58	43	76	29	19	22
31	26		34		26		37	32		27		30
Means	30·8	34·9	48·4	45·2	39·7	59·8	50·2	51·9	48·6	50·2	44·1	27·4

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

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

January 2, 3, 18, 19, 31.	April 10, 11, 12, 13, 28.	July 4, 15, 16, 17, 24.	October 2, 5, 9, 18, 29.
February 7, 11, 14, 16, 17.	May 7, 8, 11, 28, 29.	August 5, 13, 14, 15, 24.	November 3, 4, 14, 29, 30.
March 2, 3, 14, 15, 28.	June 3, 4, 10, 20, 30.	September 7, 8, 18 19, 20.	December 1, 5, 18, 21, 22.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	8 γ	15 γ	28 γ	23 γ	23 γ	22 γ	33 γ	34 γ	31 γ	28 γ	15 γ	5 γ	20·9 γ
1h	9	14	29	23	22	20	30	33	30	29	13	5	20·2
2	9	14	29	23	21	21	30	33	30	27	13	5	20·1
3	10	14	29	22	22	22	32	33	29	28	15	7	20·7
4	11	15	30	23	22	25	35	34	29	29	17	9	22·0
5	14	17	31	23	23	26	35	34	27	31	17	10	22·8
6	15	16	29	25	21	23	30	31	23	30	17	11	21·4
7	16	16	29	25	17	17	22	24	18	29	16	10	18·7
8	13	13	26	21	11	8	13	15	11	23	13	4	13·1
9	6	7	15	12	5	0	6	9	4	13	8	1	6·0
10	1	4	2	5	0	14	0	2	0	4	1	1	1·6
11	0	0	0	1	0	13	0	0	0	0	0	0	0·0
Noon	2	0	4	0	0	14	4	1	5	2	3	0	1·7
13h	11	4	11	5	2	21	10	4	12	7	6	3	6·8
14	14	8	17	9	8	28	18	9	19	10	7	5	11·5
15	12	9	23	15	11	34	26	18	24	16	10	6	15·8
16	11	9	26	19	15	42	32	26	26	20	12	7	19·2
17	13	8	26	21	20	49	38	32	28	25	13	10	22·4
18	13	13	28	22	24	51	37	37	32	28	15	10	24·6
19	14	16	31	23	27	51	38	39	34	29	15	10	26·0
20	14	15	31	23	26	50	38	39	35	30	16	10	26·1
21	13	16	33	25	26	47	35	38	36	30	19	9	26·0
22	13	16	35	25	26	47	34	36	37	30	18	8	25·4
23	11	17	33	25	25	45	35	35	36	29	17	7	25·1
Means	10·5	11·5	24·0	18·3	16·5	28·7	25·5	24·8	23·2	22·0	12·3	6·4	17·4

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

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

January 1, 5, 25, 26, 27.	April 7, 8, 15, 22, 26.	July 2, 6, 9, 11, 27.	October 15, 19, 23, 24, 25.
February 8, 19, 20, 23, 24.	May 1, 2, 16, 17, 27.	August 2, 7, 26, 27, 29.	November 1, 5, 6, 16, 17.
March 7, 8, 20, 21, 22.	June 12, 13, 17, 18, 22.	September 22, 23, 24, 28, 29.	December 6, 7, 15, 16, 26.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	30 γ	39 γ	36 γ	36 γ	39 γ	89 γ	47 γ	61 γ	44 γ	59 γ	45 γ	31 γ	43·0 γ
1h	32	34	33	35	38	95	44	53	50	60	65	31	44·2
2	30	35	38	35	37	85	42	55	43	52	61	33	42·2
3	40	31	38	34	35	85	41	52	42	51	58	33	41·7
4	42	34	41	37	36	81	40	43	48	49	62	38	42·6
5	43	34	36	38	40	86	37	47	45	49	56	42	42·8
6	36	36	31	41	28	81	28	39	27	38	49	42	36·4
7	31	33	34	38	22	58	29	31	19	32	34	38	30·0
8	24	22	24	34	15	36	24	13	12	21	26	31	20·2
9	19	20	8	18	5	26	13	1	3	14	26	23	11·4
10	8	5	2	1	2	0	4	0	3	5	23	21	2·9
11	0	0	2	0	0	14	4	4	0	0	0	16	0·0
Noon	4	3	0	5	0	9	2	6	5	5	2	2	0·3
13h	5	13	5	6	4	17	0	16	9	5	6	0	3·9
14	7	15	19	13	12	57	16	21	14	9	14	5	13·5
15	14	19	22	20	22	64	22	31	21	17	17	4	19·4
16	4	17	24	32	27	79	31	40	29	14	24	14	24·6
17	12	22	25	33	37	95	43	46	30	18	36	12	30·8
18	15	21	28	31	40	89	42	51	39	30	29	10	32·1
19	22	28	33	35	37	81	38	56	35	21	45	13	33·7
20	28	32	46	41	40	76	37	54	40	27	42	22	37·1
21	35	41	35	34	35	74	37	48	50	36	61	27	39·5
22	26	32	36	35	38	76	32	51	45	36	54	34	37·9
23	27	30	37	37	32	92	27	48	38	22	46	30	35·5
Means	22·2	24·8	26·4	27·9	25·9	64·4	28·3	36·1	28·8	27·9	36·7	23·0	27·7

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.)

1915.

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

TABLE XIII.—DIURNAL RANGE of VERTICAL MAGNETIC FORCE, on each CIVIL DAY, as deduced from the TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTERS.

(The results are corrected for Temperature and expressed in C.G.S. units.)

1915.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	44 γ	30 γ	17 γ	33 γ	51 γ	21 γ	29 γ	33 γ	26 γ	28 γ	78 γ	10 γ
2	11	39	17	57	55	27	63	41	32	6	23	16
3	9	9	16	35	32	33	30	47	21	10	21	18
4	14	21	21	53	33	16	25	23	24	11	28	9
5	31	14	21	29	27	25	20	23	25	16	74	23
6	12	15	18	15	37	18	33	39	17	21	104	115
7	33	3	34	28	27	19	12	57	26	26	22	22
8	16	51	50	28	27	33	20	26	20	20	28	16
9	5	48	18	18	25	21	43	19	18	18	21	26
10	11	12	23	26	23	27	35	39	24	20	20	18
11	7	14	23	21	33	24	26	33	25	24	24	18
12	23	15	17	28	22	48	36	46	22	11	20	4
13	22	27	17	19	44	31	31	24	36	20	10	14
14	17	15	19	26	30	25	38	26	18	71	5	28
15	7	29	15	39	38	30	30	28	19	109	18	38
16	9	18	20	50	48	41	30	22	27	56	102	17
17	14	20	38	17	42	303	24	34	35	22	60	17
18	11	9	25	20	35	59	32	28	17	9	61	11
19	11	41	32	34	34	23	33	20	22	55	44	15
20	26	27	55	50	38	30	31	26	15	28	29	9
21	6	23	63	50	36	32	28	28	20	37	31	11
22	7	17	51	50	35	51	35	21	74	52	27	10
23	12	40	30	35	35	27	25	21	53	93	19	17
24	14	22	31	30	31	23	15	25	38	95	19	8
25	34	14	40	38	54	30	34	22	23	101	11	19
26	18	33	17	91	42	36	32	93	43	42	15	26
27	21	17	21	38	58	29	50	34	32	21	16	21
28	10	22	24	34	34	33	48	29	39	13	28	7
29	14		17	39	40	38	23	46	58	29	18	14
30	13		28	49	38	23	28	33	50	16	12	19
31	16		25		26		29	22		21		19
Means	16·1	23·0	27·2	36·0	36·5	39·2	31·2	32·5	30·0	35·5	32·9	19·8

The mean of the twelve monthly values is 30·0 γ.

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

Each result is the mean of the corresponding hourly ordinates from the photographic registers, on 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 2, 3, 18, 19, 31.	April 10, 11, 12, 13, 28.	July 4, 15, 16, 17, 24.	October 2, 5, 9, 18, 29.
February 7, 11, 14, 16, 17.	May 7, 8, 11, 28, 29.	August 5, 13, 14, 15, 24.	November 3, 4, 14, 29, 30.
March 2, 3, 14, 15, 28.	June 3, 4, 10, 20, 30.	September 7, 8, 18, 19, 20.	December 1, 5, 18, 21, 22.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	13 γ	20 γ	29 γ	34 γ	53 γ	19 γ	16 γ	30 γ	29 γ	30 γ	20 γ	8 γ	22·6 γ
1h	8	17	21	32	50	20	15	30	29	26	19	6	20·3
2	11	15	18	29	36	19	15	28	27	25	15	4	17·7
3	11	15	17	28	33	18	16	27	25	22	15	2	16·6
4	9	16	17	25	33	16	17	26	24	20	12	2	15·6
5	9	17	17	23	28	16	18	25	22	18	10	1	14·5
6	7	17	17	20	25	14	15	23	20	9	6	0	11·9
7	6	14	19	18	18	14	12	19	15	11	1	0	9·7
8	4	14	20	17	24	11	8	17	9	13	4	1	9·3
9	4	13	15	7	17	9	7	10	2	8	1	3	5·5
10	2	10	10	7	4	5	2	4	6	0	0	6	2·2
11	0	5	1	2	0	0	0	0	8	2	4	8	0·0
Noon	0	1	0	0	4	5	2	3	0	5	6	5	0·1
13h	4	0	4	5	11	9	6	8	7	11	7	10	4·3
14	7	4	11	14	24	15	10	17	15	19	9	10	10·4
15	9	6	18	23	31	18	13	22	16	25	12	12	14·6
16	10	5	22	30	34	24	18	25	19	29	14	13	17·8
17	13	4	20	32	36	28	19	26	19	26	15	14	18·5
18	10	8	20	35	37	31	21	24	20	28	18	13	19·6
19	8	7	21	36	36	31	20	24	21	29	18	12	19·4
20	8	6	20	35	38	34	19	23	22	29	19	11	19·5
21	9	8	19	36	36	28	19	23	22	32	21	14	19·7
22	9	10	20	37	36	31	21	24	23	32	20	16	20·7
23	11	12	23	36	35	30	21	22	22	33	23	14	21·0
Means	7·6	10·2	16·6	23·4	28·3	18·5	13·7	20·0	17·6	20·1	12·0	7·7	13·8

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

Each result is the mean of the corresponding hourly ordinates from the photographic registers, of 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 1, 5, 25, 26, 27.	April 7, 8, 15, 22, 26.	July 2, 6, 9, 11, 27.	October 15, 19, 23, 24, 25.
February 8, 19, 20, 23, 24.	May 1, 2, 16, 17, 27.	August 2, 7, 26, 27, 29.	November 1, 5, 6, 16, 17.
March 7, 8, 20, 21, 22.	June 12, 13, 17, 18, 22.	September 22, 23, 24, 28, 29.	December 6, 7, 15, 16, 26.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	17 γ	35 γ	34 γ	24 γ	12 γ	63 γ	4 γ	34 γ	33 γ	62 γ	34 γ	23 γ	28·0 γ
1h	19	27	38	28	19	67	22	38	39	63	34	24	31·6
2	26	31	45	29	26	74	28	37	43	69	44	27	36·7
3	29	35	44	32	27	77	32	38	48	76	51	29	39·9
4	30	34	46	32	29	78	34	37	46	74	52	32	40·4
5	29	32	46	34	33	84	34	32	45	74	49	31	40·3
6	29	31	46	36	35	79	33	29	44	74	52	33	40·2
7	27	34	48	40	39	89	36	30	45	73	52	33	42·2
8	28	34	45	38	37	88	33	31	43	67	45	31	40·1
9	31	40	48	43	43	96	33	32	42	65	43	33	42·3
10	28	42	51	46	50	93	35	31	41	64	41	32	42·9
11	27	40	52	45	54	84	37	33	41	55	34	28	40·9
Noon	22	33	47	46	45	72	34	32	38	48	21	28	35·6
13h	16	29	39	37	34	57	27	26	29	35	13	19	26·8
14	8	25	32	29	26	38	20	16	22	21	3	16	18·1
15	7	16	19	22	19	32	14	7	13	12	0	9	10·9
16	4	12	9	13	11	0	7	1	0	0	0	7	2·1
17	0	6	4	4	4	3	1	0	7	3	2	5	0·0
18	6	0	0	1	0	25	0	2	10	15	3	15	3·2
19	10	6	5	0	1	30	3	4	13	23	0	0	4·7
20	14	10	13	5	8	35	10	12	17	34	9	6	11·2
21	9	15	20	9	13	38	14	14	21	45	13	8	15·0
22	17	17	27	11	20	45	17	19	25	46	25	11	20·1
23	15	19	29	30	23	59	17	24	29	45	31	17	24·9
Means	18·7	25·1	32·8	26·4	25·3	58·6	21·9	23·3	30·6	47·6	27·1	20·7	53·2

TABLE XVI.—MEAN TEMPERATURE for each CIVIL DAY within the box inclosing the VERTICAL FORCE MAGNET.

1915.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	66·6	67·2	66·9	66·7	67·2	66·6	67·5	67·7	66·6	65·6	67·3	68·6
2	66·8	67·4	66·9	67·2	65·9	67·7	66·9	67·1	66·4	67·3	67·7	68·4
3	66·8	66·7	67·7	67·0	66·6	67·4	68·8	67·0	67·5	67·7	67·7	67·9
4	66·5	67·4	66·8	68·4	67·1	67·3	68·8	67·9	67·9	67·7	67·5	67·6
5	67·1	66·9	67·1	66·7	67·8	68·5	68·5	67·4	67·3	67·4	67·1	68·3
6	67·0	66·4	67·0	66·9	67·6	68·0	67·9	68·0	67·8	67·4	66·4	67·8
7	67·3	67·3	68·0	66·5	68·1	67·6	67·2	67·6	66·9	67·4	66·1	67·9
8	66·1	66·4	67·5	66·4	67·0	69·2	66·4	67·4	66·6	67·1	66·5	68·1
9	67·1	67·6	66·7	66·1	66·5	68·4	67·2	67·8	67·2	68·1	67·4	68·1
10	67·3	66·7	67·1	68·3	67·6	67·3	66·7	68·8	66·9	68·3	66·0	67·1
11	66·9	67·2	68·6	66·8	67·4	66·8	67·2	69·4	67·0	67·5	64·7	67·7
12	66·8	67·4	67·6	66·9	66·9	67·2	66·4	68·6	64·9	68·1	65·1	65·1
13	66·7	67·4	67·1	66·8	66·5	66·8	67·8	67·5	66·6	67·3	64·6	65·2
14	66·5	66·9	67·9	67·8	66·8	67·6	67·0	66·8	66·6	67·4	62·2	67·4
15	66·8	66·4	67·1	66·3	67·9	66·9	67·0	66·4	67·4	67·4	56·5	68·1
16	66·2	67·7	66·8	67·6	67·6	67·5	66·8	66·8	67·8	66·9	59·8	67·2
17	66·9	68·4	67·1	67·1	67·8	67·2	67·2	66·6	67·9	67·4	60·4	67·5
18	66·7	66·7	66·9	67·1	66·0	66·6	66·7	66·8	67·4	67·0	59·8	67·7
19	66·7	66·6	66·2	67·0	67·2	66·6	67·4	66·2	66·3	67·1	61·6	67·6
20	67·3	67·0	67·2	66·1	66·9	68·2	67·8	66·7	66·9	67·4	67·7	66·6
21	66·8	66·3	67·2	66·6	68·1	67·4	67·8	66·3	67·2	67·6	68·4	67·7
22	66·1	66·7	67·4	67·4	66·3	67·1	67·3	66·2	67·6	67·2	67·9	67·6
23	65·4	66·6	68·3	66·1	66·4	67·0	67·4	67·2	67·7	67·7	67·2	67·0
24	66·4	66·9	67·9	66·3	66·0	67·6	67·1	66·9	66·8	67·7	67·7	67·9
25	66·8	67·1	67·0	67·2	67·9	67·1	66·7	67·1	66·1	68·0	66·8	67·0
26	66·4	67·0	66·8	67·3	66·8	67·1	66·5	67·0	67·4	67·3	66·8	68·4
27	66·5	67·5	66·6	66·6	66·5	67·5	66·9	67·2	67·5	67·8	66·2	67·3
28	66·6	66·9	66·2	67·1	67·4	66·0	66·7	67·2	67·0	67·3	66·3	67·5
29	66·7		67·1	66·9	67·4	67·6	67·7	66·7	67·9	67·3	66·3	66·2
30	67·1		67·1	67·3	66·3	66·6	67·3	65·4	67·8	67·2	68·5	67·3
31	66·9		66·1		67·3		67·8	67·1		68·1		68·7
Means	66·71	67·03	67·16	66·98	67·06	67·35	67·31	67·20	67·09	67·45	65·47	67·50

TABLE XVII.—MONTHLY and ANNUAL MEAN TEMPERATURE at each HOUR of the DAY within the box inclosing the VERTICAL FORCE MAGNET.

1915.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midn.	67·1	67·4	67·6	67·4	67·4	67·6	67·5	68·5	67·4	67·7	65·9	67·7	67·44
1^{h}	66·9	67·2	67·4	67·3	67·2	67·5	67·4	68·4	67·3	67·6	65·8	67·7	67·29
2	66·7	67·1	67·2	67·0	67·1	67·4	67·4	68·3	67·2	67·5	65·7	67·6	67·19
3	66·6	67·0	67·1	66·8	66·9	67·3	67·3	68·2	67·1	67·4	65·6	67·6	67·08
4	66·5	66·9	67·0	66·7	66·8	67·3	67·3	68·1	67·0	67·3	65·4	67·5	67·07
5	66·5	66·9	66·9	66·5	66·7	67·2	67·2	68·0	67·0	67·2	65·3	67·3	67·00
6	66·4	66·8	66·8	66·4	66·6	67·2	67·2	67·9	66·8	67·1	65·2	67·3	66·82
7	66·5	66·8	66·8	66·3	66·5	67·1	67·2	67·9	66·7	67·0	65·1	67·3	66·76
8	66·4	66·9	66·9	66·3	66·5	67·0	67·2	67·8	66·6	67·0	65·0	67·3	66·74
9	66·3	66·8	66·8	66·2	66·5	67·0	67·2	67·7	66·5	66·9	64·9	67·3	66·69
10	66·3	66·8	66·8	66·4	66·6	67·1	67·2	67·8	66·6	67·0	64·9	67·3	66·74
11	66·3	66·8	66·8	66·7	66·7	67·1	67·2	68·0	66·7	67·2	64·9	67·4	66·74
Noon	66·3	66·8	66·9	66·9	66·9	67·2	67·3	68·0	66·9	67·5	65·0	67·4	66·94
13^{h}	66·5	66·9	67·0	67·0	67·0	67·3	67·2	68·1	67·0	67·7	65·1	67·4	67·02
14	66·7	67·1	67·2	67·2	67·1	67·3	67·2	68·2	67·1	67·7	65·2	67·5	67·13
15	66·8	67·1	67·3	67·2	67·2	67·3	67·3	68·2	67·2	67·7	65·3	67·6	67·18
16	66·9	67·1	67·3	67·3	67·3	67·4	67·3	68·3	67·3	67·7	65·5	67·6	67·25
17	67·0	67·0	67·3	67·3	67·4	67·5	67·3	68·3	67·3	67·7	65·6	67·6	67·29
18	66·9	67·1	67·4	67·4	67·4	67·5	67·3	68·4	67·3	67·7	65·7	67·6	67·32
19	66·9	67·2	67·5	67·5	67·3	67·4	67·4	68·4	67·4	67·7	65·7	67·7	67·34
20	67·0	67·2	67·5	67·6	67·3	67·4	67·4	68·4	67·4	67·7	65·8	67·7	67·36
21	67·0	67·1	67·6	67·6	67·3	67·5	67·4	68·5	67·4	67·7	65·9	67·7	67·41
22	67·1	67·2	67·6	67·6	67·4	67·5	67·5	68·4	67·4	67·7	65·9	67·8	67·43
23	67·2	67·3	67·6	67·6	67·4	67·5	67·5	68·4	67·4	67·7	65·9	67·8	67·44

TABLE XVIII.—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 the middle of the hour commencing at Greenwich mean midnight converted into arc at the rate of 15° to each hour, and V_t the annual or monthly mean hourly value of the magnetic element at time t, as given in Tables II., VI., and X.

The coefficients, a, b, c, are given in units of 1 γ (0·00001 C.G.S. unit) for N.F. and V.F. and in minutes of arc (1′ = 5·39 γ) for declination.

If the inequalities are expressed relative to time reckoned from apparent midnight, the new phase angles, α'_1, α'_2, α'_3, α'_4, may be obtained from α_1, α_2, α_3, α_4 by adding respectively a, $2a$, $3a$, $4a$, the value of a for each month being as follows :—

Jan. + 2°·19′.	Apr. + 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, 1915.	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4
	DECLINATION WEST.															
	′	′	′	′	′	′	′	′	′	°	′	°	′	°	′	°
January	−1·40	−0·13	+0·52	+0·32	−0·18	+0·21	+0·22	−0·06	1·41	264·7	0·61	58·4	0·28	319·4	0·23	105·3
February	−1·98	−0·27	+0·88	+0·30	−0·38	+0·13	+0·18	0·00	2·00	262·2	0·93	71·2	0·40	288·9	0·18	90·0
March	−2·63	−1·25	+1·33	+1·50	−0·96	−0·27	+0·47	+0·14	2·91	244·6	2·00	41·6	1·00	254·3	0·49	73·4
April	−2·56	−2·15	+1·57	+1·78	−0·85	−0·68	+0·30	+0·12	3·34	230·0	2·37	41·4	1·09	231·3	0·32	68·2
May	−2·22	−2·23	+1·82	+1·26	−0·79	−0·12	+0·24	+0·02	3·15	224·9	2·21	55·3	0·80	261·4	0·24	85·2
June	−2·43	−2·95	+1·94	+1·32	−0·90	−0·24	−0·02	−0·01	3·82	219·5	2·35	55·8	0·93	255·1	0·02	243·4
July	−2·49	−2·86	+2·30	+1·27	−0·89	−0·25	+0·08	+0·04	3·79	221·0	2·63	61·1	0·92	254·3	0·09	63·4
August	−2·76	−2·24	+2·25	+1·08	−1·10	−0·27	+0·12	+0·03	3·55	230·1	2·50	64·4	1·13	256·2	0·12	76·0
September	−2·93	−1·09	+1·79	+0·95	−1·04	−0·22	+0·46	+0·12	3·13	249·6	2·03	62·0	1·06	258·1	0·48	75·4
October	−2·98	−0·31	+1·09	+1·43	−1·07	−0·57	+0·40	+0·03	3·00	264·1	1·80	37·3	1·21	242·0	0·40	85·7
November	−2·66	+0·47	+0·70	+0·77	−0·17	+0·03	+0·25	+0·08	2·70	280·0	1·04	42·3	0·17	280·0	0·26	72·3
December	−1·70	−0·01	+0·48	+0·57	−0·19	+0·07	+0·15	+0·02	1·70	270·0	0·75	40·1	0·20	290·2	0·15	82·4
For the Year	−2·39	−1·25	+1·39	+1·04	−0·71	−0·18	+0·24	+0·04	2·70	242·4	1·72	53·2	0·73	255·8	0·24	80·5
	NORTH FORCE.															
January	+ 4·9	+ 2·2	− 4·0	− 0·3	+ 0·1	− 1·5	+ 0·2	+ 1·1	5·4	65·8	4·0	265·7	1·5	176·2	1·1	10·3
February	+ 7·5	+ 1·6	− 4·1	− 0·6	+ 1·1	− 1·8	0·0	+ 1·1	7·7	78·0	4·1	261·7	2·1	148·6	1·1	360·0
March	+14·3	− 1·8	− 6·7	+ 1·4	+ 2·2	− 3·5	− 0·5	+ 1·3	14·4	97·2	6·8	281·8	4·1	147·8	1·4	339·0
April	+12·6	− 1·1	− 7·8	− 0·3	+ 3·4	− 1·7	+ 0·3	+ 0·6	12·6	95·0	7·8	267·8	3·8	116·6	0·7	26·6
May	+11·5	− 5·5	− 6·2	+ 1·5	+ 0·5	− 0·6	+ 0·7	− 0·5	12·7	115·6	6·4	283·6	0·8	140·2	0·9	125·5
June	+16·7	− 7·2	− 9·2	+ 4·2	+ 1·0	− 1·6	+ 1·4	− 0·3	18·2	113·3	10·1	294·5	1·9	148·0	1·4	102·1
July	+14·3	− 6·4	− 8·2	+ 3·2	+ 0·4	− 2·0	+ 0·6	+ 0·4	15·7	114·1	8·8	291·3	2·0	168·7	0·7	56·3
August	+17·3	− 6·5	− 7·2	+ 2·7	0·0	− 1·8	+ 0·8	+ 0·1	18·5	110·6	7·7	290·6	1·8	180·0	0·8	82·9
September	+16·5	− 3·7	− 5·3	+ 2·7	− 0·3	− 2·0	+ 0·4	+ 0·4	16·9	102·6	5·9	297·0	2·0	188·5	0·6	45·0
October	+14·1	+ 1·0	− 4·8	+ 0·4	+ 1·2	− 3·0	+ 0·8	+ 0·9	14·1	85·9	4·8	274·8	3·2	158·2	1·2	41·6
November	+11·5	− 0·7	− 4·4	0·0	− 0·3	− 2·3	− 0·3	− 0·2	11·5	93·5	4·4	270·0	2·3	187·4	0·4	303·7
December	+ 4·4	+ 1·9	− 3·0	− 0·6	− 0·1	− 1·8	+ 0·2	− 0·6	4·8	66·6	3·1	258·7	1·8	183·2	0·6	161·6
For the Year	+12·1	− 2·2	− 6·0	+ 1·1	+ 0·8	− 1·9	+ 0·4	+ 0·4	12·3	100·1	6·1	280·6	2·1	156·9	0·6	39·9
	VERTICAL FORCE.															
January	+ 0.6	− 0·7	− 0·9	+ 0·9	+ 0·3	− 0·4	0·0	+ 0·2	0·9	139·4	1·3	315·0	0·5	143·1	0·2	360·0
February	+ 1·8	− 3·6	− 3·0	+ 0·6	− 0·1	− 0·5	+ 0·3	0·0	4·0	153·4	3·1	281·3	0·5	191·3	0·3	90·0
March	+ 1·9	− 3·3	− 5·2	+ 0·4	+ 2·1	− 0·1	− 0·5	+ 0·1	3·8	150·1	5·2	274·4	2·1	92·7	0·5	281·3
April	+ 7·6	− 3·6	− 7·2	− 0·1	+ 1·8	− 0·3	− 1·3	+ 0·1	8·4	115·3	7·2	269·2	1·8	99·5	1·3	274·4
May	+ 7·8	− 4·5	− 7·2	+ 1·5	+ 1·5	− 0·9	− 0·1	+ 0·3	9·0	120·0	7·4	281·8	1·7	121·0	0·3	341·6
June	+ 4·2	− 8·6	− 6·7	+ 1·6	+ 2·2	− 0·7	− 0·6	− 0·6	9·6	154·0	6·9	283·4	2·3	107·7	0·8	225·0
July	+ 5·2	− 4·3	− 6·5	+ 1·6	+ 2·1	+ 0·1	− 0·7	− 0·4	6·7	129·6	6·7	283·8	2·1	87·3	0·8	299·7
August	+ 2·0	− 3·7	− 6·3	+ 1·5	+ 2·6	− 1·3	− 0·9	− 0·6	4·2	151·6	6·5	283·4	2·9	116·6	1·1	303·6
September	+ 1·6	− 5·0	− 3·7	+ 2·0	+ 2·2	− 0·5	− 0·5	+ 0·1	5·2	162·3	4·2	298·4	2·3	102·8	0·5	281·3
October	− 1·1	− 7·1	− 4·3	+ 1·4	+ 2·5	− 0·5	− 0·8	− 0·4	7·2	188·8	4·5	288·0	2·5	101·3	0·9	243·4
November	− 3·3	− 6·8	− 1·8	+ 2·0	+ 0·1	− 0·3	− 0·1	+ 0·4	7·6	205·9	2·7	318·0	0·3	161·6	0·4	346·0
December	− 0·5	− 3·5	− 0·6	+ 0·1	− 0·2	− 0·3	+ 0·3	+ 0·1	3·5	188·1	0·6	279·5	0·4	213·7	0·3	71·6
For the Year	+ 2·3	− 4·6	− 4·5	+ 1·1	+ 1·4	− 0·5	− 0·4	− 0·1	5·1	153·1	4·6	284·1	1·5	108·0	0·4	261·9

TABLE XIX.—RESULTS of DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE in the YEAR 1915, from Observations made with the GIBSON INSTRUMENT in the MAGNETIC PAVILION.

Greenwich Civil Time, 1915.		In C.G.S. Units. Value of Horizontal Force as observed.	In C.G.S. Units. Value of Horizontal Force deduced to Mean of Month.	Observer.
	d h	·18000+	·18000+	
Jan.	6. 13	526	522	B
	13. 13	514	507	B
	20. 15	535	516	E
	27. 12	503	522	E
Feb.	3. 12.	514	503	E
	10. 12	504	510	E
	17. 12	509	515	B
	24. 13	477	515	B
	26. 12	490	525	E
Mar.	2. 13	512	515	B
	5. 12	508	520	J
	9. 12	455	507	E
	12. 13	503	515	B
	16. 12	509	525	J
	19. 12	477	506	E
	23. 12	482	500	B
	26. 12	488	509	E
	30. 13	500	513	J
Apr.	1. 13	497	510	B
	6. 12	492	513	E
	9. 12	506	513	B
	13. 12	512	516	J
	27. 12	501	511	J
	30. 12	521	521	B
May	4. 13	493	511	B
	7. 12	503	524	E
	11. 15	540	541	E
	14. 12	502	519	E
	18. 12	493	503	B
	21. 12	507	525	E
	25. 12	528	524	E
	28. 12	500	502	B

Greenwich Civil Time, 1915.		In C.G.S. Units. Value of Horizontal Force as observed.	In C.G.S. Units. Value of Horizontal Force deduced to Mean of Month.	Observer.
	d h	·18000+	·18000+	
June	1. 12	491	519	J
	4. 12	502	502	B
	8. 12	502	497	J
	11. 12	513	507	E
	15. 12	496	504	B
	18. 12	451	501	E
	22. 11	462	495	J
	25. 12	482	503	B
	29. 11	485	519	J
July	2. 12	476	507	B
	6. 11	482	500	J
	9. 12	520	517	B
	13. 11	478	511	J
	16. 12	482	505	B
	20. 11	488	501	J
	23. 13	510	511	B
	27. 11	513	531	J
	30. 12	483	500	B
Aug.	3. 11	463	505	J
	6. 12	482	514	B
	10. 11	462	504	J
	12. 11	495	512	J
	14. 12	501	518	J
	16. 12	485	494	B
	16. 15	508	499	B
	17. 12	481	502	J
	20. 15	509	499	B
	25. 12	499	500	J
	27. 12	469	497	B
	31. 12	487	496	B
Sept.	3. 13	502	502	B
	7. 12	494	502	B
	10. 12	494	499	B

Greenwich Civil Time, 1915.		In C.G.S. Units. Value of Horizontal Force as observed.	In C.G.S. Units. Value of Horizontal Force deduced to Mean of Month.	Observer.
	d h	·18000+	·18000+	
Sept.	14. 12	497	507	J
	17. 13	456	495	B
	21. 12	501	506	J
	24. 11	485	501	B
	28. 11	460	506	J
Oct.	1. 13	482	495	B
	5. 12	494	490	J
	8. 15	519	496	B
	12. 12	504	517	J
	15. 13	420	485	B
	19. 15	500	512	J
	22. 12	475	502	B
	26. 15	495	509	J
	29. 12	480	484	B
Nov.	2. 15	491	494	J
	5. 12	480	479	B
	9. 15	504	499	J
	12. 12	471	463	B
	16. 15	475	485	J
	19. 12	461	488	B
	23. 15	491	493	J
	26. 12	503	492	B
	30. 12	517	511	J
Dec.	3. 12	504	500	B
	7. 12	472	495	B
	9. 11	494	502	J
	14. 12	516	509	J
	17. 13	483	501	B
	21. 11	517	512	J
	23. 12	501	498	B
	28. 11	511	522	J
	31. 12	501	510	B

The initials B, E, and J are those of Messrs. Bryant, Edney, and Jones.

TABLE XX.—RESULTS of OBSERVATIONS of MAGNETIC DIP made with the DIP INDUCTOR in the YEAR 1915.

Greenwich Civil Time, 1915. d h	Magnetic Dip.	Observer.
Jan. 2. 12	66° 51′·5	J
5. 11	66. 53·1	E
7. 13	66. 51·3	B
9. 12	66. 51·8	J
12. 13	66. 50·5	B
14. 12	66. 50·7	E
16. 11	66. 51·3	J
19. 11	66. 51·3	J
21. 11	66. 50·9	E
23. 13	66. 50·2	B
26. 13	66. 51·2	B
28. 12	66. 50·6	E
30. 13	66. 50·5	J
Feb. 2. 12	66. 50·8	B
3. 8	66. 51·0	J
3. 10	66. 51·2	J
3. 13	66. 51·1	J
3. 2	66. 50·5	J
3. 3	66. 51·0	J
4. 11	66. 51·3	E
6. 12	66. 51·1	J
9. 13	66. 52·8	B
11. 11	66. 51·9	E
13. 12	66. 50·6	J
16. 12	66. 51·1	B
18. 12	66. 51·4	E
20. 13	66. 51·4	J
22. 13	66. 51·1	B
25. 11	66. 52·2	E
27. 12	66. 51·2	J
Mar. 1. 13	66. 50·8	B
4. 12	66. 50·9	E
6. 11	61. 51·7	J
8. 13	66. 54·0	B
11. 11	66. 53·7	E
13. 13	66. 51·2	J
15. 13	66. 51·8	B
18. 12	66. 51·0	E
20. 12	66. 51·4	J
22. 13	66. 53·5	B
25. 12	66. 52·7	B
27. 13	66. 50·7	J
29. 13	66. 50·6	B
31. 12	66. 51·8	E
Apr. 3.	66. 52·7	J
6. 10	66. 52·4	B

Greenwich Civil Time, 1915. d h	Magnetic Dip.	Observer.
Apr. 7. 11	66° 52′·4	E
10. 13	66. 50·6	J
12. 13	66. 50·6	B
15. 12	66. 51·2	E
17. 13	66. 52·7	J
19. 12	66. 52·8	E
21. 13	66. 51·5	B
24. 12	66. 50·9	J
26. 12	66. 52·4	E
28. 11	66. 51·0	B
May 1. 13	66. 49·3	J
3. 12	66. 51·7	B
6. 12	66. 51·3	E
8. 12	66. 50·6	J
10. 12	66. 49·8	B
13. 12	66. 50·3	E
15. 13	66. 51·0	J
17. 12	66. 53·4	E
19. 16	66. 49·4	J
22. 12	66. 51·1	B
25. 13	66. 49·9	E
27. 11	66. 50·9	B
29. 12	66. 50·6	E
31. 13	66. 49·6	B
June 3. 11	66. 50·9	E
5. 11	66. 50·3	J
7. 13	66. 50·5	B
10. 11	66. 51·1	E
12. 12	66. 51·4	J
14. 13	66. 51·5	E
16. 12	66. 52·0	J
19. 12	66. 54·7	E
21. 13	66. 53·9	B
24. 10	66. 54·5	B
26. 12	66. 52·1	J
29. 12	66. 52·9	J
July 1. 13	66. 52·2	B
3. 12	66. 53·6	J
5. 13	66. 52·4	B
8. 13	66. 51·2	B
10. 13	66. 51·0	J
12. 13	66. 54·1	B
15. 12	66. 52·6	B
17. 12	66. 51·7	J
19. 13	66. 51·3	B

Greenwich Civil Time, 1915. d h	Magnetic Dip.	Observer.
July 21. 12	66° 51′·2	J
24. 13	66. 51·1	B
27. 12	66. 52·7	J
29. 13	66. 52·4	B
31. 12	66. 51·3	B
Aug. 3. 12	66. 54·4	J
5. 13	66. 53·1	B
7. 12	66. 52·9	J
9. 14	66. 51·5	J
11. 12	66. 52·7	J
13. 15	66. 51·2	J
14. 12	66. 51·9	J
16. 13	66. 51·6	B
17. 12	66. 52·4	J
19. 11	66. 51·7	B
19. 11	66. 51·5	B
19. 11	66. 52·4	B
19. 12	66. 52·2	B
19. 12	66. 52·2	B
19. 12	66. 52·9	B
19. 13	66. 52·4	B
19. 13	66. 52·9	B
20. 11	66. 51·8	J
20. 12	66. 51·8	J
20. 12	66. 50·7	J
20. 13	66. 51·0	J
20. 13	66. 51·3	J
20. 13	66. 51·7	J
21. 12	66. 50·6	J
21. 12	66. 50·6	J
21. 12	66. 49·9	J
21. 12	66. 49·3	J
21. 13	66. 49·3	J
21. 13	66. 49·2	J
23. 13	66. 51·0	B
25. 13	66. 51·6	J
28. 12	66. 53·5	B
30. 13	66. 53·5	B
Sept. 1. 12	66. 51·9	B
4. 12	66 52·3	B
6. 13	66. 52·7	B
9. 12	66. 52·5	B
11. 12	66. 53·1	B
13. 11	66. 51·6	J
15. 13	66. 52·6	J
18. 13	66. 52·3	B

Greenwich Civil Time, 1915. d h	Magnetic Dip.	Observer.
Sept. 20. 15	66° 52′·0	B
23. 13	66. 56·5	B
25. 12	66. 53·3	J
27. 15	66. 54·1	B
30. 15	66. 54·3	B
Oct. 2. 13	66. 52·8	J
4. 12	66. 52·0	B
7. 15	66. 52·1	B
9. 13	66. 51·7	J
11. 13	66. 52·9	B
14. 11	66. 53·1	B
16. 13	66. 52·5	J
18. 12	66. 54·1	B
21. 13	66. 53·1	B
23. 12	66. 53·8	J
25. 13	66. 55·9	B
27. 12	66. 54·8	B
30. 12	66. 52·2	J
Nov. 1. 15	66. 56·2	B
2. 13	66. 53·0	B
4. 12	66. 52·9	B
7. 12	66. 48·9	J
8. 13	66. 54·0	B
11. 13	66. 52·7	B
13. 12	66. 52·6	J
15. 15	66. 52·2	B
17. 15	66. 56·0	B
20. 13	66. 53·6	J
22. 13	66. 53·8	B
25. 15	66. 50·8	B
27. 13	66. 52·5	J
29. 13	66. 51·7	B
Dec. 2. 13	66. 51·4	B
4. 11	66. 49·2	J
6. 13	66. 54·2	B
9. 12	66. 52·2	J
11. 13	66. 52·0	J
13. 16	66. 51·1	B
16. 13	66. 53·9	B
18. 12	66. 51·6	J
20. 13	66. 51·2	B
21. 12	66. 50·8	J
28. 12	66. 52·4	J
30. 13	66. 51·1	B
31. 13	66. 51·8	B

The initials B, E, and J are those of Messrs. Bryant, Edney, and Jones.

TABLE XXI.—ANNUAL SUMMARY of the MAGNETIC ELEMENTS.

Month, 1915.	Mean Value of				Monthly Mean Diurnal Range of			Sum of Hourly Deviations from Mean of		
	Westerly Declination.	North Force C.G.S.	Vertical Force C.G.S.	Dip.	Declination.	North Force.	Vertical Force.	Declination.	North Force.	Vertical Force.
January	15° 1′·2	·17885	·43316	66° 51′·1	4′·1	17 γ	5 γ	22′·6	104 γ	25 γ
February	15. 0·6	·17883	·43301	66. 51·3	5·4	20	13	32·4	136	70
March	15. 0·5	·17884	·43333	66. 51·8	9·0	37	18	52·0	233	90
April	14. 59·1	·17890	·43314	66. 51·8	10·4	33	29	59·4	221	151
May	14. 58·0	·17893	·43301	66. 50·6	9·7	32	30	54·0	211	155
June	14. 56·9	·17882	·43303	66. 52·2	11·1	47	32	62·9	310	167
July	14. 55·5	·17884	·43309	66. 52·1	11·6	40	26	62·8	260	128
August	14. 54·4	·17881	·43310	66. 51·7	11·1	43	23	60·9	302	110
September	14. 53·7	·17885	·43335	66. 53·1	8·7	38	20	52·3	270	94
October	14. 53·1	·17883	·43331	66. 53·1	8·7	33	22	51·5	231	127
November	14. 52·7	·17871	·43320	66. 52·9	7·1	30	17	40·8	188	124
December	14. 51·9	·17885	·43300	66. 51·8	4·6	15	10	35·7	85	61
The Year	14. 56·5	·17884	·43314	66. 52·0	8·46	32·1	20·4	48·94	212·6	108·5

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES.

1915.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL or NORTH FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the YEAR 1915.

The following notes give a brief description of all magnetic movements (superposed on the ordinary diurnal movement) exceeding 3′ in Declination, 20γ in Horizontal or North Force, or 12γ in Vertical Force, as taken from the photographic records of the respective Magnetometers. The movements in Horizontal, 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 change from Horizontal Force to North Force was made on March 3.

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 movements 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 ± 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).

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January

1^{d} $2\frac{1}{2}^{h}$ to $3\frac{1}{2}^{h}$ Wave in Dec. (+ 3′). $11\frac{1}{2}^{h}$ to 15^{h} Irregular double wave in Dec., with peaks at $13\frac{1}{4}^{h}$ (+ 7′) and $14\frac{3}{4}^{h}$ (− 4′). 13^{h} to 15^{h} Wave in H.F. (− 45). $15\frac{1}{2}^{h}$ to $17\frac{1}{2}^{h}$ Long flat-topped wave in H.F. (− 20). 12^{h} to 20^{h} Wave in V.F. (+ 35).

5^{d} $0\frac{1}{2}^{h}$ to $5\frac{1}{2}^{h}$ Irregular increase in H.F. (+ 35), $5\frac{1}{2}^{h}$ to $11\frac{1}{2}^{h}$ Irregular decrease in H.F. (− 75). 1^{h} to 14^{h} Oscillations in Dec. 14^{h} to 15^{h} Wave in H.F., with nett increase (− 50, + 80) 14^{h} to $15\frac{1}{2}^{h}$ Double wave in Dec. (+ 3′, − 10′). $15\frac{1}{2}^{h}$ to 22^{h} Three waves in H.F. (− 40, − 35, − 25). $15\frac{1}{2}^{h}$ to 20^{h} Irregular double wave in Dec. (− 3′, + 4′). 20^{h} to 21^{h} Wave in Dec. (− 4′). 12^{h} to 15^{h} Increase in V.F. (+ 25).

6^{d} 0^{h} to 1^{h} Wave in Dec. (+ 6′) and in H.F. (+ 15). $0\frac{1}{4}^{h}$ to $0\frac{3}{4}^{h}$ Decrease in V.F. (− 12). 1^{h} to 3^{h} Wave in Dec. (− 4′).

7^{d} 0^{h} to $2\frac{1}{2}^{h}$ Wave in Dec. (+ 3′) and in H.F. (+ 20). 0^{h} to 2^{h} Decrease in V.F. (− 15). 4^{h} to 7^{h} Double wave in H.F. (−20, + 20). $12\frac{1}{2}^{h}$ to $13\frac{1}{2}^{h}$ Increase in V.F. (+ 12). 13^{h} to 14^{h} Wave in H.F. (− 25) and decrease in Dec. (− 3′).

8^{d} 4^{h} to 10^{h} Wave in H.F. (+ 20). 10^{h} to 15^{h} Wave in Dec. (+ 5′). 19^{h} to 20^{h} Wave in Dec. (− 5′) and in H.F. (+ 20).

9^{d} 15^{h} to $16\frac{1}{2}^{h}$ Wave in Dec. (− 3′), with slow rise and rapid fall, and in H.F. (− 20).

12^{d} 12^{h} to 20^{h} Steady rise in H.F. (+ 20). 20^{h} to $22\frac{1}{2}^{h}$ Decrease in H.F. (− 60). $22\frac{1}{2}^{h}$ to $22\frac{3}{4}^{h}$ Increase in H.F. (+ 35), diminishing again through 20γ to $23\frac{1}{4}^{h}$, with further rise from 0^{h} to $0\frac{1}{2}^{h}$ (+ 35) and decrease to 1^{h} (− 15). 12^{d} 21^{h} to 13^{d} 2^{h} Large irregular wave in Dec., with maxima at $21\frac{1}{2}^{h}$, $22\frac{1}{4}^{h}$, $23\frac{1}{4}^{h}$, $0\frac{1}{2}^{h}$ (− 6′, − 7′, − 4′, − 7′) and minima at 22^{h}, 23^{h}, 24^{h} (− 5′, − 2′, − 3′). 20^{h} to 24^{h} Increase in V.F. (+ 19).

13^{d} 12^{h} to 20^{h} Steady rise in H.F. (+ 16). $21\frac{1}{4}^{h}$ to 22^{h} Wave in H.F. (− 45). From $22\frac{1}{4}^{h}$ to 14^{d} 5^{h} the H.F. is from 25γ to 20γ less than the normal. 13^{d} 20^{h} to 14^{d} 6^{h} Wave in V.F. (+ 15) with maximum at about 14^{d} 1^{h}. 13^{d} $21\frac{1}{2}^{h}$ to 14^{d} 7^{h} Dec. oscillating below the normal, with maximum departures at 22^{h}, $22\frac{1}{4}^{h}$, $23\frac{1}{2}^{h}$, 0^{h}, $0\frac{3}{4}^{h}$, 2^{h}, $2\frac{3}{4}^{h}$, $3\frac{3}{4}^{h}$ (− 5′, − 4′, − 4′, − 4′, − 7′, − 4′, − 4′, − 2′), and minimum departures at $22\frac{1}{4}^{h}$, $23\frac{1}{4}^{h}$, $23\frac{3}{4}^{h}$, $0\frac{1}{4}^{h}$, $1\frac{1}{2}^{h}$, $2\frac{1}{4}^{h}$, $3\frac{1}{4}^{h}$ (− 2′, − 1′, − 2′, − 3′, 0′, − 2′, − 1′).

14^{d} 21^{h} to $22\frac{1}{2}^{h}$ Wave in H.F. (+ 30) and oscillatory decrease in Dec. (− 4′).

17^{d} $18\frac{3}{4}^{h}$ to 20^{h} Wave in H.F. (− 25) 19^{h} to $20\frac{1}{4}^{h}$ Wave in Dec. (− 6′). $20\frac{1}{2}^{h}$ to $21\frac{1}{2}^{h}$ Decrease in V.F. (− 13).

20^{d} 10^{h} to 13^{h} Loss of register in H.F. and V.F. 13^{h} to 22^{h} Steady increase of V.F. (+ 44). $19\frac{1}{2}^{h}$ to 21^{h} Wave in H.F. (− 20), in Dec. small.

24^{d} 14^{h} to 18^{h} Wave in Dec. (+ 4′) and in H.F. (− 20).

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January 25^d 2^h to 5^h Double wave in Dec. (+ 5′, − 9′), the second wave lasting two hours and having a sharp peak (− 3′) outstanding from the wave crest; also double wave in H.F. (− 20, + 45) with sharp double wave superposed on second crest. $2\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Decrease in V.F. (− 12). 5^h to 11^h Increase in Dec. (+ 5′) with superposed waves (− 4′, − 3′) from $8\frac{1}{2}^h$ to 10^h, 10^h to 11^h. 7^h to $8\frac{1}{4}^h$ Wave in H.F. (− 25). 11^h to 12^h Wave in H.F. (− 25). $14\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Wave in H.F. (− 20). $15\frac{3}{4}^h$ to $18\frac{1}{4}^h$ Wave in H.F. (− 60). $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 6′). 19^h to $23\frac{1}{2}^h$ Triple wave in H.F., the initial and final waves being small (− 20, − 20), and the central wave (+ 75) steep in rising, oscillatory in falling; also irregular wave in Dec. (− 12′) with five subsidiary peaks on its sides. 15^h to 22^h Double-crested wave in V.F. (+ 17, + 18).

26^d $18\frac{1}{2}^h$ to $20\frac{1}{4}^h$ Wave in Dec. (− 11′). 19^h to $19\frac{3}{4}^h$ Wave in H.F. (+ 30). $19\frac{3}{4}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (− 25).

27^d 1^h to 3^h Irregular double waves in Dec. (+ 3′, − 2′) and in H.F. (− 15, + 25). $1\frac{1}{2}^h$ to 2^h Decrease in V.F. (− 12).

28^d $17\frac{3}{4}^h$ to 19^h Wave in Dec. (− 3′). 22^h to $23\frac{1}{2}^h$ Wave in Dec. (− 4′).

29^d 14^h to 18^h Wave in H.F. (− 25). $20\frac{1}{4}^h$ to 22^h Wave in H.F. (+ 20).

30^d $1\frac{1}{2}^h$ to $2\frac{3}{4}^h$ Wave in Dec. (− 4′). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Double-crested wave in Dec. (− 3′, − 3′) and in H.F. (+ 18, + 10).

February 1^d 20^h to $21\frac{1}{2}^h$ Wave in H.F. (− 25), followed by smaller wave (− 20) with slow decrease to 2^d 1^h. $21\frac{3}{4}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 11′) with subsidiary peak (− 5′) at 22^h, after the main peak at $21\frac{1}{4}^h$.

2^d 5^h to $7\frac{1}{2}^h$ Wave in H.F. (+ 20) and two small waves in Dec. (+ 2′, + 3′).

5^d 0^h to 7^h Quadruple wave in H.F. (+ 20, − 15, + 20, − 15). 0^h to 2^h Double wave in Dec. (+ 3′, − 3′). $0\frac{1}{4}^h$ to $2\frac{1}{4}^h$ Decrease in V.F. (− 12). 2^h to 3^h Wave in Dec. (− 3′). 4^h to 7^h Double wave in Dec. (− 3′, + 3′). 11^h to 15^h Wave in H.F. (− 25). 12^h to 13^h Wave in Dec. (+ 3′) followed by decrease (− 3′) till 6^h.

6^d $17\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− 4′).

8^d 9^h to $10\frac{1}{2}^h$ Decrease in H.F. (− 40). 8^d $10\frac{1}{2}^h$ to 9^d 11^h Loss of register in H.F. 8^d 11^h to $22\frac{3}{4}^h$ Oscillatory (±2′) decrease in Dec. (− 9′) continued further (− 4′) till 9^d 2^h, with superposed wave (+ 8′) from 8^d $22\frac{3}{4}^h$ to 9^d 1^h. Steady increase in V.F. (+ 60) from 8^d 11^h to 19^h, followed by small decrease (− 8) to 23^h, and further decrease (− 18) to $22\frac{3}{4}^h$.

9^d 2^h to $4\frac{1}{4}^h$ Increase in Dec. (+ 7′), followed by decrease (− 3′) to $4\frac{1}{2}^h$, and further increase (+ 10′) to 14^h. 3^h to 15^h Gradual increase in V.F. (+ 25). 14^h to 21^h Decrease in Dec. (− 10′) with superposed waves from 15^h to 17^h (− 4′) and 17^h to $18\frac{1}{2}^h$ (− 4′). 15^h to 17^h Wave in V.F. (+ 15). 21^h to $23\frac{1}{2}^h$ Irregular waves in Dec. (− 3′, − 5′, + 2′, − 1′, + 2′) and in H.F. (+ 20, + 30, + 20). $21\frac{1}{2}^h$ to 24^h Wave in V.F. (− 12) with nett decrease (−18).

12^d 8^h to $9\frac{1}{2}^h$, and 10^h to 11^h, Waves in Dec. (+ 3′, + 3′).

13^d $17\frac{1}{4}^h$ to 18^h Wave in Dec. (− 2′) and in H.F. (− 20).

15^d $14\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in H.F. (− 20).

18^d $20\frac{1}{2}^h$ to 23^h Wave in H.F. (− 20). 18^d $22\frac{1}{2}^h$ to 19^d $0\frac{1}{2}^h$ Double wave in Dec. (+ 3′, − 2′).

19^d $10\frac{3}{4}^h$ to 20^d $10\frac{3}{4}^h$ Loss of register in H.F. 19^d $12\frac{1}{4}^h$ to $12\frac{1}{2}^h$ Wave in Dec. (− 4′). $13\frac{1}{4}^h$ to $13\frac{1}{2}^h$ Wave in Dec. (− 4′). $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 11′) with indented peak. $18\frac{1}{4}^h$ to $21\frac{1}{2}^h$ Decrease (− 11′) in Dec., with superposed waves (− 2′, − 4′). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 19′) with nett decrease (− 7′), followed by increase (+ 18′) — oscillatory (±1′) to 20^d 5^h, — until 20^d 11^h. 19^d 12^h to $16\frac{1}{2}^h$ Increase in V.F. (+ 28), further increase (+21) to $17\frac{1}{4}^h$, decrease (− 10) to $22\frac{1}{2}^h$, further decrease (− 25) to $23\frac{1}{4}^h$, increase (+ 8) to $23\frac{3}{4}^h$, decrease (− 21) to 20^d 3^h, Increase (+ 19) to 20^d 7^h.

20^d 12^h to 14^h Increase in H.F. (+ 25). 14^h to 15^h Wave in H.F. (− 25). 14^h to $16\frac{1}{2}^h$ Decrease in Dec. (− 7′). $21\frac{1}{4}^h$ to 23^h Wave in Dec. (− 10′), with steep rise, and small subsidiary peak near its close (− 3′); double wave in H.F. (+ 40, − 30) with nett decrease (− 15).

21^h 11^d to 13^h Wave in Dec. (+ 3′) and in H.F. (− 30). $14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Wave in H.F. (− 20) and decrease in Dec. (− 5′). $17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 9′) with foot-wave at commencement (− 2′), and double wave in H.F. (− 15, + 25). 12^h to 16^h Increase in V.F. (+ 27).

22^d $19\frac{3}{4}^h$ to $22\frac{1}{2}^h$ Decrease in H.F. (− 55) with superposed double wave (− 20, + 15); large wave in Dec. (− 16′). $22\frac{1}{2}^h$ to 23^h Decrease in V.F. (− 12). 22^d $22\frac{1}{2}^h$ to 23^d 1^h Wave in H.F. with two peaks (+ 65, + 30). 22^d $22\frac{1}{2}^h$ to 23^d $1\frac{1}{2}^h$ Wave in Dec. (− 10′) steeply rising, with reversed wave (+ 3′) on otherwise level peak (23^h to 1^h), and nett decrease (− 3′).

23^d $11\frac{1}{2}^h$ to 13^h Wave in H.F. (− 20). 16^h to 17^h Increase in V.F. (+ 18). $16\frac{1}{4}^h$ to 17^h Wave in H.F. (− 45). $16\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Wave in Dec. (− 6′). 17^h to $17\frac{1}{4}^h$ Sharp decrease in V.F. (− 12). 17^h to 18^h Wave in H.F. (− 35). $17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 12′) with steep rise and subsidiary peak on the falling side. 18^h to $19\frac{1}{4}^h$ Wave in H.F. (− 25) followed till 22^h by oscillatory increase (+ 25). 22^h to 23^h Wave in H.F. (+ 25). 23^d 19^h to 24^d $3\frac{1}{2}^h$ Steady decrease in V.F. (− 35).

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February 24^d $2\frac{3}{4}^h$ to 4^h Wave in H.F. (— 20). $3\frac{3}{4}^h$ to 5^h Wave in Dec. (+ 4′). 7^h to $7\frac{1}{2}^h$ Decrease in H.F. (— 20). $9\frac{1}{4}^h$ to 10^h Decrease in H.F. (— 40). 12^h to 13^h Wave in H.F. (— 20). 16^h to $17\frac{1}{2}^h$ Wave in H.F. (— 25). $16\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (— 4′). $18\frac{1}{2}^h$ to $19\frac{1}{4}^h$ Wave in Dec. (— 5′). $18\frac{3}{4}^h$ to $19\frac{1}{4}^h$ Increase in H.F. (+ 55). 19^h to 22^h Decrease in V.F. (— 25). $19\frac{1}{4}^h$ to 21^h Three waves in H.F. (— 25, — 20, — 25); oscillatory decrease in Dec. (— 8′). 21^h to 24^h Oscillatory decrease in H.F. (— 50) and increase in Dec. (+ 7′).

25^d $2\frac{3}{4}^h$ to 4^h Wave in Dec. (+ 3′). $9\frac{1}{2}^h$ to $10\frac{1}{2}^h$ Wave in H.F. (— 30). $12\frac{3}{4}^h$ to $13\frac{1}{4}^h$ Wave in Dec. (+ 3′). 13^h to 21^h Irregular wave in V.F. (+ 15). $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in H.F. (— 30); decrease in Dec. (— 4′). $19\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (+ 45) with steep rise and intermitted fall; two waves in Dec. (— 3′, — 3′).

26^d 4^h to 6^h Wave in H.F. (— 20). $11\frac{1}{2}^h$ to 15^h Wave in Dec. (+ 5′). $16\frac{1}{4}^h$ to $17\frac{1}{4}^h$ Wave in H.F. (— 45). $16\frac{1}{2}^h$ to $17\frac{3}{4}^h$ Wave in Dec. (— 9′). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (— 4′). 21^h to 23^h Wave in H.F. (+ 20). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Flat-crested wave in Dec. (— 4′). 26^d $23\frac{1}{2}^h$ to 27^d 1^h Wave in Dec. (— 3′).

28^d $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (+ 20) and in Dec. (— 3′).

March 1^d $12\frac{1}{2}^h$ to 16^h Loss of register in H.F. and Dec.

4^d From this point the description is of the records from the new North Force (N.F.) and Declination magnetographs.

5^d 2^h to 3^h Wave in N.F. (+ 25). 2^h to $2\frac{1}{2}^h$ Decrease in Dec. (— 5′).

6^d 15^h 25^m. 7 Sudden reversal of twitch in N.F. (— 5, + 25); also in Dec. (—1′, + 3′). Slow recovery of N.F. (at 20^h).

7^d 3^h to 4^h Wave in Dec. (+ 3′). 6^h to 7^h Wave in Dec. (+ 6′). $19\frac{1}{4}^h$ to $21\frac{3}{4}^h$ Decrease in N.F. (— 47). 20^h to 21^h Decrease in Dec. (— 8′); slight rise (+ 3′) to $21\frac{3}{4}^h$. 20^h to 23^h Wave in V.F. (+ 15). $21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Wave in N.F. (+ 30). 7^d $22\frac{3}{4}^h$ to 8^d $1\frac{1}{4}^h$ Wave in H.F. (+ 55) with rapid rise and oscillatory fall; wave in Dec. (— 13′) with rapid irregular rise. 23^h to $23\frac{1}{2}^h$ Decrease in V.F. (— 16).

8^d $1\frac{1}{2}^h$ to $4\frac{3}{4}^h$ Irregular wave in N.F. (+ 30). $1\frac{3}{4}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 7′). 2^h to $2\frac{1}{2}^h$ Decrease in V.F. (— 17) followed by increase (+ 35) to 8^h. $2\frac{1}{2}^h$ to 4^h Increase in Dec. (+ 5′). 8^h to $9\frac{1}{2}^h$ Decrease in N.F. (— 55). 8^h to 10^h Increase in Dec. (+ 9′). 10^h to 12^h Increase in Dec. (+ 4′). $12\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in N.F. (+ 55), followed by increase (+ 50) to 17^h. 14^h to 17^h Increase in V.F. (+ 25). 15^h to 20^h Irregular decrease in Dec. (— 13′); increase (+ 4′) to $21\frac{1}{2}^h$. 18^h to $18\frac{1}{2}^h$ Wave in N.F. (— 20). 20^h to 23^h Double wave in N.F. (— 25, + 20). $21\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (— 7′). 8^d 23^h to 9^d $0\frac{1}{2}^h$ Wave in N.F. (+ 20). 8^d $23\frac{1}{4}^h$ to 9^d $1\frac{1}{2}^h$ Wave in Dec. (— 4′). 8^d 17^h to 9^d $5\frac{1}{2}^h$ Steady decrease in V.F. (— 50).

9^d $1\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Wave in Dec. (— 4′); decrease (— 4′) to 4^h, increase (+ 6′) to 5^h, decrease (— 7′) to $5\frac{3}{4}^h$. $3\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Double wave in N.F. (+ 15, — 10); irregular decrease (— 75) till $11\frac{1}{2}^h$; increase (+ 50) to $14\frac{1}{2}^h$, and, more slowly (+ 30), to $21\frac{3}{4}^h$. $5\frac{1}{2}^h$ to 9^h Increase (+ 20) in V.F. $9\frac{1}{2}^h$ to $12\frac{1}{4}^h$ Increase in Dec. (+ 11′). $12\frac{1}{4}^h$ to $20\frac{3}{4}^h$ Decrease in Dec. (— 9′) and, further (— 8′), to $21\frac{1}{2}^h$.

10^d $3\frac{1}{4}^h$ to $4\frac{3}{4}^h$ Wave in Dec. (+ 7′) and in N.F. (— 25). $3\frac{3}{4}^h$ to $4\frac{1}{2}^h$ Decrease in V.F. (— 13). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in N.F. (+ 35).

12^d $15\frac{1}{2}^h$ to $20\frac{3}{4}^h$ Loss of register in V.F.

13^d $0\frac{1}{2}^h$ to 2^h Wave in N.F. (+ 20).

16^d 2^h to $2\frac{3}{4}^h$. $2\frac{3}{4}^h$ to 5^h Waves in Dec. (+ 3′, + 5′). $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Flat-crested wave in Dec. (— 6′). 23^h to $23\frac{1}{2}^h$ Wave in N.F. (+ 25). 23^h to 24^h Decrease in V.F. (— 24), further decrease (— 9) to 17^d $0\frac{3}{4}^h$, and increase (+ 14) to $1\frac{1}{4}^h$. 16^d $23\frac{1}{2}^h$ to 17^d 1^h Wave in N.F. (+ 75). 16^d $23\frac{1}{2}^h$ to 17^d 3^h Wave in Dec., with two peaks (— 9′, — 11′) at 0^h and 1^h, and intervening minimum (— 6′) at $0\frac{1}{2}^h$.

18^d $17\frac{1}{2}^h$ to 19^h Wave in N.F. (— 25) following upon many rapid small oscillations.

19^d 2^h to 4^h Wave in Dec. (+ 6′); decrease in V.F. (— 18). 13^h to 22^h Wave in V.F. (+ 20). $18\frac{1}{2}^h$ to 20^h Wave in Dec. (— 3′). $21\frac{1}{2}^h$ to $23\frac{1}{4}^h$ Wave in Dec. (— 8′) with subsidiary peak on rising branch, and wave in N.F. (+ 40) with steep rise and slow fall.

20^d $4\frac{1}{2}^h$ to 7^h Irregular wave in N.F. (— 30). $4\frac{1}{2}^h$ to 8^h Wave in Dec. (+ 10′). 12^h to 18^h Increase in V.F. (+ 47), and further increase (+ 14) to $18\frac{1}{2}^h$. Decrease (— 41) to 22^h. 13^h to 16^h Oscillatory increase (+ 35) in N.F., decreasing (— 40) to $18\frac{1}{2}^h$. 18^h to $19\frac{1}{4}^h$ Wave in Dec. (— 13′) with nett decrease (— 3′). $18\frac{1}{2}^h$ Rapid increase in N.F. (+ 45), and decrease (— 18) to 19^h. 20^h to 23^h Waves in Dec. (— 15′) and N.F. (+ 65), with peaks at $20\frac{1}{2}^h$, and slow oscillatory fall.

21^d 12^h to 14^h Wave in N.F. (— 30). 11^h to 18^h Steady increase in V.F. (+ 95). 21^d 15^h to 22^d 15^h. See Plate I.

22^d 12^h to 24^h Wave in V.F. (+ 40) with maximum at $16\frac{3}{4}^h$. 16^h to 23^d 1^h Irregular movements in N.F. and Dec. Initial decrease (— 15) in N.F., to $16\frac{1}{4}^h$; principal waves in N.F. from $16\frac{1}{4}^h$ to $17\frac{1}{2}^h$ (+ 40), and $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ (+ 45); five small positive waves from 21^h to 24^h. In Dec. the principal waves were from $16\frac{1}{4}^h$ to $17\frac{1}{2}^h$ (— 10′), $17\frac{1}{2}^h$ to 20^h (—10), with nett decrease (— 11′) from 16^h to 23^h; and double-crested wave (+ 9′, + 11′), with nett increase (+ 5′), from 23^h to 23^d 1^h.

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23^d 8^h to 10^h Decrease in N.F. (— 70), with slow recovery (+ 70) till 21^h. $9\frac{3}{4}^h$ to $10\frac{1}{4}^h$ Increase in Dec. (+ 7′). 21^h to 24^h Irregular wave in N.F. with three peaks (+ 30, + 50, + 40). $21\frac{1}{2}^h$ to 22^h Decrease in V.F. (— 17). $21\frac{3}{4}^h$ to 24^h Irregular wave in Dec. (— 8′).

24^d 0^h to $1\frac{1}{4}^h$ Wave in N.F. (+ 20). 6^h to $7\frac{1}{2}^h$ Wave in Dec. (+ 3′). $6\frac{1}{2}^h$ to 9^h Wave in N.F. (+ 20). 19^h to $20\frac{3}{4}^h$ Wave in Dec. (— 5′). $21\frac{1}{2}^h$ to 23^h Wave in Dec. (— 3′).

25^d $1\frac{1}{2}^h$ to 4^h Double wave in Dec. (— 6′, + 4′). $2\frac{3}{4}^h$ to 4^h Wave in N.F. (— 35). $3\frac{1}{2}^h$ to 4^h Decrease in V.F. (— 13). 9^h to $9\frac{3}{4}^h$ Decrease in N.F. (— 30). 11^h to 12^h Decrease in N.F. (— 20), increase (+ 20) to $12\frac{1}{4}^h$, and further oscillatory increase (+ 35) to 24^h. $16\frac{1}{2}^h$ to 19^h Wave in Dec. (— 5′) with nett decrease (— 4′). 25^d $23\frac{1}{2}^h$ to 26^d $0\frac{1}{2}^h$ Wave in Dec. (+ 5′).

26^d $0\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in N.F. (+ 40). 0^h to $0\frac{3}{4}^h$ Decrease in V.F. (— 23). $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Double wave in N.F. (— 15, + 15), wave in Dec. (— 5′).

27^d 21^h to $22\frac{1}{2}^h$ Wave in Dec. (— 4′).

29^d 23^h to 24^h Wave in Dec. (— 7′) and in N.F. (+ 35).

30^d $3\frac{1}{4}^h$ to $4\frac{1}{2}^h$ Wave in Dec. (+ 6′). $3\frac{1}{4}^h$ to $4\frac{1}{4}^h$ Wave in N.F. (— 20). $8\frac{3}{4}^h$ to 10^h Wave in N.F. (— 20). 30^d $20\frac{1}{2}^h$ to 31^d $1\frac{3}{4}^h$ Long irregular wave in Dec. (— 6′).

April

2^d $0\frac{1}{2}^h$ to $1\frac{1}{4}^h$ Wave in Dec. (+ 4′). $2\frac{1}{4}^h$ to 3^h Wave in Dec. (+ 3′). 11^h to 19^h Many oscillations (±15) in N.F. 2^d 23^h to 3^d $0\frac{1}{4}^h$ Wave in N.F. (+ 25). 2^d 23^h to 3^d 0^h Wave in Dec. (— 4′) with nett decrease (— 3′).

3^d 0^h to $0\frac{3}{4}^h$ Wave in Dec. (— 4′). $4\frac{1}{4}^h$ to 6^h Wave in Dec. (+ 5′) and in N.F. (— 20) $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in N.F. (— 25). $17\frac{1}{2}^h$ to 19^h Wave in Dec. (— 7′). 23^h to $23\frac{3}{4}^h$ Wave in N.F. (+ 25). 3^d 20^h to 4^d 11^h Loss of register in V.F.

6^d $23\frac{1}{2}^h$ Rapid decrease (— 20) in N.F., with rapid partial recovery (+ 10).

7^d 18^h to 8^d 18^h. See Plate I.

8^d $19\frac{1}{4}^h$ to $19\frac{3}{4}^h$, $20\frac{1}{2}^h$ to 21^h Sharp peaks in N.F. with oscillatory decrease (+ 25, + 20). Oscillatory motion in N.F. and Dec. ceases about 9^d 0^h.

12^d $21\frac{1}{2}^h$ to 13^d 9^h Loss of register in V.F.

15^d 15^h to 24^h Four irregular peaks in N.F. at $16\frac{3}{4}^h$ (+ 45), 19^h (+ 40), $21\frac{1}{2}^h$ (+30), 23^h (+ 40); decrease in Dec. (— 7′) till $18\frac{1}{2}^h$, and further (— 9′) to $23\frac{1}{2}^h$ with superposed waves having peaks at 19^h (— 4′), $20\frac{1}{4}^h$ (— 3′), $21\frac{3}{4}^h$ (— 5′), and 23^h (— 7′), followed (from $23\frac{1}{2}^h$ to 16^d 1^h) by increase (+ 5′).

16^d $16\frac{3}{4}^h$ to $17\frac{1}{2}^h$ Wave in Dec. (— 7′) with nett decrease (— 4′). $16\frac{3}{4}^h$ to 18^h Wave in N.F. (+ 55). 20^h to 22^h Decrease in V.F. (— 30). 21^h to $22\frac{1}{4}^h$ Wave in N.F. with subsidiary peak on descending branch (+ 60, + 25); two waves in Dec. (— 5′, — 4′). 16^d $22\frac{1}{4}^h$ to 17^d $0\frac{1}{2}^h$ Wave in Dec. (— 4′).

17^d $18\frac{1}{4}^h$ to $18\frac{1}{2}^h$ Wave in N.F. (+ 17) with steep rise.

18^d 0^h to 9^h Activity in N.F. and Dec. 3^h to $4\frac{1}{2}^h$ Wave in N.F. (— 25). $3\frac{1}{2}^h$ to $4\frac{1}{2}^h$ Wave in Dec. (+ 5′); Decrease in V.F. (— 18). 7^h to 9^h Wave in Dec. (+ 5′). 21^h to 23^h Wave in Dec. (— 3′).

19^d 0^h to 20^d 4^h Activity in Dec. and N.F. Increase in N.F. (+ 100) from $13\frac{1}{2}^h$ to $17\frac{3}{4}^h$, decrease (— 60) to $21\frac{1}{2}^h$, increase (+ 50) to 20^d $0\frac{1}{2}^h$, and decrease (— 50) to $1\frac{3}{4}^h$, with superposed oscillations. Irregular decrease in Dec. (— 20′) from 19^d $13\frac{1}{4}^h$ to 20^d $1\frac{1}{4}^h$, and increase (+ 10′) to $3\frac{1}{2}^h$.

21^d 17^h to $18\frac{1}{2}^h$ Wave in N.F. (+ 20). $18\frac{1}{2}^h$ to $20\frac{1}{4}^h$ Wave in N.F. (+ 40). $18\frac{1}{2}^h$ to 21^h Wave in Dec. (— 12′). 21^d 23^h to 22^d $1\frac{1}{2}^h$ Wave in Dec. (— 9′).

22^d $1\frac{1}{4}^h$ to 3^h Wave in N.F. (+ 20). $1\frac{1}{2}^h$ to 3^h Decrease in Dec. (— 7′) and partial recovery (+ 2′). 11^h to $18\frac{1}{2}^h$ Increase in V.F. (+ 50), and decrease (most rapid at $20\frac{3}{4}^h$ and $22\frac{3}{4}^h$) to 23^d 1^h (— 45). 22^d 13^h to 23^d 2^h Activity in N.F.; V.F., and Dec. Irregular oscillatory (±20) increase in N.F. from 13^h to 20^h (+ 80), followed by sharp decrease (— 50) to $20\frac{1}{4}^h$, a small wave (+ 15, — 25) to $20\frac{3}{4}^h$, and from $22\frac{1}{2}^h$ to 23^h a sharp peak (+ 50, — 30); increase (+ 40) to 22^d $0\frac{1}{4}^h$, constant till 1^h, and decrease (—65) to 2^h. In Dec. the principal movements are a sharp decrease (— 15′) from $19\frac{1}{2}^h$ to 20^h, increasing (+ 15′) to $22\frac{3}{4}^h$ with superposed waves (— 7, — 4′) at $20\frac{3}{4}^h$ and $21\frac{1}{2}^h$; and a large wave (— 15′) from 22^d $23\frac{1}{4}^h$ to 23^d 2^h, with peak at 1^h.

25^d $19\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Wave in Dec. (— 3′) and in N.F. (+ 20).

26^d $2\frac{1}{4}^h$ to $3\frac{1}{4}^h$ Wave in Dec. (+ 3′). 4^h Sharp twitch (— 1′, + 3′) in Dec. 4^h to $4\frac{1}{2}^h$ Increase in N.F. (+ 30), decrease (— 45) from $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$, and further increase (+ 35) to 8^h, followed by decrease (— 100) to $10\frac{1}{2}^h$. 12^h to 20^h Large wave in Dec. (+ 9′) with superposed oscillations (± 3′, 4′) from 16^h to 20^h. 13^h to $18\frac{1}{4}^h$ Increase in V.F. (+ 95), decrease (— 45) to 21^h, and further decrease (— 70) till 27^d 12^h. 14^h to 21^h Slow increase in N.F. (+ 35) with superposed oscillations (± 20) from $15\frac{1}{2}^h$ to 21^h.

1915.

May

1^d $18\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Wave in N.F. (— 25), and decrease (— 5′) in Dec., continued further (— 17′) to $20\frac{3}{4}^h$. $20\frac{3}{4}^h$ to 22^h Wave in Dec. (— 12′). 21^h to $21\frac{1}{2}^h$ sharp peak in N.F. (— 35). 1^d $23\frac{1}{2}^h$ to 2^d $1\frac{1}{2}^h$ Wave in Dec. (— 7′). $20\frac{3}{4}^h$ to $21\frac{1}{4}^h$ Wave in V.F. (— 12).

2^d $1\frac{1}{2}^h$ to 3^h Wave in N.F. (+ 20) and decrease in Dec. (— 4′). 4^h to 6^h Wave in N.F. (+ 40). $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Wave in Dec. with nett increase (— 7′, + 11′), decreasing again (— 6′) to 7^h. 6^h to 7^h Increase in N.F. (+ 30), and afterwards decrease (— 75) to 11^h. $14\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Wave in N.F. (+ 35). $14\frac{3}{4}^h$ to $15\frac{1}{4}^h$ Increase in V.F. (+ 12). $15\frac{1}{2}^h$ to $18\frac{3}{4}^h$ Oscillatory wave in N.F. (+ 60) with peak at 18^h. 18^h to $19\frac{1}{2}^h$ Wave in Dec. (— 3′).

3^d $10\frac{1}{2}^h$ to 15^h Loss of register in V.F.

5^d $8\frac{1}{2}^h$ to 10^h Wave in N.F. (— 25).

9^d 13^h to 14^h Wave in N.F. (+ 20).

13^d $14\frac{3}{4}^h$ to $17\frac{1}{4}^h$ Double wave in N.F. (+ 20, — 20).

14^d $18\frac{1}{4}^h$ to $19\frac{3}{4}^h$ Wave in N.F. (+ 20). $19\frac{3}{4}^h$ to 21^h Wave in Dec. with nett decrease (— 12′, + 9′). 20^h to 21^h Wave in N.F. (+ 25).

15^d $23\frac{1}{2}^h$ to 16^d $1\frac{1}{2}^h$ Double wave in Dec. (+ 4′, — 3′) and wave in N.F. (+ 30).

16^d 12^h to 17^d 20^h Activity in N.F. and Dec. $16\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Double wave in N.F. (+ 25, — 15). $18\frac{1}{4}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (— 4′). 21^h to 22^h, 22^h to $23\frac{1}{2}^h$ Two waves in N.F. (+ 12, + 40) and in Dec. (+ 4′, — 5′).

17^d $0\frac{1}{4}^h$ to 3^h Wave in Dec. (+ 7′). 1^h to 3^h Decrease in V.F. (— 28). $1\frac{1}{2}^h$ Sudden increase (+ 30) in N.F., followed by oscillatory decrease (— 75) to 10^h. $11\frac{1}{2}^h$ to 14^h Waves in N.F. and Dec. 12^h to 14^h Increase in V.F. (+ 25). $17\frac{3}{4}^h$ to 19^h Waves in Dec. (— 5′) and in N.F. (+ 45).

19^d 15^h to $17\frac{1}{4}^h$ Increase in N.F. (+ 35); oscillatory decrease (— 30) to 20^h. $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (— 3′). $21\frac{3}{4}^h$ to $22\frac{3}{4}^h$ Wave in Dec. (— 4′). 22^h to 23^h Double-crested wave in N.F. (+ 20, + 20).

20^d $0\frac{1}{2}^h$ to $3\frac{3}{4}^h$ Wave in Dec. (+ 7′). 1^h to $3\frac{1}{2}^h$ Decrease in V.F. (— 25). $2\frac{1}{2}^h$ to 5^h Wave in N.F. (+ 20). 5^h to 7^h Wave in Dec. (+ 3′). 19^h to $20\frac{1}{4}^h$ Double-crested waves in Dec. (— 3′, — 3′) and in N.F. (+ 20, + 12). 20^d 22^h to 21^d $0\frac{1}{2}^h$ Double waves in Dec. (— 5′, + 3′) and in N.F. (+ 15, — 10).

21^d 13^h to 17^h Oscillations (±15) in N.F. $20\frac{1}{2}^h$ to $21\frac{3}{4}^h$ Wave in N.F. (+ 30) and Dec. (— 3′).

22^d $0\frac{1}{2}^h$ to 4^h Double wave in Dec. (+ 4′, — 3′). 4^h to $6\frac{1}{2}^h$ Wave in Dec. (— 3′). $22\frac{1}{4}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (— 4′) and in N.F. (+ 15).

24^d $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Waves with steep rise, in N.F. (+ 35) and in Dec. (— 7′). 24^d $23\frac{1}{2}^h$ to 25^d $1\frac{3}{4}^h$ Wave in Dec. (— 5′), and two small waves in N.F. (+ 20, + 15).

25^d 13^h to 15^h Wave in N.F. (— 20).

26^d 11^h to 13^h Wave in N.F. (+ 20).

27^d $0\frac{1}{4}^h$ to $0\frac{3}{4}^h$ Wave in N.F. (— 25). $0\frac{1}{2}^h$ to $1\frac{1}{4}^h$ Wave in Dec. (+ 5′). $0\frac{1}{2}^h$ to 1^h Decrease in V.F. (— 12). 1^h to $4\frac{1}{2}^h$ Double wave in Dec. (— 3′, + 3′). 2^h to $5\frac{1}{2}^h$ Oscillations in N.F. 3^h to $4\frac{1}{2}^h$ Decrease in V.F. (— 20). $5\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Decrease in N.F. (— 45). $15\frac{1}{4}^h$ to $21\frac{1}{2}^h$ Series of very rapid and frequent movements in N.F., with total range of 85γ; Dec. only slightly disturbed; Increased diurnal motion in V.F.

30^d $18\frac{1}{4}^h$ to 19^h Double wave in N.F. (+ 18, — 17). $20\frac{1}{2}^h$ to 21^h Decrease in Dec. (— 4′). $21\frac{1}{4}^h$ to $21\frac{1}{2}^h$ Wave in V.F. (+ 17) ?.

31^d 15^h to $16\frac{1}{2}^h$ Increase in N.F. (+ 20); decrease (— 35) to peak at $17\frac{1}{2}^h$; increase (+ 45) to $18\frac{1}{2}^h$. $20\frac{3}{4}^h$ to 23^h Double wave in Dec. (+ 3′, — 3′).

June

7^d $20\frac{1}{4}^h$ Sudden decrease and subsequent increase in N.F. (— 7, + 40), subsiding (— 30) until $20\frac{3}{4}^h$; small twitch in Dec.

8^d $10\frac{1}{2}^h$ to $17\frac{1}{2}^h$ Loss of register in V.F. $12\frac{1}{2}^h$ to $15\frac{1}{2}^h$ Quadruple wave in N.F. (— 20, + 20, — 20, + 20), followed by increase (+ 50) to $19\frac{1}{2}^h$.

12^d $4\frac{1}{4}^h$ to $4\frac{1}{2}^h$ Wave in Dec. (— 5′), small movement in N.F. 7^h to $9\frac{1}{2}^h$ Wave in N.F. (— 35); small oscillations in Dec. 13^h to 23^h Oscillations in N.F., and oscillatory decrease in Dec. (— 15′); wave in V.F. (+ 30), with nett decrease (— 15). 23^h to $23\frac{1}{2}^h$ Decrease in V.F. (— 15) and Dec. (— 10′), and further decrease in Dec. (— 3′) to 24^h.

13^d 0^h to 5^h increase in Dec. (+ 16′), with superposed waves (— 5′, — 4′) from 2^h to 3^h and 4^h to 5^h; decrease in V.F. (— 20); irregular movements (±20) in N.F. 5^h to 6^h Decrease in Dec. (— 9′), increase in N.F. (+ 30). $6\frac{1}{2}^h$ to $10\frac{1}{2}^h$ N.F. decreasing (— 85). $10\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Increase in N.F. (+ 90), with superposed wave (— 25) from $14\frac{1}{2}^h$ to 17^h. 19^h to 21^h Wave in Dec. (— 8′). $19\frac{1}{2}^h$ to 21^h Wave in N.F. (+ 20). 13^d $23\frac{1}{2}^h$ to 14^d 2^h Wave in Dec. (+ 5′) and in N.F., the latter with two peaks (— 20, — 35).

14^d $2\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 7′), and wave in N.F. (— 30) 5^h to 6^h Decrease (— 25) in N.F.

1915.
June

16^d 13^h Sudden diminution (− 5) and rapid increase of N.F. (+ 28); further (oscillatory) increase (+ 27) to $16\frac{1}{4}^h$; Dec. and V.F. little affected. $16\frac{1}{4}^h$ to $17\frac{1}{2}^h$, $17\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Waves in N.F. (− 30, − 20). Traces subsequently quiet until 17^d $1\frac{3}{4}^h$.

17^d 1^h to 18^d 1^h. See Plate I.

18^d 1^h to $4\frac{1}{2}^h$ Wave in V.F. (− 40). $1\frac{3}{4}^h$ to $2\frac{1}{2}^h$ Wave in N.F. (− 65). $2\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Wave in Dec. (+ 5′), with rapid rise and fall, and nearly level, oscillatory crest. Oscillatory decrease in N.F. (− 70) from $3\frac{1}{2}^h$ to 9^h. Oscillations in Dec. die out at about 8^h.

21^d $15\frac{1}{4}^h$ Sudden increase in N.F. (+ 45) and Dec. (+ 4′), subsiding gradually to 17^h. 17^h to 19^h Wave in N.F. (+ 30). Oscillations in N.F. and Dec. until 22^d $3\frac{1}{2}^h$.

22^d $3\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Wave in Dec. (+ 3′) and double wave in N.F. (− 20, + 20). $6\frac{1}{4}^h$ to 7^h Three rapid waves in N.F. (− 15, − 15, − 25). $6\frac{1}{2}^h$ to 7^h, 7^h to 8^h, waves in Dec. (+ 3′, + 4′) with sharp peak at $7\frac{3}{4}^h$ (+ 4′), and also (+ 7′) from 8^h to $8\frac{1}{2}^h$. $18\frac{1}{4}^h$ to $19\frac{1}{4}^h$ Wave in Dec. (− 7′), in N.F. (+ 30) and in V.F. (+ 10). 23^h to 24^h Decrease in V.F. (− 16). 22^d 23^h to 23^d $0\frac{1}{2}^h$ Wave in Dec. (+ 6′), and in N.F. (+ 35).

24^d $21\frac{1}{2}^h$ Sudden increase in N.F. (+ 30) and Dec. (+ 2′).

25^d $3\frac{1}{2}^h$ to $4\frac{1}{2}^h$ Wave in Dec. (+ 3′), and increase in N.F. (+ 25). $13\frac{3}{4}^h$ to 15^h Wave in Dec. (+ 4′), and double wave in N.F. (+ 15, − 15).

26^d 18^h to 22^h Wave in N.F. (+ 35), with superposed oscillations (±10) on crest. 26^d $23\frac{1}{4}^h$ to 27^d $0\frac{1}{4}^h$ Wave in N.F. (+ 20). 26^d $23\frac{1}{2}^h$ to 27^d 1^h Wave in Dec. (− 6′).

27^d $0\frac{1}{2}^h$ to $1\frac{1}{4}^h$ Wave in N.F. (+ 20).

29^d 0^h to $2\frac{1}{4}^h$ Double wave in N.F. (+ 10, − 10). 0^h to 1^h Decrease in V.F. (− 12). $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (− 4′). 10^h to 14^h Wave in V.F. (− 20). $11\frac{1}{2}^h$ to $12\frac{1}{2}^h$ Wave in N.F. (− 20). $17\frac{3}{4}^h$ to $19\frac{3}{4}^h$ Wave in N.F. (+ 20). $22\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (− 4′).

July

1^d $22\frac{1}{4}^h$ to $22\frac{3}{4}^h$ Sudden rise and partial recovery, in N.F. (+ 20, − 10).

2^d 0^h to $8\frac{1}{2}^h$ Wave in V.F. (− 33) with nett decrease (− 15). $0\frac{1}{4}^h$ to $0\frac{1}{2}^h$ Sharp increase in N.F. (+ 30); irregular decrease (− 40) to $1\frac{1}{2}^h$; $1\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Wave in N.F. (+ 20) with nett decrease (− 25), and superposed double wave (+ 15, − 10), from $2\frac{1}{4}^h$ to $2\frac{3}{4}^h$; 4^h to $6\frac{3}{4}^h$ Wave in N.F. (+ 35). $0\frac{1}{4}^h$ to 1^h Decrease in Dec. (− 7′); increase (+ 5′) to $3\frac{1}{2}^h$, with superposed waves (+ 3′, + 4′) from 1^h to $2\frac{1}{4}^h$, $2\frac{1}{4}^h$ to 3^h. $3\frac{1}{2}^h$ to $4\frac{1}{4}^h$ Wave in Dec. (+ 6′). $5\frac{1}{2}^h$ to 7^h Wave in Dec. (− 7′). 14^h to $19\frac{1}{2}^h$ Triple wave in N.F. (+ 25, − 20, + 30); small movement in Dec.; enlarged diurnal motion in V.F.

3^d 10^h to 22^h Oscillations in N.F. about the normal curve. $20\frac{1}{2}^h$ to 22^h Double-crested wave in Dec. (− 4′, − 3′).

5^d $20\frac{3}{4}^h$ Sudden increase in N.F. (+ 20), decreasing (− 15) to 21^h.

6^d $1\frac{3}{4}^h$ Sudden increase in N.F. (+ 10). $5\frac{1}{4}^h$ to 6^h Decrease in N.F. (− 20). $6\frac{1}{2}^h$ Sudden increase (+ 10) in N.F., and sharp oscillation in Dec. (− 1, + 2), followed by further sharp oscillations in Dec. $6\frac{1}{2}^h$ to $9\frac{1}{4}^h$ Wave in N.F. with peak at $8\frac{1}{4}^h$ (+ 40). $8\frac{1}{4}^h$ to $8\frac{1}{2}^h$, $8\frac{1}{2}^h$ to $9\frac{1}{4}^h$ Waves in Dec. (− 3′, − 5′). $12\frac{1}{2}^h$ to $13\frac{1}{4}^h$ Wave in N.F. (− 20). 14^h to 16^h Oscillations in N.F. (±10).

8^d $0\frac{1}{2}^h$ to $2\frac{1}{4}^h$ Wave in Dec. (− 4′). $19\frac{1}{2}^h$ to 20^h Wave in N.F. with sharp rise (+ 25). 8^d 23^h to 9^d $0\frac{1}{2}^h$ Wave in N.F. (+ 20) and in Dec. (− 7′).

9^d 0^h to 5^h Wave in V.F. (− 13). $1\frac{1}{2}^h$ to 3^h Wave in Dec. (− 5′). $4\frac{3}{4}^h$ to 6^h Wave in Dec. (+ 4′), followed by oscillations until 9^h. 12^h to 16^h Oscillations (± 12) in N.F. 15^h to 22^h Wave in V.F. (+ 17). $16\frac{1}{4}^h$ to 17^h Wave in N.F. (+ 25). 17^h to $18\frac{3}{4}^h$ Wave in N.F. (+ 30). 19^h to 20^h Wave in Dec. (− 3′). 21^h to 23^h Triple-crested wave in Dec., with peaks at $21\frac{1}{2}^h$ (− 9′), $21\frac{3}{4}^h$ (− 7′), $22\frac{1}{2}^h$ (− 6′). $21\frac{1}{4}^h$ to $21\frac{3}{4}^h$, $21\frac{3}{4}^h$ to $22\frac{1}{4}^h$ Waves in N.F. (+ 30, + 25).

10^d $21\frac{3}{4}^h$ to $23\frac{1}{2}^h$ Wave in N.F. (+ 35), with peak at $22\frac{1}{4}^h$. $21\frac{3}{4}^h$ to $22\frac{1}{2}^h$ Decrease in V.F. (− 16). 10^d $23\frac{3}{4}^h$ to 11^d 1^h Wave in Dec. (− 4′).

11^d $3\frac{1}{2}^h$ to 5^h Double wave in N.F. (− 20, + 15). $3\frac{3}{4}^h$ to $4\frac{1}{4}^h$ Wave in Dec. (+ 5′). $4\frac{1}{2}^h$ to $5\frac{1}{4}^h$ Wave in Dec. (− 4′). 11^d 10^h to 12^d $10\frac{1}{2}^h$ Loss of register in V.F. 13^h to 14^h Wave in N.F. (− 20). $21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Double-crested wave in N.F. (+ 25). 11^d 23^h to 12^d 5^h Slow movements in Dec. (+ 5′, − 7′, + 7′, − 8′).

12^d 4^h to 7^h Wave in N.F. (+ 35), with peak at $4\frac{3}{4}^h$. 8^h to $9\frac{3}{4}^h$ Wave in N.F. (− 35). $13\frac{3}{4}^h$ to 15^h Wave in N.F. (+ 20).

22^d 5^h to $6\frac{3}{4}^h$ Several oscillations of short period in Dec. (± 2′). $14\frac{3}{4}^h$ to $16\frac{1}{2}^h$ Wave in N.F. (+ 35). $20\frac{1}{2}^h$ to 23^h Wave in Dec. (− 6′).

23^d $1\frac{3}{4}^h$ to $3\frac{1}{4}^h$ Wave in Dec. (+ 3′) and in H.F. (− 15). 15^h to $17\frac{1}{2}^h$ Wave in N.F. (+ 20) with peak at $16\frac{1}{2}^h$.

25^d $10\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Oscillations in N.F. and Dec.

26^d $2\frac{1}{2}^h$ to $4\frac{1}{2}^h$ Wave in Dec. (− 5′). $10\frac{1}{4}^h$ to 12^h Wave in N.F. (− 20). 17^h to $19\frac{1}{2}^h$ Wave in N.F. (+ 30). 18^h to 21^h Wave in Dec. (− 4′) with peak at 19^h. 26^d $22\frac{1}{2}^h$ to 27^d $0\frac{3}{4}^h$ Wave in Dec. (− 5′).

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July 27^{d} 1^{h} to $3\frac{1}{4}^{h}$ Wave in Dec. (+ 12′) with sharp decline. 2^{h} to $3\frac{1}{4}^{h}$ Wave in N.F. (— 20). $2\frac{3}{4}^{h}$ to $4\frac{1}{2}^{h}$ Wave in V.F. (— 12). 7^{h} to $8\frac{3}{4}^{h}$ Wave in Dec. (+ 3′) and in N.F. (— 15). 12^{h} to 21^{h} Irregular movements about normal, in N.F. and, to a smaller extent, in Dec.; the successive changes in N.F. between 12^{h}, $12\frac{1}{2}^{h}$, $12\frac{3}{4}^{h}$, $13\frac{1}{2}^{h}$, $14\frac{1}{4}^{h}$, 15^{h}, $15\frac{1}{4}^{h}$, 16^{h}, 17^{h} being — 25, + 25, — 30, + 40, — 25, + 45, — 15, + 20. 27^{d} $23\frac{3}{4}^{h}$ to 28^{d} $1\frac{1}{4}^{h}$ Wave in Dec. (+ 3′).

29^{d} 18^{h} to 20^{h} Triple-peaked wave in N.F. (+ 15, + 25, + 20). 20^{h} to $21\frac{1}{2}^{h}$ Wave in Dec. (— 12′) and in N.F. N.F. (+ 50).

30^{d} $0\frac{1}{4}^{h}$ to $1\frac{1}{4}^{h}$ Double wave in N.F. (+ 10, — 10). $0\frac{1}{4}^{h}$ to $1\frac{1}{2}^{h}$ Double wave in Dec. (— 2′, + 2′). $22\frac{1}{2}^{h}$ to $23\frac{1}{2}^{h}$ Wave in Dec. (— 4′). $22\frac{1}{2}^{h}$ to 24^{h} Wave in N.F. (+ 25).

31^{d} $11\frac{3}{4}^{h}$ to 14^{h} Wave in V.F. (— 12).

August 1^{d} $12\frac{1}{2}^{h}$ to $14\frac{1}{2}^{h}$ Wave in N.F. (— 25). 17^{h} to 19^{h} Double wave in N.F. (— 20, + 25). $22\frac{1}{2}^{h}$ to $23\frac{1}{2}^{h}$ Decrease in Dec. (— 9′), increasing (+ 4′), with small oscillations, to 2^{d} $3\frac{1}{2}^{h}$. 1^{d} $23\frac{1}{2}^{h}$ to 2^{d} $0\frac{1}{4}^{h}$ Wave in N.F. (+ 20).

2^{d} $1\frac{1}{2}^{h}$ to $2\frac{1}{4}^{h}$ Wave in N.F. (— 20). Further movements in N.F. (— 35, + 40, — 50, + 15) between 3^{h} $3\frac{3}{4}^{h}$, $5\frac{1}{2}^{h}$, $6\frac{1}{2}^{h}$, 7^{h}. $3\frac{1}{2}^{h}$ to 4^{h} Increase in Dec. (+ 8′); decline (— 6′) to $5\frac{1}{4}^{h}$. $8\frac{1}{2}^{h}$ to 9^{h} Decrease in N.F. (— 30). 19^{h} to 20^{h} Wave in Dec. (— 6′). $19\frac{1}{4}^{h}$ to $20\frac{1}{4}^{h}$ Wave in N.F. (+ 30). $22\frac{1}{2}^{h}$ to 24^{h} Two waves in Dec. (— 5′, — 8′) and double wave in N.F. (— 25, + 25).

3^{d} 2^{h} to 4^{h} Wave in Dec. (+ 7′) and in N.F. (— 40). $21\frac{1}{2}^{h}$ to 23^{h} Wave in N.F. (+ 30); small in Dec.

4^{d} $1\frac{3}{4}^{h}$ to $3\frac{1}{2}^{h}$ Wave in Dec. (+ 3′). 7^{h} to $8\frac{3}{4}^{h}$ Wave in Dec. (+ 3′) and in N.F. (+ 20). 10^{h} to 17^{h} Loss of register in V.F.

6^{d} $21\frac{1}{4}^{h}$ to 22^{h} Double wave in N.F. (+ 18, — 25), first portion double-crested. 6^{d} 23^{h} to 7^{d} $0\frac{3}{4}^{h}$ Two equal waves in N.F. (+ 30, + 30). 6^{d} 23^{h} to 7^{d} $0\frac{1}{2}^{h}$ Double wave in Dec. (+ 5′, — 7′). 6^{d} 23^{h} to 7^{d} 7^{h} Wave in V.F. (— 55), with peak at $8\frac{1}{4}^{h}$.

7^{d} $0\frac{1}{2}^{h}$ to $2\frac{1}{2}^{h}$ Wave in Dec., with peaks at 1^{h} and 2^{h} (— 5′, — 6′). $0\frac{3}{4}^{h}$ to 4^{h} Wave in N.F. (+ 40). $2\frac{1}{2}^{h}$ to $4\frac{1}{2}^{h}$ Double wave in Dec. (+ 9′, — 7′). 17^{h} to $17\frac{1}{2}^{h}$ Wave in N.F. (+ 25), with preliminary movement like that of a sudden storm commencement, also in Dec. (— 1′, + 2′). $18\frac{1}{2}^{h}$ to $20\frac{1}{2}^{h}$ Movement in N.F., with sharp rise (+ 20) and rapid decline at end (— 30, + 10).

8^{d} 0^{h} to $0\frac{3}{4}^{h}$ Rise in Dec. (+ 4′), rapid decrease to $1\frac{1}{4}^{h}$ (— 10′), and irregular increase (+ 8′) to 4^{h}. $0\frac{1}{2}^{h}$ to 2^{h} Wave in N.F. (+ 30) followed till 3^{h} by three smaller waves. $0\frac{1}{2}^{h}$ to 1^{h} Decrease in V.F. (— 15). $19\frac{3}{4}^{h}$ to $20\frac{1}{2}^{h}$ Wave in N.F. (+ 20) with rapid rise.

9^{d} 0^{h} to $1\frac{1}{2}^{h}$ Wave in Dec. (— 3′).

10^{d} $3\frac{1}{4}^{h}$ to 6^{h} Wave in Dec. (— 6′). 22^{h} to 23^{h} Wave in Dec. (— 5′).

11^{d} $2\frac{3}{4}^{h}$ Unusual displacement of N.F. (+ 9), V.F. (+ 4), and Dec. (— 0′·9) curves, a reverse displacement occurring at $3\frac{1}{4}^{h}$, both movements being rapid; probably local, perhaps of artificial origin. The V.F. and N.F. instruments are four yards apart.

16^{d} $13\frac{1}{2}^{h}$ to 14^{h} Wave in Dec. (+ 3′) and N.F. (— 10) with sharp rise.

17^{d} 5^{h} to 8^{h} Wave in Dec. (+ 5′); decrease in V.F. (— 14). 6^{h} to 9^{h} Wave in N.F. (+ 20). $10\frac{1}{2}^{h}$ to $10\frac{3}{4}^{h}$ Increase in N.F. (+ 16) and in Dec. (+ 3′). Movements in N.F. (— 45, + 30, — 35, + 20, + 55) between $10\frac{3}{4}^{h}$, $11\frac{1}{4}^{h}$, $13\frac{1}{2}^{h}$, $14\frac{1}{2}^{h}$, 15^{h}, 20^{h}. 20^{h} to $20\frac{1}{4}^{h}$ Wave in N.F. (+ 20).

18^{d} 2^{h} to $3\frac{1}{4}^{h}$ Wave in Dec. (— 3′). 20^{h} to 22^{h} Double wave in Dec. (+ 2′, — 3′).

19^{d} 6^{h} Sudden movement in N.F. and Dec., as at the commencement of a storm. Increase in N.F. (+ 17) to $6\frac{1}{2}^{h}$, followed by decrease (— 55) to 10^{h}. $7\frac{1}{4}^{h}$ to $7\frac{3}{4}^{h}$ Rapid double wave in Dec. (+ 4′, — 4′).

21^{d} $10\frac{1}{2}^{h}$ Increase in N.F. (+ 20), decrease in Dec. (— 1′). $20\frac{3}{4}^{h}$ to 22^{h} Double wave in Dec. (+ 2′, — 3′).

22^{d} 3^{h} to 5^{h} Wave in Dec. (+ 4′). 16^{h} to $16\frac{1}{4}^{h}$ Increase in N.F. (+ 20), partial decrease (— 10) to $16\frac{1}{2}^{h}$, and further decrease (— 15) from $18\frac{3}{4}^{h}$ to 19^{h}. 22^{d} $23\frac{1}{2}^{h}$ to 23^{d} 1^{h} Wave in Dec. (+ 5′).

25^{d} $15\frac{1}{2}^{h}$ to $16\frac{1}{2}^{h}$ Wave in N.F. (— 20). 25^{d} 22^{h} to 26^{d} $0\frac{1}{2}^{h}$ Decrease (— 35) and oscillatory increase (+ 65) in N.F. Movements in Dec. (— 10′, + 7′, — 7′) between $21\frac{1}{2}^{h}$, $22\frac{3}{4}^{h}$, $23\frac{1}{4}^{h}$, 24^{h}. Wave in V.F. beginning at 23^{h}: minimum (— 55) at $0\frac{3}{4}^{h}$.

26^{d} Movements in N.F. (— 75, + 55, — 55, + 45, — 75) between $0\frac{1}{2}^{h}$, $1\frac{1}{4}^{h}$, $1\frac{3}{4}^{h}$, $3\frac{3}{4}^{h}$, $4\frac{1}{4}^{h}$, $9\frac{1}{2}^{h}$. 0^{h} to $0\frac{3}{4}^{h}$ Increase in Dec. (+ 10′), with superposed wave (+ 4′) from 0^{h} to $0\frac{1}{2}^{h}$. 0^{h} to $0\frac{1}{2}^{h}$ Sharp oscillations on slope of V.F. wave extending from 25^{d} 23^{h} to 26^{d} 8^{h}. $1\frac{1}{4}^{h}$ to 2^{h} Decrease (— 16′) and increase (+ 11′) in Dec.; wavy increase (+ 14′) from 2^{h} to 4^{h}, decreasing (— 14′) to 5^{h}. $1\frac{1}{2}^{h}$ to 2^{h} Increase in V.F. (+ 20), continued (+ 12) to 4^{h}; slight decrease (— 9) near 4^{h}, increase resumed at $4\frac{1}{4}^{h}$. 5^{h} to 7^{h} Wave in Dec. (+ 6′) with small oscillations superposed. 26^{d} 14^{h} to 27^{d} 1^{h} Wave in V.F. (+ 40). $18\frac{3}{4}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (— 3′). 20^{h} to 24^{h} Irregular movements (±2′, 3′) in Dec.

27^{d} $3\frac{3}{4}^{h}$ to 6^{h} Wave in Dec. (+ 7′) and in N.F. (— 30). 13^{h} to $20\frac{1}{2}^{h}$ Oscillatory (±15) increase in N.F. (+ 60). 18^{h} to $18\frac{3}{4}^{h}$ Wave in Dec. (— 3′). $19\frac{1}{2}^{h}$ to 21^{h} Double-crested wave in Dec. (— 4′).

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August 28^{d} 1^{h} to $3\frac{1}{2}^{h}$ Wave in Dec. (+ 4′). $4\frac{3}{4}^{h}$ to $6\frac{1}{4}^{h}$ Wave in N.F. (— 25).

29^{d} 12^{h} to 14^{h} Wave in N.F. (— 40). $15\frac{1}{2}^{h}$ to $16\frac{1}{2}^{h}$ Wave in Dec. (— 5′). $18\frac{1}{2}^{h}$ to 20^{h} Double wave in N.F. (— 25, + 30), second portion having two equal crests. $18\frac{3}{4}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (— 7′), followed by two smaller waves. 22^{h} to 23^{h} Double-crested waves in Dec. (+ 7′, + 2′) and in N.F. (+ 40, + 25). 12^{h} to $22\frac{1}{2}^{h}$ Wave in V.F. (+ 40), last part, 22^{h} to $22\frac{1}{2}^{h}$, being steep (— 20).

30^{d} $8\frac{1}{2}^{h}$ to $9\frac{1}{4}^{h}$ Decrease in N.F. (— 40). $15\frac{1}{2}^{h}$ to $17\frac{1}{2}^{h}$ Double wave in N.F. (+ 20, — 20). $18\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (— 4′).

31^{d} $1\frac{1}{2}^{h}$ to 4^{h} Wave in Dec. (+ 4′).

September 5^{d} 14^{h} to 15^{h} Wave in N.F. (+ 20).

6^{d} 21^{h} to 23^{h} Wave in Dec. (— 4′). 21^{h} to $23\frac{1}{4}^{h}$ Double wave in N.F. (+ 15, — 10).

8^{d} $22\frac{1}{4}^{h}$ to 9^{d} $9\frac{1}{2}^{h}$ Loss of register in V.F.

9^{d} 18^{h} to $18\frac{3}{4}^{h}$ Wave in N.F. (— 12).

10^{d} $0\frac{1}{2}^{h}$ to 1^{h} Fluctuations in N.F. $1\frac{1}{2}^{h}$ to $3\frac{1}{4}^{h}$ Triple-crested wave in N.F. (+ 18). $6\frac{3}{4}^{h}$ to $7\frac{1}{2}^{h}$ Flat-crested wave in Dec. (+ 3′). $8\frac{1}{4}^{h}$ to 9^{h} Wave in N.F. (— 12).

12^{d} $0\frac{1}{4}^{h}$ to 13^{d} $11\frac{3}{4}^{h}$ Loss of register in V.F.

12^{d} $0\frac{1}{2}^{h}$ to $2\frac{1}{2}^{h}$ Slow wave in N.F. (+ 15). 20^{h} to $21\frac{1}{4}^{h}$ Wave in N.F. (+ 12). $20\frac{1}{4}^{h}$ to $21\frac{1}{4}^{h}$ Flat-crested wave in Dec. (— 3′).

13^{d} $2\frac{1}{2}^{h}$ to $3\frac{1}{2}^{h}$ Flat-crested wave in Dec. (+ 3′), steep at commencement and with small sharp fluctuations superposed till 3^{h}. 16^{h} to 18^{h} Triple wave in N.F. (— 18, + 15, — 18). $20\frac{3}{4}^{h}$ to $22\frac{1}{4}^{h}$ Wave in Dec. (— 4′). 13^{d} 23^{h} to 14^{d} $0\frac{1}{2}^{h}$ Wave in Dec. (+ 4′).

15^{d} $2\frac{3}{4}^{h}$ to 5^{h} Wave in Dec. (+ 5′).

16^{d} $13\frac{1}{4}^{h}$ to $14\frac{1}{2}^{h}$ Wave in N.F. (+ 24). 16^{h} to 17^{h} Wave in Dec. (— 8′) double wave in N.F. (— 10, + 18), the second portion flat-crested . 16^{d} 23^{h} to 17^{d} $0\frac{1}{4}^{h}$ Wave in N.F. (+ 23). 16^{d} $23\frac{1}{2}^{h}$ to 17^{d} $0\frac{1}{2}^{h}$ Wave in Dec. (— 4′).

17^{d} $0\frac{1}{4}^{h}$ to $2\frac{1}{2}^{h}$ Two successive waves in N.F. (+ 16, + 17). $0\frac{1}{2}^{h}$ to 3^{h} Two successive waves in Dec. (— 5′, — 5′). $9\frac{1}{4}^{h}$ to $12\frac{1}{4}^{h}$ Irregular wave in N.F. (— 30), followed till 14^{h} by a sharper wave (— 40). 12^{h} to 13^{h} Irregular wave in Dec. (+ 4′).

22^{d} $12\frac{1}{2}^{h}$ to $13\frac{1}{4}^{h}$ Wave in N.F. (+ 22). $12\frac{3}{4}^{h}$ to 13^{h}, Sharp increase in Dec. (+ 6′).

22^{d} 14^{h} to 23^{d} 14^{h}. See Plate II.

23^{d} 15^{h} to 16^{h} Wave in Dec. (+ 3′). $15\frac{1}{4}^{h}$ to $16\frac{1}{2}^{h}$ Wave in N.F. (— 40). 17^{h} to 18^{h} Wave in N.F. (+ 27). $17\frac{3}{4}^{h}$ to $19\frac{1}{4}^{h}$ Sharp wave in Dec. (— 19′). 18^{h} to $18\frac{1}{2}^{h}$ Sharp decrease and increase in N.F. (— 15, + 105), followed till 19^{h} by slower decrease (— 55). $22\frac{3}{4}^{h}$ to $23\frac{1}{2}^{h}$ Wave in Dec. (— 4′). $22\frac{1}{4}^{h}$ to $23\frac{1}{4}^{h}$ Sharp wave in N.F. (+ 50).

24^{d} 2^{h} to 4^{h} Waves in Dec. (+ 8′) and N.F. (— 20). $2\frac{1}{2}^{h}$ to 3^{h} Decrease in V.F. (— 15). $6\frac{1}{2}^{h}$ to $7\frac{1}{2}^{h}$ Wave in Dec. (+ 4′). $14\frac{1}{2}^{h}$ to $15\frac{3}{4}^{h}$ Irregular wave in Dec. (— 7′). $14\frac{3}{4}^{h}$ to 16^{h} Wave in N.F. (+ 32). $17\frac{1}{4}^{h}$ to 18^{h} Sharp wave in Dec. (— 10′). $17\frac{1}{2}^{h}$ to $18\frac{1}{2}^{h}$ Wave in N.F. (+ 53), steep at commencement. 21^{h} to $23\frac{1}{4}^{h}$ Two successive waves in Dec. (— 5′, — 5′). Wave in V.F. (— 13). $21\frac{1}{4}^{h}$ to $22\frac{3}{4}^{h}$ Sharp wave in N.F. (+ 57).

25^{d} 7^{h} to $8\frac{1}{4}^{h}$ Wave in N.F. (— 21). $10\frac{3}{4}^{h}$ to $12\frac{3}{4}^{h}$ Wave in Dec. (+ 4′). 16^{h} to $17\frac{1}{4}^{h}$ Wave in N.F. (— 20). $16\frac{3}{4}^{h}$ to $17\frac{3}{4}^{h}$ Wave in Dec. (— 4′). $19\frac{1}{2}^{h}$ to $20\frac{1}{2}^{h}$ Waves in Dec. (— 7′) and N.F. (+ 35). $22\frac{1}{4}^{h}$ to 23^{h} Double-crested wave in Dec. (+ 5′). $22\frac{1}{2}^{h}$ to $23\frac{1}{2}^{h}$ Double wave in N.F. (— 16, + 30).

26^{d} $0\frac{1}{2}^{h}$ to 2^{h} Wave in Dec. (+ 4′). $3\frac{3}{4}^{h}$ to 5^{h} Wave in Dec. (+ 7′). 14^{h} to $22\frac{1}{2}^{h}$ Slow wave in V.F. (+ 35). 17^{h} to $18\frac{1}{4}^{h}$ Wave in Dec. (— 10′), double wave in N.F. (— 17, + 30), the second portion double-crested, 20^{h} to $21\frac{1}{2}^{h}$ Wave in N.F. (+ 30), followed till $23\frac{1}{2}^{h}$ by another wave (+ 55). $20\frac{1}{4}^{h}$ to $21\frac{1}{4}^{h}$ Wave in Dec. (— 6′), followed till $23\frac{1}{2}^{h}$ by an irregular wave (— 7′).

27^{d} $5\frac{1}{2}^{h}$ to 8^{h} Slow waves in Dec. (+ 6′) and N.F. (— 28). $11\frac{3}{4}^{h}$ to 12^{h} Sharp increase in Dec. (+ 5′). 12^{h} to 14^{h} Wave in N.F. (— 20). 14^{h} to 18^{h} Slow wave in V.F. (+ 18). $15\frac{3}{4}^{h}$ to $17\frac{1}{4}^{h}$ Wave in Dec. (— 7′). $15\frac{3}{4}^{h}$ to $16\frac{1}{2}^{h}$ Sharp increase in N.F. (+ 55) followed till $16\frac{3}{4}^{h}$ by slower partial return (— 15′).

28^{d} $0\frac{3}{4}^{h}$ to $2\frac{3}{4}^{h}$ Flat-crested wave in Dec. (+ 4′). 1^{h} to 4^{h} Slow increase in V.F. (— 21). $14\frac{1}{2}^{h}$ to $16\frac{1}{4}^{h}$ Double wave in N.F. (— 15, + 15). $14\frac{3}{4}^{h}$ to $16\frac{1}{4}^{h}$ Wave in Dec. (— 4′). 19^{h} to $21\frac{1}{4}^{h}$ Double wave in Dec. (+ 5′, — 6′), followed till $22\frac{1}{4}^{h}$ by a wave (— 3′). 19^{h} to 23^{h} Irregular decrease in V.F. (— 30). $20\frac{3}{4}^{h}$ to $21\frac{1}{2}^{h}$ Wave in N.F. (+ 26). $22\frac{1}{2}^{h}$ to $23\frac{3}{4}^{h}$ Wave in N.F. (— 25). 28^{d} $22\frac{1}{2}^{h}$ to 29^{d} 4^{h} Irregular quadruple wave in Dec. (— 8′, + 6′, — 6′, + 11′), the first two portions flat-crested, the last sharp. 28^{d} $23\frac{3}{4}^{h}$ to 29^{d} 2^{h} Decrease in V.F. (— 42).

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September 29^d $0\frac{1}{2}^h$ to $3\frac{3}{4}^h$ Irregular triple wave in N.F. (− 27, + 26, − 50). 2^h to $3\frac{3}{4}^h$ Wave in V.F. (+ 10) followed till $7\frac{1}{4}^h$ by an increase (+ 34). $4\frac{3}{4}^h$ to 6^h Wave in Dec. (+ 4′). $10\frac{1}{2}^h$ to 13^h Wave in N.F. (− 30). $14\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Decrease in Dec. (− 8′). 15^h to $15\frac{1}{2}^h$ Sharp decrease and increase in N.F. (− 10, + 30). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Waves in Dec. (− 6′) and N.F. (+ 33). 29^d $23\frac{1}{4}^h$ to 30^d $0\frac{1}{2}^h$ Waves in Dec. (+ 6′) and N.F. (+ 15).

30^d $1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Wave in Dec. (+ 4′). 2^h to 6^h Decrease in V.F. (− 33). $3\frac{3}{4}^h$ to $5\frac{1}{4}^h$ Wave in N.F. (− 42). $4\frac{1}{2}^h$ to $5\frac{1}{4}^h$ Wave in Dec. (+ 3′). $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Wave in Dec. (+ 4′). $9\frac{1}{4}^h$ to 11^h Wave in N.F. (− 25). $14\frac{1}{2}^h$ to 16^h Wave in N.F. (− 20). 17^h to $17\frac{3}{4}^h$ Wave in N.F. (− 23). $20\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Two successive waves in N.F. (+ 20, + 35). $20\frac{3}{4}^h$ to 23^h Three successive waves in Dec. (− 3′, − 9′, − 3′).

October 1^d $22\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (+ 3′).

3^d $22\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Sharp increase in Dec. (− 5′). $22\frac{1}{4}^h$ to $23\frac{1}{4}^h$ Wave in N.F. (+ 27).

4^d $21\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Flat-crested wave in Dec. (− 3′).

7^d 22^h to $23\frac{1}{4}^h$ Waves in Dec. (− 7′) and N.F. (+ 22).

10^d $1\frac{1}{2}^h$ to 2^h Sharp wave in Dec. (+ 6′), increase in N.F. (+ 20) and decrease in V.F. (− 11). 16^h Very sharp increase in N.F. (+ 20). $20\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 17′). $20\frac{1}{2}^h$ to 22^h Wave in N.F. (+ 35) steep at commencement.

11^d $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (− 5′).

13^d 23^h to 24^h Wave in N.F. (+ 20).

14^d 13^h to 23^h Irregular slow wave in V.F. (+ 45). $13\frac{3}{4}^h$ Very sharp increase in Dec. (+ 4′) and N.F. (+ 12). $14\frac{1}{4}^h$ to $14\frac{1}{2}^h$ Decrease in N.F. (− 20). 15^h to $16\frac{1}{4}^h$ Irregular sharp triple-crested wave in Dec. (+ 7′), followed till $16\frac{3}{4}^h$ by a decrease (− 7′). 15^h to 18^h Irregular wave in N.F. (− 50) with sharp superposed oscillations, followed till 20^h by two successive waves (− 33, − 30). 18^h to 20^h Two successive waves in Dec. (− 6′, − 3′). 21^h to $22\frac{1}{2}^h$ Sharp wave in Dec. (− 12′). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in N.F. (+ 25).

15^d 2^h to 16^d 2^h. See Plate II.

16^d 2^h to $3\frac{1}{2}^h$ Triple wave in Dec. (+ 3′, − 2′, + 3′), the middle portion double-crested: double wave in N.F. (+ 15, − 17). 2^h to 4^h Increase in V.F. (+ 32). $21\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (− 12′). 22^h to $23\frac{3}{4}^h$ Wave in N.F. (+ 43) with sharp superposed wave (− 20) from $22\frac{3}{4}^h$ to 23^h.

17^d 0^h to $0\frac{3}{4}^h$ Irregular wave in Dec. (+ 3′), small sharp waves in N.F. $3\frac{3}{4}^h$ to $5\frac{3}{4}^h$ Wave in Dec. (+ 10′). 4^h to $6\frac{1}{4}^h$ Wave in N.F. (+ 24). 4^h to 7^h Wave in V.F. (− 12).

19^d $11\frac{1}{2}^h$ to $12\frac{3}{4}^h$ Double-crested wave in Dec. (+ 6′), followed till $13\frac{3}{4}^h$ by a wave (+ 6′), the last portion very steep. $13\frac{3}{4}^h$ to $17\frac{1}{4}^h$ Three successive waves in N.F. (+ 40, + 39, + 21), followed till $18\frac{3}{4}^h$ by an irregular triple wave (+ 24, − 16, + 20). 14^h to 16^h Increase in V.F. (+ 35). $15\frac{1}{2}^h$ to $17\frac{3}{4}^h$ Three successive irregular waves in Dec. (− 8′, − 5′, − 6′). 17^h to 20^h Irregular wave in V.F. (+ 22). 18^h to $18\frac{1}{4}^h$ Sharp decrease in Dec. (− 14′), followed till 19^h by serrated partial return (+ 6′). 19^h to $19\frac{1}{2}^h$ Very sharp decrease and increase in Dec. (− 18′, + 9′). $19\frac{1}{4}^h$ Very sharp increase in N.F. (+ 53), followed till $21\frac{1}{2}^h$ by an irregular wave (− 43). 20^h to $21\frac{1}{2}^h$ Irregular truncated wave in Dec. (+ 5′). 19^d $23\frac{1}{4}^h$ to 20^d 1^h Two successive waves in Dec. (+ 3′, + 3′).

20^d $4\frac{1}{2}^h$ to 7^h Waves in Dec. (+ 11′) and N.F. (− 37). 8^h to $8\frac{1}{2}^h$ Rapid decrease in N.F. (− 35), continued till $12\frac{1}{2}^h$ by a truncated wave (− 65) with superposed fluctuations. $10\frac{1}{2}^h$ to $12\frac{1}{4}^h$ Truncated wave in Dec. (+ 5′) with serrated crest. 14^h to $14\frac{1}{2}^h$ Decrease in Dec. (− 5′). 14^h to 15^h Wave in N.F. (− 24). $17\frac{3}{4}^h$ to 19^h Sharp wave in Dec. (− 10′). 18^h to 20^h Wave in N.F. (+ 35). 22^h to 23^h Wave in N.F. (+ 26). $22\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in Dec. (− 4′).

21^d $0\frac{1}{4}^h$ to $3\frac{1}{2}^h$ Irregular double-crested wave in Dec. (− 9′). $2\frac{3}{4}^h$ to $4\frac{3}{4}^h$ Double-crested wave in N.F. (− 27). 5^h to $6\frac{1}{4}^h$ Wave in Dec. (− 3′). $5\frac{1}{2}^h$ to $6\frac{3}{4}^h$ Wave in N.F. (− 29). $9\frac{1}{2}^h$ to 11^h Wave in N.F. (− 30). $11\frac{3}{4}^h$ to $12\frac{3}{4}^h$ Two successive waves in Dec. (+ 4′, + 3′). 20^h to $21\frac{1}{4}^h$ Sharp waves in Dec. (− 12′) and N.F. (+ 70).

22^d $1\frac{1}{4}^h$ to 2^h Wave in Dec. (+ 3′). $11\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Double-crested wave in N.F. (− 20). $12\frac{1}{4}^h$ to $13\frac{1}{2}^h$ Serrated wave in Dec. (+ 3′). $13\frac{1}{4}^h$ to 20^h Slow irregular wave in V.F. (+ 28). $17\frac{1}{2}^h$ to 18^h Wave in Dec. (− 4′). $17\frac{1}{2}^h$ to 18^h Wave in N.F. (+ 20). $18\frac{1}{4}^h$ to 20^h Wave in Dec. (− 9′). $18\frac{3}{4}^h$ to 20^h Wave in N.F. (+ 37). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in N.F. (+ 30), followed till $23\frac{1}{4}^h$ by a triple wave (+ 20, − 20, + 20). 21^h to $22\frac{3}{4}^h$ Double wave in Dec. (− 4′, + 13′), the second portion very sharp. 22^d $23\frac{3}{4}^h$ to 23^d $0\frac{3}{4}^h$ Wave in N.F. (+ 36).

23^d 0^h to $1\frac{3}{4}^h$ Truncated wave in Dec. (− 6′). 0^h to $0\frac{1}{4}^h$ Decrease in V.F. (− 15). $1\frac{1}{2}^h$ to $2\frac{3}{4}^h$ Wave in N.F. (− 50). 2^h to $3\frac{1}{2}^h$ Wave in Dec. (+ 15′). $2\frac{1}{2}^h$ to 4^h Wave in V.F. (− 16). $5\frac{3}{4}^h$ to $8\frac{1}{2}^h$ Irregular wave in Dec. (+ 10′). $5\frac{3}{4}^h$ to $7\frac{1}{2}^h$ Wave in N.F. (− 35), followed till 8^h by a decrease (− 25).

23^d 12^h to 24^d 12^h. See Plate II.

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October $24^{\rm d}$ $14^{\rm h}$ to $14\frac{3}{4}^{\rm h}$ Irregular decrease in Dec. (− 8′), followed till $15\frac{1}{4}^{\rm h}$ by a wave (+ 4′). $15^{\rm h}$ to $16^{\rm h}$ Wave in N.F. (+ 20). $16^{\rm h}$ to $17^{\rm h}$ Wave in Dec. (− 5′), followed till $17\frac{3}{4}^{\rm h}$ by a sharper wave (− 6′), again followed till $18^{\rm h}$ by a very sharp wave (− 16′). $16\frac{3}{4}^{\rm h}$ to $17\frac{1}{4}^{\rm h}$ Irregular decrease in N.F. (− 30), followed till $17\frac{3}{4}^{\rm h}$ by a sharp truncated wave (+ 25). $17\frac{3}{4}^{\rm h}$ to $18^{\rm h}$ Very sharp increase in N.F. (+ 107), followed till $18\frac{1}{4}^{\rm h}$ by a sharp decrease (− 53), and till $18\frac{3}{4}^{\rm h}$ by a slower decrease (− 20). $18^{\rm h}$ to $18\frac{1}{2}^{\rm h}$ Decrease in V.F. (− 14). $19\frac{1}{4}^{\rm h}$ to $20\frac{1}{2}^{\rm h}$ Irregular double wave in Dec. (− 4′, + 5′), the second movement very sharp, followed till $21^{\rm h}$ by a wave (+ 3′). $19\frac{1}{2}^{\rm h}$ to $21\frac{1}{4}^{\rm h}$ Irregular triple-crested wave in N.F. (+ 40), followed till $22^{\rm h}$ by a sharp increase and decrease (+ 53, − 38). $20^{\rm h}$ to $20\frac{1}{2}^{\rm h}$ Decrease in V.F. (− 18). $21\frac{1}{4}^{\rm h}$ to $21\frac{3}{4}^{\rm h}$ Sharp wave in Dec. (− 8′). $22\frac{3}{4}^{\rm h}$ to $24^{\rm h}$ Triple wave in Dec. (+ 3′, − 3′, + 3′). $24^{\rm d}$ $23^{\rm h}$ to $25^{\rm d}$ $0\frac{1}{4}^{\rm h}$ Decrease in V.F. (− 32). $24^{\rm d}$ $23\frac{1}{2}^{\rm h}$ to $25^{\rm d}$ $0\frac{1}{2}^{\rm h}$ Double-crested wave in N.F. (+ 21).

$25^{\rm d}$ $0\frac{1}{2}^{\rm h}$ to $2^{\rm h}$ Double-crested wave in Dec. (− 9′), flat-crested wave in N.F. (+ 19). $2\frac{1}{4}^{\rm h}$ to $4^{\rm h}$ Flat-crested wave in N.F. (+ 25). $2\frac{1}{2}^{\rm h}$ to $3\frac{1}{2}^{\rm h}$ Wave in Dec. (− 4′). $4\frac{1}{2}^{\rm h}$ to $6\frac{1}{2}^{\rm h}$ Increase and decrease in Dec. (+ 15′, − 6′). $5^{\rm h}$ to $7^{\rm h}$ Wave in V.F. (− 14). $5\frac{1}{4}^{\rm h}$ to $7\frac{3}{4}^{\rm h}$ Irregular double-crested wave in N.F. (− 23) followed till $8\frac{1}{2}^{\rm h}$ by a decrease (− 30). $9^{\rm h}$ to $12^{\rm h}$ Sharply serrated double wave in Dec. (− 5′, + 3′). $11\frac{1}{2}^{\rm h}$ to $12\frac{1}{2}^{\rm h}$ Serrated wave in N.F. (− 35). $12^{\rm h}$ to $13\frac{1}{2}^{\rm h}$ Truncated wave in N.F. (+ 23). $13^{\rm h}$ to $18\frac{1}{4}^{\rm h}$ Slow wave in V.F. (+ 40). $16\frac{1}{2}^{\rm h}$ to $17^{\rm h}$ Sharp double-crested wave in N.F. (+ 20). $16\frac{3}{4}^{\rm h}$ to $17^{\rm h}$ Sharp double wave in Dec. (− 3′, + 3′). $17^{\rm h}$ to $17\frac{1}{2}^{\rm h}$ Wave in N.F. (+ 18), followed till $19^{\rm h}$ by a sharp double-crested wave (+ 77), with a pause of $\frac{1}{4}^{\rm h}$ during first increase. $17\frac{1}{2}^{\rm h}$ to $18\frac{3}{4}^{\rm h}$ Sharp double-crested wave in Dec. (− 14′), with a pause of $\frac{1}{4}^{\rm h}$ during first decrease. $25^{\rm d}$ $23\frac{1}{4}^{\rm h}$ to $26^{\rm d}$ $1\frac{1}{2}^{\rm h}$ Irregular wave in Dec. (+ 12′). $25^{\rm d}$ $23\frac{1}{2}^{\rm h}$ to $26^{\rm d}$ $3^{\rm h}$ Irregular quadruple wave in N.F. (+ 15, − 15, + 35, − 23). $25^{\rm d}$ $23\frac{3}{4}^{\rm h}$ to $26^{\rm d}$ $1^{\rm h}$ Decrease in V.F. (− 23).

$26^{\rm d}$ $2\frac{1}{4}^{\rm h}$ to $4^{\rm h}$ Slightly truncated wave in Dec. (+ 10′). $3\frac{1}{4}^{\rm h}$ to $5^{\rm h}$ Increase in V.F. (+ 15). $4\frac{1}{4}^{\rm h}$ to $7\frac{3}{4}^{\rm h}$ Slow wave in Dec. (− 7′). $10\frac{1}{2}^{\rm h}$ to $10\frac{3}{4}^{\rm h}$ Increase in Dec. (+ 4′). $14^{\rm h}$ to $14\frac{1}{4}^{\rm h}$ Decrease in Dec. (− 7′). $19^{\rm h}$ to $19\frac{3}{4}^{\rm h}$ Wave in Dec. (− 6′). $21\frac{1}{2}^{\rm h}$ to $22\frac{3}{4}^{\rm h}$ Irregular wave in N.F. (+ 36). $22\frac{3}{4}^{\rm h}$ to $23\frac{1}{4}^{\rm h}$ Two successive waves in Dec. (− 3′, − 4′).

$27^{\rm d}$ $17\frac{1}{2}^{\rm h}$ to $17\frac{3}{4}^{\rm h}$ Sharp decrease in Dec. (− 9′). $17\frac{1}{2}^{\rm h}$ to $18^{\rm h}$ Increase in N.F. (+ 27).

$29^{\rm d}$ $1^{\rm h}$ to $2^{\rm h}$ Wave in Dec. (+ 3′).

$30^{\rm d}$ $23^{\rm h}$ to $23\frac{3}{4}^{\rm h}$ Decrease in V.F. (− 11). $30^{\rm d}$ $23\frac{1}{4}^{\rm h}$ to $31^{\rm d}$ $0\frac{1}{2}^{\rm h}$ Waves in Dec. (− 5′) and N.F. (+ 35).

$31^{\rm d}$ $19\frac{1}{2}^{\rm h}$ to $20\frac{1}{2}^{\rm h}$ Wave in N.F. (− 20). $19\frac{3}{4}^{\rm h}$ to $20\frac{1}{4}^{\rm h}$ Sharp decrease in Dec. (− 10′), followed till $21^{\rm h}$ by slower return (+ 5′). $31^{\rm d}$ $23\frac{1}{4}^{\rm h}$ to Nov. $1^{\rm d}$ $1\frac{1}{2}^{\rm h}$ Double wave in Dec. (+ 5′, − 6′), the first portion steep, the last slow and irregular.

November $1^{\rm d}$ $0\frac{3}{4}^{\rm h}$ to $2^{\rm h}$ Wave in N.F. (− 20). $3^{\rm h}$ to $4\frac{1}{2}^{\rm h}$ Irregular double-crested wave in Dec. (+ 4′). $4^{\rm h}$ to $5\frac{1}{2}^{\rm h}$ Wave in N.F. (+ 30). $8^{\rm h}$ to $8\frac{3}{4}^{\rm h}$ Serrated wave in Dec. (− 4′). $10\frac{1}{2}^{\rm h}$ to $11^{\rm h}$ Sharply serrated wave in Dec. (+ 4′), in N.F. small. $11\frac{1}{2}^{\rm h}$ to $12\frac{3}{4}^{\rm h}$ Serrated double wave in N.F. (−16, + 12), the first portion truncated; followed till $14^{\rm h}$ by a triple-crested wave (− 30). $12\frac{1}{2}^{\rm h}$ to $13^{\rm h}$ Double-crested wave in Dec. (+ 4′), followed till $13\frac{1}{2}^{\rm h}$ by a truncated wave (+ 4′). $13\frac{1}{2}^{\rm h}$ to $14^{\rm h}$ Sharp double wave in Dec. (+ 2′, − 3′). $14\frac{1}{4}^{\rm h}$ to $14\frac{3}{4}^{\rm h}$ Sharp decrease and increase in Dec. (− 3′, + 6′). $14\frac{3}{4}^{\rm h}$ to $15\frac{1}{2}^{\rm h}$ Serrated increase in Dec. (+ 6′). $15^{\rm h}$ to $15\frac{1}{2}^{\rm h}$ Decrease in N.F. (− 25), followed till $15\frac{3}{4}^{\rm h}$ by a sharp wave (− 35). $15^{\rm h}$ to $15\frac{1}{2}^{\rm h}$ Sharp increase in V.F. (+ 30). $15\frac{1}{2}^{\rm h}$ Very sharp decrease in Dec. (− 14′), followed till $16\frac{1}{2}^{\rm h}$ by an irregular wave (+ 6′) with superposed fluctuations; short sharp fluctuations also in N.F. and V.F. $19\frac{1}{4}^{\rm h}$ to $20^{\rm h}$ Very sharp double wave in Dec. (− 17′, + 8′), followed till $20\frac{1}{2}^{\rm h}$ by a wave (− 6′). $19\frac{1}{4}^{\rm h}$ to $20^{\rm h}$ Very sharp irregular wave in N.F. (+ 100), sharp decrease in V.F. (− 35). $20\frac{1}{4}^{\rm h}$ to $21\frac{1}{4}^{\rm h}$ Triple wave in N.F. (+ 23, − 22, + 20), the second portion truncated, followed till $22\frac{1}{4}^{\rm h}$ by an irregular wave (+ 67). $20\frac{3}{4}^{\rm h}$ to $23^{\rm h}$ Quadruple crested wave in Dec. (− 15′), very steep at commencement but rapidly diminishing in activity after the first two movements.

$2^{\rm d}$ $15\frac{1}{4}^{\rm h}$ to $16\frac{1}{2}^{\rm h}$ Double-crested wave in N.F. (− 22). $19\frac{3}{4}^{\rm h}$ to $21\frac{1}{2}^{\rm h}$ Truncated wave in Dec. (− 8′). $20^{\rm h}$ to $21\frac{1}{4}^{\rm h}$ Wave in N.F. (+ 30).

$3^{\rm d}$ $17^{\rm h}$ to $19^{\rm h}$ Serrated wave in Dec. (− 3′). $23^{\rm h}$ to $23\frac{1}{2}^{\rm h}$ Wave in Dec. (+ 3′).

$5^{\rm d}$ $14^{\rm h}$ to $6^{\rm d}$ $14^{\rm h}$ See Plate III.

$6^{\rm d}$ $14\frac{1}{2}^{\rm h}$ to $14\frac{3}{4}^{\rm h}$ Decrease in Dec. (− 5′). $14\frac{1}{2}^{\rm h}$ to $15^{\rm h}$ Wave in N.F. (− 22). $15^{\rm h}$ to $18^{\rm h}$ Irregular wave in V.F. (+ 25). $15\frac{1}{2}^{\rm h}$ to $16^{\rm h}$ Irregular increase in Dec. (+ 5′), followed till $17^{\rm h}$ by an irregular sharp decrease (− 22′). $15\frac{1}{2}^{\rm h}$ to $17\frac{1}{4}^{\rm h}$ Irregular double wave in N.F. (− 30, + 20), followed till $18\frac{1}{2}^{\rm h}$ by a serrated wave (+ 50). $17^{\rm h}$ to $18^{\rm h}$ Serrated wave in Dec. (+ 8′), followed till $18\frac{1}{2}^{\rm h}$ by an irregular wave (+ 5′). $18\frac{1}{2}^{\rm h}$ to $20\frac{1}{2}^{\rm h}$ Irregular wave in Dec. (+ 7′). $21\frac{1}{4}^{\rm h}$ to $23\frac{3}{4}^{\rm h}$ Three successive irregular waves in Dec. (+ 5′, + 7′, + 7′). $22^{\rm h}$ to $23\frac{1}{4}^{\rm h}$ Wave in V.F. (− 17).

$7^{\rm d}$ $19^{\rm h}$ to $21\frac{1}{4}^{\rm h}$ Irregular double-crested wave in Dec. (−5′), irregular wave in N.F. (+ 31).

$8^{\rm d}$ $1\frac{1}{2}^{\rm h}$ to $3\frac{1}{4}^{\rm h}$ Double-crested wave in Dec. (+ 6′). $16\frac{1}{4}^{\rm h}$ to $18^{\rm h}$ Double-crested wave in Dec. (− 12′). $16\frac{1}{2}^{\rm h}$ to $18^{\rm h}$ Double-crested wave in N.F. (+ 52). $22^{\rm h}$ to $22\frac{1}{2}^{\rm h}$ Waves in Dec. (+ 4′) and N.F. (+ 25).

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November 9^d 19^h to $20\frac{1}{4}^h$ Irregular wave in N.F. (+ 21). $19\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Double-crested wave in Dec. (+ 3′). $21\frac{1}{4}^h$ to $21\frac{3}{4}^h$ Wave in Dec. (— 3′). $21\frac{1}{4}^h$ to 22^h Wave in N.F. (+ 20). $22\frac{1}{4}^h$ to $22\frac{3}{4}^h$ Wave in Dec. (+ 3′). 9^d $23\frac{3}{4}^h$ to 10^d $0\frac{1}{2}^h$ Waves in Dec. (+ 5′) and N.F. (+ 20).

10^d $13\frac{3}{4}^h$ to $14\frac{3}{4}^h$ Double-crested wave in Dec. (+ 4′).

11^d $13\frac{1}{2}^h$ to $15\frac{1}{4}^h$ Wave in N.F. (— 26). $13\frac{3}{4}^h$ to $14\frac{1}{2}^h$ Wave in Dec. (+ 3′). $16\frac{1}{4}^h$ to 19^h Irregular double wave in N.F. (+ 18, — 10). 21^h to $22\frac{3}{4}^h$ Double wave in Dec. (+ 3′, — 3′), in N.F. small.

12^d $20\frac{1}{2}^h$ to $22\frac{1}{4}^h$ Wave in N.F. (+ 27), followed till $23\frac{1}{2}^h$ by a wave (+ 18). 21^h to 23^h Double wave in Dec. (— 5′, + 4′). 12^d $23\frac{3}{4}^h$ to 13^d 1^h Flat-crested wave in Dec. (+ 5′).

13^d 0^h to 1^h Decrease in V.F. (— 17). $0\frac{1}{4}^h$ to $1\frac{1}{2}^h$ Wave in N.F. (+ 30).

14^d $18\frac{1}{4}^h$ to 15^d $10\frac{3}{4}^h$ Loss of register in Dec. and N.F. 14^d $22\frac{1}{2}^h$ to 15^d 7^h Loss of register in V.F.

15^d $19\frac{1}{2}^h$ to 16^d $11\frac{3}{4}^h$ Loss of register in Dec. and N.F.

15^d 22^h to 23^h Sharp wave in V.F. (— 20), followed by fluctuations till 24^h.

16^d 12^h to $16\frac{1}{2}^h$ Wave in V.F. (+ 58). $12\frac{1}{2}^h$ to $13\frac{3}{4}^h$ Serrated double wave in Dec. (+ 4′, — 4′). $12\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Serrated double-crested wave in N.F. (— 20). $13\frac{3}{4}^h$ to $14\frac{1}{2}^h$ Irregular double wave in N.F. (— 22, + 30), followed till $14\frac{3}{4}^h$ by a sharp increase (+ 55). 14^h to $14\frac{1}{4}^h$ Sharp wave in Dec. (— 7′), followed till 15^h by a sharp decrease (— 13′), with slower partial return (+ 8′). $17\frac{3}{4}^h$ to $18\frac{1}{2}^h$ Irregular decrease in N.F. (— 38′), followed till $20\frac{1}{2}^h$ by a sharp double-crested wave (+ 85). 19^h to $20\frac{3}{4}^h$ Sharp double-crested wave in Dec. (— 19′). $21\frac{1}{4}^h$ to 24^h Irregular double wave in V.F. (+ 7, — 10). $21\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Irregular truncated wave in N.F. (+ 60). $21\frac{3}{4}^h$ to $23\frac{1}{4}^h$ Double-crested wave in Dec. (— 8′), followed till 24^h by a wave (— 7′).

17^d $1\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Sharp double-crested wave in Dec. (+ 9′), followed till $4\frac{1}{2}^h$ by an irregular double wave (+ 6′, — 3′). $1\frac{3}{4}^h$ to $3\frac{3}{4}^h$ Two successive waves in N.F. (+ 32, + 30), the second truncated. $1\frac{3}{4}^h$ to 5^h Irregular wave in V.F. (— 28). $4\frac{1}{2}^h$ to $5\frac{3}{4}^h$ Increase in Dec. (+ 15′). $6\frac{1}{2}^h$ to $7\frac{1}{4}^h$ Decrease in N.F. (— 40). 8^h to $8\frac{1}{4}^h$ Decrease in Dec. (— 5′). $8\frac{1}{4}^h$ to $8\frac{1}{2}^h$ Increase in N.F. (+ 20). $11\frac{1}{2}^h$ to 13^h Serrated waves in Dec. (+ 7′) and N.F. (— 48′). 16^h to $16\frac{3}{4}^h$ Wave in Dec. (— 4′). 16^h to $16\frac{1}{4}^h$ Sharp increase in N.F. (+ 30). $17\frac{1}{2}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (— 6′). 17^d $23\frac{1}{2}^h$ to 18^d $1\frac{3}{4}^h$ Quadruple wave in N.F. (+ 20, — 17, + 40, — 20).

18^d $0\frac{1}{4}^h$ to $0\frac{1}{2}^h$ Sharp increase in Dec. (+ 12′), followed till 3^h by two successive waves (— 12′, — 7′). $0\frac{1}{4}^h$ to 3^h Double-crested wave in V.F. (— 28). 5^h to 7^h Irregular wave in N.F. (+ 30). $6\frac{3}{4}^h$ to $7\frac{1}{4}^h$ Sharp increase in Dec. (+ 17′). $7\frac{1}{4}^h$ to $8\frac{1}{2}^h$ Double-crested wave in N.F. (— 28). $8\frac{1}{4}^h$ to 11^h Serrated wave in Dec. (— 10′). $11\frac{1}{2}^h$ to 12^h Sharply serrated wave in Dec. (+ 5′), followed till $13\frac{1}{2}^h$ by two successive serrated waves (— 4′, — 5′). 12^h to 15^h Wave in V.F. (+ 19). $13\frac{1}{2}^h$ Sharp decrease in Dec. (— 6′). $13\frac{1}{2}^h$ to 14^h Increase in N.F. (+ 35), followed till 15^h by a double wave (— 24, + 26). $13\frac{3}{4}^h$ to $14\frac{3}{4}^h$ Double wave in Dec. (+ 4′, — 4′). 16^h to 17^h Sharp waves in Dec. (— 15′) and N.F. (+ 50). $18\frac{1}{4}^h$ to 19^h Sharp wave in Dec. (— 7′), followed till 20^h by an irregular wave (— 5′). $18\frac{1}{2}^h$ to $20\frac{1}{4}^h$ Many-crested wave in N.F. (+ 42). $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Truncated wave in Dec. (— 6′). 21^h to $23\frac{1}{4}^h$ Wave in N.F. (+ 40). 23^h to $23\frac{1}{4}^h$ Sharp increase in Dec. (+ 7′). 18^d $23\frac{1}{4}^h$ to 19^d 1^h Irregular wave in N.F. (+ 20).

19^d 0^h to $0\frac{1}{2}^h$ Wave in Dec. (+ 3′). $2\frac{1}{4}^h$ to $3\frac{1}{2}^h$ Irregular wave in Dec. (+ 3′). $6\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Wave in Dec. (+ 5′). $8\frac{1}{4}^h$ to $9\frac{1}{4}^h$ Irregular wave in N.F. (— 20). 12^h to 15^h Wave in V.F. (+ 20). $12\frac{1}{4}^h$ to 14^h Serrated wave in N.F. (— 32). 16^h to $17\frac{1}{2}^h$ Wave in N.F. (— 37). $16\frac{1}{2}^h$ to 18^h Wave in Dec. (— 5′). $19\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Wave in Dec. (— 4′). $19\frac{1}{4}^h$ to $20\frac{3}{4}^h$ Wave in N.F. (+ 23), followed till $21\frac{1}{4}^h$ by a sharper wave (+ 16). 21^h to 24^h Many-crested wave in Dec. (+ 7′).

20^d $4\frac{1}{2}^h$ to $6\frac{1}{2}^h$ Wave in N.F. (— 23). 5^h to 7^h Wave in Dec. (+ 7′). 15^h to $15\frac{3}{4}^h$ Wave in N.F. (— 36). $15\frac{1}{4}^h$ to $16\frac{1}{2}^h$ Wave in Dec. (— 13′). 19^h to 20^h Wave in Dec. (— 7′). $21\frac{3}{4}^h$ to 23^h Wave in Dec. (— 10′). $21\frac{3}{4}^h$ to $23\frac{3}{4}^h$ Wave in N.F. (+ 66).

21^d $0\frac{1}{4}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (+ 4′), followed till 4^h by a slower wave (+ 6′). $0\frac{1}{2}^h$ to $3\frac{1}{2}^h$ Irregular double wave in N.F. (+ 16, — 13). $15\frac{3}{4}^h$ to 17^h Double-crested wave in Dec. (— 7′): wave in N.F. (+ 38). 17^h to $18\frac{1}{4}^h$ Wave in Dec. (— 4′). $19\frac{1}{4}^h$ to 20^h Wave in Dec. (— 5′), followed till $21\frac{3}{4}^h$ by a triple wave (— 3′, + 3′, — 3′), the first portion triple-crested. $19\frac{1}{2}^h$ to 20^h Wave in N.F. (+ 20), followed till $21\frac{1}{4}^h$ by a truncated wave (+ 45), followed till 22^h by a wave (+ 20). 20^h to 23^h Serrated wave in V.F. (— 15).

22^d $0\frac{1}{4}^h$ to 2^h Wave in Dec. (+ 6′). 12^h to $13\frac{1}{2}^h$ Double-crested wave in Dec. (+ 3′). $12\frac{3}{4}^h$ to 14^h Wave in N.F. (— 21). $15\frac{1}{4}^h$ to $15\frac{3}{4}^h$ Decrease in Dec. (— 9′). $15\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Wave in N.F. (+ 24). $19\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Irregular waves in Dec. (— 10′) and N.F. (+ 55), both sharp at commencement.

26^d $20\frac{1}{2}^h$ to 22^h Waves in Dec. (— 3′) and N.F. (+ 26).

27^d 18^h to 20^h Wave in Dec. (— 5′). $20\frac{1}{2}^h$ to 22^h Wave in Dec. (— 6′), steep at commencement: truncated wave in N.F. (+ 45), followed till $22\frac{3}{4}^h$ by a wave (+ 36). $23\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Decrease in Dec. (— 5′). 27^d $23\frac{1}{2}^h$ to 28^d 1^h Wave in N.F. (+ 35).

28^d $2\frac{3}{4}^h$ to $4\frac{3}{4}^h$ Wave in Dec. (+ 6′). $3\frac{1}{2}^h$ to $6\frac{1}{4}^h$ Wave in N.F. (+ 24).

30^d $10\frac{3}{4}^h$ to $15\frac{3}{4}^h$ Loss of register in V.F.

1915.
December 3^d $4\frac{1}{2}^h$ to $5\frac{1}{4}^h$ Wave in Dec. (+ 3′). $4\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Wave in N.F. (+ 15). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (— 3′).

6^d 11^h to 7^d 11^h See Plate III.

7^d 21^h to $22\frac{1}{4}^h$ Wave in Dec. (— 11′), steep at commencement. 21^h to 22^h Steep wave in N.F. (+ 50).

8^d $1\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Double-crested wave in Dec. (+ 5′). 23^h to $23\frac{3}{4}^h$ Wave in N.F. (+ 27).

9^d $20\frac{3}{4}^h$ to $21\frac{1}{4}^h$ Irregular waves in Dec. (— 10′) and N.F. (+ 37), both steep at commencement.

10^d 18^h to 21^h Slow wave in N.F. (— 27).

11^d 14^h to $16\frac{1}{2}^h$ Wave in N.F. (— 25). $17\frac{1}{4}^h$ to $18\frac{1}{4}^h$ Wave in Dec. (— 4′). $19\frac{1}{4}^h$ to $20\frac{1}{4}^h$ Wave in Dec. (— 3′). $21\frac{1}{4}^h$ to $22\frac{1}{2}^h$ Double waves in Dec. (— 3′, + 3′) and N.F. (+ 16, — 16). 11^d $23\frac{3}{4}^h$ to 12^d 1^h Wave in N.F. (+ 28).

12^d $0\frac{1}{4}^h$ to 2^h Wave in Dec. (— 4′). $3\frac{1}{4}^h$ to $4\frac{1}{4}^h$ Wave in Dec. (+ 4′).

14^d $13\frac{3}{4}^h$ to 15^h Decrease in N.F. (— 27). $16\frac{1}{2}^h$ to $17\frac{1}{4}^h$ Decrease in Dec. (— 5′). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Increase in N.F. (+ 28). 22^h to $23\frac{1}{4}^h$ Wave in N.F. (+ 25); in Dec. small.

15^d $10\frac{1}{4}^h$ to 12^h Wave in Dec. (— 4′). $12\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in N.F. (— 30). $15\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Irregular triple wave in N.F. (— 35, + 50, — 37). 16^h to $16\frac{1}{2}^h$ Decrease in Dec. (— 9′), continued till $17\frac{1}{4}^h$ by a sharp double wave (— 5′, + 4′), the first portion serrated; followed till $18\frac{1}{4}^h$ by a wave (+ 8′). $18\frac{3}{4}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (+ 4′). 19^h to $20\frac{1}{2}^h$ Irregular double wave in N.F. (— 27, + 20). 20^h to $20\frac{1}{2}^h$ Decrease in V.F. (— 12). $20\frac{1}{4}^h$ to $20\frac{1}{2}^h$ Steep wave in Dec. (+ 4′). 21^h to $21\frac{1}{4}^h$ Sharp increase in Dec. (+ 6′), followed till $21\frac{3}{4}^h$ by a sharp wave (— 11′). 21^h to $21\frac{1}{4}^h$ Sharp increase in N.F. (+ 25), followed till $21\frac{3}{4}^h$ by a sharp double wave (— 23, + 20). 21^h to $21\frac{1}{2}^h$ Small sharp double wave in V.F. (+ 7, — 7). 15^d $22\frac{1}{4}^h$ to 16^d $0\frac{1}{4}^h$ Irregular wave in Dec. (— 5′).

16^d $14\frac{1}{4}^h$ to $15\frac{1}{2}^h$ Wave in Dec. (— 4′). $15\frac{1}{2}^h$ to $16\frac{3}{4}^h$ Increase in N.F. (+ 30).

17^d 0^h to 1^h Small double wave in Dec. (+ 2′, — 2′). $15\frac{3}{4}^h$ to 17^h Wave in Dec. (— 3′). $18\frac{3}{4}^h$ to 20^h Two successive waves in Dec. (— 3′, — 2′).

19^d 18^h to 19^h Wave in Dec. (— 3′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Double-crested wave in Dec. (— 3′). $22\frac{1}{2}^h$ to $23\frac{3}{4}^h$ Irregular wave in N.F. (+25).

23^d $19\frac{1}{2}^h$ to $21\frac{1}{4}^h$ Double wave in N.F. (— 21, + 12). $20\frac{1}{4}^h$ to $21\frac{1}{4}^h$ Truncated wave in Dec. (— 7′).

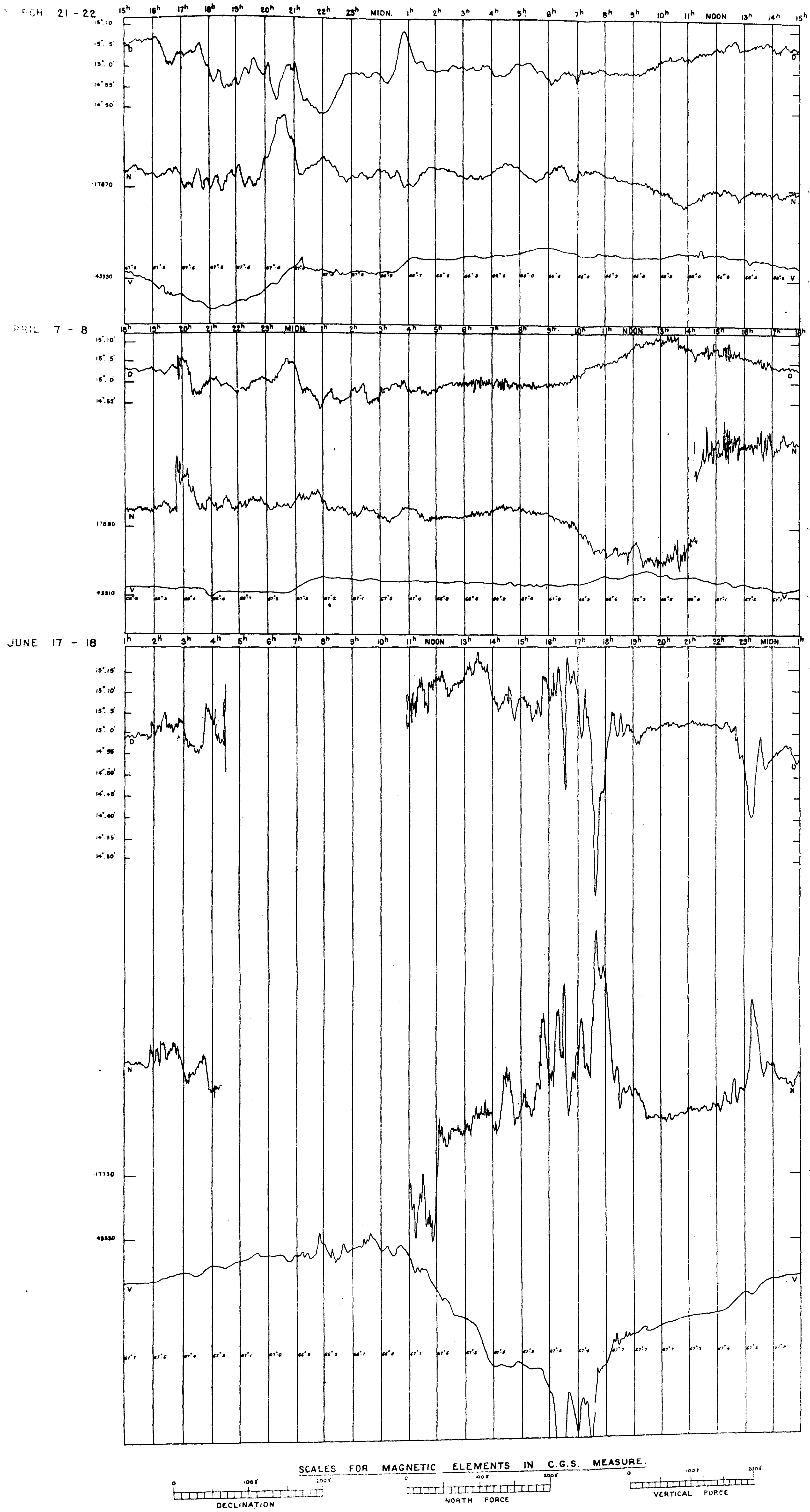
24^d $19\frac{3}{4}^h$ to $20\frac{1}{2}^h$ Waves in Dec. (— 5′) and N.F. (+ 20).

25^d 0^h to $1\frac{1}{2}^h$ Wave in Dec. (+ 4′). 7^h to $8\frac{1}{4}^h$ Wave in N.F. (— 20). $14\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Serrated wave in N.F. (— 15). $21\frac{1}{2}^h$ to $22\frac{3}{4}^h$ Two successive waves in N.F. (+ 21, + 17). $22\frac{1}{4}^h$ to 23^h Wave in Dec. (+ 4′). 25^d $23\frac{1}{2}^h$ to 26^d $0\frac{1}{4}^h$ Wave in Dec. (— 3′).

26^d $0\frac{3}{4}^h$ to 2^h Wave in Dec. (— 7′). $5\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Irregular truncated wave in Dec. (+ 5′). 10^h to $11\frac{1}{2}^h$ Flat-crested wave in Dec. (— 4′). 12^h to 15^h Wave in N.F. (— 45), steep at commencement. $13\frac{3}{4}^h$ to $15\frac{1}{2}^h$ Wave in Dec. (— 4′).

27^d 14^h to $15\frac{1}{2}^h$ Wave in N.F. (— 22). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (— 8′), steep at commencement, double wave in N.F. (+ 15, — 18).

29^d $0\frac{1}{2}^h$ Sharp increase in Dec. (+ 5′), followed till 2^h by slower decrease (— 8′). $0\frac{3}{4}^h$ to $1\frac{1}{2}^h$ Decrease in V.F. (— 12).


MARCH 21 - 22
APRIL 7 - 8
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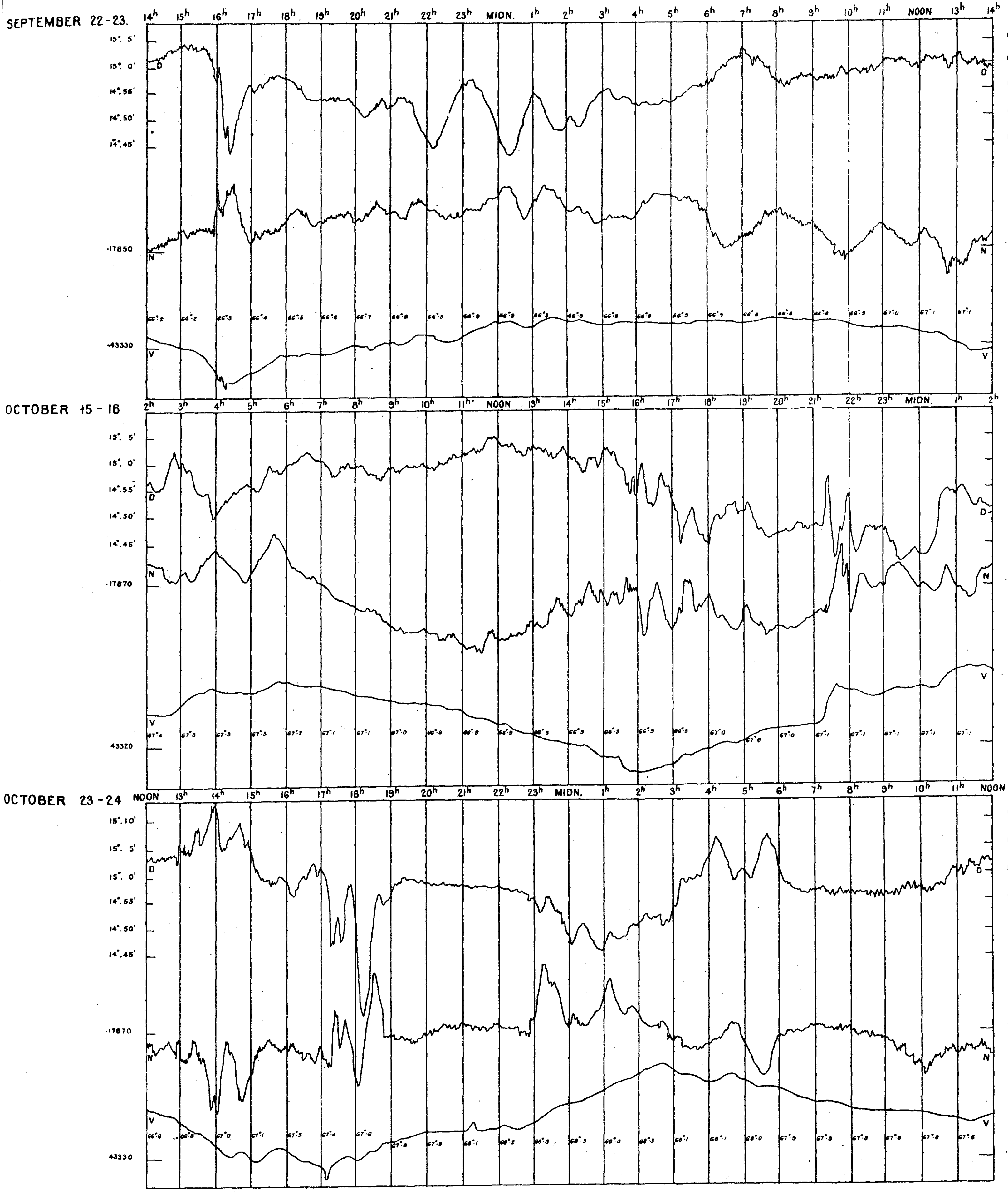
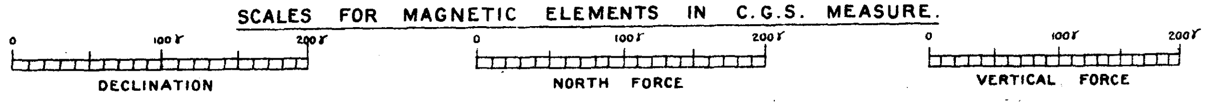
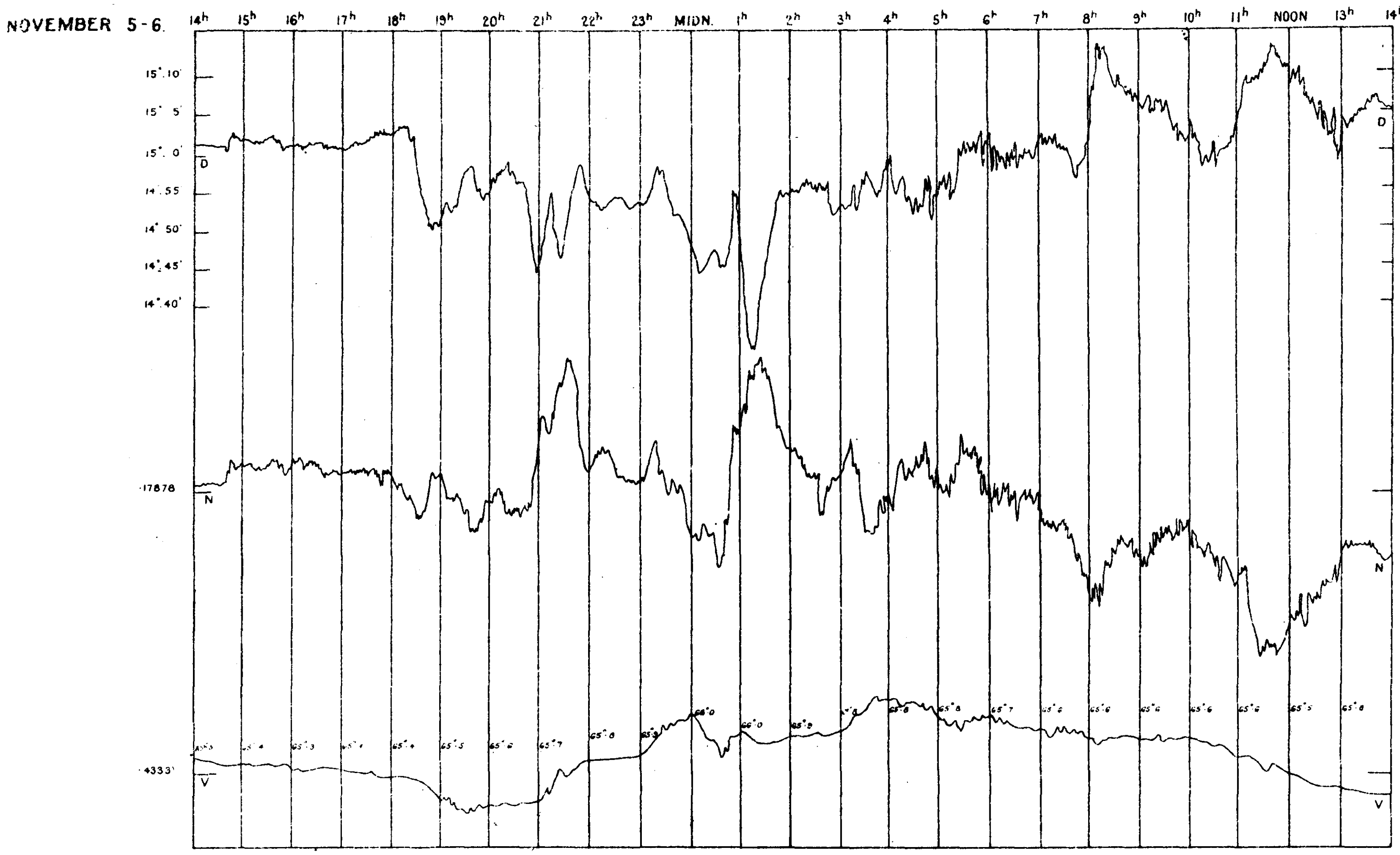
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.
DECLINATION
NORTH FORCE
VERTICAL FORCE

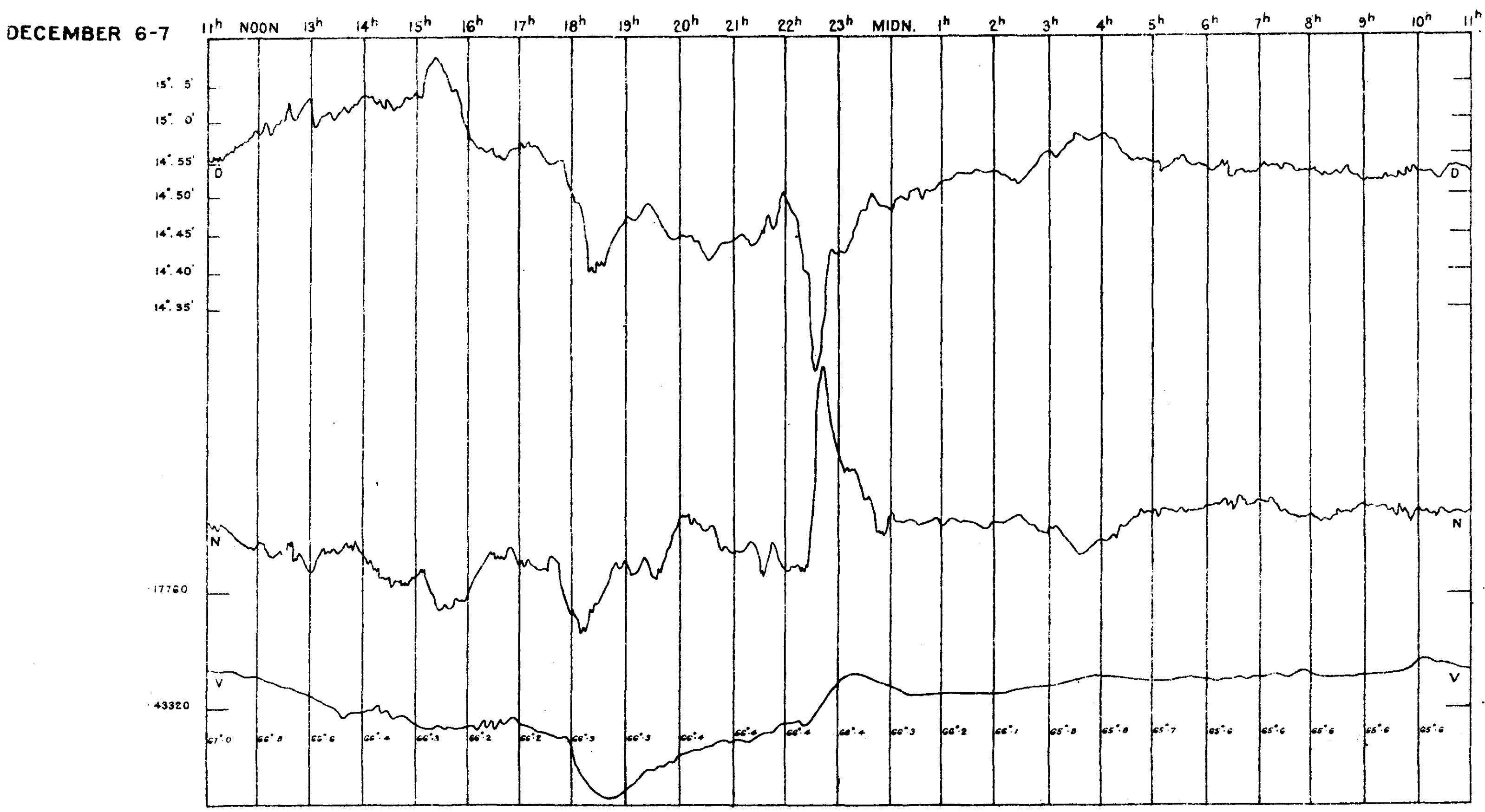
MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH 1915.



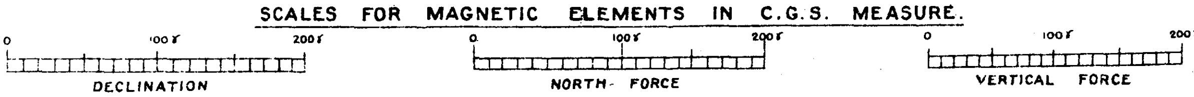
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. MEASURE.







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



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ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1915.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Jan. 1	Full	28·884	44·8	31·4	13·4	37·8	− 0·8	36·8	35·5	2·3	5·5	0·4	92	48·3	24·0	44·23	0·410	mP : mN : wP
2	..	28·717	46·0	37·4	8·6	41·2	+ 2·8	39·2	36·6	4·6	8·0	1·7	85	61·7	30·7	43·93	0·016	wP : mP : mP
3	..	28·649	42·9	34·4	8·5	38·8	+ 0·5	38·0	36·9	1·9	2·7	0·5	94	46·9	29·2	43·84	0·379	wP : wN : wP
4	..	28·935	42·6	33·1	9·5	38·2	− 0·1	37·0	35·3	2·9	6·0	0·2	90	42·0	32·1	43·68	0·186	wwP : wP : mP
5	..	29·420	45·7	33·4	12·3	40·7	+ 2·5	39·6	38·3	2·4	4·6	0·8	91	58·0	27·9	43·50	0·048	mP : wP : wP
6	..	29·663	47·0	40·2	6·8	43·7	+ 5·6	42·1	40·2	3·5	6·0	1·1	87	57·8	33·2	43·48	0·107	wP : wP : wwP
7	In Equator	29·255	52·0	40·9	11·1	46·0	+ 8·0	45·0	43·9	2·1	5·9	0·0	93	52·7	36·0	43·48	0·427	wwP
8	Last Quarter	29·260	45·3	40·8	4·5	42·4	+ 4·5	39·4	35·6	6·8	9·7	4·1	76	67·5	35·0	43·70	0·000	wP : mP : mP
9	..	29·225	43·9	36·3	7·6	39·8	+ 1·9	38·0	37·7	2·1	9·0	1·4	86	54·9	29·4	43·82	0·155	vP : mP : sP
10	..	29·470	47·7	32·8	14·9	39·1	+ 1·2	37·6	35·7	3·4	6·0	0·7	88	50·1	25·6	43·70	0·235	mP : vP : wwP
11	..	29·216	47·6	38·3	9·3	42·5	+ 4·6	39·7	36·2	6·3	9·1	2·5	79	64·4	30·9	43·52	0·006	wP : mP : sP
12	Perigee	29·696	44·0	38·1	5·9	41·1	+ 3·2	38·8	35·9	5·2	8·5	2·7	83	54·2	31·2	43·50	0·015	sP
13	Greatest Dec. S.	29·867	53·2	40·0	13·2	46·7	+ 8·7	45·6	44·4	2·3	3·4	0·9	92	62·7	34·1	43·38	0·060	mP : wP
14	..	29·851	50·0	46·2	3·8	48·8	+10·8	46·9	44·9	3·9	6·4	2·3	86	55·6	39·8	43·52	0·000	wP
15	New	29·582	50·7	46·1	4·6	48·1	+10·0	45·8	43·3	4·8	9·7	2·8	84	70·9	41·2	43·91	0·052	wP
16	..	29·321	46·9	36·9	10·0	43·6	+ 5·3	40·7	37·2	6·4	9·4	3·2	78	52·8	31·2	44·26	0·071	vP : sP
17	..	29·851	38·9	33·9	5·0	36·6	− 1·9	33·3	28·6	8·0	10·7	5·9	72	57·9	27·5	44·41	0·000	sP
18	..	30·203	38·7	33·5	5·2	35·8	− 2·8	32·8	28·3	7·5	11·0	5·2	73	64·5	27·8	44·21	0·000	mP : sP
19	..	30·285	42·9	32·5	10·4	38·5	− 0·2	37·4	36·0	2·5	4·0	1·8	92	43·5	27·0	43·73	0·009	sP
20	In Equator	29·957	47·4	41·0	6·4	44·0	+ 5·2	42·4	40·5	3·5	5·5	1·7	89	53·2	39·1	43·35	0·052	mP : wP
21	..	29·022	47·1	33·7	13·4	41·5	+ 2·7	39·9	37·9	3·6	7·6	1·1	87	51·3	29·3	43·37	0·316	wN : mP : sP
22	..	28·952	34·1	31·8	2·3	32·7	− 6·1	32·0	30·6	2·1	5·6	0·0	92	32·6	27·9	43·48	1·049	sP : sP, sN : vP
23	First Quarter	29·246	38·8	22·3	16·5	30·8	− 8·1	30·4	29·3	1·5	4·7	0·0	95	36·0	18·0	43·18	0·000	sP : sP : mP
24	Apogee	29·506	41·6	38·1	3·5	39·7	+ 0·8	38·9	37·9	1·8	3·6	1·2	93	48·0	33·0	42·79	0·019*	wP : mP
25	..	29·514	40·4	36·4	4·0	38·1	− 1·0	36·6	34·6	3·5	6·4	1·4	87	52·0	33·9	42·19	0·000	mP : sP
26	..	29·460	41·5	31·3	10·2	36·3	− 3·0	35·1	33·4	2·9	7·3	0·9	90	63·4	27·0	42·09	0·001*	sP : sP : mP
27	Greatest Dec. N.	29·400	36·8	34·1	2·7	35·3	− 4·2	33·0	29·4	5·9	9·4	1·7	78	38·0	31·7	42·05	0·016	mP : sP : sP
28	..	29·473	35·6	32·5	3·1	33·6	− 6·0	31·2	26·8	6·8	9·8	4·5	75	43·8	30·4	41·99	0·000	sP
29	..	29·577	37·9	32·2	5·7	35·2	− 4·5	32·3	27·5	7·7	10·8	2·3	73	51·2	27·0	41·80	0·000	ssP : ssP : sP
30	..	29·741	39·0	32·0	7·0	35·5	− 4·2	33·1	29·6	5·9	10·3	2·4	78	44·5	26·2	41·55	0·000	sP : sP : mP
31	Full	29·451	42·0	35·8	6·2	38·6	− 1·1	36·5	33·5	5·1	8·5	1·7	83	52·3	32·1	41·33	0·039	wP : mP : mP
Means		29·440	43·6	35·7	7·9	39·7	+ 1·1	37·9	35·5	4·2	7·3	1·8	85·2	52·7	30·6	43·26	Sum 3·668	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 17). The amounts entered on January 24 and 26 are derived from frost and fog.

The mean reading of the *Barometer* for the month was 29in·440, being 0in·354 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 53°·2 on January 13; the lowest in the month was 22°·3 on January 23; and the range was 30°·9.
The mean of all the highest daily readings in the month was 43°·6, being 0°·5 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 35°·7, being 2°·0 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 7°·9, being 1°·5 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 39°·7, being 1°·1 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Jan. 1	0·0	7·8	SE : SSE	SE : SSE : S	10·1	0·65	389	i.-cl, ho.-fr: 10, s, w : 10, n.-s, w, fq.-r	10, n, s, sc, c.-r, w : 10, fq.-hy.-r
2	5·3	7·9	S : SSW	SSW : S	2·9	0·18	347	p.-cl, r : 6, cu.-s, cu: 0+, ci.-cu	0 : 4, cu, slt.-sh: 7, lu.-ha, r
3	0·0	7·9	SSW : ESE	ESE : ENE : SW	2·1	0·11	252	10, r : 10, n, s, r : 10, n, s, c.-r	10, n, s, r : 10, fq.-r : 10, r, sl
4	0·0	7·9	SW : WSW : WNW	WNW : W : WSW	2·9	0·35	399	10, slt.-m, sl, sn: 10, sn, sl, r : 10, n, s, fq.-r	10, n, s, slt.-r : 10
5	0·0	7·9	NW : SW : SSW	SSW : SW	3·3	0·17	291	p.-cl, ho.-fr : 10, slt.-f, ho.-fr: 10, slt.-f	8, ci.-cu, th.-cl, r : 10, n, s, r : 0, slt.-h
6	1·0	8·0	SW	SW : SSW : SSE	1·5	0·16	325	7, th.-cl : p.-cl, ci-cu, th.-cl	7, th.-cl, so.-ha, s : 10, r
7	0·0	8·0	ESE : Calm : SW	SW : WSW	9·0	0·57	385	10, c.-r, m : 10, r, m, f	10, slt.-r, w, n.-s, ci.-s: 10, c.-r, w : 6, st.-w
8	4·4	8·0	SW	SW : SSW	6·8	0·92	586	0, w : 9, lu.-ha, w, cu.-s: 1, cu, ci, w	1, cu, w : 2, w : 0, w
9	0·7	8·1	SW : WSW	WNW : W	5·0	0·56	464	p.-cl, fq.r, w : 10, r, s : 10, cu.-n, cu.-s, n, w	0, w : 6, cu.-s, cu, w: 0
10	1·1	8·1	W : SW : SSW	S : SSW : SW	7·8	0·33	362	0, ho.-fr : 1, th.-cl, ho.-fr: 5, s, slt.-h, so.-ha.	p.-cl, fq.-r : 10, n, s, c.-r, w: 10, r, w
11	4·2	8·1	WSW : SW	SW : WSW	8·6	0·90	590	p.-cl, w : 4, p.-cl, cu, ci, w: 4, ci.-cu, cu, w	v.-cl, w : 10, cu, s, sc, th.-r: 0
12	0·0	8·1	WSW : W : NW	NW : W : SW	4·8	0·51	406	0, w : 9, s, cu, r, w: 5, cu, ci.-cu	p.-cl : 0 +
13	0·3	8·2	SSW : S : SW	SW : WSW	3·3	0·31	398	10, fq.-r : 10, n, s, slt.-r : 10, n, s, slt.-r	10, cu, ci, -cu, cu.-n, n : 10
14	0·0	8·2	WSW : SW	SW	5·5	0·72	560	p.-cl, w : 10, n, s, cu : 10, s, sc, w	10, s, sc, w : 10, w : 10, w
15	0·1	8·2	SW : WSW	SW : SSW	9·0	1·20	641	10, slt.-r, w: 10, s, sc, w : 9, cu, ci.-cu, w	8, cu, ci.-cu, ci, w : 10, m.-r, w : 10, r, w
16	1·4	8·3	WSW : W	WNW : NW	21·7	1·87	730	10, r, st.-w, g: p.-cl, w : 3, cu, cu.-s, st.-w	10, cu.-st, cu.-n, st.-w, slt.-r : 10, n, s, cu.-n, st.-w: 0 +
17	4·5	8·3	NW : WNW	NW : NNW	4·5	0·75	461	0, ho.-fr : 10, s, ho.-fr: 0, w	5, p.-cl, w : p.-cl, w : 0, w
18	4·1	8·4	NNW : NW	NNW : WSW	4·9	0·50	352	p.-cl, ho.-fr, w: 4, cu, ho.-fr: 3, cu, ci.-cu	1, h : 0, m : 9, m
19	0·0	8·4	WSW : SW	SW : W	1·2	0·05	229	p.-cl : 10, slt.-r, slt.-f : 10, s, slt.-f	10, s, slt.-f, glm: 10, slt.-sh : 10
20	0·0	8·4	SW : SSW	SSW	3·1	0·34	368	10 : 10, n, s	10, slt.-r, w : 10, slt.-r, w
21	0·0	8·5	SSW : SW	SW : NW : W	9·2	0·51	431	10, fq.-r : 10, s, slt.-r : 10	10, n, s, slt.-r, w: 10, slt.-r, s, n, w: 0
22	0·0	8·5	WNW : NW : SW	Calm	1·0	0·04	154	p.-cl, slt.-sn : 10, sn : 10, c.-sm	10, c.-sn : 10
23	0·0	8·6	Calm	NNW : N	1·1	0·02	123	10 : 10, n, s	10, n, s : 10
24	0·0	8·7	NNW : N	NNE : N	1·8	0·14	246	10 : 10, s : 10, cu, sc	10, cu, sc : 10
25	0·0	8·7	NNE : N	NNE : Calm	1·2	0·02	192	10 : 10, slt.-f, ho.-fr: 3, cu	p.-cl : 6, cu, ci : 10, slt.-r
26	5·9	8·7	Calm	Calm : ENE	0·1	0·00	108	10, oc.-shs : 10, s, n, slt.-sn : 10	10, fq.-slt.-sn : 10, cu, n : 10
27	0·0	8·8	NE : ENE : E	ENE : NE	2·5	0·18	308	10 : 10, slt.-sn, n, s : 10, n, s, slt.-sn	10, cu, s : 10
28	0·0	8·9	NE : NNE	NNE : ENE : Calm	2·6	0·14	268	10 : 10, slt.-sn : 10, n, s, sn	10, n, s : 10
29	1·5	8·9	NNW : Calm	NW : W : NNW	0·5	0·02	134	10 : 10, m : p.-cl, h	p.-cl, m : 8, cu.-s : 6
30	0·0	9·0	Calm : SW	SW : S	0·9	0·01	138	10, slt.-f : 10, slt.-f	10, slt.-f : 10
31	0·2	9·0	SSW : SW	W : SW : WSW	2·6	0·43	435	10, r, sl : 10, cu : 10	10 : 8, cu 10, slt.-r
Means	1·1	8·3	. .	. .	. .	0·41	357		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 37°·9, being 0°·7 *higher* than
The mean *Temperature of the Dew Point* for the month was 35°·5, being *equal to*
The mean *Degree of Humidity* for the month was 85·2, being 2·8 *lower* than
The mean *Elastic Force of Vapour* for the month was 0^{in}·209, being 0^{in}·002 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2^{grs}·4, being *equal to*
The mean *Weight of a Cubic Foot of Air* for the month was 546 grains, being 8 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 7·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·134. The maximum daily amount of *Sunshine* was 5·9 hours on January 26.

The highest reading of the *Solar Radiation Thermometer* was 70·9 on January 15; and the lowest reading of the *Terrestial Radiation Thermometer* was 18°·0 on January 23.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 2, S. 10, W. 11. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 21·7 lbs. on the square foot on January 16. The mean daily *Horizontal Movement of the Air* for the month was 357 miles; the greatest daily value was 730 miles on January 16; and the least daily value was 108 miles on January 26.

Rain (0^{in}·005 or over) fell on 21 days in the month, amounting to 3^{in}·668, as measured by gauge No. 6 partly sunk below the ground; being 1^{in}·787 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Feb. 1	..	29·744	45·0	35·3	9·7	40·5	+ 0·9	37·7	34·1	6·4	8·8	2·0	79	62·2	29·0	41·35	0·005	mP : sP : mP
2	..	29·613	49·1	41·4	7·7	46·4	+ 6·9	45·2	43·7	2·7	7·8	1·3	91	51·9	35·5	41·50	0·250	wP : wP : wwP
3	In Equator	29·696	50·3	39·0	11·3	45·3	+ 5·8	42·9	40·2	5·1	7·1	3·8	82	59·8	31·9	41·73	0·000	wP
4	..	29·611	52·3	42·1	10·2	46·6	+ 7·1	43·9	40·8	5·8	10·2	4·6	81	86·3	34·5	42·02	0·000	wP : wP : ..
5	..	29·609	52·2	40·3	11·9	45·5	+ 5·9	43·3	40·7	4·8	7·7	0·0	84	86·9	29·1	42·35	0·000	.. : wP : mP
6	..	29·345	49·0	42·6	6·4	44·6	+ 5·0	43·1	41·3	3·3	7·2	2·0	89	83·0	39·0	42·68	0·322	sN : wP : mP
7	Last Quarter Perigee	29·529	49·6	42·2	7·4	44·9	+ 5·4	43·6	42·1	2·8	6·9	1·1	91	64·8	38·0	42·80	0·202	mP : mP : wP, wN
8	..	29·516	45·2	37·8	7·4	42·0	+ 2·7	39·4	36·2	5·8	11·6	2·5	81	77·2	31·7	43·11	0·187	wP : mP : mP, sN
9	Greatest Dec. S.	29·253	50·2	35·0	15·2	41·4	+ 2·3	39·4	36·9	4·5	13·2	1·5	85	82·0	28·5	43·19	0·297	mN, wwP, mN : wN, mP : mP
10	..	29·357	47·8	32·9	14·9	39·4	+ 0·5	36·9	33·7	5·7	11·1	0·5	80	83·0	25·5	43·21	0·000	mP : mP : sP
11	..	29·398	46·6	30·1	16·5	36·8	− 2·0	35·2	33·0	3·8	9·1	0·0	87	79·9	23·0	42·96	0·000	sP : sP : mP
12	..	29·264	40·3	29·7	10·6	34·2	− 4·6	33·0	30·9	3·3	5·3	1·0	87	68·0	22·7	42·69	0·004*	mP
13	..	28·769	47·7	28·9	18·8	38·2	− 0·8	36·5	34·2	4·0	9·3	0·0	86	66·0	22·2	42·38	0·399	mP : ssN, mP : wN, wP
14	New	28·744	43·5	37·8	5·7	40·4	+ 1·1	38·5	36·1	4·3	7·5	1·4	85	42·2	34·2	41·91	0·139	wP, mN : wwP : wP
15	..	29·497	42·7	34·1	8·6	37·7	− 1·7	34·6	30·4	7·3	9·3	5·0	76	55·9	28·2	41·98	0·000	mP : sP : sP
16	In Equator	29·925	45·9	28·1	17·8	37·2	− 2·3	34·4	30·5	6·7	13·1	0·4	77	77·9	20·0	41·90	0·000	sP : vP : mP
17	..	29·463	47·2	40·9	6·3	43·8	+ 4·2	42·4	40·7	3·1	6·5	1·9	89	51·9	37·0	41·73	0·442	sN : wN : wP
18	..	29·118	51·2	39·3	11·9	46·1	+ 6·6	43·5	40·6	5·5	9·3	2·3	82	79·3	35·7	41·70	0·108	wP : wP : vP
19	..	28·927	48·0	39·8	8·2	43·2	+ 3·7	41·2	38·8	4·4	6·7	2·7	85	87·8	30·0	41·98	0·241	wP : wwP : mP
20	..	28·995	44·0	31·6	12·4	38·8	− 0·7	37·5	35·8	3·0	9·5	2·1	90	56·8	22·6	42·22	0·000	mP : mP : wP
21	Apogee	29·139	47·8	28·3	19·5	37·3	− 2·3	34·3	30·1	7·2	14·2	0·8	75	87·0	22·0	42·27	0·000	mP
22	First Quarter	29·065	43·2	33·7	9·5	38·0	− 1·7	36·9	35·4	2·6	6·2	1·7	90	58·4	27·6	42·10	0·055	mP : vP : vP
23	Greatest Dec. N.	29·402	40·2	30·7	9·5	36·1	− 3·7	33·5	29·7	6·4	13·6	1·2	77	62·7	28·0	41·94	0·332	mP : sP : vP
24	..	29·860	37·7	30·7	7·0	33·6	− 6·4	31·6	28·0	5·6	8·4	0·9	79	63·8	25·3	41·82	0·117	vP : mP : sP
25	..	30·191	42·8	25·6	17·2	35·1	− 5·0	31·9	26·8	8·3	10·3	4·7	71	75·0	17·0	41·52	0·007*	sP
26	..	30·195	45·0	27·8	17·2	37·5	− 2·7	33·9	28·9	8·6	12·8	2·3	71	84·3	22·5	41·21	0·000	mP
27	..	29·787	48·1	38·1	10·0	42·5	+ 2·2	39·4	35·6	6·9	13·1	2·5	77	76·9	35·1	40·92	0·062	wP, sN : mP : vP
28	..	29·608	46·4	37·0	9·4	41·6	+ 1·3	37·4	32·2	9·4	13·1	5·9	70	76·1	30·6	40·98	0·002	wP : mP : mP
Means	..	29·451	46·4	35·0	11·4	40·5	+ 1·0	38·3	35·3	5·3	9·6	2·0	82·0	71·0	28·8	42·08	Sum 3·171	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 17). The amounts entered on February 12 and 25 are derived from frost.

The mean reading of the *Barometer* for the month was $29^{\text{in}}\cdot451$, being $0^{\text{in}}\cdot351$ *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 52°·3 on February 4; the lowest in the month was 25°·6 on February 25; and the range was 26°·7.
The mean of all the highest daily readings in the month was 46°·4, being 1°·2 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 35°·0, being 0°·8 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 11°·4, being 0°·4 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 40°·5, being 1°·0 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lb.	lbs.	miles.		
Feb. 1	1·9	9·1	W : NW : SW	SW : S	1·5	0·11	260	10 : 9, cu.-s, n: 5, h	p.-cl, h, s, th.-cl : th.-cl : 10, li.-r
2	0·0	9·1	S	S : SSW : SW	12·9	1·15	587	10, li.-r : 10, slt.-r, s: 10, slt.-sh, w	10, fq.-slt.-r, w : 10, w : 10, slt.-r, st.-w
3	0·0	9·2	SSW : SSE : S	SSE : SE	5·2	0·56	460	p.-cl : 10, s, sc : 10, w	10, w : 0 : p.-cl
4	2·4	9·2	SSE : SE	SSE : SE	4·4	0·44	368	p.-cl, w : 8, li.-cu.-s : 5, s, cu, ci.-s	10, s, cu : ci.-s, ci.-cu : 0
5	4·8	9·3	Calm : SE	SE	3·4	0·28	286	p.-cl : 7, p.-cl : 3, cu, li.-ci	9 : 0 : 10
6	2·2	9·4	SE : ESE	SE : NE : NW	5·2	0·44	327	10, r, w : 10, r : 7, cu.-s, cu	9, oc.-shs : 10, slt.-r
7	0·0	9·4	NW : W : Calm	ESE : SE : SSW	7·8	0·30	298	10, slt.-r : 10, n, s	10, oc.-slt.-r : 10, fq.-slt.-r : 10, r, w
8	5·4	9·5	SSW : S	SSE : S : SE	7·0	0·89	533	9, r, w : 0, slt.-h, w: li.-shs, w	10, s, n, li.-r, w: 8, ci, cu, c.-r, w: 7, slt.-r, w
9	3·3	9·5	SE	S : SSE	9·0	0·66	425	10, r, w : 10, r, sqs, n, s : 9, r	6, cu : 5, ci, cu : 0
10	6·3	9·6	SSE : SE : S	S : SSW : Calm	1·8	0·03	218	0, ho.-fr : 6, cu : 2, ci.-s	7, cu, cu.-s : 0, slt.-f, ho.-fr: 0, slt.-f, ho.-fr
11	5·7	9·6	Calm : SSE	SSE : SE : Calm	0·5	0·04	143	0, ho.-fr : 0, f, ho.-fr: 3, tk.-f, ci, s	6, cu : 9, ho.-fr : 9, ho.-fr
12	0·5	9·7	Calm : NE	NNE : Calm : SSE	0·1	0·00	131	10, ho.-fr : 10, ho.-fr, m: 10, s	10, cu.-s, s : 0, m : 0, f, ho.-fr
13	0·3	9·8	SE : E : ESE	SE : S : SSE	11·7	0·92	477	0, slt.-f : 10, r : 10, slt.-r	10, fq.-r, s, n, w : 10, r, w
14	0·0	9·8	S : SSW : W	NW	6·7	0·72	486	10, r, w : 10, slt.-r, s: 10, s, fq.-r	10, fq.-r, s, w : 10, fq.-r, w : 10, w
15	0·3	9·9	NW : WNW	NW : NNW	4·0	0·32	364	10 : p.-cl, cu, h: 8, cu, h	10, s, n : 10 : 0, h, ho.-fr
16	6·2	10·0	NW : Calm : SW	S : SSE : SE	2·7	0·07	220	0, h, ho.-fr : 0, h, th.-cl	5, th.-cl : 5 : 8, r
17	0·0	10·0	SSE	S	9·0	1·21	596	10, r, w : 10, r, st.-w: 10, r, st.-w	10, r, st.-w : 8, slt.-r, w
18	1·9	10·1	S	S : SW	8·8	1·16	608	v.-cl, oc.-shs, w: 10, oc.-shs, s, sc, w: 10, cu, s, sqs	10, s, sc, w : 9, slt.-sh, hy.-sh, w: 3, r
19	2·9	10·1	SSW : S	S : SSW : SW	5·0	0·47	412	p.-cl, r, w : 10, s : 10, fq.-r, w	10, fq.-slt.-r : 9, cu, hl, hy.-r: 10
20	0·0	10·2	SW : Calm	Calm	0·1	0·00	107	10 : 10, slt.-f : 10, th.-s, slt.-f	10, glm, slt.-f : 8 : 0, ho.-fr
21	7·0	10·3	Calm : SSW : SW	SW : S	1·1	0·03	218	p.-cl, m, ho.-fr : p.-cl, ho.-fr: 5, n, s	3, cu : 2, th.-cl : 0
22	0·0	10·3	S : SSE : SSW	SW : S : N	2·2	0·03	191	10 : th.-cl, ho.-fr: 10, cu.-s, slt.-f	10, c.-r, s, n : 10
23	3·4	10·4	N : NW : W	W : WSW : Calm	1·5	0·13	235	10, r : 9, cu : 9	7, cu, cu.-s, s : 4, hy.-sn
24	3·0	10·5	Calm : NNW	NNW	5·0	0·41	273	10, sn : p.-cl : 3, ci, ci.-s	10, s, sn : sn : 1, th.-cl, ho.-fr
25	3·3	10·5	WNW : SW : WSW	NW : SW	0·6	0·03	197	1, ho.-fr : 9 : 10, cu, f	th.-cl : 5, cu : 10, cu
26	7·7	10·6	SW : S	S	4·2	0·23	291	p.-cl, ho.-fr: 3, s, ci, ho.-fr: 1, ci	0 : p.-cl : 10
27	2·0	10·7	S	WSW : SW : SSW	4·9	0·79	538	10, oc.-r, sqs: 10, li.-r, w : 10, s	9, s : 7, s.-cu, cu : 7
28	6·4	10·7	SW : WSW	WSW : SW	7·0	1·09	615	9, w : 1 : p.-cl, slt.-sh, w	10, slt.-sn, w : 3, slt.-sn, slt.-sh, w: 10, w
Means	2·7	9·9	..	..	..	0·45	352		
Number of Column for Reference	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 38°·3, being 0°·6 *higher* than
The mean *Temperature of the Dew Point* for the month was 35°·3, being 0°·1 *lower* than
The mean *Degree of Humidity* for the month was 82·0, being 3·5 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·206, being 0in·001 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·4, being *equal* to
The mean *Weight of a Cubic Foot of Air* for the month was 546 grains, being 7 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 7·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·278. The maximum daily amount of *Sunshine* was 7·7 hours on February 26.

The highest reading of the *Solar Radiation Thermometer* was 87°·8 on February 19; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·0 on February 25.

The *Proportions of Wind* referred to the cardinal points were N. 2, E. 4, S. 14, W. 5. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 12·9 lbs. on the square foot on Febuary 2. The mean daily *Horizontal Movement of the Air* for the month was 352 miles; the greatest daily value was 615 miles on February 28; and the least daily value was 107 miles on February 20.

Rain (0in·005 or over) fell on 15 days in the month, amounting to 3in·171, as measured by gauge No. 6 partly sunk below the ground; being 1in·691 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100.)	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Mar. 1	Full	29·420	44·3	35·1	9·2	39·2	− 1·2	35·9	31·6	7·6	11·9	3·2	75	72·0	29·2	41·16	0·112	wN, mP : vP : sP
2	In Equator	29·753	45·6	33·9	11·7	38·7	− 1·7	35·5	31·3	7·4	12·9	2·3	75	71·0	28·2	41·18	0·038	sP : sP : sP, mN
3	..	29·727	52·5	38·0	14·5	45·5	+ 5·0	44·2	42·6	2·9	4·7	0·7	90	73·3	35·3	41·14	0·166	sN, wP : wP : wP
4	..	29·850	53·0	44·6	8·4	47·9	+ 7·2	46·1	44·1	3·8	7·5	0·7	88	65·1	41·3	41·27	0·014	wP : wP : mP
5	Perigee	29·919	55·1	46·5	8·6	50·1	+ 9·2	47·3	44·3	5·8	8·8	2·3	81	80·9	40·2	41·69	0·000	wP
6	..	29·854	57·0	44·9	12·1	48·8	+ 7·8	45·8	42·6	6·2	12·5	1·9	80	86·5	38·0	42·29	0·000	wP : wP : mP
7	..	29·794	46·0	36·8	9·2	42·7	+ 1·7	39·4	35·4	7·3	14·0	3·3	76	73·5	33·0	42·61	0·013	wP : mP : mP
8	Last Quarter	29·990	42·1	33·3	8·8	36·6	− 4·5	34·0	30·2	6·4	10·6	1·7	78	92·0	27·9	43·02	0·011	wwN, mP : mP : sP
9	Greatest Dec. S.	30·224	43·6	34·0	9·6	37·8	− 3·2	34·2	29·2	8·6	12·2	3·6	72	87·0	30·4	42·89	0·000	mp : mP : sP
10	..	30·123	43·0	35·1	7·9	39·9	− 1·0	37·1	33·4	6·5	14·9	3·3	78	58·5	26·9	42·69	0·000	mP : mP : sP
11	..	29·833	50·0	40·2	9·8	43·7	+ 2·7	42·4	40·9	2·8	5·4	0·7	89	66·5	29·1	42·52	0·028	mP : mP : wP
12	..	29·998	49·0	40·1	8·9	44·4	+ 3·3	43·0	41·4	3·0	7·6	0·2	89	63·8	32·0	42·61	0·000	mP
13	..	30·005	48·6	38·4	10·2	43·7	+ 2·4	42·1	40·2	3·5	5·9	1·2	87	62·3	30·9	42·68	0·000	mP
14	..	30·031	57·5	38·4	19·1	45·8	+ 4·3	43·6	41·1	4·7	9·9	0·9	84	92·5	28·7	42·90	0·000	mP : wP : wP
15	New : In Equator	30·050	48·0	41·1	6·9	45·3	+ 3·6	43·6	41·7	3·6	8·5	2·2	87	52·1	34·7	43·02	0·000	wP : wP : mP
16	..	29·956	47·3	39·5	7·8	44·3	+ 2·4	41·6	38·5	5·8	8·1	2·0	79	63·9	30·1	43·29	0·000	wP : mP : mP
17	..	29·702	46·8	38·7	8·1	44·0	+ 2·0	41·0	37·5	6·5	14·6	3·1	77	57·5	31·5	43·41	0·000	mP
18	..	29·305	41·4	31·2	10·2	35·8	− 6·2	34·2	31·8	4·0	13·9	2·1	86	60·1	26·6	43·52	0·032	mP : sP : mP
19	..	29·410	39·1	29·9	9·2	33·7	− 8·2	31·0	26·1	7·6	12·9	1·8	73	87·1	20·5	43·48	0·021	wP : sP : sP
20	..	29·801	46·0	28·2	17·8	37·7	− 4·2	34·4	29·9	7·8	12·5	6·7	74	90·2	19·1	43·17	0·002	sP
21	Apogee	29·987	54·5	32·5	22·0	42·0	+ 0·1	37·8	32·7	9·3	18·0	0·0	71	100·3	21·2	42·66	0·000	mP
22	..	29·850	49·3	31·1	18·2	40·9	− 1·1	38·1	34·6	6·3	16·3	1·3	79	89·3	18·9	42·50	0·153	mP : wP, wN : wP
23	Greatest Dec. N. : First Quarter	29·727	59·3	44·3	15·0	50·1	+ 7·9	48·2	46·2	3·9	10·8	0·4	86	92·7	33·6	42·43	0·017	wP
24	..	29·752	57·0	45·2	11·8	51·4	+ 9·0	49·9	48·4	3·0	7·9	0·9	90	97·3	35·0	42·73	0·039	wwP : wwP : wP
25	..	29·876	51·0	34·6	16·4	43·1	+ 0·4	41·1	38·7	4·4	10·4	2·2	84	66·6	26·2	43·21	0·142	wP : mP : sP
26	..	29·757	42·0	31·4	10·6	36·1	− 6·9	33·5	29·7	6·4	11·6	1·9	77	80·9	22·1	43·63	0·000	sP
27	..	29·561	44·4	27·7	16·7	34·5	− 8·8	31·0	25·6	8·9	16·1	4·8	70	106·3	20·3	43·55	0·000	sP : mP : vP
28	..	29·566	42·5	28·9	13·6	34·0	− 9·7	30·6	24·6	9·4	15·0	3·5	67	106·4	19·6	43·15	0·001	mP : mP : mP, sP
29	..	29·648	41·3	25·9	15·4	32·5	−11·6	30·5	26·9	5·6	10·8	0·0	77	112·9	15·8	42·69	0·007	sP : wP : mP
30	..	29·638	45·7	28·0	17·7	35·9	− 8·6	32·3	27·8	8·1	15·5	3·7	76	102·8	16·7	42·38	0·000	sP : mP : vP
31	Full	29·866	49·0	30·3	18·7	39·5	− 5·4	35·6	30·5	9·0	15·3	2·8	70	110·0	19·9	42·06	0·000	sP : mP : vP
Means	..	29·806	48·1	35·7	12·4	41·5	− 0·4	38·9	35·5	6·0	11·5	2·1	79·5	81·3	27·8	42·63	Sum 0·796	..
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was 29in·806, being 0in·060 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 59°·3 on March 23; the lowest in the month was 25°·9 on March 29; and the range was 33°·4.
The mean of all the highest daily readings in the month was 48°·1, being 1°·7 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 35°·7, being 0°·6 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 12°·4, being 2°·3 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 41°·5, being 0°·4 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Mar. 1	4·7	10·8	W : WSW : SW	WNW : W : WSW	12·0	1·45	646	10, st.-w,r,p.-cl: 1, w : 8, st.-w	9, cu, w, slt.-hl, slt.-r, st.-w: 10, cu, s, li.-r, w: 0
2	3·7	10·8	SW	WSW : SW : S	1·7	0·18	320	1, ho.-fr : 3, ho.-fr, ci, ci.-s: 9	10, cu.-s : 5, cu.-s : 10, slt.-r
3	0·0	10·9	SSE : S : SSW	SSW : S	2·8	0·37	388	10, r : 10, slt.-r : 10, s, sc	10 : 10, fq.-li.-r
4	0·0	11·0	S : SSW : SW	SW	1·8	0·11	289	10, oc.-slt.-shs: 10, slt.-sh : 10, s	10, s : 10 : 5
5	1·6	11·0	SW	WSW : SW	7·6	0·98	582	10, w : 10, s, w : 10, w	p.-cl, w : 5, cu : 1
6	1·5	11·1	SW	SW : NW : NNW	7·5	0·83	496	1 : 10, w : 10, slt.-r, cu.-s	8, s, cu, w : 8, slt.-sh, st.-w: 10, slt.-r
7	0·8	11·2	NNW : NW	NNW	7·8	0·73	387	10, s. sc : 10, slt.-shs, w	8, cu : 10, s, st.-w : 8
8	4·8	11·2	NNW : N : NNE	NNE : N	9·3	1·01	512	10, slt.-r : p.-cl, slt.-sn, w : 6, cu, cu.-s, w	8, cu, cu.-n, slt.-sn, w: 7, slt.-sn, w : 7
9	1·8	11·3	N : NNW	NW	2·5	0·31	308	10 : 10 : 4, cu	5, cu, s.-cu : 7, cu, cu.-s : 9
10	0·0	11·4	Variable	WNW : W : SW	1·2	0·10	215	1, f : 10, slt.-f, s : 10, cu.-s, s	10, s, n : 10
11	0·0	11·5	SSW : S	S : Calm	0·1	0·00	143	10, slt.-r : 10, slt.-r : 10, r. s	10, cu, s : 9, s, hy.-d : 10
12	0·1	11·5	Calm : NNW : NW	NNW : Calm : SW	0·7	0·02	130	10, f : 10, s, slt.-f: 10, s, n	10, slt.-sh, s, n : 10, m : 10, m
13	0·2	11·6	SW : W	W : NW	1·4	0·10	240	p.-cl, m : p.-cl, ci.-cu: 7, s, th.-cl	10, s : 1 : 0, m, p.-cl
14	3·9	11·6	Calm : NNW	N : Calm	0·3	0·01	133	10, m : 10, s : 10, s, th.-cl	th.-cl, cu, cu.-s: 9, cu, cu.-s : 10
15	0·0	11·7	Calm : Variable	SW	0·2	0·00	160	10, m : 10, glm : 10, s	10, s : 10, m : p.-cl, m
16	0·0	11·8	NW : WNW : NNW	NNW : Calm	0·2	0·00	131	10 : 10, s : 10	10 : 10
17	0·0	11·9	Calm : SSW	SW : Calm	0·3	0·01	127	10 : 10, n, h : 10, s	10 : 10, s : 10
18	0·6	11·9	Calm : NNW	NW : SSE	1·6	0·08	204	10, m : 10, glm : 10, sn	10, c.-sn : 10, sn : 10
19	5·4	12·0	NW : WNW : NNW	NNW : Calm : SW	10·0	1·14	470	10, sn, w : 10, sn, w : 10, li.-sn, st.-w	6, cu : 0, h, ho.-fr
20	3·2	12·1	SSW : SW	NW : WSW : SW	1·3	0·07	273	p.-cl, ho.-fr: 10 : 10, sn	7, s : 10, m : 0, m
21	10·6	12·1	SW : SSW	SW : S : Calm	0·5	0·03	195	0, ho.-fr : 1, ci : 1	2, ci : 1, ci : 0, m
22	1·5	12·2	Calm : ENE : E	ENE : E	1·2	0·08	187	0, ho.-fr : p.-cl, so.-ha: 10, so.-ha	10, r, s : 10, r
23	2·3	12·3	Calm : SE : S	S : SSW : Calm	1·4	0·05	194	10, r : 10, s : 10, r	10, r : 5, cu.-s, cu, m: 9, m, th.-cl
24	0·5	12·3	Calm : S : SSE	Calm : N	0·1	0·00	91	10, oc.-r : 10 : 6, ci.-cu, s	9, s : 10, f : 10, f
25	0·0	12·4	N : NNE : NE	NNE : NE	3·6	0·35	314	10 : 10, s, r : 10, s, r	10, w, m : 0, m : 0
26	0·2	12·5	NE : NNE	NE	3·0	0·12	260	p.-cl, ho.-fr: 10, cu.-s : 10, s	9, n, s : p.-cl : 6
27	9·6	12·5	NNE : NE	NE : NNE	6·2	0·29	322	1, ho.-fr : 3, li.-cl	8, cu, slt.-sn : 7, cu, ci, lu.-ha: 0, ho.-fr
28	8·3	12·6	NNE : NE	ENE : NE : Calm	2·8	0·20	271	th.-cl, lu.-ha, ho.-fr: p.-cl : 6, cu, ci	9, slt.-sn : 6, cu, sn : 1
29	5·5	12·6	Calm : N : ENE	E : NE : NNE	2·4	0·04	163	1, ho.-fr : 9, th.-cl : 9, sn	8, n, cu, sn : 9, cu, sn : 0
30	8·9	12·7	N : NNE : NE	NE : Calm : N	2·5	0·13	231	p.-cl, ho.-fr: 10, li.-cl : 4, li.-cl, cu	3, cu : 9, ho.-fr : 9
31	8·8	12·8	NNW : N : NNE	NE : S : SSW	1·0	0·03	169	th.-cl, ho.-fr: 2, cu : 7, cu	8, cu : 0, ho.-fr, slt.-m: 1, ho.-fr, h
Means	2·9	11·8	..	..	..	0·28	276		
Number of Column for Reference	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 38°·9, being 0°·5 *lower* than
The mean *Temperature of the Dew Point* for the month was 35°·5, being 0°·8 *lower* than
The mean *Degree of Humidity* for the month was 79·5, being 1·0 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·200, being 0in·006 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·4, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 551 grains, being 2 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·242. The maximum daily amount of *Sunshine* was 10·6 hours on March 21.

The highest reading of the *Solar Radiation Thermometer* was 112°·9 on March 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°·8 on March 29.

The *Proportions of Wind* referred to the cardinal points were N. 8, E. 3, S. 7, W. 8. Five days were calm.

The *Greatest Pressure of the Wind* in the month was 12·0 lbs. on the square foot on March 1. The mean daily *Horizontal Movement of the Air* for the month was 276 miles; the greatest daily value was 646 miles on March 1; and the least daily value was 91 miles on March 24.

Rain (0in·005 or over) fell on 14 days in the month, amounting to 0in·796, as measured by gauge No. 6 partly sunk below the ground; being 0in·724 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Apr. 1	Perigee	30·098	53·5	31·1	22·4	42·6	− 2·7	38·2	32·8	9·8	15·3	4·2	69	92·4	19·7	41·96	0·000	mP : sP : sP
2	..	30·085	54·2	32·6	21·6	45·3	− 0·4	40·5	35·0	10·3	18·5	2·2	68	105·8	24·4	42·00	0·049	mP : wN, wP
3	..	29·835	51·2	41·6	9·6	45·4	− 0·6	44·5	43·5	1·9	3·0	0·4	93	63·5	36·9	42·20	0·287	mP, wN : sN, wP : wP
4	..	29·661	58·9	45·0	13·9	52·2	+ 6·0	47·4	42·5	9·7	17·8	1·7	70	113·0	37·5	42·56	0·000	wwP : wP : mP
5	Greatest Dec. S.	29·608	51·8	40·8	11·0	46·6	+ 0·3	42·2	37·2	9·4	15·5	3·1	70	66·1	33·0	43·04	0·000	mP
6	Last Quarter	29·354	48·7	35·2	13·5	43·4	− 2·9	41·6	39·5	3·9	9·6	0·7	86	81·0	27·4	43·38	0·190	mP : wwP, sN : vP
7	..	29·049	54·5	41·6	12·9	47·3	+ 1·0	42·8	37·8	9·5	18·1	0·4	70	103·0	34·5	43·69	0·066	wP : mP
8	..	29·367	55·0	39·0	16·0	44·7	− 1·4	40·3	35·2	9·5	17·2	4·7	69	109·0	32·4	43·90	0·015	wP : mP : vvP
9	..	29·723	52·5	39·0	13·5	44·8	− 1·2	39·4	33·1	11·7	20·2	6·0	63	99·9	32·7	43·91	0·008	mP : sP
10	..	29·869	54·3	39·1	15·2	45·9	− 0·0	40·6	34·6	11·3	18·5	2·7	65	103·1	29·3	44·05	0·060	sN, sp : sP
11	..	30·086	53·6	39·2	14·4	46·6	+ 0·8	43·6	40·2	6·4	11·1	3·4	79	82·5	28·1	44·12	0·000	mP : mP : wP
12	In Equator	30·048	49·0	41·6	7·4	45·0	− 0·9	43·0	40·7	4·3	8·6	0·9	85	60·1	40·5	44·27	0·156	wP : wP : wP, wN
13	..	29·909	44·4	39·8	4·6	42·1	− 4·0	39·9	37·2	4·9	8·1	1·4	83	53·3	36·8	44·50	0·119	mN, sP : mP
14	New	29·925	53·3	34·3	19·0	43·0	− 3·4	39·3	34·9	8·1	19·2	0·8	73	105·2	27·3	44·51	0·000	mP : wP
15	..	30·000	58·0	32·1	25·9	45·9	− 0·9	42·2	37·9	8·0	13·9	1·0	74	101·0	25·6	44·49	0·000	mP
16	..	30·019	62·7	43·4	19·3	52·3	+ 5·1	47·9	43·4	8·9	16·9	1·5	72	122·0	33·8	44·48	0·012	mP
17	Apogee	30·082	55·0	37·7	17·3	45·6	− 2·0	40·0	33·6	12·0	18·8	3·2	63	113·7	27·4	44·85	0·000	mP : wP
18	..	30·056	53·8	28·6	25·2	43·6	− 4·4	39·0	33·5	10·1	17·7	0·0	67	119·9	19·3	45·22	0·000	mP : wP : wwP
19	Greatest Dec. N.	29·941	62·5	33·9	28·6	48·7	+ 0·4	43·8	38·5	10·2	18·0	4·6	68	115·6	21·9	45·48	0·000	wP : mP
20	..	29·787	58·3	40·2	18·1	48·6	+ 0·1	44·7	40·5	8·1	12·9	3·1	73	96·8	34·1	45·48	0·041	wP : sP
21	..	29·962	52·9	35·5	17·4	43·9	− 4·8	38·4	31·9	12·0	19·0	4·7	62	103·3	26·1	45·84	0·000	sP
22	First Quarter	29·959	52·7	37·2	15·5	45·4	− 3·3	40·6	35·1	10·3	17·2	5·1	68	82·4	26·6	45·94	0·000	mP : sP : mP
23	..	29·969	52·7	37·6	15·1	44·8	− 3·8	40·2	34·8	10·0	15·9	4·4	68	109·5	23·7	45·84	0·012	vP : vP : mP
24	..	29·936	54·0	34·2	19·8	42·9	− 5·7	38·8	33·9	9·0	16·2	1·8	72	118·2	22·2	46·06	0·000	mP
25	..	29·926	45·0	38·4	6·6	42·1	− 6·5	40·0	37·4	4·7	8·7	2·4	84	52·4	24·3	46·03	0·208	mP : mN : wP
26	In Equator	30·071	59·0	42·7	16·3	48·1	− 0·5	45·5	42·7	5·4	13·8	1·3	82	105·0	37·8	46·01	0·000	wP : mP
27	..	30·100	58·6	42·0	16·6	48·4	− 0·3	45·0	41·3	7·1	15·7	2·0	77	121·8	35·4	45·99	0·000	mP : wP
28	..	30·060	65·4	42·2	23·2	52·9	+ 4·1	48·2	43·5	9·4	16·8	1·1	70	124·9	33·5	46·20	0·000	mP : wP : wP
29	Full	30·022	63·2	40·2	23·0	51·4	+ 2·4	45·5	39·4	12·0	21·7	2·6	64	127·0	29·8	46·50	0·000	mP : wP : mP
30	Perigee	29·874	72·4	40·1	32·3	54·9	+ 5·8	49·8	44·9	10·0	22·9	0·9	68	121·9	27·9	46·89	0·000	mP : wP : mP
Means	..	29·879	55·4	38·2	17·2	46·5	− 0·8	42·4	37·9	8·6	15·6	2·4	72·5	99·1	29·7	44·65	Sum 1·223	..
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The main reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was 29^in·879, being 0^in·131 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 72°·4 on April 30; the lowest in the month was 28°·6 on April 18; and the range was 43°·8.
The mean of all the highest daily readings in the month was 55°·4, being 1°·8 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 38°·2, being 0°·8 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 17°·2, being 1°·0 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 46°·5, being 0°·8 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Apr. 1	4·1	12·8	Calm : SW : W	W : N : Calm	0·5	0·01	174	1, ho.-fr, h: 4, cu, s : p.-cl	10, li.-cu.-s : p.-cl : 10, m
2	3·6	12·9	Calm : S : SSW	SSW : SW	4·4	0·44	366	10, f, p.-cl : p.-cl : 7, cu, th.-cl	10, th.-cl : 10, s, w : 10, r, w
3	0·0	13·0	SW : SSW	S : SSW : SW	1·6	0·15	312	p.-cl : 10, r, s : 10, c.-r	10, s, r : 10, slt.-shs : 10
4	6·7	13·0	SW : WSW	WSW : SW	2·3	0·28	381	10, slt.-r : 9, s, cu.-s: p.-cl	4, cu, cu.-s : 6, ci, cu : 10
5	0·0	13·1	SW	NW : SW	1·0	0·03	205	10 : 10, s	10, n, s : 10, n, s, so.-ha: 3, p.-cl
6	2·2	13·2	SW : SSW : S	S : SSW	7·0	0·68	438	1 : 7, cu.-s : 10, li.-r, w	10, c.-r, w : 10, s, n, l, c.-r, w: 10, l, r
7	8·2	13·2	S : SW : WSW	WSW : SW	4·9	0·55	504	10, fq.-r, oc.-l: 8, cu, s, w: 8, p.-cl	10, cu, cu.-s : 8, cu, s.-cu, w: 0, w
8	6·8	13·3	SW : WSW	WSW : SW	9·3	0·96	572	oc.-cl : p.-cl, ci : 10, w	4, cu, cu.-w, st.-w : 4, cu, sq, h, r, t: 0
9	8·9	13·4	SW : W : WNW	WNW : W : WSW	10·0	1·37	626	th.-cl, w : p.-cl, w : 6, cu, w	6, cu, w : 5, cu, w : 9, r
10	10·7	13·4	WNW : NW : NNW	NNW : NW : Calm	2·1	0·21	254	10, r, sl, li.-cl : p.-cl : 7, cu	0, li.-ci : 4
11	0·0	13·5	Calm : NW	Calm	0·1	0·00	75	p.-cl, slt.-f: 10, n : 10, s, m	10 : 10
12	0·0	13·5	Calm	SW : SSW : NNW	4·4	0·07	172	10 : 10, s	10, s : 10, m.-r, m : 10, r
13	0·0	13·6	NNW : N	N : NNE	5·5	0·77	436	10, r, w : 10, n, s, w : 10, n, s, w	10, n, s, w, slt.-r : 10, fq.-slt.-r : 10
14	6·1	13·7	N	N : NE : E	2·5	0·13	232	10 : 9, cu : 9, li.-cl	9, th.-cl, cu, ci.-cu : 0
15	3·5	13·7	S : SW	WSW : W : WNW	1·0	0·02	192	p.-cl, f, ho.-fr: 9, th.-cl, cu, ci: 10	10 : 9, ci.-cu : 10
16	6·2	13·8	Calm : WSW	W : NNW : N	2·5	0·14	255	9, f : 3, th.-cl : th.-cl	7, th.-cl : 10, fq.-li.-r : 10, slt.-r
17	9·7	13·9	N : NNE	NE : E : Calm	2·5	0·15	237	th.-cl : 6, th.-cl, m: 5, cu	3, cu : v.-cl : 0
18	6·7	13·9	Calm	ENE : Calm : S	0·8	0·01	115	ho.-fr, tk.-f: th.-cl, slt.-f: 8, cu	10, cu, s, th.-cl: 5, th.-cl, ho.-fr: 5, m, ho.-fr
19	11·7	14·0	SW : WSW	W	3·3	0·28	335	1, slt.-ho.-fr: 1, th.-cl, m: 0, th.-cl	6, ci : 6 : 10
20	0·1	14·0	W : WSW : SW	SW : N	3·6	0·51	420	10 : 10, s : 10, m, r	10, n, s, slt.-r : 10, th.-cl : 10
21	10·3	14·1	N	NNE : N : Calm	1·7	0·12	187	1 : th.-cl : 7, th.-cl	2, cu, th.-cl : 4, cu : 8
22	1·3	14·2	Calm : SW : NW	N : Calm : NE	0·1	0·00	114	p.-cl : 9, cu, m : 10, s, r	10, s, r : 10 : 0
23	4·8	14·2	E : ENE : NE	E : ESE : NE	2·0	0·13	226	10, oc.-slt.-r : 8, cu, s.-cu: 10, s, slt.-r	4, p.-cl, cu : 0
24	4·1	14·3	NE : NNE	NE : SE	1·0	0·07	189	p.-cl, m, ho.-fr: 7, p.-cl, cu: 10, n, s	10, cu.-n : p.-cl : 0, ho.-fr
25	0·0	14·4	NE : NNE	NE : ENE	3·9	0·49	407	10 : 10, s, li.-r : 10, s, sc, r	10, s, sc, r : 10
26	1·4	14·4	NE	NE : NNE	3·6	0·30	354	10, slt.-f : 10, s : 10, n, s	4, cu : 4, p.-cl : 6, cu, cu.-s
27	7·2	14·5	NE	NE : E	4·0	0·48	433	10, m : 10, s : 6, cu	6 : 0, th.-cl : 0
28	13·2	14·6	NE : ENE : E	E : ENE	3·1	0·31	325	0 : 0	0, th.-cl : 0
29	13·3	14·6	NE : ENE : E	E : ESE	2·3	0·20	265	1, th.-cl : 0, m : 0	0 : 0
30	9·0	14·7	Calm	SE : SW : WSW	1·0	0·02	158	m, tk.-f : 0, m, f : 2	2 : 1, p.-cl : 0
Means	5·3	13·8	..	..	..	0·30	298		
Number of Column for Reference	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 42°·4, being 1°·5 *lower* than
The mean *Temperature of the Dew Point* for the month was 37°·9, being 2°·2 *lower than*
The mean *Degree of Humidity* for the month was 72·5, being 3·3 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·228, being 0in·020 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 547 grains, being 4 grains *greater* than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·387. The maximum daily amount of *Sunshine* was 13·3 hours on April 29.

The highest reading of the *Solar Radiation Thermometer* was 127°·0 on April 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 19°·3 on April 18.

The *Proportions of Wind* referred to the cardinal points were N. 8, E. 5, S. 6, W. 7. Four days were calm.

The *Greatest Pressure of the Wind* in the month was 10·0 lbs. on the square foot on April 9. The mean daily *Horizontal Movement of the Air* for the month was 298 miles; the greatest daily value was 626 miles on April 9; and the least daily value was 75 miles on April 11.

Rain (0in·005 or over) fell on 13 days in the month, amounting to 1in·223, as measured by gauge No. 6 partly sunk below the ground; being 0in·343 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
May 1	..	29·708	67·6	47·8	19·8	56·7	+ 7·4	51·6	46·8	9·9	16·9	5·5	69	126·6	32·9	47·29	0·003	mP
2	Greatest Dec. S.	29·712	60·2	41·2	19·0	50·9	+ 1·4	47·4	43·7	7·2	16·2	2·1	77	117·1	35·0	47·81	0·020	wP : wwP
3	..	29·967	52·7	36·7	16·0	44·6	− 5·2	40·3	35·3	9·3	15·5	2·3	70	123·0	26·3	48·29	0·000	mP : . . : . .
4	..	29·842	57·9	45·0	12·9	49·2	− 0·8	46·1	42·8	6·4	12·4	1·7	79	130·4	36·0	48·37	0·012	. . : . . : mP
5	..	29·759	73·1	43·2	29·9	57·0	+ 6·7	52·9	49·1	7·9	18·8	1·5	75	136·1	33·1	48·52	0·000	wP : wwP : wP
6	Last Quarter	29·757	74·0	47·6	26·4	60·5	+10·0	56·3	52·7	7·8	19·7	0·8	75	122·1	37·4	48·81	0·000	wP : wP : wwP
7	..	29·850	71·4	49·5	21·9	60·2	+ 9·5	56·1	52·5	7·7	15·5	0·4	76	134·2	38·1	49·39	0·000	wwP
8	..	30·003	68·4	44·7	23·7	56·9	+ 5·9	51·9	47·3	9·6	19·1	3·3	70	132·0	38·7	50·02	0·000	wwP : wP
9	In Equator	30·224	61·3	40·5	20·8	49·9	− 1·3	44·6	39·0	10·9	18·5	2·8	66	130·0	31·4	50·49	0·000	wP
10	..	30·118	65·2	39·2	26·0	52·0	+ 0·5	46·3	40·5	11·5	22·1	2·9	66	138·7	29·9	50·74	0·000	mP : wP : mP
11	..	29·824	68·5	38·1	30·4	53·9	+ 2·1	47·0	40·2	13·7	25·2	2·0	59	129·1	22·1	50·89	0·000	mP : mP : wP
12	..	29·573	69·0	45·2	23·8	54·1	+ 2·0	50·6	47·2	6·9	19·2	1·9	77	136·7	38·2	51·00	0·008	wP
13	..	29·481	47·5	40·5	7·0	45·2	− 7·2	44·8	44·4	0·8	1·3	0·0	97	65·5	40·3	51·12	1·628	wP, mN : mN, wP : wP
14	New: Apogee	29·734	52·1	36·5	15·6	43·7	− 8·9	39·9	35·4	8·3	17·6	0·0	73	107·5	30·8	51·22	0·205	wN, wP : mP : mP, wwP
15	..	29·990	57·8	35·1	22·7	46·8	− 6·0	42·2	37·0	9·8	17·2	1·0	69	105·2	25·4	50·73	0·000	mP : vP
16	Greatest Dec. N.	29·808	64·5	42·7	21·8	52·3	− 0·7	49·0	45·6	6·7	12·3	0·2	78	119·5	39·0	50·41	0·043	mN, wwP : wwP
17	..	29·530	57·2	48·8	8·4	52·4	− 0·7	50·2	48·0	4·4	8·6	2·0	85	85·7	42·9	50·40	0·163	wwP : wN, wwP : wP
18	..	29·621	48·8	44·2	4·6	45·9	− 7·4	44·8	43·6	2·3	3·7	0·4	84	57·1	42·4	50·68	1·197	wwN, wP : wwN : wP
19	..	29·854	62·7	42·8	19·9	51·3	− 2·2	47·0	42·5	8·8	16·6	2·6	72	127·0	36·4	50·68	0·000	wP : wP : wwP
20	..	29·866	61·3	42·5	18·8	53·1	− 0·7	51·4	49·7	3·4	6·1	0·6	88	99·0	33·5	50·48	0·000	wP : wwP
21	..	29·864	68·9	51·0	17·9	58·5	+ 4·3	55·8	53·3	5·2	14·2	0·0	83	136·7	39·4	50·74	0·000	wwP
22	First Quarter	29·916	68·7	52·0	16·7	60·2	+ 5·6	57·4	54·9	5·3	10·9	1·9	83	135·5	45·3	51·14	0·000	wwP
23	In Equator	30·024	74·2	50·2	24·0	61·3	+ 6·4	53·2	46·2	15·1	27·0	2·3	58	136·3	41·9	51·89	0·000	wwP
24	..	30·038	71·7	48·1	23·6	59·8	+ 4·5	51·7	44·6	15·2	27·4	7·9	57	139·5	37·6	52·42	0·000	wwP : wP
25	..	29·925	74·4	44·1	30·3	59·6	+ 4·1	53·2	47·6	12·0	22·5	1·6	65	141·1	36·1	52·90	0·000	wP
26	..	29·829	75·7	49·4	26·3	62·1	+ 6·3	55·2	49·3	12·8	25·5	4·1	63	141·7	35·7	53·31	0·000	wP : mP
27	..	29·942	61·4	46·1	15·3	52·6	− 3·4	47·5	42·4	10·2	17·6	3·5	69	137·4	41·1	53·63	0·000	mP
28	Perigee : Full	29·874	61·4	43·3	18·1	50·7	− 5·5	45·2	39·5	11·2	16·5	4·7	65	126·8	31·1	53·92	0·000	mP
29	..	29·644	63·3	37·0	26·3	50·0	− 6·4	45·9	41·6	8·4	15·8	1·1	73	123·4	24·0	54·12	0·000	mP
30	Greatest Dec. S.	29·834	56·1	39·7	16·4	47·5	− 9·2	42·7	37·4	10·1	16·1	3·4	68	125·2	25·8	54·03	0·000	mP
31	..	29·995	63·0	34·0	29·0	48·9	− 8·2	43·7	38·1	10·8	20·6	0·7	66	125·7	20·3	53·95	0·000	mP : sP : wP
Means	..	29·842	63·9	43·4	20·4	53·2	+ 0·1	48·8	44·5	8·7	17·0	2·1	72·8	122·3	34·5	50·95	Sum 3·279	..
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was 29in·842, being 0in·048 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 75°·7 on May 26; the lowest in the month was 34°·0 on May 31; and the range was 41°·7.
The mean of all the highest daily readings in the month was 63°·9, being *equal* to the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 43°·4, being 0°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 20°·4, being 0°·2 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 53°·2, being 0°·2 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. P.M.	Osler's. Pressure on the Square Foot. Greatest.	Osler's. Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours			lbs.	lbs.	miles.		
May 1	3·6	14·7	WSW : SW	SW	2·7	0·23	321	p.-cl,slt.-r: 10,s,cu,s,so.-ha: 10, s	p.-cl : 8, s : 5, r
2	3·0	14·8	SW : NNE : Calm	NE : ESE : E	3·0	0·21	253	10 : 10, r, n, s : 7, cu	7, cu : 5, cu : 10
3	8·2	14·8	E : ENE	ESE : E : ENE	7·3	0·82	442	p.-cl, m : 4, p.-cl, w: 3, cu, w	p.-cl, w : 7, s, w : 10, w
4	4·2	14·9	ENE : E	E : Calm	3·9	0·32	290	10, r : 10, s : 5, ci, ci.-cu	7, p.-cl : p.-cl : 0, h
5	4·3	15·0	Calm : E : ESE	ESE : SE : Calm	0·1	0·00	97	p.-cl : 3, p.-cl, h: 7, so.-ha	9, cu,cu.-n,ci,r: 9, r, t, cu : 9, l
6	5·7	15·0	Calm : SW	NE : SE : ESE	0·1	0·00	107	p.-cl, m : 8,th.-cl,h: 7, th.-cl, m	7, cu.-n : 10, t, l : 10, fq.-l,t,li.-shs
7	10·6	15·1	Calm : ENE : E	ESE : E	1·8	0·09	194	1, tk.-f : 2, f, th.-cl: 0, th.-cl	0, th.-cl : 0 : 0
8	12·4	15·2	NE : ENE	ENE : NE	4·7	0·45	374	th.-cl : 3,th.-cl,ci: 2, ci, ci.-s	2, ci, w : 10 : v.-cl
9	13·6	15·2	NE : ENE	NE	4·1	0·55	415	1, li.-cl : 0	4, cu : 0, w : 0
10	9·6	15·2	NE : NNE	ENE : NE	2·9	0·23	289	9, m : 4,p.-cl,ci,cu: 4, cu	2, th.-cl, ci : 0
11	10·3	15·3	Calm : NE	NE : SE : S	0·5	0·01	145	1,m,ho.-fr: 0 : 0, so.-ha	5, th.-cl,so.-ha: 6, th.-cl : 0
12	2·1	15·3	SW : WSW	N : NNE : ENE	1·7	0·13	255	9 : 8, r, s.-cu: 6, cu	8,slt.-r,cu.-s: 8, slt.-r : 10, fq.-r
13	0·0	15·4	NE : ENE	ENE : NE	5·9	0·43	357	10, r, n, s : 10, r, w	10, r, n, s : 10, c.-r : 10, hy.-r
14	3·2	15·4	NNE : N	N : Calm	4·0	0·46	322	10, r, w : 6, cu, n : 8, cu, cu.-n	10, slt.-r : 8, cu, cu.-n : 3
15	6·0	15·5	Calm : SW : N	Calm : E : SSW	1·0	0·01	122	10, ho.-fr : 0, th.-cl : 8, th.-cl, cu	7, cu, cu.-n : 10 : 10, slt.-r
16	0·9	15·5	Calm : E : S	Calm : SSW : SE	1·0	0·01	129	10, slt.-r : 10, n, s : 10, s	5, cu, cu.-n : 10 : 10
17	0·0	15·6	ESE : E	E : ENE : NE	2·4	0·13	238	10 : 10,slt.-r,n,s: 10, cu, s, r	10, cu, s, r : 10, slt.-r : 10, fq.-r
18	0·0	15·6	NE : NNE	NNE : N	3·3	0·37	368	10, c.-r : 10, n, c.-r : 10, c.-r	10, s, c.-r : 10, r : 10
19	13·0	15·7	N : NNE : NE	Variable : ESE : S	1·2	0·05	168	10, p.-cl : 2,p.-cl,cu: 0, th.-cl	0, th.-cl : 5 : 5, p.-cl
20	0·0	15·7	Calm : SSE : S	SSW : S	1·3	0·03	182	p.-cl : 10, n, slt.-r: 10, n, s, slt.-r	10, n, s : 9 : v.-cl
21	3·7	15·8	Calm : E	ESE : Calm : NE	1·2	0·06	162	9, th.-cl : 8, cu : 8, cu, s.-cu	4, cu.-s,li.-cl: 10 : 10
22	4·5	15·8	NE : NNE	NE : NNE : N	2·5	0·18	262	10 : 5,th.-cl,h: 3,cu,th.-cl,h	10 : 0
23	13·6	15·9	N : NNE : NE	ENE : NE	6·4	0·59	409	1, m : 2, cu, ci.-cu: 0, li.-cl	0, w : 0, w : 0
24	15·0	15·9	NE : ENE	E : ENE	5·8	0·48	373	1, d : 0, w : 0, w	0 : 0
25	14·1	16·0	NE	E : ENE	5·0	0·21	297	0 : 0, li.-cu : 0, h	0 : 1, cu : 0, li.-cl
26	13·8	16·0	ENE : NE	E : NE	3·4	0·18	272	1 : 0	0, so.-ha : 1, li.-ci : 3,ci,lu.-ha,w
27	13·1	16·0	NNE : NE	NE	6·3	0·73	479	p.-cl : p.-cl, w : 2,p.-cl,ci,w	1,th.-cl,ci,cu: 1, th.-cl, cu, w: 10, w
28	5·2	16·1	NE	NE : Calm	4·1	0·34	327	10 : 10, n : 10, cu	6, cu : 0 : 1, h
29	3·4	16·1	Calm : SSW : WSW	NW : SW : N	2·4	0·14	187	h,m,slt.-ho.-fr: 2,h,th.-cl: 6, h, th.-cl	10, slt.-r : 10, slt.-r : 9
30	6·1	16·2	N : NNE	NE	2·0	0·20	260	p.-cl : 6,p.-cl,cu: 10	10 : 1
31	10·9	16·2	Calm : NW	N : S : Calm	0·2	0·00	138	h,p.-cl,slt.-ho.-fr: 2, h : 4, h,p.-cl,cu	4, p.-cl, cu : : 0, h
Means	6·9	15·5	..	..	..	0·25	266		
Number of Column for Reference	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 48°·8, being 0°·2 *lower* than
The mean *Temperature of the Dew Point* for the month was 44°·5, being 0°·5 *lower* than
The mean *Degree of Humidity* for the month was 72·8, being 1·4 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·294, being 0in·005 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·3, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 539 grains, being 1 grain *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·3.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·445. The maximum daily amount of *Sunshine* was 15·0 hours on May 24.

The highest reading of the *Solar Radiation Thermometer* was 141°·7 on May 26; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°·3 on May 31.

The *Proportions of Wind* referred to the cardinal points were N. 9, E. 13, S. 3, W. 2. Four days were calm.

The *Greatest Pressure of the Wind* in the month was 7·3 lbs. on the square foot on May 3. The mean daily *Horizontal Movement of the Air* for the month was 266 miles; the greatest daily value was 479 miles on May 27; and the least daily value was 97 miles on April 5.

Rain (0in·005 or over) fell on 8 days in the month, amounting to 3in·279, as measured by gauge No. 6 partly sunk below the ground; being 1in·364 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
June 1	..	29·902	65·3	36·6	28·7	51·6	− 5·8	46·8	41·9	9·7	21·8	2·2	70	138·0	25·2	53·78	0·000	mP : wP
2	..	29·881	74·6	40·1	34·5	56·6	− 1·2	51·0	45·8	10·8	23·3	1·5	67	139·4	27·3	53·78	0·000	wP : wwP : wP
3	..	29·874	66·9	47·5	19·4	55·8	− 2·3	52·1	48·6	7·2	12·3	2·0	78	121·8	35·8	53·88	0·003	wP
4	Last Quarter	30·018	76·1	52·6	23·5	61·4	+ 3·1	57·5	54·1	7·3	19·0	1·6	77	145·2	47·5	54·21	0·000	wP
5	In Equator	30·014	75·7	50·2	25·5	62·3	+ 3·9	57·9	54·2	8·1	16·8	1·8	75	138·8	42·9	54·70	0·000	wP
6	..	29·981	72·5	52·8	19·7	62·5	+ 4·2	58·5	55·1	7·4	15·5	1·0	77	148·5	39·5	55·22	0·000	wwP
7	..	29·862	82·3	51·7	30·6	64·9	+ 6·7	59·5	55·0	9·9	20·8	0·6	71	151·9	38·2	55·81	0·000	wwP
8	..	29·690	87·2	59·6	27·6	72·2	+14·1	65·3	60·1	12·1	25·4	3·4	65	154·0	50·1	56·49	0·008	wwP
9	..	29·724	72·0	57·3	14·7	64·7	+ 6·7	58·8	53·9	10·8	19·4	1·1	68	147·4	51·8	57·06	0·043	wwP : wP
10	..	29·750	69·5	57·3	12·2	61·6	+ 3·5	57·1	53·2	8·4	14·2	1·0	75	126·2	53·5	57·66	0·010	wP
11	Apogee	29·950	67·8	51·1	16·7	59·8	+ 1·6	53·6	48·4	11·4	18·0	4·0	66	129·0	40·2	58·07	0·000	wP
12	New	30·072	70·7	47·6	23·1	57·8	− 0·6	51·9	46·6	11·2	23·3	1·5	66	126·0	34·0	58·23	0·000	wP
13	Greatest Dec. N.	30·035	72·9	43·4	29·5	58·9	+ 0·4	51·2	44·4	14·5	27·4	3·1	58	131·3	30·3	58·30	0·000	mP : wP
14	..	30·036	64·9	49·2	15·7	55·1	− 3·6	49·9	44·9	10·2	18·2	4·7	69	146·9	42·0	58·30	0·000	wP : mP, wP : wP
15	..	30·042	66·0	48·2	17·8	55·6	− 3·2	50·4	45·5	10·1	17·9	2·5	72	147·0	37·0	58·31	0·000	mP : wP : wP
16	..	29·993	70·7	45·2	25·5	57·5	− 1·4	53·0	48·9	8·6	17·7	1·2	73	145·4	34·2	58·38	0·000	mP : wP : wwP
17	..	29·987	68·2	48·3	19·9	56·6	− 2·4	52·2	48·1	8·5	17·4	1·0	73	141·8	35·4	58·40	0·000	wP
18	..	30·025	62·2	45·2	17·0	53·0	− 6·2	47·4	41·8	11·2	17·8	5·3	66	148·5	34·8	58·49	0·000	mP : wP : wP
19	..	29·996	64·0	41·5	22·5	52·8	− 6·7	46·9	41·0	11·8	20·5	3·2	65	149·6	30·1	58·55	0·000	mP
20	In Equator First Quarter	29·922	71·0	38·0	33·0	54·8	− 5·1	48·8	43·1	11·7	23·3	1·3	65	155·0	24·6	58·58	0·000	mP : wP : wwP
21	..	29·763	76·1	42·9	33·2	58·4	− 1·9	51·4	45·1	13·3	27·3	0·8	61	148·0	27·0	58·61	0·000	wP : wP : wwP
22	..	29·846	68·1	47·9	20·2	56·8	− 3·8	51·4	46·4	10·4	19·8	1·2	68	145·8	32·4	58·70	0·000	wP : wwP : wP
23	..	29·785	59·6	47·1	12·5	52·7	− 8·2	49·5	46·3	6·4	10·9	2·1	79	104·3	39·1	58·75	0·017	wP
24	..	29·729	57·8	49·6	8·2	53·5	− 7·7	52·0	50·5	3·0	5·7	0·6	90	72·6	49·1	58·73	0·093	wwP : wP
25	..	29·704	73·4	53·2	20·2	61·3	− 0·1	58·0	55·2	6·1	14·1	0·8	80	150·3	52·7	58·70	0·000	wP : wwP
26	Perigee. Greatest Dec. S.	29·726	73·5	54·2	19·3	62·4	− 0·9	56·1	50·7	11·7	22·5	1·1	66	159·0	43·0	58·65	0·000	wwP
27	Full	29·666	69·5	51·6	17·9	57·2	− 4·4	54·6	52·2	5·0	15·2	0·4	84	133·0	42·0	58·88	0·184	wwP
28	..	29·593	72·0	54·5	17·5	60·0	− 1·6	56·6	53·6	6·4	12·0	1·4	80	144·0	48·4	59·18	0·070	wwP
29	..	29·577	73·8	52·1	21·7	60·7	− 0·9	57·4	54·6	6·1	14·2	1·6	81	142·6	46·1	59·20	0·014	wwP
30	..	29·615	73·3	54·7	18·6	59·5	− 2·0	57·3	55·4	4·1	14·5	1·2	86	134·7	46·2	59·33	0·119	wwP
Means	..	29·859	70·6	49·0	21·5	58·6	− 0·9	53·8	49·5	9·1	18·2	1·8	72·4	138·7	39·3	57·50	Sum 0·561	..
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was $29^{\text{in}}\cdot859$, being $0^{\text{in}}\cdot044$ *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was $87^{\circ}\cdot2$ on June 8 ; the lowest in the month was $36^{\circ}\cdot6$ on June 1 ; and the range was $50^{\circ}\cdot6$.
The mean of all the highest daily readings in the month was $70^{\circ}\cdot6$, being $0^{\circ}\cdot1$ *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was $49^{\circ}\cdot0$, being $0^{\circ}\cdot9$ *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was $21^{\circ}\cdot5$, being $0^{\circ}\cdot7$ *greater* than the average for the 65 years, 1841–1905.
The mean for the month was $58^{\circ}\cdot6$, being $0^{\circ}\cdot8$ *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
June 1	7·0	16·2	Calm : E	Variable : Calm	0·1	0·00	118	o,h,m,slt.-ho.-fr : o, h : 6, cu	7, cu : 1, p.-cl : o, h
2	10·4	16·3	Calm	S : SSW : SW	0·8	0·00	122	o, m, h : o, h : 7, h, cu	2, p.-cl, cu,p.-so.-ha : 1,th.-cl,ci.-s: 1, th.-cl
3	0·4	16·3	SSW : SW : WSW	SW : WSW	1·3	0·07	250	p.-cl,slt.-r: 10, li.-sh : 10, cu.-n, n	10, : 10
4	8·7	16·3	WSW : Calm	SW : SSW	0·9	0·03	182	10 : 9,n,cu.-n: p.-cl	2, p.-cl, cu : 3, th.-cl, cu: 1, th.-cl, ci-s
5	5·4	16·3	SSW : SW	SW : W	2·1	0·13	279	p.-cl : 10, cu : 6, so.-ha, cu, ci.-s	6, p.-cl : 3,p.-cl,cu,ci.-s : 9
6	11·7	16·4	SW	SW	1·0	0·04	193	p.-cl : 8, cu : 8, cu	1, cu : 0
7	11·0	16·4	SW : WSW : Var.	SSW : SE	0·5	0·00	132	h, f, : p.-cl, m : o, h, th.-cl	5, p.-cl : 1, p.-cl : o, l
8	11·3	16·4	ESE : SSW	SSW : SW : NW	2·0	0·13	239	9,t.-sm,m: o, li.-cl : o	3, ci.-s, cu : 9
9	1·6	16·4	N : NE : E	SE : Calm	0·6	0·02	149	9, : 5,th.-cl,ci.-cu, ci.-s, h : 10, th.-s	10, s, slt.-r : 10, slt.-r : 10, slt.-r, l
10	1·6	16·5	Calm : ENE : NE	NE	1·0	0·07	228	10 oc.-slt.-r: 10 s : 10, c.-slt.-r, n, s	3, cu, ci : 10
11	4·5	16·5	NE : ENE : E	E : ESE	1·3	0·07	238	10 : 9, cu : 10, s	10, cu : o, h
12	8·6	16·5	E : ENE	E : ESE	0·8	0·02	175	o, h, m : 6, h, m : 6, h, th.-cl	5, h, th.-cl : 5, th.-cl, h
13	9·4	16·5	Calm : E : ENE	ENE : E : ESE	1·5	0·09	220	10, th.-cl : 6, th.-cl	6, th.-cl : 8 : 10
14	11·7	16·5	NE : ENE	ENE : E : ESE	3·0	0·39	347	10 : 5, cu : 1, p.-cl, cu	0 : 1, p.-cl : 1, cu, th.-cl
15	10·7	16·5	NE : ENE	ENE : ESE : E	1·8	0·16	247	9 : 8, cu : 3, v.-cl, cu	o, : o
16	11·2	16·5	ENE : NE : E	E : SE : ESE	0·6	0·02	169	10, m : 5,th.-cl,cu,h : 1, cu, th.-cl, h	1, p.-cl, h : o, h : p.-cl
17	8·7	16·5	Calm : NE	NE : E : NNE	1·8	0·17	230	10, m, f : 4, h : 4, cu	2, cu : 9, n : 10
18	7·2	16·6	N : NNE : NE	NE : E : ENE	2·5	0·25	304	9 : 7, cu : 5, cu, s.-cu	8 : o
19	8·9	16·6	N : NE : NNE	NE : E : Calm	1·6	0·10	205	p.-cl, slt.-fr : 5,p.-cl,li.-cl : 4, cu	2, p.-cl : o : o, slt.-h
20	14·7	16·5	Calm : E : ESE	SSW : E : Calm	1·0	0·02	145	1,slt.-m,f : 1, cu : 1	3, cu : 1
21	12·0	16·6	Calm : ENE : SE	SW : E : Calm	0·6	0·01	121	li.-cl.,tk.-m: o, h : 3,th.-cl,ci,ci.-s	2, cu, ci, ci.-s : 1, th.-cl, ci, ci.-s
22	10·7	16·6	ENE : E	E : ENE : NE	3·4	0·29	319	p.-cl : 1, cu : 1	o : 1, cu
23	0·1	16·6	NE : ENE	ENE : NNE	2·6	0·27	307	p.-cl : 10 : 10, cu,slt.-r	10, cu.-n : 10
24	0·0	16·6	N : NE : N	N : NNE	0·7	0·02	184	10, r : 10, s, fq.-r : 10, c.-m.-r, s	10, n, s : 10, n, s : 10, slt.-r
25	3·5	16·6	NNE : NE	ENE : E : Calm	0·4	0·00	181	10 : 10, cu.-n, th.-cl : 8, cu, ci-.cu	8,cu, ci.-cu, th.-cl : 10, n : 10
26	11·6	16·6	Calm : SW	SSW : Calm	1·5	0·06	269	10, slt.-r : 3, cu : 3, cu	4, cu : 1, cu, ci.-s : 9, slt.-r
27	7·4	16·5	S	S : SSW	3·0	0·04	239	9, hy.-sh,l: 10, cu.-n, hy.-r : 7, slt.-r, cu	8, cu, n : t, fq.-r : 3, cu
28	2·0	16·5	SW	SW : WSW	4·3	0·09	303	10, cu, n : 9	9, oc.-shs : 8,ci,cu,cu.-n,hy.-sh : 10
29	4·7	16·5	SW : SSW	SW : SSW	0·5	0·00	177	10 : 10, n : 10, r	9, cu : 8, t, slt.-r, cu,s.-cu : p.-cl, l
30	0·8	16·5	SW : WSW	SW : NNW	0·7	0·00	169	9,slt.-r,t,l : 10,so.-ha : 9, cu.-n,fq.-r,t	10, n : 8, fq.-r, cu : p.-cl
Means	7·3	16·5	..	..	..	0·09	215		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 53°·8, being 1°·1 *lower* than
The mean *Temperature of the Dew Point* for the month was 49°·5, being 1°·4 *lower* than
The mean *Degree of Humidity* for the month was 72·4, being 1·2 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·355, being 0in·018 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·0, being 0gr·2 less than
The mean *Weight of a Cubic Foot of Air* for the month was 533 grains, being 2 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·3.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·440. The maximum daily amount of *Sunshine* was 14·7 hours on June 20.

The highest reading of the *Solar Radiation Thermometer* was 159°·0 on June 26; and the lowest reading of the *Terrestrial Radiation Thermometer* was 34°·6 on June 20.

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

The *Greatest Pressure of the Wind* in the month was 4·3 lbs. on the square foot on June 28. The mean daily *Horizontal Movement of the Air* for the month was 215 miles; the greatest daily value was 347 miles on June 14; and the least daily value was 118 miles on June 1.

Rain (0in·005 or over) fell on 9 days in the month, amounting to 0in·561, as measured by gauge No. 6 partly sunk below the ground; being 1in·477 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
July 1	..	29·928	66·4	52·4	14·0	58·8	− 2·7	56·4	54·3	4·5	9·3	0·4	83	115·2	42·0	59·19	0·000	wwP : wP : wwP
2	In Equator	30·059	80·1	51·1	29·0	65·3	+ 3·7	59·7	55·2	10·1	19·8	0·0	71	147·4	43·0	59·43	0·000	wwP : wP
3	..	30·012	85·9	58·8	27·1	71·2	+ 9·4	64·0	58·6	12·6	23·4	2·5	64	161·0	51·0	59·60	0·000	wP : wwP : wP
4	Last Quarter	29·767	87·1	60·1	27·0	72·7	+10·6	65·0	59·2	13·5	25·6	0·0	62	149·0	51·3	60·12	0·000	wP : wwP
5	..	29·782	80·6	58·6	22·0	67·4	+ 5·1	60·6	54·8	12·6	26·7	3·0	64	149·8	49·2	60·83	0·000	wP : mP
6	..	29·744	79·2	52·5	26·7	65·0	+ 2·6	58·0	52·3	12·7	24·7	2·7	63	156·0	41·3	61·43	0·356	wP : wwP : wP
7	..	29·461	69·7	56·1	13·6	59·5	− 2·9	57·1	55·0	4·5	11·5	0·6	86	120·5	52·6	61·60	0·109	wP
8	Apogee	29·744	64·6	55·8	8·8	58·8	− 3·6	55·9	51·3	7·5	9·9	1·0	82	95·5	51·6	61·68	0·021	wwP : wP
9	..	29·946	71·4	54·6	16·8	61·0	− 1·4	55·5	50·8	10·2	18·2	0·6	70	132·7	46·6	61·50	0·056	wwP : wP
10	Greatest Dec. N.	29·875	71·2	51·0	20·2	61·2	− 1·3	54·9	49·4	11·8	19·0	5·1	66	139·2	40·6	61·28	0·000	wP
11	..	29·683	64·9	54·4	10·5	59·6	− 3·1	55·8	52·4	7·2	12·8	3·6	77	92·6	51·2	61·07	0·000	wwP : wP : wP
12	New	29·622	70·4	52·0	18·4	60·6	− 2·3	54·5	49·2	11·4	20·9	3·3	67	143·0	39·9	61·12	0·000	wP : mP
13	..	29·622	69·5	45·2	24·3	58·1	− 5·0	53·6	49·5	8·6	16·1	0·6	73	114·4	32·8	61·08	0·000	mP : wP : wP
14	..	29·570	69·5	49·6	19·9	57·7	− 5·6	54·1	52·5	5·2	16·3	0·0	84	147·4	39·5	61·50	0·194	wP
15	..	29·497	69·4	51·2	18·2	58·8	− 4·6	53·9	49·6	9·2	19·6	0·2	72	131·3	43·5	60·80	0·022	wP
16	..	29·455	63·0	48·2	14·8	55·7	− 7·7	53·8	52·0	3·7	10·0	0·0	88	105·8	39·1	60·70	0·644	wwP : wwP, wwN
17	In Equator	29·356	62·8	51·5	11·3	56·9	− 6·5	54·2	51·7	5·2	9·9	1·3	83	103·0	43·3	60·48	0·028	wwP : wP
18	..	29·981	69·1	49·0	20·1	57·5	− 5·8	53·4	49·7	7·8	15·9	1·8	74	118·0	40·0	60·19	0·000	wwP
19	First Quarter	29·929	72·5	53·1	19·4	61·0	− 2·2	57·8	55·0	6·0	10·8	3·5	81	136·0	40·0	60·01	0·000	wwP
20	..	29·773	71·0	55·0	16·0	61·1	− 2·1	55·6	50·1	11·0	21·0	0·6	70	139·1	50·3	60·02	0·055	wwP : wP : mP
21	..	29·807	71·5	52·8	18·7	60·0	− 3·2	55·1	50·8	9·2	18·7	2·4	72	146·8	48·7	60·12	0·000	wP
22	..	29·574	60·9	56·6	4·3	58·5	− 4·6	57·5	56·7	1·8	4·7	0·0	94	76·9	54·1	60·17	0·526	wwP
23	Greatest Dec. S.	29·389	65·5	55·2	10·3	58·6	− 4·4	56·9	55·4	3·2	9·3	0·2	88	124·5	51·4	60·29	0·467	wwP
24	Perigee	29·541	73·5	51·2	22·3	59·4	− 3·5	56·6	50·9	8·5	15·9	0·6	84	141·4	46·2	60·31	0·076	wwP
25	..	29·623	70·6	53·0	17·6	57·3	− 5·4	54·9	52·8	4·5	17·5	1·2	84	139·0	49·4	60·26	0·133	wwP : wwP, mN : wwP
26	Full	29·645	71·6	49·9	21·7	59·0	− 3·5	55·5	52·4	6·6	16·6	0·6	79	137·8	43·9	60·23	0·000	wP
27	..	29·595	69·8	50·4	19·4	58·8	− 3·6	55·8	53·1	5·7	18·1	0·8	82	128·2	44·0	60·21	0·277	wP : wN, wP : wP
28	..	29·789	70·7	51·5	19·2	59·6	− 2·7	54·1	49·2	10·4	21·7	4·0	69	133·8	45·0	60·27	0·000	wP
29	..	29·971	73·2	48·8	24·4	57·8	− 4·5	54·4	51·4	6·4	18·3	1·0	79	142·2	41·3	60·27	0·116	wP : vP
30	In Equator	29·927	72·5	50·1	22·4	60·2	− 2·1	54·9	50·2	10·0	18·3	0·2	70	132·8	42·7	60·23	0·000	wP
31	..	29·745	75·4	52·6	22·8	61·1	− 1·1	56·7	52·9	8·2	16·9	0·2	75	142·6	47·2	60·30	0·000	wP
Means	..	29·723	71·4	52·7	18·7	60·6	− 2·1	56·3	52·7	8·1	16·7	1·4	76·0	130·4	45·2	60·53	Sum 3·080	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was $29^{in}\cdot723$, being $0^{in}\cdot076$ *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 87°·1 on July 4; the lowest in the month was 45°·2 on July 13; and the range was 41°·9.
The mean of all the highest daily readings in the month was 71°·4, being 2°·8 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 52°·7, being 0°·6 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 18°·7, being 2°·2 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 60°·6, being 2°·1 *lower* than the average for the 65 years 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
July 1	3·3	16·5	N : NW	N : E : Calm	0·2	0·00	143	10, m : 10, slt.-m, s, h: 10, s, h	6, th.-cl, h : 5, p.-cl, h : 9
2	6·8	16·5	Calm : WSW	SW : WSW	1·4	0·10	244	1, h : 3, ci.-cu : 5, s.-cu	7, cu, s.-cu, ci.-cu: 9 : 10
3	9·5	16·5	SW	SW : SSW	1·0	0·02	193	p. cl : 1, cu : 7, cu, ci.-s, ci.-cu	7, th.-cl, cu : 5, slt.-r : 9
4	8·4	16·5	Calm : SE : SSW	SSW : S : N	1·3	0·02	171	9 : 8, cu : 9, cu, s	5, ci : 4, cu : p.-cl, l
5	9·1	16·4	N : NW : W	WSW : SW : N	2·1	0·05	240	10 : 9 : 4, th.-cl, cu	6, p.-cl : 3, p.-cl, cu : 6, cu
6	7·0	16·4	Calm : SE	SSW : ESE	1·7	0·06	159	10 : 9, cu : 6, cu	3, th.-cl : so.-ha, p.-cl : 10, oc.-r
7	4·4	16·4	SSW : S	SSW : SW	7·5	0·86	499	9, w : 10, fq.-r, w: 10, n, s, r, w	10, r, w : 4, p.-cl, r, w : 9, th.-cl
8	0·0	16·4	SW : WSW	WSW : NW : Calm	3·0	0·32	331	10, r, w : 10, cu, n w: 10, cu, n	10, cu.-n, shs : 9, fq.-shs, m: 10, m
9	6·9	16·3	SW : NNW	WNW : N	2·0	0·05	195	10, r : p.-cl : 8, th.-cl, cu, ci.-s	4, cu, ci : 8, p.-cl : 0+
10	8·9	16·3	NW : W : WSW	W : WSW	3·3	0·23	345	9 : 4, cu : 6 v.-cl	10, cu : 10
11	0·0	16·3	WSW : W	WSW : SW	2·0	0·23	358	10 : 10	10, s : 10
12	9·2	16·3	WSW : W	WSW : W	3·2	0·30	368	10 : 8, cu : 10 cu	9, cu : 0
13	3·4	16·2	SW : SSW	E : SW : WSW	0·2	0·00	139	1, slt.-m : 7, th.-cl, cu, h: 10, cu, s	10, cu, s : 9, cu, s.-cu, th.-cl: 9
14	4·7	16·2	W : WSW	SW : S : SSE	1·4	0·07	256	p.-cl : 8, cu, cu.-n: 10, th.-cl	10, fq.-slt.-r, n, s: 10, c.-r : 10, r
15	11·9	16·2	NW : W : WSW	W : WNW : WSW	4·0	0·11	338	10. r. t : 4, cu : 6, cu	4, cu : 1, cu : 1
16	0·2	16·1	SW : SSW	SSW : S	5·5	0·17	317	p.-cl : 10, s : 10, cu, n.-fq.-r	10, c.-r, s : 10, r, s : 10, r, w
17	2·6	16·1	SW : WSW : W	WNW : N : NNW	6·7	0·63	531	10, w, slt.-r: 10, cu, n, w : 10, n, s, r, w	10, c.-r, w : 10, r : 0
18	5·4	16·0	WNW : W : WSW	W : WNW : SW	0·2	0·00	207	p.-cl : 10, s : 10, cu.-n, s	7, cu : 4, cu, ci : 9
19	3·6	16·0	SW : SSW	SW : SSW	3·2	0·10	329	10 : 10, n, s : 10, s	10, cu : p.-cl, s.-cu, ci.-s : 9, v.-cl
20	10·6	16·0	SSW : WSW	WSW : SW	4·7	0·24	422	10, slt.-r : 6, cu.-n, cu: 6, cu	4, p.-cl, cu : 7, p.-cl : 7
21	9·6	15·9	SSW : SW	SW : SSW	2·0	0·06	318	9 : 5, cu, v.-cl: 7, cu, ci.-cu	10, cu : 10, slt.-r : 10, slt.-r
22	0·0	15·9	SSW : S	SSW : SW	3·9	0·18	394	10, slt.-r : 10, slt.-r, s: 10, fq.-r, cu.-n	10, c.-r, s, n : 10, c.-r : 10, r
23	6·2	15·8	SW : SSW	SSW : SW	4·7	0·08	338	10, fq.-r : 10, cu.-n, r: 9, r, t	10, cu, oc.-shs : 10, r, t : 7, s.-cu
24	7·6	15·8	SSW : SW : WSW	WSW : WNW : W	1·6	0·01	210	10, p.-cl : p.-cl : 5, cu	7, cu, s, r, t, l, h: 10, n, s, m, t, r: 8, cu, h
25	7·3	15·7	W : WSW	SW : SSW : WSW	2·6	0·03	203	10 : 4, cu : 7, cu	9, t, slt.-r : 10, n, r : 7, r
26	10·9	15·7	SSW : WSW : SW	SW : SSW : S	1·4	0·02	240	9 : 4, p.-cl, cu: 6, cu	6, p.-cl, cu, ci : 1, ci, cu : v.-cl
27	6·5	15·6	Calm : S : SSW	SSW : SW	3·4	0·10	277	9, slt.-r : 10, n, s, r : 7, fq.-r, hy.-sh	4, cu, slt.-r : 3 : 9
28	11·8	15·6	SW : WSW : W	WSW : W	3·0	0·25	443	v.-cl : 4, cu : 5, cu	5, cu : p.-cl : 0
29	9·9	15·6	SW : WSW	SW : Variable	3·9	0·02	202	p.-cl : 5, ci, cu	7, cu, ci.-s, n, r : 4, slt.-r, t : 4, ci
30	10·5	15·5	SW : Calm : WSW	WNW : W : SW	0·4	0·00	211	p.-cl, m : 0, th.-cl, h: 3, p.-cl, h	9, cu, cu.-n : 1, s.-cu : 9
31	3·0	15·5	SW	SW : Calm	0·2	0·00	182	9 : 8, ci.-cu, cu: 10, cu	8, th.-cl, cu : 9, th.-cl : 10
Means	6·4	16·1	..	..	..	0·14	284		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 56°·3, being 1°·6 *lower* than
The mean *Temperature of the Dew Point* for the month was 52°·7, being 1°·1 *lower* than
The mean *Degree of Humidity* for the month was 76·0, being 3·2 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·399, being 0in·016 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·4, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 528 grains, being 1 grain *greater* than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·400. The maximum daily amount of *Sunshine* was 11·9 hours on July 15.

The highest reading of the *Solar Radiation Thermometer* was 161°·0 on July 3; and the lowest reading of the *Terrestrial Radiation Thermometer* was 32°·8 on July 13.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 1, S. 10, W. 15. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 7·5 lbs. on the square foot on July 7. The mean daily *Horizontal Movement of the Air* for the month was 284 miles; the greatest daily value was 531 miles on July 17; and the least daily value was 139 miles on July 13.

Rain (0in·005 or over) fell on 15 days in the month, amounting to 3in·080 as measured by gauge No. 6 partly sunk below the ground; being 0in·681 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Difference. Greatest.	Difference. Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Aug. 1	..	29·546	77·3	54·4	22·9	63·8	+ 1·6	57·9	53·0	10·8	19·8	4·9	69	149·1	44·3	60·51	0·000	wwP
2	Last Quarter	29·403	72·3	54·1	18·2	61·2	− 0·9	57·6	53·9	7·3	16·2	0·6	75	144·6	43·8	60·75	0·193	wwP
3	..	29·445	66·9	57·1	9·8	59·1	− 3·0	57·5	56·1	3·0	8·0	0·4	90	113·3	55·3	60·95	0·681	wwP : .. : ..
4	..	29·723	69·0	54·3	14·7	60·1	− 2·0	57·6	55·4	4·7	11·9	0·0	85	124·7	49·6	61·20	0·434	.. : wwP : wwP
5	Apogee	29·809	69·5	51·4	18·1	59·0	− 3·1	55·3	52·0	7·0	14·9	0·8	78	130·5	46·6	61·11	0·001	wwP
6	Greatest Dec. N.	29·741	74·6	58·7	15·9	65·1	+ 2·9	61·0	57·6	7·5	16·0	0·9	77	131·8	57·5	61·11	0·011	wwP
7	..	29·874	73·7	58·2	15·5	64·0	+ 1·8	61·6	59·6	4·4	7·9	1·5	86	110·3	52·8	61·11	0·022	wwP
8	..	29·867	75·4	62·1	13·3	66·6	+ 4·3	63·7	61·4	5·2	12·4	2·0	84	128·6	57·8	61·41	0·000	wwP
9	..	29·855	74·4	61·3	13·1	65·3	+ 3·0	63·7	62·5	2·8	8·0	0·9	86	118·6	58·9	61·60	0·399	wwP
10	New	29·823	77·1	59·9	17·2	66·5	+ 4·2	64·2	62·4	4·1	14·4	0·4	86	140·8	55·1	62·03	0·759	wwP
11	..	29·861	76·1	59·3	16·8	65·2	+ 2·8	60·8	56·9	8·3	18·7	1·5	76	137·6	54·9	62·53	0·003	wwP
12	..	29·818	74·1	57·9	16·2	63·2	+ 0·7	60·2	57·7	5·5	14·9	1·3	82	139·3	51·5	62·60	0·038	wwP
13	In Equator	29·731	73·8	53·4	20·4	61·0	− 1·5	56·8	52·8	8·2	18·2	0·6	76	130·5	46·1	62·59	0·052	wwP : wP : wN, wP
14	..	29·743	72·5	52·2	20·3	60·2	− 2·3	56·2	52·8	7·4	16·5	0·4	76	135·5	46·4	62·58	0·011	wwP
15	..	29·716	68·5	53·3	15·2	59·0	− 3·4	55·9	53·1	5·9	13·8	1·4	81	130·0	46·0	62·38	0·152	wwP : wwN : wwP
16	..	29·748	70·0	51·8	18·2	59·3	− 3·0	55·4	52·0	7·3	14·1	0·6	76	123·8	46·7	62·18	0·313	wwP : wP
17	..	29·827	72·7	50·2	22·5	59·2	− 2·9	55·3	51·9	7·3	20·0	0·6	77	132·0	45·8	62·08	0·000	wwP
18	First Quarter	29·885	70·0	50·2	19·8	58·1	− 3·8	54·3	50·9	7·2	18·1	1·0	78	115·8	42·6	61·74	0·000	wwP
19	..	29·904	69·1	49·7	19·4	58·2	− 3·5	54·1	50·4	7·8	16·6	1·2	76	124·9	42·2	61·70	0·001	wP
20	Greatest Dec. S. : Perigee.	29·970	71·6	50·0	21·6	60·3	− 1·2	55·6	51·5	8·8	18·5	1·0	72	123·1	42·1	61·53	0·000	wwP : wP
21	..	29·972	69·0	55·0	14·0	59·9	− 1·4	54·6	49·9	10·0	16·4	4·3	78	118·0	49·9	61·47	0·000	wP
22	..	30·900	67·4	54·5	12·9	60·4	− 0·7	55·8	51·8	8·6	14·6	3·4	73	110·2	51·4	61·48	0·000	wP
23	..	30·927	73·0	56·8	16·2	62·9	+ 2·0	58·3	54·4	8·5	17·7	2·3	74	128·1	47·2	61·49	0·000	wwP : wP
24	Full	30·066	71·0	54·6	16·4	61·3	+ 0·5	57·1	53·5	7·8	15·7	1·3	76	120·9	43·5	61·57	0·000	wP
25	..	30·036	72·0	53·6	18·4	62·0	+ 1·3	57·5	53·7	8·3	17·9	1·0	75	117·1	44·6	61·62	0·000	wwP : wP : wP
26	In Equator	29·977	73·8	49·9	23·9	61·3	+ 0·6	57·6	54·3	7·0	16·1	0·6	78	119·9	44·2	61·73	0·000	wwP
27	..	29·881	73·1	51·4	21·7	61·0	+ 0·4	57·3	54·1	6·9	16·0	0·8	79	119·5	42·5	61·76	0·000	wwP
28	..	29·714	71·6	50·1	21·5	61·1	+ 0·7	57·2	53·8	7·3	14·9	0·6	77	117·6	40·0	61·71	0·000	wwP
29	..	29·629	65·0	48·4	16·6	55·4	− 4·9	53·2	51·1	4·3	9·3	2·7	86	97·0	40·2	61·59	0·140	wwP : wP
30	..	29·860	63·4	43·6	19·8	53·3	− 6·8	48·4	43·4	9·9	17·6	0·4	69	109·5	33·0	61·47	0·000	wP : mP : mP
31	..	29·944	65·7	51·2	14·5	56·0	− 3·9	51·5	47·3	8·7	15·7	4·0	73	124·2	40·2	61·10	0·000	wP
Means	..	29·826	71·4	53·8	17·6	60·9	− 0·7	57·2	53·9	7·0	15·2	1·4	78·2	124·7	47·1	61·63	Sum 3·210	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was 29in·826, being 0in·043 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 77°·3 on August 1; the lowest in the month was 43°·6 on August 30; and the range was 33°·7.
The mean of all the highest daily readings in the month was 71°·4, being 1°·3 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 53°·8, being 0°·8 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 17°·6, being 2°·1 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 60°·9, being 0°·7 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Aug. 1	11·8	15·4	SE : SSE : S	S : SSW : SW	1·9	0·05	256	9 : 4,p.-cl,ci,ci.-cu : 3, p.-cl	3, p.-cl, cu : 0 : p.-cl
2	7·3	15·4	S : SSW	SW : WSW	3·6	0·15	341	10, l, r : 8, cu, ci : 8, fq.-r, cu	8, slt.-shs, cu.-n : 10, oc.-li.-shs, cu.-n : 10, r
3	0·5	15·3	WSW : W	WSW	2·7	0·24	435	10, r : 10, n, slt.-r : 10, r	10, sh, n, s : 10, slt.-r, t, l : 10, n
4	3·9	15·3	Variable	SW	1·7	0·01	190	9 : 8, cu, m : 8, cu, h	10, hy.-r, t : 9, f, slt.-r : p.-cl
5	4·9	15·2	SSW : S : SE	S : SSW : SW	0·4	0·00	190	v.-cl : 3, p.-cl, ci, ci.-s : 10, cu, cu.-n	10, s, cu : 9, slt.-r, s.-cu : 10
6	3·5	15·1	WSW	WSW : SW	2·0	0·12	292	10, slt.-r : 10 : 10, ci.-cu, cu, r	9, cu.-n, r : 9 p.-cl, slt.-r : 3, p.-cl
7	1·4	15·1	SSW : SW	SW : WSW	2·4	0·05	238	9 : 9, cu, ci.-cu : 10, s	10, s, slt.-r : p.-cl, slt.-r : 1, p.-cl, cu
8	3·8	15·0	SW : WSW	Calm	1·4	0·12	273	9 : 9, cu, cu.-n : 7, cu	10, cu : 9, slt.-r : 9
9	0·3	15·0	Calm : SW	Calm : Variable	0·2	0·00	79	10, slt.-r : 10, n, r, m : 10, n, s, slt.-r	9, n : 8, r : 10, n, m
10	6·5	14·9	Calm : SE	SE : S : SW	1·0	0·02	132	9, m : 7, cu : 4, cu	10, hy.-r, fq.-t : 10, n : 9, p.-cl, oc.-l
11	7·7	14·9	WSW	WSW : SW	2·0	0·09	249	9 : 9, s.-cu : 4, cu	5, cu : p.-cl, slt.-r : 2, cu, ci.-s
12	3·7	14·8	SW : SSW	SSW : NW : S	3·8	0·94	187	9 : 10, s, n : 9, cu, s.-cu	10, cu.-n, slt.-r : p.-cl, r : 4, v.-cl
13	6·5	14·8	SSW : W : N	WSW : SW : SSW	0·5	0·00	187	v.-cl : 7, cu, h : 8, th.-cl, cu, h	9 : 7, r, t, l : 0, l
14	10·4	14·7	WSW : W	WSW : SW	4·4	0·12	270	0 : 7, cu : 6, slt.-sh, cu	8, fq.-t : 9 : p.-cl
15	6·1	14·6	SW : WSW	Variable : Calm	0·9	0·02	170	p.-cl : 9, cu.-s : 8, cu, t	9, c.-r, t, n : fq.-shs : 10, slt.-r
16	5·2	14·6	Calm : W	NW : Variable	2·9	0·05	179	h, m : 7, cu, h : 7, cu, h	9, r, hl, t : 5, th.-cl, slt.-r, t : 7, cu, s.-cu
17	7·1	14·5	SW : Calm	Calm	0·4	0·00	105	v.-cl, m : 3, h, cu : 7, cu, n	8, cu.-n, t : 9, sh : 0
18	4·8	14·4	Calm : Variable	NE : NNE : N	0·5	0·00	143	10 : 10, cu, n, s.-cu, h : 10, cu, n, h	4, p.-cl, cu : p.-cl : 0, h
19	8·7	14·4	N : Calm	SW : Calm : N	0·9	0·03	172	0, h, tk.-m : 2, h, cu : 7, cu, n	3, cu : 0 : 9
20	8·7	14·3	N : NE : Calm	Calm : S	1·4	0·07	180	10, m, hy.-d : 3, p.-cl, h : 4, th.-cl, h	6, cu, n, h : 8, s.-cu, th.-cl : 10
21	4·4	14·3	SW : W : NNW	NNW : NW : W	2·0	0·17	262	10 : 8, cu : 7, cu, s.-cu	7, cu : 10, n : 10
22	0·7	14·2	NNW : N : NNE	Calm	0·3	0·00	87	10 : 9, li.-cl, cu : 10, th.-cl, m	10, cu, s : 10
23	2·2	14·1	Calm : S	Calm : WSW	0·3	0·00	114	10 : 10, cu, s	7, cu : 9, cu : 9, m
24	1·3	14·1	SW : Calm	Calm : N : NE	0·2	0·00	105	9, m : 10, s : 7, s.-cu, cu	10, cu, n : 10, s.-cu : 9
25	7·6	14·0	Calm : N	N : Calm	0·3	0·00	107	10, m : 7, cu, th.-cl, h : 7, cu, m	3, p.-cl, cu : 0, f : 0, h, m
26	9·5	13·9	Calm : NE	NE : E : Calm	0·2	0·00	109	0, m, tk.-f : 0, m : 0, m	1, m, h : 0 : p.-cl, h
27	7·7	13·9	Calm : N : NE	NE : E : Calm	0·1	0·00	93	9, m : 0, h	2 : 5 : 0, h
28	5·8	13·8	Calm : N	N : NNW	0·5	0·01	117	h, tk.-m : 0, h : 1, h, cu	5, p.-cl, cu, h : 7, cu, th.-cl, h : 9
29	0·3	13·8	WSW : W : N	N	2·7	0·18	254	9, slt.-r : 8, cu : 10, n, slt.-r	10, n, r : 10, slt.-r : v.-cl
30	8·9	13·7	WSW : W : NW	WNW : NW	4·6	0·24	321	1, m : 3, cu : 8, cu.-n	10, cu.-n : 6, p.-cl, slt.-r : 6
31	0·9	13·7	W : WNW : NW	W : SW : Calm	1·1	0·16	224	9 : 10, s ; 10, cu, n	10, cu : 7, p.-cl, ci.-cu : 10
Means	5·2	14·6	. .	. .	. .	0·09	195		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 57°·2, being 0°·3 *lower* than the average for the 65 years, 1841–1905.
The mean *Temperature of the Dew Point* for the month was 53°·9, being 0°·1 *lower* than the average for the 65 years, 1841–1905.
The mean *Degree of Humidity* for the month was 78·2, being 1·9 *greater* than the average for the 65 years, 1841–1905.
The mean *Elastic Force of Vapour* for the month was 0in·416, being 0in·002 *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 4grs·7, being 0gr·1 *greater* than the average for the 65 years, 1841–1905.
The mean *Weight of a Cubic Foot of Air* for the month was 529 grains, being 1 grain *greater* than the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·7.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·359. The maximum daily amount of *Sunshine* was 11·8 hours on August 1.

The highest reading of the *Solar Radiation Thermometer* was 149°·1 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 33°·0 on August 30.

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 2, S. 8, W. 9. Eight days were calm.

The *Greatest Pressure of the Wind* in the month was 4·6 lbs. on the square foot on August 30. The mean daily *Horizontal Movement of the Air* for the month was 196 miles; the greatest daily value was 435 miles on August 3; and the least daily value was 79 miles on August 9.

Rain (0in·005 or over) fell on 13 days in the month, amounting to 3in·210, as measured by gauge No. 6 partly sunk below the ground; being 0in·866 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Sept. 1	Last Quarter: Apogee	29·644	67·9	46·6	21·3	56·0	− 3·8	52·1	48·4	7·6	16·8	0·6	76	125·0	38·8	60·74	0·066	wwP : wP : wwP
2	Greatest Dec. N.	29·494	61·1	45·2	15·9	51·5	− 8·2	48·2	44·8	6·7	15·3	0·0	78	111·9	36·8	60·43	0·000	wP
3	..	29·543	61·2	45·0	16·2	52·7	− 6·9	48·6	44·5	8·2	16·4	2·6	74	115·7	39·8	60·17	0·007	wP : vP
4	..	29·794	63·6	44·5	19·1	53·1	− 6·4	48·0	42·7	10·4	19·4	2·8	68	122·0	36·1	59·86	0·000	wP : mP
5	..	30·080	67·7	39·8	27·9	53·4	− 6·0	48·4	43·4	10·0	19·5	1·1	69	112·2	30·1	59·56	0·000	wP
6	..	30·192	71·4	42·2	29·2	55·4	− 3·8	50·7	46·3	9·1	20·5	1·5	72	132·9	30·9	59·30	0·000	wP
7	..	30·150	72·0	46·4	25·6	58·8	− 0·2	53·8	49·4	9·4	19·8	1·6	71	130·0	37·0	59·17	0·000	wwP
8	..	30·110	72·9	45·1	27·8	59·3	+ 0·5	54·7	50·6	8·7	18·7	1·1	74	130·0	35·5	59·20	0·000	.. : wwP : wP
9	New : In Equator	30·112	70·9	53·5	17·4	61·1	+ 2·5	57·5	54·4	6·7	16·5	0·8	79	119·4	40·9	59·19	0·000	wwP : wP
10	..	30·110	67·9	50·0	17·9	58·1	− 0·3	53·5	49·4	8·7	20·2	0·6	73	128·1	35·9	59·39	0·000	wwP
11	..	30·024	64·9	48·4	16·5	56·7	− 1·4	52·6	48·8	7·9	17·9	1·2	75	123·1	36·4	59·42	0·001*	wwP
12	..	29·885	74·1	48·2	25·9	59·2	+ 1·2	54·7	50·6	8·6	21·8	1·0	74	132·5	35·0	59·41	0·000	.. : wwP : wP
13	..	29·767	75·7	45·1	30·6	60·1	+ 2·3	55·1	50·7	9·4	18·6	1·0	72	134·0	33·5	59·40	0·000	wP : wwP : wP
14	Perigee	29·810	63·9	53·5	10·4	57·8	+ 0·1	54·2	51·0	6·8	13·7	1·2	78	90·2	47·1	59·32	0·029	wwP
15	..	29·963	73·9	56·1	17·8	63·5	+ 5·9	59·4	56·3	7·2	18·4	1·1	77	121·4	52·3	59·49	0·001	wwP
16	First Quarter: Greatest Dec. S.	30·130	77·0	63·2	13·8	68·3	+10·8	64·7	61·9	6·1	12·1	1·5	80	113·0	54·9	59·64	0·000	wwP
17	..	30·130	79·0	59·0	20·0	68·2	+11·0	63·3	59·4	8·8	19·2	2·2	74	131·5	48·5	60·00	0·000	wwP
18	..	30·034	74·2	54·8	19·4	62·9	+ 6·0	59·6	56·8	6·1	15·1	0·4	81	120·5	43·1	60·31	0·000	wwP
19	..	30·065	65·3	48·7	16·6	58·1	+ 1·6	54·2	50·7	7·4	15·6	2·8	76	128·5	37·9	60·51	0·000	wwP : wP
20	..	30·033	65·2	44·5	20·7	54·2	− 2·0	49·8	45·5	8·7	18·8	2·7	72	123·0	31·3	60·60	0·000	wP : wwP : wP
21	..	30·026	67·2	48·3	18·9	56·2	+ 0·3	50·9	45·9	10·3	21·5	3·5	69	122·1	35·2	60·29	0·000	wP
22	In Equator	29·991	72·6	48·1	24·5	59·6	+ 4·0	54·4	49·8	9·8	20·2	2·0	70	121·0	35·7	60·02	0·000	wP : wwP : wP
23	Full	29·790	73·4	54·9	18·5	63·0	+ 7·6	59·7	56·9	6·1	11·7	2·5	81	114·6	49·4	59·82	0·031	wwP
24	..	29·560	72·3	55·3	17·0	62·0	+ 6·7	59·4	57·2	4·8	15·9	0·6	84	126·4	46·8	59·83	0·219	wwP
25	..	29·393	66·9	50·3	16·6	57·9	+ 2·7	55·0	52·4	5·5	11·3	1·4	82	118·3	39·9	59·98	0·000	wwP
26	..	29·271	67·6	46·1	21·5	56·2	+ 1·0	53·1	50·2	6·0	15·5	0·0	81	130·1	36·8	60·00	0·000	wwP
27	..	29·377	58·3	47·4	10·9	52·7	− 2·4	49·8	47·0	5·7	9·7	1·6	81	93·3	38·0	59·78	0·002	wwP : wP : wP
28	..	29·456	59·2	39·2	20·0	47·9	− 7·0	44·5	40·8	7·1	16·6	1·4	78	104·0	27·8	59·60	1·283	wP : wP : mN
29	Apogee	29·304	53·1	39·7	13·4	45·4	− 9·3	42·0	38·1	7·3	14·5	1·6	76	101·0	31·1	58·68	0·381	wN : wP : mP
30	Greatest Dec. N.	29·564	50·8	36·8	14·0	45·0	− 9·4	41·5	37·5	7·5	10·4	1·7	75	79·0	29·0	58·00	0·000	mP : wP : mP
Means	..	29·827	67·7	48·2	19·5	57·1	− 0·1	53·1	49·4	7·8	16·7	1·5	75·7	118·5	38·4	59·70	Sum 2·020	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-Bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 17). The amount entered on September 11 was derived from dew.

The mean reading of the *Barometer* for the month was 29in·827, being 0in·016 *higher* than the average for the 65 years, 1841–1905

TEMPERATURE OF THE AIR.

The highest in the month was 79°·0 on September 17; the lowest in the month was 36°·8 on September 30; and the range was 42°·2.
The mean of all the highest daily readings in the month was 67°·7, being 0°·4 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 48°·2, being 0°·9 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 19°·5, being 1°·3 *greater* than the average for the 65 years, 1841–1905.
The mean for the month was 57°·1, being 0°·2 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Sept. 1	3·9	13·6	SSW : SW : WSW	SW : WSW : NW	2·7	0·16	265	10, slt.-r : 7, cu : 3, p.-cl, ci.-s, cu	slt.-r : 10, s, n, r : 0, h
2	0·7	13·5	WSW : NNW : N	N	2·6	0·18	279	v.-cl, hy.-d : 10, s.-cu, n : 10, cu	8, t, slt.-r, h : 9, cu, s, slt.-r : 10
3	6·9	13·4	N	N	4·3	0·43	378	10 : 4, p.-cl, cu, ci : 7, s, cu	1, li.-cl, se, p.-so.-ha : 10, r : 0, w
4	11·0	13·4	N	N	3·3	0·32	313	1, w : 1, p.-cl : 5, cu	5, cu, p.-cl : 0, h
5	10·2	13·3	Calm : SW : W	W : SW	0·5	0·02	165	0, m : 0, h	5, cu : v.-cl : 7, li.-cl
6	7·7	13·3	SW : Calm	WSW : Calm : S	0·8	0·01	163	1 : 1, h, th.-cl : 8, cu, cu.-n	9, cu : 7, p.-cl, s.-cu : v.-cl
7	9·5	13·2	Calm : WSW	SW : S : Calm	0·4	0·01	151	p.-cl, m : 5, ci.-cu : 1, p.-cl, ci, cu, ci.-s	0 : 8, ci.-s : 1
8	10·9	13·1	Calm : SE	ESE : E	1·1	0·07	151	1, m : 2, ci.-s, m : 1, th.-cl	1, th.-cl, ci : 0
9	9·1	13·1	Calm : E	E	2·6	0·13	230	0, m : 4, ci.-s, th.-cl : 0, h	0, h : 0, h
10	10·7	13·0	ENE : E	E : ENE	3·7	0·25	252	0, m : 0, m : 0, w	0, w : 0
11	10·8	13·0	ENE : E	E	5·0	0·37	293	p.-cl, m : 7, cu, m : 0	0 : 0, m
12	9·6	12·9	Calm : E : ESE	SSE : S : Calm	1·7	0·04	165	m : 0, h : 0	0 : 0
13	6·1	12·8	Calm : SSW	SW : WSW	1·6	0·05	173	v.-cl, m : 7, cu, s.-cu, h : 7, th.-cl, h	9, h, slt.-r : 8 : v.-cl
14	0·1	12·8	WNW : W : WSW	SW : SSW	1·9	0·07	255	10, slt.-r : 10, s.-cu, slt.-r : 10, cu, n	10, cu, n : 10, c.-m.-r : 4
15	8·0	12·7	SW : W	SSW : SW	1·4	0·08	252	10 : 3, th.-cl, h : 1, th.-cl, ci.-s	5, p.-cl, h : 9, s.-cu : v.-cl
16	1·5	12·6	SW : SSW	W : SW	1·1	0·06	243	10, slt.-r : 10, n : 8, cu, h	8, cu.-n : 0 : v.-cl, h
17	7·2	12·6	SW : WSW	WSW : W : SW	1·4	0·05	221	10 : 10, cu, s.-cu, h : 4, cu	3, ci.-s, cu : p.-cl : 5, ci.-s, s.-cu
18	7·3	12·5	SW : Calm : NE	ENE : E	1·8	0·06	186	0, m : 0, h : 0, h	0, h : 10
19	8·0	12·4	E : ESE	E	5·2	0·25	278	10 : 10, cu.-n : 2, v.-cl	0 : 0
20	10·6	12·4	Calm : E : ESE	E	6·8	0·38	281	0, m, hy.-d : 0	0 : 0, lu.-ha : 1, th.-cl, lu.-ha
21	9·7	12·3	E	ESE : E : Calm	1·8	0·13	230	th.-cl : 5, th.-cl, ci.-s, : 7, th.-cl	p.-cl, ci, ci.-cu : p.-cl, lu.-ha : 3, p.-cl, lu.-ha
22	7·3	12·2	Calm : E : SE	SE : Calm	0·6	0·01	120	9 : 3, p.-cl, ci.-s, cu : 0, h	8, p.-cl, cu : 9, ci.-cu : 9
23	0·4	12·2	Calm : SE : S	SSW : S	1·5	0·08	213	10 : 10, slt.-r, cu, cu.-s	10 : 10, so.-ha : 10, cu.-n, s, r
24	2·8	12·1	SSW : SW	Variable	4·2	0·18	226	9, slt.-r : 10, cu, n : 5, cu	10, s, n : 10, hy.-r, lu.-ha : v.-cl, w
25	2·3	12·0	SW : W	WSW : SW	0·5	0·07	208	9 : 9, ci.-cu, s.-cu : 8, cu, ci.-cu	10, cu, s.-cu : 0
26	6·0	12·0	SW : Calm	SW : Calm	0·6	0·00	175	v.-cl, f : 9, cu : 5, cu	7, cu, ci 7, cu : 9
27	0·2	11·9	SW : NW : N	N : NNW	2·0	0·15	236	10 : 10, n : 10, cu.-n	10, cu.-n : v.-cl, slt.-r : 6, s.-cu
28	2·4	11·8	NW : W : SW	Variable : NNE	3·9	0·10	223	v.-cl : 7, p.-cl, cu.-ci : 10, s, n	10, slt.-r : 10, r : 10, r, w
29	4·4	11·8	NNE : N	N : NNW : NW	7·5	0·62	412	10, r, w : 10, cu.-n, w : 8, cu	7, cu, ci.-s, w : p.-cl, h : 1, th.-cl
30	0·5	11·7	WNW : N	N : NNW	2·9	0·14	269	v.-cl, h : 9, cu : 10, cu.-n	10, cu, cu.-n : p.-cl : 0
Means	6·2	12·7	..	..	..	0·15	234		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 53°·1, being 1°·0 *lower* than
The mean *Temperature of the Dew Point* for the month was 49°·4, being 1°·8 *lower* than
The mean *Degree of Humidity* for the month was 75·7, being 4·5 *less* than
The mean *Elastic Force of Vapour* for the month was $0^{in.}·353$, being $0^{in.}·024$ *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $3^{grs.}·9$, being $0^{gr.}·3$ *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 534 grains, being 1 grain *greater* than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·489. The maximum daily amount of *Sunshine* was 11·0 hours on September 4.

The highest reading of the *Solar Radiation Thermometer* was 134°·0 on September 13; and the lowest reading of the *Terrestrial Radiation Thermometer* was 27°·8 on September 28.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 8, S. 7, W. 8. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 7·5 lbs. on the square foot on September 29. The mean daily *Horizontal Movement of the Air* for the month was 234 miles; the greatest daily value was 412 miles on September 29; and the least daily value was 120 miles on September 22.

Rain ($0^{in.}·005$ or over) fell on 7 days in the month, amounting to $2^{in.}·020$, as measured by gauge No. 6 partly sunk below the ground; being $0^{in.}·128$ *lower* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Oct. 1	Last Quarter	29·797	56·0	34·3	21·7	44·0	−10·1	40·0	35·3	8·7	18·8	0·5	71	96·3	25·5	57·30	0·000	mP : wP : mP
2	..	29·863	53·9	36·4	17·5	46·1	− 7·6	44·6	42·9	3·2	7·2	2·0	89	74·5	31·0	56·70	0·074	wP : wwN, wwP : wP
3	..	30·070	61·3	39·6	21·7	50·7	− 2·6	47·1	43·3	7·4	19·0	0·0	77	112·9	28·3	56·21	0·000	wwP
4	..	30·129	58·9	39·1	19·8	48·0	− 5·0	45·3	42·3	5·7	13·3	0·7	81	96·6	28·0	56·00	0·000	wP
5	..	30·059	56·0	41·9	14·1	48·3	− 4·5	45·6	42·7	5·6	10·0	1·3	81	90·5	31·6	55·82	0·000	wP
6	..	30·048	59·4	48·9	10·5	52·4	− 0·1	50·5	48·6	3·8	10·5	0·2	88	96·3	37·5	55·55	0·021	wP
7	In Equator	30·009	59·3	47·2	12·1	51·5	− 0·8	48·8	46·0	5·5	12·4	0·4	82	116·1	39·1	55·53	0·000	wwP : wwP : wP
8	New	29·708	60·1	45·1	15·0	51·5	− 0·5	48·5	45·4	6·1	12·8	1·7	80	112·0	37·0	55·60	0·000	wP : wwP : wP
9	..	29·673	57·0	49·9	7·1	52·3	+ 0·7	50·6	48·9	3·4	9·5	0·6	88	82·0	47·1	55·51	0·054	wP
10	..	29·661	57·5	49·0	8·5	52·5	+ 1·2	51·1	49·7	2·8	7·2	0·4	91	94·5	43·2	55·42	0·000	wP
11	Perigee	29·635	60·9	48·2	12·7	53·5	+ 2·6	52·1	50·7	2·8	7·9	0·0	90	96·2	38·2	55·55	0·000	wwP : wP
12	..	29·678	67·9	48·2	19·7	57·3	+ 6·7	54·3	51·6	5·7	17·8	0·0	81	115·6	39·5	55·51	0·001	wP : wwP : wP
13	Greatest Dec. S.	29·859	61·7	45·4	16·3	55·2	+ 4·9	53·2	51·1	4·1	10·5	0·6	87	86·2	36·5	55·60	0·008	wwP : wP
14	..	29·980	65·1	43·7	21·4	51·9	+ 1·8	49·9	48·0	3·9	12·1	0·0	87	103·4	35·1	55·67	0·000	wP : wwP : wP
15	First Quarter	29·967	55·3	43·6	11·7	48·6	− 1·3	48·3	48·0	0·6	5·1	0·0	98	83·3	35·6	55·62	0·000	wP : wwP
16	..	29·920	58·4	48·2	10·2	53·3	+ 3·5	51·8	50·3	3·0	7·7	0·4	90	76·1	48·2	55·50	0·000	wP
17	..	29·990	59·1	47·6	11·5	52·9	+ 3·3	51·6	50·3	2·6	7·1	0·8	92	85·0	39·0	55·39	0·000	wwP
18	..	30·128	58·9	40·5	18·4	50·2	+ 0·9	48·0	45·7	4·5	11·1	0·0	85	98·8	32·8	55·46	0·001	wP
19	..	30·098	56·6	45·1	11·5	49·7	+ 0·6	47·0	44·1	5·6	11·1	1·3	82	93·2	32·2	55·27	0·000	wwP : wP : wP
20	In Equator	29·949	55·4	42·5	12·9	48·5	− 0·3	45·9	43·1	5·4	13·9	1·3	82	94·2	29·0	55·18	0·000	wwP : wP : wP
21	..	29·886	52·7	36·3	16·4	44·9	− 3·7	43·3	41·5	3·4	9·6	0·0	88	66·4	26·8	55·01	0·009	wP : wwP : wP
22	..	29·965	59·3	43·2	16·1	50·0	+ 1·7	48·1	46·1	3·9	9·5	0·4	87	98·8	32·1	54·68	0·007	wwP : wP
23	Full	29·874	58·2	40·8	17·4	48·0	− 0·1	46·3	44·4	3·6	12·0	0·0	88	97·9	29·9	54·40	0·166	wP : wwP : wN
24	..	29·713	50·4	47·7	2·7	48·8	+ 0·9	47·6	46·3	2·5	5·4	0·0	91	63·0	45·6	54·25	0·362	wwN : wwP, wN : wwN, wwP
25	..	29·918	51·1	42·5	8·6	46·2	− 1·5	42·1	37·4	8·8	14·1	4·6	73	92·1	32·9	54·08	0·000	wwP : wP : wP
26	..	30·082	49·8	41·1	8·7	45·0	− 2·6	42·0	38·5	6·5	9·4	2·6	78	74·3	34·1	53·68	0·001	wP : mP : wP
27	Apogee: Greatest Dec. N.	29·868	46·1	39·5	6·6	42·6	− 4·9	39·3	35·3	7·3	11·9	2·5	76	62·8	32·0	53·27	0·001	wP : mP : mP
28	..	29·379	55·4	41·0	14·4	46·0	− 1·4	44·9	43·7	2·3	6·2	0·0	92	74·7	32·4	52·91	0·532	sN : wwP : wP
29	..	29·551	54·0	33·1	20·9	42·0	− 5·3	40·9	39·6	2·4	10·1	0·0	91	85·1	29·0	52·63	0·000	wP : wP : wwP
30	..	29·700	56·0	32·1	23·9	40·8	− 6·4	39·6	38·1	2·7	10·3	0·0	91	95·9	27·2	52·31	0·002*	wP : wwP : wP
31	Last Quarter	29·279	49·5	40·2	9·3	45·3	− 1·8	44·3	43·2	2·1	4·7	0·6	92	60·3	30·0	51·87	0·180	wP : wwN
Means	..	29·853	56·8	42·6	14·2	49·0	− 1·0	46·9	44·6	4·4	10·6	0·7	85·5	89·5	34·4	54·95	Sum 1·419	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 17). The amount entered on October 30 was derived from fog.

The mean reading of the *Barometer* for the month was 29in·853, being 0in·132 *higher* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 67°·9 on October 12; the lowest in the month was 32°·1 on October 29; and the range was 35°·8.
The mean of all the highest daily readings in the month was 56°·8, being 0°·7 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 42°·6, being 0°·6 *lower* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 14°·2, being 0°·1 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 49°·0, being 1°·0 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Oct. 1	8·8	11·6	NW : W	NW : Calm	0·9	0·05	205	0, ho.-fr : 0, m : 3, p.-cl, h	6, p.-cl, cu : p.-cl, h : 0, h
2	0·0	11·6	Calm : ESE	SSE : Calm	0·5	0·00	101	9, : 10, r, m : 10,n,s,slt.-r	10, n,s, slt.-r : 10, n, slt.-r : 10, r
3	6·9	11·6	Calm : SE	ESE : Calm	0·4	0·02	114	10 : 9, cu : 8, cu	0, h : 0, m : 0, h, m
4	4·1	11·5	Calm : NNE	N : NNE	2·8	0·09	170	10, m : 9, cu, m : 7, cu	6, cu, s.-cu : v.-cl, li.-sh : 0
5	0·4	11·4	N : NNE	N	2·8	0·19	271	p.-cl ; 10, cu : 10, cu.-n, s	10, cu.-n, sh : 10
6	0·7	11·3	N : NNE : NE	NNE : NE	0·7	0·07	198	10, oc.-r : : 10, n : 9,cu,cu.-n,r	9, cu, cu.-n : 0 : v.-cl
7	1·1	11·2	NE : Calm : SE	ESE : SE	0·6	0·01	139	10 : 10, h, n, s : 9, cu, s.-cu	10, cu.-n : 10, cu.-n : 10
8	5·3	11·2	ESE : SE	ESE : E : Calm	0·9	0·04	158	v.-cl : 2, th.-cl, ci : 9, cu	4, p.-cl, cu 5, p.-cl, n : v.-cl
9	0·0	11·1	Calm : E	ENE	0·8	0·02	139	10 : 10, s : 10, cu, s.-cu	10, cu.-n : 10, r : 10, r
10	2·4	11·0	ENE : E : SE	E	2·5	0·19	240	10, m : 7, cu : 8, cu	6, cu : 0
11	2·7	11·0	E : ESE	E : Calm	0·7	0·05	153	v.-cl : 4, th.-cl, ci : 8, th.-cl, h	6, th.-cl, ci.-s, cu : 0, h : v.-cl
12	6·1	10·9	Calm : SSW	S : SSW	1·9	0·07	202	hy.-d,h,tk.-f : 0, m : 8, s.-cu, cu	8, cu, s.-cu, ci.-cu : 8, slt.-r, l : 8
13	0·5	10·8	SSW : SW : N	Calm : WSW : SW	0·5	0·00	146	10, slt.-r,m: 10, n : 7, cu, ci.-s	8, cu.-s, cu : 0 : 0, h
14	5·5	10·8	Calm : WSW	SW : Calm	0·2	0·00	124	0, h : 10, s, h : 4, th.-cl	5, p.-cl : 0, m : 0, f
15	0·1	10·7	Calm : NNE	E : Calm	0·3	0·00	63	tk.-f : 8,m,s.-cu: 9, th.-cl, s.-cu	9, s, m : p.-cl, m, f : 7, f
16	0·0	10·7	Calm : NNE	NNE : N	0·3	0·01	139	10, m : 10, m	10, m : 10, m
17	0·0	10·6	N : NNE	E : Calm	0·2	0·00	94	10, n.-s : 10, cu.-n	10, s : 10 : 9
18	2·0	10·5	Calm : NE	NE : NNE	0·5	0·01	118	v.-cl, slt.-m : 10,s.-cu,h : 9, cu, s.-cu	9, cu, s.-cu : 2, p.-cl, s.-cu : 1, m
19	2·1	10·5	NNE : N : NE	NNE	1·6	0·09	212	10 : 10, n : 10, cu.-n	10, cu.-n, slt.-r : 10, cu.-n : 10
20	4·0	10·4	NE	ENE : E	1·1	0·05	172	10, m : 6, s.-cu : 9, slt.-r	3, p.-cl, cu : 2, p.-cl, cu : v.-cl
21	0·0	10·3	Calm : E	Calm : S : SE	1·2	0·01	107	th.-cl : 10, s : 10, slt.-r, n	10, n : 8, cu : 10
22	2·5	10·3	SE : SSE	SSE : SE : Calm	0·5	0·03	167	10, slt.-r : 8, s.-cu : 9, n, cu, ci,-cu	6,cu,s.-cu,ci.-cu,ci.-s: 2,p.-cl,s.-cu: 1, th.-cl, lu.-ha
23	1·1	10·2	Calm : ESE : SE	SE : ESE	1·0	0·03	152	th.-cl,lu.-ha : 8,ci.-cu,s.-cu : 8, cu, ci.-cu	10, n : 10, r : 10, r
24	0·0	10·2	ESE : E	E : ENE	7·2	0·36	321	10, r : 10, n, r : 10, r	10, n, r : 10, w
25	1·5	10·1	NE : ENE	ENE : NE	12·5	1·22	600	10, w : 9, cu, cu.-n : 10, st.-w	10,cu.-n,slt.-r: 10, n, r : v.-cl, w
26	2·0	10·0	NNE	N	2·8	0·33	353	lu.-ha, w : 5,cu,s.-cu,ci.-cu: 10, cu, cu.-n	10, cu, cu.-n, slt.-r : 9, cu, cu.-n : 10
27	0·0	10·0	N	W : WSW : SW	0·6	0·04	201	10, : 10, cu, n, r: 10, cu.-n	10, s.-cu, m : 10, m : 10, slt.-r
28	1·2	9·9	S : SSE : SSW	SSW : SW	3·6	0·14	253	10, r : 10, cu.-n, s, r	4, cu, ci : p.-cl, n, t : 1, p.-cl, s.-cu
29	4·4	9·8	SW : Calm	SW : Calm	0·2	0·00	122	p.-cl, f : 10, tk.-f : 3, th.-cl, ci.-s,s	2, th.-cl, ci.-s,h : 0, f : tk.-f
30	5·1	9·8	Calm	S : SE	0·4	0·03	121	tk.-f : tk.-f : 6, p.-cl, f	1, p.-cl, cu : p.-cl : 0
31	0·0	9·7	ESE : SE	ESE : SE : E	3·9	0·36	351	10, : 10,cu.-n,r : 10, r	6, cu, n : 10, r
Means	2·3	10·7	..	..	..	0·12	191		
Number of Column for Reference	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 46°·9, being 1°·0 *lower* than
The mean *Temperature of the Dew Point* for the month was 44°·6, being 1°·1 *lower* than
The mean *Degree of Humidity* for the month was 85·5, being 0·5 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·295, being 0in·012 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·4, being 0gr·1 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being 3 grains *greater* than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·213. The maximum daily amount of *Sunshine* was 8·8 hours on October 1.

The highest reading of the *Solar Radiation Thermometer* was 116°·1 on October 7; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°·5 on October 1.

The *Proportions of Wind* referred to the cardinal points were N. 7, E. 8, S. 5, W. 3. Eight days were calm.

The Greatest *Pressure of the Wind* in the month was 12·5 lbs. on the square foot on October 25. The mean daily *Horizontal Movement of the Air* for the month was 191 miles; the greatest daily value was 600 miles on October 25; and the least daily value was 63 miles on October 15.

Rain (0in·005 or over) fell on 10 days in the month, amounting to 1in·419, as measured by gauge No. 6 partly sunk below the ground; being 1in·363 *less* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Of the Air. Lowest.	Of the Air. Daily Range.	Of the Air. Mean of 24 Hourly Values.	Of the Air. Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100.)	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Of Radiation. Lowest on the Grass.	Of the Earth 3 ft. 2 in. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Nov. 1	..	29·217	49·6	43·7	5·9	47·5	+ 0·5	46·4	45·1	2·4	5·8	0·8	92	54·8	40·5	51·36	0·861	wwN : wN, wwP : wP
2	..	29·492	48·0	37·4	10·6	42·6	− 4·2	40·3	37·5	5·1	8·9	3·9	83	74·6	31·1	51·10	0·000	wP
3	In Equator	29·588	46·5	34·5	12·0	40·2	− 6·4	38·1	35·4	4·8	7·8	2·5	84	73·1	28·0	51·10	0·001*	wP
4	..	29·715	49·1	37·9	11·2	43·3	− 3·1	41·4	39·2	4·1	8·3	0·0	84	71·1	30·0	51·07	0·002	wP
5	..	29·840	47·9	36·2	11·7	40·4	− 5·7	38·6	36·3	4·1	9·4	1·5	85	75·5	29·8	50·40	0·001	mP
6	..	29·993	48·7	35·5	13·2	41·0	− 4·8	39·6	37·8	3·2	10·2	0·5	88	64·8	27·5	50·12	0·002*	mP : wP : wP
7	New	29·913	46·6	32·5	14·1	41·1	− 4·3	40·0	38·6	2·5	6·1	0·5	91	54·9	27·1	49·84	0·000	mP : mP : wP
8	Perigee	29·658	51·1	41·3	9·8	46·0	+ 1·0	44·5	42·8	3·2	8·1	0·7	90	74·0	34·5	49·72	0·000	wP
9	Greatest Dec. S.	29·174	52·4	37·9	14·5	47·2	+ 2·6	45·3	43·2	4·0	7·4	2·2	87	60·0	32·3	49·61	0·332	wP : wwP
10	..	29·102	49·5	35·3	14·2	41·7	− 2·6	38·7	35·0	6·7	13·4	1·3	78	66·1	29·7	49·61	0·000	wwP : wP : mP
11	..	29·323	47·2	36·7	10·5	41·6	− 2·4	39·2	36·2	5·4	9·5	1·8	82	69·3	31·1	49·41	0·486	wP : mP : wP, wwP
12	..	28·630	58·1	43·3	14·8	49·4	+ 5·7	48·5	47·6	1·8	5·1	0·4	94	72·4	42·5	48·95	0·459	wwP : wwP : wP
13	First Quarter	29·130	45·8	35·0	10·8	40·5	− 3·0	37·2	33·0	7·5	12·8	1·7	74	57·2	31·6	48·71	0·036	vP : mP
14	..	29·553	40·2	31·6	8·6	35·6	− 7·7	33·2	29·5	6·1	11·8	1·4	78	54·2	26·9	48·69	0·001	mP
15	..	29·655	41·7	28·0	13·7	34·0	− 9·1	32·0	28·5	5·5	10·2	0·0	79	58·6	21·5	48·32	0·070	.. : mP : vP
16	In Equator	29·882	41·1	32·6	8·5	36·5	− 6·3	34·7	31·9	4·6	8·9	1·2	84	53·3	28·5	47·80	0·171	vP : mP
17	..	30·108	41·0	27·5	13·5	34·4	− 8·2	32·5	29·4	5·0	11·6	1·2	80	53·3	23·9	47·19	0·090	mP
18	..	30·112	39·8	27·4	12·4	33·0	− 9·4	32·4	31·2	1·8	3·9	0·8	93	40·2	23·0	46·64	0·054	mP : vP
19	..	30·274	42·5	30·1	12·4	37·5	− 4·8	35·1	31·7	5·8	9·9	3·0	80	62·9	24·0	46·23	0·000	mP
20	..	30·482	43·2	36·3	6·9	38·8	− 3·4	36·1	32·5	6·3	6·8	2·6	79	72·4	29·8	45·95	0·000	mP
21	Full	29·511	40·4	36·3	4·1	38·6	− 3·5	36·6	33·9	4·7	6·4	3·4	84	47·1	29·8	45·76	0·000	wP : mP
22	..	30·289	42·0	36·5	5·5	39·3	− 2·8	37·9	36·1	3·2	5·6	2·4	89	50·0	35·3	45·70	0·000	wP : mP
23	Greatest Dec. N. Apogee	30·149	42·4	31·1	11·3	36·8	− 5·2	36·0	34·9	1·9	4·3	0·8	93	40·9	30·7	45·61	0·004	mP
24	..	30·219	41·2	35·6	5·6	38·2	− 3·8	35·9	32·9	5·3	7·5	2·9	81	52·1	29·0	45·60	0·000	mP : ..
25	..	30·043	39·7	30·5	9·2	35·9	− 6·0	33·6	30·1	5·8	8·8	3·5	79	46·0	26·6	45·50	0·000	.. : sP : mP
26	..	30·001	39·1	27·7	11·4	34·6	− 7·2	32·5	29·1	5·5	8·4	0·9	79	54·8	21·5	45·40	0·000	mP : sP : sP
27	..	30·156	37·9	23·0	14·9	28·0	−13·7	27·1	23·4	4·6	12·7	3·1	82	38·8	18·1	45·00	0·000	sP
28	..	29·929	34·9	23·7	11·2	29·8	−11·7	28·9	26·1	3·7	6·8	0·0	85	47·0	19·2	44·60	0·000	wP : sP
29	Last Quarter	29·259	48·8	27·2	21·6	38·7	− 2·5	38·3	37·8	0·9	2·6	0·0	96	47·1	21·0	44·13	0·116	wP : wwP
30	..	29·087	47·8	41·9	5·9	44·5	+ 3·5	42·9	41·0	3·5	8·4	1·8	88	64·3	35·1	43·83	0·301	wwP : wP : wwP
Means	..	29·749	44·8	33·8	11·0	39·2	− 4·3	37·4	34·9	4·3	8·2	1·6	84·7	58·4	28·7	47·77	Sum 2·897	..
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

* Rainfall (Column 17). The amounts entered on November 3 and 6 were derived from frost and fog.

The mean reading of the *Barometer* for the month was 29in·749, being 0in·009 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 58°·1 on November 12; the lowest in the month was 23°·0 on November 27; and the range was 35°·1.
The mean of all the highest daily readings in the month was 44°·8, being 4°·2 *lower* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 33°·8, being 4°·1 *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 39°·2, being 4°·3 *lower* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as Deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Nov. 1	0·0	9·7	E : ENE : NE	NNE : N	5·5	0·46	464	10, r : 10, r, n : 10, cu.-n, c.-r	10, w, r : 10, slt.-r, v.-cl : 7, v.-cl
2	3·3	9·6	N : NNE	N : NNW	3·9	0·55	416	10, w : 7, cu, w : 9, cu, w	7, cu, cu.-n, w : p.-cl, w : 0, w
3	3·9	9·5	NNW : N	N	1·2	0·15	247	0, ho.-fr : 0, h : 5, cu, h	10, cu.-n : v.-cl : 0
4	0·5	9·5	N : NNE	NNE : N	3·1	0·24	334	v.-cl : 6, cu, h : 10, cu, cu.-n	10, cu.-n, s : 10, l : v.-cl
5	2·5	9·4	NNE : N	N : NNE	1·4	0·16	247	v.-cl : 10, s.-cu, cu.-n : 6, cu, s.-cu	4, cu, cu.-n : p.-cl : 0, h
6	0·1	9·4	NNE : N	NNE : Calm	1·0	0·03	142	10, m 10, m : 9, m	9, m : tk.-f
7	0·0	9·3	Calm : SW	WSW : SW	0·3	0·03	203	10, tk.-f : 10, n, m : 10, n, h	10, n, h : v.-cl, h : 10, h
8	1·3	9·3	WSW : SW	WSW : SW	2·0	0·12	296	10, m : 10, m	9, s.-cu, m, p.-cl : 2, p.-cl : 5, cu
9	0·0	9·2	SW	SSW : WSW : SW	6·5	0·56	457	9, : 10, w : 10, r, cu.-n, s	10, n, r : p.-cl : 0
10	3·4	9·2	SW : WSW	WSW : W	6·3	0·68	530	1, ho.-fr : 2, cu, ci.-s, w : 9, cu, cu.-n	2, cu, w : p.-cl : 0, w
11	3·2	9·1	WSW : SW	WSW : ESE : E	2·3	0·15	334	p.-cl : 3, h, ci, ci.-s : 1, th.-cl, ci	10, s : 10, r : 10, r
12	0·3	9·0	Calm : S	S : Calm	5·7	0·21	268	10, r : 10, m slt.-r : 10, cu.-n, r	10 : v.-cl, slt.-r : 8, oc.-r
13	2·1	9·0	Calm : NNW : NW	WNW ; WSW : SW	16·0	1·52	547	10, fq.-r, st.-w : 8, st.-w : 10, cu, w	0, w : 0, lu.-ha : 0
14	3·7	8·9	SW : W : WNW	NW : W : SW	0·7	0·04	214	th.-cl : 1, m, so.-ha : 2, p.-cl	4, cu : 0, m, fr : m, li.-cl
15	4·5	8·9	SW : SSW	SSW : Calm	0·6	0·00	203	0, ho.-fr : th.-cl, m : 1, th.-cl, m	1, cu, th.-cl : p.-cl, m : 10, r, sn
16	5·4	8·8	NW : NNE : N	NNW : NW	1·1	0·14	256	10, r, sn : 7, cu : 0, th.-cl	2, p.-cl, cu : 6, lu.-ha : 1, h
17	4·0	8·8	NW : W : SW	NNW : NW	0·8	0·03	155	p.-cl, ho.-fr, m : 1, th.-cl, m : 1, th.-cl, h	2, th.-cl, h : v.-cl, m : 7, m
18	0·0	8·7	NW : WSW	Calm : NW : NNE	2·0	0·04	158	9, m, ho.-fr : 10, f, glm : f, glm	9, cu, tk.-m : 10, r : 7, cu
19	5·5	8·7	NNE : NE	ENE : NE	2·1	0·10	242	m, ho.-fr : 5, cu : 2, s, ci.-cu	3, p.-cl, s.-cu, ci.-s : 10, cu : 10,
20	1·2	8·6	NNE : NE	NE : ENE : E	2·0	0·15	242	10 : 9, cu.-n : 9, cu, cu.-n	4, cu, cu.-n : 9 : 10
21	0·0	8·6	E : NNE : NE	E : NNE : NE	1·5	0·15	270	10 : 10, n : 10, n	10, n : 10
22	0·0	8·5	E : NNE : NE	N : NW	1·0	0·10	213	10 : 10, cu, s	10 : 10
23	0·0	8·5	NNW : N	Calm : N : NNE	1·6	0·06	158	10, m, f : 10, m	10, m : 10, slt.-r : 9, slt.-r
24	0·2	8·4	N	NNW : NW	1·7	0·18	255	10 : 10, cu, n : 8, cu.-n	10, cu, cu.-n : 10
25	0·0	8·4	NW : W : SW	SW : WNW : NW	1·0	0·08	228	10 : li.-cl, m, slt.-ho.-fr : p.-cl, m	8, m : p.-cl, m : 0, m
26	5·4	8·3	NW : NNW	N : NNE	2·6	0·23	277	v.-cl, lu.-ha, ho.-fr : 0, h : 2, p.-cl, cu	3, cu : 0, ho.-fr : 0, ho.-fr, h
27	2·2	8·3	Calm : N : Var.	ENE : E : Calm	0·2	0·00	104	0, ho.-fr, slt.-f : 1, th.-cl, m, ho.-fr	th.-cl, m : 0, ho.-fr : 0, m, ho.-fr
28	0·9	8·2	SE : SSE : S	S : SSE : SE	1·2	0·08	242	10, lu.-ha : 6, th.-cl, cu, cu.-s : 4, th.-cl, so.-ha	6, cu, cu.-s : 0 : 10, ho.-fr
29	0·0	8·2	SSE : SE	SE : S : SSW	0·9	0·05	205	10 : 10, slt.-r : 10, r, n	10, c.-r : 10, slt.-r : 10, r
30	1·5	8·2	SSW : S	SSW : S	2·0	0·19	347	10, oc.-r : 6, cu.-n, cu, th.-cl : 2, cu, s.-cu	9, cu.-n, s : 10, c.-r : 9, slt.-r
Means	1·8	8·9	..	..	..	0·22	275		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 37°·4, being 4°·5 *lower* than
The mean *Temperature of the Dew Point* for the month was 34°·9, being 5°·1 *lower* than
The mean *Degree of Humidity* for the month was 84·7, being 2·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·203, being 0in·044 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·4, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 553 grains, being 5 grains *greater* than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·207. The maximum daily amount of *Sunshine* was 5·5 hours on November 19.

The highest reading of the *Solar Radiation Thermometer* was 74°·6 on November 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°·1 on November 27.

The *Proportions of Wind* referred to the cardinal points were N. 11, E. 3, S. 6, W. 7. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 16·0 lbs. on the square foot on November 13. The mean daily *Horizontal Movement of the Air* for the month was 275 miles; the greatest daily value was 547 miles on November 13; and the least daily value was 104 miles on November 27.

Rain (0in·005 or over) fell on 10 days in the month, amounting to 2in·897, as measured by gauge No. 6 partly sunk below the ground; being 0in·677 *greater* than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Phases of the Moon.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
		Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 3 ft. 2 in. 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.			
		in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	
Dec. 1	In Equator	29·054	48·1	40·1	8·0	44·9	+ 4·0	42·3	39·3	5·6	5·8	1·1	81	53·1	31·0	44·00	0·420	wwP
2	..	29·427	46·5	40·2	6·3	43·0	+ 2·1	41·6	39·9	3·1	5·0	2·5	89	52·7	33·5	44·21	0·000	wwP : wP : wwP
3	..	29·404	50·1	40·4	9·7	44·7	+ 3·6	43·8	42·8	1·9	5·0	0·7	93	52·2	37·1	44·37	0·233	wwN : wwP : wP
4	..	29·188	55·4	44·8	10·6	50·5	+ 9·2	49·2	47·8	2·7	6·5	1·3	90	59·3	39·5	44·52	0·574	wwN : wwP : wwN
5	..	29·295	51·8	40·2	11·6	45·9	+ 4·4	44·6	43·1	2·8	7·2	0·6	91	74·8	34·8	44·84	0·169	wwP : wP : wwP
6	New	28·944	52·8	45·8	7·0	50·3	+ 8·8	48·0	45·6	4·7	9·5	1·8	84	66·4	39·3	45·40	0·279	wwN : wP : wP
7	Perigee : Greatest Dec. S.	29·229	51·5	44·0	7·5	48·0	+ 6·7	45·5	42·5	5·5	9·1	1·0	83	59·0	36·3	45·70	0·145	wP
8	..	29·413	49·6	35·1	14·5	44·4	+ 3·4	41·1	37·3	7·1	11·3	3·4	76	62·7	29·1	45·90	0·000	wP : wP : mP
9	..	29·463	54·3	30·7	23·6	40·6	0·0	39·4	38·1	2·5	11·2	1·7	94	50·6	27·2	45·90	0·612	mP : wP, wN : wwP
10	..	29·255	56·4	47·7	8·7	53·4	+13·0	50·7	48·0	5·4	10·2	2·2	82	67·0	42·2	45·55	0·041	wwP
11	..	29·293	50·0	37·4	12·6	45·1	+ 4·9	42·8	40·2	4·9	9·1	2·1	83	62·5	31·1	45·80	0·191	wwP : wP : mP
12	..	29·605	37·4	32·1	5·3	33·7	− 6·6	31·5	27·4	6·3	10·5	3·2	77	41·0	25·5	45·97	0·008	mP : mP : sP
13	First Quarter : In Equator	30·119	36·8	29·2	7·6	33·5	− 7·0	31·6	28·1	5·4	9·6	1·4	80	41·4	20·0	45·70	0·001	mP : sP
14	..	29·975	45·6	31·7	13·9	39·5	− 1·2	38·1	36·2	3·3	6·2	1·7	87	45·8	26·4	45·10	0·128	mP : wP : wwP
15	..	29·462	45·3	42·7	2·6	44·3	+ 3·5	43·2	41·9	2·4	3·5	1·5	92	47·0	38·2	44·60	0·297	wwP
16	..	29·376	47·6	38·2	9·4	42·3	+ 1·6	41·2	39·8	2·5	6·4	1·5	89	58·2	30·2	44·50	0·092	wP
17	..	29·539	43·7	38·7	5·0	41·5	+ 1·1	40·6	39·5	2·0	3·5	1·3	93	52·0	31·9	44·56	0·030	wwP : wP
18	..	29·886	43·8	36·1	7·7	40·2	+ 0·2	39·0	37·5	2·7	4·8	1·6	90	49·0	33·4	44·60	0·000	wP : mP
19	..	30·224	40·2	30·2	10·0	36·1	− 3·4	34·6	32·4	3·7	6·8	3·2	86	47·1	24·3	44·55	0·000	wP : mP
20	Greatest Dec. N.	30·116	39·1	33·1	6·0	36·6	− 2·4	34·7	32·0	4·6	6·7	2·4	84	45·6	29·6	44·40	0·022	mP : wP
21	Apogee : Full	29·778	47·9	35·5	12·4	43·1	+ 4·4	41·7	40·0	3·1	7·0	0·9	89	46·8	33·0	44·15	0·233	wN : wP
22	..	29·616	49·8	39·2	10·6	45·6	+ 7·2	44·1	42·3	3·3	4·8	1·1	89	54·7	31·0	44·00	0·061	wP
23	..	29·165	49·3	42·2	7·1	45·7	+ 7·5	43·5	41·1	4·6	7·4	1·1	84	61·8	36·0	44·05	0·131	wwP : wP
24	..	28·795	52·0	43·3	8·7	47·6	+ 9·4	46·1	44·4	3·2	5·4	0·9	90	50·0	41·0	44·30	0·588	wP, wwN : wP : wwP
25	..	28·839	49·2	41·0	8·2	45·4	+ 7·0	43·7	41·8	3·6	5·7	2·2	88	69·0	32·0	44·51	0·305	wwP : wP
26	..	29·325	50·0	40·1	9·9	45·5	+ 6·9	43·2	40·5	5·0	9·2	1·3	83	68·4	30·9	44·71	0·144	wwP : wP
27	..	29·324	54·3	43·2	11·1	50·0	+11·2	46·5	42·8	7·2	13·4	0·9	77	64·6	41·8	44·80	0·270	wwP : wP
28	In Equator	29·614	49·5	43·4	6·1	46·5	+ 7·6	43·3	39·6	6·9	10·0	3·2	78	64·4	37·4	45·00	0·004	wP
29	Last Quarter	29·501	46·7	42·9	3·8	45·3	+ 6·3	44·2	42·9	2·4	3·0	1·3	92	49·2	35·1	45·20	0·005	wP
30	..	29·599	51·2	43·1	8·1	46·9	+ 8·0	45·1	43·1	3·8	6·1	2·1	88	63·3	35·7	45·30	0·002	wP
31	..	29·505	52·0	47·0	5·0	49·3	+10·6	46·9	43·3	6·0	7·3	3·5	83	54·0	41·6	45·40	0·219	wwP : wwN, wwP : wP
Means	..	29·462	48·3	39·3	9·0	44·2	+ 4·3	42·3	40·0	4·1	7·3	1·8	86·0	55·9	33·4	44·88	Sum 5·204	
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

The mean reading of the Barometer (Column 2) and the mean temperatures of the Air and Evaporation (Columns 6 and 8) are deduced from the photographic records. The average temperature (Column 7) is deduced from the 65 years' observations, 1841–1905. The temperature of the Dew Point (Column 9) and the Degree of Humidity (Column 13) 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 10) is the difference between the numbers in Columns 6 and 9, and the Greatest and Least Differences (Columns 11 and 12) are deduced from the 24 hourly photographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 16 are taken daily at noon.

The values given in Columns 3, 4, 5, 14, and 15 are derived from eye-readings of self-registering thermometers.

The mean reading of the *Barometer* for the month was 29$^{\text{in}}$·462, being 0$^{\text{in}}$·323 *lower* than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·4 on December 10; the lowest in the month was 29°·2 on December 13; and the range was 27°·2.
The mean of all the highest daily readings in the month was 48°·3, being 4°·1 *higher* than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 39°·3, being 4°·3 *higher* than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 9°·0, being 0°·2 *less* than the average for the 65 years, 1841–1905.
The mean for the month was 44°·2, being 4°·3 *higher* than the average for the 65 years, 1841–1905.

MONTH and DAY, 1915.	Daily Duration of Sunshine.	Sun above Horizon.	Wind as deduced from Self-Registering Anemometers. Osler's. General Direction. A.M.	Osler's. General Direction. P.M.	Osler's. Pressure on the Square Foot. Greatest.	Osler's. Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.	hours.			lbs.	lbs.	miles.		
Dec. 1	0·3	8·1	S : SSW	S : SSW : SW	9·8	0·56	426	9, oc.-r : 10, cu, n : 10, cu.-n, r	7, fq.-r : v.-cl, oc.-slt.-r, w : 8, w
2	1·4	8·1	SW : WSW	Calm : E : ENE	3·1	0·10	239	10 : 5, m th.-cl : 6, th.-cl, so.-ha	10, m : 5, p.-cl, m : 10, h
3	0·0	8·1	ENE : E	E : SW	3·9	0·25	336	10 : 10, r, m : 10, n, m	10, n, slt.-r, m : 5, p.-cl, cu : v.-cl, w
4	0·0	8·1	SW : SSW : SSE	SSE : SE : SW	9·5	0·62	447	10, r : 10, n, m : 10, n, cu.-n, s.-cu	10, cu.-n : 10, cu.-n, slt.-r, w : 10, w
5	2·2	8·0	WSW : WNW : Calm	SE : ESE	6·5	0·22	261	10 : p.-cl, ci : 7, cu, ci.-s	10, cu.-n, s : 10, r : 10, slt.-r
6	2·7	8·0	SSE : S : SW	SW : SSW	18·9	0·99	557	10, fq.-r, w : 10, cu.-n, w : 4, cu, st.-w	10, slt.-r : 1, p.-cl, th.-cl : 1, li.-cl, w
7	0·1	8·0	SW : SSW	SSW : SW : W	8·0	0·60	473	w : 7, cu : 7, cu, slt.-r	9, oc.-slt.-r : 10, fq.-r : 10, r
8	5·2	8·0	W : WSW : SW	WSW : NW : N	4·3	0·54	449	1, w : 0, th.-cl : 3, th.-cl, w	8, cu, cu.-n : p.-cl : 0, h, slt.-m
9	0·0	7·9	Calm : ENE : E	E : ESE : SW	3·0	0·12	256	v.-cl, ho.-fr : 10, slt.-m : 10, n, s, r, m	10, n, r, m : 3 : 10
10	1·0	7·9	SW : SSW	SW	13·0	0·98	580	10 : 10, slt.-r : 10, cu, cu.-n, w	6, w, so.-ha : p.-cl, w : 10, s, n
11	2·9	7·9	SSW : WSW : NW	SW : WSW	7·0	0·53	420	10, r : 10, r, s : 7, cu, w	10, slt.-r : 2, cu : 0
12	0·0	7·9	WSW : NW : N	N : NNW : NW	3·1	0·28	315	1, ho.-fr : v.-cl, ho.-fr : 3, v.-cl, sn	10 : 7, cu : 3, cu
13	1·3	7·8	NW : WNW : W	NW : WNW : WSW	2·6	0·23	318	0, ho.-fr : 0, th.-cl, m : 3, m, ci, th.-cl	4, th.-cl, cu, s : th.-cl, lu.-ha : 0, th.-cl, m
14	0·0	7·8	SW : SSW	SSW	4·1	0·38	440	th.-cl, m, slt.-ho.-fr : 9, m : 10, n, slt.-r	10, slt.-r : 10, cu.-n, slt.-r : 10, slt.-r
15	0·0	7·8	SSW : S	S : SSW	4·2	0·52	457	10, r : 10, cu.-n, slt.-r : 10, slt.-r	10, cu.-n, slt.-r : 10 : p.-cl, lu.-ha
16	3·8	7·8	S : SSW	S	1·0	0·06	244	v.-cl, r : 3, p.-cl, cu, s.-cu, ci.-cu : 7	9, slt.-r, cu.-n, cu : v.-cl, oc.-slt.-r : 6, lu.-ha, r
17	0·0	7·8	S : SE : Calm	Calm : NNE : N	1·2	0·05	155	10, oc.-r : 10 : 7, cu, cu.-n, m	10, th.-cl, so.-ha, m : 10, lu.-ha, m : 10
18	0·0	7·8	N	NNE	2·9	0·30	333	10 : 10, slt.-m : 10, cu.-n, m	10, slt.-m : 10, m : 10
19	2·2	7·8	NNE : NE : Calm	N : NNE	1·0	0·09	174	1, ho.-fr : 2, p.-cl, ..cthl, h : 3, p.-cl	5, p.-cl, ci, s.-cu, h : 10, lu.-ha : 10
20	0·0	7·8	N : NW : WSW	NNW : N : SW	0·5	0·03	167	10 10, s : 10, cu, cu.-n	7, cu : 10, tk.-m : slt.-r
21	0·0	7·8	SSW : WSW	W : NW	1·8	0·18	346	10, r : 10, m, slt.-r : 10, cu.-n, m	10, cu.-n, m : 9, slt.-m : th.-cl
22	0·0	7·8	NW : W : WSW	WSW : SW : SSW	3·3	0·14	305	v.-cl, lu.-ha, slt.-r : 10, n, r, m : 9, slt.-r, m	10, slt.-r, slt.-m : 9, s.-cu, lu.-ha : 9
23	3·1	7·8	SSW : SW	SW : SSW	4·1	0·39	410	v.-cl, slt.-r, lu.-ha : 1, th.-cl, ci, ci.-s : 5, cu, s.-cu	7, cu, ci.-s, slt.-r : 10, sh.-r : 10, r
24	0·8	7·8	Calm : SSW	SSW : S	4·9	0·36	389	10, r : 2, p.-cl, cu : 9, fq.-r	8, cu, r : 10, fq.-r : 9, fq.-hy.-r
25	1·0	7·8	SSE	SSE : S	3·0	0·24	356	9, fq.-r : 10, cu.-n : 6, c.-r	9, fq.-r : 7, v.-cl : 0
26	4·4	7·8	SSW : SW	SW : S : E	9·4	0·48	436	9, lu.-ha : 4, p.-cl, cu : 6, cu	7, cu.-ci, cu.-s : v.-cl, slt.-r : 10, r
27	0·9	7·8	ESE : S	SSW	31·0	2·99	829	10, c.-r : 10, r, w : 7, cu, cu.-n	6, v.-cl, g : 10, sh.-r, g : 10, g
28	2·3	7·8	SW : SSW	SSW : Calm : E	11·0	0·57	388	v.-cl, st.-w : 3, th.-cl : 8, cu.-n, cu	9, s : 9, slt.-m, slt.-r : 8, slt.-m
29	0·0	7·8	ENE	E : Calm : S	2·9	0·11	251	10 : 10, n, h	10, h, sh.-r : 10, slt.-r : 2, p.-cl
30	0·1	7·8	S : SSE	SSE : SE	2·3	0·18	338	v.-cl : 8, cu : 10	10, slt.-r : p.-cl, slt.-r : 10
31	0·0	7·8	SSE	S : SSW	9·7	0·89	549	10, slt.-r : 9, cu.-n : 10, c.-r	7, fq.-r, cu, cu.-n : 5, th.-cl : 9
Means	1·2	7·9	. .	. .	. .	0·45	376		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27

The mean *Temperature of Evaporation* for the month was 42°·3, being 3°·8 *higher* than
The mean *Temperature of the Dew Point* for the month was 40°·0, being 3°·3 *higher than*
The mean *Degree of Humidity* for the month was 86·0, being 2·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·247, being 0in·029 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·8, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 542 grains, being 10 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 7·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·146. The maximum daily amount of *Sunshine* was 5·2 hours on December 8.

The highest reading of the *Solar Radiation Thermometer* was 74°·8 on December 5; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°·0 on December 13.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 3, S. 15, W. 8. Two days were calm.

The *Greatest Pressure of the Wind* in the month was 31·0 lbs. on the square foot on December 27. The mean daily *Horizontal Movement of the Air* for the month was 376 miles; the greatest daily value was 829 miles on December 27; and the least daily value was 155 miles on December 17.

Rain (0in·005 or over) fell on 24 days in the month, amounting to 5in·204, as measured by gauge No. 6 partly sunk below the ground; being 3in·377 *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. Greenwich Civil Time, 1915.	MAXIMA. Reading.	MINIMA. Greenwich Civil Time, 1915.	MINIMA. Reading.
January		**January**	
d h m	in.	d h m	in.
		1. 21. 50	28·548
2. 17. 50	28·821	3. 16. 25	28·525
6. 11. 5	29·727	7. 19. 25	29·073
8. 6. 25	29·318	9. 5. 0	29·120
10. 9. 30	29·638	11. 0. 35	29·105
12. 22. 40	29·966	13. 12. 15	29·800
14. 10. 5	29·910	16. 3. 0	29·012
18. 23. 0	30·313	21. 14. 5	28·820
24. 10. 30	29·550	27. 5. 50	29·374
30. 10. 45	29·804	31. 10. 0	29·393
February		**February**	
1. 18. 20	29·820	2. 18. 15	29·487
3. 6. 55	29·755	4. 5. 0	29·575
5. 9. 15	29·673	6. 14. 45	29·277
7. 9. 5	29·671	7. 22. 20	29·278
8. 10. 20	29·599	9. 7. 15	29·189
11. 9. 30	29·436	13. 20. 30	28·469
16. 11. 15	29·983	18. 21. 30	28·930
21. 10. 0	29·173	22. 6. 0	29·008
26. 7. 15	30·279		
March		**March**	
		1. 10. 35	29·335
2. 22. 35	29·817	3. 6. 35	29·692
5. 8. 50	29·951	6. 15. 30	29·774
6. 23. 30	29·868	7. 16. 10	29·748
9. 10. 50	30·256	11. 15. 10	29·745
15. 1. 0	30·078	19. 3. 5	29·135
21. 10. 10	30·019	23. 6. 30	29·690
25. 21. 5	29·968	27. 15. 30	29·521
April		**April**	
2. 0. 30	30·200	7. 3. 0	28·904
11. 22. 40	30·141	14. 4. 0	29·901
16. 7. 20	30·045	16. 16. 25	29·967
17. 21. 0	30·129	20. 13. 15	29·718
21. 23. 45	30·009	22. 17. 30	29·916
23. 22. 30	30·005	24. 16. 35	29·873
27. 7. 40	30·130		

MAXIMA. Greenwich Civil Time, 1915.	MAXIMA. Reading.	MINIMA. Greenwich Civil Time, 1915.	MINIMA. Reading.
May		**May**	
d h m	in.	d h m	in.
		2. 4. 30	29·576
3. 10. 10	30·008	5. 16. 35	29·724
9. 21. 55	30·268	13. 23. 55	29·375
15. 8. 10	30·038	18. 1. 40	29·493
23. 22. 20	30·080	26. 16. 10	29·795
27. 22. 15	29·983	29. 16. 5	29·548
31. 7. 0	30·025		
June		**June**	
		2. 17. 30	29·838
4. 21. 10	30·070	8. 18. 15	29·664
12. 9. 45	30·095	13. 17. 5	29·986
15. 10. 30	30·060	16. 19. 10	29·936
17. 23. 5	30·056	21. 14. 55	29·722
22. 19. 10	29·870	29. 16. 40	29·548
July		**July**	
2. 8. 30	30·084	5. 1. 0	29·684
5. 23. 15	29·854	7. 12. 55	29·339
9. 9. 15	29·975	12. 10. 5	29·613
12. 23. 0	29·698	13. 19. 15	29·540
14. 9. 40	29·630	15. 1. 5	29·437
16. 0. 10	29·597	17. 1. 5	29·121
18. 22. 0	30·039	20. 12. 0	29·745
21. 7. 0	29·836	23. 12. 20	29·337
26. 21. 0	29·678	27. 14. 30	29·552
30. 0. 15	29·984		
August		**August**	
		3. 0. 25	29·302
5. 8. 0	29·840	6. 5. 20	29·702
7. 8. 30	29·921	10. 11. 0	29·805
11. 9. 50	29·881	13. 18. 10	29·696
23. 9. 15	30·165	29. 5. 15	29·551
31. 9. 55	29·982		

MAXIMA. Greenwich Civil Time, 1915.	MAXIMA. Reading.	MINIMA. Greenwich Civil Time, 1915.	MINIMA. Reading.
September		**September**	
d h m	in.	d h m	in.
		2. 4. 50	29·479
6. 9. 30	30·220	13. 15. 5	29·727
16. 21. 15	30·197	18. 16. 30	30·013
19. 9. 50	30·094	24. 20. 40	29·328
25. 1. 5	29·420	26. 16. 30	29·222
28. 1. 10	29·567	29. 0. 50	29·200
October		**October**	
4. 0. 15	30·166	6. 3. 0	30·011
6. 22. 45	30·088	11. 16. 30	29·615
14. 10. 30	30·006	16. 4. 45	29·900
18. 21. 50	30·173	21. 14. 55	29·861
22. 10. 40	29·992	24. 16. 30	29·665
26. 10. 30	30·110	28. 14. 30	29·275
30. 8. 15	29·746		
November		**November**	
		1. 3. 30	29·094
6. 10. 15	30·028	10. 3. 30	28·988
11. 10. 50	29·453	13. 0. 5	28·486
18. 1. 45	30·147	18. 16. 10	30·053
21. 0. 5	30·587	23. 5. 10	30·101
24. 10. 20	30·249	26. 4. 0	29·941
27. 10. 30	30·174	30. 0. 15	29·000
30. 22. 45	29·154		
December		**December**	
		1. 13. 55	28·945
2. 21. 0	29·539	4. 20. 30	28·995
5. 10. 15	29·431	6. 8. 30	28·345
7. 9. 55	29·362	7. 22. 10	29·077
9. 2. 0	29·696	9. 19. 5	29·182
10. 22. 5	29·375	11. 5. 55	29·185
13. 21. 10	30·186	15. 20. 50	29·310
19. 10. 15	30·262	24. 15. 15	28·749
26. 18. 0	29·579	27. 16. 30	29·250
28. 15. 45	29·684	29. 14. 55	29·416
30. 20. 0	29·656	31. 14. 0	29·414

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^h to 24^h.
The height of the barometer cistern above mean sea level is 159 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 1915.

	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	30·313	30·279	30·256	30·200	30·268	30·095	30·084	30·165	30·220	30·173	30·587	30·262
Lowest	28·821	28·469	29·135	28·904	29·375	29·548	29·121	29·302	29·200	29·109	28·486	28·345
Range	1·492	1·810	1·121	1·296	0·893	0·547	0·963	0·863	1·020	1·064	2·101	1·917

The highest reading in the year was $30^{in}·587$ on November 21. The lowest reading in the year was $28^{in}·345$ on December 6. The range of reading in the year was $2^{in}·242$.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1915.

MONTH, 1915.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR. 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 Average of 65 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January ..	29·440	53·2	22·3	30·9	43·6	35·7	7·9	39·7	+ 1·1	37·9	35·5	85
February ..	29·451	52·3	25·6	26·7	46·4	35·0	11·4	40·5	+ 1·0	38·3	35·3	82
March	29·806	59·3	25·9	33·4	48·1	35·7	12·4	41·5	− 0·4	38·9	35·5	80
April	29·879	72·4	28·6	43·8	55·4	38·2	17·2	46·5	− 0·8	42·4	37·9	73
May	29·842	75·7	34·0	41·7	63·9	43·4	20·4	53·2	+ 0·1	48·8	44·5	73
June......	29·859	87·2	36·6	50·6	70·6	49·0	21·5	58·6	− 0·9	53·8	49·5	72
July	29·723	87·1	45·2	41·9	71·4	52·7	18·7	60·6	− 2·1	56·3	52·7	76
August....	29·826	77·3	43·6	33·7	71·4	53·8	17·6	60·9	− 0·7	57·2	53·9	78
September..	29·827	79·0	36·8	42·2	67·7	48·2	19·5	57·1	− 0·1	53·1	49·4	76
October ...	29·853	67·9	32·1	35·8	56·8	42·6	14·2	49·0	− 1·0	46·9	44·6	85
November .	29·749	58·1	23·0	35·1	44·8	33·8	11·0	39·2	− 4·3	37·4	34·9	85
December .	29·462	56·4	29·2	27·2	48·3	39·3	9·0	44·2	+ 4·3	42·3	40·0	86
Means	29·726	Highest 87·2	Lowest 22·3	Annual Range 64·9	57·4	42·3	15·1	49·3	− 0·3	46·1	42·8	79·3

MONTH, 1915.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean Weight of a Cubic Foot of Air.	Mean Temperature at Noon of the Earth 3 ft. 2 in. below the surface of the Soil.	Mean Amount of Cloud (0–10.)	RAIN. Number of Rainy Days (0·005 or over).	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	WIND. From Osler's Anemometer. Number of Hours of Prevalence of each Wind referred to different Points of Azimuth. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.	From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.
	in.	grs.	grs.	°			in.	h	h	h	h	h	h	h	h	h	lbs.	miles.
January ..	0·208	2·4	546	43·26	7·9	21	3·668	57	53	20	25	84	259	94	73	79	0·41	357
February..	0·206	2·4	546	42·08	7·2	15	3·171	21	10	16	139	196	124	32	69	65	0·45	352
March	0·208	2·4	551	42·63	7·9	14	0·796	99	106	28	12	69	166	49	85	130	0·28	276
April	0·228	2·6	547	44·65	6·6	13	1·223	96	121	54	15	50	170	69	40	105	0·30	298
May	0·294	3·3	539	50·95	5·3	8	3·279	88	257	152	40	36	56	18	8	89	0·25	266
June	0·355	4·0	533	57·50	5·3	9	0·561	45	130	168	11	63	137	17	7	142	0·09	215
July......	0·399	4·4	528	60·53	7·0	15	3·080	37	0	5	7	115	313	166	41	60	0·14	284
August ...	0·416	4·7	529	61·63	6·7	13	3·210	84	26	14	20	75	179	118	40	188	0·06	196
September	0·353	3·9	534	59·70	5·0	7	2·020	107	23	165	29	42	204	61	30	59	0·15	233
October...	0·295	3·4	543	54·95	4·0	10	1·419	117	91	128	80	48	63	13	8	196	0·11	191
November.	0·203	2·4	553	47·77	5·2	10	2·897	169	103	25	23	63	124	66	72	75	0·22	275
December.	0·247	2·8	542	44·88	7·5	24	5·204	53	29	42	48	214	208	64	36	50	0·45	376
Sums	..	..	..	..	..	159	30·528	973	949	817	449	1055	2003	767	509	1238	..	..
Means	0·284	3·2	541	50·88	6·3	..	..	..	..	..	..	..	..	..	..	..	0·24	277

The greatest recorded pressure of the wind on the square foot in the year was 31·0 lbs. on December 27.
The greatest recorded daily horizontal movement of the air in the year was 829 miles on December 27.
The least recorded daily horizontal movement of the air in the year was 63 miles on October 15.

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

Hour, Greenwich Civil Time.	1915. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midnight	29·440	29·455	29·808	29·894	29·850	29·874	29·725	29·830	29·832	29·869	29·745	29·466	29·732
1h	29·432	29·457	29·806	29·889	29·845	29·869	29·721	29·826	29·830	29·865	29·740	29·464	29·729
2	29·434	29·458	29·800	29·884	29·839	29·865	29·718	29·823	29·828	29·859	29·739	29·470	29·726
3	29·434	29·451	29·792	29·879	29·834	29·862	29·717	29·819	29·824	29·852	29·737	29·470	29·723
4	29·433	29·447	29·791	29·878	29·833	29·861	29·718	29·815	29·822	29·849	29·737	29·463	29·721
5	29·429	29·447	29·789	29·879	29·836	29·863	29·723	29·816	29·823	29·847	29·739	29·459	29·721
6	29·432	29·447	29·791	29·886	29·839	29·867	29·729	29·821	29·828	29·849	29·743	29·459	29·724
7	29·438	29·452	29·799	29·892	29·844	29·871	29·733	29·828	29·833	29·855	29·751	29·461	29·730
8	29·445	29·457	29·805	29·897	29·850	29·873	29·735	29·831	29·838	29·861	29·760	29·466	29·735
9	29·453	29·460	29·808	29·899	29·851	29·871	29·735	29·834	29·843	29·863	29·767	29·472	29·738
10	29·454	29·463	29·811	29·896	29·851	29·869	29·734	29·835	29·842	29·863	29·771	29·475	29·739
11	29·451	29·465	29·813	29·890	29·850	29·864	29·729	29·831	29·838	29·859	29·766	29·469	29·735
Noon	29·442	29·461	29·810	29·884	29·846	29·860	29·726	29·829	29·834	29·853	29·757	29·459	29·730
13h	29·433	29·454	29·804	29·877	29·841	29·854	29·721	29·827	29·829	29·846	29·749	29·449	29·724
14	29·430	29·447	29·799	29·868	29·836	29·848	29·721	29·824	29·824	29·843	29·743	29·442	29·719
15	29·433	29·443	29·795	29·860	29·831	29·841	29·718	29·819	29·817	29·837	29·741	29·444	29·715
16	29·435	29·444	29·793	29·855	29·827	29·837	29·714	29·817	29·813	29·835	29·742	29·447	29·713
17	29·439	29·443	29·796	29·853	29·827	29·835	29·714	29·815	29·812	29·841	29·747	29·452	29·715
18	29·441	29·447	29·806	29·857	29·830	29·837	29·714	29·815	29·813	29·849	29·750	29·453	29·718
19	29·444	29·447	29·813	29·863	29·835	29·843	29·714	29·820	29·817	29·852	29·753	29·460	29·722
20	29·448	29·443	29·819	29·874	29·845	29·850	29·719	29·828	29·822	29·854	29·753	29·465	29·727
21	29·450	29·442	29·826	29·881	29·855	29·861	29·725	29·835	29·825	29·856	29·754	29·473	29·732
22	29·450	29·442	29·828	29·885	29·858	29·864	29·724	29·837	29·827	29·855	29·752	29·475	29·733
23	29·449	29·445	29·829	29·885	29·858	29·867	29·723	29·838	29·828	29·852	29·749	29·479	29·733
24	29·446	29·450	29·829	29·886	29·855	29·868	29·721	29·837	29·827	29·849	29·746	29·480	29·733
Means 0h.–23h.	29·440	29·451	29·805	29·879	29·842	29·859	29·723	29·826	29·827	29·853	29·749	29·462	29·726
Means 1h.–24h.	29·440	29·451	29·807	29·879	29·843	29·859	29·723	29·826	29·826	29·852	29·750	29·462	29·726
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.	1915. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	39·1	39·2	39·0	42·4	47·7	52·2	56·2	56·8	52·8	45·8	37·6	43·4	46·0
1h	38·7	38·7	38·5	41·6	46·7	51·5	55·4	56·1	52·2	45·3	37·4	43·0	45·4
2	38·4	38·2	38·2	41·0	45·9	50·9	54·7	55·8	51·4	45·1	36·9	42·7	44·9
3	37·9	37·7	37·8	40·5	45·2	50·3	54·2	55·3	50·7	44·7	36·5	42·4	44·4
4	37·7	37·3	37·6	39·9	44·7	49·9	53·6	55·0	50·2	44·7	36·2	42·1	44·1
5	37·6	37·0	37·5	39·4	44·9	50·2	53·6	54·8	49·9	44·8	36·0	42·4	44·0
6	37·6	37·2	37·7	39·6	46·4	51·9	54·8	55·7	49·8	45·2	35·9	42·3	44·5
7	37·9	37·7	38·6	41·8	48·8	54·4	57·1	57·6	52·5	46·0	36·3	42·6	45·9
8	38·1	38·5	40·3	44·2	52·2	57·9	60·0	60·2	55·6	47·6	37·0	42·8	47·9
9	38·6	39·6	41·9	47·8	55·7	61·3	62·6	62·9	59·1	49·8	37·9	43·3	50·0
10	39·4	41·2	42·9	49·8	57·9	63·5	64·2	64·8	61·7	51·4	39·0	44·2	51·7
11	40·4	42·7	43·8	51·5	59·6	65·5	65·6	65·7	63·6	53·3	40·8	45·2	53·1
Noon	41·4	43·9	44·5	52·4	60·9	66·8	66·2	66·8	64·9	54·4	42·4	46·1	54·2
13h	41·9	44·6	45·5	52·9	61·6	67·5	67·1	67·5	65·7	55·2	43·1	46·3	54·9
14	42·2	44·7	45·8	53·4	61·6	67·9	66·9	67·2	65·5	54·9	43·4	46·3	55·0
15	42·0	44·7	46·1	53·1	61·4	67·4	67·1	67·5	64·9	54·6	43·0	46·0	54·8
16	41·7	43·7	45·6	52·4	60·5	66·4	66·3	66·5	63·3	53·3	42·3	45·7	54·0
17	41·4	42·7	44·9	51·4	59·2	64·9	65·4	65·6	61·6	51·8	41·6	45·3	53·0
18	41·1	41·7	43·8	50·0	57·4	63·2	64·2	64·1	59·4	50·3	41·1	45·1	51·8
19	40·7	40·8	42·7	48·4	55·3	60·7	62·7	62·0	57·4	49·1	40·6	45·1	50·5
20	40·4	40·3	41·8	47·0	53·1	58·1	61·0	60·0	56·1	48·2	40·0	45·1	49·3
21	40·0	40·1	40·8	45·9	51·2	56·0	59·4	59·0	55·1	47·4	39·4	44·8	48·3
22	39·6	39·9	40·2	45·0	49·6	54·7	58·3	58·1	54·2	46·9	38·8	44·5	47·5
23	39·6	39·4	39·6	43·9	48·5	53·4	57·3	57·3	53·3	46·3	38·0	44·0	46·7
24	39·3	39·2	38·8	43·0	47·3	52·6	56·3	56·6	52·4	46·0	37·4	43·6	46·0
Means 0h.–23h.	39·7	40·5	41·5	46·5	53·2	58·6	60·6	60·9	57·1	49·0	39·2	44·2	49·2
Means 1h.–24h.	39·8	40·5	41·4	46·5	53·2	58·7	60·6	60·9	57·1	49·0	39·3	44·2	49·3
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.	1915.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	37·5	37·3	37·5	40·1	45·5	50·2	54·4	55·2	51·2	44·7	36·3	41·8	44·3
1^h	37·1	36·9	37·2	39·5	44·8	49·6	53·8	54·9	50·7	44·3	36·2	41·5	43·9
2	36·6	36·5	36·8	39·3	44·2	49·0	53·2	54·7	50·1	44·1	35·8	41·4	43·5
3	36·4	36·1	36·7	38·8	43·7	48·6	52·7	54·3	49·4	43·8	35·4	40·9	43·1
4	36·1	35·8	36·4	38·4	43·3	48·2	52·2	53·9	49·1	43·8	35·2	40·8	42·8
5	35·9	35·5	36·3	37·8	43·5	48·5	52·2	53·7	48·7	44·0	34·9	40·5	42·6
6	36·0	35·8	36·3	37·9	44·6	49·7	53·4	54·4	49·0	44·7	34·8	40·9	43·1
7	36·4	36·2	36·8	39·0	46·4	51·4	54·8	55·5	50·2	45·6	35·2	41·2	44·1
8	36·7	36·9	38·1	41·2	48·6	53·6	56·6	57·0	52·5	46·6	35·6	41·4	45·4
9	37·2	37·8	39·3	43·6	51·0	55·6	57·9	58·5	54·8	47·8	36·3	41·8	46·8
10	37·8	39·0	39·7	44·6	52·2	56·7	58·5	59·1	55·5	48·6	37·2	42·5	47·6
11	38·5	39·9	40·2	45·5	53·0	57·4	58·9	59·4	56·2	49·7	38·5	43·1	48·4
Noon	39·2	40·7	40·7	45·9	53·4	58·1	59·0	59·8	56·7	50·1	39·6	43·7	48·9
13^h	39·5	41·0	41·2	46·1	53·5	58·5	59·3	60·2	57·0	50·3	40·1	43·8	49·2
14	39·7	41·1	41·5	46·3	53·4	58·7	59·1	60·2	57·0	50·3	40·2	43·8	49·3
15	39·6	41·0	41·7	46·1	53·2	58·7	59·2	60·4	56·8	49·9	40·0	43·6	49·2
16	39·5	40·5	41·4	45·8	52·8	58·3	58·9	60·0	56·1	49·3	39·6	43·4	48·8
17	39·4	39·9	40·9	45·2	52·4	57·6	58·5	59·6	55·3	48·6	39·2	43·2	48·3
18	39·2	39·3	40·3	44·6	51·4	56·8	57·9	58·8	54·7	47·7	38·9	43·1	47·7
19	38·9	38·7	39·7	43·8	50·1	55·6	57·4	57·8	54·0	47·1	38·6	42·8	47·0
20	38·6	38·4	39·2	43·1	48·8	54·2	56·8	57·0	53·4	46·6	38·2	42·9	46·4
21	38·4	38·3	38·6	42·6	47·9	53·2	56·2	56·6	52·8	46·1	37·8	42·8	45·9
22	38·1	38·0	38·1	41·9	46·8	52·3	55·7	56·1	52·2	45·7	37·2	42·5	45·4
23	37·9	37·7	37·8	41·1	46·1	51·3	55·0	55·4	51·5	45·2	37·8	42·3	44·9
24	38·3	38·4	38·5	41·8	46·4	51·8	55·0	56·4	52·3	46·6	37·3	42·9	45·5
Means 0^h.–23^h.	37·9	38·3	38·9	42·4	48·8	53·8	56·3	57·2	53·1	46·9	37·4	42·3	46·1
Means 1^h.–24^h.	37·9	38·3	38·9	42·4	48·8	53·8	56·3	57·2	53·1	46·9	37·4	42·3	46·1
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.	1915.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	35·4	34·8	35·6	37·3	43·1	48·2	52·7	53·8	49·6	43·4	34·5	40·0	42·4
1^h	35·6	34·3	35·4	36·9	42·7	47·7	52·2	53·8	49·2	43·2	34·6	39·7	42·1
2	34·2	34·2	34·8	37·2	42·2	47·0	51·7	53·7	48·8	42·9	34·3	39·9	41·7
3	34·4	33·9	34·5	36·6	42·0	46·8	51·2	53·3	48·0	42·8	33·9	39·2	41·4
4	33·9	33·7	34·8	36·6	41·7	46·4	50·8	52·8	47·9	42·8	33·7	39·1	41·2
5	33·6	33·4	34·6	35·7	41·9	46·7	50·8	52·6	47·5	43·1	33·2	38·3	41·0
6	33·8	33·8	34·4	35·7	42·6	47·6	52·0	53·2	48·1	44·1	33·1	39·3	41·5
7	34·4	34·2	34·3	35·5	43·8	48·5	52·7	53·7	47·9	45·2	33·6	39·5	41·9
8	34·3	34·7	35·2	37·7	44·9	49·7	53·6	54·2	49·6	45·5	33·6	39·7	42·7
9	35·3	35·4	36·1	39·0	46·6	50·7	53·9	54·8	50·9	45·7	34·1	40·1	43·6
10	35·3	36·3	35·8	39·1	47·1	51·0	53·7	54·4	50·2	45·7	34·9	40·5	43·7
11	36·1	36·5	35·9	39·3	47·2	50·8	53·4	54·2	50·1	46·0	35·6	40·7	43·8
Noon	36·4	36·9	36·2	39·3	46·9	51·1	53·2	54·1	50·0	45·9	36·1	41·0	43·9
13^h	36·5	36·8	36·0	39·3	46·5	51·3	53·0	54·4	49·9	45·6	36·5	41·0	43·9
14	35·1	36·9	36·6	39·3	46·3	51·4	52·9	54·7	50·0	45·9	36·4	41·0	43·9
15	36·6	36·7	36·7	39·1	46·1	51·8	52·9	54·7	50·1	45·4	36·4	40·9	43·9
16	36·1	36·7	36·5	39·1	46·0	51·8	52·9	54·7	50·1	45·3	36·3	40·7	43·9
17	37·0	36·5	36·3	38·8	46·4	51·6	52·9	54·7	49·9	45·4	36·2	40·8	43·9
18	36·8	36·4	36·2	38·9	46·0	51·4	52·6	54·3	50·5	45·0	36·2	40·8	43·8
19	36·7	36·0	36·0	38·8	45·2	51·2	52·9	54·2	51·5	44·9	36·1	40·2	43·6
20	36·3	35·9	35·9	38·7	44·5	50·7	53·1	54·4	50·7	44·9	35·9	40·4	43·5
21	35·8	36·0	35·8	38·8	44·5	50·6	53·4	54·4	50·6	44·7	35·7	40·5	43·4
22	36·1	35·5	35·4	38·3	43·8	50·0	53·3	54·3	50·2	44·4	35·1	40·1	43·0
23	35·7	35·5	35·4	37·8	43·5	49·2	52·9	53·7	49·7	43·8	34·9	40·3	42·7
24	35·4	35·1	35·3	37·7	43·1	48·6	52·8	53·8	49·2	43·7	34·3	39·9	42·4
Means 0^h.–23^h.	35·5	35·5	35·6	38·0	44·6	49·7	52·7	54·0	49·6	44·7	35·0	40·2	42·9
Means 1^h.–24^h.	35·5	35·5	35·6	38·0	44·6	49·7	52·7	54·0	49·6	44·7	35·0	40·1	42·9

MONTHLY MEAN DEGREE of HUMIDITY (Saturation = 100) at every HOUR of the DAY, as deduced by GLAISHER'S TABLES from the corresponding AIR and EVAPORATION TEMPERATURES.

Hour, Greenwich Civil Time.	1915. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	87	84	88	83	86	86	88	89	89	92	89	87	87
1h	87	86	89	84	87	87	90	91	90	92	90	88	88
2	86	86	88	86	88	87	94	94	91	92	91	89	89
3	88	86	91	86	89	88	90	93	91	93	91	88	89
4	86	87	90	88	89	88	90	92	93	93	91	90	90
5	86	87	90	87	90	88	90	92	92	94	90	86	89
6	86	88	88	86	87	85	90	92	94	97	90	89	89
7	88	87	85	79	83	80	85	86	84	97	91	89	86
8	88	87	83	77	77	74	80	81	81	93	88	89	83
9	89	85	81	73	71	69	74	75	74	87	87	88	79
10	87	83	77	67	67	64	69	70	67	82	86	87	76
11	85	79	73	64	64	59	66	67	62	76	82	85	72
Noon	84	76	72	62	60	58	63	64	58	73	79	83	69
13h	83	73	70	61	58	56	61	63	56	71	78	83	68
14	82	74	71	59	58	55	60	64	57	71	76	83	68
15	82	73	70	60	57	57	61	64	58	71	78	83	68
16	84	76	71	61	59	60	63	66	62	74	80	84	70
17	85	79	71	62	62	62	64	69	67	79	82	84	72
18	85	82	74	66	65	65	66	71	73	82	82	85	75
19	86	84	78	70	69	70	70	76	79	86	84	83	78
20	86	85	81	74	72	76	76	82	82	89	85	83	81
21	87	85	83	77	78	82	81	86	85	91	86	87	84
22	88	85	84	77	81	84	83	87	86	92	87	85	85
23	86	87	85	79	83	86	85	87	88	92	89	86	86
24	86	86	88	82	86	87	88	90	89	92	89	87	88
Means { 0h.–23h.	86	83	81	74	74	74	77	79	77	86	86	86	80
Means { 1h.–24h.	86	83	81	74	74	74	77	79	77	86	86	86	80

TOTAL AMOUNT of SUNSHINE registered in each HOUR of the DAY in each MONTH, as derived from the RECORDS of the CAMPBELL-STOKES SELF-REGISTERING INSTRUMENT for the YEAR 1915.

Month, 1915.	Registered Duration of Sunshine in the Hour ending 5h.	6h.	7h.	8h.	9h.	10h.	11h.	Noon.	13h.	14h.	15h.	16h.	17h.	18h.	19h.	20h.	Total registered Duration of Sunshine in each Month.	Corresponding aggregate Period during which the Sun was above the Horizon.	Proportion of Sunshine.	Mean Altitude of the Sun at Noon.
	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h		°
January	..	..	..	..	0·5	5·2	7·1	6·3	6·1	5·4	3·6	0·5	..	..	..	..	34·7	258·5	0·134	18
February....	..	..	..	2·1	7·7	11·1	11·3	9·9	9·5	9·2	9·0	5·8	1·3	..	..	..	76·9	276·5	0·278	26
March	..	..	3·6	7·4	7·8	9·1	9·8	9·2	9·6	9·2	8·6	6·7	6·0	1·5	..	..	88·5	365·3	0·242	36
April	..	1·7	10·9	14·3	14·9	15·3	16·1	14·3	13·2	12·9	13·4	12·2	11·2	7·4	2·0	..	159·8	412·9	0·387	48
May	1·5	10·2	13·1	14·3	17·5	17·7	17·3	17·4	18·2	17·8	17·1	14·9	14·6	12·5	8·3	1·7	214·1	480·9	0·445	57
June........	1·4	6·0	8·4	12·1	15·7	18·2	19·7	19·0	20·0	19·4	18·4	17·7	14·3	14·4	10·6	2·3	217·6	494·4	0·440	62
July	3·1	10·7	13·8	15·1	14·1	16·4	15·9	13·1	15·0	13·3	15·0	14·5	14·1	13·3	9·8	2·0	199·2	498·2	0·400	60
August......	0·2	1·3	7·3	11·4	13·7	15·4	15·0	15·9	15·3	15·6	13·8	12·7	11·7	8·9	3·6	0·3	162·1	451·2	0·359	52
September ..	..	..	5·2	12·8	15·3	20·6	20·9	20·3	21·2	18·2	15·8	14·2	14·4	6·9	..	..	185·8	379·6	0·489	42
October	..	..	..	2·0	4·4	6·2	9·5	9·8	8·7	9·9	9·6	7·8	2·6	..	..	..	70·5	330·7	0·213	30
November ..	..	..	..	..	0·9	4·8	9·2	8·4	10·0	10·1	9·1	2·6	..	..	..	..	55·1	266·2	0·207	20
December ...	..	..	..	..	1·3	5·0	7·6	8·5	6·2	4·6	2·1	0·4	..	..	..	..	35·7	244·2	0·146	16
For the year	6·2	29·9	62·3	91·5	113·8	145·0	159·4	152·1	153·0	145·6	135·5	110·0	90·2	64·9	34·3	6·3	1500·0	4458·6	0·312	..

The hours are reckoned from *apparent* midnight.

READINGS OF THERMOMETERS on the ORDINARY STAND in the MAGNETIC PAVILION ENCLOSURE, in the YEAR 1915.

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

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

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Wet-Bulb Thermometer, 4 ft. above the Ground. 9^h	Noon.	15^h	21^h
MARCH.										
d	°	°	°	°	°	°	°	°	°	°
1	44·3	35·1	38·6	43·9	41·8	38·1	34·1	38·7	38·2	35·4
2	45·6	33·9	37·1	42·5	44·4	39·7	34·7	37·6	38·5	36·6
3	52·5	38·0	45·6	49·7	50·3	46·6	44·8	48·0	48·4	45·2
4	53·0	44·6	46·9	48·7	51·8	49·0	46·3	47·0	48·1	46·6
5	55·1	47·2	49·2	53·0	53·4	49·5	46·9	48·8	49·6	47·7
6	57·0	44·9	47·4	52·2	55·7	48·6	45·1	48·4	50·2	45·0
7	48·8	38·8	44·1	42·1	45·4	39·6	40·8	39·4	38·9	36·4
8	42·1	33·3	37·9	40·0	37·6	34·3	35·0	35·2	34·7	31·6
9	43·6	34·0	37·4	39·2	42·1	38·6	33·8	34·8	36·2	36·4
10	43·0	35·1	37·6	41·5	42·6	42·3	35·9	37·1	38·6	40·0
11	50·0	40·2	42·7	45·6	49·6	42·5	41·8	44·6	47·5	41·6
12	49·0	40·1	44·5	47·4	47·4	44·2	43·7	45·7	44·1	42·8
13	48·6	38·4	42·9	45·3	48·2	44·8	41·2	43·0	45·5	43·0
14	57·5	38·4	43·2	51·2	56·6	43·1	42·4	47·7	51·2	41·8
15	48·0	41·1	45·6	45·6	47·9	47·4	43·5	43·6	45·4	45·7
16	47·5	39·5	44·0	46·6	47·3	45·5	42·0	43·1	43·8	43·0
17	46·8	41·3	44·4	46·2	45·9	43·5	41·1	41·5	42·2	40·5
18	43·5	31·2	40·4	34·6	33·3	31·4	38·5	31·7	31·8	30·8
19	39·1	29·9	33·5	36·6	38·5	31·7	31·5	31·9	32·6	29·8
20	46·0	28·2	36·9	45·6	45·3	41·6	32·8	39·8	39·5	37·8
21	54·5	32·5	41·8	50·6	54·5	37·6	37·9	42·9	45·4	34·5
22	49·3	31·1	44·3	48·8	44·4	43·8	39·5	42·6	42·3	42·7
23	59·3	43·3	51·5	52·9	58·1	46·5	50·1	51·4	53·4	45·1
24	57·0	45·2	51·2	55·6	56·4	53·2	50·5	53·0	53·0	51·5
25	53·2	36·2	43·6	39·4	41·8	36·4	42·9	37·9	38·5	34·5
26	42·0	31·8	39·6	39·0	40·7	33·9	36·3	34·9	36·3	32·0
27	44·4	27·7	36·6	40·6	40·3	33·2	32·8	34·6	34·6	30·0
28	42·5	28·9	37·7	38·9	38·1	30·6	32·2	33·0	33·5	30·0
29	41·3	25·9	35·0	32·3	37·2	32·7	32·0	32·0	33·6	31·0
30	45·7	28·0	36·2	39·4	44·6	35·8	32·2	33·5	37·0	32·7
31	49·0	30·3	42·3	44·6	48·7	38·3	37·3	38·6	40·9	35·0
Means	48·4	35·9	41·9	44·5	46·1	40·8	39·3	40·7	41·7	38·6
APRIL.										
d	°	°	°	°	°	°	°	°	°	°
1	53·5	31·1	45·4	51·4	52·1	44·3	40·6	44·1	44·4	39·5
2	54·2	32·6	50·3	54·0	49·9	45·9	42·7	45·0	42·0	44·7
3	50·6	41·6	44·2	44·2	46·6	50·6	43·2	42·8	44·9	49·7
4	58·9	47·9	51·8	56·5	57·8	48·3	48·3	49·6	49·3	41·8
5	51·8	42·3	46·0	49·8	50·9	46·4	43·5	44·8	43·5	41·6
6	48·7	35·2	47·8	46·3	45·6	47·6	44·1	43·7	43·8	46·2
7	54·5	43·5	47·8	52·1	52·0	43·8	42·7	44·5	43·3	38·8
8	55·0	40·9	45·7	52·0	51·2	42·2	41·8	44·0	43·8	39·1
9	52·5	39·0	46·5	49·6	50·0	43·1	41·0	42·0	40·9	39·7
10	54·3	39·1	45·7	50·3	51·6	46·4	40·7	42·8	42·5	40·6
11	53·6	39·2	47·6	52·9	52·1	46·9	44·2	47·8	45·2	44·6
12	49·0	42·5	46·6	48·8	46·7	44·1	42·8	44·8	45·0	43·9
13	44·4	39·8	42·6	44·1	44·2	41·6	39·9	40·8	41·2	39·3
14	53·3	34·3	40·1	50·6	52·5	42·1	38·3	42·6	42·8	39·6
15	58·0	32·1	48·6	52·2	56·3	50·8	43·4	45·8	48·8	48·0
16	62·7	43·4	53·3	59·7	60·2	49·3	49·1	51·0	51·7	46·2
17	55·0	38·5	46·0	52·2	53·7	41·8	40·5	43·0	43·5	38·9
18	53·8	28·6	48·6	53·1	51·6	40·9	42·6	45·3	44·4	38·3
19	62·5	33·9	52·8	59·4	60·2	50·7	45·4	50·4	52·8	47·2
20	58·3	46·3	49·8	54·7	48·0	46·3	46·1	50·0	46·3	40·2
21	52·9	35·5	45·4	51·0	50·8	42·4	40·1	42·5	42·0	39·2
22	52·7	37·2	47·8	51·6	51·6	48·0	40·7	43·4	43·8	42·8
23	52·7	39·2	48·6	45·7	51·3	40·8	43·4	41·3	43·3	36·5
24	54·0	34·2	45·6	51·6	51·6	40·3	42·0	44·4	44·1	37·2
25	45·0	38·4	44·0	44·6	43·4	43·6	41·3	42·6	42·0	41·9
26	59·0	42·9	47·4	53·3	57·1	45·1	45·7	49·3	50·6	43·3
27	58·6	42·0	44·8	52·3	57·4	48·7	43·0	46·8	49·4	46·8
28	65·4	42·2	57·1	62·2	64·1	50·9	51·6	54·9	55·1	46·0
29	63·2	40·2	56·7	61·9	61·9	46·7	50·4	52·1	51·0	45·2
30	72·4	40·1	49·5	65·3	71·4	57·7	48·0	56·1	59·5	52·1
Means	55·3	38·7	47·8	52·4	53·1	45·9	43·6	45·9	46·1	42·6

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^h.)

May.

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

June.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Wet-Bulb Thermometer, 4 ft. above the Ground. 9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°
1	65·3	36·6	60·0	62·2	61·6	48·8	52·5	52·3	53·0	46·5
2	74·6	40·1	61·6	69·8	72·6	53·9	55·1	59·6	60·2	49·8
3	66·9	47·5	56·3	62·0	62·8	56·7	51·6	55·6	57·6	54·5
4	76·1	53·8	60·7	69·9	73·6	57·2	58·0	62·3	64·1	55·4
5	75·7	50·2	60·4	72·5	73·8	63·9	58·2	62·8	65·0	60·7
6	72·5	55·3	67·9	68·4	70·0	57·4	62·0	62·7	61·8	55·4
7	82·3	51·7	64·2	76·3	80·0	63·6	59·3	65·4	68·2	61·5
8	87·2	59·6	80·6	85·6	85·2	67·6	71·4	71·6	71·6	64·0
9	72·0	58·4	68·7	70·4	67·5	58·6	59·9	60·5	60·2	56·4
10	69·5	57·3	61·9	62·8	69·2	59·8	57·8	57·8	61·4	56·3
11	67·8	54·9	63·1	65·9	65·0	55·3	56·0	58·2	57·2	51·2
12	70·7	47·6	61·1	67·4	68·7	51·6	55·1	57·7	55·8	48·2
13	72·9	43·4	64·5	70·4	71·4	55·6	53·0	55·1	59·0	54·1
14	64·9	49·4	56·7	64·4	61·6	50·5	50·4	55·0	54·2	48·5
15	66·0	48·4	55·7	62·0	65·0	52·9	50·4	54·5	55·8	49·4
16	70·7	45·2	59·5	67·1	70·4	54·7	55·1	58·8	60·4	53·4
17	68·2	48·3	57·5	64·6	67·3	54·3	53·1	56·6	57·2	50·2
18	62·2	45·7	56·7	59·8	59·6	48·9	50·2	50·9	51·4	45·1
19	64·0	41·5	55·0	61·3	63·5	49·8	47·6	51·8	52·9	46·4
20	71·0	38·0	62·6	65·7	66·6	53·5	53·5	54·2	56·0	50·2
21	76·1	42·9	64·2	71·0	72·4	54·0	55·1	57·3	57·7	50·8
22	68·1	47·9	62·6	66·4	66·2	51·7	56·6	56·3	56·8	48·3
23	59·6	47·1	56·6	55·8	55·0	53·6	52·9	51·2	49·6	48·8
24	57·8	49·6	51·4	54·4	57·4	54·8	50·9	53·1	55·1	54·6
25	73·4	53·2	60·6	70·5	73·2	58·5	57·0	62·8	65·2	57·7
26	73·5	57·2	67·3	69·8	68·4	57·4	57·7	58·1	58·6	52·3
27	69·5	51·6	57·4	65·6	58·7	56·7	55·8	57·8	55·6	55·0
28	72·0	54·5	61·4	67·0	64·9	59·8	57·6	60·4	60·0	55·8
29	73·8	52·1	61·9	63·1	69·0	59·9	57·9	59·9	61·8	58·6
30	73·3	55·2	60·3	71·4	60·0	58·1	57·8	62·9	56·9	56·5
Means	70·6	49·8	61·3	66·8	67·4	56·0	55·7	58·1	58·7	53·2

July.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Wet-Bulb Thermometer, 4 ft. above the Ground. 9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°
1	66·4	52·4	56·1	61·1	65·6	59·9	54·7	57·8	60·4	58·2
2	80·1	51·1	68·5	73·5	74·6	68·5	63·5	63·2	63·1	63·1
3	85·9	58·8	74·1	78·7	82·0	70·6	63·1	67·7	69·0	65·1
4	87·1	60·1	77·7	84·1	85·8	66·4	67·8	70·3	69·8	63·7
5	80·6	58·6	67·9	73·8	79·4	66·1	61·6	62·6	63·7	60·4
6	79·2	52·5	67·7	71·9	74·6	65·6	61·2	60·8	62·1	57·4
7	69·7	56·1	58·9	59·0	68·3	56·9	56·9	57·8	61·5	55·0
8	64·6	55·8	59·1	61·6	64·1	57·0	56·5	57·1	57·8	56·9
9	71·4	54·6	60·5	67·4	67·8	60·1	55·5	57·6	58·0	53·2
10	71·2	51·0	64·2	69·6	67·2	60·8	56·1	58·8	57·9	57·1
11	64·9	57·0	59·8	61·4	63·6	58·4	56·3	55·9	56·7	55·0
12	70·4	54·2	61·7	63·7	69·5	58·7	55·8	54·8	57·6	53·3
13	69·5	45·2	62·3	66·8	64·4	68·6	56·7	57·7	57·3	55·3
14	69·5	49·6	63·2	66·7	62·5	55·6	56·8	58·5	55·9	55·6
15	69·4	51·2	60·9	63·7	65·4	57·7	56·1	56·1	54·8	53·4
16	63·0	48·2	58·1	59·7	56·6	58·6	54·5	55·6	54·4	58·3
17	62·8	54·9	60·8	56·5	55·6	55·0	56·0	54·6	54·2	51·0
18	69·1	49·0	58·3	61·6	65·9	57·5	54·5	56·8	57·7	53·8
19	72·5	53·1	62·7	64·5	67·0	60·0	59·9	61·2	62·7	56·0
20	71·0	55·8	61·5	66·9	67·3	58·9	57·8	57·3	56·8	54·0
21	71·5	52·8	63·2	64·9	65·8	57·9	55·3	56·4	56·9	56·3
22	60·9	56·6	60·2	59·3	58·7	58·3	58·1	58·6	58·1	58·3
23	65·5	55·2	57·7	63·6	58·5	58·7	56·8	60·9	56·8	56·0
24	73·5	51·2	64·9	66·2	60·6	56·8	60·0	60·4	58·7	56·1
25	70·6	53·0	63·6	65·8	55·1	54·2	58·9	57·6	54·2	53·3
26	71·6	49·9	61·8	66·3	69·1	55·9	56·9	59·0	60·7	54·7
27	69·8	50·4	58·1	66·0	69·5	56·3	57·7	60·8	61·5	54·0
28	70·7	51·5	60·6	63·5	69·3	58·5	56·2	55·2	57·8	53·9
29	73·2	48·8	62·3	69·4	67·6	53·8	56·8	59·8	60·6	52·9
30	72·5	50·1	63·0	67·9	67·7	59·6	57·8	57·7	57·3	55·4
31	75·4	52·6	62·0	68·1	70·2	60·2	58·1	60·0	60·3	56·8
Means	71·4	52·9	62·6	66·2	67·4	59·4	57·8	59·0	59·2	56·5

August.

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

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^h).

SEPTEMBER.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Wet-Bulb Thermometer, 4 ft. above the Ground. 9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°
1	67·9	49·1	59·4	63·4	62·0	49·6	55·3	54·9	55·2	48·7
2	61·1	45·2	55·6	57·0	57·5	50·0	52·1	50·7	50·1	47·6
3	61·2	45·0	54·0	60·4	56·9	52·6	49·4	52·8	50·0	49·8
4	63·6	44·5	54·7	58·9	60·8	52·7	49·6	50·2	52·0	48·0
5	67·7	39·8	54·6	63·0	64·9	54·4	50·9	53·6	54·0	50·6
6	71·4	42·2	59·1	64·8	65·0	53·4	53·8	55·4	55·0	51·9
7	72·0	46·4	60·6	70·0	68·7	55·7	54·8	58·9	59·0	53·0
8	72·9	45·1	64·1	70·8	70·8	58·1	57·6	60·6	61·8	56·7
9	70·9	54·7	64·7	69·1	69·2	56·5	60·8	62·8	61·1	55·1
10	67·9	50·0	61·8	67·1	66·4	54·5	59·0	56·3	56·6	53·0
11	64·9	48·4	59·6	64·1	64·5	54·5	54·6	55·3	55·7	52·3
12	74·1	48·6	58·7	72·1	73·1	52·5	56·8	61·3	60·7	51·3
13	75·7	45·1	67·5	74·0	71·0	61·3	60·7	63·0	63·4	56·5
14	63·9	53·5	56·0	61·6	62·1	57·6	53·1	54·7	56·3	56·8
15	73·9	56·1	62·8	68·1	70·4	65·9	57·1	59·1	62·3	63·3
16	77·0	63·2	68·1	74·4	74·3	65·7	64·9	67·6	67·5	63·8
17	79·0	63·1	68·4	75·8	77·2	63·2	63·6	66·1	66·0	61·3
18	74·2	54·8	64·9	71·5	71·8	61·4	61·6	63·8	63·2	59·5
19	65·3	51·4	59·8	64·3	62·7	51·4	54·9	56·3	54·3	48·9
20	65·2	44·5	59·8	63·6	61·7	50·4	52·1	54·8	53·8	48·5
21	67·2	48·3	60·1	65·1	64·8	52·8	53·1	53·8	54·7	50·7
22	72·6	48·1	61·1	71·4	71·9	57·8	55·5	59·8	60·5	55·4
23	73·4	54·9	65·6	70·8	69·2	64·0	61·0	64·8	64·0	61·1
24	72·3	57·3	63·0	67·7	67·5	60·1	60·0	61·9	61·5	58·0
25	66·9	52·2	59·7	64·8	63·6	52·3	56·4	59·2	57·7	51·5
26	67·6	46·1	56·1	62·7	67·2	56·8	54·3	56·5	58·0	54·6
27	58·3	49·2	53·9	55·5	54·3	49·9	51·0	51·3	50·7	46·6
28	59·2	39·2	48·7	54·9	53·5	46·6	44·8	46·8	48·5	45·8
29	53·1	40·1	44·6	49·9	52·4	44·2	42·6	44·7	45·3	40·1
30	50·8	36·8	46·3	49·8	50·4	46·3	42·7	44·6	45·1	42·1
Means	67·7	48·8	59·1	64·2	64·9	54·7	54·8	56·7	56·8	52·7

OCTOBER.

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

NOVEMBER.

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

DECEMBER.

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

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1915.

	Monthly Amount of Rain collected in each Gauge.														Height of Receiving Surface.	
	Number of Gauge.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Sums.	Above the Ground.	Above Mean Sea Level.
Gauges partly sunk in the ground in the Magnetic Pavilion Enclosure.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	ft. in.	ft. in.
	6	3·668	3·171	0·796	1·223	3·279	0·561	3·080	3·210	2·020	1·419	2·897	5·204	30·528	0. 5	149. 6
	8	3·519	3·149	0·759	1·197	3·185	0·551	3·040	3·216	1·990	1·387	2·847	5·182	30·022	1. 0	150. 1
Number of Rainy Days (0in·005 or over).	..	21	15	14	13	8	9	15	13	7	10	10	24	..	..	..

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

Hour ending.	1915.												Mean for the Year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
h	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	14·4	15·1	10·2	10·3	9·4	7·6	9·4	7·3	8·5	6·9	9·9	14·4	10·3
2	14·9	13·9	9·1	10·3	8·8	7·6	9·5	7·3	8·0	6·4	10·0	15·1	10·1
3	14·9	14·9	9·8	10·5	8·6	7·5	9·5	6·7	8·0	6·2	10·4	14·4	10·1
4	14·6	13·5	9·8	10·3	9·1	7·4	9·5	7·0	7·6	6·3	10·1	14·0	9·9
5	14·4	14·0	10·5	10·4	9·0	7·5	9·6	6·7	7·8	6·4	10·8	13·9	10·1
6	12·9	13·5	10·5	10·8	9·5	7·4	9·6	6·7	7·6	6·7	11·0	13·8	10·0
7	13·4	13·8	10·6	11·1	9·7	8·1	10·1	6·7	7·9	6·6	10·8	13·2	10·2
8	13·7	13·7	11·4	11·9	10·7	8·5	10·8	7·1	7·8	7·0	10·9	13·7	10·6
9	13·5	14·3	12·5	12·5	10·6	8·7	11·0	7·3	9·0	7·4	11·3	14·5	11·1
10	13·9	14·5	13·9	13·2	11·7	8·9	12·4	8·0	10·4	8·1	11·6	15·6	11·8
11	14·3	14·9	14·7	13·4	11·6	9·5	13·3	8·8	11·1	9·2	12·6	16·9	12·5
Noon.	16·0	15·6	14·4	14·2	11·8	9·6	14·7	9·5	12·0	10·0	13·6	17·4	13·2
13	16·1	15·4	13·0	13·8	13·1	9·7	13·4	9·0	10·7	9·0	12·2	15·9	12·6
14	16·9	16·6	13·6	14·9	13·3	10·3	14·8	9·7	11·7	9·6	13·8	17·7	13·6
15	15·7	16·3	13·6	14·9	13·0	10·9	15·0	10·0	12·4	9·6	13·6	17·7	13·6
16	15·1	16·1	13·4	15·1	13·3	10·6	14·6	9·7	12·7	9·5	12·4	16·8	13·3
17	15·2	14·5	13·1	14·8	13·0	10·7	15·2	9·9	11·9	9·1	12·1	16·9	13·0
18	15·5	14·5	13·3	14·5	12·9	11·1	14·3	9·6	11·3	8·4	12·3	15·8	12·8
19	15·4	14·3	11·7	13·1	12·3	10·2	13·7	9·1	10·0	8·5	12·1	16·5	12·2
20	15·9	13·8	10·5	12·0	12·3	9·5	11·9	8·1	10·5	8·7	12·0	17·1	11·9
21	15·8	13·7	9·4	11·8	11·0	8·4	10·9	7·5	9·5	8·2	11·1	16·0	11·1
22	14·7	14·6	9·5	12·4	10·6	8·7	11·1	8·0	9·6	8·0	11·0	16·2	11·2
23	14·9	15·1	8·8	11·7	9·8	8·4	10·1	8·2	8·8	7·5	10·2	16·4	10·8
Midnight.	15·0	15·8	8·7	10·6	10·3	7·9	9·6	7·6	8·8	7·2	9·3	15·7	10·5
Means	14·9	14·7	11·5	12·4	11·1	8·9	11·8	8·1	9·7	7·9	11·5	15·8	11·5
Greatest Hourly Measures (1)	50	37	38	34	27	21	40	26	31	34	37	51	..
Greatest Hourly Measures (2)	37	29	29	27	22	18	31	21	25	27	29	38	..

(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.