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RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1918.

UNDER THE DIRECTION OF

SIR FRANK DYSON, M.A., LL.D., F.R.S.,

ASTRONOMER ROYAL.

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GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1918.

Introduction.

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

§ 1. Personal Establishment and Arrangements.

During the year 1918 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of Walter William Bryant, Superintendent, aided generally by three Computers. The Computers employed during the year were:—S. W. Palmer until May 22, G. F. Wells, E. H. Tibbitts, and Miss E. W. Clack.

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

The Magnetic Pavilion is constructed of non-magnetic materials, and stands in an enclosure in Greenwich Park, 350 yards to the east of the Observatory, on a site carefully chosen for its freedom from abnormal magnetic conditions. In the enclosure there are two sets of thermometers used for ordinary eye observations, 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).

GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1918.

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

The New Magnetograph House stands 50 feet north-west of the Magnetic Pavilion in which the absolute magnetic observations are made. The recording instruments are situated in a small inner chamber 15 feet long, 12 feet wide, and 8 feet high. This chamber is supported on small concrete piers and surrounded by an outer chamber, whose walls of non-conducting material are nearly 2 feet thick. Between the walls of the two chambers is an air space of from 2 to 3 feet. The inner chamber is electrically heated by about 50 suitably insulated low-temperature non-magnetic metallic resistance strips, each consuming 25 watts. The current used is alternating, and is therefore without effect upon the magnetic registration.

The temperature is controlled by a thermostat placed in the centre of the room, at the same level as the magnetic instruments. This actuates a relay, which switches the electric current into or out of the heating circuits.

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

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

The north force and declination instruments record on the north-east drum; the vertical force instrument and the barometer record on the other drum. Both drums are horizontal and are 10 inches long by $5\frac{1}{2}$ inches in diameter. Their normal period of revolution is 30 hours and the scale 15 mm. to the hour. The

registering beams of light are focussed on the drum by an adjustable cylindrical lens. Two horizontal straight filament lamps mounted at suitable heights on the east and west walls of the chamber provide the time registration for the photographic sheets. The lamps are illumined for a period of one second centred at each exact hour of Greenwich time, the current being controlled by a relay connected to the Mean Solar clock in the Clock Room of the Observatory. The effect is to produce narrow dark hour lines right across the photographic records.

§ 3. Subjects of Observation in the year 1918.

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 xvii).

§ 4. Magnetic Instruments.

Declination Magnet for Absolute Determinations.—Since 1899 January 1, regular observations of declination have been made in the Magnetic Pavilion. The hollow cylindrical magnet 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 $100^{\circ} \cdot 140$.

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

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

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 1918.

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 are made twice weekly. Observations of the moment of inertia of the deflecting magnet are made occasionally.

DIP INDUCTOR.—The dip inductor is used in conjunction with a Broca mirror galvanometer, with electric light and scale. Observations are made in four positions to eliminate any small errors arising from slight asymmetry in the instrument. After the first adjustment, the ring is reversed about a horizontal axis and a second adjustment obtained: the instrument is then reversed in azimuth and two further adjustments made. The circles for the measurement of inclination and azimuth are each 8 inches in diameter, and are read by means of screw micrometers to one second of arc. The levels on the base can likewise be read to one second. A detailed description of the dip inductor will be found in the volume for 1915.

The observations are made thrice weekly.

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

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

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

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

The distance from the mirrors to the centre of the slit of the drum box is such that the scale value at the middle of the photographic sheets is $0' \cdot 585$ per millimetre; at the present time (1915–20) this angle represents $3 \cdot 17 \, \gamma$, in terms of force. Since the beam of light, when directed towards the centre of the slit, makes an angle $11^{\circ} \cdot 42'$ with the normal to the drum, the scale value is not the same right across the sheet, the percentage difference of scale between the centre and edges being $0 \cdot 5$. 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 instrument is enclosed in a brass cylinder, in which is mounted the focusing 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. 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 $244.6\,\gamma$ and $148.2\,\gamma$ in the mean of 1918, and the present rates of diminution of their values are 4·4 γ and $2.8 \, \gamma$ per year.

The scale value determinations for the north force instrument are made once weekly. 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 (about $\cdot 01 \,\gamma$ per mm.). The adopted scale value for the month of 1918 January was $3 \cdot 25 \,\gamma$ per mm., and for 1919 January was $3 \cdot 30 \,\gamma$ 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 1918 was $0.52 \, \gamma$, and the mean annual decrease in this rate of change is $0.15 \, \gamma$. The progressive change of base-line value is allowed for in the reductions.

The instrument is kept at a constant temperature, and therefore the records require no temperature correction in general. 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 1° C. increased the base-line value of the instrument by 2γ . During the periods when the thermostat was out of order and under repair, the observations were corrected for temperature according to this determination.

THE QUARTZ-THREAD VERTICAL FORCE VARIOMETER.—For a detailed description of this instrument reference may be made to the Philosophical Magazine, vol. vii., sixth series, p. 393, 1904. The base of the instrument consists of a metal casting with uprights at the two ends, carrying attachments for the ends of the quartz fibre which supports the magnet system. The latter consists of two magnets, 8 cms. long and 1 mm. in diameter, which are attached by small platinum stirrups to two rods of fused quartz; these are fused to a quartz plate, the upper surface of which is optically worked and platinised to form a plane mirror. The quartz rods are drawn out at their other ends into fibres of about 0.008 to 0.010 cm. diameter; one of these is attached to a coiled quartz spring. The quartz spring and the other fibre are soldered to small brass rods fitting into clamps at the two ends of the metal base. The thread is under sufficient tension to stretch the spring through about two millimetres. A right-angled prism is supported in a frame above the mirror, so as to reflect the light in a horizontal direction; a single lens is placed beneath to focus the light on the recording drum. The prism frame is adjustable in azimuth in order to enable the trace to be brought to any desired part of the sheet. An adjustable mirror beneath the quartz fibre and adjacent to the mirror of the magnet system serves to give a base line.

The sensitiveness of the instrument is varied by adjusting the centre of gravity of the movable system. For this purpose a small vertical quartz arm is fixed to one of the rods attached to the mirror and a small piece of brass can slide on this arm, being fixed into any desired position by means of a little shellac. The sensitiveness adopted until the end of 1919 was $3.6 \, \gamma$ per mm. on the sheet. At the beginning of 1920 this was increased to $2.0 \, \gamma$ per mm.

The variometer was not at first compensated for temperature changes and was found to possess a temperature coefficient of 25 y 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 methods of deflections, which in this case are produced electro-magnetically. The deflecting coil consists of two equal parallel circular rings of wire separated by a distance equal to their own radii. The wire is laid in V-grooves on a vulcanised fibre framework which rests permanently on the instrument pier. The leads and connections between the two separate rings are laid side by side. With such an arrangement a very uniform magnetic field is produced at the centre of the coil, when an electric current circulates in the same direction round the two circles. The diameter of each circular turn of wire is 55.7 cm., and the distance between their two centres is 27.7 cm. If x, 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—

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

where R is $31\cdot06$ 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 from the above formula, allowing for the slight noncentrality of the magnets with respect to the coil, is found to produce a deflecting force of 323 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 $3.66 \, \gamma$ 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 1918 which are classed as days of great disturbance. Days of lesser disturbance are March 7–8, April 11–12, May 16–17, August 15–16, September 21, October 16, December 8 and December 25–26. 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.

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

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

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In Table XVII 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 XVIII; 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 XIX.

Table XIX 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 International Committee.

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

The plates are followed by a brief description of other significant magnetic motions (superposed on the ordinary diurnal movement) recorded during the year.

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

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

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

TABLE

MAGNETIC ELEMENTS.

Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡	Year.	Declination West.	Horizontal Force,† C.G.S. Unit.	Dip.‡
	0 /		0 /	i	0 '		0 /
1841	23.16.2			1880	18.32.6	0.1805	67.35.7
1842	23.14.6			1881	18.27.1	0.1807	67.34.7
1843	23.11.7		69. 0.6	1882	18.22.3	0.1806	67.34.2
1844	23.12.3		69. 0.3	1883	18-15-0	0.1812	67.31.7
1845	22.56.7		68.57.5	1884	18. 7.6	0.1814	67.29.7
1846	22.49.6	0.1731	68·58·i	1885	18. 1.7	0.1817	67.28.0
1847	22.51.3	0.1736	68·5g·0	1886	17.54.5	0.1818	67.27.1
1848	22.51.8	0.1731	68.54.7	1887	17.49.1	0.1819	67.26.6
1849	22.37.8	0.1733	68.51.3	1888	17.40.4	0.1822	67.25.6
1850	22.23.5	0.1738	68.46.9	1889	17.34.9	0.1823	67.24.3
1851	22.18.3	0.1744	68·40·4	1890	17.28.6	0.1825	67.23.0
1852	22.17.9	0.1745	68.42.7	1891	17.23.4	0.1827	67.21.5
1853	22.10.1	0.1748	68.44.6	1892	17.17.4	0.1829	67.20.0
1854	22. 0.8	0.1749	68.47.7	1893	17.11.4	0.1831	67.17.9
1855	21.48.4	0.1756	68.44.6	1894	17. 4.6	0.1831	67.17.4
1856	21.43.5	0.1759	68.43.5	1895	16.57.4	0.1834	67.16.1*
1857	21.35.4	0.1769	68.31.1	1896	16.51.7*	0.1835*	67.15.1*
1858	21.30.3	0.1762	68.28.3	1897	16.45.8*	0.1838	67.13.5*
1859	21.23.5	0.1761	68.26.9	1898	16.39.2*	0.1840	67.12.1
1860	21.14.3		68·30·1	1899	16.34.2	0.1843	67.10.5
1861		0.1773	68.24.6	1900	16.29.0	0.1846	67. 8.8
1801	21. 2.2	0.1759	68.15.8	1901	16.26.0	0.1850	67 · 6 · 4
1862	20.52.6	0.1763	68· 9·6	1902	16.22.8	0.1852	67. 3.8
1863	20.45.9	0.1764	68· 7·0	1903	16.19.1	0.1852	67. 1.2
1864		0.1767	68· 4 ·1	1904	16·15·0	0.1854	66.57.6
1865	20.33.9	0.1767	68· 2·7	1905	16. 9.9	0.1854	66.56.3
1866	20.28.0	0.1773	68· 1·3	1906	r6· 3·6	0.1854	66.55.6
1867	20.20.5	0.1777	67.57.2	1907	15.59.8	0.1855	66.56.2
1868	20.13.1	0.1779	67.56.5	1908	15.53.5	0.1854	66·56· 3
1869	20. 4.1	0.1782	67.54.8	1909	15.47.6	0.1854	66.54.1
1870	19.53.0	0.1784	67.52.5	1910	15.41.2	0.1855	66.52.8
1871	19.41.9	0.1786	67.50.3	1911	15.33.0	0.1855	66.52.1
1872	19.36.8	0.1789	67.47.8	1912	15.24.3	0.1855	66.51.8
1873	19.33.4	0.1793	67.45.8	1913	15.15.2	0.1853	66.50.5
1874	19.28.9	0.1797	67.43.6	1914	15. 6.3	0.1853	66.51.2
1875	19.21.2	0.1797	67.42.4	1915	14.56.5	0.1851	66.52.0
1876	19. 8.3	0.1799	67.41.0	1916	14.46.9	0.1850	66.52.8
1877	18.57.2	0.1800	67.39.7	1917	14.37.1	0.1848	66.53.0
1878	18.49.3	0.1802	67.38.2	1918	14.27.8	0.1846	66.52.8
1879	18.40.5	0.1802	67.37.0				
•	1	1 - 1	- ·	l	J	j	1

^{*} Corrected for the effect of the iron in the new buildings.

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

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

In 1861 the new Unifilar Apparatus for absolute Horizontal Force and the Airy Dip-Circle were introduced, both sets of apparatus being used in that year. In 1864 the excavation of the Magnetic Basement caused the suspension of complete Declination Observations. From 1914 the Dip was determined with the Inductor.

§ 6. Meteorological Instruments.

STANDARD BAROMETER.—The standard barometer is Newman No. 64. Its tube is $0^{\text{in.}} \cdot 565$ in diameter, and the depression of the mercury due to capillary action is $0^{\text{in.}} \cdot 002$, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to $0^{\text{in.}} \cdot 05$, subdivided by vernier to $0^{\text{in.}} \cdot 002$. The barometer was mounted in 1840 on the southern wall of the western arm of the Upper Magnet Room at a height above mean sea level of 159 feet. It was transferred to the New Magnetograph House on 1917 April 3, where the height above mean sea level is 152 feet.

The barometer is read at 9^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.

THE PHOTOGRAPHIC BAROMETER.—In consequence of the use of a horizontal drum for the new vertical force instrument, it became necessary to modify the lever mechanism of the photographic barometer on its removal to the Magnetograph House in 1916. On account of the optical magnification associated with a moving mirror at some distance from the instrument, the new mechanism had to be such as would reduce the motion of the plunger to a smaller amount at the end of the lever which carried the mirror. In the actual arrangement two levers are used, the one connected to the arm of the plunger resting in the free surface of the mercury, being 12 inches long from plunger to pivot. A pin with a rounded conical point is screwed into this lever at a distance of 1 inch from the pivot. On this pin rests the plane under-surface of a shorter lever, which is 4 inches long from its pivots to this pin, and is set at right angles to the first lever. Both levers are approximately horizontal in their mean position. On the short lever is mounted the moving mirror of the instrument. This mirror is 2.5 cm. long and 1 cm. wide, and is mounted horizontally in a suitable frame attached to the lever, just above its pivots. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. The motion of the beam of light is transformed so as to be horizontal by a fixed right-angled prism supported above the mirror. A lens of suitable focus is mounted in a vertical plane in front of the prism, and brings the beam of light from

the straight filament lamp, which also illuminates the vertical force variometer, to a focus on the drum. A base-line mirror, similar to the moving mirror, is mounted in a vertical plane behind the lower half of this lens. Provision is made for all necessary adjustments of level and azimuth and tilt of the base line and moving beams of light.

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

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

The metal parts of the instrument are all of brass or aluminium, except the cast-iron plunger disc (which is 24 mm. in diameter and 4 mm. thick) and four small pivot screws, which are of steel. These are sufficiently far from the vertical force instrument to ensure that they do not affect its records. The weight of the plunger and lever mechanism is relieved by a balance weight on the far side of the pivot, so that the plunger rests on the mercury surface without appreciably depressing it. There is some evidence of a slight difference of behaviour according to whether the barometer is rising or falling.

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

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

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 William Christie, and from 1899 to 1917 stood in the same position in the Magnet Ground. It was transferred to the Magnetic Pavilion Enclosure on 1917 February 21. It is placed in a shed 8 feet square, standing upon posts about 8 feet high, and open to the north. The apparatus is screened from the direct rays of the sun, without impeding the circulation of the air. The recording mechanism is similar in general plan to that already described in connection with the magnetometers 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. 165654. 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. All four thermometers were accidentally broken on September 14, during the removal of the old Magnet House.

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

A circular pressure plate with an area of 192 square inches is attached 2 feet below the vane; moving with the latter, it is always kept directed against the wind. A light wind causes the plate to compress slender springs, the motion being registered on the horizontal sheet by a pencil connected with the plate by a flexible brass chain, which is always in tension. Higher wind pressures bring stiffer

springs into play behind the plate, and the two sets of springs are adjusted by screws and clamps so as to afford fixed scales on the sheet, the scale for light winds being double that for heavy winds. The scale is determined experimentally in lbs. per square foot from time to time.

The recording sheet is changed daily at noon. The time scale, ordinarily the same as that of the magnetic registers, can be increased 24-fold by altering the gearing.

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

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

In preceding volumes the values of wind velocity V given in the tables are three times the actual velocity v of the cups. From some tests of the Browning instrument, made by Mr. W. H. Dines at 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 xix) are given according to both formulæ, and the least hourly measures omitted.

RAIN GAUGES.—During the year 1918 three rain gauges were employed, placed at different elevations above the ground, for which see page E 80 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 northwest 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 a small hut in the Magnetic Enclosure and has the usual arrangements for photographic registration. The time scale is the same as for the magnetic registers, the hourly break of trace being made by the driving-clock itself. The Electrometer is connected by a fine wire directly with a small radium collector, carried on an insulated support, at a height of about 7 feet.

SUNSHINE RECORDER.—The instrument in use is of the Campbell-Stokes pattern, with 4-inch glass globe. The recorded durations are those of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or is very near the horizon. The hourly results relate to *apparent* time.

E xviii Introduction to Greenwich Magnetical Observations, 1918.

§ 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^b, 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 75 and E 76) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages E 74 and E 75).

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 73 and E 80, 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·005.

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

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

The mean amount of cloud given in the footnotes on the right-hand pages E 49 to E 71, and in the abstract table, page E 73, 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).

E xx Introduction to Greenwich Magnetical Observations, 1918.

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
Ρ,	positive	w,	weak	v,	variable
SS,	very strong	ww,	ve r y 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, 1922 October 2.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1918.

							TA	BLE	I.—Н	OURL	у Ме	ANS (of MA	AGNET	nc D	ECLIN	ATION	· .	-						
0	h 11	n 2 ¹	h 31	h 4	h 5	h 6	h 7	h 8	h 9	h 10	h 1	1h No	oon. 1	3h 1	4h 15	5h 16	6h 1'	7h 18	8h 19	9h 20	0h 2	1h 2	2h 23	3h 24	 1 h
Janua	ry.									14	°+Ta	bular	Quant	ities.										Ŋ	Mean.
1 2 3 4 5**	31·2 30·9 31·5 25·2 26·7	31·2 30·7 31·2 26·7 28·9	31·7 29·5 30·9 23·7 31·2	31·7 30·9 32·0 29·7 32·2	31·6 31·7 30·9 29·2 32·7	32·2 31·7 31·2 30·2 32·2	32·2 31·9 32·0 30·7 31·9	31·7 31·9 32·2 32·2 31·9	31·2 31·5 31·9 31·9 32·7	30·8 31·2 32·2 31·5 32·5	30·2 32·2 32·9 32·2 33·3	32·7 33·2 34·7 33·2 33·7	34·2 34·7 36·7 34·5 35·3	35·5 35·2 37·5 36·4 35·4	35·5 35·4 38·1 35·7 36·5	34·7 35·4 37·7 34·5 34·9	34·1 35·3 37·5 34·7 34·0	32·9 36·0 39·7 34·0 26·2	32·7 35·7 36·2 32·9 32·2	32·2 33·2 34·7 31·9 33·7	31·7 31·9 32·2 32·7 32·0	, 29·7 31·5 30·9 30·9 30·7	, 30·7 30·9 27·7 26·2 29·7	, 31.0 30.9 26.7 24.7 27.9	32·2 32·6 33·3 31·1 32·0
6 7 8* 9	27.0 30.9 31.1 28.9	26·9 29·2 31·7 30·9	27·4 29·2 31·1 29·2	29·2 31·3 31·2 20·2	31.9 31.5 31.6	30·7 31·5 31·4 31·9	31·5 31·3 31·3	31·7 31·3 31·3	31·9 31·3 32·7 34·7	32·9 30·7 30·7 33·3	32·7 32·2 32·2	35·2 34·1 33·7 32·9 32·9	37·2 35·2 35·5 34·2 34·7	37·7 35·7 36·1 35·2 35·2	36·7 34·2 34·9 35·5 37·2	36·7 33·2 33·5 33·7 36·2	32·7 32·9 32·7 32·7 35·2	32·3 32·7 32·1 32·7 34·4	32·5 32·5 32·2 31·5 30·0	32·1 32·0 31·9 31·9	31·7 32·4 31·7 32·2 31·2	30·7 31·7 31·2 30·4	30·7 31·2 31·5 30·9 30·0	27·7 31·5 31·7 29·5 30·7	32·0 31·9 32·3 32·6
11* 12** 13 14	31·9 31·7 23·7 30·5	32·3 31·9 26·9 27·2	32·5 32·3 30·7 26·2 31·9	32·5 32·1 31·7 29·2 30·9	32·9 31·7 32·7 29·7 32·7	31·7 31·5 32·2 30·5 31·7	31.2 30.9 31.4 31.4	31·5 30·7 31·2 31·2	30·7 30·7 30·7 30·7	30·5 30·0 29·7 29·7 30·4	32·2 30·7 31·2 31·2	33.9 32.7 34.4 32.5	32·7 35·5 35·2 35·2 33·7	34·5 37·2 37·7 37·7 36·2	34·1 36·7 34·7 37·2 35·9	33.7 34.2 34.2 36.2 34.7	32·7 34·7 34·7 34·9 34·0	32·2 36·7 33·7 32·2 33·7	32·2 34·7 32·2 32·9 33·2	31·9 33·2 31·7 31·2 28·9	31·7 31·2 27·7 31·0 31·1	31·5 29·2 27·7 29·7 27·7	31·7 27·9 29·7 29·2 25·7	31.7 20.2 29.7 29.7	32·2 31·4 31·5 31·5
16 17* 18* 19* 20	29·2 29·7 28·9 31·5 31·2	30·7 30·4 30·0 31·7 31·5	29·2 31·0 30·7 31·9 31·7	29·9 31·7 31·5 32·2 32·4	31.0 32.2 32.1 32.2	30·7 31·7 31·9 32·2	30·2 31·9 31·3	30·7 31·5 31·5 31·7	30·7 30·7 30·7 31·1	29·9 29·5 30·7	32·2 31·5 32·2 31·5	34.0 32.9 34.2 32.7 34.9	35.7 35.0 35.5 34.5 36.9	36·7 35·9 36·5 36·3 38·5	36·2 35·7 36·1 36·2 37·7	33.9 34.7 35.4 34.2 36.i	33·2 33·7 34·0 33·7 35·0	33.0 33.0 32.7 33.5 34.0	32·9 32·9 33·2 33·2 33·2	31.9 32.0 32.2 32.5 32.5	31·2 31·7 32·0 31·7	30·7 30·9 31·4 31·2	30·7 28·5 31·2 30·9 31·2	29.7 27.7 31.5 30.9 31.2	31.9 32.4 32.4 31.9
2 I 2 2 2 3 2 4 2 5	30·5 28·5 31·2 31·7	29.0 28.9 29.2 31.7	30·7 30·7 32·0 32·2 31·2	31·9 34·7 30·9 32·2 32·0	32·4 31·5 31·2 31·7	31·9 31·2 31·3	31·7 31·7 31·2 31·7 30·7	30·5 31·7 30·9 31·2 30·9	29·7 30·2 30·3 30·5	29·9 29·9 29·5 29·9 31·2	30·9 31·7 30·2 30·9 32·5	32·5 33·2 31·9 33·5	34·3 35·2 33·2 35·7 34·7	36·9 36·0 34·2 35·9 35·7	37·9 35·2 34·2 36·1 35·2	36·7 34·2 33·9 35·9 34·3	35.7 33.7 33.5 35.2 33.5	32·7 33·0 32·7 34·2 32·9	32·9 33·0 32·7 32·0 32·5	32·5 32·5 32·2 31·7 31·5	31·2 31·3 31·2 26·9	29·7 31·4 31·2 30·4 29·5	28·2 31·2 30·7 30·4	27·7 31·2 31·2 30·7 30·7	32·0 32·2 31·7 32·5 31·9
26 27 28 29** 30**	31·7 29·7 31·7 30·2 29·7	31·7 27·7 31·7 36·2	32·2 29·7 31·9 31·7	33.9 31.7 31.9 30.2	32·2 32·7 31·7 32·7 30·7	30·9 31·2 31·5 32·0 31·2	30·9 30·9 30·9 31·7	30·2 31·9 30·5 31·4	29·2 31·5 29·2 30·5 32·7	28·9 31·5 28·9 30·2 34·2	31·7 31·3 30·5 30·7 33·7	33.5 32.9 31.9 34.7	34·7 36·0 33·5 32·9 37·5	35.4 37.9 35.5 36.2 36.9	35.0 37.9 35.5 37.7 36.9	34·5 35·5 34·7 37·2 37·2	33.7 33.4 33.5 38.5 36.9	32·9 32·5 32·2 41·7 34·9	32·3 32·7 32·9 40·2 32·7	31·7 31·2 32·4 35·7 31·7	29·7 30·7 31·7 33·2 22·2	26·9 29·7 31·5 24·7 11·9	30·5 30·5 30·9 23·7 12·7	31·2 31·2 29·9 29·7	31·9 32·2 31·9 32·8 30·5
31**		23.2	25.2	27.5		29.2	29.9	30.7	31.0	30.2	31.5	33.7	36.7	38.7	41.7	37.9	36.5	35.9	34.7	32.9	33.7	28.5	25.9	25.2	30.9
Mean Mean*		30.5	30.2	31.8	31.7	31.2	31.2	31.4	31.1	30.4	31.2	33.2	34.6	36.3	36.2	35.2	34.4	33.6	33.1	32.1	31.8	31.3	30.8	30.7	32.2
Mean**													!			36.3	36.1	35.1	34.9	33.4	30.2	25.0	24.0	22.7	31.7
Februa	ary.							-		14	°+Ta	bular	Quant	ities.		,								<u>N</u>	Mean.
1 2 3 4 5**	27·7 29·2 29·2 30·9 30·9	29·7 27·7 29·2 31·7 31·7	34·7 29·7 29·7 31·2. 31·2	32·7 30·7 30·5 31·2	31·7 29·7 30·9 31·2 31·3	31·7 30·7 31·2 30·9 31·5	30·9 31·2 30·9 30·7 31·1	30·9 31·2 30·7 30·3 30·7	30·7 30·2 30·2 29·7 29·9	30·9 30·2 30·2 29·7 30·7	33·7 30·7 31·7 30·7 33·2	33·2 31·9 32·7 31·7 35·7	34·7 33·2 34·7 33·2 33·7	35·7 34·5 35·5 34·4 35·4	35·7 33·7 35·2 34·2 37·0	33·7 33·7 33·5 33·7 37·4	34·2 34·2 32·7 32·2 37·7	23·7 30·7 32·7 33·7 35·0	, 26·2 26·2 32·2 32·9 34·1	30·7 27·2· 31·7 32·0 32·7	27·7 30·2 31·2 31·5 32·3	31·7 29·7 30·7 30·9 31·5	27·2 30·7 29·7 30·4 30·9	26·7 31·2 29·9 30·0 30·7	31·1 30·8 31·5 31·6 32·8
6** 7 8* 9	30·9 31·4	31·5 30·7 31·2 30·7 25·4	22·7 31·0 31·4 29·5 26·2	19·7 29·9 31·5 29·9 28·5	22·7 29·7 31·3 30·5 29·7	30·7 30·5 30·9 30·7 30·7	32·9 30·7 30·7 29·5	32·7 31·2 30·2 30·7 29·2	32·7 33·7 29·2 29·9 29·7	34·2 30·5 29·7 30·7 30·5	33·2 32·2 30·7 33·2 31·7	34·2 32·7 32·2 35·0 33·7	36·2 34·5 33·7 36·5 35·4	36·9 36·7 34·7 36·9 36·7	37·5 35·7 34·4 35·7 35·7	34·7 34·2 34·0 33·7 35·9	34·5 33·5 33·5 32·7 36·0	33.7 32.7 32.7 30.7		31·9 31·7 32·5 31·9	31·5 31·2 30·5 26·7	31·5 30·2 31·2 27·7 25·2	30·9 30·7 31·2 27·9 24·2	27·9 29·7 30·7 28·9 25·2	31.7 31.7 31.7 31.5
11 12** 13** 14 15**	24.7	13.7	29·2 20·7 17·2 29·2 24·7	28·2 24·2 22·7 25·7 26·7	29·2 29·2 20·7 23·7 28·5	29·7 29·7 27·7 29·2 29·7	30·2 28·2 29·7 29·2 29·7	29·2 30·2 29·7 31·7 28·9	28·9 30·2 32·2 28·5	29·0 30·7 31·7 34·2	31·9 33·2 32·5 33·7	33·2 31·7 34·7 34·7	35·5 32·2 30·2 36·9 34·2	38·2 31·7 30·7 37·7 36·2	37·7 30·9 30·7 37·0 37·7	34·7 34·7 30·9 35·5 38·2	34·7 35·9 31·7 33·7 40·2	33.9 34.7 33.5 33.2 38.7	34·5 33·2	33·2 35·7 34·9 33·7 36·7	30·0 30·7 36·2 32·4 33·7	27·7 28·9 31·9 30·7 30·7	27·7 20·7 29·9 29·7	25·5 22·7 26·7 29·2 27·2	31·3 29·5 28·8 31·2 32·1
16 17 18 19* 20	26·9 30·2 30·2 30·7	29·2 30·5 31·2 29·9 30·7	30·2 30·7 30·7 29·7 30·7	30·9 30·5 29·5 30·5	30·9 31·5 30·7 29·9 30·2	31·5 31·7 31·2 29·9 30·2	31·2 31·7 31·2 30·0	31·2 31·1 31·7 30·5 29·7	31·5 29·5 30·9 29·7 28·9	31·7 29·0 28·9 30·5 29·1	34·2 30·2 32·2 31·2	37·2 32·5 32·9 33·5 32·9	33.9 34.2 34.0 33.5 34.0	35·7 35·9 33·9 34·9	36·2 35·7 34·7 34·7 34·9	35.7 35.5 34.2 33.9 34.5	34·5 34·2 33·5 33·9	33·2 31·7 32·7 33·5 32·7	32·9 32·7 30·9 32·5	32·0 32·2 32·7 32·5 32·7	29·2 31·9 31·9 31·9	26·7 29·2 31·2 30·7 30·9	29·7 29·7 30·9 30·7 24·7	29·7 29·9 30·7 30·7 26·7	31·9 31·8 31·6 31·2
2 I 22* 2 3 2 4 2 5*		31·2 30·5 31·2 27·7 30·7	31·7 30·7 30·7 28·2 30·9	30·9 30·5 30·7 26·2 30·9	30·7 30·3 30·2 26·2 30·7	26·2 30·0 30·2 29·2 30·7	29·7 29·9 29·9 29·5	30·7 29·2 29·2 29·7	30·5 28·9 28·2 29·2		34·2 31·0 30·2 31·7	34·5 32·9 32·9 34·2 32·9	34·7 33·7 34·9 36·2 34·7	35·2 33·9 35·7 34·5 34·5	34·7 33·5 36·2 34·9 34·7	33·5 32·7 35·1 33·7 34·2	31·9 32·9 33·7 32·4 32·7	31.7 32.7 33.7 31.7 32.5	32·2 32·5 32·2 31·2	31·7 30·0 30·7 30·0	30·7 30·7 31·2 27·2 30·9	31·2 31·2 26·7 27·7 30·7	30·7 30·9 19·2 28·2 30·7	30·7 30·7 23·2 30·2 30·5	31·7 30·6 30·2 31·5
26* 27 28	30·5 26·5		30·4 30·7 27·9	30·4 30·9 27·5	30·7 30·2 28·7	30·7 29·7 28·4	30·0 29·7 28·2	29·2 29·2	29.0 28.9 32.2	28·9 29·5 29·7	31·2 31·4 30·2	33·7 34·7 33·7	36·2 35·5 37·9	36·7 36·4 40·7	36·2 36·7 40·7	34·7 35·0 40·7	33·2 34·2 39·7	32·7 33·9 36·5	31·9 33·2 34·2	31.0	30·7 29·4 25·7	30·2 28·9 26·2	30·2 25·2 28·2	30·2 26·7 29·2	31·6 31·4 32·0
Mean Mean*		30.6			30.6	30.4	30.3	30.4	30.1	30.3	31.3	33.4	34.4	35.5	35.4	34.7	34.2	32.8	32.3	31.7	31.1	30.8	30.7	30.6	31.9
Mean**																35.2				34.4	32.0	30.9	28.4	27.0	<u> </u>

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION.—continued. 0h 1h 2h 3h 4h 5h 6h 7h 8h 9h 10h 11h Noon. 13h 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h 24h														ıc De	CLINA	TION.	con	tinue	<i>ī</i> .						
Op	1	h 2h	31	1 4 ¹	h 5 ¹	h 6	ßь 7	'h 8	h 9h	10	h 11	h Noo	on. 13	3h 14	h 15	h 16	h 17	7h 18	3h 19)h 2	0 ^h 2	1 ^h 2:	2h 2	3h 2	4 h
March										14	 4° + Ta	bular	Quant	ities.										7	Iean.
1		,		,	,	,	<u> </u>	,	,		,	,		,	,		,	,	,	,	,	,	,	,	,
1 2 3 4 5*	28·5 27·2 28·9 22·2 30·7	27·5 26·7 29·2 27·9 30·2	29·7 28·2 30·2 32·9 30·7	30·9 29·2 28·2 30·7 30·5	29·2 30·2 28·5 29·7 30·5	29·9 28·2 27·7 29·7 30·1	29·9 30·2 27·7 29·2 29·7	30·7 29·7 28·2 28·9 29·2	30·5 30·2 28·7 28·9 28·2	30·4 30·9 29·7 30·2 29·2	31·2 31·7 31·7	32·2 33·7 35·7 33·5 34·2	33.9 35.5 38.2 34.9 36.2	34·5 35·4 39·7 34·9 36·4	33.9 34.0 37.0 34.5 35.2	32·0 32·7 35·0 32·9 33·7	31·7 36·7 32·7 32·0	31.9 30.2 34.7 31.9 32.7	31·7 31·9 33·4 32·7 32·7	31·5 28·2 31·9 32·0 30·7	27·7 24·7 30·9 31·2 27·7	29·2 28·2 26·5 30·2 29·2	28·9 29·7 24·7 29·9 29·2	28·2 28·2 22·2 29·7 30·2	30·7 30·3 31·0 31·2
6* 7 8** 9	29·7 30·5 20·7 29·7 30·2	29·7 30·2 15·2 34·2 29·7	29.7 29.9 2.2 30.7 29.2	29·7 30·2 11·7 29·2 29·5	29.7 30.2 22.7 29.7 29.2	29·9 30·2 29·7 29·7 28·9	30·2 30·2 29·7 28·2 28·9	31·5 30·2 29·2 26·7 27·7	31·2 30·2 30·2 26·7	30·7 30·9 30·7 27·7 28·2	32·7 33·2 31·7 30·2	35.0 35.2 33.7 33.5 34.9	35.7 36.2 34.7 35.2 37.5	37.4 35.7 34.2 35.5 38.9	36·5 34·9 34·2 35·2 39·2	33.9 33.7 34.7 33.2 38.7	32·7 32·5 31·2 32·2 33·7	32·5 32·2 31·7 33·9	32·0 32·2 16·7 31·5 32·7	30.9	31·7 31·2 30·7 30·2	30·2 30·7 25·7	29·2 29·2 31·2 30·7 24·9	29·2 25·2 29·7 30·7 26·5	31.6 31.5 31.0 31.0
13	27.7 28.5 26.2 29.7 29.7	28·2 27·7 27·5 29·7 30·7	31.7 27.7 28.2 29.5 29.2	30·7 27·7 28·9 28·5 29·2	26·7 26·7 28·9 27·7 28·9	25.7 28.2 28.7 27.9 28.5		27·7 29·7 27·5 29·7 30·7	28·2 28·9 27·7 26·7 29·7	29·2 30·9 29·2 28·9 29·7	31·7 35·7 31·2 31·7	34·7 37·2 34·7 35·7 34·2	36·9 39·7 37·7 38·7 35·5	36·7 39·4 38·2 39·2 40·2	38·4 38·7 35·7 37·7 36·7	35.0 32.7 33.9 36.5 33.7	34.7 31.7 32.2 33.7 31.2	34·2 32·2 31·7 30·7	30·7 31·2 31·7 32·5 32·5	27·2 30·7 31·2 32·7 31·2	27·7 29·2 30·7 31·7 30·9	27·2 28·2 30·2 29·7 30·7	26·7 28·5 29·9 28·5 29·9	26·2 27·7 29·9 28·9 29·7	30·4 31·4 31·4
16** 17 18 19* 20	28·9 30·2 29·7 29·2	25·2 29·9 29·7 29·7	23·2 29·7 29·7 29·9	23.7 29.5 29.2 29.2 29.7	24.5 29.2 29.0 29.0 29.5	27·7 28·9 28·9 28·7 28·9	29.2	27·7 28·7 26·9 26·7 28·5	26·7 28·9 25·5 25·7 28·9	27.5 30.2 26.7 27.2 29.7	29·7 31·7 30·7 30·7 33·2	33.9 35.0 35.7 33.7 35.7	40·2 36·7 37·2 35·5 38·2	39.7 36.7 37.7 36.2 37.7	41·7 35·2 34·9 34·2 36·0	39.7 33.5 33.7 32.2 33.7	36·7 31·5 31·5	29.7 31.9 30.5 30.7	31·2 30·9 31·2 30·9	30·2 30·7 30·7 30·7	28·2 31·2 30·7 29·2 30·7	30·7 30·2 30·7 29·7 30·2	30·5 27·2 30·2 28·9 29·9	30·2 29·7 30·2 29·0 29·9	30.8 30.8 31.3
2 I 22 23 24* 25*	29.7 29.9 30.2 29.7 30.2	29·7 30·7 27·7 29·7 30·4	29·7 30·7 32·2 30·5 30·2	29·5 29·7 28·2 29·9 30·0	28·9 29·7 26·7 30·5 29·7	29·2 31·3 29·7 29·5	28·5 30·7 27·5 28·2 28·5	26·5 27·7 25·9 26·2 26·4	25·7 26·7 25·2 25·7 24·7	27·2 27·7 27·2 26·9 26·2	31·2 30·7 30·7 29·2 29·7	35.7 35.2 33.7 32.7 33.7	38·2 38·2 37·2 35·9 36·3	41·2 39·2 37·7 37·4 37·4	40·2 38·7 36·9 36·0 36·1	39.7 37.2 34.7 34.2 34.0	35·2 31·7 33·2 31·7	32·7 29·7 32·2 30·7 30·5	29·7 33·2 30·7 30·2 29·9	26·2 31·7 26·7 29·9 29·7	25.7 30.9 27.7 29.7 27.5	28·2 30·5 27·2 29·7 27·4	27·7 30·2 29·2 29·9 28·9	29·7 30·2 29·7 29·7	30·3 30·6 30·3
	29·9 29·9 28·2 29·7 28·9	30·7 30·5 27·7 29·2 30·0	30·5 29·9 28·2 27·2 29·7	29·5 29·7 27·2 27·7 29·7	28·9 28·2 27·7 27·2 30·2	28·2 27·2 27·2 26·2 29·2		24.7 25.7 27.2 26.7 25.7	24·9 23·7 25·7 27·2 25·9	28·2 27·2 26·7 27·2 26·2	32·7 30·2 30·2 30·3	38·5 35·7 35·2 35·5 34·2	39.9 40.2 39.2 37.9 37.2	39.7 42.7 41.0 37.7 37.7	38·5 42·5 39·9 35·7 36·5	37.5 40.9 37.2 32.7 32.2	35.5 36.0 31.2 30.7	33.7 31.7 34.2 29.7 30.2	32·2 29·9 32·5 29·7 30·2	30·7 29·7 31·4 29·7 25·7	30·2 23·9 30·7 29·7 26·2	29·7 24·2 28·2 30·2 29·9	27·7 27·7 29·2 29·2 29·7	26·7 28·2 28·9 26·2 29·7	31.0 31.1 30.0 30.2
31	29.7	29.7	29.2	29.2	29.2	28.9		24.7	25.2	26.2	29.7	34.7	38.7	39.7	36.7	34.7	32.9	30.2	27.7	25.7	27.7	29.7	29.7	29.7	30.3
Mean	28.8	28.9	28.7	28.6	28.6	28.8	28.9	27.8	27.4	28.5	31.3	34.7	37.2	37.0	36.8	34.9	32.8	31.4	30.9	30.4	29.2	29.0	29.2		30.8
Mean* Me an**	30.1	30.0	30.2	29.9	29.9	28.0		29.0	28.7			33.9	35.9		37.9			31.9			29.4			28.7	30.5
April	2/ 1	~3 ~ 1		 	5 /							bular.				-									lean.
1 2 3 4 5*	29·7 30·7 29·2 29·2 27·7	29·7 26·7 29·2 26·9 31·2	29·7 24·7 29·2 23·7 22·2	29·5 26·2 29·2 25·9 23·7	27.2	28·9 26·7 28·9 29·7 30·2	27.2	25·7 24·7 25·7 26·7 27·7	25·2 24·2 24·9 27·2 25·2	, 27·2 26·2 26·2 27·2 26·7	30·7 30·7 28·9 31·2 30·7	36·2 34·2 33·2 34·2 34·7	39.2	40·2 39·2 39·2 42·2 38·2	38·2 38·2 38·7 41·2 38·2	35.7 35.2 35.5 36.7 36.7	33·2 32·9 33·7 33·7 35·5	30·2 30·7 31·7 30·2 31·7	29·2 30·7 30·7 29·7 25·2	27·7 29·7 30·2 30·2 26·2	27·7 29·7 30·2 29·2 23·7	27·2 29·9 29·2 24·7 24·7	26·9 29·7 26·7 22·2 23·7	28·2 29·5 24·7 25·7 17·7	30.6 30.0 30.3 30.2 28.9
6** 7 8 9		13·9 26·7 28·2 27·7 29·2	17·2 20·2 27·7 27·7 28·5	20·7 23·2 27·2 27·7 27·7		26·2 25·2 28·2 28·2 27·7	26·7 24·7 26·7 27·2 26·7	25.7 26.2 24.7 23.7 24.7	23.7 29.2 23.7 23.7 22.7	27.7 29.2 25.2 26.7 24.2	34·7 31·2 28·2 30·7 29·2	38·2 34·7 32·7 34·7 32·7	41·2 38·2 36·2 39·2 37·2	44·2 38·7 37·2 40·2 38·2		37·7 35·2 34·2 34·2 35·7	36·7 32·2 33·5 32·2 32·7	35.7 29.7 32.5 30.7 30.2	32·2 29·7 31·5 29·7	30·2 29·7 24·7 28·9 29·7	29.7 30.2 27.7 28.2 29.7	34·2 30·7 29·7 26·7 30·2	23·2 30·7 29·2 29·2 29·2	29.2	29·1 29·8 29·7 30·0 30·0
11** 12 13* 14* 15*	27·7 24·7 29·7 29·7 29·2	24·2 26·7 29·2 29·2 29·7	25.7 23.9 29.2 28.9 29.9	26·7 25·7 28·9 28·7 31·7	26·7 26·7 28·7 28·5 27·5	27·7 26·7 28·2 28·7 27·2	23·7 26·7 27·9	26·2 21·7 24·5 26·2 25·2	23·7 24·2 23·7 24·7 24·7	24.7 27.2 26.7 26.7 26.7	29.7 28.2 31.2 29.7 30.2	35·2 30·7 35·2 31·7 33·7	39·2 33·2 37·7 34·2 37·7	38·7 32·7 37·7 34·7 38·4	33.7	39.7 31.7 32.7 31.7 35.2	35·2 31·7 30·2 39·7	35.7 31.2 29.7 31.0	30·7 27·9 29·2 29·7 30·7	29·2 29·7 30·2 29·7 31·2	26·2 30·5 29·7 29·7 30·7	30·7 29·7 29·7 30·2		29.2	29·3 28·4 30·1 29·8 30·7
16 17 18 19** 20*	28·9 29·7 22·2 18·7 29·2	28·7 29·2 19·9 25·7 28·9	28·7 28·9 22·7 25·7 28·2	28·2 28·5 24·7 25·7 27·7	28·2 28·2 25·7 30·7 27·4	27·9 27·7 26·5 37·2 27·5	27·2 26·7 25·7 31·7 26·5	25.7 25.7 24.7 29.7 25.3	24·7 24·7 25·7 27·7 24·1	25.7 24.7 27.4 28.9 25.2	27·5 25·7 29·7 32·7 27·7	30·2 30·7 32·2 37·2 30·7	34·2 33·7 36·2 38·2 33·2	35.7 35.2 40.9 36.5 33.7	34·7 34·7 39·5 35·5 32·7	32·7 38·2 33·3 31·7	31·2 36·5 31·7 36·5	30·7 31·2 34·7 29·7 30·2	30·5 30·7 33·2 27·7 29·7	30·2 30·7 32·7 28·2 29·5	30·2 30·7 29·2 28·5 29·2	28·5 27·2 24·2 28·9 28·9	,	23·5 21·7 29·7 29·2	29·6 29·0 29·4 30·3 29·0
2 I 2 2 2 3 2 4 * 2 5	29·2 26·2 26·7 28·9 25·7	28·9 28·5 22·2 28·9 29·2	27·9 27·5 24·2 29·0 22·2	27·5 26·9 25·7 28·5 23·7	27·2 26·7 22·7 27·7 23·2	27·2 26·7 24·7 27·4 23·2	26·7 26·2 24·7 26·5 22·7	25·2 25·2 23·9 25·5 23·7	24·2 25·7 26·2 26·7 23·7	24·7 27·7 29·7 26·5	26·7 30·7 29·2 31·7 30·2	31·7 34·9 32·7 35·9 32·7	34·7 37·5 35·9 38·2 35·2	35.7 37.7 37.5 37.7 35.5	35.7 36.5 35.7 35.2 33.9	34·2 34·5 34·7 33·2 33·4	32·9 32·9 31·5 31·7		31·7 29·2 26·5 29·2 30·7	31·2 29·7 29·5 29·7	27·7 28·2 28·2 29·7 28·2	24·5 27·2 29·5 28·9 27·7	25·2 28·9 28·2 25·2	13.2	29·2 29·5 28·7 30·2 27·6
26** 27 28 29 30	15.7 28.5 28.9 28.2 28.7	28.2	23·2 27·2 28·6 28·2 28·5	28·5 27·7 28·5 28·2 28·4	28·2 25·2 27·7 27·9 28·9	24·7 24·7 27·2 27·7 29·7	23.7 24.2 26.9 26.7 29.7	24·7 24·2 24·7 25·9 29·2	26·7 24·9 23·7 25·3 28·2			38·2 31·2 29·7 28·9 32·2	40·5 34·2 32·7 31·7 33·7	41·2 34·7 34·9 32·9 34·7	39·2 34·9 34·0 32·7 36·2	37.4 34.0 33.7 32.7 34.2	35.7 32.2 32.7 32.7 33.2	31.9	30.7 29.2 28.9 30.5 27.7	23.7 28.9 28.2 29.5 24.7	26·7 29·2 25·7 29·2 27·7	27.2	27.7	28.7	29·0 28·7 29·0 29·5
Mean	27.2	27.0	26.3	27.0	27.2	27.6	26.6	25.4	25.1	26.8		33.4	36.5	37.5	36.4		31.2	31.3	29.8	30.0	28.7	<u></u>		26.2	30.0
Mean* Mean**	29.3	29.2	29.0	29.1	28.0	27.8	26.8	25.3	24.8	27.0		33.4	36.2	1		32.9				27.5					

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()h 1	h 2	h S	3h 4	1 h	5h (6ь	7h 8	gh 9	ь 1	0 ^h 1	1h No	on. I	3h 14	[h 1	5h 16	3h 1'	7ħ 18	3h 19	9h 2	0h 2	1 ^h 2:	2h 2	3h 24	1 h
May.										14	4° +Ta	ıbular	Quant	ities.									-	N	Mean.
τ** 2 3 4 5	20·7 28·9 29·2 28·2 28·2	22·7 30·2 26·7 27·9 27·7	25·7 27·7 27·7 27·7 27·7 26·7	21·2 26·7 26·2 27·5 27·7	22·2 25·2 24·7 25·2 26·7	24·2 25·2 25·2 25·7 26·2	26·7 23·5 23·2 27·2 26·2	26·7 25·2 22·7 25·2 25·2	26·2 24·7 23·5 24·7 27·7	26·7 26·7 25·7 24·7 27·2	30·2 28·5 29·7 29·2 29·2	30·5 31·7 31·7 34·2 33·7	33.7 34.2 34.0 38.2 35.2	35·2 34·7 34·4 39·7 36·5	33.9 34.2 36.5 38.5 34.5	31.7 32.7 34.0 36.2 31.7	30.0 31.2 30.7 32.9 30.7	29·2 30·5 30·2 30·2 29·2	27·7 29·9 29·2 27·7 28·2	24·7 29·2 29·5 28·2 30·7	27.7 28.9 28.9 28.9 28.9	27.9 28.9 29.2 28.9 28.9	28·2 29·2 28·9 28·5 28·5	28·9 30·7 27·7 28·2 28·2	29·1 28·7
6 7* 8* 9*			27·2 27·9 27·9 25·7 28·7	25·9 26·9 30·7 26·5 28·2	27·2 25·7 32·7 25·2 27·7	25·5 24·7 34·2 24·2 24·7	24·7 23·7 34·5 22·7 22·2	24·2 23·7 35·2 22·2 20·2	26·2 24·2 33·7 23·2 22·7	28·2 26·2 30·7 25·7 26·2	30·7 30·2 31·2 29·7 29·7	33.7 32.7 36.7 34.2 32.7	37·7 34·2 39·7 37·2 35·7	36·7 35·2 40·7 36·9 35·2	34·7 33·7 36·7 36·0 33·9	33.7 31.2 33.9 32.9	31·7 29·2 30·7 31·7	30·2 28·2 29·5 29·7 30·3	_	28.7	29.7 29.7 30.2 28.7 29.2	29·2 29·7 29·9 28·2 29·5	29·2 28·7 29·7 27·9 29·2	28.7	29·7 29·0
11 12 13 14 15	27·7 24·2 26·7 28·9 25·7	26.7	27·7 27·7 27·7 28·2 27·7	27·5 28·7 26·7 27·7 27·9	26·7 26·7 27·7 27·2 26·9	24·7 24·7 27·5 24·7 25·5	23·7 24·2 24·7 21·7 24·2	23·7 23·9 23·7 23·2 23·7	25.7 27.2 24.5 23.7 23.7	27·7 27·2 27·2 25·7 27·2	30·2 30·2 29·7 30·2	32·7 33·2 33·2 33·9	34·2 34·7 35·7 36·2 37·2	35·2 34·2 35·7 37·2 40·5	34·7 34·7 34·7 35·2 40·5	34.7 33.7 32.2 32.7 37.7	33.5 32.2 30.2 31.7 33.7	30·9 30·7 29·7 29·7	29.9 29.7 29.2 29.7 30.2	29·2 29·9 30·2 29·5 30·2	22·7 30·0 30·2 29·7 27·2	26·2 29·2 29·2 29·2 23·7	28.7	27·7 26·2 29·2 29·2 27·7	
16** 17** 18** 19**	25·7 13·2 24·7 30·7 29·2	22·2 20·7 27·7 30·7 29·2	24·2 22·7 28·2 29·2 27·2	24·2 25·2 28·7 28·2 25·7	24·2 24·2 28·7 26·7 27·7	23.7 21.2 30.2 26.7 26.2	23·2 20·2 24·7 25·2 26·2	21·2 23·2 25·2	24·9 25·7 21·7 25·7 23·7	26·7 29·7 25·2 28·2 25·7	28·2 29·7 27·7 29·7 29·2	32·2 31·9 31·2 30·7	34·2 34·7 31·7 32·7 33·7	34·7 36·7 31·7 33·2 35·9	36·0 34·2 34·2 33·7 35·0	35.7 32.2 32.7 31.2 31.9	35.4 32.0 31.2 31.0	35.4 30.7 29.7 30.7 30.2	34·7 29·7 30·2 28·5 27·7	29.0 22.2 28.7 28.5 26.2	20·7 27·2 29·2 28·7 27·7	17·7 28·2 30·7 29·2 28·2		12·7 23·7 26·7 30·2 25·2	26·8 27·0 28·6 29·5 28·6
21 22 23 24 25	26·2 25·9 28·7 29·2 29·2	29·2 23·7 26·7 28·2 29·2	25.7 24.2 29.7 29.9 29.2	26·7 26·7 30·2 30·7 30·7	28·2 25·7 27·2 30·9 31·7	26·2 24·9 25·7 31·7 33·7	25.7 23.5 24.7 32.7 33.7	23.7 25.2 23.7 33.7 32.7	25·2 25·4 24·2 32·9 31·2	26·2 26·5 24·7 30·7 29·7	27·7 29·7 26·9 29·7 33·7	30·2 32·5 30·5 32·2 35·2	33.9 33.9 34.2 32.2 35.7	32·0 33·9 35·2 32·2 34·7	33.7 33.4 35.2 32.2 33.7	31·9 31·7 34·2 31·7 31·2	30·7 30·5 31·2 31·2 29·2	30·5 29·9 29·7 30·7 28·2	29.7 29.5 29.5 30.2 26.7	28·5 29·0 29·7 29·2 28·2	29.4 29.5 28.9	27·9 29·4 28·9 29·0 28·7	27·2 28·9 28·7	28.7	28·5 28·3 29·1 28·8 29·0
26* 27* 28 29 30	27·9 28·5 28·5 28·7 26·7	27·9 28·7 27·7 29.2 26·2	29.7 27.9 27.7 28.5 25.2	30·7 27·5 26·9 27·7 28·2	31·7 26·2 25·7 25·7 29·7	33·1 25·7 23·9 25·7 27·7	34·7 25·2 23·7 24·7 25·7	35.5 24.7 23.5 24.5 24.5	34·7 24·7 24·7 24·2 24·7	32·2 26·2 25·2 23·2 25·9	28·7 29·2 27·2 25·7 27·7	34·2 33·2 31·2 29·2 32·2	34·7 35·7 33·7 32·5 34·5	35·2 35·2 36·2 34·9 34·9	33·2 34·2 35·7 34·7 36·2	31·2 32·7 34·7 34·2 35·2	29·2 31·7 33·7 34·2 34·9	28·2 29·2 31·7 33·2 33·2	28·2 28·7 29·2 32·7 30·0	28·5 28·2 28·7 31·2 27·7	28·7 29·2 28·9 27·7 28·5	28·7 29·2 28·9 25·9 28·4	28·7 28·9 28·9 26·7 28·2	28·7 29·0 28·7 27·5 28·2	28·3 29·2 29·0 28·9 29·3
3 I Mean	 -	27.3	27.2	26.9	26.3	25·9 25·1	24.5	24.7	23.7	25.2	29.7	31.9	33.7	34.7	34.5	33.7	31.7	30.4	29.3	28.5	28.2	<u> </u>	29.2	28.2	28.8
Mean*	28.8	28.3	27.4	26.8	25.5	24.4	23.4	22.9	23.7	26.0	29.8	34.2	36.3	36.6	34.8	32.5	30.2	29.0	28.6	28.9	29.3	29.3	29.1	29.0	29.0
Mean**	23.0	24.8	26.0	25.5	25.2	24.8	24.0	24.0	24.8				33.4		34.4	32.7	32.0	31.1	30.2	26.6	26.7	26.7	26.3		27.9
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1 2* 3* 4*	28·7 28·2 27·5 28·2 27·2	28·2 27·7 27·2 27·7 26·7	26·7 27·7 26·7 27·2 26·7	26·2 27·2 26·2 26·7 26·2	24·7 25·7 24·7 25·7 26·2	24·2 24·2 23·7 24·5 24·9	23.2	, 22·2 22·9 23·7 24·5 23·2	, 21.7 22.5 23.2 24.9 23.7	23·7 24·2 24·7 26·9 26·7	26·7 26·7 28·2 28·7 29·7	31·2 30·2 30·2 33·2 34·2	35.7	34·2 35·5 33·2 37·2 38·2	34·2 35·1 33·2 35·7 37·2	32·2 33·0 32·7 34·7 35·7	31·2 31·4 30·2 31·7 33·2	29·7 30·0 28·9 30·7 30·7	29·2 29·4 28·9 29·9 29·2	29·7 29·2 29·2 29·5 28·2	29·2 29·5 29·2 28·7 29·2	29·2 29·3 28·7 29·2	29·7 29·2 28·7	28.7	28·5 28·1
6 7 8 9** 10**	28.9	27·7 26·7 28·7 28·2 26·7	27·7 25·7 29·2 28·2 24·7	27·2 25·2 28·2 27·5 21·7	25.7 24.2 25.7 26.7 18.2	24·2 22·5 24·7 24·2 20·2	24·7 22·9 24·2 23·7 23·2	25·7 23·2 24·7 23·7 23·7	24·2 23·7 25·2 23·9 28·2	25·2 26·7 27·2 26·2 31·7	27·7 30·7 30·2 30·7	33·7 33·2 37·2 32·7 32·7	37·2 36·2 39·2 35·2 33·7	38·7 37·5 38·2 36·0 35·7	37.7 36.2 36.2 35.2 37.7	35.7 34.2 32.7 33.9 37.2	32·2 30·7 29·7 32·2 34·2	30·2 29·2 28·2 31·7 30·7	28·5 27·7 27·2 31·2 29·2		28·7 28·2 28·2 25·7 28·7	28·9 28·5 29·9 24·7 30·2	29·7 28·7 28·7 24·7 27·2	29·7 28·9 28·2 22·7 26·7	28.6
11** 12** 13 14 15**	27·7 24·7 23·7 26·7 26·2	28·2 29·2 23·7 24·7 28·2	30·2 28·7 27·7 22·2 24·7	29·2 25·2 24·7 24·7	26·2 26·7 24·9 22·7 22·2	25·2 24·2 24·7 23·2 24·2	24·2 23·7 24·5 24·7 24·7	25·7 21·9 23·5 25·7 25·2	22·2 23·5 22·7 24·7 23·9	25.2	26·7 27·7 27·2 30·5 27·7	32.2	31.2	33·7 35·2 32·2 33·7 34·7	35·7 34·7 33·2 34·7 34·2	34·7 34·2 32·2 34·2 33·7	34·2 33·2 31·2 31·7	31·7 29·7 30·2 30·2	30·2 28·7 28·7 29·7 30·2	29.2	1 6	28·2 28·5 26·7 28·7 27·7	27·7 27·7 26·2 28·5 25·7	25·2 26·7 22·7 28·7 25·2	28·4 27·1 28·4
16 17 18 19 20	26·2 23·7 25·5 27·7 27·7	24·7 26·9 25·9	23·7 23·7 28·2 24·7 27·2	22·7 26·7 27·2 24·5 25·7			24·7 25·2 23·2 22·7 22·2	21·2 22·9 21·2 24·2 24·4	22·2 23·7 23·9 25·7 24·7	24·2 25·2 26·2 28·2 27·2	26·7 28·7 28·2 30·2 29·7	31.7	31·7 32·2 31·7 32·2	32·0 34·7 33·2 31·2 33·2	32·7 34·7 32·7 30·2 32·7	32·7 31·7 31·2 28·9 30·7	31·4 30·7 30·2 29·5 29·2	29·2 30·7 30·2 29·2 28·2	27·7 29·7 29·5 28·7 27·7	25·7 27·7 27·9 27·2 27·7	27·2 28·2 28·2 27·9 27·7	25.7 29.2 28.2 28.2 28.7	27·2 26·7 28·2 28·2 27·2	23·7 24·7 27·7 27·9 24·2	27·2 27·9 27·9 27·5 27·6
21 22 23 24 25		27·5 26·7 29·0	25·2 26·1 26·9 28·2 26·9	24·2 24·7 26·3 26·7 26·0	22·9 23·4 24·7 25·2 23·7	20·5 22·5 22·7 23·9 22·7	19·2 22·5 22·7 24·2 22·7	19·7 23·7 23·2 25·7 23·2	20·9 23·9 24·7 26·2 25·7	26·4 27·2	27·7 26·5 31·7 31·7	34.5	34·2 31·2 35·7 33·7 33·7	34·7 32·5 35·9 34·7 33·5	33.7 31.7 34.7 34.0 33.7	32·7 30·2 31·5 32·5 32·5	30·2 28·7 28·7 30·2 29·7	30·7 27·7 26·7 28·5 28·5		28·2 27·7 27·5 27·7 28·7	28·7 28·2 27·7 27·9 28·7	28·7 27·9 27·7 28·5 28·5	29·2 27·7 27·7 28·2 28·1	28·7 27·5 27·9 27·4 27·7	27·2 28·2 28·9
26 27 28 29* 30*	27·5 23·0 26·5 27·5 27·2	25·7 25·7 26·9	26·4 25·9 25·9 26·7 26·7		: : -	24·2 21·7 23·7 23·7 23·7	22·7 21·2 22·4 23·2 23·2	22.7	21·2 22·7 21·7 22·2	23.4 25.7 23.7 24.0 24.7	27·2 28·2 26·7 26·4 27·2	31·2 30·7 29·2 31·2	35.0 34.7 32.2 31.9 34.7	37·4 34·7 34·2 33·7 35·7	36·9 33·7 34·2 33·0 35·2	35.7 32.2 32.7 31.9 34.2	34·0 30·7 30·7 30·7 32·7	30·7 29·2 29·2 30·7	28·9 28·9 28·7		28·2 28·2 27·9 28·7 27·7	27·2 28·2 28·2 28·7 27·7	25.7 26.7 27.9 28.7 27.9	24·2 25·7 27·5 27·7 28·5	27·2 27·6 27·8
Mean		27.1							23.7	25.9	28.6	31.9	33.9	34.8	34.5		31.5	29.7	28.9	28.2	28.2	28.3	27.9	26.9	28.2
Mean* Mean*	27.7				25.5			23.4	23.3	24.9	í——	30.8	33.7	32.1	34.4	33.3	31.3	29.9	29.2	28.4		28.9	28.8	28.2	28.4

						TAE	LE I.	—Но	URLY	MEA	NS OF	MAG	NETIC	DEC	LINAT	NOI.	-conti	nued.	***						
0;	h 1 ^h	21	3	h 41	51	6	h 7	h 8	h 91	10	h 11	h No	on. 13	3h 14	h 15	h 16	ь 17	h 18	h 19	h 20	h 21	h 22	h 23	h 2	1 h
July										14°	+Tab	ular Q	uantit	ies.					,						Mean
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1 2 3 4 5	27·7 30·7 26·7 28·7 26·5	26·7 27·2 25·9 27·5 26·7	26·4 25·7 26·5 25·7 25·4	25·5 25·5 27·2 24·2 24·7	24·7 23·4 25·9 23·4 23·7	23.9 21.7 22.2 21.9 22.2	23.0 22.5 23.7 23.2 22.7	22·7 23·5 24·7 25·7 23·7	23·7 23·7 23·9 24·7 23·7	25·2 25·7 25·7 26·7 26·7	28·2 26·7 28·2 27·7 27·2	32·7 28·5 30·2 30·9 29·2	33.5 30.7 32.2 34.5 32.7	34·2 31·9 33·7 33·7	34·9 31·9 32·7 34·7 32·2	35.7 31.5 30.7 33.7 29.7	34·2 30·9 28·2 33·5 29·2	31·5 27·2 31·5 29·2	31·2 30·7 27·2 30·5 29·2	29.7 29.7 27.9 29.7 28.9	29·5 30·7 26·9 29·2 28·7	30·2 28·2 28·2 28·2 28·7	29·7 26·2 29·2 27·7 28·5	29·2 24·7 28·7 27·7 26·2	28· 27· 27· 28· 27·
6 7* 8** 9	26·2 26·7 27·2 21·2 23·9	26·2 26·7 26·7 21·5 26·2	25.9 26.5 25.7 23.9 26.2	25.0 25.9 16.7 24.7 25.5	23.7 24.7 18.2 24.9 25.9	22·7 23·7 18·5 24·2 21·7	22·7 21·7 16·9 22·5 20·9	23·2 20·7 20·7 21·7	24.7 21.7 22.7 22.5 23.2	26·7 25·2 27·2 23·9 25·7	30·2 29·7 28·7 26·7 27·7	31·9 31·5 31·5	34·7 35·7 33·2 33·5 33·7	34·7 35·7 33·7 34·7 34·7	33·2 34·5 33·9 34·5 34·2	32·7 32·7 33·9 33·2 33·2	31·2 31·5 32·7 31·5 31·5	30·2 29·7 30·2 28·9 29·9	29·2 28·7 28·5 28·2 29·5	28·2 28·7 26·7 27·7 28·7	27·7 28·7 26·9 20·7 27·9	27·7 28·9 27·2 24·2 27·5	28·2 29·2 26·7 25·2 20·7	27·2 29·0 23·2 24·9 25·7	28· 28· 26· 26· 27·
11** 12 13 14	19.7 23.7 25.2 26.5 24.5	26·7 22·7 24·2 24·5 28·2	24·2 23·2 24·7 25·5 25·9	25·9 24·5 23·7 24·9 22·7	27.5 25.2 21.7 23.1 21.7	27.5 23.2 21.2 21.7	25·2 21·4 20·7 21·7	20·7 22·7 21·2 21·7 25·7	21·7 23·2 21·7 23·2	22·7 25·7 23·7 25·5 27·2	25·2 27·2 27·2 28·2 27·2	29·7 28·7 31·9 31·5	30·7 31·9 35·7 33·5 32·7	32·7 33·7 34·2 34·2 33·2	34·2 33·2 35·7 34·5 34·2	33.9 31.7 33.7 33.7 32.2	31·5 30·5 31·2 32·7	30·2 30·7 31·2 31·7	28·7 29·2 30·2 31·2 27·7	23·7 28·2 29·7 29·2 27·7	22·9 27·2 29·2 28·2 27·7	23·5 25·7 28·2 27·2 27·7	23·2 23·7 27·2 21·7 27·2	25·9 24·2 26·7 22·7 27·7	26· 26· 27· 27·
16 17 18 19*	28·7 24·9 25·2 27·2 26·5	25·7 25·7 26·7 26·9 26·7	25·2 25·7 24·7 26·7 26·2	25·5 25·7 22·7 25·7 25·7	26·5 24·7 22·5 23·7 24·5	24·2 23·5 20·5 21·7 23·2	23·9 22·7 21·7 21·5	23·7 22·7 23·2 21·2 23·7	24·7 23·7 24·7 21·2	26·5 25·7 25·7 22·7 24·7	27·7 27·7 28·1 24·7 26·4	29·7 31·5 32·2 29·2 29·2	31·9 33·5 33·7 31·7 32·9	32·5 34·9 34·7 31·7 34·7	32·7 34·5 33·5 31·5 34·0	32·7 33·7 31·9 29·7 32·2	31·7 31·5 30·7 28·7	29·2 30·4 29·9 27·7 28·7	26·7 29·7 28·7 27·2 27·9	26·2 29·2 28·2 27·2 27·2	28·2 28·7 27·7 26·7 26·9	27·7 28·7 27·5 27·5 27·7	27·2 27·2 27·7 27·5 27·5	25·7 25·5 26·9 26·7 26·9	27 · · · · · · · · · · · · · · · · · · ·
2 I* 2 2* 2 3 2 4 2 5**	26·7 26·9 26·9 26·2 26·5	26·5 26·7 26·2 25·2 26·4	26·2 26·2 25·9 24·7 26·9	26·2 25·5 24·7 23·5 27·0	26·7 23·7 23·7 23·2 26·5	26·2 22·2 20·7 21·9	25·7 22·7 19·7 22·2 19·3	24·7 23·2 19·7 24·2 22·2	23·9 24·7 22·2 23·7 23·7	24·9 26·7 23·7 24·9 26·2	26·7 29·2 26·7 26·7 30·2	30·7 32·7 30·9 34·2	31·2 35·2 33·5 33·7 36·2	33·5 35·2 34·4 35·2 37·5	32·7 34·7 34·9 34·7 39·7	30·7 32·7 34·0 33·7 38·2	29·2 30·7 31·9 31·2 36·7	28·5 27·7 29·7 29·7 30·9	27·9 27·5 28·2 28·7 22·7	28·5 27·9 27·2 26·7 21·5	28·2 28·5 26·2 26·7 26·9	27·7 28·2 26·7 26·7 27·7	27·2 27·7 26·2 26·7 26·2	27·2 27·2 27·2 26·7 25·4	27 · 28 · 27 · 4 28 · 27 · 4 27 · 4 28 · 4
26 27 28** 29**	24·7 25·5 23·7 23·2 32·7	24·2 25·5 26·7 22·2 28·2	23·7 25·7 25·7 25·7 22·7	23·7 24·2 25·2 28·7 22·7	26·7 23·7 26·7 30·7 21·7	21·2 23·9 23·2 25·9 21·0	19·2 23·7 24·2 23·5 24·7	21·2 22·7 21·5 24·1 26·7	22·2 24·4 20·7 25·2 20·7	24·7 26·2 20·4 26·2 22·7	27·7 27·9 23·5 27·5 24·7	30·7 31·2 28·2 30·5 28·9	32·7 34·2 33·2 32·7 30·7	34·7 35·2 34·7 33·7 31·7	35·2 34·7 34·7 31·7 32·7	33·2 32·7 32·7 30·5 30·7	30·7 32·2 32·2 29·7 29·2	27·9 29·7 28·7 29·2 28·2	23.5 28.7 23.2 26.5 26.7	25·9 26·7 23·7 24·7 25·7	27·5 27·7 20·7 20·9 23·9	28·2 27·5 19·7 24·9 25·7	26·2 27·7 24·2 27·5 25·7	24·7 27·4 16·7 28·5 26·2	26·27·3
31	27.7	25.9	25.5	24.9	26.7	24.2	22.2	21.2	22.2	24.7	26.7	30.7	32.5	33.7	31.7	30.5	29.7	28.5	27.9	26.7	23.7	27.7	27.7	27.2	27.
Mean	26·I	25.9	25.4	24.8	24.5	22.7	22.4	22.8	23.2	25.2	27.4	30.8	33.2	34.5	33.9	32.6	31.2	29.6	28.1	27.4	26.8	27.1	26.6	26.2	27
Mean*	26.8	26.7	26.4	25.8	24.7	23.4	23.1	22.7	23.0	24.8	27.3	30.8	33.3	34.5	33.2	31.6	30.1	28.5	27.8	27.9	27.8	28.0	27.8	27.5	27.
Mean**	24·I	25.7	25.6	24.7	25.9	23.7	21.8	21.8	22.8	24.5	27.0	30.8	33.2	34.2	34.8	33.8	32.6	29.8	25.9	24.1	23.7	24.6	25.6	23.9	26.
August	1	1				1		1	1	14	ŀ°+Ta	bular	Quant	ities.	ı		1	ı		ī)	1	1		Mear
1* 2 3 4 5		25.2	24·7 24·2 24·2 25·2 23·7	24·7 23·7 25·9 24·2 22·7	22·7 23·5 22·9 21·9	22·7 19·7 21·4	, 20·7 21·7 18·7 21·0 21·2	22·5 19·2 22·2	21·7 23·1 20·7 24·2 23·7	23.7	25·7 27·7 28·2 30·2 30·7	31.7	33·2 32·7 32·5 35·7 37·2	33.9 32.7 34.5 35.7 34.7	32·7 31·2 36·1 34·7 32·2	30·2 29·7 33·7 31·7 30·9	28·2 29·2 29·9 30·7 30·2	28.2	27.7	26·7 26·7 25·7 28·9 25·9	26·7 25·7 26·2 27·5 25·7	27·2 23·2 26·7 26·7 26·2	21·5 26·7 25·9	27·7 22·7 27·7 24·2 25·9	26· 26· 26· 27· 26·
6 7 8 9	25.7 25.2 26.9 25.2 27.7	25.2	27·7 24·7 22·7 22·7 21·7	22·9 23·9 25·3 26·7 24·7	19·5 24·5 25·7 23·2 24·2	23.5	19·9 21·7 23·7 20·9 22·7	_	24·5 24·9 23·7 23·5 22·2	27·2 26·7 25·2 25·7 23·4	27·9 27·9 27·7 26·7 25·0	32·2 32·5 32·2 30·7 27·7	36·5 33·7 34·9 32·7 30·2	36·9 33·5 36·7 33·7 32·2	33.7 31.9 .33.7 24.2 33.2	31·2 31·4 31·2 29·7 32·2	29·2 30·7 29·2 29·2 30·2	26·9 30·4 28·2 28·7 28·2	24·7 26·2	27·2 25·7 24·7 27·7 27·7	27·2 25·7 27·7 27·7 24·9	24·2 26·7 25·2 21·2 21·7	27.2	24·9 30·2 21·2 24·7 23·2	26· 27· 26· 25·
11 12 13 14 15**	23·2 24·5 25·2 22·7 23·2	23.9	23·2 23·9 24·2 22·9 24·7	24.7	23.7 27.2 23.2 23.2 23.7		20·5 23·2 22·9 22·9 21·7	19·9 22·7 23·0 21·7 21·7	22·2 22·7 23·7 22·2 22·0	23.0 23.7 25.4 24.9 23.2	24·4 27·7 26·7 26·9 26·2		33.7 32.7 32.7 30.7 33.2	36·2 33·7 33·2 31·7 33·7	34·2 34·2 33·2 31·2 33·7	32·2 32·7 32·5 32·2 36·7	32·0 30·7 30·9 30·5 35·7	29·9 29·2 29·2 26·9 36·7	28·7 27·7 25·7	26·5 28·7 26·7 26·7 26·7	25·7 28·2 26·7 23·7 26·2	27·7 26·7 24·2 21·2 24·7	26.2	,	26· 27· 26· 25· 26·
16** 17 18* 19* 20	19·9 25·7 24·7 26·2 26·2	26.2	27·2 24·2 27·7 25·2 26·7	28·2 23·7 27·7 24·7 25·7	26·2 21·7 24·7 23·7 24·2	25·7 21·9 22·9 22·7 23·2	22·9 22·5 22·5 21·7 22·2	22·7 22·7 21·7 21·7	24·9 23·2 22·2 22·7 21·9	24·7 25·2	27·7 25·7 26·2 28·7 30·2	33.7 28.7 29.7 32.7 32.7	34·9 31·7 30·2 34·5 34·7	33.7 33.7 31.2 34.7 35.9	32·2 33·5 31·2 32·7 32·2	30·7 31·2 29·7 29·9 30·0	27·7 28·7 28·2 27·7 27·7	25·2 27·7 26·7 26·9 25·4	· '.	25·2 27·7 26·2 26·7 23·7	25·7 27·2 26·7 27·2 25·7	25·7 26·7 26·2 26·7 26·9	26·2 26·2	24.7 24.7 26.2 25.5 30.9	26· 26· 26· 26· 27·
2 I* 22 23 24 25**	31·7 26·5 26·2 19·7	25·7 26·2 25·5	29·7 24·7 25·7 25·7 23·7	26·7 23·9 25·7 24·7 30·7	24·9 22·5 22·4 22·9 20·7	22·5 21·9 21·9 21·9 20·7	21.7 23.7 20.5 21.7 18.2	20·5 22·7 19·7 23·3 20·7	20·7 22·7 20·2 23·4 26·7	24·7 26·2 22·9 26·2 26·7	28·7 31·2 26·7 27·7 28·2		34·2 36·7 33·7 36·9 35·2	34·7 35·7 34·2 36·0 37·2	32·7 34·2 33·2 34·2 35·9	30·2 31·9 30·7 32·7 34·5	27·2 28·7 27·9 31·7 31·9	24·7 25·7 25·2 26·5 28·7	25.7	24·7 24·7 26·7 24·7 28·2	25·7 24·7 26·7 26·2 27·7	26·7 25·7 26·7 22·9 26·7	26·9 24·7 26·2 21·7 25·7		27·26·26·27·26·27·2
26** 27** 28 29 30*	22·7 23·7 26·7 29·2 25·7	23.2	28·2 25·2 23·7 25·2 25·2	27·7 24·2 23·7 24·7 24·7	23·7 27·7 24·5 24·7 23·7	23·7 26·7 23·4 23·9 22·2	24·7 24·7 21·7 23·2 20·9	23·2 26·7 20·2 21·7 20·5	22·2 27·2 20·7 21·7 21·7	22·2 26·2 23·7 23·9 22·7	26·7 28·7 28·7 26·7 25·7	32·7 30·7	32·7 35·2 33·7 33·7 32·2	34·5 32·7 34·0 33·9 32·9	34·4 32·2 32·4 32·2 31·2	33.7 30.7 31.2 30.2 29.5	29·7 29·2 28·7 28·7 27·7	29·2 27·2 27·0 27·2 26·9	26·7 20·7 26·4 26·2 25·7	25.7 24.2 26.5 26.2 26.2	27·2 26·7 26·2 25·7 26·2	27·2 27·2 25·7 24·7 23·9	23·9 27·2 23·9 24·2 24·7	21·7 25·7 25·9 26·7 22·9	26· 27· 26· 26· 25·
31	21.7	23.7	24.5	23.7	23.2	22.2	20.7	20.7	20.7	23.7	27.7	29.7	31.9	32.7	31.7	32.5	32.2	29.2	29.2	18.7	23.2	26.7	23.7	24.2	25.
Mean	25.0	24.9	24.9	25.1	23.7	22.5	21.8	21.8	22.8	24.9	27.6	31.2	33.7	34.5	33.1	31.2	29.7	27.8	26.6	26.1	26.3	25.5	24.7	25.0	26.
Mean*	26.6		26.5	ļ	23.9	22.4	21.5		21.8	24.3	27.0	30.9	32.9	33.5	32.1	29.9	27.8	26.3	25.8	26.1	26.5	26.1	26.2	25.8	26.
Mean**	121.8	22.5	25.8	26.8	24.4	23.8	1 22.4	23.0	24.6	25.4	27.5	32.3	34.2	34.4	33.7	33.3	30.8	29.4	26.9	26.0	26.7	26.3	24.0	22.8	27.

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C)h 1	h 2	2h &	3h .	4h	5h (3 ^h 7	'h 8	h g)h 1	0h 1	1 ^h No	on. 1	3ъ 1.	4 ^h 1	5ъ	16h	17h 1	8h 1	9h 2	20h 2	1h 2	22h 2	3h 2	4h
Septe	mber.	-, -		-				-,		14	°+Tal	bular (Quanti	ties.					···						Mean.
1** 2 3 4	, 16·7 26·0 22·7 22·2 27·2	12·7 24·7 22·5 27·7 22·2	24·4 22·5 20·7	17·7 23·5 21·9 20·2 23·2	1 / /	22.5	_	23.2	25·2 26·2 23·7 25·7 23·7	27.7	30·2 30·2 29·7 33·2 30·5	32·7 31·7 34·2	32·7 31·7 36·7	38·7 32·7 31·2 33·7 33·2	31.5	29·7 30·2 29·7	28.7	28·2 26·5 25·7 25·5 26·2	27·5 26·7 25·9	21·9 27·5 25·4 24·2 21·2	24·7 26·5 24·7 21·2 23·7	24·5 26·5 23·2 24·2 24·7	26.2	24.2	26.9
6 7 8 9	26·2 25·2 26·9 32·7 25·7	24·7 25·2 22·2 32·7 24·7	24·5 25·2 21·5 37·7 24·5	23·7 23·4 21·9 35·7 23·7	24.4	23·2 23·2 26·7 29·7	22·9 20·7 27·7	20·9 21·5 20·7 25·7 21·7	22·2 22·9 23·2 23·9 21·7	25.2	31·7 32·2 28·2 26·7 28·7	34.5		32·7 32·2 36·2 31·2 33·7	31.7	28·7 29·2 36·2 28·7	28·2 25·7 36·2 27·2	23.7 23.9 35.7 27.7 26.2	24·2 25·5 32·7 27·7 25·9	26·7 22·7 28·7 26·7 25·7	24·2 25·2 27·7 25·9 26·7	23·2 25·5 30·7 24·5 22·5	21·2 25·2 31·9 24·2 21·7	22·2 24·2 33·7 23·9	26·0 26·3 28·8 28·8 26·0
11* 12* 13 14 15*	26·7 23·7 26·7 24·7 24·9	26·2 24·7 24·9 24·7 25·5	25·2 24·5 25·9 24·2 23·5	23·2 23·9 23·3 23·7 23·0	22·2 23·2 23·2 23·7	22·7 22·2 22·5	21.9 22.2 23.5 21.7 21.9	21·5 21·9 24·4 21·7 21·2	21·5 22·2 25·7 23·9 22·2	22·9 24·7 26·7 26·7 25·2	26·2 27·7 29·7 31·2 28·7	30·5 29·2 31·7 33·7 30·9	31·7 29·7 33·7 34·7 32·2	32·5 30·2 33·7 35·2 32·7	29·9 29·7 31·7 35·2 30·7	28·2 29·7 32·7	25·7 27·2 26·9 29·2 27·5	25·2 27·2 26·5 27·7 26·9		26·7 27·2 26·7 23·5 26·7	24·7 27·2 26·7 25·9 26·7	24·7 26·2 26·2 26·7 25·9	23·7 24·7 25·7 26·5 23·7	22·2 24·2 25·7 25·7 21·7	25·5 25·9 26·9 27·1 26·0
16 17 18** 19** 20**	17·7 20·2 23·7 21·7 26·7	22·7 27·7 24·2 20·2 22·2	19·7 25·2 24·5 18·7 26·7	18·7 24·2 24·5 21·7 26·7	23·7 28·2 24·7 17·7 23·2	23·7 24·7 30·7 19·9 24·2	23·2 23·7 34·7 23·2 28·7	22·7 21·7 30·7 27·7 26·2	21·7 21·7 29·7 28·7 23·2	23·7 23·7 27·2 27·7 25·7	25·2 26·7 26·7 30·7 29·7	30·7 32·2 28·2 30·5 31·7	32·2 34·7 30·2 34·2 31·2	31·7 33·7 29·7 34·7 28·7	29·7 34·7 29·2 31·7 29·2	28·2 31·7 28·7 29·7 28·7	27·2 29·7 26·7 28·2 25·2	26·7 16·9 25·5 25·7 26·2	27·7 25·2 24·4 22·5 24·2	27·7 23·7 25·2 23·4 23·9	25.7. 22.7 19.7 24.7 23.2	16·2 23·7 23·7 15·2 25·2	27·7 22·2 23·7 23·7 21·2	23·2 21·7 21·7 24·7 21·7	24·9 26·3 26·4 25·2 26·0
2 I** 22 23 24 25*	24·7 21·7 27·2 24·7 23·7	25·7 27·7 29·2 24·2 23·9	22·9 27·2 20·7 24·2 25·5	25·7 29·7 22·7 23·9 26·7	27·7 25·2 22·7 24·2 25·7	29·7 23·9 24·2 23·7 26·2	25.7 20.5 21.7 28.2 27.5	29.7 18.7 20.2 22.7 22.9	26·7 18·2 20·5 22·7 20·7	29·7 21·2 22·7 24·2 21·7	31·2 24·7 28·7 26·2 24·7	35.7 29.7 31.7 31.2 29.2	36·2 32·7 31·7 32·2 31·2	32·2 32·5 30·7 33·2 33·5	33.7 30.9 27.2 33.2 30.9	35.7 28.7 26.2 32.2 30.2	28·7 26·7 27·2 29·2 28·2	27·7 23·2 26·7 28·2 27·2	25·2 17·7 25·9 25·2 26·5	21.7 20.2 25.5 21.7 24.9	33.7 12.2 25.2 21.7 22.7	17·7 18·7 25·2 19·7 22·7	21.7 22.2 24.7 18.7 23.2	17·7 24·7 24·7 22·7 21·7	27·8 24·1 25·6 25·6 25·9
26* 27 28 29 30	23·2 24·7 24·5 19·9 21·7	23·9 23·9 20·5 21·7	25·2 23·7 23·7 22·7 14·2	24·5 23·7 21·7 23·7 17·2	23·7 25·5 23·2 22·7 23·2	23.2 23.5 23.2 22.7	22·7 25·7 23·2 22·7 22·5	22·2 23·2 21·7 20·9	22·2 23·7 19·7 21·9	23.7 25.7 22.2 22.7 21.9	25.7 28.2 27.7 23.7 25.2	28·7 31·2 28·7 27·2 27·7	31·7 34·2 38·7 30·2 30·2	30·7 35·2 37·5 32·7 30·9	31·2 34·7 36·2 32·5 31·7	29·2 32·2 36·2 32·5 30:9	28·2 26·7 35·7 29·5 20·7	26·7 28·2 35·5 28·7 24·2	23.7 26.7 30.5 26.7 27.7	25.7 26.2 31.7 25.2 24.7	25.7 25.7 26.9 18.2 23.5	25.7 25.7 23.7 19.2 20.9	25·2 25·5 22·2 24·7 22·2	24·7 24·7 21·2 23·7 24·7	25·7 27·0 27·5 24·8 23·9
Mean ——— Mean*	24.1	24.2	23.6	23.6	23.6	23.5	23.4	23.0	23.2	23.6	28.3	29.7	31.3	31.9	30.2	30.3	27.4	27.0	25.8	26.2	25.4	23.4	24.1	24.0	26.1
Mean**		21.0			22.7		26.8		26.7	27.5	29.7	32.2			32.1		28.1		24.2	23.2				<u> </u>	26.2
Octobe	r.									14°	+Tab	ular Ç)uantit	ies.											Mean.
1 2** 3 4 5	26·2 24·2 25·2 24·7 22·7	, 19·2 21·7 24·5 26·7 23·7	22·7 23·2 22·4	23.4 25.2 24.4 24.5 24.2	27·7 25·2	26.2	, 23·2 24·5 22·7 22·7 22·7	, 22·2 20·7 22·2 22·7 21·7	, 23·2 20·2 22·2 22·2 20·7	23.7 21.9 22.7 22.7 20.7	, 26·2 24·2 24·7 23·7 23·7	28·2 28·2 28·2 26·7 27·2	30.2	31·9 32·2 32·5 33·7 33·7	31·5 28·7 32·5 32·7 33·5		, 27·7 27·2 27·7 26·7 29·2		26·2 23·2 25·2	, 20·7 25·7 25·7 21·7 21·7	, 16·2 20·7 21·2 20·7 16·7	, 21·2 24·2 23·7 23·7 15·7	24·2 24·7 21·2 25·2 20·7	24·7 25·7 21·2 22·7 26·2	25·1 25·2 25·4
6 7 8** 9	13.5	26·2 26·7 25·5 16·2 24·2		23·7 23·2 25·7 18·2 23·2	26·7 23·7 24·9 22·2 25·2	24.7	23.7 24.2 25.5 20.2 23.7	- 1	20·5 21·7 23·2 19·9 21·7	20·9 22·2 25·7 21·7 22·7	24·2 24·7 23·7 27·7 24·7	27·7 28·7 31·7 30·7 29·2	29·7 34·7 31·2	30·9 30·7 33·2 32·2 30·7	30·7 31·7 31·7 29·2	29·7 28·7 30·7 30·2 28·2	28·2 23·7 33·7 28·2 26·7	23·7 28·7 27·7		22·2 25·2 15·2 26·2 23·2	20·7 19·7 23·2 24·7 23·7	21.9 20.7 17.7 23.2 23.9	22·7 23·7 14·2 24·7 24·0	25.7 24.7 12.2 23.9 23.7	25·2 25·1 25·2 24·2 25·2
11* 12* 13* 14*	24·2 24·7 23·2 24·2 24·5	23·7 23·7	23.7	24·2 23·7 24·2 23·7 23·7	24·2 23·5 24·2 23·7 24·5	23.7	23.4 22.9 23.7 23.7 24.9	23.2	2 I · 2 2 I · 7 2 O · 2 2 I · 2 2 3 · 5	22·2 22·2 20·7 22·7 22·7	26·7 23·7 22·7 24·2 25·7	28·7 26·9 27·7 31·7	29·7 29·7 30·2	30·7 29·2 29·7 31·2 35·2	29·7 29·7 31·2 32·2	28·7 28·7 28·2 28·7 33·7	27·7 27·2 27·2 27·7 31·7	26·7 26·7 27·7	24·7 25·5 26·7 27·2	26·2 24·9 26·7 26·7	25·2 24·7 25·7 24·7 24·9	22·7 24·7 25·2 23·9 23·2	24·7 24·2 24·7 25·2 23·7	24·7 24·2 24·2 24·2 24·2	25.6 25.0 25.0 25.5 27.0
16** 17** 18 19	24·5 23·7 23·2 24·2 17·2	25·2 25·7 23·7	25.7 27.7 25.7 24.7 27.7	23·7 27·2 24·2 24·2 22·2	30·7 28·2 24·2 26·2 23·7	24·2 25·7	24.2	22.7	26·7 23·5 25·7 22·7 25·2	31·7 23·7 26·7 23·7 28·2	35.7 28.2 28.7 27.7 29.7	30·7	34.5 31.7 30.7 29.7	30·7 32·7 30·2 33·7 30·7	35.7 26.7 27.7 33.7 27.7	29·7 25·2 26·7 27·7 25·7	24.7	26·7 23·7 27·2	25·7 22·7 25·7	16·7 23·7 24·2	23.2	19.7	24·5 22·7 22·7 13·7 23·7	22·7 12·2	28·5 25·2 25·5 25·1 24·9
2 I 2 2 2 3 2 4 2 5	19.7	19·2 21·2 29·5 20·9	21·2 20·9 23·9 18·9 21·7	22·2 20·7 24·2 20·7 22·7		22·9 22·7 24·5 21·7 23·7	22·7 23·2 22·7 22·9 23·6	23·9 20·9 22·2	20·9 22·7 20·2 23·2 21·2	21·7 23·5 25·7 24·5 21·5	24·7 26·7 27·7 29·2 23·7		32.7	30·7 32·7 32·7 29·7 29·2	30·7 31·2 32·5 31·2 32·7		27·7 27·2 28·7	25.9	24·7 26·7 26·2	24·7 22·9 26·2	23.7	22·9 20·7 24·2	21.7 22.7 17.2 23.7 23.7	21.7 20.7 19.2 23.2 20.7	25·I 24·9
26 27* 28 29 30	19·2 23·7 23·2 24·7 23·0	22·7 22·9 24·2 22·2 23·7	22·2 23·7 23·5 23·7 24·7	23·2 23·9 23·5 23·7 24·2	23·2 23·7 23·7 23·7 23·2	23·7 23·2 22·7	23.7	22·5 22·2 21·9	21.7	22·7 21·7 22·5 22·2 22·2	25·7 24·2 24·2 24·2 24·7	27·7 27·2 29·7 27·7 28·2	33.7	30.7	29·2 28·2 32·7 28·7 28·2	26·7 26·7 31·2 27·7 27·2	26.9	25.0	24·9 27·2 25·2	25·2 24·7 24·2	24·5 24·7 23·9	23.9	23.7 23.5 23.2 18.7 21.9	23.7 22.7 23.7 19.7	24·7 24·6 25·5 24·2 24·4
31** Mean		21.2	22.2	20.7	24.7	20.7				27.7	27.7	29.7		32.7	30.7			26.2						26.9	25.1
Mean Mean*		23.1	23.5	23.4	23.9	24.5	23.4		21.3	51.9	25.9	29.1	31.0		30.9								24.5	24.2	25.2
Mean**																	28.3								

	Table I.—Hourly Means of Magnetic Declination—continued. Oh 1h 2h 3h 4h 5h 6h 7h 8h 9h 10h 11h Noon. 13h 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h 24h															ATION	-con	tinue	₫.						
01	11	21	3h	41	51	6	h 7	h 8	3h 9:)h 11	h No	on. 1	3h 1	4h 1	5h 1	6h 1	7h 1	8h 19	9h 20)h 2	1 ^h 2	2h 2	3h 2	4h
Novem										14	l°+Ta	bular	Quant	ities.										N	Jean.
	,	,	,	,	,	,	.,	,	,	,	,	,	,	,	, "	,	,	,	,	,	,	,	,	,	,
1 2 3 4 5*	22·9 24·7 21·5 23·7 22·9	23.5 23.7 21.9 23.5 23.9	24·2 24·5 22·7 23·7 23·7	24·5 25·5 23·7 23·7 23·3	23.9 25.1 23.7 23.9 23.5	23·2 23·7 22·9 23·5 23·2	22·7 22·9 22·7 23·2 23·2	21.7 22.2 22.7 22.7	21.7 22.2 21.5 21.7 21.2	23·2 23·7 22·2 21·9 21·7	24·7 24·7 24·7 24·7 24·7	27·7 27·7 27·2 27·2 28·2	29·2 28·7 28·7 28·5 29·2	29·2 28·2 28·7 28·2 28·7	28·7 28·2 27·7 27·9	27·2 27·7 26·7 26·7 26·7	26·2 23·2 25·7 26·2 25·9	25·7 24·9 25·2 25·7 25·7	25·5 24·7 24·9 25·2 25·5	24·9 24·2 24·5 24·7 24·9	20·5 23·7 22·2 24·2 24·5	21·9 23·2 23·7 20·7 23·7	22·7 22·7 23·2 20·9 22·7	23·2 22·7 23·7 19·5 22·7	24·4 24·8 24·3 24·2 24·6
6* 7* 8 9	23·5 23·7 22·9 20·7 22·7	23.7 23.9 23.5 22.2 23.2	23·7 24·0 22·7 22·7 23·5	23.4 24.2 23.2 23.7 22.9	23.7 23.9 23.2 23.7 23.2	23·7 23·7 23·2 23·9 23·2	23·5 23·7 23·2 23·5 23·2	22·7 23·5 23·2 23·7 22·7	22·2 22·7 22·7 23·9 21·7	22·7 23·5 23·7 23·2 22·2	25·2 26·2 25·7 24·7 23·7	27·7 28·7 28·2 26·7 27·7	28·7 29·2 28·5 28·7 29·2	28·2 28·2 29·4 28·2 29·7	27·7 27·7 28·5 27·5 29·7	26·7 26·7 27·9 27·5 26·7	26·2 26·5 26·9 26·9 28·2	25.7 25.9 26.2 26.7 28.7	25·2 25·5 25·7 25·2 26·2	24·7 24·9 24·7 24·7 25·2	24·2 24·2 24·2 23·7 19·2	23.7 23.7 23.7 22.4 20.2	23.7 23.5 22.9 20.5 17.7	23.7 23.2 20.9 21.2 18.7	24·8 25·0 24·8 24·4 24·1
11** 12** 13 14 15**	18·7 19·7 26·2 23·5 22·5	21.7 21.9 23.7 25.9 23.7	21·2 25·9 23·2 24·9 23·2	22·7 23·7 25·9 23·5 24·0	27.7 30.2 27.9 23.7 21.9	28·2 34·2 23·9 23·5 30·7	25·2 27·7 26·1 23·5 27·9	25.5 28.2 27.9 22.9 23.0	23·7 27·7 28·7 23·9 22·7	26·7 27·2 25·7 25·2 24·2	24·7 26·7 26·7 27·7 26·2	26·7 27·7 28·7 28·2 26·9	28·2 29·2 27·7 28·7 27·2	29·7 31·7 26·2 27·9 26·9	26·9 25·7 26·7 27·5 27·0	28·5 27·2 26·2 26·2 25·7	26·7 27·2 15·2 25·7 22·7	21·7 18·7 17·7 24·7 10·7	19·7 15·7 16·7 17·2 22·7	8·2 14·2 21·7 20·7 21·7	15.9 16.7 21.7 16.2 19.2	17·2 19·2 19·7 20·7 25·7	13.9 21.2 21.9 22.2 16.7	15.5 24.7 21.7 20.7 18.7	22·7 24·7 24·1 23·9 23·4
16 17 18 19 20	20·2 26·2 21·9 22·7 23·0	23.7 22.2 22.9 22.7 23.9	23·2 23·9 23·1 23·7 24·7	25·2 23·2 23·5 23·5 23·5	24·7 23·9 22·7 23·5 23·7	23.9 22.7 22.7 23.4 23.2	24·5 23·5 23·1 22·7 21·9	24·2 22·9 24·7 22·7 21·7	23·2 23·0 24·9 22·7 20·9	25·2 23·1 25·3 23·5 22·5	25.7 24.7 25.7 25.2 23.7	28·2 28·2 27·7 26·7 26·5	28·7 27·2 28·2 28·7 28·2	28·7 26·7 28·7 29·7 28·7	28·2 28·7 27·7 27·5 28·7	22·7 25·2 27·7 27·7 28·2	24·2 25·7 26·9 26·9 27·2	19.7 23.7 26.0 25.9 26.2	21·2 21·5 23·7 22·7 25·2	21·7 22·9 21·7 17·7 24·2	19·7 23·2 21·2 19·2 23·2	19·2 22·0 22·2 16·7 22·9	19·9 22·2 22·2 20·2 22·7	21·5 21·7 23·5 21·7 22·5	23.6 24.1 24.5 23.7 24.5
21 22 23** 24 25	23·5 22·5 17·7 22·5 22·2	24.4 23.5 17.7 20.7 23.2	24·2 23·9 14·2 19·9 23·2	24.9 24.2 18.2 21.2 23.7	25.0 24.7 21.7 19.7 21.7	25·2 23·9 19·5 19·9 22·2	22·9 23·7 24·7 21·7 22·2	22·7 23·5 24·7 22·2 22·2	22·2 23·2 26·9 22·7 22·2	23.7 22.9 28.7 22.7 23.5	25·2 24·2 26·7 24·9 24·7	27·2 24·9 33·7 30·7 25·7	29·2 26·7 31·7 32·7 25·7	29.7 27.9 33.2 30.7 25.7	28·7 27·7 31·7 29·7 25·7	27·5 26·7 31·7 25·7 25·7	25·7 26·7 32·7 26·2 25·9	25·2 25·9 27·7 26·2 22·7	24·2 25·5 24·7 16·2 25·7	23.0 25.2 23.7 11.7 24.5	21·7 24·2 19·7 21·7 23·2	22·4 24·5 19·9 22·5 22·5	22·5 18·7 22·2 22·7 22·9	21.7 16.2 22.2 22.7 23.7	24·7 24·2 24·8 23·2 23·8
26* 27* 28 29** 30	23·2 19·7 22·7 11·7	22·7 22·2 22·7 23·2	22·9 21·7 22·7 22·7 26·2	23.7 23.5 23.0 22.7 22.7	22·2 20·5 22·7 23·2 22·7	21·9 21·4 22·7 23·2 22·7	21·9 22·2 22·7 23·2 22·9	22·7 22·7 23·2 23·5 22·7	22·9 22·9 22·7 23·7 22·2	23·2 22·7 22·9 23·7 24·2	24·2 23·7 23·7 24·7 25·2	25·2 25·9 26·7 26·7 25·9	27·2 26·5 27·7 26·7 27·2	26·2 26·5 27·7 27·2 27·2	25·5 25·7 27·7 26·2 27·7	25·5 24·9 26·2 25·2 28·2	24·7 24·2 24·7 25·7 27·2	24·7 23·7 24·2 27·2 28·7	24·7 23·7 23·7 29·7 28·2	24·2 23·4 23·7 32·7 23·2	23·7 22·9 23·2 28·7 19·2	23·2 22·7 23·2 23·9 17·7	22·2 22·7 19·7 11·7 20·5	20·5 22·5 19·5 11·7 21·4	23·7 23·3 23·7 24·7 23·4
Mean	22.1	22.9	23.1	23.5	23.7	23.8	23.5	23.4	23.1	23.8	25.1	27.5	28.4	28.5	27.8	26.8	25.8	24.4	<u> </u>	22.6	21.8	21.8	21.0	21.1	24.1
Mean* Mean**	22.6	23.3	23.2	23.6	24:0	22.8	22.9	22.9	24.0	22.8	24.8	28.3	28.2	27.6	26.9	26.1		21.2	<u> </u>	24·4 20·1	23.9	23.4	23.0	18.1	24.3
Decem		21 0	21 4	22 3	-+ 9				<u>- </u>		4°+Ta								· · ·						Mean.
	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,	,
1** 2 3 4 5*	22·9 18·7 23·2 21·2 22·7	21·5 23·7 23·2 21·2 22·7	23·7 24·9 23·2 22·9 22·5	23·2 24·5 23·2 23·2 22·5	24·7 24·7 24·7 22·9 22·7	24·7 24·7 23·7 22·9 22·9	1 ×	23·9 23·5 24·5 23·2 22·9	22·9 23·2 24·9 23·7 23·0	22·I 23·4 26·7 23·7 23·7	24·3 23·7 26·7 26·2 24·4	25·7 24·9 30·2 26·2 24·9	29·7 25·9 30·7 24·7 25·5	26·2 26·5 30·2 26·2 24·7	29·7 25·7 28·9 26·7 24·7	27·9 25·2 29·9 24·7 24·5	16·2 24·7 27·7 24·7 24·2	23·7 24·2 24·5 25·2 23·7	16·2 23·2 24·2 23·7 23·7		9·7 22·2 18·7 22·2 22·7	3·7 21·9 13·7 20·7 22·5	12·7 22·7 20·2 22·0 22·2	15.7 22.7 12.2 21.7 22.2	21·1 23·8 24·4 23·6 23·4
6* 7 8** 9**	22·7 22·7 11·7 20·7 22·7	22·7 22·7 13·7 21·2 21·2	22·7 22·2 11·5 26·7 21·5	23·2 22·7 15·2 25·7 22·9	23·3 23·7 18·2 23·7 23·7	23·I 22·7 24·2 25·2 24·7	22·2 27·7	23·4 22·2 27·7 25·7 26·7	23·5 23·7 25·7 26·2 28·2	24·5 25·7 28·7 24·7 26·7	25.7 25.9 30.2 26.2 28.7	25.7 25.9 30.7 28.2 22.7		38.7	24·7 26·7 31·2 24·2 22·7	24.7 26.2 26.2 24.7 23.2	24·7 26·2 25·7 21·2 19·7	24·7 27·2 22·2 21·7 20·7	24.7 28.2 20.2 18.2 22.9	24·2 16·7 21·2 13·7 21·7	23·5 13·2 19·2 15·7 19·2	22·7 19·2 15·7 18·2 19·7	22·2 16·2 8·7 18·2 18·9	22·7 15·7 18·7 22·7 19·9	23·9 22·8 23·1 23·1
11 12 13 14	22·7 21·7 20·7 21·5 21·9	22·7 21·9 22·2 21·9	21·2 23·9 23·7 22·5 23·3	21·5 23·7 22·9 22·9 22·9	23·2 24·7 23·5 23·4 22·2	23·5 25·2 25·9 23·5 22·2	23.2	25·1 23·7 24·2 24·2 23·7	23·7 23·5 23·9 24·9 23·9	23.9 22.7 23.3 25.9 24.7	23.7 23.2 22.9 25.7 25.3	23.7 23.7 26.2 24.7 25.9	25.7 25.2 28.2 26.9 26.7	26·2 26·2 26·5 24·7 25·7	25·2 22·7 25·9 25·5 26·5	18·7 25·2 24·9 27·7 24·9	21·5 24·9 22·7 24·2 24·5	23·7 23·9 16·7 24·5 23·7	21·7 20·9 24·5 22·9 23·2	10·7 22·1 23·2 22·5 22·7	18·2 19·7 13·2 22·2 22·7	18·7 21·2 17·7 21·7 22·7	16·7 20·7 20·5 19·2 22·2	18·9 20·9 20·7 21·2 22·7	21·9 23·2 22·9 23·7 23·7
16 17 18 19 20	23·2 23·2 18·9 21·5	23.7 23.7 23.5 16.9 20.9	23·7 23·5 22·7 18·2 22·2	23.7 23.9 22.7 16.2 23.7	22·7 21·2 22·2 18·5 21·7	22·2 22·7 22·7 20·5 22·2	21.9	22·2 22·7 22·5 22·9 23·2	23·2 24·7 23·2 24·7 23·7	23·2 24·2 24·7 25·2 23·7	23·7 25·7 24·7 27·7 25·5	24.7 25.7 25.5 28.2 23.9	26·7 26·2 25·7 28·2 25·2	26·7 25·2 25·5 31·7 25·7	27·7 25·2 23·9 28·7 25·5	26·7 23·7 23·9 24·9 26·7	28·2 23·7 23·7 25·7 23·9	26·2 23·2 23·7 26·5 22·7	24·2 19·2 24·5 25·5 21·7	20·7 21·9 22·7 27·7 23·2	19·2 21·5 21·9 20·7 22·9	19·9 22·2 21·2 18·9 22·9	20·9 21·5 19·9 20·7 19·2	22·9 23·9 17·9 21·5 18·7	23.1
2 I 2 2 2 3 2 4 2 5**	19·9 21·2 21·5 20·5 21·7	22·5 20·7 21·7 22·5 22·0	22·7 18·7 17·7 22·1 22·2	22·2 22·2 21·7 22·5 22·5	22·7 18·2 19·5 21·9 21·1	22·7 20·7 20·5 22·I 23·2	24·7 21·2 23·7 22·2 27·9	22·7 21·7 22·9 22·1 24·7	24·2 23·2 23·9 22·5 23·7	23·9 23·7 25·2 24·2 23·7	25·7 24·7 25·2 25·2 25·2	26·2 24·7 25·7 24·7 25·5	23·7 24·7 24·5 27·7 27·2	25·2 23·7 24·7 26·7 28·7	24·7 23·7 24·9 26·5	26·2 24·9 25·9 25·1 27·9	26·2 24·5 23·9 25·1 24·7		17.7 23.7 23.0 21.5 19.2	20·5 23·7 21·1 23·7 -0·8	22·7 18·7 21·7 22·7 9·2	22·9 18·5 16·7 21·9 7·7	21·7 21·5 18·7 21·7 17·2	21·2 19·4 21·2 24·2	22.3
26** 27 28* 29* 30*	25.9 21.7 22.2 22.4 22.2	24·2 18·9 22·2 22·5 22·2	21·7 22·2 22·0 22·7 22·2	21·7 20·7 21·7 22·9 22·2	21.7 21.2 21.7 22.5 22.2	21.7 21.7 21.7 21.7 22.2	21.7	23·2 22·2 21·2 22·2	23.7 22.2 22.1 21.7 22.7	24·7 22·7 22·7 22·7 23·2	26·5 24·2 23·7 23·2 23·7	25.7 24.5 24.9 24.2 24.7	27·2 24·4 25·1 24·2 24·2	24·2 23·7 25·2 25·9 24·2	26·2 22·9 24·9 24·2 23·9	25·2 22·7 23·7 23·5 23·7	23·2 22·5 21·9 23·5		16·7 22·4 22·3 22·5 22·5	20·2 22·5 22·3 22·5 22·0	10·7 22·2 21·9 22·2 22·2	7·2 22·5 21·9 22·2 22·1	22.2	18·7 22·2 21·9 22·4 21·5	22.7
31 Mean	21.7	22.7	22.9	23.2	22.3	22.9	22.7	23.4	22.7	23.5	23.7	24.7	26.2	28.2	26.9	25.1	26.2	23.3	23.7	19.0	20.0	19.0	21.5	21.7	23.4
Mean*	22.4	21.8	22.4	22.4	22.5	22.3	22.2	22.4	22.6	23.4	24.1	24.9	24.9	25.0	24.5	24.0	23.4	23.2	23.1	22.8	22.5	22.3	22.2	22.1	23.1
Mean**	20:6	20.5	21.2	21.7	21.9	23.8	l 25·7	25.0	24.4	24.8	26.5	27.2	29.2	29.2	28.6	26.4	22.2	20.9	18.1	13.1	12.9	10.5	14.3	20.0	22.0

				<u></u>	T.	ABLE	II.—	Hour	LY M	EANS	of N	Vorth	Сом	PONE	NT OF	MAG	NETIC	For	CE.		****				<u></u>
Ор	11	2	h 31	n 4	h 51	6	ь 7	h 8	h 91	10	h 11	h No	on. 13	3h 1/	4h 18	5h 16	3h 17	7h 18	3h 1	9h 2()h 2	1h 2	2h 2	3h 24	1 h
Januai	ry.									1700	0γ+	Tabula	ır Qua	ntities	s.									ľ	Mean.
1 2 3 4 5**	896y 897 899 898 900	8977 904 898 899 893	9017 903 898 922 892	9027 902 898 905 891	9037 899 903 915 893	900y 906 902 900 897	9017 908 905 899 899	9017 905 904 904 897	8997 902 910 908 895	8937 895 905 906 891	882y 889 902 899 891	8747 887 892 889 854	8747 884 874 886 863	880y 889 880 884 873	8837 889 880 881 876	8877 887 880 886 885	8897 883 888 889 886	8937 885 880 891 899	9027 887 876 891 882	9037 897 892 896 887	9037 902 900 895 892	8977 901 895 893 892	8947 899 905 896 892	896y 899 902 901 900	894} 896 895 897 888
6 7 8* 9 10	906 903 896 899 915	902 898 899 896 900	907 893 899 897 903	897 890 899 901 905	886 891 900 904 907	894 892 902 906 912	897 896 904 910 915	896 895 904 912 915	892 893 902 910 905	889 891 896 910 905	892 893 889 905 903	886 883 882 893 893	874 878 875 887 888	861 884 880 889 877	856 887 887 895 880	871 890 894 895 875	875 895 899 903 880	882 896 902 905 886	898 897 901 905 910	898 898 899 907 904	891 898 904 905 896	891 897 899 900 896	891 899 899 898 900	900 899 910 900	889 893 896 902 899
11* 12** 13 14	896 900 886 899 891	896 901 882 906 891	896 903 879 903 893	898 904 880 890 897	901 907 880 888 897	906 909 888 886 899	906 911 888 891 899	904 913 888 893 899	908 909 888 891 897	904 910 888 889 897	896 907 882 887 891	890 887 884 875 885	884 854 877 871 882	884 854 875 870 879	886 854 848 868 875	888 856 864 876 871	891 878 877 883 881	896 878 888 891 884	899 887 890 894 884	899 887 891 883 872	900 890 898 883 883	900 894 901 889 893	900 892 890 889 890	899 907 890 897 888	897 891 883 887 888
16 17* 18* 19* 20	890 898 897 892 891	890 895 896 892 893	900 894 895 894 893	890 893 895 894 895	888 896 897 895 899	898 898 902 897 903	900 899 902 900 903	898 901 902 900 907	896 901 897 898 903	890 897 886 893 893	884 893 876 877 877	879 885 867 870 865	877 880 869 867 857	877 873 875 872 860	879 872 879 877 865	888 880 881 882 866	890 885 885 887 871	892 896 890 891 878	893 896 892 889 885	895 899 894 893 885	897 899 894 893 892	898 899 894 893 896	897 908 894 893 894	901 908 894 893 894	891 894 890 889 886
2 I 2 2 2 3 2 4 2 5	896 897 881 887 879	906 886 887 887 880	886 882 880 889 889	889 888 885 891 882	896 887 885 894 883	901 889 889 898	901 893 896 901 897	900 895 896 904 893	900 890 894 905 886	894 884 882 902 876	886 874 870 897 866	871 869 865 880 860	867 858 865 868 861	873 855 870 866 870	866 858 870 862 874	844 864 867 855 875	857 869 873 852 877	846 874 882 840 880	869 878 885 866 882	879 882 887 874 883	884 884 888 881 887	878 884 888 883 885	878 884 888 881 883	884 881 888 879 884	881 879 882 881 880
26 27 28 29** 30**	885 897 889 894 870	885 899 891 894 880	885 886 887 892 877	884 880 889 898 872	892 888 889 900 880	894 893 891 902 885	892 899 894 908 888	893 880 892 911 877	887 883 889 908 862	879 878 879 911 839	877 873 872 904 849	869 857 867 895 849	867 847 867 888 824	867 842 869 885 852	872 852 874 875 848	877 -865 881 857 835	877 873 877 854 838	882 881 869 847 850	888 881 874 841 865	888 878 879 847 863	888 880 887 844 902	898 886 891 847 922	891 886 894 875 850	888 886 902 868 860	884 878 883 881 864
31**	855	168	855	852	874	881	881	879	871	863	857	862	860	831	842	855	865	852 881	800	846	841	870	882	874	860
Mean Mean*	893	894	893	891 	894 898	901	902	902	901	891	885	876	8 ₇ 0 8 ₇ 5	87 r 877	871	873	878	895	883	887 897	890 898	892	891	893	887
Mean**	884	892	884	883	891	895	897	895	889	883	882	869	858	859	859	858	864	865	855	866	874	885	878	882	877
Februa	ıry.				 . I	 -	1		1	1700	00γ+	Tabul	ar Qua	antitie I	s.	1	1		1				ł	<u>.</u>	Mean.
1 2 3 4 5**	8677 879 889 893 894	8727 882 898 888 888	8747 886 884 889 886	870y 897 884 890 888	8837 889 884 891 889	8807 886 889 895 896	886y 894 894 897 901	8837 894 896 898 925	8747 896 896 898 915	874 y 892 892 898 906	8677 887 884 893 901	860y 886 875 889 875	865y 879 867 887 860	8637 875 876 880 867	8597 873 885 874 863	867y 878 889 869 863	870y 880 892 872 857	8957 879 893 876 865	9037 894 893 885 884	868y 894 895 892 886	9197 884 895 892 888	886y 889 895 891 893	8817 897 895 890 889	880y 896 893 890 886	8777 887 888 888 888
6** 7 8* 9	886 884 885 900 878	896 880 883 888 885	896 887 883 886 878	917 897 883 886 878	908 887 888 888 880	906 881 888 893 883	891 893 890 890 889	886 894 891 898 885	863 884 888 896 886	848 890 883 890 882	863 878 877 877 878	850 866 874 874 871	842 866 869 880 873	830 864 865 876 872	843 861 867 878 883	856 866 867 884 884	861 868 872 887 873	856 874 879 891 870	864 876 882 894 873	882 878 888 889 884	882 882 888 878 889	884 882 888 865 925	883 878 888 871 914	882 890 888 883 892	874 879 881 885 884
11 12** 13** 14 15**	881 864 860 851 874	890 866 860 851 881	872 869 844 851 876	879 862 834 866 876	877 859 870 900 873	879 879 860 887 876	885 867 860 881 876	890 871 844 866 883	881 869 829 856 879	872 849 839 840 868	871 843 844 825 856	869 864 850 832 851	862 865 860 830 852	864 877 870 833 854	872 880 873 842 860	874 854 855 851 867	876 844 855 861 867	875 847 850 866 859	884 860 852 871 857	881 789 847 866 860	871 817 834 854 888	864 811 837 853 882	864 846 839 863 877	859 850 839 869 880	875 854 850 857 870
16 17 18 19* 20	891 894 902 910 906	884 892 904 910 906	888 894 904 913 906	888 897 904 913 910	893 901 902 913 912	898 902 902 915 913	901 906 910 913 916	898 904 906 907 913	882 906 902 905 906	867 892 904 897 894	862 883 894 886 890	841 878 885 879 885	833 873 884 877 885	852 868 882 879 885	860 868 879 878 890	867 878 879 880 890	874 883 884 886 896	882 889 892 892 885	888 894 903 895 885	891 894 903 900 885	895 894 905 903 887	908 896 905 905 896	891 899 905 905 923	896 899 905 905 890	880 891 898 899 898
2 I 2 2* 2 3 2 4 2 5*	889 899 898 879 888	892 899 898 887 886	896 899 896 884 886	903 897 895 887 888	920 900 898 898 888	930 902 900 885 890	903 903 901 898 890	906 900 900 901 893	901 897 898 896 888	885 886 887 889 883	862 883 882 879 878	868 878 880 875 873	873 876 881 866 873	876 879 883 868 873	878 881 889 866 873	884 882 867 864 876	886 884 882 866 880	888 886 891 872 886	892 891 879 878 890	895 895 877 883 896	897 897 903 888 899	899 897 903 890 899	897 897 913 886 899	897 897 887 888 899	892 892 891 882 886
26* 27 28 Mean	900 900 901	900 900 896	900 900 899 887	902 900 890 889	902 902 887 892	902 908 890	904 910 899 895	902 910 899	895 908 911	879 905 906	879 897 896 876	877 889 885 871	877 880 865	879 882 849	883 884 849 871	884 888 860 872	889 888 870 875	897 892 882 879	900 885 888 884	900 875 885	900 878 865 885	900 878 875 886	900 906 885 889	900 896 888 887	894 894 884 883
Mean*	896	896	896	897	898	899	900	899	895	886	881	876	874	869	876	878	882	888	892	896	897	898	898	898	890
Mean**	876	878	874	875	880	883	879	882	871	862	861	858	856	860	864	859	857	855	863	853	862	86 r	867	867	867

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0	h j	[h 2	2h 3	3h 4	լև չ	5h	6ь	7h	8ь б	9h 10) հ 1	1h N	oon. 1	3h 1	4h 1	5h 1	6h 1'	7h :	18h 1	19h 2	20h 2	21h 2	22h 2	23h 2	 24h
March										170	00γ+	Tabu	lar Qu	antiti	es.				· · · · · · · · · · · · · · · · · · ·						Mean.
1 2 3 4 5*	8947 911 908 885 901	892y 904 894 885 900	8877 897 902 885 898	890y 900 913 893 901	8977 902 913 895 903	8947 911 911 897 905	8947 911 924 901 906	8927 902 908 900 903	8947 900 892 891 893	8877 887 880 881 887	882y 882 861 872 876	882y 887 853 875 870	882y 892 866 878 870	8827 897 866 883 878	8827 902 859 889 890	8877 902 870 893 900	890y 900 862 893 899	8947 890 859 895 899	8977 902 888 898 901	9027 907 903 898 903	910y 916 903 898 914	9167 902 898 898 909	9157 902 888 898 919	9167 902 888 903 914	8947 900 887 891 897
6* 7 8** 9	909 910 873 869 883	909 906 899 869 885	909 906 848 866 887	909 906 792 866 885	910 907 879 869 885	910 913 837 874 887	910 915 837 880 887	906 911 834 878 885	913 906 827 874 881	902 897 822 872 874	894 889 822 859 871	879 889 812 854 871	876 889 820 856 878	884 890 822 859 883	889 892 830 866 880	894 894 843 874 872	899 896 834 883 868	904 899 843 883 856	906 906 869 883 864	910 906 864 883 883	910 904 864 885 887	907 928 864 885 895	908 915 874 885 910	911 887 869 881 900	902 903 845 873 882
11** 12** 13 14 15**	890 886 898 887 894	880 894 881 889 905	874 886 879 890 902	885 875 875 891 895	885 879 875 891 907	891 883 875 890 909	893 894 875 892 912	890 875 875 887 902	890 870 870 882 905	886 857 867 872 897	881 829 865 874 871	878 845 862 874 866	884 847 860 874 861	886 853 860 874 887	889 847 868 879 851	875 870 878 879 864	891 886 881 871 882	872 870 878 871 895	878 870 882 885 915	878 . 886 884 889 894	865 888 886 894 839	870 875 886 897 898	881 884 887 890 887	891 886 887 892 893	883 872 876 884 891
16* 17 18 19* 20	897 888 890 892 892	915 886 891 893 889	917 886 893 891 889	915 886 895 891 892	909 886 898 892 899	901 888 903 896 905	892 888 903 899 903	887 888 903 891 894	879 882 891 878 899	874 871 875 868 894	866 857 847 858 863	858 860 841 858 853	859 864 847 853 858	849 867 857 856 856	865 872 867 863 853	859 877 880 877 860	857 883 883 884 873	877 883 886 887 878	877 888 888 894 887	867 888 888 896 891	883 890 890 897 891	893 891 890 897 892	886 903 890 899 889	886 890 888 897 889	882 882 883 884 883
21 22 23 24* 25*	889 887 900 890 893	894 888 898 887 891	894 892 898 885 891	892 888 910 887 893	894 892 882 888 895	899 890 882 888 896	904 892 893 895 896	907 893 892 891 893	897 887 884 875 884	881 874 869 863 872	868 859 854 860 860	858 854 849 858 852	855 849 851 854 858	848 851 859 855 865	851 851 864 862 875	866 849 872 870 883	864 859 879 878 886	869 888 876 883 891	876 888 888 889 897	883 894 910 891 899	898 897 874 891 895	892 895 885 891 891	900 895 890 891 891	888 895 890 891 893	882 879 881 880 885
26 27 28 29 30	893 904 902 890 901	894 904 900 902 891	901 902 897 896 895	901 902 897 896 891	901 902 897 925 893	909 902 902 921 895	911 900 894 904 898	906 897 894 890 891	883 879 887 879 882	868 861 876 871 877	855 859 866 857 862	850 848 861 854 854	858 853 863 859 860	868 861 866 865 872	874 861 869 882 880	877 869 876 893 882	873 879 887 895 889	889 888 894 891 893	893 882 897 898 895	904 894 900 898 897	909 923 894 898 898	9°7 910 9°2 898 895	914 897 894 898 893	918 902 902 908 898	890 887 888 890 887
3 r	898	895	895	895	903	906	905	897	880	872	867	862	852	854	862	877	882	886	888	898	896	895	893	893	885
Mean	894	894	892	891	895	896	896 	892	885	875	864	860	862	866	870	876	880	883	889	893	895	895	896	895	885
Mean* Mean**	897	896	895	896	898	899	901 886	897 	889	878	870 854	863	862	868	876 856	885	889	893	897	900	901	899	902	901	890
April.		<u> </u>		3/2		004		0/0	0/4				ar Qua			1 802	870	871	882	878	878	878	882	885	875 Mean.
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1 2 3 4 5**	8947 905 897 895 885	8947 910 898 906 870	8947 892 897 906 900	8967 896 897 895 887	8967 903 902 906 895	8967 894 905 895 905	896y 905 903 901 875	8927 905 900 893 875	882y 896 889 864 870	8727 889 874 864 855	858y 874 858 859 834	8557 855 848 854 828	866y 853 848 849 828	8747 863 863 849 834	882y 867 872 849 854	8897 874 876 859 864	8917 879 884 877 873	9007 889 892 895 880	9057 896 900 898 921	9127 903 905 895 885	905 y 905 908 893 875	9057 902 905 895 870	908y 900 905 904 875	8977 900 897 893 885	8907 890 888 883 872
6** 7 8 9 10	875 871 881 881 887	875 881 876 886 885	870 886 876 881 885	890 886 876 881 885	862 865 886 886 883	867 886 886 886 884	863 871 888 891 887	856 855 886 886 892	854 840 876 871 877	808 835 860 856 864	823 819 855 840 858	834 814 850 840 854	828 814 847 850 851	859 824 850 855 853	859 855 860 850 856	834 855 876 865 864	829 865 886 876 864	849 881 881 886 884	859 891 901 891 890	880 886 886 888 895	880 886 881 889 897	881 886 881 892 918	876 886 876 904 916	886 891 881 897 923	859 864 875 876 881
11** 12 13* 14* 15*	913 872 873 881 890	895 877 875 882 893	892 866 876 883 898	895 851 876 883 891	897 851 878 883 893	887 858 878 888 893	882 870 878 885 893	879. 874 875 886 890	885 864 857 878 881	872 848 839 860 862	851 851 831 852 852	848 848 831 849 852	833 848 837 852 859	820 848 849 857 859	841 858 859 867 871	856 866 867 878 883	856 877 873 883 886	856 882 881 888 897	851 878 883 890 894	848 881 888 890 891	892 878 888 890 897	872 883 883 889 897	851 580 883 888 894	866 876 880 888 891	868 866 868 878 884
16 17 18 19** 20*	891 889 899 892 883	892 889 894 892 880	892 891 899 888 880	891 892 894 890 880	894 894 897 892 885	899 896 894 905 888	899 894 897 898 892	897 889 896 882 890	894 884 887 888 885	884 877 874 872 872	868 868 870 854 861	866 858 862 823 859	868 860 863 816 859	868 876 875 828 862	874 887 871 854 869	884 894 869 872 880	889 899 885 872 885	889 902 892 888 890	899 891 893 890 895	899 899 906 885 898	899 905 906 890 897	889 899 921 885 900	889 894 913 890 903	889 891 911 895 892	887 888 890 877 883
21 22 23 24* 25	894 901 901 886 908	895 898 914 886 918	895 891 891 886 918	895 891 907 886 913	896 894 912 886 904	898 891 912 886 900	902 889 910 886 897	906 886 896 879 892	909 888 868 862 890	900 878 854 860 880	888 873 858 855 876	872 865 858 855 874	867 867 860 866 874	869 878 865 866 884	881 887 870 871 890	891 891 873 882 897	899 891 883 887 897	912 899 887 894 908	912 893 896 892 913	912 899 901 897 910	927 896 889 902 897	907 901 886 904 880	895 912 886 902 871	899 891 889 902 882	897 890 886 882 895
26** 27 28 29 30	913 882 890	902 880 891	908 874 893	882 882 893	882 887 893	863 884 893 — 896	871 884 895 — 867	866 882 9°3 — 875	846 875 901 — 869	830 863 888 — 856	828 861 — 837	825 854 — 832	828 849 — 850 830	830 850 	835 862 862 863	846 857 870 878	856 870 878 878	866 883 	877 891 — 890	892 893 893	897 897 — 891	882 889 — 906	882 891 903	882 890 — 905	866 876 —
Mean	909	909 891	905 891	$\frac{893}{889}$	889	890	889	885	877	864	854	849	849	850 856	858	858	879	9 ² 4 888	899 892	892	9°4 895	873	884	904 892	879 880
Mean*	883	883	885	883	885	887	887	884	873	859	850	849	855	859	867	878	883	890	891	893	895	895	894	891	879
Mean**	896	887	892	889	886	885	878	882	869	847	838	832	827	834	849	854	859	868	880	878	887	878	875	883	868

					Тавг	E II	—— —Но	URLY	MEA	NS OF	Nor	тн С	OMPO	NENT	OF M	AGNF	ric F	ORCE-		——inued	···········			<u> </u>	···
Ор	13	h 21	n 31	4									on, 13						8h 19			1 ^h 25	2h 23	3h 24	h
May.										17000)γ+Τa	ıbular	Quant	ities.											Mean.
<u>-</u>											<u> </u>														
1** 2 3 4 5	922y 896 907 902 897	9127 898 901 899 897	9017 888 901 897 908	922y 896 907 908 910	9057 898 900 906 913	8917 901 902 897 902	8787 900 907 897 882	8867 888 906 892 867	8817 888 899 892 867	8717 881 887 882 872	8677 871 872 866 862	855y 858 866 851 846	8637 862 869 839 849	8717 871 882 846 858	878y 884 889 851 872	886y 888 885 861 892	896y 898 885 882 899	9097 905 902 892 902	9157 909 902 897 923	9077 907 908 897 897	9017 896 906 897 897	9127 901 906 897 897	896y 901 905 897 902	8967 901 897 897	8937 891 896 885 888
6 7* 8* 9*	895 896 898 911 901	892 895 898 922 899	892 898 898 909 899	889 898 898 898 899	887 900 900 912 904	901 901 917 910	893 893 896 910 910	888 878 888 899 904	883 873 878 889 901	878 869 862 877 885	873 862 852 868 868	873 860 857 868 866	878 865 862 870 866	867 876 869 874 873	869 892 883 879 884	883 895 898 884 894	888 901 898 897 897	893 903 903 904 901	903 901 908 908	898 901 903 910 904	895 906 903 901 901	898 907 903 902 902	898 909 903 907 904	900 903 903 910	888 891 890 897 895
11 12 13 14	904 910 905 902 905	901 889 895 909 901	901 889 900 909 893	902 891 902 909 896	901 899 913 909 896	904 901 911 909 894	889 897 913 902 881	889 891 902 885 870	879 866 895 880 862	887 862 882 859 870	883 850 859 854 868	879 856 859 854 860	887 858 859 849 865	885 873 869 854 865	883 881 882 869 870	899 884 888 884 884	894 897 890 900 924	897 901 905 904 927	901 910 900 911 920	910 910 900 906 906	920 904 900 911 901	901 904 900 913 912	901 910 900 896 896	904 904 900 911 896	896 889 893 891 890
16** 17** 18** 19**	903 829 871 877 887	891 819 861 882 861	886 850 861 861 871	886 819 846 861 871	889 817 861 861 866	886 824 861 861 863	881 819 863 859 861	876 803 866 853 859	870 793 849 851 851	876 809 837 840 846	870 814 848 846 835	876 809 838 856 851	876 822 836 859 853	876 834 853 861 856	891 826 849 890 864	889 865 882 897 871	903 860 873 890 873	922 865 892 882 882	945 883 894 911 882	920 917 889 906 913	896 896 882 884 887	850 872 902 882 882	829 879 892 882 883	839 892 864 880 888	884 842 865 875 869
2 I 2 2 2 3 2 4 2 5	874 893 888 886 894	883 888 870 884 889	883 875 874 886 891	862 869 880 884 892	860 870 874 882 894	852 874 872 882 892	852 868 862 875 889	847 852 867 873 884	841 852 859 871 873	841 860 852 868 863	841 864 852 868 865	847 852 850 868 875	857 855 852 865 876	860 862 852 873 878	862 862 860 876 889	864 862 866 884 886	868 867 872 889 894	878 878 878 894 889	883 883 883 894 894	888 888 883 894 894	890 888 884 904 889	888 893 884 904 889	901 903 886 899 889	893 898 884 899 889	867 873 870 883 886
26* 27* 28 29 30	884 890 895 900 894	884 890 890 897 894	884 890 892 903 880	886 890 893 905 875	889 895 900 910 881	889 893 898 912 880	884 890 895 905 880	879 885 892 905 871	875 874 885 902 857	876 866 877 895 855	882 872 869 885 853	871 874 869 874 850	863 876 866 880 855	863 874 864 890 873	873 869 867 895 883	879 874 874 882 873	889 883 883 885 883	889 890 890 895 888	889 897 900 911 886	893 900 905 904 901	893 895 905 886 896	890 895 903 881 893	890 895 903 886 889	890 895 903 886 886	883 885 888 895 878
3 r	884	886	888	886	886	891	890	881	877	865	865	863	861	855	860	865	870	894	901	901	896	891	886	886	880
Mean	894	890	889	888	890	889	885	878	871	866	861	859	861	866	874	881	888	895	901	902	897	895	894	893	884
Mean* Mean**	896 	898	896	894	899	900	895 860	886	878	870	867	866	867	871	879	886	894	898	900	901	900 892	899	901 876	898	889 872
June.	-	1 07.	0/2	1 007	1 007	7 004	800		049				Quant		1 007	1 004	1 004	7 094	910	1 900	1 092	1 004	1 0/0		Mean.
1 2* 3* 4*	8917 892 892 901 901	886y 892 889 903	8847 889 890 903 899	886 y 895 892 903 893	8977 898 895 905	902y 903 903 905 906	8977 903 900 901 901	8917 900 903 896 901	886y 898 895 893 896	868y 882 877 886 889	850y 877 861 879 881	8577 867 858 883 881	860y 858 861 886 870	8717 867 867 891 882	8747 877 877 899 882	878y 880 889 904 892	8877 889 896 898 904	8917 898 891 901 910	890y 892 901 906 910	898y 898 901 909 910	8937 892 903 912 917	8947 892 901 912 918	892y 895 901 906 918	892y 892 901 901	8847 888 889 899
6 7 8 9** 10**	910 915 903 903 935	910 897 908 905 894	904 902 905 905 927	909 904 906 908 935	913 913 916 911 927	916 913 919 914 904	913 907 908 911 894	907 902 896 904 866	902 897 883 897 809	884 887 872 889 796	871 872 867 875 793	863 862 850 875 801	876 867 864 873	871 883 864 884 848	887 891 890 894 855	884 898 896 906 853	894 9°5 9°3 923 848	902 911 911 937 858	902 908 916 925 858	913 908 914 920 868	913 910 914 909 870	910 908 914 909 878	913 906 911 909 875	915 908 908 950 871	899 899 897 906 864
11** 12** 13 14 15**	863 895 900 894 892	863 869 901 896 892	853 895 891 906 897	863 895 875 891 895	885 849 875 894 895	883 869 877 891 887	869 864 873 869 893	859 859 865 867 876	854 843 857 863 866	843 849 853 844 876	828 864 853 844 866	843 890 863 831 845	843 890 870 847 856	859 900 870 875 861	864 895 879 870 876	854 885 888 868 887	859 890 891 873 912	869 885 901 884 912	880 895 906 894 918	900 895 906 892 943	895 892 896 894 902	900 877 896 890 897	900 876 894 889 897	900 900 888 902 902	868 880 882 878 889
16 17 18 19 20	887 916 888 909 899	9°5 9°3 888 899 899	887 896 888 894 901	866 888 888 896 897	881 888 896 901 899	899 879 892 902 899	892 879 886 892 897	869 877 869 882 891	853 877 857 874 878	856 877 869 870 871	853 872 877 868 871	852 865 877 871 872	866 869 875 872 870	861 879 880 875 874	892 877 890 881 879	897 898 896 889 890	887 898 897 895 898	912 908 905 906 905	912 916 909 904 910	916 929 917 901 910	910 908 911 899 907	908 903 907 897 912	906 900 914 899 910	919 893 904 897 918	887 891 891 891
21 22 23 24 25	9°7 9°5 9°3 9°3	890 905 903 907 905	893 902 901 911 904	908 901 911 910	905 905 907 919 914	910 906 906 908 912	905 904 896 907 902	898 890 889 892 892	888 874 880 881 884	871 864 870 876 884	869 875 865 876 881	874 875 868 874 883	874 875 868 881 886	890 875 880 878 889	884 880 891 892 905	884 889 899 895 904	890 901 901 892 908	910 903 897 902 917	914 906 901 902 919	908 901 901 910 917	902 901 903 906 915	906 901 901 904 915	912 901 901 905 919	910 901 901 907 919	895 902 893 897 904
26 27 28 29* 30*	917 896 905 906 907	917 893 908 906 905	917 900 904 902 905	917 903 906 904 903	916 905 908 907 905	913 901 909 908 905	913 887 904 904 903	908 877 899 896 895	895 867 892 886 893	887 862 880 881 882	882 857 876 873 866	877 860 868 873 862	877 869 868 873 862	887 877 878 875 862	893 891 886 885	901 903 896 894	907 911 901 902	907 915 904 906	924 915 904 914	919 913 907 914 911	903 913 907 909 910	908 908 909 909 903	896 908 911 910 900	900 903 909 907 902	902 893 897 899 894
Mean	100	898	899	898	901	901	896	887	877	870	865	864	869	875	884	889	892	902	905	908	904	903	902	904	891
Mean* Mean**	898	899	898	899	893	905 891	886	898	893	882	845	869 851	868	872	885	892	896	899	895	907	893	892	902 891	901	894
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					Таві	E II.	.—Но	URLY	MEA	NS OF	Nor	тн С	OMPO	NENT	of M	AGNE	тіс F	ORCE-	-cont	inued					
0ъ	1	h 21	h · 31	4 h	51	6	h 7	h 8	3h 9	h 10	h 11	h No	oon. 1	3h 1	4h]	15h 1	6 ^h 1	7h 1	8h 1	9h 2	20h 2	1 ^h 2	2h 2	31 2	4h
July.										170	000 γ+	-Tabu	lar Qu	antitie	es.	1								Ŋ	Mean.
	0000	898y	902y	904y	910y	909y	90 2 y	887γ	880y	877y	870y	864y	846y	862y	868y	9227	922y	880y	906y	902y	8997	907y	907γ	905γ	893y
1 2 3 4 5	900y 907 886 898 901	903 886 903 899	902) 905 894 908 899	9047 901 898 899	911 898 900 901	909 909 898 898 907	902 902 887 880 897	895 879 879 885	886 879 882 878	880 872 881 881	880 856 878 878	878 856 878 876	873 854 876 879	876 868 865 869	876 877 878 888	889 897 890 896	889 920 883 897	897 910 893 894	911 910 909 908	905 913 911	909 908 909 902	907 900 904 900	886 898 907 903	876 898 907 902	894 889 892 893
6 7* 8** 9	900 901 913 907	900 901 909 896 894	898 901 909 893 892	900 901 913 896 894	900 901 903 899 892	897 899 903 881 890	891 890 902 879 892	885 882 899 870 882	879 871 886 865 871	876 861 876 858 866	879 865 876 855 863	870 859 876 841 871	868 867 868 865 880	872 875 876 866 884	877 887 868 877 892	891 893 881 886 892	884 893 902 903 894	904 901 917 905 903	902 911 924 915 913	910 911 912 913 923	908 916 896 934 921	902 923 894 908 912	900 925 898 894 899	901 930 899 900 894	891 894 896 888 892
11** 12 13	888 898 894 916	872 897 910 900	888 889 905 898	895 889 899 906	883 882 901 908	885 886 894 906	885 882 887 895	883 870 873 887	870 863 865 885	853 855 863 880	846 858 862 874	853 865 856 867 857	853 871 868 866 863	867 882 864 864 857	881 889 895 874 867	888 889 916 880 877	888 896 918 890 891	891 913 906 901 894	908 898 914 933 899	912 905 913 898 901	912 915 906 907 896	893 915 900 927 898	888 905 900 920 896	901 900 909 904 896	883 888 892 892 884
15 16 17 18 19*	896 889 889 903 889	889 887 905 889	901 893 889 914 889	909 892 890 919 891	9°4 889 895 912 899	894 897 897 903 899	886 894 887 896 889	869 882 876 879 880	849 866 865 867 873	855 854 857 865 871	857 856 857 851 868	861 864 848 861	858 877 857 860	866 875 862 866	885 879 869 873	889 888 884 887	900 893 889 891	908 898 894 897	913 901 894 899	908 898 899 897	895 903 897 897	897 906 894 891	894 909 891 892	897 914 889 890	886 887 887 881
20* 21* 22* 23 24	900 901 896 901	902 901 892 900	895 902 901 892 898	895 900 901 897 900	895 896 903 902 903	893 893 901 913 896	881 886 896 907 884	877 886 888 892 882	874 882 875 876 882	869 880 863 871 879	864 874 868 871 875	859 874 880 866 877	859 878 890 871 869	869 880 890 861 875	879 882 892 875 880	895 898 902 879 893	900 896 899 892 895	900 894 894 902 900	900 894 899 904 903	900 893 902 907 914	900 896 902 908 900	898 897 902 910 896	898 901 899 896 896	900 901 899 898 900	887 891 894 891 892
25** 26 27 28** 29**	901 878 869 891 860	901 881 876 891 876	904 883 879 896 874	912 883 895 901 876	925 894 895 898 883	919 904 893 885 891	915 899 882 873 876	896 894 874 877	889 875 862 875	885 864 845 854	883 843 832 821 840	873 843 841 802 834	873 843 848 839 840	873 843 855 844 847	892 851 862 849 864	902 864 874 870 876	898 886 885 904 890	894 895 880 917 904	909 905 894 925 902	894 895 887 900 895	894 893 896 880 878	894 886 894 917 871	878 879 894 883 876	878 872 898 857 879	895 877 875 877 873
30	884 889	876 885	884 887	884 880	882 871	883 880	851	851	872 864	856 846	835 848	832	835 851	849 857	846 857	856 880	8 ₇₄ 88 ₃	885 888	887 894	88 ₇ 899	887 899	887	888	896 897	8 ₇ 0
Mean	895	894	896	898	898	897	889	88 r	874	866	861	859	862	866	875	888	895	899	903	904	902	901	896	896	887
Mean*	896	897	898	898	899	897	888	883	875	869	868	867	871	876	883	895	896	897	901	901	902	902	903	904	890
Mean**	891	890	894	899	898	897	890	889	880	869	853	848	854	862	871	883	896	905	914	903	892	894	885	883	885 Mean.
Augus	t		<u> </u>	1						1700	ν γ ₊	Tabula	ar Qua	intities	s. 	 		1			1				Tean.
1* 2 3 4 5	902y 899 873 889 903	8857 899 877 885 893	8887 895 886 884 888	890y 894 871 884 891	890y 898 885 884 885	8857 901 878 881 879	8777 880 869 871 872	8717 858 863 867 872	8647 875 856 864 867	8547 872 842 861 870	8547 870 827 859 867	8577 872 819 867 862	8597 872 852 874 853	8577 870 864 872 851	869y 867 869 882 872	882y 873 868 882 882	8907 898 876 888 893	8957 888 892 888 883	8877 897 890 903 907	892y 898 892 898 899	896y 894 892 914 889	8967 883 892 893 889	8937 878 886 882 878	8967 880 884 898 883	880y 884 871 882 880
6 7 8 9	881 888 900 883 886	878 884 905 883 895	880 889 884 890 886	894 891 879 873 881	886 893 884 885 889	883 893 884 888 884	880 887 855 867 878	881 876 841 856 874	863 859 839 844 868	842 851 839 846 864	863 859 823 849 864	858 855 830 849 861	850 859 836 846 862	832 869 844 854 871	852 876 870 867 874	881 888 891 886 878	892 884 901 902 890	894 889 896 905 886	908 905 906 897 897	897 898 906 895 905	896 905 896 895 915	901 903 906 918 912	888 897 919 899 898	875 910 901 884 887	873 884 876 877 884
11 12 13 14 15**	898 896 892 889	903 895 896 889 880	885 891 899 889 880	885 881 896 887 880	893 887 892 889 880	895 883 888 892 883	885 863 888 893 884	877 880 884 889 882	858 874 876 884 874	862 859 870 864 861	867 834 872 864 857	867 834 878 869	851 855 879 864 856	854 866 869 869 857	851 873 871 869 859	877 880 879 879 880	890 894 892 877 906	896 888 903 892 942	891 894 905 892 1015	896 892 898 899 924	896 894 900 909 901	894 894 9°5 911 875	896 892 908 895 861	898 894 889 888 873	882 879 889 885 887
16** 17 18* 19* 20	867 866 880 885 897	857 873 874 885 897	842 874 874 883 894	840 876 874 883 894	840 876 880 883 894	860 871 882 883 894	862 862 876 875 886	862 858 870 868 882	831 848 867 857 870	769 838 861 852 861	767 832 856 852 855	777 832 856 855 851	821 838 859 857 851	829 843 859 857 848	845 849 861 859 840	850 856 870 873 863	848 870 873 883 874	852 880 883 888 882	866 880 885 891 889	874 880 891 893 889	871 882 891 899 889	862 882 891 893 891	866 884 891 896 889	871 882 891 894 882	843 864 875 877 877
21* 22 23 24 25**	876 893 884 889 872	866 895 886 887 877	865 898 881 885 882	869 900 878 885 865	876 901 886 885 893	882 895 883 884 893	881 882 884 877 890	866 875 871 861 862	849 859 850 830 829	833 849 845 837 817	835 841 829 838 817	844 840 845 856 801	849 841 850 866 817	856 857 857 846 824	859 876 863 854 817	866 881 871 864 831	877 886 871 872 865	883 876 871 892 867	887 894 886 877 876	893 884 888 877 890	890 883 890 882 888	890 886 890 900 888	890 886 892 861 888	885 886 895 858 898	869 877 873 869 860
26** 27** 28 29 30*	904 889 898 901	893 881 882 886 883	883 879 882 889 883	888 881 880 881 883	873 863 878 881 886	867 885 885 883 891	855 879 882 881 891	834 837 875 881 886	838 837 859 865 877	836 833 846 852 871	818 811 838 839 861	827 811 833 841 863	842 816 828 850 866	848 848 831 858 866	858 848 843 865 869	858 851 859 870 873	863 865 866 876 880	874 875 880 881 887	881 895 888 883 887	899 895 888 891 892	894 888 888 891 894	887 885 888 891 894	894 888 890 889 887	905 892 888 889 908	868 863 870 876 882
31	900	887	887	890	892	892	890	884	875	863	866	877	887	882	883	898	888	885	927	898	888	888	893	893	888
Mean	889	886	884	882	884	885	877	869	858	849	845	846	852	855	862	872	881	887	896	894	893	893	889	889	876
Mean*	887	879	879	880	883	885	880	872	863	854	852	855	858	859	863	873	881	887	887	892	894	893	893	895	877
Mean**	884	878	873	871	870	878	874	855	842	823	814	804	831	841	845	854	869	882	907	896	888	879	879	888	864

					Table	II.—	-Hou	RLY I	MEANS	S OF	Nort	н Сог	MPONE	ONT O	F MA	GNETI	c Fo	RCE—	contin	ıued.					
0,	h 1	h 2	h 3	h 41	51	6	h 7:	h 8	h 9h	10	h 11	h No	on. 13	3h 14	ļh 1	5 ^h 1	6h 1	7h 18	3h 1	19h 2	20h 2	21 ^h 2	2h 2	3h 2	4ь
Septem	ber.						****			17000)γ+Ta	bular	Quant	ities.										1	Mean.
1** 2 3 4 5	896y 897 910 910	9117 884 890 913 901	892y 886 893 907 885	892y 890 890 895 885	8837 890 886 884 880	8787 879 879 879 880	8657 872 879 870 873	8577 853 866 867 865	8377 843 862 852 854	8447 858 853 844 842	8477 853 855 839 849	852y 864 869 821 854	8737 869 872 831 859	868y 869 876 858 867	842y 874 879 877 859	8787 876 879 883 875	8757 884 886 880 887	8927 890 888 894 889	8857 897 895 887 916	8947 895 895 901 906	8897 898 897 911 894	884y 897 901 896 891	8937 895 897 908 887	9037 913 910 891 891	876y 880 884 883 879
6 7 8 9 10	885 876 909 869 887	885 878 905 867 889	883 881 892 856 887	883 886 894 856 889	883 879 895 872 887	885 881 881 882 889	885 878 888 885 883	875 871 876 889 875	859 855 832 898 867	852 850 821 908 858	854 857 834 908 856	859 850 899 861 856	865 860 899 872 865	885 868 897 882 869	887 868 892 885 875	892 874 876 887 887	881 892 866 889 893	907 895 860 900 898	899 888 866 903 898	881 881 878 900 903	892 881 876 906 898	897 886 871 908 900	915 886 871 902 900	897 895 868 887 894	88 ₃ 876 877 886 88 ₃
11* 12* 13 14	889 892 904 895 889	891 885 901 895 895	896 888 899 895 889	889 888 911 893 889	893 890 904 891 886	893 890 897 889 882	889 884 890 884 882	887 876 888 874 881	877 868 873 869 869	868 859 866 848 855	862 857 855 829 843	862 859 855 837 841	868 868 857 840 848	873 876 855 858 850	878 883 859 860 863	883 886 859 867 869	888 890 868 866 879	894 901 883 886 884	897 904 897 889 895	902 904 895 900 897	906 907 898 898 897	901 904 897 895 896	909 911 895 891 898	901 902 895 893 891	887 886 883 877 878
16 17 18** 19** 20**	895 885 878 883 886	884 870 878 883 876	915 882 878 902 876	906 888 880 902 871	885 890 872 902 871	885 885 857 898 871	885 896 847 860 850	880 880 849 845 842	875 880 864 845 817	859 870 849 803 817	854 833 833 777 808	859 818 831 814 803	872 818 824 829 821	875 841 834 814 845	878 841 845 817 850	885 847 839 831 845	880 851 855 848 855	859 851 871 842 855	870 859 881 862 865	882 874 876 862 876	888. 880 891 875 876	878 875 893 886 898	872 878 881 876 887	880 885 886 871 880	879 866 862 855 856
2 I** 22 23 24 25*	877 851 874 881 875	877 846 870 883 876	887 846 887 878 873	866 843 892 878 873	898 870 887 880 873	903 870 872 886 876	882 856 862 875 873	799 849 857 860 864	783 835 847 852 852	780 822 839 836 841	780 809 833 810 831	763 811 836 816 829	778 818 847 823 831	780 832 852 839 833	786 846 857 854 833	799 856 844 852 851	861 849 852 841 855	820 859 852 850 866	828 851 873 867 874	877 851 875 871 876	851 882 875 883 876	892 861 878 878 877	828 861 878 883 879	843 869 878 878 879	835 848 863 861 861
26* 27 28 29 30	879 884 887 906 895	879 884 887 901	879 892 897 887 911	882 900 893 887 887	884 905 889 890 869	886 889 890 890 875	884 886 887 888 877	865 884 880 887 875	863 863 869 883 859	858 853 852 862 857	853 845 854 859 858	845 834 857 849 855	846 834 880 849 852	845 840 835 852 850	853 848 859 864 852	861 861 866 877 865	871 858 862 873 898	868 872 875 880 902	879 884 880 873 881	886 884 885 890 891	889 886 890 918 907	889 886 895 877 917	886 886 895 877 894	884 884 901 890 902	871 873 878 875 880
Mean	888	886	887	886	886	883	877	867	857	847	841	842	849	854	859	865	871	876	881	886	891	890	887	888	873
Mean*	885	888	885	884	883	883	882	875	866	856	849	847	852	855	862	870	877	883	889	893	895	893	897	891	877
Mean**		885	887	882	885	881	861	838	829	819	809	813	825	828	828	838	859	856	864	877	876	888	873	877	I ₈₅₇ Mean,
Octobe	er.									17	υυυγ+ 	- labui	ar Qua	intitle	5• 		1	1		i		I	1	1	меап.
1 2** 3 4 5	892y 892 899 888 886	898y 895 888 877 886	8907 885 888 888 886	8937 880 880 886 881	8857 880 869 888 886	8872 890 890 882 891	8857 895 900 892 894	8747 888 890 884 886	8437 876 866 863 875	8177 845 852 853 870	848y 841 856 839 860	848y 851 852 844 855	848y 856 854 844 860	856y 862 859 855 870	867y 866 864 865 870	8647 883 866 865 865	876y 874 866 888 875	8857 895 880 879 881	8937 890 885 877 877	895y 890 880 930 886	9477 906 902 896 904	898y 895 888 888 917	8997 890 890 896 886	8987 910 891 894 891	8797 881 873 873 881
6 7 8**	881 892 892	891 878 892	888 885 895	881 895 897	879 887 902	886 889 902	886 892 897	886 892 887	870 885 878	865 882 856	860 861 856	855 856 — 840	849 856 — 843	855 866 — 856	863 864 	870 861 — 866	881 871 — 871	886 882 — 876	886 885 — 878	884 889 — 882	884 902 — 871	888 899 — 872	920 890 — 872	9°5 887 — 877	879 881 —
10	883	875	875	875	873	877	877	867	857	846	841	836	841	846	855	862	867	872	877	879	883	879	877	879	867
11* 12* 13* 14*	875 883 887 889 899	875 883 884 889 897	875 883 880 889 899	877 879 884 889 899	877 886 887 889 901	877 886 887 894 901	877 886 899 896 918	869 883 884 892 910	860 879 880 885 889	851 860 870 873 878	846 855 858 862 858	846 851 852 856 835	848 851 849 858 829	855 857 856 860 832	859 865 863 860 837	865 864 873 868 852	872 867 878 880 825	877 872 884 891 842	879 879 891 897 863	886 883 889 897 879	877 884 889 897 879	893 884 889 899 885	883 889 889 899 885	883 884 889 899 895	870 874 878 884 874
16** 17** 18 19 20	884 838 864 870 858	884 838 859 870 847	907 827 853 868 853	901 848 853 868 865	859 859 862 868 865	894 843 866 872 870	819 843 864 876 870	817 815 866 864 860	809 815 851 851 828	744 815 830 834 797	734 786 815 839 787	774 807 815 844 813	759 817 830 847 823	774 812 827 854 820	774 807 831 839 818	789 822 848 831 815	794 820 864 839 842	804 838 853 865 851	801 850 851 868 862	824 864 854 868 875	839 888 875 876 868	849 859 891 895 868	839 864 865 895 868	839 864 868 875 886	821 835 852 861 846
2 I 2 2 2 3 2 4 2 5	875 881 881 881 877	870 879 871 883 880	865 876 871 876 877	865 881 873 881 877	865 869 871 883 877	868 871 871 881 882	872 875 873 879 882	860 855 871 869 882	849 850 848 867 877	849 835 829 849 872	839 819 824 829 849	834 809 817 827 836	828 821 814 829 846	834 827 824 832 853	844 827 827 850 867	849 840 835 855 851	854 850 850 867 867	850 859 845 872 872	850 866 845 880 872	869 873 848 879 880	871 871 871 862 880	866 871 871 862 880	871 879 883 874 880	873 894 879 874 884	857 857 854 864 871
26 27* 28 29 30	880 884 881 878 868	874 882 880 873 868	874 882 880 868 870	874 882 880 873 873	874 884 881 873 873	874 882 883 873 873	874 882 883 875 876	874 877 881 873 875	872 872 873 868 868	864 862 868 857 863	856 853 861 842 852	846 851 849 837 852	851 853 842 842 852	856 856 844 845 857	867 862 842 850 864	872 871 831 854 864	882 873 852 863 864	877 881 857 873 876	877 881 863 878 882	882 883 873 868 882	888 883 877 875 884	888 889 885 904 884	888 885 881 894 884	882 883 878 873 900	873 875 868 867 871
31**	884	874	874	882	876	905	888	845	807	812	830	827	820	819	801	822	843	848	864	879	869	866	858	862	852
Mean	880	878	878	879	878	882	881	872	861	846	839	837	839	844	848	853	860	867	872	878	883	880	882	883	866
Mean*	884	883	882	882	885	885	886	881	877	863	855	851	852	857	862	868	874	881	885	888	886	891	889	888	876
Mean**	875	873	873	878	869	883	861	841	827	804	798	815	813	817	812	829	833	846	851	864	875	867	863	869	847

November					TA	ABLE	· II.—]	Hour	LY M	EANS	of N	ORTH	Сом	PONE	NT OF	MAG	NETIC	For	CE <i>c</i>	ontin	ued.					
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9 88 98 97 88 98 98 98 89 88 98 98 89 88 98 98 89 89	2 3 4	864 880 880	864 873 877	864 867 877	864 870 877	872 873 880	874 873 885	874 873 885	872 871 880	847 865 873	843 854 861	834 844 855	841 844 850	843 844 857	838 849 868	844 854 874	850 865 878	852 873 884	870 875 886	873 875 886	875 877 886	875 883 886	875 877 876	875 877 884	880 875	858y 861 867 876 873
1.2	7* 8 9	885 887 888	887 887 886	887 887 888	889 887 888	889 888 890	889 888 896	889 888 899	889 886 897	885 883 893	877 875 888	867 868 883	861 868 870	864 868 876	861 875 878	867 873 886	882 868 888	887 878 885	887 886 886	887 888 890	887 888 893	889 890 891	887 890 890	887 890 890	887 888 888	878 882 882 888 878
27	12** 13 14	867 861 865	866 859 865	861 870 871	867 859 871	870 856 876	870 880 886	880 873 881	859 838 876	826 833 871	847 854 851	816 854 824	816 849 829	807 830 850	816 847 858	840 851 862	840 859 865	840 880 871	888 870 871	890 864 871	882 860 902	859 865 876	882 883 871	872 883 871	861 862	859 855 860 867 867
21	17 18 19	877 890 887	877 883 883	877 886 879	877 878 883	877 881 881	877 890 885	880 883 890	877 878 883	872 875 876	863 867 864	856 860 858	840 860 855	842 856 861	850 850 863	841 854 842	852 860 853	873 867 863	875 870 874	891 873 861	873 880 879	881 888 879	887 885 876	888 885 876	883	866 871 874 872 884
According Syr Syr	22 23** 24	894 887 889 855	885 887 855	890 893	890 879 850	895 888 855	903 900 881 857	895 881 855	902 898 881 855	890 890 844 855	875 815 847	864 864 801 850	854 856 798 839	864 801 826	875 801 846	880 809 836	883 811 840	890 815 859	887 839 855	895 846 867	897 853 891	893 855 853	893 847 863	890 845 865	887 887 855 870 874	880 886 846 854 867
Mean* 875 874 876 875 878 882 882 887 860 861 854 852 852 852 852 853 863 868 874 873 876 876 876 879 879 876 Mean* 878 876 876 876 877 881 882 884 882 887 887 867 861 862 865 869 872 877 880 882 883 884 884 884 884 884 884 887 December. 17000y+ Tabular Quantities.	26* 27* 28 29**	873 878 883 879	877 869 883 881	874 870 883 883	872 883 881	877 880 886 879	879 883 888 884	881 888 884	880 888 884	878 886 884	871 869 878 881	864 859 866 879	861 862 862 879	862 857 884	868 865 857 899	871 867 857 904	872 865 901	874 878 872 904	877 878 883 908	883 886 868	883 889 816	881 883 887 814	883 881 849	878 886 879 889	883 880 881 842 863	875 875 875 878 877 848
Mean** 877 878 879 875 882 885 885 873 821 847 844 839 838 839 849 849 848 865 828 857 823 866 873 865 December			874											ļ			<u> </u>		874		876	876	<u> </u>	879	876	870
December. 17000y+Tabular Quantities.	Mean*	878	876	876	877	881	882	884	882	878	871	863	861	862	865	869	872	877	880	882	883	884	884	884	883	877
1** 8729 8729 8629 8709 8709 8687 8729 8629 8579 8629 8579 8629 8579 8629 8579 8519 8519 8510 860 860 860 860 871 877 877 871 3 871 875 880 860 861 861 862 862 862 864 867 867 867 867 867 867 869 869 869 871 877 877 871 3 871 875 860 868 862 862 862 862 862 862 862 862 862			878	879	875	882	885	885	873	851		<u>`</u>					849	848	865	858	857	853	866	873	862	861
2 849, 844, 844, 846, 854, 862, 868, 870, 877, 876, 878, 878, 878, 878, 878, 878	Decem	ber.	1		ı				<u> </u>		170	$\frac{000\gamma+}{1}$	Tabul	ar Qua	ntities	3.			1 1	1	_ 					Mean.
7 875 875 875 875 875 875 881 883 887 878 875 886 892 885 873 871 870 863 860 867 873 894 843 843 844 847 864 864 864 864 864 864 865 864 864 865 864 864 865 864 865 865 865 865 865 865 865 865 865 865	2 3 4	849 871 861	844 871 861	844 871 858	849 869 858	854 868 861	862 871 861	868 881 861	870 855 861	857 842 861	854 827 845	849 819 843	854 807 851	851 821 862	858 838 859	855 835 851	855 823 839	861 809 851	869 829 851	869 861 863	869 855 866	869 855 867	871 871 877	877 845 872	8447 871 852 864 872	8527 860 848 858 868
122 855 855 850 857 855 866 866 866 866 866 866 866 867 857 857 857 857 857 857 857 858	7 8** 9**	875 833 838	875 842 848	875 842 833	875 847 874	881 861 843	883 864 845	887 848 851	878 827 845	875 843 827	886 832 812	892 817 810	885 803 812	873 781 820	871 791 796	870 801 822	863 812 834	860 812 830	857 786 832	873 817 843	894 827 864	837 834 869	831 843 843	831 895 848	875 843 838 864 852	874 870 829 838 844
17	12 13 14	855 855 854	855 857 856	850 855 858	857 871 858	855 871 858	866 871 861	860 866 872	866 868 859	866 869 858	860 868 846	860 863 848	857 855 852	857 845 844	847 840 835	836 855 835	855 845 835	857 845 846	857 850 856	878 853 861	853 851 858	874 882 851	866 858 867	859 851 867	866 857 885 856 865	857 858 860 854 861
22 873 879 881 879 893 881 881 871 871 883 881 871 871 883 884 888 886 872 872 876 874 866 863 865 872 876 874 866 863 853 866 872 872 875 866 859 866 863 866 872 872 874 879 880 882 882 882 882 882 882 882 882 882	17 18 19	868 871 874	868 869 863	870 874 869	883 879 881	878 884 889	878 889 900	883 884 900	878 879 892	865 884 869	855 879 848	855 881 851	868 889 849	868 887 828	869 881 833	863 881 826	863 879 854	860 882 861	869 872 838	887 865 849	879 876 857	877 879 861	871 879 861	869 892 875	865 877 876 861 859	859 871 880 862 864
27	22 23 24	873 865 877	879 871 872	881 871 874	879 866 879	893 866 880	881 882 882	88 t 872 882	871 876 880	871 874 872	883 866 869	884 863 867	888 853 872	886 866 875	881 872 861	881 875 882	879 866 882	881 859 882	88 r 866 882	881 863 884	881 866 887	881 872 887	902 894 890	871 901 882	879 890	869 881 871 879 855
Mean 862 863 863 867 870 872 872 868 864 859 858 856 854 852 853 854 857 853 861 865 864 866 867 865 Mean* 870 870 871 873 874 875 872 868 864 863 863 865 866 867 868 871 874 876 </td <td>27 28* 29*</td> <td>855 868 871</td> <td>861 869 872</td> <td>853 874 872</td> <td>861 874 871</td> <td>861 874 875</td> <td>863 874 875</td> <td>858 874 875</td> <td>853 868 875</td> <td>855 863 866</td> <td>851 858 859</td> <td>848 855 854</td> <td>848 853 854</td> <td>848 855 852</td> <td>853 859 851</td> <td>855 861 856</td> <td>858 863 854</td> <td>861 868 861</td> <td>863 870 866</td> <td>865 872 869</td> <td>866 875 869</td> <td>868 875 869</td> <td>865 870 872</td> <td>865 872 875</td> <td>868 875 872</td> <td>850 858 867 866 878</td>	27 28* 29*	855 868 871	861 869 872	853 874 872	861 874 871	861 874 875	863 874 875	858 874 875	853 868 875	855 863 866	851 858 859	848 855 854	848 853 854	848 855 852	853 859 851	855 861 856	858 863 854	861 868 861	863 870 866	865 872 869	866 875 869	868 875 869	865 870 872	865 872 875	868 875 872	850 858 867 866 878
Mean* 870 870 871 871 873 874 875 872 868 864 863 863 865 866 867 868 871 874 876 876 876 876 875 874	31	878	878	884	888	886	886	886	886	886	880			865	850	859	865	865		872		879	876	188	878	877
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Mean** 847 854 850 863 864 864 863 857 855 847 842 838 831 831 829 834 844 817 828 836 842 847 849 842	Mean* Mean**		<u> </u>				874	875	872	855	847	842	838	831	831	829	834	871	874	828	876	842	847	875	874	871 845

					TA	BLE I	II.—	Hour	LY M	EANS	of V	ERTIC	CAL C	ОМРО	NENT	of M	Iagne	тіс Б	ORCE	•			*		
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1 2 3 4 5**	2857 285 282 288 285	2857 284 283 286 285	285y 283 283 285 285	285y 284 283 278 284	285y 285 282 278 284	2857 284 284 281 284	285y 284 282 279 282	2847 283 282 280 282	2847 283 280 281 281	2847 283 279 282 283	2837, 280 276 283 274	282y 279 278 283 275	2837 278 283 283 280	2847 281 283 283 282	2857 284 288 285 285	288y 288 294 291 292	2937 290 294 293 292	292y 289 294 293 295	2877 288 296 291 298	2877 289 295 293 294	2857 288 293 291 292	287y 287 291 291 292	289y 286 290 293 292	286y 285 288 293 290	287y 285 286 286 286
6 7 8* 9	288 279 285 282 279	284 279 282 281 279	280 280 281 281 277	280 280 280 281 277	281 281 282 283 277	282 281 284 282 279	282 281 280 281 277	282 281 278 279 277	280 281 280 279 274	276 277 282 277 274	274 273 280 271 271	273 274 280 274 271	276 276 280 273 274	281 279 282 274 279	296 283 284 279 286	297 289 286 286 288	297 289 288 287 288	297 289 287 285 288	291 286 283 284 288	291 285 285 283 283	291 284 285 284 282	289 287 285 282 284	289 285 282 283 283	285 285 282 282 280	285 282 283 281 280
11* 12** 13 14	278 277 287 276 285	276 277 285 268 283	276 277 281 268 283	276 277 282 268 280	278 277 281 271 282	278 277 279 276 277	276 275 279 276 277	273 270 277 276 273	276 270 275 276 270	278 272 269 276 267	272 268 267 267	275 268 267 267	279 271 274 267	290 285 281 278 275	288 297 286 284 270	288 303 291 288 285	288 295 288 292 293	286 291 286 302 287	280 287 286 294 283	280 287 284 290 285	278 287 286 292 285	278 287 281 290 285	278 287 278 289 285	278 287 278 287 285	280 282 280 280 279
16 17* 18* 19*	282 275 273 271 274	278 277 272 268 274	277 280 273 269 273	277 278 274 271 271	278 279 274 271 273	278 281 274 271 271	275 277 274 271 273	273 278 274 268 271	285 276 274 269	285 274 274 269	275 264 266 266	275 270 266 268 263	273 273 272 271 265	275 275 272 271 271	283 280 274 274 273	285 285 276 276 274	285 287 279 274 279	285 285 282 271 281	283 283 276 274 278	283 277 278 274 279	280 280 276 274 279	282 280 278 274 275	283 280 274 272 276	280 277 272 271 273	279 279 274 272 273
21 22 23 24 25	271 268 268 268 268	263 268 266 268 265	266 268 266 266 259	269 262 262 265 260	269 260 266 265 262	271 264 266 264 259	277 265 265 264 259	268 268 263 262 260	269 268 265 260 260	269 262 266 260 259	265 258 263 260 257	262 260 262 262 259	262 268 261 262 262	268 270 265 268 262	270 272 268 272 264	278 272 270 277 267	285 275 273 281 270	285 275 275 282 269	285 273 268 281 267	284 272 268 278 265	280 272 270 276 267	278 272 268 271 267	278 272 268 271 267	274 270 268 269 265	273 268 267 269 265
26 27 28 29** 30**	267 256 258 256 275	261 254 256 256 263	264 256 258 256 253	264 256 256 258 256	261 256 260 257 263	264 256 260 256 263	262 256 257 256 263	261 256 259 255 261	266 254 263 255 261	267 254 261 253 259	261 256 258 253 255	264 257 258 258 255	269 259 260 253 263	267 264 258 253 271	269 266 263 263 275	269 267 265 271 285	269 272 265 280 290	267 271 269 282 293	269 266 271 290 290	269 267 267 293 282	269 267 265 293 282	269 264 263 303 261	267 264 259 299 254	265 262 261 283 229	266 261 261 268 267
31**	230	233	248	260	258	259	263	263	261	263	259	261	262	270	284	282	282	285	303	302	308	298	282	277	271
Mean	274	272	272	272	273	273	273	272	272	271	267	268	270	274	278	282	284	285	284	282	282	281	279	276	276
Mean* Mean**	276	275	276	276	277	278	268	274	278	279	263	265	274	270		287	290	289	294	292	292	288		273	
Februa			204		200						⊦ Tabu	lar Qu	antitie	es.											Mean.
1 2 3 4 5**	2727 268 258 261 261	268y 268 260 261	260y 264 260 261 259	256y 254 260 261 259	260y 256 265 261 261	262y 260 265 261 261	2637 260 262 261 261	265y 260 260 261 253	265y 260 260 261 251	262y 260 260 259 251	260y 260 260 253 251	262y 260 258 253 249	262y 260 258 255 249	2657 260 260 256 249	270y 270 265 261 255	278y 270 269 265 261	280y 270 269 271 269	281 <i>y</i> 270 269 269 271	280y 275 268 269 269	2787 275 269 266 269	280y 272 268 265 269	260y 270 269 265 269	262y 265 269 263 267	268y 250 263 261 263	2677 264 264 262 260
6** 7 8* 9	263 264 262 257 258	256 262 260 254 258	242 260 260 257 263	225 252 260 260 261	230 254 262 260 261	232 260 262 260 258	232 257 260 257 257	242 257 262 257 253	249 257 264 259 255	251 262 264 255 253	253 262 262 252 253	253 264 262 247 248	254 267 260 250 251	263 267 262 245 253	270 270 264 252 261	273 270 264 254 265	278 270 264 257 272	280 270 267 257 272	281 268 267 260 272	271 266 262 260 277	269 264 264 264 277	269 265 262 274 263	266 264 262 272 251	264 262 262 258 251	257 263 263 257 260
11 12** 13** 14 15**	251 258 255 283 274	242 245 255 276 262	244 245 253 264 264	253 243 253 250 266	255 245 245 250 268	258 245 245 245 270	255 249 255 243 269	255 254 260 247 269	255 251 269 250 266	255 249 272 250 262	255 246 272 256 255	255 248 274 264 255	259 263 274 267 260	263 269 278 266 262	271 282 282 277 266	273 306 284 283 274	271 309 284 281 284	271 309 285 280 291	267 305 288 279 293	265 301 293 277 298	272 278 299 283 285	272 282 301 283 284	263 282 293 281 279	258 273 293 278 274	260 268 273 267 272
16 17 18 19* 20	264 260 260 263 264	262 262 255 260 261	262 265 255 260 261	263 263 255 257 258	266 263 255 257 262	266 262 260 257 260	265 262 257 258 261	263 258 257 264 261	263 258 263 266 264	263 258 263 266 264	261 252 255 258 258	260 251 253 258 256	268 255 255 264 256	271 255 255 264 256	268 260 260 264 256	273 268 265 264 258	273 270 267 266 264	273 270 267 264 268	273 270 267 264 271	273 272 265 264 271	275 272 265 264 274	273 275 263 266 268	268 270 263 264 264	265 265 263 264 261	267 263 260 262 262
21 22* 23 24 25*	260 266 267 263 265	260 266 267 255 267	258 266 267 255 268	258 264 267 257 270	254 265 267 257 268	247 266 267 257 267	249 263 267 258 268	254 260 271 258 267	258 260 275 260 273	264 261 272 260 267	266 259 265 255 265	264 257 263 253 260	268 259 265 255 263	268 264 265 263 266	274 267 267 273 268	274 269 280 277 274	272 267 275 275 276	270 269 273 277 274	266 264 277 275 273	266 264 280 275 271	266 267 275 275 271	266 267 275 275 271	266 263 273 273 271	266 265 270 267 271	263 264 270 265 270
26* 27 28	262 262 260	262 262 255	262 262 253	262 262 258	262 262 260 258	262 262 260 258	262 260 260 258	264 260 258 259	262 260 253 260	260 258 251 260	260 252 249 257	252 252 251 251	258 252 255 ———	258 254 262 261	262 258 273 267	268 260 278 271	270 262 278	270 268 278	268 268 278	268 272 278 273	262 280 290	262 280 288 272	262 260 280 269	260 260 263	263 262 265 ———————————————————————————————
Mean ———— Mean*	$\frac{263}{264}$	263	259 263	263	263	263	262	263	265	264	261	258	261	263	265	268	269	269	267	266	266	266	264	264	264
Mean**	262	255	253	249	250	251	253	256	257	257	255	257	260	264	271	280	285	287	287	286	280	281	277	273	266

				Тан	BLE I	II.—I	Houri	LY M	EANS	of V	ERTIC	al Co	OMPON	IENT (of M	AGNET	ric Fo	ORCE-	-cont	inued.					
	h 1h	21	3:	h 41	- 5	h 6	h 7	h 8	h C)h 1	Oh 1	1h No	on. 13	3h 14	h 1:	5h 16	3h 1	7h 1	8h 1	9h 20	0h 2	1h 2	2h 2	3h 2	4 h
March													ılar Qı												Mean.
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1 2 3 4 5*	2697 259 260 259 268	266y 261 260 259 268	267y 266 258 262 268	264y 267 258 265 268	2647 262 258 267 268	2697 264 258 269 268	2647 264 261 269 268	264y 264 265 269 270	264y 267 267 269 268	2643 267 267 267 268	2623 267 267 265 263	2547 261 265 259 258	258y 267 267 259 258	262y 269 275 267 258	269y 269 296 269 263	272y 275 304 275 268	276y 279 296 277 273	2747 277 294 277 270	2747 277 286 272 270	272y 277 279 272 270	2747 275 275 269 270	272y 269 275 269 270	268y 271 275 269 266	2647 267 265 267 266	2677 268 272 268 267
6* 7 8** 9	260 267 250 280 282	260 264 182 272 280	263 264 122 272 280	263 264 206 280 280	266 266 226 282 280	266 264 261 288 280	263 264 278 288 288	266 269 286 290 280	260 269 283 288 278	260 267 288 278 272	258 261 283 272 261	255 259 279 270 259	256 259 286 272 263	258 266 290 280 269	263 269 296 285 278	268 269 299 285 288	268 269 297 288 307	268 267 304 285 312	268 264 315 282 301	268 269 297 282 294	268 269 293 285 290	268 269 290 283 288	268 269 286 285 282	268 277 279 282 278	264 266 270 281 282
11** 12** 13 14 15**	279 284 273 275 278	279 274 273 277 274	282 272 277 277 268	272 278 277 275 274	272 280 280 277 276	274 276 280 277 276	274 255 280 277 276	274 253 277 279 276	274 255 275 275 275 266	269 255 267 269 264	265 255 264 261 262	260 263 258 261 264	261 267 265 264 266	265 282 273 265 268	274 289 279 273 276	284 304 283 283 286	298 312 285 287 286	3°3 3°4 283 292 286	3°3 3°1 281 287 276	298 293 280 283 281	298 282 277 283 281	298 284 277 283 278	298 284 277 280 279	293 284 275 280 281	281 279 276 277 275
16** 17 18 19* 20	273 279 274 275 275	266 279 274 275 275	262 279 274 275 275	255 279 276 275 275	255 282 276 277 275	258 282 280 277 275	264 282 279 285 277	273 276 281 285 275	275 274 277 283 265	273 264 274 273 263	264 255 264 265 256	255 255 257 258 256	264 257 262 263 258	278 264 264 265 260	290 269 272 273 265	301 272 276 275 270	309 276 282 283 275	306 279 279 281 275	300 279 276 277 275	297 279 274 277 275	294 279 274 280 275	285 284 279 277 275	283 279 277 275 277	283 276 274 275 275	278 274 274 275 271
2 I 2 2 2 3 2 4 * 2 5 *	276 276 272 275 276	274 276 267 277 276	274 271 258 277 276	276 271 248 275 276	276 276 258 275 276	276 276 267 273 274	276 274 272 275 278	276 276 275 277 278	274 271 272 277 273	267 266 269 267 263	262 266 265 256 254	257 256 265 248 249	257 262 265 248 249	265 274 267 258 259	276 286 269 265 260	295 295 277 275 268	312 300 279 277 278	309 300 282 277 272	3°4 284 286 277 276	295 278 291 277 278	286 276 277 277 278	278 276 284 277 280	278 276 284 275 278	276 276 277 275 278	279 277 272 271 271
26 27 28 29 30	276 269 277 280 268	276 265 277 278 270	276 267 277 280 278	276 271 277 280 278	276 274 277 268 278	276 277 277 268 278	278 279 277 270 281	278 279 277 270 286	273 279 277 266 278	263 269 269 268 268	254 262 263 261 266	254 260 263 253 258	251 265 263 259	259 272 269 270	263 279 279 280	271 287 285 287	278 290 282 289	278 298 284 287	278 298 284 287	278 298 285 286	278 289 287 280	276 281 287 280	273 281 279 280	268 279 277 280	271 278 277 275
31													259	271	273	279	283	289	291	291	289	281	281	279	
Mean	272	268	266	270	271	273	274	275	272	268	263	259	262	270	275	282	286	288	284	280	280	279	278	276	275
Mean*	271	271	272	271	271	271	274	275 	272	266	259	254	255	260	265	271	276	274	274	274	275	274	272	272	270
Mean** April.	273	255	241	257	262	269	269	272	271	270 430	266		lar Qu	277 antitie	285	295	300	301	299	1 293	290	287	286	284	Mean.
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1 2 3 4 5**	2797 272 272 260 248	2797 263 278 252 252	2797 267 275 250 248	2797 270 275 260 260	2797 272 278 262 266	2797 274 278 260 251	2817 280 280 262 259	2837 280 280 268 265	2737 280 272 260 270	2617 272 262 256 265	2477 266 256 252 259	247 <i>y</i> 266 251 245 259	250y 267 251 241 255	260y 272 250 245 256	269y 274 260 262 270	2737 282 270 273 287	281y 282 270 279 298	2817 282 272 289 310	2817 282 272 289 298	2797 282 273 284 298	2797 282 278 284 298	2817 282 278 284 295	2757 280 280 279 265	2757 280 278 270 262	2737 275 271 265 271
6** 7 8 9	250 270 287 270	239 268 287 276	235 276 286 278	230 280 286 278	244 280 282 278	258 278 278 278 278	272 280 278 278	279 286 280 278	275 282 273 273	265 276 258 263	258 263 268 251 254	258 266 261 250 247	260 268 259 250 249	285 273 259 261 258	305 283 268 271 270	305 283 276 278 278	303 288 280 280 283	307 288 283 280 283	305 290 288 281 278	303 288 304 285 278	297 288 297 283 278	272 290 292 287 276	277 280 292 278 276	262 276 290 278 258	273 279 275 271
11** 12 13* 14* 15*	248 227 284 279 277	259 232 287 279 277	267 249 289 281 277	269 269 289 282 275	270 277 289 282 277	270 279 289 283 277	276 286 289 283 279	278 289 287 282 282	269 289 279 277 277	258 281 269 267 267	250 279 255 263 258	248 274 252 258 248	259 279 253 258 248	269 287 260 267 253	288 291 271 275 260	308 295 279 277 270	324 298 281 279 275	342 300 285 279 279	347 305 284 285 284	332 300 284 285 282	306 291 281 279 279	264 289 284 285 279	269 281 281 279 277	258 282 281 277 277	280 281 278 277 272
16 17 18 19** 20*	275 273 273 252 275	277 275 273 254 281	277 275 273 263 283	275 273 275 273 283	275 279 275 271 283	275 278 273 245 280	275 283 273 240 281	277 281 271 251 281	275 278 271 254 278	267 273 263 258 281	265 261 256 254 273	256 254 254 254 254 271	251 254 252 261 271	256 259 254 265 273	265 263 265 280 281	273 271 281 284 283	285 273 283 282 283	285 275 284 284 283	285 275 284 290 283	283 278 290 290 283	280 278 292 284 283	283 278 290 283 283	279 281 271 282 281	275 278 256 275 278	274 273 272 268 280
21 22 23 24* 25	280 284 274 284 274	280 278 266 284 268	283 276 266 284 255	283 281 258 284 264	282 281 264 280 266	282 281 266 282 274	280 281 268 281 274	280 281 270 284 276	275 276 268 281 274	273 271 268 268 266	265 266 266 267 261	264 257 262 267 257	264 252 262 268 255	273 259 268 276 264	275 269 278 284 268	277 276 284 288 276	280 286 287 291 280	280 290 295 289 284	283 290 295 286 285	283 290 295 286 287	285 286 295 284 292	287 286 286 281 295	285 278 286 278 278	283 276 284 276 257	278 277 275 280 272
26** 27 28 29 30	247 283 277 274 274	235 283 275 276 272	228 283 275 277 272	217 277 277 277 277 272	213 273 275 279 264	226 273 277 274 255	235 273 275 276 255	249 273 270 274 255	257 267 265 274 255	259 263 263 274 259	254 256 263 274 257	254 256 259 264 253	256 256 257 257 253	264 265 265 258 260	273 270 270 264 272	283 275 278 266 282	292 275 280 274 291	300 283 285 277 302	302 283 285 281 302	302 285 285 282 302	283 279 285 281 283	278 279 277 276 276	278 277 275 274 277	275 275 275 274 269	260 274 274 273 271
Mean	270	269	272	271	272	271	273	275	272	266	260	256	256	263	273	283	285	289	290	290	286	282	275	273	274
Mean*	280	282	283	283	282	282	283	283	278	270	264	258	259	264	274	279	282	283	284	284	281	282	279	278	277
Mean**	249	248	248	250	253	250	256	264	265	261	255	255	258	268	283	293	300	309	308	305	294	278	274	266	270

	 ,			Тав	BLE I	II.—I	Houri	Ly Mi	EANS	of V	ERTIC	AL C	OMPON	NENT	of M	AGNE	гіс F	ORCE-	-cont	inued.	•			,	
01	h 1	h 2	h 3	h 4:	h 5	5h 6	5h 7	'h 8	h 9	h 1()b 11	h No	oon. 1	3 ^h 1	4 ^h 1	5h 1	6h 1	7 ^h 18	8h 19)h 20	0h 2	1h 25	2h 2	3h 2	24h
May.								-		43000	v + '	Tabula	ır Qua	ntities										N	Mean.
1** 2 3 4	2557 277 269 276 274	246y 274 274 274 276 274	228y 266 274 276 274	232y 272 269 274 269	2397 274 274 276 260	250y 281 276 276 260	2557 282 274 274 263	260y 282 274 269 263	265y 276 269 269 263	260y 266 259 260 261	255y 255 259 255 257	246y 253 253 253 253	2597 255 250 248 255	255y 263 253 257 272	265y 274 264 269 292	274y 278 276 274 302	276y 282 276 282 302	280y 284 283 288 300	2897 284 283 293 302	2937 288 282 285 300	291y 288 282 284 288	2747 284 279 279 284	274y 282 278 279 282	2747 279 276 276 279	262y 275 271 273 276
6 7* 8* 9*	279 274 269 271 267	279 274 269 261 267	276 272 269 261 269	276 272 271 266 269	277 272 275 271 271	272 274 273 271 271	269 274 271 271 269	264 270 265 266 261	264 264 259 266 249	250 255 254 261 245	245 250 252 252 240	236 250 252 254 240	236 247 252 254 245	253 253 261 261 249	261 262 261 261 259	272 274 273 271 264	279 280 279 273 269	279 279 280 276 269	280 274 276 274 269	278 274 271 273 269	279 274 271 273 267	279 274 271 271 266	279 274 271 269 266	274 274 269 269 265	268 268 267 266 261
11 12 13 14 15	264 254 256 261 252	264 256 256 261 254	264 256 256 264 258	267 258 264 266 261	274 266 264 271 266	274 266 256 268 266	269 266 256 268 266	269 258 256 268 258	259 256 256 258 256	254 248 251 256 250	251 242 247 251 240	250 237 239 242 238	254 244 239 242 238	254 247 247 251 245	259 254 256 258 261	269 261 268 266 276	270 266 273 271 285	280 271 273 268 294	278 273 270 266 294	278 266 266 266 287	274 266 266 266 280	271 266 266 266 276	267 264 264 266 266	261 256 264 256 266	266 259 259 261 264
16** 17** 18** 19** 20	256 158 278 263 251	256 158 286 259 249	261 181 278 249 258	265 190 276 257 260	267 199 278 263 266	268 234 261 273 266	265 255 268 278 268	264 255 268 278 268	256 262 268 270 268	248 264 264 266 260	246 259 259 257 254	239 257 259 251 254	237 262 268 259 258	244 275 278 273 268	248 292 288 287 278	254 292 301 295 285	258 283 299 285 282	264 273 295 283 285	269 273 292 285 282	291 282 292 283 280	291 272 286 280 276	265 264 280 276 278	200 245 268 268 268	156 243 268 259 258	253 247 278 271 268
21 22 23 24 25	258 238 228 220 238	249 233 228 221 238	247 235 223 223 238	256 243 223 223 240	256 243 231 228 238	263 247 233 228 238	266 247 233 230 238	270 247 233 226 238	272 235 225 226 233	268 231 214 218 224	260 223 214 211 219	258 216 212 211 223	258 223 212 216 228	266 214 223 233	276 	277 238 223 230 250	276 243 225 233 259	273 241 233 236 260	270 241 233 233 257	276 243 233 238 253	270 243 235 238 251	268 241 238 238 250	263 238 238 238 248	258 233 240 238 248	265 233 227 227 241
26* 27* 28 29 30	248 248 245 251 253	248 248 251 253 251	248 248 251 253 253	250 250 253 253 255	251 256 253 253 248	248 266 253 253 251	243 260 253 253 251	238 260 253 253 253	233 258 251 253 253	224 256 243 248 243	219 246 241 244 243	239 239 239 230 236	215 239 239 230 236	229 248 243 232 243	238 256 248 253 253	243 258 255 270 263	250 266 261 270 268	253 264 261 270 273	251 262 263 272 273	248 258 263 282 273	248 256 258 274 268	248 250 253 270 263	248 253 253 268 258	248 248 253 263 258	241 254 251 256 255
Mean	278	275	278	276	278	273 261	263	268	265	261	254 246	249	254	249	254	261	271 •	275	282	286	282	273	261	268 260	269
Mean*	262	260	260	262	265	266	266	262	256	250	243	241	246	250	256	264	270	270	267	267	264	263	263	262	259
Mean**	242	241	239	244	249	257	264	265	264	260	255	250	257	265	276	283	281	279	282	288	284	272	251	240	262
June.		<u>-</u>					ĺ	.		43000	γ + 	labul	ar Qua	antitie	s.										Mean.
1 2* 3* 4*	2587 244 236 233	258y 242 230 233	2587 244 233 233	260y 	260y 	258y 244 230 230	260y 	258y 	257y 238 225 228	248y 228 218 218	2437 221 213 209	228y 221 209 209	2337 217 204 209	243y 221 204 214	248y 223 211 218	2537 233 218 226	2557 233 223 236	256y 223 228 236	258y 216 230 236	2557 216 236 234	2537 214 236 233	2517 214 236 233	2457 214 236 230	2457 209 234 230	229y 225 228
6 7 8 9** 10**	230 228 236 235 218	230 230 238 235 218	230 233 238 237 196	233 236 238 237 209	236 238 238 237 218	236 236 238 237 226	233 238 238 237 235	228 230 238 235 233	223 228 236 227 233	216 221 222 224 228	211 219 219 218 228	207 209 219 213 228	207 209 218 216 247	211 228 216 218 305	218 230 229 229 315	228 238 232 235 295	236 243 237 245 295	238 248 242 250 295	238 243 242 256 290	238 243 237 265 280	238 240 235 265 271	236 238 234 251 237	233 238 232 237 233	233 238 232 232 237	228 233 232 236 249
11** 12** 13 14 15**	245 235 235 238 242	250 226 235 238 240	245 207 229 232 233	248 201 233 226 240	252 195 250 236 246	252 212 250 232 245	258 230 250 240 242	260 235 250 240 240	260 238 250 240 240	250 238 245 235 233	250 238 235 231 231	240 235 233 232 235	239 234 231 248 235	250 240 231 252 240	250 248 240 250 252	258 257 250 255 257	264 263 253 259 261	262 274 255 259 268	255 279 259 255 268	258 274 259 255 259	260 264 259 250 252	255 254 257 248 252	245 250 248 248 242	240 240 242 245 233	252 240 245 243 245
16 17 18 19 20	228 220 241 244 246	219 227 241 236 246	217 228 244 241 246	226 234 241 246 246	226 234 238 246 246	226 234 244 246 246	236 234 244 241 236	238 236 246 244 236	236 236 246 244 236	234 236 236 240 231	231 228 234 236 227	226 231 256 236 228	228 225 236 244 229	236 236 241 246 227	244 246 246 246 227	246 255 246 244 236	255 255 248 248 246	260 255 254 251 251	257 260 256 254 253	260 260 251 251 251	255 255 251 248 248	246 246 248 246 246	241 236 246 246 246	234 241 246 246 241	238 240 245 245 240
21 22 23 24 25	236 246 244 243 243	241 244 246 243 242	244 244 246 243 243	244 246 246 245 245	246 246 246 245 245	246 246 246 245 245	244 242 246 237 243	238 244 244 243 237	230 242 238 243 233	217 241 236 237 225	209 238 231 231 223	217 234 221 228 216	217 234 226 233 216	227 236 226 235 216	236 236 235 243 233	246 238 240 250 243	253 238 245 255 243	255 246 247 250 245	255 248 245 250 243	255 246 245 245 240	255 246 245 245 240	248 246 243 245 237	246 244 243 245 235	246 244 243 243 235	240 242 240 243 236
26 27 28 29* 30*	237 237 243 240 237	238 243 243 240 237	240 243 243 242 238	243 245 245 243 243	243 245 247 245 243	243 240 245 245 242	243 235 239 243 240	243 235 237 245 243	237 233 235 235 235	226 227 226 227 225	217 221 226 226 221	216 218 226 226 218	216 226 227 221 226	226 235 230 221 228	235 243 235 235	245 245 245 237	254 245 245 243	259 250 245 245	264 250 245 245	264 250 245 245 249	256 250 245 245 247	253 245 245 245 247	247 240 243 243 245	245 240 240 237 243	241 239 239 238 237
Mean Mean*	239	238	238	239	240	240	240	240	236	230	226	225	226	232	239	245	248	252	252	251	249	244	240	238	239
Mean**	239	237	239	241	243	240	240	239	233	225	233	219	217	219	259	260	233	232	230	237	236	236	235	231	232

				TA	BLE I	II.—	Hour	LY M	EANS	of V	ERTIC	CAL C	OMPO	NENT	of M	AGNE	тіс F	ORCE-	—cont	tinued					
)h 11	h 2	h 3	3h 4	ь 5	h	6 ^h 7	'h 8	gh (on. 1			5 ^h 1	6h]	17¤ 1	8h 1	9ћ 2	20h 2	1 ^h 2	2h 2		24h
July.]		48	 	- Tabu	lar Qu	antitie	es. 	1		1							Mean.
1 2 3 4 5	239y 239 244 239 235	239y 239 244 236 233	239y 239 242 234 233	242y 242 244 237 238	242y 242 236 241 241	242y 238 239 242 243	2397 234 242 239 238	240y 234 242 232 238	236y 234 236 232 231	225y 226 232 224 228	223y 218 229 217 225	220y 215 227 220 231	225y 220 232 222 225	227y 232 239 232 228	2297 234 242 242 233	239y 234 244 242 238	244y 242 244 244 241	246y 244 244 244 243	258y 244 242 242 241	265y 246 244 240 238	261y 248 246 242 241	2537 244 244 239 238	246) 244 242 238 238	2447 242 239 238 235	240 236 240 235 236
6 7* 8** 9	235 235 233 227 230	236 235 233 224 229	238 236 231 230 230	241 238 214 234 232	241 240 223 235 234	241 240 216 234 232	238 235 214 232 230	231 233 223 230 227	225 233 223 224 224	223 223 221 213 222	214 214 214 206 217	210 214 209 211 213	212 214 209 215 205	219 214 218 222 213	231 231 228 230 222	238 237 233 232 232	238 243 241 237 232	243 241 242 241 234	243 235 249 241 234	243 235 249 241 236	243 233 249 241 236	241 233 241 237 238	235 233 238 232 232	235 231 234 232 217	233 231 229 229 227
11** 12 13 14	213 222 231 229 226	213 222 231 229 219	224 222 231 231 212	234 227 229 233 221	234 234 231 236 231	232 234 236 236 231	232 232 231 231 229	232 232 229 229 229	236 230 223 223 227	230 222 219 216 221	222 220 214 212 221	215 213 212 203 219	213 213 221 203 219	222 222 228 204 221	232 231 234 221 233	234 236 241 231 241	242 239 241 231 245	248 245 243 231 248	248 245 241 238 242	249 241 239 240 241	248 241 236 240 239	242 236 236 238 236	240 231 236 221 236	232 231 231 225 231	232 230 231 226 230
16 17 18 19* 20*	226 230 228 230 230	229 230 230 230 230	231 230 220 230 228	231 230 218 232 228	231 235 220 235 230	231 230 220 232 230	231 230 214 228 227	233 230 220 230 223	233 230 220 228 224	226 225 220 215 219	216 210 217 211 214	211 200 218 211 210	211 208 218 213 209	211 212 220 220 210	220 220 222 228 211	235 230 230 230 222	238 232 238 232 224	240 238 238 230 229	241 239 239 232 229	247 235 239 230 229	240 235 236 230 229	238 230 235 230 229	234 228 232 230 227	230 228 230 228 227	229 227 226 227 223
21* 22* 23 24 25**	227 227 230 227 229	227 227 230 230 229	227 227 232 226 228	227 227 232 229 224	229 229 232 231 228	229 229 230 229 222	221 227 224 225 214	219 226 229 226 212	219 219 222 221 212	211 210 213 219 212	205 203 213 213 212	205 202 213 212 212	200 202 211 204 212	205 208 213 212 220	214 211 222 221 233	224 229 227 223 239	234 236 232 229 270	236 235 239 233 298	229 232 237 233 300	227 229 234 231 289	223 229 232 233 258	227 229 232 231 241	227 227 230 229 239	227 227 230 229 237	222 223 226 225 236
26 27 28** 29** 30	238 231 228 207 228	238 233 228 193 209	241 231 211 213 221	241 231 211 223 230	241 239 211 219 240	229 239 216 216 240	228 239 222 221 238	223 239 228 — 230	214 237 228 — 226	219 233 228 221 228	214 229 222 221 226	219 231 220 221 221	214 229 220 224 216	214 226 230 230 221	231 233 238 238 230	235 241 240 242 238	243 249 247 249 240	250 250 258 256 242	257 246 268 266 247	252 246 258 267 247	245 241 253 262 249	243 239 220 251 249	238 235 204 247 240	233 230 205 240 235	233 237 229 233 233
31	225	227	227	227	229	227	227	232	229	227	225	220	218	225	232	237	237	242	241	245	245	238	236	234	232
Mean Mean*	230	228	229	231	233	232	229	229	226	221	217	215	215	211	228	235	240	244	245	244	242	237	234	231	231
Mean**	222	219	221	221	223	219	220	224	225	222	218	215	216	224	234	238	250	261	267	263	254	239	234	230	<u> </u>
Augus	st.								1	430	000γ+	Tabul	ar Qua	ntitie	s.		1						1		Mean.
1* 2 3 4 5	226y 224 226 225 223	226y 218 224 227 220	226y 221 221 227 225	226y 224 205 227 225	228y 228 202 229 229	231y 226 207 233 227	231y 228 220 225 225	228y 233 226 220 225	230y 226 226 208 225	226y 226 224 201 216	226y 218 213 201 212	218y 209 211 198 206	216y 224 215 197 216	216y 220 215 204 217	226y 224 227 215 227	226y 234 235 225 235	2347 236 237 225 246	2347 236 246 227 252	226y 236 242 233 252	2267 238 237 233 246	230y 243 237 234 242	231y 238 235 234 235	228) 236 235 230 235	2267 232 227 225 230	227 228 225 221 229
6 7 8 9	229 224 203 209 215	226 224 205 204 211	216 224 214 204 215	216 226 216 213 223	224 230 216 221 223	224 226 214 225 223	224 222 212 225 229	222 222 214 221 231	212 214 216 215 225	216 212 214 213 223	214 214 212 199 221	200 203 212 196 211	200 203 212 202 204	205 205 216 213 211	224 208 225 225 215	232 221 234 240 221	235 224 243 244 225	234 224 242 244 231	234 227 234 242 231	234 235 232 240 231	234 233 231 233 225	232 232 229 231 223	231 224 217 218 223	229 209 211 218 223	223 220 220 221 221
11 12 13 14 15**	221 220 224 219 212	213 220 222 219 219	219 222 222 218 221	217 222 222 221 221	220 222 224 223 226	224 222 222 223 229	224 232 220 221 231	224 230 220 221 229	222 224 220 219 223	220 220 216 209 221	208 212 212 211 216	203 203 208 211 203	201 203 208 211 203	217 205 210 211 210	224 212 220 216 210	225 222 224 221 212	230 226 230 223 212	234 226 232 232 232	234 228 231 231 250	236 226 238 229 266	234 230 233 229 297	230 224 231 221 251	220 224 221 211 229	220 224 219 202 231	222 221 222 219 227
16** 17 18* 19* 20	236 241 243 242 242	239 241 243 242 239	231 238 239 242 239	201 238 237 242 238	211 241 237 244 242	2 I 3 243 24 I 244 24 I	225 243 242 244 242	230 243 243 244 241	230 243 243 236 234	228 243 239 225 225	220 243 233 225 223	222 233 233 217 217	238 231 233 223 217	234 231 230 232 231	240 233 235 234 234	247 243 237 234 242	249 243 242 236 246	247 243 243 236 249	240 243 243 236 246	240 243 243 242 244	240 243 243 242 244	240 243 243 242 242	240 243 241 242 236	238 241 240 242 234	232 240 240 237 237
2 1* 2 2 2 3 2 4 2 5**	244 238 223 213 189	246 236 223 213 196	252 230 223 216 187	252 230 223 218 187	253 230 221 222 179	252 238 223 222 205	252 238 223 222 215	253 233 223 224 217	253 228 223 224 217	242 220 215 214 215	227 218 213 208 207	223 218 204 203 198	222 218 204 203 207	223 226 213 212 215	233 228 223 222 227	243 233 231 230 236	243 238 233 241 245	243 236 233 250 255	243 233 223 260 245	241 228 221 255 236	237 228 221 246 231	235 228 223 222 231	235 233 223 217 228	233 228 223 220 227	240 230 221 224 216
26** 27** 28 29 30*	223 223 221 220 223	215 224 219 218 223	197 224 227 220 223	187 224 227 226 223	199 229 229 228 225	215 226 229 228 227	223 232 231 233 229	225 232 237 236 230	225 232 234 238 227	225 226 221 228 223	215 224 212 218 217	215 224 212 214 208	219 234 217 218 206	224 248 224 223 215	234 251 227 228 223	243 251 229 233 230	253 247 234 233 233	243 248 236 233 233	243 248 237 233 232	243 244 234 230 230	234 239 234 236 230	234 236 234 233 230	234 236 228 230 229	224 234 228 228 223	225 235 228 228 225
31	223	223	226	226	228	228	228	228	222	215	213	208	208	210	215	219	225	227	241	246	246	248	262	248	227
Mean*	224	223	223	222	224	227	229	240	226	231	216	211	214	219	225	232	236	238	238	238	234	234	230	227	227
Mean**	236	236	236	236	237	239	225	227	225	223	216	212	220	226	232	238	241	243	245		248	238	233	231	234

				TAE	BLE I	II.—I	Houri	Ly Mi	EANS	of V	ERTIC	AL C	OMPON	ENT	of M	AGNE	ric F	ORCE-	-cont	inued			1.		
0	h 1	h 2	h 3	h 4	h 5	ь 6	3h 7	'h 8	3h 9	h 1()h 1]	h No	on. 1	3h 1	4 ^h 1	5h 1	6h 17	7h 1	8h 1	9h 20	0h 2	1h 2	22h 2	23h 2	4h
Septem	ber.									430	000γ	+Tabı	ılar Q	uantiti	es.		-]	Mean.
1** 2 3 4 5	2337 215 213 212 203	2217 215 218 198 194	221y 221 220 203 203	223y 223 222 207 214	225y 223 222 212 220	2237 223 217 212 222	223y 223 214 212 224	214y 221 212 212 222	217y 217 212 207 220	214y 213 207 201 212	206y 213 210 195 210	2047 211 212 210 203	208y 215 216 214 205	215y 221 220 222 212	2317 223 227 231 221	240y 231 237 236 240	240y 231 252 233 246	250y 231 242 231 240	251y 230 232 229 242	2447 231 232 231 231	242y 231 232 229 229	240y 227 232 226 226	2317 230 224 212 226	227y 226 212 207 223	227y 223 222 216 220
6 7 8 9	216 216 219 222 222	22 I 22 I 2 I I 220 222	226 221 212 212 222	226 221 218 218 222	226 226 218 220 222	226 226 208 220 222	226 226 212 222 225	226 226 214 227 228	223 226 210 220 222	219 216 201 210 220	207 216 199 208 215	201 210 201 208 212	202 216 208 215 212	213 221 216 220 215	221 229 225 225 223	238 236 230 228 231	245 240 234 222 231	249 240 231 222 229	240 238 239 222 219	231 238 237 228 224	229 233 230 228 224	225 231 222 228 224	221 229 220 220 224	211 229 220 220 221	224 226 218 220 222
11* 12* 13 14 15*	219 219 219 223 226	219 219 219 223 225	217 221 218 223 221	219 222 216 223 220	221 224 218 223 223	227 229 218 226 226	227 229 218 226 228	227 229 218 226 228	225 229 218 218 220	219 219 218 213 217	217 219 207 211 208	209 211 201 211 210	209 209 204 218 214	209 209 208 218 219	214 219 218 228 225	221 219 228 237 227	227 219 237 237 225	221 219 228 237 225	219 219 228 236 224	219 219 228 232 225	221 221 228 230 224	221 224 228 228 227	219 222 228 228 227	219 219 228 226 227	219 220 220 225 222
16 17 18** 19** 20**	219 208 221 213 208	217 212 221 213 205	198 210 221 207 210	198 212 221 183 193	206 208 221 183 207	212 205 211 188 210	219 212 204 197 210	227 217 207 206 218	229 217 210 211 222	227 215 211 211 225	217 212 221 216 215	208 215 219 221 215	208 217 216 221 225	209 229 229 226 230	217 232 231 229 230	227 246 234 230 230	245 258 233 240 237	249 253 231 244 230	241 247 231 249 227	236 243 231 240 230	232 236 231 238 230	234 226 223 230 220	225 226 221 221 210	211 224 221 218 218	221 224 222 218 219
21** 22 23 24 25*	217 218 221 224 223	210 218 209 221 223	212 220 200 222 220	212 220 200 224 218	210 214 198 227 223	205 222 200 227 223	210 229 209 229 220	212 237 219 229 220	220 229 221 229 220	220 229 219 219 220	217 219 217 214 213	214 214 211 210 211	240 208 209 210 216	272 208 217 211 223	272 219 229 218 228	278 227 240 236 236	294 237 245 247 236	288 242 233 245 236	284 253 229 239 230	266 248 229 238 233	214 238 229 238 236	203 229 227 228 236	188 229 227 228 228	210 224 223 223 223	232 226 219 226 225
26* 27 28 29 30	223 222 222 214 206	223 217 222 216 188	223 217 217 216 188	223 217 213 216 198	226 209 217 216 206	228 210 217 216 216	228 209 219 218 221	226 215 225 218 226	220 217 222 216 226	218 215 222 218 224	213 207 213 216 218	213 203 208 211 211	210 200 206 211 208	209 206 208 208 214	216 212 213 211 224	223 231 227 224 228	228 245 244 226 244	230 234 249 228 242	228 229 246 234 228	228 227 238 234 226	227 227 244 226 226	225 225 238 228 224	222 225 234 226 218	222 221 226 226 216	222 218 225 220 218
Mean	218	215	216	215	216	217	219	22 I	220	216	212	210	212	218	225	233	239	238	235	234	230	227	223	223	222
Mean*	222	222	220	220	223	227	226	226	223	219	214	211	212	214	220	225	227	226	224	225	226	227	224	222	222
Mean**	218	214	214	206	209	207	209	211	214	4300	215 00 V J	215 Tabul	ar Qua	234	239	242	249	249	248	242	231	223	214	219	Mean.
1	-									1000		Tabui													
1 2** 3 4 5	2057 203 202 221 215	200y 208 202 211 220	2007 212 211 211 220	1817 212 211 211 220	196y 208 206 209 220	210y 212 202 204 220	212y 212 204 211 222	218y 222 211 211 222	220y 222 211 216 220	222y 220 211 221 218	220y 214 211 221 215	210y 208 211 216 210	210y 210 211 216 218	210y 217 221 219 218	212y 230 226 223 220	220y 239 240 232 228	220y 241 240 242 230	220y 241 248 238 230	220y 232 238 231 230	220y 227 230 225 232	215y 227 229 221 237	215y 224 219 229 222	212y 224 221 223 220	205y 214 221 211 218	2117 220 218 220 222
6 7 8** 9	201 200 220 218 220	199 203 220 210 218	205 206 218 203 218	210 209 217 197 220	215 209 215 190 220	218 214 218 194 222	220 214 217 213 225	218 217 215 218 226	218 219 218 218 223	212 214 220 210 220	210 209 212 206 216	212 204 206 206 210	210 204 210 206 209	212 211 215 208 216	218 219 229 218 220	220 222 248 222 226	222 228 271 227 228	222 228 290 227 226	228 224 266 226 226	229 219 266 226 226	229 219 257 227 224	228 219 253 231 220	220 219 234 227 220	201 219 229 227 218	216 215 232 215 221
11* 12* 13* 14* 15	217 217 216 216 205	217 217 216 214 205	219 217 216 214 205	219 217 216 216 205	219 217 214 216 205	219 217 216 216 202	217 217 216 216 216	217 219 216 216 198	219 219 214 216 200	215 215 206 216 200	207 207 204 211 196	205 200 199 201 191	207 201 199 201 196	211 207 199 199	217 212 204 204 203	217 217 211 211 220	219 222 216 214 238	217 222 216 214 236	217 222 216 214 229	217 222 216 214 226	219 219 216 214 221	217 217 216 216 220	217 217 216 216 218	217 217 214 214 210	216 216 212 212 209
16** 17** 18 19 20	212 219 210 218 200	210 221 210 218 207	199 210 212 218 209	184 200 219 218 216	175 200 219 218 218	157 196 222 218 222	171 202 219 216 225	192 210 219 218 228	192 219 221 218 226	198 212 222 216 218	230 210 219 210 218	240 219 224 209 218	262 227 234 209 218	283 234 237 223 228	299 257 246 233 236	320 258 238 260 245	294 257 238 246 245	274 238 238 235 236	268 234 238 228 230	266 234 238 230 230	246 229 234 228 228	237 224 219 226 228	220 219 219 209 228	220 219 223 199 218	231 223 226 222 224
2 I 2 2 2 3 2 4 2 5	212 228 211 220 224	208 222 215 214 224	212 220 218 212 224	215 218 220 212 224	219 218 220 212 222	219 220 220 212 222	222 220 220 217 222	225 220 228 220 222	224 214 228 222 220	217 215 222 220 214	208 209 213 214 210	206 209 215 212 210	209 210 222 212 209	215 215 228 220 210	225 220 228 222 222	231 230 235 224 230	234 237 239 227 224	234 232 241 227 227	231 230 241 222 232	236 228 239 222 230	227 225 238 232 224	227 225 228 232 227	227 222 220 232 227	225 210 220 232 224	22 I 22 I 22 6 22 0 22 2
26 27* 28 29 30	220 213 215 219 217	220 217 218 216 217	220 218 217 217 216	220 218 218 219 217	220 218 217 217 217	220 220 218 219 219	220 220 215 217 217	220 220 215 219 217	220 220 217 219 219	220 220 212 214 211	215 210 209 209 207	212 210 209 209 207	215 208 212 211 209	218 210 220 217 217	220 215 228 219 217	222 220 241 221 221	220 220 251 221 219	220 220 239 221 219	220 218 230 219 211	222 220 230 221 214	220 220 228 221 217	220 220 225 219 217	220 220 222 209 217	220 218 220 217 217	219 217 222 217 216
31**	209	209	209	209	207	193	193	198	202	217	217	219	224	229	240	246	238	229	229	229	219	219	219	209	217
Mean	214	213	213	213	212	212	214	217	217	215	212	210	213	218	225	230	234	232	229	229	226	224	221	217	219
Mean* Mean**	216	216	217	217	217	195	199	218	218	214	208	203	203	205	214	262	218	218	217	218	218	217	217	216	215

				Тан	BLE II	II.—F	Iouri	Y Mı	EANS	of V	ERTIC	AL C	OMPO?	ENT	of M	AGNE	тіс F	ORCE-	—cont	inued					
0	h 11	h 2	h 3	h 4	h 5	h 6	h 71	a 81	h 9h	10	h 11h	Noo	n. 13	h 14	h 15	5h 16	Sh 1	7 ^h 1	8h 1	9h 2	0 т 2	1h 2	2 ^b 2	3ћ 2	24h
Novem	ber.									430	¹⁰⁰ γ+	Tabula	ar Qua	ntities										N	Iean.
								-																	
1 2 3 4 5*	204 <i>y</i> 214 208 212 209	208y 211 209 209 209	211y 211 211 210 209	214y 208 214 209 209	214y 208 214 210 209	2147 209 210 212 207	214y 211 214 207 207	216y 214 216 207 207	216y 216 214 207 205	2147 211 208 207 202	214y 211 208 202 197	2117 208 214 205 202	208y 214 215 207 207	214y 218 212 209 207	218y 219 217 212 212	218y 221 217 215 214	218y 226 217 214 215	216y 221 217 209 209	2147 216 215 207 209	214y 216 215 207 207	2147 214 217 209 207	208y 216 217 217 209	208y 216 217 212 210	208y 214 215 210 209	2137 214 214 209 208
6* 7* 8 9	207 208 208 209 212	207 208 208 209 211	207 208 208 209 211	207 208 208 209	207 208 210 211	207 210 210 211 211	208 206 208 211 209	208 208 208 209 209	208 208 208 209 209	208 206 203 209 204	203 200 203 207 200	206 200 200 207 200	208 206 201 213 202	208 208 206 213 207	210 210 208 217 214	213 210 210 217 219	213 213 210 217 219	213 213 213 216 219	210 208 210 212 224	208 208 210 211 228	210 208 208 214 233	213 208 208 214 233	210 208 208 214 228	208 208 210 215 211	209 208 208 212 214
11** 12** 13 14 15**	209 192 199 219 214	207 188 208 217 208	198 182 216 211 216	200 199 210 219 219	198 201 208 219 214	193 190 213 219 210	195 197 213 219 200	200 205 216 219 210	202 211 216 217 214	207 216 216 217 219	209 220 218 217 217	209 228 216 221 217	212 229 218 227 219	225 241 226 227 227	229 244 228 229 231	231 244 232 227 234	239 244 237 227 238	249 241 237 229 252	259 235 237 229 245	253 228 235 229 245	225 228 226 219 238	225 216 228 224 221	203 208 208 219 210	190 201 214 217 214	216 216 220 222 222
16 17 18 19 20	210 218 222 231 231	210 213 222 231 231	210 217 220 229 231	208 218 222 227 229	208 220 222 230 229	210 220 222 231 225	212 220 220 231 225	217 220 220 231 223	219 220 220 233 223	217 218 220 233 225	212 218 220 233 221	221 224 220 231 221	230 232 228 235 223	237 240 230 241 221	247 241 240 241 221	252 241 240 243 221	247 240 238 243 226	246 240 237 243 226	239 235 238 245 223	232 232 238 247 221	230 230 230 233 223	218 230 230 236 225	218 230 228 236 223	222 228 228 233 221	224 227 227 235 225
21 22 23** 24 25	221 224 221 245 233	221 225 219 245 233	223 224 216 243 233	224 224 220 243 236	221 225 207 238 240	221 227 209 241 238	219 224 206 241 238	219 222 199 241 235	223 222 209 238 233	221 222 212 237 231	221 222 221 235 230	223 222 232 235 231	230 224 253 241 233	230 230 260 248 237	234 230 270 253 238	237 230 285 262 241	240 232 280 257 243	240 232 270 253 243	234 230 268 256 241	234 230 259 253 241	237 230 257 248 237	232 232 255 245 241	232 232 251 243 241	227 222 250 238 239	228 227 239 245 237
26* 27* 28 29** 30	235 234 234 235 253	236 234 234 235 247	233 234 232 235 235	233 234 232 235 245	235 234 232 233 245	236 234 234 233 245	233 234 226 230 243	233 232 226 231 242	233 234 231 231 240	233 229 232 231 235	231 226 226 231 235	233 229 227 228 240	234 234 229 229 243	234 234 239 226 245	234 236 239 226 245	239 236 242 226 253	239 240 242 226 255	239 234 238 231 255	239 234 234 245 259	236 234 234 290 257	236 234 236 370 247	238 234 239 300 245	238 234 239 281 245	232 234 237 250 243	235 234 234 243 246
Mean	219	218	218	219	219	218	217	218	219	218	217	219	223	227	230	232	233	233	232	232	226	225	225	222	224
Mean*	219	219	218	218	219	219	218	218	218	216	211	214	218	218	220	222	224	222	220	219	219	220	220	218	219
Mean**	214	211	209	215	211	207	206	209	213	430	220 00γ+1	rabula	r Quai	236	242	244	245	249	250	255	251	243	231	221 N	1 227 Iean.
	1 (1											 		1							1			<u> </u>
1** 2 3 4 5*	235y 234 237 243 237	2347 238 237 243 239	2347 244 239 240 239	234y 244 237 241 239	2347 240 237 238 239	2347 240 235 238 239	235y 240 232 238 234	2357 236 228 233 231	235y 238 228 233 232	235) 236 235 231 231	2317 236 235 232 229	226y 231 239 228 234	235y 231 245 231 234	240y 236 247 233 234	250y 236 249 238 237	266y 241 256 240 237	285y 241 264 245 237	282y 241 266 246 234	2877 241 252 243 231	2757 238 249 238 229	2577 241 247 238 229	245) 244 252 238 231	2377 236 250 238 231	2377 236 247 233 231	246) 238 244 237 234
6* 7 8** 9**	230 231 222 238 213	232 231 206 235 225	232 231 192 234 235	230 231 215 220 237	230 229 226 220 239	232 229 224 229 244	234 229 226 234 239	230 226 231 241 241	230 227 233 243 239	230 223 240 245 244	228 221 242 248 249	228 221 250 245 249	230 223 271 258 265	230 226 298 267 263	230 231 322 276 271	230 231 294 267 271	230 236 280 267 271	230 241 300 270 263	230 245 291 262 258	230 245 278 259 249	230 239 266 253 254	230 248 252 243 249	234 248 242 243 246	230 241 238 234 244	230 233 252 247 248
11 12 13 14	235 236 239 235 239	231 236 239 238 239	235 241 237 238 239	240 241 235 238 239	235 241 235 238 239	240 243 233 240 239	242 243 235 238 239	245 244 235 238 231	245 256 237 238 235	253 256 237 243 237	250 256 237 238 237	245 244 235 238 239	245 243 237 246 241	245 246 245 250 247	250 246 247 250 249	255 251 251 255 247	255 246 252 250 247	259 246 264 250 249	255 251 252 248 249	257 248 252 248 249	250 246 252 248 247	250 246 242 246 247	235 246 242 240 247	235 244 230 240 245	245 246 242 243 242
16 17 18 19 20	242 249 242 243 256	242 248 242 243 256	240 243 244 245 254	240 241 242 243 246	240 239 242 243 248	240 239 242 239 254	240 239 242 234 252	238 239 240 234 246	238 241 240 234 245	238 249 240 241 246	238 249 240 241 252	235 241 240 241 252	240 247 238 253 252	248 249 240 263 252	250 249 242 265 256	248 248 242 263 264	250 249 242 263 273	252 249 244 272 275	258 249 250 272 278	261 247 247 270 269	261 243 244 272 269	259 247 242 273 264	256 249 240 265 264	250 243 240 263 262	246 245 242 253 258
2 I 2 2 2 3 2 4 2 5**	262 260 254 247 259	259 257 246 249 259	256 257 244 255 257	256 255 239 257 257	254 245 248 257 255	254 250 254 257 257	252 253 248 257 250	246 253 250 257 245	246 255 248 257 245	246 255 250 257 245	250 255 256 257 245	249 253 258 257 255	244 255 266 257 260	246 255 258 259 267	249 257 258 259 278	254 255 261 259 315	259 255 261 259 329	262 255 266 259 381	264 255 268 265 391	264 255 273 265 348	262 257 266 259 299	259 255 261 257 286	262 253 254 257 280	259 253 244 257 257	255 255 256 257 280
26** 27 28* 29* 30*	25 2 255 271 267 268	260 260 269 267 266	264 260 269 267 265	267 260 269 267 265	267 260 269 264 265	269 266 271 267 266	267 268 269 267 265	269 270 271 267 266	277 270 271 267 263	277 270 271 269 265	281 268 271 272 265	284 268 271 272 268	288 270 271 272 271	288 272 269 272 268	284 270 271 272 265	279 270 273 272 265	274 270 273 272 268	279 270 271 272 268	279 270 271 272 266	271 268 271 272 265	279 268 271 270 266	260 270 271 270 265	258 270 271 270 268	260 270 266 268 268	272 267 270 270 266
31	264	264	264	262	260	264	262	260	262	262	259	259	262	264	266	269	269	274	274	272	270	272	272	266	266
Mean	245	245	245	245	244	246	245	244	245	247	247	247	251	254	257	259	260	264	264	260	257	254	252	248	251
Mean*	267	267	266	266	265	267	266	265	265	265 249	265	267		265	207	267	285	207	295	265	265	265	267	265	266
Mean**	240	243	245	243	243	247	245	246	248	249	251	452	201	205	2/2	200	205	495	495	200	408	257	253	246	1 2

Table IV.—Monthly and Annual Mean Diurnal Inequalities of Magnetic Declination West. (The results in each month are diminished by the smallest hourly value.)

						1918							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
			_										
Midnight	0.5	0.1	1.4	2.1	3.4	3.3	3.7	3.2	1.1	0.5	1.1	2.6	0.86
ıh.	1.4	0.5	r · 5	1.9	3.5	3.9	3.5	3.1	1 . 2	o∙8	1.0	2.8	1.11
2	1.7	0.4	1.3	1.2	3.4	3.3	3.0	3.1	0.6	I ·2	2.1	3.1	0.97
3	2.7	0.5	I · 2	1.9	3.1	2.4	2.4	3.3	0.6	1 · I	2.5	3.4	1.03
4	2.9	0.7	I · 2	2 · I	2.5	1.4	2.1	1.9	0.6	2.3	2.7	3.3	0.92
5	2.7	1.6	1 •4	2.5	1.3	0.4	0.3	0.7	0.9	2.2	2.8	3.9	0.66
6	2.6	1.7	I • I	1.5	0.4	0.2	0.0	0.0	0.4	1.5	2.5	4.5	0.31
7	2.5	1.8	0.4	0.3	0.0	0.0	0.4	0.0	0.0	0.5	2.4	4.4	0.00
8	2.3	1.5	0.0	0.0	0.8	0.5	0.8	1.0	0.3	0.0	2 · I	4.8	0.11
9	1.9	1.7	I • I	1.7	2.6	2.7	2.8	3.1	2 · 2	I • I	2.8	5.2	1.36
10	2.9	3.3	3.9	4.7	5.5	5.4	5 €	5.8	5.3	3.6	4·1	6.2	3.58
II	4.4	4.8	7.3	8.3	8.7	8.7	8.4	9.7	8.3	6.8	6.5	6.6	6.32
Noon	6.3	6.0	9.8	11.4	11.0	10.7	10.8	11.9	10.1	8.7	7.4	7.2	8.22
13h.	7.5	6.9	10.2	12.4	11.7	11.6	11.8	12.4	9.9	9.0	7.5	7.4	8.82
14	7.4	6.8	9.4	11.3	11.1	11.3	11.5	11.3	8.9	8.6	6.8	6.9	8.21
15	6.4	6∙1	7.5	9:5	9.4	9.9	10.2	9.7	7.3	6.6	5.8	6∙1	6.82
16	5.6	5.6	5.4	7.8	7.9	8.0	8.8	7.9	4.8	4.9	4.8	4.9	5.31
17	4.8	4.3	4.3	6.2	6.6	6.5	7.2	6.0	4.0	4·1	3.4	4.3	4.08
18	4.3	4.0	3.5	4.7	5.2	5.7	5.7	4.8	2.8	3.5	2.5	3.2	3.10
19	3.4	3.6	2.7	3.9	4.7	5.0	5.0	4.3	2 · I	I .5	1.6	1.2	2.19
20	2.3	2.0	1 ·8	3.6	4.6	5.0	4.4	4.5	1.4	0.4	0.8	0.4	1.54
2 I	0.8	1.1	1.7	3.1	4.2	5·I	4.7	3.7	0.4	0.3	0.8	0.0	1.11
22	0.3	0.0	1.2	2.3	4.5	4.7	4.2	2.9	I ·2	0.3	0.0	0.7	0.82
23	0.0	0.0	1.3	1.1	3.9	3.7	3.8	3.5	I .0	0.2	0.1	1.9	0.62
Means	3'.24	2'.71	3'.38	4′.40	5′.03	4′.98	5'.02	4′.90	3'.14	2′.87	3'.12	3′.97	2′.84

Table V.—Diurnal Range of Declination, on each Civil Day, as deduced from the Twenty-four Hourly Measures of Ordinates of the Photographic Registers.

						1918.						
Day of Month.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.
d.				1								
I.	5.8	12.0	7.0	15.0	14.5	12.5	13.0	13.7	26.0	15.7	7.5	26.0
2	6.5	8.3	10.8	15.0	11.5	13.0	10.5	11.2	10.8	12.0	7.0	7.8
3	13.0	6.3	17.5	14.5	13.8	10.0	11.3	17.4	12.0	12.8	7.2	16:5
4	12.7	4.7	12.7	20.0	15.0	13.0	13.8	14.7	16.8	13.0	9.0	6.0
; 5	10.3	7.8	8.7	20.5	11.3	15.0	11.5	16.0	15.0	18.0	8 ⋅0	3.3
5 6	10.8	17.8	8.2	30.3	13.5	14.5	12.0	17:4	13.8	10.4	6.5	3.5
	8.5	7.5	11.0	18.5	11.5	15.0	15.0	12.0	13.2	12.0	6.5	15.0
7 8	5.2	5.5	32.5	13.5	18.5	15.0	17.2	15.5	16.0	22.5	8.5	30.0
9	6.0	9.2	8.8	16.5	15.0	13.3	14.0	14.3	13.8	19.0	8.2	15.0
10	8.3	12.5	14.3	15.5	15.5	22.0	14.0	11.5	12.0	9.0	12.0	9.8
II	4.3	13.5	12.7	21.0	12.5	13.5	14.5	16.3	11.0	9.5	21.5	15.5
I 2	17.0	15.2	13.0	11.5	10.8	13.3	12.3	11.5	8.3	8.2	20.0	6.5
13	14.0	22.5	12.0	14.0	12.0	10.5	15.0	12.0	12.5	9.5	13.5	15.0
14	11.5	17.0	12.5	10.0	15.5	12.5	12.8	11.0	13.5	10.0	12.5	8.5
15	10.2	20.0	12.0	13.7	16.8	13.0	12.5	19.0	11.5	12.5	20.0	4.8
16	7.5	10.5	18.5	11.0	23.3	11.5	9.0	15.0	16.0	17.0	9.5	9.0
17	8.2	6.9	9.5	11.7	23.5	11.8	12.2	12.0	14.5	16.0	7.2	7.0
18	7.6	5.8	12.2	21.0	12.5	12.0	14.2	9.0	15.0	9.0	7.5	7.8
19	6.8	5.2	10.2	19.5	8.5	9.8	10.5	13.0	19.5	21.5	13.0	15.5
20	7.8	10.3	9.7	9.6	12.2	11.0	11.5	14.2	10.5	13.5	7.8	8.0
2 I	10.2	9.0	15.5	11.5	10.3	15.5	9.6	14.2	18.5	11.5	8.0	8.8
22	7.5	5.0	12.5	13.5	10.4	10.0	13.0	14.8	20.5	12.0	11.7	6.7
23	5.0	17.0	12.5	15.3	11.5	13.2	15.2	14.5	11.5	15.5	19.5	9.2
24	6.2	10.0	11.7	12.7	8.5	10.8	13.3	15.2	14.5	14.8	21.0	7.2
25	8.8	5.5	12.7	22.3	12.0	11.0	20.4	19.0	12.8	13.8	4.2	32.5
2 6	8.5	7.8	15.2	25.5	13.3	16.2	16.0	12.8	9.5	10.2	6.8	20.0
27	10.3	11.5	19.0	10.7	11.0	13.5	12.5	14.5	12.0	7:5	6.8	5.6
28	6.6	15.0	15.3	11.2	12.7	12.5	18.0	13.8	19.0	12.5	8.2	3.2
29	18.0		11.7	7.6	11.7	11.0	12.8	12.2	14.5	10.2	21.0	4.7
30	26.8]	12.0	14.0	11.7	13.0	12.0	12.4	17.5	12.0	16.5	3.2
31	30.0		15.0		11.0		12.5	14.0		13.2		9.2
Means	10'.3	10'-7	13'.1	15'.6	13'-3	12'.6	13'-3	14'.0	14'.4	13'·1	11'.2	11'.0
				The mean of	f the twelve	nonthly valu	es is 12'.72.					

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 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 8, 11, 17, 18, 19. February 8, 19, 22, 25, 26. March 5, 6, 19, 24, 25.

April 13, 14, 15, 20, 24. May 7, 8, 9, 26, 27. June 2, 3, 4, 29, 30.

July7, 19, 20, 21, 22.August1, 18, 19, 21, 30.September 11, 12, 15, 25, 26.

October 11, 12, 13, 14, 27. November 5, 6, 7, 26, 27. December 5, 6, 28, 29, 30.

	J, 0, 29,			~ ~, 3,	4, 29, 30.							0, 20, 29,	
						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year
Midnight	0.2	ı ·4	3.0	4.5	,	4:4	4.1	,	2.6	2.8	0.2	0.3	2.65
ih.	0.7	1.4	2.9	4.5	5·9 5·4	3·8	4.0	5 5	3.0	2.6	0.0	0.4	2.66
2	1.0	1.4	3.1	4·4 4·2	4.5	3.7	3.7	5.5	3.0	2.4	0.8	0.3	2.53
	1.4	I ·4	2.8	1	3.9	_	3.1	5.4	2.5	2.7	1.2	0.4	
3	1.8	1.4	2.8	4.3	2.6	3.3	2.0	4·6 2·8	1.0	2.7	0.4	0.4	2·37 1·76
4	1.3	I · 2		3.0	1.5	0.7	0.7	i	1.7	2.6	0.4	0.2	1.17
6	1.1	1.0	2·5 1·8	2.0	0.5	0.1	0.4	1.3	I ·4	2.2	0.5	0.1	i .
7	1.0	0.6	0.0	0.5	0.0	0.1	0.0	0.4	0.1	0.8	0.5		0·70 0·14
8	0.8	0.0	0.0	0.0	0.8	0.0	1		0.0	0.0	0.0	0.3	0.00
*	0.0					1.6	0.3	0.7	1.8			0.5	1
9 10	0.8	0.3	0.9	2 · 2	3.1			3.2		0.7	0.4	1.3	1.21
- '		2.0	3·5 6·8	5·3 8·6	6.9	4·I	4·6 8·1	5.9	4.8	3·I	2.4	2.0	3.55
II Noon	2.0	3.8	8.8		11.3	7.5		9.8	7.9	6·2 8·6	4.7	2.8	6.41
Noon	4.2	5.2		11.4	13.4	10.4	10.6	11.8	9.5		5.8	!	8.28
13	5.2	5.5	9.9	11.6	13.7	11.8	11.5	12.4	10.1	8.8	5.2	2.9	8.82
. 14	5.0	5.2	8.5	10.1	11.9	11.1	10.8	11.0	8.7	8.5	4.5	2.4	7.91
15	3.9	4.7	6.5	8.1	9.6	10.0	8.9	8.8	7.1	7.0	3.7	1.9	6.42
16	3.0	4.0	4.9	6.7	7.6	8.0	7:4	6.7	5.6	6∙0	3.1	1.3	5.10
17	2.3	3.6	4.3	5.6	6∙1	6.6	5.8	5.5	4.9	5.2	2.7	I · I	4.51
18	2.3	3.1	4·1	4.9	5.7	5.9	5·I	4.7	4.4	4.2	2.5	1.0	3.76
19	1.7	2.5	3.3	5.2	6.0	5.7	5.2	5.0	4.4	4.5	2.0	0.7	3.57
20	1.4	1.0	1.7	5.0	6.4	2.2	2.1	5.4	3.6	3.8	1.5	0.4	3.51
21	0.9	1.6	1.9	4.7	6.4	5.6	5.3	5.0	3.5	2.9	1.0	0.3	2.97
22	0.4	1.2	2.1	4.3	6.2	5.2	5 1	5.1	2.3	3.3	0.6	0.1	2.78
23	0.3	1.4	2.6	4.3	6.1	4.9	4.8	4.7	1.1	3.0	0.1	0.0	2.21

TABLE VII.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES OF MAGNETIC DECLINATION WEST from HOURLY ORDINATES, on Five Selected Disturbed Days in each Month.

4'.95

5'.10

Each result is the mean of the corresponding hourly ordinates from the photographic registers, 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 5, 12, 29, 30, 31. February 5, 6, 12, 13, 15. March 8, 11, 12, 15, 16.

1'.75

Means

2'.35

3'.73

April 5, 6, 11, 19, 26. May 1, 16, 17, 18, 19. June 9, 10, 11, 12, 15.

5'.17

6'.06

July 8, 11, 25, 28, 29. August 15, 16, 25, 26, 27. September 1, 18, 19, 20, 21.

5'.45

3'.98

3'.95

October 2, 8, 16, 17, 31. November 11, 12, 15, 23, 29. December 1, 8, 9, 25, 26.

ı'.88

0'.99

3'.53

Maich	0, 11, 12,	15, 10.	Jun	9, 10, 11	., 12, 13.		- Septem		.9, 20, 21.		cember 1,	0, 9, 25,	<u> </u>
						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
30.001.31.11.11.11	,	/ /		,	,	,	,	,	/	, ,	,	,	1
Midnight	3.3	4.0	4.3	0.0	0.0	1.0	2.3	0.0	1.7	4.5	3.2	10.1	0.16
rh.	7.7	1.6	2.6	I · I		4.5	3.9	1.7	0.0	4.4	4.2	10.0	0.94
2	7.8	0.0	0.0	I.I	3.0	3.7	3.8.	4.0	0.9	5.7	4.3	10.7	1.04
3	8.2	1.6	1.8	3.4	2.5	1.2	2.9	5.0	2.3	2.4	5.2	11.5	1.29
4	8.8	3.2	2.9	5.4	2.2	0.4	4·I	2.6	I ·7	8.2	7.8	11.4	2.18
5	8.5	6.6	5.2	7.5	1.8	0.0	1.9	2.0	4.0	7.2	10.1	13.3	2.96
6	8.6	7.0	5.7	5.6	1.0	0.3	0.0	0.6	5.8	6.8	8.6	15.2	2.72
7	8.7	7.1	6.2	5·1	1.0	0.4	0.0	I .5	6.3	6.1	7.9	14.5	2.67
8	8.8	7.0	5.9	3.7	1.8	0.7	1.0	2.8	5.7	5.0	7.8	13.9	2.63
9	8.8	8.0	6.8	5.7	4.4	3.0	2.7	3.6	6.5	7.0	9.0	14.3	3.94
IÓ	9.5	9.4	9.2	10.5	6∙1	5.0	5.2	5.7	8.7	8.8	8.7	16.0	5.86
II	10.7	9.8	11.0	15.0	8.4	8.3	9.0	10.5	I I ·2	11.4	11.2	16.7	8 ⋅46
Noon	12.9	10.0	14.6	17.7	10.4	10.5	11.4	12.4	12.5	13.3	11.5	18.7	10.28
13	14.2	10.9	15.2	18·1	11.3	11.5	12.7	12.6	11.8	13.2	12.6	18.7	10.86
14	15.2	11.5	15.1	16.3	11.4	11.9	13.0	11.0	11.1	I 2·2	10.4	18·I	10.46
15	13.6	11.9	12.4	15.2	9.7	11.1	12.0	11.5	10.1	9.0	10.6	15.9	9.21
16	13.4	12.7	10.3	13.3	9.0	9.2	10.8	9.0	7.1	9.2	9.9	11.7	7.76
17	12.4	11.8	9.1	11.6	8 ⋅1	7.2	8.0	7.6	5.7	ź.∘	4·I	10.4	5.87
18	12.2	12.4	5.4	7.6	7.2	6.3	4.1	5.1	3.2	5 · I	5.4	7.6	4.09
	10.7	11.1	7.0	5.8	3.6	4.8	2.3	4.2	2.2	0.0	3.0	2.6	2.07
19	, ,	1	6.6	5.3	3.7	4.1	1.0	4.9	3.8	2·I	2.9	2.4	1.88
20	7.8	9.6	6.6	6.4	3.7	4.3	2.8	4.5	0.3	2.9	4·I	0.0	1.08
21	2.3	7.6	6.6	2.7	3.3	3.0	3.8	2.2	1.6	2 ·8	0.0	3.8	
22	1.3	5.1		1 '	1.4	1.7	2.1	1.0	0.0			-	0.31
23	0.0	3.7	5.9	1.3						3.2	1.2	9.5	0.00
Means	8'.07	7'.65	7'-39	7'.73	4'.87	4'.77	5'.07	5'.28	5'.21	6′.58	6'.85	11'-53	4'.11

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

						1918.							
Hour, enwi c h Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Y
Midn.	237	19γ	34 <i>y</i>	42 γ	352	37 <i>Y</i>	36y	447	472	43γ	247	107	31.5
ıh.	24	20	34	42	31	34	35	41	45	41	23	II	30.5
2	23	19	32	42	30	35	37	39	46	41	25	11	30.7
3	2 I	21	31	40	29	34	39	37	45	42	24	15	30.
4	24	24	35	40	31	37	39	39	45	4 I	27	18	32.0
5	27	25	36	41	30	37	38	40	42	45	31	20	33.0
6	29	27	36	40	26	32	30	32	36	44	31	20	30.0
7	29	26	32.	36	19	23	22	24	26	35	26	16	24.0
8	26	21	25	28	12	13	15	13	16	24	18	I 2	17.
9	2 I	14	15	15	7	6	7	4	6	9	10	7	8.
10	15	8	4	5	2	I	2	0	0	2	3	6	2.
II	6	3	0	0	0	0	0	I	I	0	0	4	0.
Noon	0	0	2	0	2	5	3	7	8	2	0	2	1.
13h.	I	I	6	7	. 7	11	7	10	13	7	4	0	4.
14	I	3	10	16	15	20	16	17	18	11	7	I	10.
15	3	4	16	22	22	25	29	27	24	16	I 2	2	15.
16	8	7	20	30	29	28	36	36	30	23	17	5	21.
17	II	11	23	39	36	38	40	42	35	30	23	I	26.
18	13	16	29	43	42	41	44	5 1 .	40	35	22	9	30.
19	17	13	33	44	43	44	45	49	45	41	25	13	33.
20	20	17	35	46	38	40	43	48	50	46	25	12	33.
21	22	18	35	43	36	39	42	48	49	43	28	14	33.
22	21	21	36	43	35	38	37	44	46	45	28	15	32.
23	23	19	35	43	34	40	37	44	47	46	25	13	32.
Ieans	17.0	14.9	24.8	31.1	24.6	27.4	28.3	30.7	31.7	29.7	19.1	9.9	22.

TABLE IX.—DIURNAL RANGE of MAGNETIC 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 Gauss units.)

						1918.						
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December
d.												
I	297	60γ	342	57γ	67y	52y	76y	48γ	74Y	130y	492	59γ
2	25	24	34	57	51	45	38	43	70	69	46	33
3	36	29	60	60	42	45	66	73	57	50	39	33 74
4	4 I	29	31	57	69	33	46	55	92	91	36	34 16
5	46	68	49	93	77	48	41	56	74	62	31	
6	53	87	37	82	31	53	42	76	63	71	23	14
7	25	36	41	77	49	53	71	59	45	46	28	63
8	29	26	107	54	51	69	56	96	88		22	114
9	25	35	31	64	54	77	91	74	52		29	78
IO	40	55	54	72	44	142	60	54	47	47	44	72
ΙΙ	24	31	28	93	41	72	66	52	47	47	75	34
I 2	59	91	65	35	60	57	60	62	54	38	83	42
13	53	44	38	57	54	53	62	39	56	42	53	
14	38	75	26	41	64	75	69	47	71	43	78	37
15	28	37	64	46	67	98	60	159	57	93	47	45 37 36 36
16	24	75	68	33	116	67	59	107	61	173	83	36
1 <i>7</i>	36	38	46	47	124	64	57	52	78	102	53	32
1 8	35	31	62	59	66	60	71	35	69	76	40	27
19	33	38	46	89	71	41	39	47	125	64	48	74
20	50	38	52	44	78	42	41	57	95	99	38	47
2 I	62	68	59	60	60	45	28	60	140	47	62	27
22	42	27	48	47	51	44	40	61	73	85	44	3 I
23	31	46	61	60	38	42	52	66	59	69	95	48
24	65	37	41	49	39	45	45	70	76	56	65	29
25	37	26	47	47	3 I	38	52	97	50	48	25	134
26	31	27	68	88	30	47	62	87	44	42	23	110
27	57	35	75	48	34	58	66	84	71	38	27	20
28	35	62	41		41	43	123	70	66	54	32	22
29	70		71		38	41	70	62	69	67	94	24
30	98		47	94	51	_	64	47	67	48	50	17
31	60		54		46		53	64		104		38
Means	42.5	45.5	51.1	61.1	56.0	52.4	58.9	66.4	69.7	63.5	48.7	47:3

The mean of the twelve monthly values is 55.3 γ .

Table X.—Monthly and Annual Mean Diurnal Inequalities of Magnetic North Force from Hourly Ordinates, on Five Selected Quiet 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 are corrected for Temperature and in each case diminished by the smallest hourly value. The days included are:—

January 8, 11, 17, 18, 19. February 8, 19, 22, 25, 26. March 5, 6, 19, 24, 25.

April 13, 14, 15, 20, 24. May 7, 8, 9, 26, 27. June 2, 3, 4, 29, 30 July 7, 19, 20, 21, 22. August 1, 18, 19, 21, 30. September 11, 12, 15, 25, 26. October 11, 12, 13, 14, 27. November 5, 6, 7, 26, 27. December 5, 6, 28, 29, 30.

March	5, 6, 19,	-4, 43.	Jui	ne 2, 3,	4, 29, 30			11, 12, 15,	25, 20.		ecember 5,	0, 28, 29,	
						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year
Midnight	217	22γ	352	342	30y	327	29γ	352	382	337	17γ	72	26.97
īh.	21	22	34	34	32	31	30	27	41	32	15	7	26.3
2	2 I	22	33	36	30	30	31	27	38	31	15	8	25.9
3	21	23	34	34	28	31	31	28	37	31	16	8	25.9
4	23	24	36	36	33	34	32	31	36	34	20	10	28.2
5	26	25	37	38	34	37	30	33	36	34	21	11	29.3
6	27	26	39	38	29	34	2 I	28	35	35	23	12	28.0
7	27	25	35	35	20	30	16	20	28	30	2 I	9	23.8
8	26	21	27	24	12	25	8	11	19	26	17	5	17.5
9	20	12	16	10	4	14	2	2	9	I 2	10	I	8.4
10	11	7	8	I	I	3	I	0	2	4	2	0	2.4
11	4	2	I	0	0	I	0	3	0	0	0	0	0.0
\mathbf{Noon}	0	0	0	6	I	0	4	6	5	I	I	2	1.3
13h.	2	I	6	10	5	4	9	7	8	6	4	3	4.5
14	5	2	14	18	13	1.7	16	II	15	ΙΙ	8	4	10.3
15	10	4	23	29	20	24	28	21	23	17	11	5	17.0
16	14	8	27	34	28	28	29	29	30	23	16	8	21.9
17	20	14	31	41	32	31	30	35	36	30	19	11	26.6
18	20	18	35	42	34	37	34	35	42	34	21	13	29.5
19	22	22	38	44	35	39	34	40	46	37	22	13	31.8
20	23	23	39	46	34	37	35	42	48	35	23	13	32.3
21	22	24	37	46	33	35	35	41	46	40	23	13	32.0
22	24	24	40	45	35	34	36	41	50	38	23	12	32.6
23	24	24	39	42	32	33	37	43	44	37	22	11	31.4
Means	18.1	16.5	27.7	30.1	23.1	25.9	23.3	24.8	29.7	25.5	15.4	7.7	21.4

TABLE XI.—MONTHLY and ANNUAL MEAN DIURNAL INEQUALITIES OF MAGNETIC NORTH 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, on five disturbed days in each month, selected by the International Committee for comparison with results at other Observatories. The results are corrected for Temperature and in each case diminished by the smallest hourly value. The days included are:—

January 5, 12, 29, 30, 31. February 5, 6, 12, 13, 15. March 8, 11, 12, 15, 16. April 5, 6, 11, 19, 26. May 1, 16, 17, 18, 19. June 9, 10, 11, 12, 15. July 8, 11, 25, 28, 29. August 15, 16, 25, 26, 27. September 1, 18, 19, 20, 21. October 2, 8, 16, 17, 31. November 11, 12, 15, 23, 29. December 1, 8, 9, 25, 26.

1	9	1	c
1	ϑ	1	C

						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	29y	237	36y	697	337	532	432	80y	752	77 <i>Y</i>	392	302	42·8y
ıh.	37	25	47	60	26	40	42	74	76	75	40	37	42.2
2	29	2 I	33	65	25	50	46	69	78	75	41	33	41.0
3	28	22	20	62	20	54	51	67	73	80	37	46	40.6
4	36	27	40	59	20	48	50	66	76	71	44	47	42.6
5	40	30	32	58	18	46	49	74	72	85	47	47	43.7
6	42	26	34	51	13	41	42	70	52	63	47	46	37.8
7	40	29	26	45	10	28	41	51	29	43	35	40	28.6
8	34	18	22	42	2	9	32	38	20	29	13	38	18.7
9	28	9	15	20	0	6	2 I	19	10	6	9	30	8.3
10	27	8	2	11	2	0	5	10	0	0	3	25	1.6
II	14	5	0	5	0	6	0	0	4	17	I	2 I	0.0
Noon	3	3	2	0	4	21	6	27	16	15	0	14	3.5
13h.	4	7	7	7	12	25	14	37	19	19	I	14	7.7
14	4	11	4	22	20	32	23	41	19	14	9	12	11.5
15	3	6	10	27	37	32	35	50	29	31	11	17	17.9
16	9	4	18	32	37	4I	48	65	50	35	10	27	25.2
17	10	2	19	4 I	47	47	57	78	47	48	27	0	29.1
18	0	10	30	53	63	50	66	103	5.5	53	20	11	36.7
19	11	0	26	51	61	60	55	92	68	66	19	19	37.9
20	19	9	26	60	45	48	44	84	67	77	15	25	37.2
21	30	8	26	51	37	47	46	75	79	69	28	30	37.7
22	23	14	30	48	29	46	37	75	64	65	35	32	35· 4
23	27	14	33	56	27	60	35 ·	84	68	71	24	25	37.6
Means	22.0	13.8	22.4	41.5	24.5	37·r	37.0	59.5	47.8	49.3	23.1	27.7	22.7

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

						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midn.	72	6γ	Ι 3 γ	142	12γ	14γ	15γ	13γ	8γ	4 γ	2γ	Ιγ	8·5γ
ıh.	5	3	9	13	12	13	13	12	5	3	I	I	6.9
2	5	2	7	16	II	13	14	12	6	. 3	I	I	7·0
3	5 .	I	ΙI	15	14	14	16	11	5	3	2	1	7.6
4	6	I	I 2	16	16	15	18	13	6	2	2	0	8.3
5	6	I	14	15	18	15	17	16	7	2	I	2	8.9
6	6	I	15	17	20	15	14	18	9	4	0	I	9.4
7	5	2	16	19	17	15	14	18	11	7	I	0	9.8
8	5	3	13	16	14	II	11	15	10	7	2	I	8 ∙4
9	4	3	9	10	7	5	6	10	6	5	I	3	5.2
10	0	0	4	4	3	I	2	5	2	2	0	3	1.6
II	I	0	0	0	I	0	0	0	0	0	2	3	0.0
Noon	3	2	3	0	0	I.	0	3	2	3	6	7	1.9
13h.	7	4	II	7	8	7	5	8	8	8	10	10	7.2
14	11	10	16	17	18	14	13	14	15	15	13	13	13.5
15	15	14	23	27	25	20	20	2 I	23	20	15	15	19.2
16	17	15	27	29	29	23	25	25	29	24	16	16	22.3
17	18	17	29	33	29	27	29	27 .	28	22	16	20	24.0
18	17	17	25	34	29	27	30	27	25	19	15	20	23.2
19	15	16	21	34	30	26	29	27	24	19	15	16	22.1
20	15	16	2 I	30	27	24	27	2.3	20	16	9	13	19.5
21	14	15	20	26	24	19	22	23	17	14	8	10	17.1
22	12	I 2	19	19	18	15	. 19	19	13	11	8	8	13·8
23	9	8	17	17	17	13	16	16	13	7	5	4_	I I · 2
Means.	8.7	7.0	14.8	17.8	16.6	14.5	15.6	15.7	I 2 · 2	9.2	6.3	7.0	11.5

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 Gauss units.)

						1918.						
Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	Decembe
d.												
I	117	257	22y	36y	65y	-	45 <i>Y</i>	18γ	472	46y	147	617
2	I 2	2 I	20	19	35	-	33	34	20	38	18	13
3	20	11	46	30	33	372	19	44	45	46	9	13 38
4	15	18	18	48	45	32	27	37	41	38	15	18
	24	22	15	62	49	27	18	46	52	27	18	10
5 6	24	56	13	77	44	31	33	35	48	30	10	6
7	16	18	18		33	24	29	32	30	28	13	27
8	10	7	193	45	28	26	4ó	40	40	84	13	130
9	16	29	20	37	24	52	35	48	20	41	10	56
10	17	29	53	36	31	119	33	27	19	19	33	58
11	17	31	43		30	25	36	35	18	14	69	28
I 2	33	66	59	99 78	3 6	84	32	27	20	22	62	20
13	23	56	27	37	34	30	31	30	36	17	38	34
14	35	40	31	27	29	33	37	30	26	17	18	20
15	26	43	24	36	56	37	36	94	20	47	52	18
16	12	15	54	34	145	43	36	48	51	163	44	26
17	17	24	29	29	134	40	39	12	53	62	28	10
18	18	14	25	40	42	22	25	13	30	36	20	12
19	10	9	27	50	46	18	24	27	66	61	20	38
20	18	18	2 I	12	36	26	25	32	44	45	10	33
2 I	23	27	55	23	30	46	36	31	106	30	21	20
22	17	I 2	44	38	31	14	34	20	45	28	10	15
23	14	17	43	37	28	26	28	29	47	30	86	34
24	22	24	29	24	27	27	29	57	37	20	28	18
	13	16	3 I	40	4 r	29	88	76	25	23	13	146
25 26	8	18	27	89	43	48	43	66	21	10	8	36
27	18	28	38	29	27	32	24	28	45	I 2	14	17
28	15	41	24	28	24	21	64	25	43	42	16	7
29	50		36	25	52	24	74	24	26	12	81	8
30	64		_	49	37	31	40	27	54	14	24	8
31	73			.,	37	-	27	54) 1	53		15
Means	22.3	26.3	37.4	41.9	43.6	35.9	36⋅1	37.0	39.2	37:3	27 · 2	31

TABLE XIV.—Monthly and Annual Mean Diurnal Inequalities of Vertical Magnetic Force from Hourly Ordinates, on Five Selected Quiet 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 8, 11, 17, 18, 19. February 8, 19, 22, 25, 26. March 5, 6, 19, 24, 25. April 13, 14, 15, 20, 24. May 7, 8, 9, 26, 27. June ... 3, 4, 29, 30. July 7, 19, 20, 21, 22. August 1, 18, 19, 21, 30. September 11, 12, 15, 25, 26. October 11, 12, 13, 14, 27.

November 5, 6, 7, 26, 27.

December 5, 6, 28, 29, 30.

						1918.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	52	6 _y	172	227	217	22γ	237	16γ	πη	137	8γ	2γ	13·1γ.
ıh.	4	5	17	24	19	20	23	16	11	13	8	2	12.8
2	5	5	81	25	19	22	23	16	9	14	7	τ	13.0
3	5	5	17	25	2 Ï	24	23	16	9	14	7	τ	13.2
<i>J</i>	6	5	17	24	24 ·	26	26	17	12	14	8	0	14.2
₹ •	7	5	17	24	25	23	25	19	16	15	8	2	14.8
6	5	4	20	25	25	21	21	20	15	14	7	I	14.1
7	3	5	21	25	21	22	19	20	15	15	7	0	13.7
8	7	7	18	20	15	16	1 8	18	12	15	7	0	12.1
9	8	6	12	12	9	8	9	11	8	II	5	0	7.6
10	0	3	5	6	2	3	2	6	3	5	0	0	2.2
11	0	0	0	0	0	2	I	0	0	ó	3	2	0.0
Noon	3	3	ı	ı	0	0	0	0	1	0	7	3	0.9
13h.	7	5	6	6	9	2	4	3	3	2	7	2	4·ó
14	9	7	11	16	15	6	12	10	9	11	9	2	9.1
15	11	10	17	21	23	12	21	14	14	I 2	ıí	2	13.3
16	12	II	22	24	29	16	27	18	16	15	13	3	16.5
17	11	11	20	25	29	15	27	18	15	15	11	2	15.9
18	8	9	20	26	26	13	24	16	13	14	9	I	14.2
19	8	8	20	26	26	20	23	16	14	15	8	0	14.6
20	8	8	21	23	23	19	22	16	15	15	8	0	14.1
21	8	8	20	24	22	19	23	16	16	14	9	0	14.2
22	6	6	18	21	22	18	22	15	13	14	9	2	13.1
23	5	6	18	20	2 I	14	21	13	11	13	7	0	11.7
Means	6.3	6.2	15.5	19.4	18.6	15.1	18.3	13.8	10.9	11.8	7.6	I · 2	11.4

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, 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 5, 12, 29, 30, 31. February 5, 6, 12, 13, 15. March 8, 11, 12, 15, 16. April 5, 6, 11, 19, 26. May 1, 16, 17, 18, 19. June 9, 10, 11, 12, 15. July 8, 11, 25, 28, 29. August 15, 16, 25, 26, 27. September 1, 18, 19, 20, 21. October 2, 8, 16, 17, 31. November 11, 12, 15, 23, 29. December 1, 8, 9 25, 26.

1918	3
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						1010.							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	2γ	13γ	32γ	Ιγ	32	117	72	137	Ι 2γ	18γ	8γ	ογ	5·8y
Th.	0	6	14	o l	2	10	4	15	8	19	5	3	3.0
2	ī	4	0	0	0	0	6	8	8	15	3	5	0.0
2	4	0	16	2	5	3	6	0	0	9	9	3	0.6
3	τ .	I	2 I	5	10	6	8	5	3	6	5	3	2.3
4	, ,	2	28	2	18	10	4	14	I	0	1	7	3.2
6	5	4.	28	8	25	16	5	21	3	4	0	5	6∙1
7	3	7	31	16	26	17	9	23	5	12	3	6	9.0
8	3	8	30	17	25	16	10	21	8	16	7	8	9.9
9	3	8	29	13	. 2 I	ΙΙ	7	19	8	16	11	9	8.7
10	0	6	25	7	16	9	3	I 2	9	22	14	II	7.0
11	2	8	23	7	II	6	0	8	9	23	17	I 2	6.3
Noon	4	11	28	10	18	10	I	16	16	32	22	21	11.6
13h.	9	15	36	20	26	27	9	22	28	41	30	25	19.8
14	1 8	22	44	35	37	35	19	28	33	56	36	32	28.7
15	24	31	54	45	44	36	23	34	36	67	38	40	35.1
16	27	36	59	52	42	42	35	37	43	65	39	45	39.3
17	26	38	60	61	40	46	46	39	43	59	43	55	42 · I
18	31	38	58	60	43	46	52	41	42	51	44	55	42.6
19	29	37	52	57	49	43	48	42	36	49	49	40	40.1
20	29	31	49	46	45	38	39	44	25	41	45	28	34 · I
21	25	32	46	30	33	26	24	34	17	36	37	17	25.6
22	20	28	45	26	I 2	17	19	29	8	28	25	13	18.3
23	10	24	43	18	I	I 2	15	27	13	23	15	6	13.1
Means	11.9	17.1	35.5	22.4	23.0	20.5	16.6	23.0	17.3	29.5	21.1	18-7	17.2

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

$$\begin{aligned} \mathbf{V_t} &= m + a_1 \cos t + b_1 \sin t + a_2 \cos 2t + b_2 \sin 2t + a_3 \cos 3t + b_3 \sin 3t + a_4 \cos 4t + b_4 \sin 4t \\ &= m + c_1 \sin (t + a_1) + c_2 \sin (2t + a_2) + c_3 \sin (3t + a_3) + c_4 \sin (4t + a_4), \end{aligned}$$

in which t represents the time from 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 IV, VIII and XII.

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 a'_1 , a'_2 , a'_3 , a'_4 may be obtained from a_1 , a_2 , a_3 , a_4 by adding respectively a, a_4 , the value for each month being as follows:—

		Jar Fel Ma	1. $+ 2^{\circ} \cdot 1$ 2. $+ 3^{\circ} \cdot 2$ 1. $+ 2^{\circ} \cdot 1$	9'. A 9'. M 2'. Ju	pril $+ \circ^{\circ}$. lay $- \circ^{\circ}$. une $+ \circ^{\circ}$.	52'.	July + 1°· Aug. + 0°· Sept. — 1°·	59´·	Oct. — Nov. — Dec. —	3°·28′. 3°·47′. 1°·6′.					
a_1	b_1	a_2	b_2	a_3	b_3	a ₄	b ₄	c_1	a_1	c ₂	a_2	c ₃	a_3	C4	a4
					Di	ECLINATI	on Wes	ST.							
-2·18 -2·46 -2·92 -3·34 -2·48 -2·50 -2·62 -3·05 -3·33 -2·94 -2·42 -2·34	-0.80 -1.26 -1.56 -2.18 -2.47 -2.81 -2.82 -2.32 -1.35 -0.92 -0.11 +0.67	-0.04 +0.12 +1.57 +1.36 +1.98 +2.04 +1.93 +2.25 +1.83 +1.15 +0.76 +0.59	+ 1 · 37 + 0 · 86 + 1 · 35 + 1 · 63 + 1 · 26 + 1 · 09 + 1 · 31 + 1 · 33 + 1 · 04 + 1 · 61 + 1 · 77 + 0 · 89	-0.48 -0.33 -0.94 -1.17 -0.90 -0.77 -0.57 -0.83 -0.86 -0.51 +0.21	-0·18 -0·17 -0·51 -0·63 -0·21 -0·22 -0·26 -0·05 -0·37 -0·09 +0·04	+0·20 +0·30 +0·51 +0·40 +0·06 -0·01 +0·03 +0·04 +0·46 +0·52 +0·22 +0·31	+0·33 +0·21 +0·09 -0·03 -0·07 +0·12 +0·04 +0·11 -0·12 -0·17 +0·05 -0·03	2·32 2·76 3·31 3·99 3·50 3·76 3·85 3·83 3·59 3·08 2·42 2·43	249.9 242.8 241.9 236.9 225.2 221.7 222.9 232.8 247.9 252.7 267.3 285.9	1·37 0·87 2·07 2·12 2·35 2·31 2·33 2·61 2·10 1·98 I·40 I·07	358·9 7·7 49·4 40·0 57·6 61·9 55·8 59·4 70·4 35·4 32·9 33·6	0·51 0·37 1·07 1·33 0·92 0·80 0·63 0·97 0·85 0·94 0·52	249·4 242·6 241·4 241·9 256·7 253·7 245·3 266·9 256·1 246·6 260·5 79·8	0·39 0·37 0·52 0·40 0·09 0·12 0·05 0·12 0·48 0·55 0·23 0·31	80.5 54.9 80.5 93.9 140.0 355.2 34.5 20.7 104.4 108.3 76.7 96.1
-2.72	- ı · 48	+1.31	+1.24	-0.68	-0·24	+0.25	+0.04	3.10	241 · 4	1.80	46.5	0.72	250.6	0.25	80.2
North Force.															1
	-	- 4·I - 4·7 - 6·7 - 9·I - 7·2 - 7·I - 8·6 - 7·7 - 5·5 - 7·7 - 6·7 - 3·3 - 6·4	- 3·7 - 1·6 - 0·5 + 0·9 + 2·1 + 3·4 + 4·1 + 3·2 + 3·5 + 0·5 + 0·1 - 1·4 + 0·9	+ 2·0 + I·2 + I·3 + 2·3 + 0·6 - 0·3 + 0·1 - 0·2 - I·4 0·0 + 0·9 - I·2 + 0·3	- 0·3 - 1·2 - 2·6 - 1·4 - 0·3 - 2·0 - 0·5 - 1·2 - 2·4 - 3·3 - 2·4 - 1·5	- 0·2 + 0·4 + 0·4 + 0·5 + 1·2 + 1·4 - 0·4 + 2·0 + 0·7 + 1·5 + 0·5 + 0·2	+ 0·4 + 0·1 + 1·2 + 1·3 - 0·1 + 0·1 - 0·6 - 0·3 + 0·9 + 0·9 - 0·1 - 0·4 + 0·3	10·4 9·3 13·9 17·1 15·0 15·5 16·3 19·2 19·7 18·9 10·4 6·4	52.0 56.1 85.1 97.4 117.8 111.7 113.7 115.6 102.8 89.4 84.3 53.0 95.8	5·5 5·6 6·7 9·1 7·5 7·9 9·5 8·3 6·5 7·7 6·7 3·6	228·4 250·8 265·9 275·8 286·4 295·8 295·7 292·5 302·1 273·4 271·1 256·4	2·0 1·7 2·9 2·7 0·7 2·0 0·5 1·2 2·8 3·3 2·6 1·9	97.3 136.6 153.9 120.7 113.4 187.9 165.7 190.8 211.1 179.4 158.7 218.6	0·4 0·4 1·3 1·4 1·2 1·4 0·7 2·0 1·1 1·7 0·5 0·4	337.4 69.1 18.6 20.0 96.5 87.2 211.8 99.7 37.8 59.0 98.0 155.4
						VERTIC	al Forc	Œ.							
+ I·I + I·0 + 2·0 + 4·I + 3·4 + 4·0 + 5·2 + 3·2 + 0·5 - 0·9 - I·6 - 2·I	- 5.7 - 7.4 - 6.0 - 7.8 - 6.6 - 5.7 - 6.5 - 5.4 - 7.9 - 6.7 - 7.8	- 5·7 - 8·4 - 7·9 - 6·5 - 7·1 - 6·7 - 5·8 - 4·0 - 1·8 - 2·6	+ 1.0 + 1.0 + 1.5 + 2.0 + 1.5 + 0.1 + 1.1 + 0.9 + 1.7 + 0.9	+ 2·7 + 2·2 + 1·6 + 1·3 + 1·0 + 2·1 + 2·8 + 2·1 + 0·3 - 0·1		- 0.6 - 0.8 - 0.6 - 1.4 - 0.9 - 0.1 - 0.6 - 0.4 - 0.7 - 1.4 - 0.3 0.0	- 0·1 + 0·1 - 0·5 + 1·3 + 0·4 + 0·9 0·0 + 0·5 + 0·1 - 0·1	5·8 7·5 6·3 8·8 7·4 7·0 8·3 6·3 8·4 8·0 6·9 8·1	168·7 172·1 161·6 152·4 152·7 145·3 141·4 149·8 176·4 186·3 193·5	3·I 2·6 5·8 8·5 6·8 7·3 6·7 5·9 4·I 2·5 2·8	285·4 259·3 280·3 276·9 280·9 287·2 282·3 271·0 281·1 283·0 313·1 289·4	1·3 1·0 3·5 2·2 2·5 1·4 1·0 2·5 2·9 2·2 0·7	140·0 120·0 129·9 95·9 139·6 109·6 93·0 122·1 107·5 111·1 152·1 339·8	0.6 0.8 0.8 1.9 1.0 0.9 0.6 0.6 0.7 1.5	263·4 279·1 230·7 312·8 294·8 354·9 270·0 322·7 275·2 290·9 298·1 153·4
		-2·18	Fel Ma $a_1 \qquad b_1 \qquad a_2$ $-2 \cdot 18 \qquad -0 \cdot 80 \qquad -0 \cdot 04$ $-2 \cdot 46 \qquad -1 \cdot 26 \qquad +0 \cdot 12$ $-2 \cdot 92 \qquad -1 \cdot 56 \qquad +1 \cdot 57$ $-3 \cdot 34 \qquad -2 \cdot 18 \qquad +1 \cdot 36$ $-2 \cdot 48 \qquad -2 \cdot 47 \qquad +1 \cdot 98$ $-2 \cdot 50 \qquad -2 \cdot 81 \qquad +2 \cdot 04$ $-2 \cdot 62 \qquad -2 \cdot 82 \qquad +1 \cdot 93$ $-3 \cdot 05 \qquad -2 \cdot 32 \qquad +2 \cdot 25$ $-3 \cdot 33 \qquad -1 \cdot 35 \qquad +1 \cdot 83$ $-2 \cdot 94 \qquad -0 \cdot 92 \qquad +1 \cdot 15$ $-2 \cdot 42 \qquad -0 \cdot 11 \qquad +0 \cdot 76$ $-2 \cdot 34 \qquad +0 \cdot 67 \qquad +0 \cdot 59$ $-2 \cdot 72 \qquad -1 \cdot 48 \qquad +1 \cdot 31$ $+ 8 \cdot 2 \qquad +6 \cdot 4 \qquad -4 \cdot 1$ $+ 7 \cdot 7 \qquad +5 \cdot 2 \qquad -4 \cdot 7$ $+13 \cdot 8 \qquad +1 \cdot 2 \qquad -6 \cdot 7$ $+13 \cdot 8 \qquad +1 \cdot 2 \qquad -6 \cdot 7$ $+14 \cdot 4 \qquad -5 \cdot 7 \qquad -7 \cdot 1$ $+14 \cdot 9 \qquad -6 \cdot 5 \qquad -7 \cdot 7$ $+14 \cdot 4 \qquad -5 \cdot 7 \qquad -7 \cdot 7$ $+16 \cdot 4 \qquad +1 \cdot 0 \qquad -6 \cdot 7$ $+5 \cdot 1 \qquad +3 \cdot 8 \qquad -3 \cdot 3$ $+13 \cdot 2 \qquad -1 \cdot 4 \qquad -6 \cdot 4$ $+1 \cdot 1 \qquad -7 \cdot 8 \qquad -8 \cdot 4$ $+3 \cdot 4 \qquad -6 \cdot 6 \qquad -7 \cdot 9$ $+4 \cdot 0 \qquad -5 \cdot 7 \qquad -6 \cdot 5$ $+5 \cdot 2 \qquad -6 \cdot 5 \qquad -7 \cdot 1$ $+3 \cdot 2 \qquad -5 \cdot 4 \qquad -6 \cdot 4$ $-6 \cdot 4 \qquad -5 \cdot 7 \qquad -6 \cdot 5$ $+5 \cdot 2 \qquad -6 \cdot 5 \qquad -7 \cdot 1$ $+3 \cdot 2 \qquad -5 \cdot 4 \qquad -6 \cdot 4$ $-7 \cdot 9 \qquad -7 \cdot 9 \qquad -4 \cdot 0$ $-1 \cdot 6 \qquad -6 \cdot 7 \qquad -1 \cdot 8$ $-2 \cdot 1 \qquad -7 \cdot 8 \qquad -2 \cdot 6$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Feb. $+ 3^{\circ} - 29^{\circ}$. Mar. $+ 2^{\circ} - 12^{\circ}$. July Mar. $+ 2^$	Feb. $+ 3^{\circ} \cdot 29^{\circ}$. May $- \circ^{\circ}$. Mar. $+ 2^{\circ} \cdot 12^{\circ}$. June $+ \circ^{\circ}$. a_1 b_1 a_2 b_2 a_3 b_3 a_1 a_2 a_3 a_3	Feb. $+3^{\circ}$ -12'. May -6° -52'. So Mar. $+2^{\circ}$ -12'. June $+6^{\circ}$ -4'. So Mar. $+2^{\circ}$ -12'. So $+6^{\circ}$ -1'. So	Feb. $+ 3^{3}$ -29'. June $+ 0^{5}$ -4'. Aug. $+ 0^{5}$ Sept. $- 1^{5}$. Mar. $+ 2^{5}$ -12'. June $+ 0^{5}$ -4'. Sept. $- 1^{5}$. Sept. $- 1^{5}$. a_1 b_1 a_2 b_2 a_3 b_3 a_4 b_4	Feb. + 3°-39′. May - 0°-32′. Aug. + 0°-59′. Aug. +	Feb. $+ 3^{9-29}$. May $- 6^{9}$ 52. Aug. $+ 6^{9-9}$ 79. Nov. $- 10^{9}$. Aug. $+ 6^{9-9}$ 79. Nov. $- 10^{9}$. Aug. $+ 2^{9-19}$ 79. Nov. $- 10^{9}$ 79. Nov.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Feb. $+ \frac{3}{2} \cdot \frac{3}{2}$, $\frac{1}{2}$, 1	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

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

Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-line
d h m	. ,	۰ ,	d h m	. ,	. ,	d h m	۰ ,	. ,
Jan. 1. 12. 10	14. 33.2	14. 28.3	Mar. 4. 12. 36	14. 34.4	14. 28.4	May 4. 7. 50	14. 24.2	14. 28.3
12. 40	34 · 1	28.5	5. 15. 20	33.7	28.6	6. 8. 10	25.5	27.2
2. 11. 15	32.6	28.4	15. 50	32.7	28.6	7. 8. 20	23.8	28.5
3. 11. 15	34.0	28.2	6. 14. 22	36.2	28.5	8. 53	24.7	28·7 28·6
4. 12. 22	34.4	28.4	14. 53	35.4	28.6	10. 11. 40	33.8	28.8
12. 50	34.4	28.4	8. 12. 5	34.0	28.6	12. 10	34.7	28.3
7. 16. 0	32.6	28.4	12. 32	34.0	28·5 28·4	11. 11. 45 13. 7. 48	32.3	28.4
8. 12. 20	35.1	28·4 28·6	9. 12. 45	35.0	28.8	13. 7. 48 14. 11. 50	34.7	28.8
12. 51	35.5	28.2	11. 11. 0	33.5	28.5	12. 18	36.1	28.5
9. 14. 20	35·I	28.5	12. 14. 50 15. 18	36.0	28.7	15. 8. 0	23.2	28.5
10. 14. 30 12. 12. 15	35.0	28.5	13. 10. 10	30.2	28.2	17. 11. 15	30.4	28.4
12. 12. 15	36.5	28.5	15. 14. 36	34.0	28.2	12. 0	33.3	28.7
14. 13. 2	35.9	28.2	15. 4	34.8	28.4	18. 7. 24	23 · 1	28.
15. 12. 25	33.6	28.4	16. 11. 0	31.2	28.3	21. 11. 36	29.9	28.6
12. 55	35.0	28.5	18. 11. 40	35.2	28.3	12. 8	31.5	28.
16. 11. 48	34.5	28.6	19. 14. 45	33.7	28.8	22. 8. 10	24.7	28.0
12. 0	34.5	28.5	15. 28	32.3	28.8	23. 12. 0	34.9	28.4
17. 13. 0	35.6	28.5	20. 11. 20	35.0	28.2	17. 0	29.4	28.
18. 12. 15	35.2	28.5	22. 14. 15	38.2	28.4	24. 11. 45	33.5	28.
12. 45	35.7	28.7	14. 41	38.9	28.7	12. 18	32.4	28.
19. 12. 30	34.3	28.6	23. 10. 33	30.2	28 · 2	25. 11. 0	34.8	28.
21. 14. 10	36.6	28.1	25. 13. 12	37.0	28.5	27. 7. 55	24 · 4	28.
22. 14. 38	34.9	28.1	25. 14. 8	39.2	28.6	28. 11. 22	30.7	28.
15. 25	34·1	28.4	14. 37	37.9	28.4	28. 11. 50	32.4	28.
23. 14. 20	34.0	28.3	28. 11. 0	32.3	28.5	29. 14. 12	35.3	28.
24. 11. 0	30.9	27.9	30. 11. 37	34.7	28.7	30. 19. 20	26.2	28.
25. 12. 21	34.3	28.3	14. 15	36.6	28.6	31. 13. 36	34.2	28.
12. 48	34.9	28.4	14. 44	36.2	28.7	14. 8	34 · 8	28.
28. 14. 8	34.9	27.9						
29. 14. 33	37.4	28.8	Apr. 2. 12. 0	35.3	28.6			
15. 0	36.5	28.7	14. 5	39.7	28.4	T 0	0	
30. 12. 57	37.7	28.9	3. 11. 50	33.0	28.2	June 1. 8. 30	20.8	27
31. 12. 30	37.0	28.3	4. 11. 9	33.1	28.5	2. 19. 30	28.9	28.
		0.6	5. 13. 56	36.9	28.4	3. 13. 36	32.8	28.
eb. 1.15. o	33.6	28.6	14. 24	38.5	28.7	4. 13. 48	37.1	28.
15. 30	33.4	28.4	6. 8. 0	23.5	28·3 28·1	14. 18 5. 8. 30	36.6	29.
2. 10. 0	30.4	28.4	8. 13. 50	37.3	28.6	5. 8. 30 6. 19. 15	23 · I 27 · 5	28.
4. 11. 50	31.6	28·3 28·6	9. 14. 17	36.8	28 · 2	7. 11. 45	33.5	28.
5. 14. 42	36.7	28.5	14. 44	41.9	29.0	8. 8. 0	23.7	28.
15. 13	36.5	28.4	11. 13. 10 15. 40	39.1	28.9	10. 7. 30	20.4	28.
6. 14. 45	35.7	28.5	12. 8. 24	23.4	28.4	11. 11. 15	30.5	28.
8. 14. 42	34.2	28.5	8. 52	25.1	28.2	II. 42	31.5	28.
15. 23	33.7	28.5	13. 11. 0	32.9	28.4	12. 8. 42	23.1	28.
9. 12. 22	36.1	28.6	15. 8. 30	23.6	27.8	13. 19. 27	26.2	28.
11. 15. 10	33.9	28.6	16. 13. 35	35.4	28.3	14. 11. 26	31.5	28.
12. 16. 37	35.1	28.3	14. 16	34.7	28.6	12. 0	33.9	28.
17. 12 13. 9. 30	35 /	28.3	17. 8. 8	24.3	28 · 1	15. 11. 50	32.9	29.
13. 9. 30	36.5	28.5	19. 13. 32	36.2	28.7	16. 13. 50	31.1	28.
15. 14. 24	38.3	28.5	14. 0	35.3	28.5	17. 10. 0	26.4	28.
15. 30	38.0	28.7	20. 8. 40	23.4	28.2	18. 13. 45	33 · 1	28.
16. 9. 6	30.6	28 · I	22. 11. 38	34.3	28 · 1	14. 24	33.2	28.
18. 14. 33	34.6	28.6	23. 14. 3	36.2	28.5	19. 12. 8	31.6	28.
19. 10. 22	31.9	28.2	14. 30	36.0	28.6	21. 11. 22	31.9	28.
14. 30	34.4	28.6	24. 10. 57	33.7	28.2	11. 52	33 · 1	28.
15. 16	34.0	28.7	25. 10. 10	27.7	28.4	22. 8. 48	23.5	28.
20. 12. 48	34.5	28.6	26. 13. 20	41.5	28.9	23. 14. 40	34.0	28.
22. 14. 50	33.2	28.5	13. 47	41 · I	28.6	24 . 8. 0	25.7	28.
15. 28	32.4	28.4	27. 8. 35	24.7	28.5	15. 45	32.2	28.
24. 13. 9	34.3	28.3	29. 11. 30	28.6	28.4	25. 10. 55	31.3	28.
25. 14. 40	34.3	28.3	30. 13. 50	34.3	28.6	11. 24	32.7	28.
26. 14. 38	36.2	28.3	14. 16	36.2	28.3	26. 8. 12	20.3	28.
15. 5	35.8	28.6		1	_ [20. 15	27.8	27.
27. 12. 2	34.3	28.4	May 1. 8. 0	24.3	28.3	27. 8. 33	21.8	27 ·
-,·)) ,		2. 7. 55	25 · 1	28.3	28. 13. 40	34 · I	28.
ar. 1. 14. 39	33.6	28.9	3. 13. 52	35.0	28.7	14. 7	34.6	28.
15. 12	32.0	28.4	14. 24	36.8	28.8	29. 8. 18	22.7	28.
44. 44	1 5-	1					4	

Table XVII.—Results of Observations of Magnetic Declination, with Deduced Values of the Base-Line of the Declination Magnetograms—continued.

Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-line.	Greenwich Civil Time, 1918.	Declination.	Deduced value of Base-lin
d h m	. ,	. ,	d h m	. ,	۰ ,	d h m	۰ ,	. ,
July 1. 11. 39	14. 34.0	14. 29.1	Aug. 21. 11. 54	14. 34.4	14. 29.4	Oct. 29. 12. 20	14 27.7	14 28.
15. 20	36.0	28.9	22. 11. 10	34.0	29.1	12. 50	28.7	28.
2. 13. 52	31.8	28.6	11. 40	36.1	29.1	30. 11. 15	26.7	28.
14. 22	32.0	28.7	28. 13. 52	34.0	29.1	31. 15. 10	25.1	28.
3· 7· 43	24.3	29.0	14. 20	32.6	29.0			
19. 35	28.1	28.8	29. 11. 42	32.4	28.9	Nov. 1. 12. 3	29.5	29.
4. 8. 5	25.2	28.7	30. 14. 24	32.4	29.4	12. 42	30.4	29.
5. 14. 15	33.5	29.2	14. 51	31.0	29.4	5. 15. 3	28.0	29.
14. 45	31.9	28.9	31. 8. 45	20.6	28.6	15. 33	27.5	29.
6. 7. 45	23.7	28.7	~			6. 13. 12	28.6	29.
7. 19. 4	29.0	29.0	Sept. 2. 8. 45	25.4	28.4	7. 14. 22 8. 12. 8	28.7	29.
8. 10. 35	29.3	28.8	3. 13. 52	31.8	29.0			1
13. 35	34.4	29.1	14. 20	30.6	29.1	12. 38	29.2	29
9. 15. 8	34.6	29.1	5. 11. 36	32.6	29.0	9. 9. 30	23.3	29.
15. 40	33.1	28.7	6. 14. 9	31.5	28.7	12. 11. 54	30.5	29
10. 10. 42	28.0	28.5	14. 35	32.0	29.6	12. 27	28.0	29
11. 11. 42	29.6	28.7	7. 8. 45	23.5	28.6	15. 12. 44	26.8	28
12. 10. 32	27.7	28.7	9. 8. 3	25.4	29.3	13. 30	1	28
11. 2	27 · 3	28.7	10. 13. 27	34.4	29.2	16. 15. 9	24 · I	29
13. 8. 15	20.7	28.0	13. 55	34.1	29.1	18. 12. 57 19. 12. 18	29.7	29
14. 19. 35	28.3	28.4	11. 8. 20	21.0	28 · I		1	29
15. 15. 20	32.4	29·I	12. 10. 35	27.2	28.7	12. 48	29.4	1
16. 10. 36	27.6	28.8	13. 13. 35	33.6	28.6	20. 13. 0	29.0	29
11. 6	29.5	28.9	14. 2	33.9	28.5	22. 12. 18	1	
18. 11. 33	32.2	28.7	14. 8. 3	22.3	28.5	12. 45	30.8	30
19. 14. 10	31.2	28.9	16. 12. 3	31.6	28.9	23. 13. 0	25.6	29
14. 40	31.2	29.0	17. 14. 0	35.1	28.6	25. 13. 0 26. 12. 18	28.0	29
20. 8. 33	23.0	28.7	14. 45	34.8	28.7		27.7	29
21. 15. 27	31.1	28.8	18. 8. 15	29.8	28.7	12. 45 27. 14. 18	26.9	29
22. 15. 17	33.4	28.7	19. 11. 38	30.2	28.7	, ' '	27.3	28
23. 13. 33	34.4	28.9	20. 11. 15	31.5	29.0	30. 12. 43	2/ 3	20
14. 15	35.1	29.0	11. 42	32.6	28.9			
24. 8. 12	23.7	28.5	21. 11. 0	31.5	28.8	Doc 2 12 10	26.2	29
25. 8. 52	23.7	28.7	23. 11. 36	29.1	28.8	Dec. 2. 12. 50	28.2	29
26. 11. 8	29.6	28.7	24. 8. 5	22 · I	28.8	3. 12. 5	27 · I	29
11. 34	30.7	28.7	13. 50	33.1	1 :	12. 35 4. II. 0	26.0	28
2 7. 8. 18	23.8	28.5	14. 18	33.6	28.8	· -	25.1	29
28. I3. 27	34.4	29.1	25. 12. 13	31.4	28·9 28·6	5. 10. 38 6. 11. 27	26.1	29
30. 14. 25	33.4	29.1	27. 11. 15	29.8	E .	12. 0	26·I	29
14. 53	32.5	29.7	11. 40	31.7	28·9 28·7		29.1	29
31. 8. 25	21.6	28.5	28. 8. 37	18.2	26.7	9. 11. 10 10. 12. 20	22.3	29
10. 25	26.4	28.9	·			10. 12. 20	24.8	29
			0-4	20.5	28.5	11. 11. 37	24 · I	29
			Oct. 1. 11. 53	29.5	28.4	11. 11. 3/	27.0	28
Aug. 1. 8. 8	21.1	27 · 1	12. 29	31.2	28.2	12. 15. 0	24·I	28
2. 11. 24	31.0	29.3	4. 12. 47	29.5	28.8	13. 12. 15	28.6	29
11. 52	32.3	29.3	15. 25	31.9	28.6	13. 12. 15	27 · 1	28
3. 8. 24	20.4	28.6	15. 54	26.3	28.6	14. 10. 25	26.0	29
12. 7	32.8	29·6	5. 12. 5	1	26.7	16. 11. 0	25.1	29
6. 14. 2	37.5	29.6	7. 12. 35 8. 12. 0	29.4	29.3	17. 12. 18	25.7	28
14. 30	34.5	29.5		33.5	29.5	12. 48	27.0	29
7. 19. 16	27.6	29.1	8. 12. 30	35.5	28.7	18. 11. 52	25.5	28
8. 8. 15	24.2	28.2	11. 15. 20	28.8	28.8	20. 12. 6	24.8	29
9. 13. 40	35.9	29.7	12. 13. 0	25.8	28.5	13. 0	28.3	29
14. 7	35.1	29.6	13. 11. 12	29.5	28.7	23. 11. 24	25.3	28
12. 13. 40	34.8	29.8	14. 12. 18		29.0	24. 11. 31	25.2	29
13. 14. 0	33.3	29.4	15. 12. 20	35.2	28.6	12. 21	28.3	28
14. 38	34.3	29.7	12. 50 18. 12. 10	33.4	28.3	12. 52	28.5	29
14. 8. 30	22.8	1	16. 12. 10	26.8	28.8	27. 12. 10	25.0	29
15. 8. 8	22.2	29.1		26.8	28.6	12. 48	24.5	29
16. 11. 32	36.3	29.0	15. 22	3	28.5	2 8. 9. 6	23.1	29
14. 10	32.5	29.4	19. 11. 10	29.2	28·g	30. I5. 4	23.7	28
14. 42	32.6	29.4	22. 12. 0	30.8	28.8	31. 15. 10	27.0	29
17. 8. 15	23.0	28.7	12. 30	25.6	28.5	15. 40	25.7	28
18. 15. 5	31.3	29.3	24. 10. 0	1	20.5	15. 40	", '	
19. 8. 10	22.2	28.9	25. 11. 54	29.8	28.4			
20. 13. 54 14. 32	35·I 35·I	29·3 29·4	12. 23 26. 12. 30	27.5	28.4		1	

TABLE XVIII.—Results of Determinations of the Absolute Value of Horizontal Magnetic Force from Observations made with the Gibson Instrument in the Magnetic Pavilion, with Deduced Values of the Base Line of the North Force Magnetograms.

MAGNETOGRAMS. In C.G.S. Units.								In C.G.S	S. Units.			In C.G.S	. Units.			
Gr	eenwich	ı Civil T 918.	`ime,	Value of observed Horizontal Force.	Deduced value of North Force Base-line,	Gı	reenwicl 1	h Civil 918.	Time,		Value of observed Horizontal Force.	Deduced value of North Force Base-line.		ch Civil Time, 1918.	Value of observed Horizontal Force.	Deduced value of North Force Base-line.
Jan.	d I.		m h m 2-12 47	18000+ 460	783	May	d 3.		m h 46-14	- 1	· 18000+ 476	·17000+	d Sept. 3.	h m h m 13 45-14 27	+ 18000+ 473	·17000+ 876
	4.	12	15-12 58	472	785		7.	8	13-9	2	459	784	6.	14 2-14 44	484	882
	8.	12	3-12 59	473	794		10.	ΙΙ	35-12	16	450	778	10.	13 21-14 3	475	885
	12.	12	8-12 53	437	783		14.	ΙI	44-12	26	45 I	788	13.	13 27-14 10	454	877
	15.	12	18-13 0	469	793		17.	11	I 2-I 2	6	402	790	17.	13 56-14 53	440	883
	18.	12	9-13 0	462	799		2I.	11	30-12	16	448	794	20.	11 8-11 50	400	879
	22.	14	36-15 34	461	809		24.	11	43-12	27	463	793	24.	13 43-14 26	445	881
	25.	12	14-12 57	465	815		28.	11	14-11	57	463	797	27.	11 7-11 49	419	873
	29.	14 2	26-15 7	469	811		31.	13	28-14	16	461	803				
Feb.	ı.	14	58-15 43	451	808	June	4.	13	42-14	26	502	821	Oct. 1.	11 48-12 37	418	741
	5.	14	36-15 22	477	831		7.	ΙI	8-1 I	52	449	816	4.	15 18–16 3	451	761
	8.	14	36-15 3	462	820		II.	11	8-11	49	430	807	11.	15 14-15 58	464	776
	12.	16	35-17 20	446	829		14.	11	20-12	7	418	811	15.	12 15-12 59	419	756
	15.	14	53-15 36	470	834		18.	13	37-14	32	471	809	18.	14 30-15 29	429	769
	19.	14	24-15 26	453	808		21.	11	17-12	0	468	814	22.	11 57-12 39	416	775
	22.	14	44-15 35	476	831		25.	10	48-11	32	467	812	25.	11 46-12 31	420	766
	26.	14	30-15 13	474	825		28.	13	33-14	15	473	820	29.	12 13-12 57	428	774
Marc	hī.	14	31-15 21	487	845	July	2.	13	46-r4	30	469	822	Nov., 1.	12 1-12 46	435	782
	5.	15	13-15 59	487	830		5.	14	8–14	52	484	831	5.	14 57-15 43	468	789
	8.	11	58-12 40	401	826		9.	15	1-15	4 7	484	836	8.	12 2-12 46	453	774
	12.	14	44-15 26	438	829		12.	10	26–11	10	440	824	. 12.	11 52-12 33	395	766
	15.	14	29–15 12	429	829		16.	10	29–11	15	440	830	15.	12 44-13 39	442	780
	19.	14	38–15 36	463	843		19.	14	2-14	4 7	476	850	19.	12 12-12 55	437	771
	22.	14	6-14 50	451	844		23.	13	25-14	23	463	844	22.	12 12-12 52	444	778
	26.	14	0-14 45	475	843		26.	11	1-11	42	436	845	2 6.	12 11-12 54	446	779
	30.	14	9-14 51	477	834		30.	14	17-15	I	435	845	29.	15 19-16 8	489	792
April	l 2.	13	58-14 27	474	846	Aug.	2.	II	17-12	0	465	850	Dec. 3.	12 0-12 43	409	787
	5.	13	48-14 32	445	840		6.	13	54-14	38	441	852	6.	11 21-12 4	468	805
	9.	14	10-14 52	451	842		9.	13	32-14	15	464	861	10.	12 13-12 56	403	791
	12.		11-8 59	444	846		13.	13	59-14	4 I	468	860	13.	12 7-13 2	443	806
	16.		27-14 25	457	839		16.	14	7-14	51	446	858	17.	12 12-12 55	462	806
	19.		23-14 7	430	844		20.	13	45-14	41	437	869	20.	12 0-13 1	451	797
	23.		56–14 39	474	860		22.	11	4-11	46	441	865	24.	12 15-13 0	453	791
	2 6.		12-13 55	442	854		28.	13	43-14	28	437	872	27.	12 4-12 54	430	800
	30.		43-14 25	455 .	856		30.	14	16-14	59	460	870	31.	15 3-15 48	448	803

April 30 and September 30. Suspension of North Force Magnet adjusted to restore the trace to its normal position on the sheets.

Table XIX.—Results of Observations of Magnetic Dip made with the Dip Inductor, with Deduced Values of the Base-line of the Vertical Force Magnetograms.

Greenwich Civil Time, 1918.	ril Time, Magnetic Vertical		Agnetic Value of Vertical Civil Time, Force 1918.		Deduced Value of Vertical Force Base-line.	Greenwich Civil Time, 1918.	Magnetic Dip.	Deduced Value of Vertical Force Base-line.	Greenwich Civil Time, 1918.	Magnetic Dip	Deduced Value of Vertical Force Base-line.
d h	. ,	·42900+	d h	0 ,	·42900+	d h	· ,	·42900+	d h	· ,	.42900+
Jan. 1.11·6	66 53.9	100	Apr. 2. 13.7	66 53.3	75	July 2. 13.5	66 52.1	69	Oct. 1.11.6	66 55.5	89
2. II.0	66 52.5	79	4. 11.3	66 54.0	84	4. 8.3	66 53.5	105	3. 10.1	66 54.9	65
4. 11.9	66 53.1	90	5. 13.6	66 55.3	108	5. 13.9	66 53.1	106	4. 12.6	66 55.4	89
8. 12.0	66 53.5	88	9. 11.7	66 53.7	55	10. 10.2	66 54.3	121	10. 11.4	66 55.7	68
9. 12.9	66 52.6	90	11. 15.0	66 54.6	65	11. 11.4	66 54.9	119	II. I2·I	66 54.3	58
12. 11.9	66 54.1	95	12. 8·o	66 54.1	35	12. 10.2	66 54.4	99	15. 12.0	66 54.3	26
15. 12.0	66 53.0	89	16. 11.8	66 53.7	84	16. 10.2	66 55.0	127	18. 12.0	66 58.3	107
17. 14.8	66 53.0	75	18. 11.6	66 53.6	74	17. 11.1	66 53.3	102	19. 12.1	66 55.5	81
18. 11.9	66 52.9	57	19. 11.8	66 55.9	66	19. 13.8	66 53.0	94	22. 11.7	66 56.5	44
22. 12.6	66 53.7	55	23. 11.7	66 53.6	66	23. 11.7	66 52.8	85	24. 11.8	66 56.3	62
23. 12.8	66 52.5	30	25. 14.9	66 51.2	50	25. 11.6	66 52.1	91	25. 11.5	66 55.2	55
25. 12.0	66 52.8	45	26. 11.8	66 55.1	66	26. 10.8	66 55·I	100	29. 12.0	66 55.5	56
29. 12.0	66 51.8	70	30. 13.5	66 53.2	36	30. II·2	66 55.7	92	.,	, ,,	
30. 12.3	66 55.9	68		1 75	<i>J</i> .	.	757		Nov. 1. 11.8	66 55.0	21
5 5	757		May 2. 14.7	66 53.0	88	Aug. 2. 11·1	66 52.7	86	2. 12.5	66 55.4	34
Feb. 1. 14·6	66 55.0	110	3. 13.5	66 52.7	79	3. 11.5	66 56.1	138	5. 12·8	66 54.0	38
5. 15.9	66 54.0	97	7. 7.9	66 53.8	63	6. 13.7	66 55.7	122	7. 13.0	66 53.6	34
6. 12.7	66 55.1	65	9. 11.8	66 52.6	51	7. 15.1	66 51.5	75	8. 11.8	66 53.1	42
8. 12.8	66 53.3	57	10. 11.4	66 52.7	56	9. 11.6	66 53.9	79	12. 11.6	66 57.6	41
12. 16.2	66 55.0	33	14. 11.5	66 53.5	49	13. 11.3	66 53.0	113	14. 12.7	66 54.9	46
14. 12.1	66 55.8	75	16. 11·6	66 52.2	66	15. 11.8	66 54.0	109	15. 12·4	66 55.6	67
15. 14.6	66 53.4	69	17. 11.0	66 57.8	78	16. 11·4	66 59.8	123	19. 12.0	66 55.5	85
19. 12.6	66 54.0	108	21. 12.4	66 54.2	104	20. 11.3	66 54.1	98	21. 12.8	66 55.9	74
2Í. I2·4	66 54.4	114	24. 11.4	66 52.8	99	22. 10.7	66 53.9	70	22. 12.0	66 54.4	57
22. 14.5	66 52.5	60	25. 11.2	66 51.4	6ó	24. 11.6	66 53.3	113	26. 12.0	66 54.8	59
26. 12.5	66 53.2	98	28. 11.0	66 53.7	102	28. 13.5	66 55.2	88	30. 12.1	66 55.6	46
27. I4·I	66 52.5	94	30. 15.3	66 52.9	76	30. 11.8	66 53.8	98			
, ,		, ,	31. 11.6	66 53.2	87	31. 11.7	66 51.6	69	Dec. 3. 11.7	66 57.2	79
Mar. 1. 12.9	66 52.2	72	-		·			·	5. 12.2	66 53.4	49
5. 14.9	66 51.7	71	June 4. 13.5	66 50.5	119	Sept. 3. 13.5	66 53.9	118	6. II·I	66 52.9	66
7. 11.8	66 52.6	96	6. 15.3	66 52.1	133	5. 11.8	66 53.1	82	10. 11.9	66 58.9	120
8. 11.7	66 58.4	97	7. 10.9	66 53.0	106	6. 11.5	66 53.1	77	11. 11.3	66 55.0	72
12. 14.5	66 55.6	92	11. 10.9	66 57.5	165	10. 11.1	66 54.3	87	13. 11.9	66 53.3	19
14. 13.5	66 52.5	59	14. 11.1	66 56.7	151	12. 15.9	66 52.9	94	17. 12.0	66 53.7	73
15. 12.0	66 54.3	101	15. 11.8	66 55.3	105	13. 11.9	66 53.9	86	18. 11.6	66 52.1	72.
19. 14.4	66 53.9	85	18. 13.6	66 52.4	84	17. 13.7	66 54.7	55	20. 11.8	66 54.2	86
22. I2·2	66 54.4	83	20. 10.4	66 53.7	108	19. 13.9	66 57.4	87	23. 11.3	66 55.2	97
23. 12.2	66 54.4	88	21. 11.0	66 54.3	145	20. 10.9	66 58.1	85	24. 12.0	66 53.8	85
26. 13.8	66 53.0	94	25. 8.7	66 53.1	99	24. 11.5	66 57.4	99	27. 11.9	66 55.4	65
28. IO·I	66 53.7	67	28 11.3	66 53.4	94	27. IO·I	66 55.2	73	31. 12.6	66 53.9	57
30. II·8	66 53.0	44	29. 8.5	66 53.0	94	28. II·6	66 53.9	89		1	1

TABLE XX.—Annual Summary of the Magnetic Elements.

Month,			Mean Valu	ae of	Mean Value of								
1918.	Declination.	Horizontal Force.	Dip.	West Force.	North Force.	Vertical Force.	Declination.	North Force,	Vertical Force.	Declination.	North Force.	Vertical Force.	
	0 /		0 ,	1			· / i			1	<u> </u>		
January	14. 32.0	.18478	66. 52.7	.04637	17887	.43276	7.5	29γ	18γ	41.8	1907	114γ	
February	14. 31.3	18473	66. 52.7	.04632	.17883	.43264	6.9	27	17	48.6	169	139	
March	14. 30.8	18475	66. 52.9	.04630	17885	.43275	10.5	36	29	62.0	252	145	
April	14. 29.5	·18468	66. 53.4	·04621	·17880	43274	12.4	46	34	73.5	315	182	
May	14. 28.8	·18471	66. 52.7	.04618	·17884	·43260	11.7	43	30	64.2	269	169	
June	14. 28.2	·18477	66. 51.7	.04617	17891	.43239	11.6	44	27	66.4	288	135	
July	14. 27.4	.18472	66. 51.8	.04611	17887	·4323I	11.8	45	30	68.3	311	161	
August	14. 26.7	·18460	66. 52.5	.04605	17876	43227	12.4	51	27	71.1	345	144	
September	14. 26.1	·18456	66. 52.7	·04601	17873	.43222	10.1	50	29	66.7	348	170	
October	14. 25.2	·18447	66. 53·1	.04594	·17866	.43219	9.0	46	24	59.5	350	154	
November	14. 24.1	.18450	66. 53·I	.04589	17870	.43224	7.5	31	16	42.4	202	127	
December	14. 23.7	·18441	66. 54.5	·04585	·17862	.43251	7.4	20	20	41.7	123	141	
For the year.	14. 27.8	·18464	66. 52 ·8	.04612	.17879	.43247	9.9	39.0	25.1	58.8	263.8	148	

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES.

1918.

MAGNETIC DISTURBANCES in DECLINATION, NORTH FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1918.

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

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

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

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

1918. Januarv

- 3^{d} $16\frac{3}{4}^{h}$ to $18\frac{1}{4}^{h}$ Wave in Dec. (+5'). 17^{h} to $18\frac{1}{2}^{h}$ Wave in N.F. (-26). $22\frac{1}{4}^{h}$ to $22\frac{3}{4}^{h}$ Wave in Dec. (-3'). 3^{d} $23\frac{1}{4}^{h}$ to 4^{d} $1\frac{1}{4}^{h}$ Irregular double-crested wave in Dec. (-5').
- 4^{d} $1\frac{3}{4}$ h to 3^{h} Irregular double-crested wave in Dec. (-8'). 2^{h} to $3\frac{1}{2}$ h Wave in N.F. (+35). 22^{h} to 24^{h} Wave in Dec. (-7').
- $5^{\rm d}$ II^h to I3^h Wave in N.F. (- 36). II½^h to I2½^h Wave in Dec. (- 4') with small superposed fluctuations. I6½^h to I8½^h Irregular wave in Dec. (- 10'). I7^h to I7½^h Increase in N.F. (+ 20). $5^{\rm d}$ 23¾^h to $6^{\rm d}$ 0½^h Wave in Dec. (- 4').
- $6^{d} \circ 2^{h}$ to 3^{h} Two successive waves in Dec. (-4', -4'). 13^{h} to 15^{h} Irregular wave in N.F. (-25), followed till 16^{h} by a wave (-20). 16^{h} to 16^{h} Decrease in Dec. (-3'). $6^{d} 23^{h}$ to $7^{d} \circ 4^{h}$ Waves in Dec. (-6'), and N.F. (+47), both steeper at commencement.
- 9^{d} 23½ to 10^{d} 0¾ Wave in N.F. (+ 32).
- 10^{d} 19^{h} to 20_{4}^{1h} Wave in Dec. (-7'). 19_{4}^{1h} to 21^{h} Wave in N.F. (+37).
- 12^d 11½^h to 13½^h Irregular decrease in N.F. (-58), followed till 13½^h by a sharper increase (+32). 14½^h to 15½^h Sharp double-crested wave in N.F. (-40). 14½^h to 16^h Wave in V.F. (+17). 14¾^h to 15½^h Increase in Dec. (+3') and decrease (-6'). 12^d 23^h to 13^d 1^h Wave in Dec. (-12'), steep at commencement. 12^d 23^h to 13^d 0½^h Wave in N.F. (+47), steep at commencement.
- 13¾ to 14h Sharp decrease in N.F. (-40). 14½h to 16h Wave in Dec. (-4'), with sharp superposed vibrations. 20h to 21h Sharp wave in Dec. (-7'), followed till 21¼h by a sharp decrease (-4'). 21h to 22h Rounded wave in N.F. (+24).
- 14^d 0^{1h}_2 to 1^{1h}_2 Sharp increase in Dec. (+4') and decrease (-8'). 0^{1h}_2 Sharp increase in N.F. (+20). 0^{3h}_4 to 1^h Decrease in V.F. (-14). 3^{1h}_4 to 4^{1h}_4 Irregular wave in Dec. (+4'). 22^{3h}_4 to 23^{1h}_4 Wave in Dec. (-4'). 23^{1h}_4 to 23^{1h}_4 Wave in N.F. (+21).
- 15^d, 15½^h to 16½^h Sharp wave in N.F. (-30). 15¾^h to 16½^h Wave in Dec. (-6'): increase in V.F. (+12). $20½^h$ to 22^h Wave in N.F. (-22). 21^h to 22^h Wave in Dec. (-5'). 15^d $23½^h$ to 16^h $1½^h$ Irregular wave in Dec. (-5').
- 17^{d} 23^h to 23^{3h} Wave in N.F. (-22).
- 21^{d} 0_{4}^{3h} to 1^{h} Sharp increase in N.F. (+24). 1_{4}^{1h} to 2_{4}^{1h} Decrease in N.F. (-33). 14_{2}^{1h} to 16_{4}^{1h} Wave in N.F. (-25). 17^{h} to 17_{2}^{1h} Decrease in Dec. (-5).
- 22^d oh to 1h Wave in N.F. (+23). $2\frac{3}{4}$ h to $4\frac{1}{4}$ h Double-crested wave in Dec. (+5').
- 23^{d} Ih to $3\frac{3}{4}$ h Slow double wave in Dec. (-3', +3').
- 24^{d} $16\frac{3}{4}^{h}$ to $17\frac{1}{4}^{h}$ Wave in Dec. (-3'). 17^{h} to 18^{h} Wave in N.F. (-20).
- 25^d $1\frac{1}{4}$ h to $2\frac{1}{2}$ h Irregular double-crested wave in Dec. (+ 4'). $1\frac{1}{2}$ h to 3h Wave in N.F. (+ 27). $20\frac{1}{4}$ h to $21\frac{1}{4}$ h Wave in Dec. (- 5').

1918. January

- $26^{d} \ 20^{1h}_{2}$ to 21^{3h}_{4} Wave in Dec. (-6').
- $27^{d} \circ_{4}^{1h}$ to $1\frac{3}{4}^{h}$ Wave in N.F. (+ 30). $0\frac{1}{2}^{h}$ to 2^{h} Wave in Dec. (- 5').
- 29^d 12^{2h} to 13th Sharp increase in Dec. (+ 7') and decrease (- 4'). 13^{2h} to 14^h Increase in Dec. (+ 4'). 17^{1h} to 19^h Irregular double wave in Dec. (+ 3', 3'). 18^{1h} to 19^h Wave in N.F. (+ 20). 19^{1h} Sharp decrease in Dec. (- 8'), followed till 20^{1h} by an irregular wave (+ 8'). 19^{1h} to 19^{2h} Sharp increase in N.F. (+ 30), and decrease (- 20). 20^h to 20^{1h} Wave in N.F. (- 33). 21^h to 23^h Irregular double-crested wave in Dec. (- 13'), steep at end. 21^{1h} to 22^h Sharp increase in N.F. (+ 45). 22^{1h} to 23^{1h} Two successive waves in N.F. (- 30, 28). 29^d 22^{2h} to 30^d 2^h Irregular decrease in V.F. (- 50).
- 30^d I^h to 2½^h Irregular wave in Dec. (+ 9'). I^h to 2^h Double-crested wave in N.F. (+ 20). 8½^h to 9½^h Decrease in N.F. (- 50). 12^h to 13½^h Truncated wave in N.F. (- 40). 17½^h to 18½^h Two successive waves in Dec. (- 5', 4'). 17½^h Sharp increase in N.F. (+ 32). 18^h to 18½^h Wave in N.F. (- 22). 20^h to 20½^h Decrease in Dec. (- 7'). 20½^h to 20½^h Sharp decrease in Dec. (- 11), followed till 21^h by a sharp wave (+ 8'). 20½^h to 21½^h to 21½^h by sharp increase (+ 24) and decrease (- 50). 20½^h to 21½^h Decrease in V.F. (- 34). 21½^h to 22½^h Two successive sharp waves in Dec. (- 8', 9'), followed till 23½^h by a double-crested wave (- 10'), followed till 31^d I^h by a wave (- 22'), very steep at commencement. 30^d 23^h to 31^d 0¾^h Irregular wave in V.F. (- 40), followed till 3^h by a wave (-20). 30^d 23½^h to 31^d 2¼^h Quadruple wave in N.F. (- 32, + 36, 30, + 46).
- 31^d 3^h to 4³h Double wave in Dec. (-4',+4'), the second portion truncated and serrated. 4½h to 5½h Wave in N.F. (+23). 12^h to 12½h Irregular increase in Dec. (+7'). 13^h to 13½h Wave in Dec. (+4'). 13½h to 14½h Truncated wave in N.F. (-35). 13¾h to 15¼h Slow wave in V.F. (+13). 14^h to 15½h Truncated wave in Dec. (+7'), steep at commencement. 15½h to 19h Double wave in N.F. (+30, -55), the second portion sharper. 17½h to 18h Irregular decrease in Dec. (-8'), followed till 19h by a sharp irregular wave (+10'). 18h to 18½h Increase in V.F. (+18). 19¾h to 21h Irregular double-crested wave in N.F. (-23). 20h to 21h Wave in Dec. (+4'). 20½h to 22½h Serrated decrease in V.F. (-30). 21½h to 22½h Sharp double-crested wave in Dec. (-4'), followed till 22¾h by a sharp decrease (-7'). 21½h to 22½h Two successive waves in N.F. (+20,+25).

February

- 1d 13h to 4h Irregular triple-crested wave in Dec. (+ 8'). 2h to 3h Decrease in V.F. (- 13). 3h to 3½h Wave in N.F. (- 20). 163h to 18h Double wave in N.F. (- 24,+ 26), followed till 19½h by a truncated wave (+ 33). 163h to 17h Sharp decrease in Dec. (- 11'). 173h to 18½h Sharp wave in Dec. (+ 5'). 18½h to 21½h Irregular triple wave in Dec. (+ 7',- 5',+ 11'), the second portion double-crested, the third very steep. 20½h to 21½h Very sharp wave in N.F. (+ 110). 20½h to 21½h Irregular decrease in V.F. (- 17).
- 2^d 2½^h to 3½^h Wave in Dec. (+ 5'). 2¾^h to 3½^h Decrease in V.F. (- 12). 17½^h to 17¾^h Decrease in Dec. (- 6'). 18^h to 19½^h Two successive waves in Dec. (- 6', 7'). 18½^h to 19½^h Double-crested wave in N.F. (+ 30). 21¾^h to 22¼^h Wave in Dec. (- 3'). 22¾^h to 23½^h Wave in Dec. (+ 6'). 22¾^h to 23½^h Wave in N.F. (+ 20).
- 5^d 7^h to 8½^h Serrated double-crested wave in N.F. (+ 25). 11½^h to 12½^h Double-crested wave in Dec. (+ 4'). 12^h to 13^h Wave in N.F. (- 24).
- 6d 1½h to 1½h Sharp increase in Dec. (+ 7'), followed till 6h by a truncated serrated wave (- 19'), steep at commencement. 1½h to 2½h Wave in N.F. (+ 40), very steep at commencement. 1½h to 1¾h Sharp decrease in V.F. (- 22). 3h to 4h Triple-crested wave in N.F. (+ 28). 3½h to 3½h Sharp decrease in V.F. (- 19). 8h to 10½h Slow wave in N.F. (- 22). 14h to 14¾h Wave in Dec. (+ 3'). 23½h to 24h Wave in Dec. (- 4').
- 7^{d} rh to $3^{\frac{1}{2}\text{h}}$ Slow double-crested wave in Dec. (+ 5'). $7^{\frac{1}{2}\text{h}}$ to 9^{h} Wave in N.F. (- 25). $7^{\frac{3}{4}\text{h}}$ to $9^{\frac{1}{4}\text{h}}$ Wave in Dec. (+ 5'). 23^{h} to $23^{\frac{3}{4}\text{h}}$ Wave in N.F. (+ 25).
- 9^{d} 201 to 201 Decrease in Dec. (-6') and N.F. (-30). 201 to 231 Flat-crested wave in V.F. (+17). 221 to 231 Irregular waves in Dec. (+4') and N.F. (+22).
- 10^d 1¼^h to 2¼^h Wave in N.F. (+ 24). 1½^h to 2½^h Wave in Dec. (-7'). '10¾^h to 11½^h Truncated wave in Dec. (+4'). 12¾^h to 13½^h Irregular wave in Dec. (+5'), steep at end. 17½^h to 18½^h Wave in Dec. (-8'). 17½^h to 18½^h Wave in N.F. (+23). 20½^h to 20½^h Sharp decrease in Dec. (-8'), followed till 21½^h by a double-crested wave (+5'). 20½^h Sharp increase in N.F. (+20). 21½^h to 23½^h Irregular wave in N.F. (+48). 21½ to 22¼^h Sharp double-crested wave in Dec. (+7').
- the last truncated. o¹/₄h to 1^h Irregular decrease in N.F. (-38), followed till 2¹/₄h by a wave (+40), steep at commencement. 1^h to 3^h Wave in V.F. (-27). 20^h to 20¹/₂h Irregular decrease in Dec. (-6'). 21³/₄h to 22¹/₂h Wave in Dec. (+4'). 22¹/₄h to 23¹/₄h Wave in N.F. (+22).

1918. February,

- 12^d oh to o^{2h} Wave in Dec. (-4'). o^{1h} to 1^{2h} Decrease in V.F. (-25). 1^{1h} to 4^h Two successive waves in Dec. (-12', -5'). 2^h to 3^h Wave in N.F. (-20). 3^{1h} to 4^{2h} Wave in N.F. (-30). 5^h to 6^{1h} Wave in N.F. (+20). 12^{1h} to 13^{1h} Spasmodic double wave in N.F. (-20, +20), with superposed fluctuations. 14^h to 15^{2h} Increase in V.F. (+43). 15^h to 15^{2h} Sharp movements in N.F. (+25, -73, +30). 15^{1h} to 16^{1h} Wave in Dec. (+10'), steep at commencement. 18^h to 18^{1h} Wave in N.F. (+23). 18^{2h} to 19^h Sharp wave in N.F. (-20), followed till 20^h by very sharp movements (-150, +100, -30), followed till 20^{1h} by double-crested wave (+50). 19^h to 20^{2h} Irregular sharp quadruple wave in Dec. (+5', -13', +23', -6'), the fourth movement serrated. 19^h to 19^{1h} Sharp increase in V.F. (+17), followed till 20^h by a decrease (-43). 21^h to 21^{1h} Wave in Dec. (-4'). 22^h to 24^h Steep truncated wave in Dec. (-14'), with double-crested wave (+7'), superposed from 22^{1h} to 23^{1h}. 22^{1h} to 23^{1h} Truncated wave in N.F. (+21). 23^h to 23^{3h} Wave in V.F. (-12), followed till 13^h o^{1h} by a decrease (-25). 12^d 23^{3h} to 13^d o^{3h} Triple wave in N.F. (+28, -20, +25), the first portion double-crested.
- 13^{d} old to old Sharp decrease in Dec. (-17'). In to 13^{h} Wave in Dec. (-5'). 3^{h} to 41^{h} Double-crested wave in Dec. (+8'), followed till 51^{h} by an increase (+12'). 4^{h} to 41^{h} Very sharp increase in N.F. (+70), followed till 43^{h} by slower partial return (-25).
- 14^d 2^h to $3\frac{1}{2}$ ^h Wave in Dec. (+ 12'). $2\frac{1}{4}$ ^h to $2\frac{3}{4}$ ^h Decrease in N.F. (- 24). $2\frac{3}{4}$ ^h to 4^h Wave in V.F. (- 13). 3^h to 4^h Increase in N.F. (+ 60). 5^h to $6\frac{3}{4}$ ^h Wave in Dec. (+ 6'), followed till $7\frac{1}{2}$ ^h by an increase (+ 6').
- 15^d o¹/₂h to 1^h Wave in Dec. (+ 4'), continued till 1³/₄h by a decrease (- 7'). o¹/₂h to 1¹/₄h decrease in V.F. (- 12). 9^h to 18^h Rapid small oscillations in Dec. and N.F. 16^h to 21¹/₂h Rapid oscillations in V.F. 18^h to 19¹/₄h Wave in Dec. (+ 9') with superposed oscillations. 18¹/₄h to 19¹/₂h Irregular double-crested wave in N.F. (- 35). 20^h to 21^h Truncated wave in N.F. (+ 35), very steep at both ends, followed till 21¹/₄h by a very sharp double wave (+ 50, 24).
- 16^d 10^h to 10¹/₄^h Increase in Dec. (+ 4'). 11¹/₄^h to 12¹/₂^h Wave in Dec. (+ 6'), with superposed fluctuations. 11²/₄^h to 12³/₄^h Wave in N.F. (- 32). 20¹/₄^h to 22^h Waves in Dec. (- 6'), and N.F. (+ 30).
- 17^{d} 20\frac{1}{4}^{h} to 21\frac{2}{4}^{h} Wave in Dec. (-4').
- 20d 21 $\frac{3}{4}$ h to 22 $\frac{1}{4}$ h Decrease in Dec. (- 10'), followed till 22 $\frac{3}{4}$ h by slower partial return (+ 4'). 22h to 23 $\frac{1}{4}$ h Wave in N.F. (+ 43).
- 21^{d} 4^h to 6^h Wave in N.F. (+ 35). $4\frac{1}{2}$ ^h to $6\frac{1}{4}$ ^h Wave in Dec. (- 6').
- 23^d 14½^h to 14½^h Sudden increase in Dec. (+ 4') and N.F. (+ 20). 14½^h to 17^h Wave in V.F. (+ 13). 15^h to 16½^h Truncated wave in N.F. (- 28). 15¾^h to 16½^h Wave in Dec. (- 3'). 21^h to 24^h Wave in Dec. (- 12'). 22^h to 23½^h Wave in N.F. (+ 37).
- 24^{d} $4\frac{1}{2}$ h to 6h Wave in N.F. (-21). 20h to $21\frac{1}{2}$ h Wave in Dec. (-4').
- 27^{d} $21\frac{3}{4}^{h}$ to $23\frac{1}{2}^{h}$ Irregular wave in N.F. (+ 30). 22^{h} to $23\frac{1}{2}^{h}$ Wave in Dec. (- 5'). 22^{h} to $22\frac{1}{2}^{h}$ Decrease in V.F. (- 18).
- 28d 03h to 21h Truncated wave in Dec. (+8'). 14h to 15h Wave in Dec. (-4'). 19h to 22h Irregular wave in Dec. (-7'). 19h to 22h Slow wave in V.F. (+17). 19h to 21h. Truncated wave in N.F. (-25). 23½h to 24h Wave in Dec. (+3'). February 28d. 23¾h to March 1d. 0½h Wave in N.F. (+20).

March

- $1^{d} 2\frac{1}{2}^{h}$ to $2\frac{3}{4}^{h}$ Sharp increase in Dec. (+5'). $20\frac{1}{4}^{h}$ to 21^{h} Sharp wave in Dec. (-5'). 21^{h} to $21\frac{3}{4}^{h}$ Sharp wave in N.F. (+34), followed till 22^{h} by an increase (+25).
- 2d $16\frac{3}{4}$ h to $17\frac{3}{4}$ h Truncated wave in N.F. (-25). 17^{h} to 18^{h} Wave in Dec. (-3'). $19\frac{3}{4}$ h to 21^{h} Wave in N.F. (+45).
- 3^{d} $1\frac{3}{4}^{h}$ to 3^{h} Truncated wave in Dec. (+5'). $13\frac{3}{4}^{h}$ to $15\frac{1}{4}^{h}$ Sharp double wave in Dec. (+4', -4'), both portions double-crested. 14^{h} to 15^{h} Increase in V.F. (+30). $14\frac{1}{4}^{h}$ to $14\frac{3}{4}^{h}$ Sharp decrease in N.F. (-30) and increase (+48). 16^{h} to $17\frac{1}{2}^{h}$ Wave in Dec. (+3'). $16\frac{1}{2}^{h}$ to 18^{h} Wave in N.F. (-25). $21\frac{3}{4}^{h}$ to $22\frac{1}{4}^{h}$ Domed wave in Dec. (-8') followed till 23^{h} by a sharp decrease (-10') and increase (+3'). $21\frac{3}{4}^{h}$ to $22\frac{3}{4}^{h}$ Wave in V.F. (+14). $22\frac{3}{4}^{h}$ to $23\frac{1}{4}^{h}$ Wave in N.F. (+26).
- 4^{d} $1\frac{1}{2}$ h to 4^{h} Slow wave in Dec. (+7').
- 5^d 22^h to 23^h Wave in N.F. (+ 21).
- 7^d 20^h to 8^d 20^h. See Plate I.
- 8d 22 $\frac{1}{4}$ h to 22 $\frac{3}{4}$ h Sharp wave in Dec. (+ 5').
- g^d in to $2\frac{1}{2}$ Wave in Dec. (+ 7').
- 10^d 16^h to 16³/₄^h Wave in N.F. (-30), followed till 19^h by an irregular wave (-30), with a sharp wave (-24) superposed from 17³/₄^h to 18^h. 16^h to 19^h Slow wave in V.F. (+23). 16¹/₄^h to 17³/₄^h Irregular wave in Dec. (-8'). 21¹/_h to 22¹/₂^h Wave in Dec. (-6'). 21¹/₂^h to 22¹/₂^h Wave in N.F. (+26). 23³/₄^h to 24^h Sharp decrease in N.F. (-21).
- 11^d 2_4^{th} to 4^{h} Wave in Dec. (+6'). 2_2^{th} to 3_4^{th} Slow decrease in V.F. (-12). 13_4^{th} to 14^{h} Sharp increase in Dec. (+4'). 15_2^{th} to 16_4^{th} Irregular wave in N.F. (+32). 17_4^{th} to 18_4^{th} Wave in V.F. (+15). 17_2^{th} to 17_4^{th} Sharp decrease in Dec. (-8'). 19^{th} to 19_4^{th} Sharp movements in Dec. (-5', +8', -16'), followed till 20_4^{th} by an irregular increase (+8'). 19^{th} to 19_4^{th} Sharp double wave in N.F. (+44, -50). 19_4^{th} to 19_4^{th} Wave in V.F. (-14). 20^{th} to 21^{th} Wave in N.F. (-30). 21_4^{th} to 22_4^{th} Wave in Dec. (-3'). 23^{th} to 24^{th} Wave in Dec. (-5').

1918. March

- 12^d 0_4^{3h} to 1^h Decrease in Dec. (-3'), followed till 2^h by a wave (+4'). 5^h to 5_2^{1h} Sharp increase in Dec. (+7'). 5^h to 6^h Wave in N.F. (-22). 5_2^{1h} to 6^h Decrease in V.F. (-24). 15^h to 16^h Increase in V.F. (+28). 15 $_4^{1h}$ to 15 $_4^{3h}$ Serrated decrease in Dec. (-8'). 15 $_2^{1h}$ to 17^h Wave in N.F. (+45), steep at commencement. 19 $_4^{1h}$ to 20 $_4^{1h}$ Double wave in Dec. (+4', -3'), the first portion double-crested. 19 $_2^{1h}$ to 20^h Decrease in V.F. (-16). 19 $_4^{3h}$ to 21^h Wave in N.F. (+40). 12^d 23 $_4^{3h}$ to 13^d 1^h Truncated wave in N.F. (+22).
- $13^{d} \circ_{4}^{1h}$ to 14^{h} Wave in Dec. (-3').
- 15^d I^h to 2^h Wave in Dec. (+ 3'). 7½^h to 8½^h Wave in Dec. (+ 4'). 13^h to 14½^h Serrated wave in Dec. (+ 9'). 13^h to 16^h Double wave in N.F. (+ 35, 45). 13½^h to 14½^h Increase in V.F. (+ 17). 17½^h Very slow increase in N.F. (+ 60), followed till 19½^h by very sharp fluctuations superposed on the return. Fluctuations also in Dec.
- 16d Ih to $2\frac{3}{4}^{\text{h}}$ Irregular triple wave in Dec. (-5', +3', -3'). Ih to $1\frac{1}{2}^{\text{h}}$ Truncated wave in N.F. (+25). $1\frac{3}{4}^{\text{h}}$ to $2\frac{1}{4}^{\text{h}}$ Decrease in V.F. (-12). 5^{h} to $5\frac{1}{2}^{\text{h}}$ Serrated increase in Dec. (+4'). $10\frac{1}{2}^{\text{h}}$ to 12^{h} Increase in Dec. (+7'), followed till $12\frac{1}{2}^{\text{h}}$ by a sharper increase (+6'). 12^{h} to $12\frac{3}{4}^{\text{h}}$ Domed wave in N.F. (+22). $12\frac{3}{4}^{\text{h}}$ to $13\frac{1}{2}^{\text{h}}$ Increase in V.F. (+17). 13^{h} to $14\frac{1}{4}^{\text{h}}$ Wave in Dec. (-6'). 15^{h} to $17\frac{1}{4}^{\text{h}}$ Slow wave in V.F. (+14), followed till $18\frac{1}{2}^{\text{h}}$ by a double-crested wave (+19). $17\frac{1}{2}^{\text{h}}$ to $18\frac{3}{4}^{\text{h}}$ Waves in Dec. (-10'), and N.F. (+75), both very steep at commencement. $20\frac{1}{4}^{\text{h}}$ to 21^{h} Sharp double-crested wave in Dec. (-5'), followed till $21\frac{1}{2}^{\text{h}}$ by a sharp double wave (-6', +4'). $20\frac{1}{2}^{\text{h}}$ to $21\frac{1}{2}^{\text{h}}$ Two successive waves in N.F. (+20, +47), the second steep.
- 17^{d} 22h to 23h Domed wave in Dec. (-4'). 22h to 23h Wave in N.F. (+ 35).
- 20^d 10^h to 10^{1h}_{2} Decrease in N.F. (-40).
- 21^d 12^h to 14^{3h} Irregular wave in Dec. (+ 5'), followed till 17^h by a serrated wave (+ 7'). 13^h to 21^{3h} Slow wave in V.F. (+ 45). 14^{3h} to 15^{1h} Increase in N.F. (+ 33). 17^{3h} to 18^{1h} Decrease in Dec. (- 6'). 19^{2h} to 21^{1h} Irregular wave in Dec. (- 8'), followed till 23^h by a shallow wave (- 4'). 20^h to 21^h Truncated wave in N.F. (+ 21). 21^{3h} to 23^h Wave in N.F. (+ 22).
- 22^d $1\frac{3}{4}$ h to $2\frac{1}{2}$ h Wave in Dec. (+4'). $13\frac{1}{2}$ h to $15\frac{1}{4}$ h Irregular double wave in N.F. (+20, -20). $14\frac{3}{4}$ h to $18\frac{1}{2}$ h Wave in V.F. (+18). $16\frac{1}{2}$ h to $17\frac{3}{4}$ h Sharp wave in Dec. (-10'): double wave in N.F. (-20, +37).
- 23^d $1\frac{3}{4}$ h to $2\frac{1}{2}$ h Sharp wave in N.F. (-40). 2^h to $3\frac{1}{2}$ h Wave in Dec. (+10'), steep at commencement. $2\frac{1}{4}$ h to 5^h Domed wave in V.F. (-22). 4^h to 6^h Wave in N.F. (-30). $4\frac{1}{4}$ h to $5\frac{1}{4}$ h Increase in Dec. (+5'). $17\frac{3}{4}$ h to $19\frac{1}{4}$ h Wave in N.F. (+28). 19^h to $21\frac{1}{2}$ h Irregular triple wave in Dec. (-10', +4', -7'). $19\frac{1}{2}$ h to $20\frac{3}{4}$ h Steep double wave in N.F. (+95, -24): Wave in V.F. (-25).
- 26^{d} 22^{h} to $22\frac{3}{4}^{h}$ Sharp wave in N.F. (+ 33).
- 27^d o_2^{1h} to o_2^{1h} Wave in Dec. (+ 4'). 17^h to 18^h Wave in Dec. (- 5'), followed till 18½^h by a decrease (- 5'). 17½^h to 18^h Wave in N.F. (+ 30). 20^h to 22¾^h Wave in Dec. (- 11'), steep at commencement. 20¼^h to 21½^h Wave in N.F. (+ 50).
- 29^d $3\frac{1}{2}$ ^h to 5^h Truncated Wave in Dec. (+ 4'). $3\frac{3}{4}$ ^h to $4\frac{1}{2}$ ^h Irregular increase in N.F. (+ 33). $22\frac{3}{4}$ ^h to 24^h Shallow wave in Dec. (- 3').
- 30^d 16^h to 31^d 11^h loss of V.F. Register. 30^d 19^h to 21^h Wave in Dec. (-8').
- $31^{\text{d}} 183^{\text{h}}$ to 193^{h} Wave in Dec. (-4').

April

- 2^{d} oh to 1h Wave in Dec. (+ 5'). $0^{\frac{1}{2}h}$ to $1^{\frac{1}{2}h}$ Domed wave in N.F. (+ 20). $0^{\frac{1}{2}h}$ to 1h Decrease in V.F. (- 12). 3^{d} 2^{2h} to 4^{d} $3^{\frac{1}{2}h}$ Slow triple wave in Dec. (- 5', + 3', 5').
- $3^{\rm d}$ $23^{\rm 3h}$ to $4^{\rm d}$ Ih Decrease in V.F. (-20).
- $4^{d} \circ_{4}^{3h}$ to 3^{h} Flat-crested wave in N.F. (+23). $21\frac{1}{4}^{h}$ to 22^{h} wave in N.F. (+25). $21\frac{1}{2}^{h}$ to $22\frac{1}{2}^{h}$ Wave in Dec. (-4'), followed till 5^{d} 1^{h} by an irregular double wave (-5', +10'). 4^{d} $23\frac{1}{4}^{h}$ to 5^{d} $0\frac{1}{2}^{h}$ Irregular double wave in N.F. (-22, +33). 4^{d} $23\frac{3}{4}^{h}$ to 5^{d} 1^{h} Domed wave in V.F. (-25).
- 5^d I^h to 2½^h Wave in Dec. (+ 11'). 1½^h to 5½^h Slow double wave in V.F. (- 12, + 13). 1½^h to 3½^h Wave in N.F. (+ 32). 3½^h to 4^h Increase in Dec. (+ 5'). 4½^h to 5^h Increase in Dec. (+ 6'). 5^h to 5½^h Increase in N.F. (+ 20). 5½^h to 6½^h Decrease in N.F. (- 46). 13^h to 17½^h Increase in V.F. (+ 55). 17^h to 19½^h Wave in Dec. (- 8'), with several small waves superposed. 17¾^h to 19½^h Serrated wave in N.F. (+ 60). 21^h to 22^h Wave in Dec. (+ 6'), followed till 23½^h by a sharp double wave (+ 13', 8'), the first portion double-crested. 21¾^h to 23½^h Triple wave in N.F. (+ 40, 40, + 30). 22^h to 22¾^h Decrease in V.F. (- 35).
- 6d 0½h to 1¼h Double-crested wave in N.F. (- 20), followed till 1¼h by a wave (- 45). Ih to 3½h Double wave in Dec. (- 7′, + 8′), both portions double-crested. Ih to 2h Irregular decrease in V.F. (- 22), followed till 2¾h by a domed wave (+ 18). 3h to 4¼h Increase and decrease in N.F. (+ 20, -43). 4¼h to 4½h Increase in Dec. (+ 6′). 9h to 11¾h Irregular wave in N.F. (- 45). 12¼h to 13h Wave in N.F. (- 28). 12½h to 14h Irregular serrated wave in Dec. (+ 9′), followed till 16½h by tour successive waves (- 4′, -3′, -3′, -4′). 13h to 1¼h Increase in V.F. (+ 50). 13¼h to 15½h Irregular wave in N.F. (+ 57), with small waves superposed. 17½h to 18¼h Truncated wave in N.F. (- 21). 17¾h to 18½h Wave in Dec. (- 3′). 18¾h to 20h Wave in Dec. (- 4′). 21h to 21½h Wave in Dec. (+ 10′), very steep at commencement: decrease in V.F. (- 28). 21¾h to 22¼h Decrease in Dec. (- 9′). 6d 22¾h to 7d 2h Irregular triple wave in Dec. (+ 4′, -6′, +16′), the last two portions double-crested. 6d 23¼h to 24h Wave in N.F. (+ 26). 6d 23¼h to 7d 10½h Loss of V.F. register.

MAGNETIC DISTURBANCES 1918. April $7^{\rm d}$ o₂^h to 1^h Wave in N.F. (-40), followed till $2_2^{\rm h}$ by a Double wave (-25,+25). $2_2^{\rm sh}$ to 4^h Wave in N.F. (-42). 3^h to 4^h Domed wave in Dec. $(+8^r)$. 7^d 23 $\frac{3^h}{4^h}$ to 8^d 1 $\frac{1}{4^h}$ Double wave in Dec. $(-6^r, +7^r)$, the first portion slow, the second sharp. 8d 18h to 19h Truncated wave in N.F. (+ 25). 19h to 20½h Sharp wave in Dec. (- 11). 9^d 4h to $4\frac{1}{2}$ h Increase in Dec. (+4'). 22^h to $22\frac{1}{2}$ h Sharp wave in Dec. (+4'): decrease in V.F. (-12). $22\frac{1}{4}$ h to 23^{3h} Wave in N.F. (+ 30), steeper at commencement. 10d 21h Very sharp increase in Dec. (+ 3'), and N.F. (+ 40). 10d 22 $\frac{3}{4}$ h to 11d 0 $\frac{1}{4}$ h. Two successive waves in Dec. (+7', +4'): decrease in V.F. (-35). 10^d 23½^h to 11^d 0½^h Wave in N.F. (+38). 11d 5h to 12d 5h. See Plate I. 12^{d} 18h to 183h Wave in Dec. (-3'). 15d 3h to 4h Wave in Dec. (+ 7'). $17^{\rm d}$ $16\frac{1}{4}^{\rm h}$ Sudden decrease in N.F. (- 20). 18d 13h to 15h Increase in V.F. (+ 22). 14h to 15h Serrated truncated wave in N.F. (- 21), followed till 174h by a serrated double wave (-33, +32). $20\frac{3}{4}^{h}$ to $22\frac{1}{2}^{h}$ Double wave in Dec. (-13', +5'). $20\frac{3}{4}^{h}$ to $21\frac{3}{4}^{h}$ Wave in N.F. (+48). 22^{h} to $22\frac{1}{2}^{h}$ Decrease in V.F. (-22). $22\frac{1}{4}^{h}$ to 23^{h} Wave in N.F. (+33), steep at end. 23th to 23th Decrease in Dec. (- 12'). 18^d 23th to 19^d 0th Irregular decrease in N.F. (- 40). 19^{d} oh to $0^{\frac{3}{4}h}$ Sharp movements in Dec. (+4',-3',+5'), followed till $1^{\frac{1}{2}h}$ by a sharp wave (-13'). $0^{\frac{3}{4}h}$ to $1\frac{1}{2}$ h Sharp wave in N.F. (+ 52). $1\frac{1}{2}$ h to 6h Slow wave in V.F. (+ 30). $4\frac{1}{4}$ h to 7h Irregular wave in Dec. (+12'). $4\frac{3}{4}$ to 7^h Serrated flat-crested wave in N.F. (+33). 7^h to $7\frac{1}{2}$ Serrated wave in Dec. (+4'). 18^{h} to 19^{h} Wave in Dec. (-3'). 20d 223h to 233h Wave in N.F. (+ 20), steep at commencement. 21^d 20½^h to 20½^h Sharp decrease in Dec. (-8'). 20½^h to 22½^h Irregular Double wave in N.F. (+30,-30). $21\frac{3}{4}$ to $22\frac{3}{4}$ Wave in Dec. (+ 4'). 22^d 21^h to 21^h Decrease in Dec. (-4'). 22^h to 23^h Wave in N.F. (+27). 22^d 23^h to 23^d 1^h Irregular double wave in N.F. (-22, +20), followed till $3\frac{1}{2}$ h by a wave (-30). 22^d $23\frac{3}{4}$ h to 23^d $1\frac{1}{4}$ h Wave in Dec. 23^d 2^h to 4^h Wave in Dec. (+6'). $8\frac{1}{2}$ ^h to $8\frac{3}{4}$ ^h Sharp decrease in N.F. (-30). $18\frac{1}{2}$ ^h to $19\frac{1}{2}$ ^h Waves in Dec. (-6') and N.F. (+30). 25^{d} $1\frac{1}{2}$ h Sudden increase in Dec. (+ 6') and N.F. (+ 20). $1\frac{1}{2}$ h to 3^{h} Wave in V.F. (- 20). $1\frac{3}{4}$ h Decrease in Dec. (-12'). $20\frac{3}{4}$ to $21\frac{1}{4}$ Wave in Dec. (+4'). $21\frac{3}{4}$ to $22\frac{3}{4}$ Two successive sharp waves in Dec. (-6', -6'), followed by a sudden decrease (-8'). 22h to 22h Sharp wave in N.F. (+26). 22h to 23h Irregular decrease in V.F. (-42). 23h to 24h Wave in Dec. (-9'): Sharp double wave in N.F. (-39, +41), followed till 26^{d} $1\frac{1}{4}^{h}$ by a wave (+48), followed till $1\frac{1}{2}^{h}$ by an increase (+22). 26^{h} oh to 1h Wave in Dec. (-5'). $0\frac{1}{4}$ h to 8h Oscillatory wave in V.F. (-40). $1\frac{3}{4}$ h to $2\frac{1}{4}$ h Increase in Dec. (+5'). 2h to 4h Irregular double wave in N.F. (+34, -36), the first position domed, the second sharp. 2^{3h}_{4} to 5^{h} Flat-crested wave in Dec. (+7'), with superposed fluctuations. 19^{1h}_{2} to 20^{1h}_{2} Sharp truncated wave in Dec. (-10'): Sharp wave in N.F. (+55): decrease in V.F. (-24). 27^d 14^{3h} Sudden increase in N.F. (+ 20), followed till 16^h by a wave (- 24). $28d \text{ 10}\frac{1}{2}h$ to $29d \text{ 11}\frac{1}{2}h$ Loss of N.F. register. $28d \text{ 19}\frac{3}{2}h$ to 21h Wave in Dec. (-4). 29d 21 $\frac{1}{4}$ h to 21 $\frac{3}{4}$ h Wave in N.F. (+ 27), very steep at commencement. $30^{\rm d}$ $4\frac{1}{2}^{\rm h}$ to $7\frac{1}{2}^{\rm h}$ Double wave in N.F. (+ 20, - 25). $5\frac{1}{4}^{\rm h}$ to $7\frac{1}{2}^{\rm h}$ Two successive double-crested waves in Dec-(+4',+5'). 16^h to $16\frac{1}{2}^h$ Increase in N.F. (+33), followed till $18\frac{1}{2}^h$ by a wave (+70). $17\frac{1}{2}^h$ Sharp decrease in Dec. (-6'). $19\frac{1}{2}^h$ to $21\frac{3}{4}^h$ Irregular decrease in V.F. (-36). 20^h to $21\frac{1}{4}^h$ Two successive sharp waves in Dec. (+10', +5') and N.F. (+60, +30). 30^{d} 23^{h} to 23^{h} Decrease in Dec. (-8'), continued till May 1^{d} 0^{h} by a double wave (-3',+3'). April 30^{d} 23h to 24h Wave in N.F. (+ 35), followed till May 1d 44h by an irregular triple wave (+ 25, - 20, + 25).

May

- Id oth to oth Decrease in V.F. (-13). 13th to 2h Sharp increase in Dec. (+9'). 13th to 2th Decrease in V.F. (-18). 2th to 3h Decrease in Dec. (-5'). 4h to 5h Wave in Dec. (+5'). 20h to 20th Increase in Dec. (+5'). 21h to 22h Double wave in Dec. (+3'-4'). 21h to 21th Decrease in V.F. (+37). 21h to 21th Decrease in V.F. (-12).
- 2^{d} 1_{4}^{1h} to 2^{h} Wave in Dec. (+4'). 2^{d} 23_{2}^{1h} to 3^{h} 0_{2}^{1h} Wave in Dec. (+5').
- 4^{d} 15^h to 16^h Domed wave in N.F. (-20). 16 $\frac{1}{2}$ ^h to 18^h Wave in N.F. (+21).
- 5^d 7½^h to 8^h Wave in Dec. (-5'). 13^h to 15^h Increase in V.F. (+45). 17½^h to 19½^h Double-crested wave in N.F. (+47). 18½^h to 20^h Wave in Dec. (-4').
- 6^{d} 4^h to 5^{1} Wave in Dec. (+ 3').
- 8^{d} 10^{1} to 16^{h} Wave in Dec. (+ 10').

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- 11^d 13th to 14th Wave in N.F. (+ 22). 20^h to 22^h Wave in Dec. (- 13'), steep at commencement. 20th to 21^h Steep wave in N.F. (+ 40).
- 12^{d} oh to $0\frac{1}{2}^{h}$ Decrease in Dec. (-4'). $14\frac{1}{4}^{h}$ to $15\frac{1}{2}^{h}$ Wave in N.F. (+27). $22\frac{3}{4}^{h}$ to 24^{h} Wave in Dec. (-4').
- 13^{d} 0_{4}^{1h} to 1_{4}^{1h} Wave in Dec. (-4'). 14_{4}^{3h} to 16^{h} Wave in N.F. (+20).
- 14^{d} $6\frac{1}{2}^{h}$ Sudden sharp wave in Dec. (-4'). $21\frac{3}{4}^{h}$ to 22^{h} Sharp decrease in N.F. (-30). $23\frac{1}{4}^{h}$ to $23\frac{3}{4}^{h}$ Decrease in V.F. (-12). 14^{d} $23\frac{1}{2}^{h}$ to 15^{d} $1\frac{3}{4}^{h}$ Irregular slow wave in Dec. (-5').
- 15^d 13^{1h} to 13^{3h} Waves in Dec. (-4') and N.F. (-30), very steep at commencement. 16^{1h} to 18^{1h} Two successive waves in Dec. (-4', -4') and N.F. (+35, +20), the second truncated. 20^{3h} to 22^h Double-crested wave in Dec. (-8'). 21^h to 21^{1h} Wave in N.F. (+22).
- $16^{\rm d}$ oh to $2^{\rm h}$ Double wave in Dec. (+ 3', 5'). oh to $1^{\rm h}$ Domed wave in N.F. (+ 20). $0_4^{\rm h}$ to $0_4^{\rm sh}$ Decrease in V.F. (- 12). $15^{\rm h}$ to $16_4^{\rm sh}$ Irregular wave in N.F. (- 23).
- 16d 17h to 17d 17h. See Plate II.
- 17^d 19^h to 20½^h Wave in Dec. (- 12'), with pauses at 9½^h to 19½^h on first movement, and 20^h to 20½^h on second: irregular waves in N.F. (+ 80) and V.F. (+ 16). 21½^h to 22½^h Waves in Dec. (+ 7) and N.F. (+ 28): decrease in V.F. (- 28). 17^d 23½^h to 18^d 0¾^h Truncated wave in Dec. (- 6').
- 18^d o^h to 0^{3h}_4 Decrease in N.F. (-40). 2^{1h}_4 to 3^h Serrated domed wave in Dec. (-3') 2^{3h}_4 to 3^{3h}_4 Wave in N.F. (-33). 3^{1h}_2 to 5^{1h}_2 Serrated double wave in Dec. (-3', +4'), followed by short sharp fluctuations till 8^{1h}_2 . 4^{3h}_4 to 5^{1h}_2 Wave in N.F. (-30). 5^h to 7^h Wave in V.F. (-16). 8^{1h}_2 to 9^{1h}_2 Domed wave in N.F. (-26). 14^{3h}_4 to 16^h Serrated domed wave in N.F. (+35). 16^{1h}_2 to 17^{3h}_4 Domed wave in N.F. (+34). 18^{1h}_4 to 19^{1h}_2 Wave in Dec. (-4'). 20^{3h}_4 to 21^{3h}_4 Sharp wave in Dec. (-9'). 21^{1h}_4 to 22^h Irregular wave in N.F. (+32). 22^h to 24^h Irregular double-crested wave in Dec. (-6') 18^d 23^{1h}_4 to 19^d 0^{1h}_4 Wave in N.F. (-26).
- 19^d oh to 0^{3h}_4 Serrated wave in Dec. (+ 4'). 1^{1h}_2 to 2^{1h}_4 Truncated wave in Dec. (+ 4'): decrease in V.F. (- 14). 15^{1h}_4 to 16^{1h}_4 Wave in N.F. (+ 40), steep at commencement. 18^{1h}_4 to 19^{1h}_4 Wave in N.F. (+ 50). 22^{1h}_4 to 23^{1h}_4 Sharp wave in Dec. (+ 7'). 22^{1h}_4 to 23^{1h}_4 Decrease in V.F. (- 16). 19^{1h}_4 23^{1h}_4 to 20^{1h}_4 Double wave in Dec. (+ 3', 3').
- 20^d $0\frac{3}{4}^{h}$ to 2^{h} Irregular wave in N.F. (-30). 16^{h} to $16\frac{3}{4}^{h}$ Wave in N.F. (-23). $18\frac{1}{2}^{h}$ to $19\frac{3}{4}^{h}$ Wave in Dec. (-4'). $18\frac{3}{4}^{h}$ to $20\frac{3}{4}^{h}$ Flat-crested wave in N.F. (+32). 22^{h} to $22\frac{3}{4}^{h}$ Decrease in V.F. (-13). $22\frac{1}{4}^{h}$ to 23^{h} Wave in Dec. (+4'). $22\frac{1}{2}^{h}$ Sharp decrease in N.F. (-23). 20^{d} $23\frac{1}{4}^{h}$ to 21^{d} 2^{h} Double wave in Dec. (-6', +5'), the first portion truncated. 20^{d} $23\frac{3}{4}^{h}$ to 21^{d} 2^{h} Irregular double-crested wave in N.F. (-32).
- 21^d o_2^{1h} to $1\frac{1}{2}^{h}$ Decrease in V.F. (-16). $2\frac{1}{2}^{h}$ to $2\frac{3}{4}^{h}$ Decrease in N.F. (-25). $22\frac{1}{4}^{h}$ to $22\frac{1}{2}^{h}$ Sharp increase in N.F. (+24).
- 30^d oh to 1^h Wave in Dec. (-4'). $3\frac{1}{2}$ ^h to 5^h Wave in Dec. (+6'). $14\frac{1}{4}$ ^h to $14\frac{3}{4}$ ^h Increase in N.F. (+25). 15^h to 16^h Wave in N.F. (-23).

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- Id II 1h to 2d 101h Loss of V.F. register.
- 6d 12½h to 13½h Wave in N.F. (+ 24). 16¾h to 17½h Wave in N.F. (+ 20). 6d 23½h to $7^d \circ 2^{h}$ Wave in Dec. (+ 4′).
- 7^{d} 1^{1h} to 2^{1h} Truncated wave in Dec. (+ 4').
- 8^{d} 11½h to 12½h Domed wave in N.F. (-25).
- 9^d 17½^h to 18^h Wave in N.F. (+ 23). 19^h to 20^h Wave in N.F. (+ 20). 19½^h to 20^h Decrease in Dec. (- 8'). 20½^h to 21^h Very sharp wave in N.F. (+ 22). 21^h to 22½^h Two successive waves in Dec. (- 5', 8'), the second very steep, followed till 22½^h by a decrease (- 8'). 21½^h to 22½^h Sharp wave in N.F. (+ 45). 21½^h to 23^h Wave in V.F. (- 17), followed till 23½^h by an irregular decrease (- 21). 22½^h to 24^h Domed wave in Dec. (+ 7'), with sharper wave (+ 5'), superposed from 23^h to 23½^h. 9^d 23^h to 10^d 3^h Very irregular triple wave in N.F. (+ 75, 60, + 40), with several sharp movements superposed.
- 10d 03h to 3h Irregular double-crested wave in Dec. (+ 17'), with superposed fluctuations, followed till 4h by a serrated domed wave (+ 5'). 13h to 3h Sharp wave in V.F. (- 35). 7h to 8h Sharp decrease in N.F. (- 100). 9h to 10h Serrated wave in Dec. (+ 4'). 9h to 10h Wave in N.F. (- 20). 10h to 11h Sharp wave in Dec. (- 5'), followed by sharp fluctuations till 13h 12h to 13h Irregular increase in V.F. (+ 90), followed till 15h by a wave (+ 18). 13h to 13h Wave in Dec. (- 4'). 13h to 14h Double wave in N.F. (+ 20, 21), the first portion truncated. 14h to 14h Wave in Dec. (- 4'). 17h to 18h Sharp decrease and increase in Dec. (- 7', + 4'). 17h Sharp increase in N.F. (+ 36), followed by slower partial return. 20h to 22h Decrease in V.F. (- 56). 21h to 23h Two successive double waves in Dec. (- 7', + 7') and (+ 6', 3'), the second portion of the first truncated, all the other movements sharp. 20h to 21h Sharp wave in N.F. (+ 54). 21h to 22h Decrease in Dec. (- 3'). (+ 35, -40, + 35), followed till 22h by slower decrease (- 20). 22h Decrease in Dec. (- 3').
- 11^d 2^h to $3\frac{1}{2}$ ^h Flat-crested wave in Dec. (+ 4'). Wave in N.F. (- 30). $6\frac{3}{4}$ ^h to 8^h Wave in Dec. (+ 4'). $12\frac{1}{2}$ ^h to $13\frac{1}{2}$ ^h Wave in N.F. (- 27). $15\frac{1}{4}$ ^h to $16\frac{3}{4}$ ^h Rounded wave in N.F. (- 22). 19^h to 20^h Wave in N.F. (+ 20). $20\frac{3}{4}$ ^h to $21\frac{1}{2}$ ^h Wave in N.F. (+ 20). $21\frac{3}{4}$ ^h to $22\frac{3}{4}$ ^h Truncated wave in Dec. (+ 4').

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- 12^d 1^h to 3½^h Irregular wave in Dec. (+ 10'). 1^h to 2¾^h Wave in N.F. (- 40), steeper at commencement. 1½^h to 2^h Decrease in V.F. (- 19), followed till 7^h by an irregular wave (- 30). 3¾^h to 5^h Wave in Dec. (+ 6'). 4^h to 5¾^h Wave in N.F. (- 45), sharp at commencement. 6¼^h to 7¼^h Small sharp fluctuations in Dec. 12¼^h to 13¼^h Wave in N.F. (- 22). 15h to 16¼^h Wave in N.F. (- 23). 17¼^h to 17¾^h Decrease in Dec. (- 7'). 20¼^h to 21h Double wave in Dec. (- 3', + 3'), the second portion double-crested. 20½^h to 21h Decrease in V.F. (- 23). 23¼^h to 23½^h Decrease in V.F. (- 18).
- 13^{d} oh to $1\frac{1}{4}$ h Double-crested wave in Dec. (-4'). Ih to 5h Irregular wave in V.F. (-19). 2^{h} to $2\frac{1}{2}$ h Domed wave in Dec. (+5'). 21^{h} to 22^{h} Wave in N.F. (+22). 13^{d} $22\frac{1}{2}$ h to 14^{d} $0\frac{1}{2}$ h Wave in Dec. (-5').
- 14^{d} 3h to $5\frac{1}{4}$ h Wave in N.F. (-21). $6\frac{1}{2}$ h to $7\frac{1}{4}$ h Wave in Dec. (+4'). 12^{h} to 13^{h} Increase in N.F. (+40).
- 15^d o^h to 1½^h Wave in Dec. (-6'). 0¾^h to 3^h Wave in N.F. (+20). 6^h to 7^h Wave in Dec. (-3'), with sharp superposed fluctuations. 7½^h to 9^h Wave in N.F. (-30). 11^h to 12^h Wave in N.F. (-20). 13¾^h Very sudden fluctuations in N.F., followed till 14½^h by a wave (-27). 16½^h to 17½^h Wave in N.F. (+38). 18¾^h Sharp increase in N.F. (+37). 19½^h to 20^h Sharp wave in Dec. (-6): sharp movements in N.F. (-32, +37, -45). 21½^h to 23^h Double wave in Dec. (+3', -4'), the intermediate movement steep. 23^h to 24^h Wave in N.F. (+20).
- 16^d o_2^{th} Sudden increase in Dec. (+4'). o_4^{3h} to 4_4^{3h} Double wave in Dec. (+5', -7'). 1_4^{3h} to 2^h Serrated increase in N.F. (+30). 2_4^{3h} to 5_2^{1h} Wave in N.F. (-40). 16^h to 17_2^{1h} Domed wave in N.F. (-30). 17^h to 18^h Wave in Dec. (-3'), followed till 20^h by a slow wave (-4'). 18_4^{1h} to 19^h Wave in N.F. (-20). 20_4^{3h} to 21_4^{3h} Two successive waves in Dec. (-3', -3'). 23_2^{1h} to 23_4^{3h} Sudden decrease in Dec. (-4') and increase in N.F. (+30).
- 17^d 18^{3h} to 19^{1h} Sharp wave in Dec. (-5'). 19^h to 20^h Wave in N.F. (+35), steep at commencement. 20^{1h} to 21^{1h} Domed wave in N.F. (+24). 21^{1h} to 22^h Sharp wave in Dec. (+4'). 22^h to 22^{3h} Domed wave in N.F. (+20).
- $18^{\text{d}} 201^{\text{h}}$ to 201^{h} Decrease in N.F. (-21).
- 20^{d} 23^{dh} to 23^{dh} Sharp decrease in Dec. (-6'). 20^{d} 23^{dh} to 21^{d} 0^{3h} Truncated wave in N.F. (+29).
- 21^d 11^h to 11½^h Increase in N.F. (+ 26). 17¾^h to 18½^h Sharp double-crested wave in N.F. (+ 20). 22^h Sharp increase in N.F. (+ 20).
- 26d $15\frac{1}{2}$ h to $15\frac{3}{4}$ h Increase in N.F. (+ 22). $17\frac{1}{4}$ h to 19^h Irregular double wave in N.F. (- 20, + 20), the second portion truncated. $19\frac{1}{2}$ h to $20\frac{1}{2}$ h Increase (+ 20), and decrease (- 35) in N.F. $21\frac{1}{2}$ h to 22^h Sharp wave in N.F. (+ 22).
- 30^{d} $13\frac{1}{2}$ h to 19^{h} Loss of Dec., N.F., and V.F. registers.

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- 1^{d} 15^{h} to 15^{4h} Sharp increase in N.F. (+ 60). 17^{h} to 18^{h} Truncated wave in N.F. (- 50).
- 2^{d} oh to 1h Wave in Dec. (+ 3'). $21\frac{1}{4}$ h to $21\frac{3}{4}$ h Decrease in Dec. (- 4'). $22\frac{3}{4}$ h Sharp decrease in N.F. (- 20).
- $3^{\rm d}$ 4h to 5h Decrease in Dec. (-7'). $6\frac{1}{2}$ h to $6\frac{1}{2}$ h Increase in Dec. (+4'). $13\frac{1}{4}$ h to $13\frac{1}{2}$ h Increase in N.F. (+27). $15\frac{1}{4}$ h to $15\frac{3}{4}$ h Increase in N.F. (+30).
- 8d oh to oth Sharp decrease in N.F. (-25), with partial return. 2th to 3th Decrease in Dec. (-15'), and N.F. (-22). 3th to 4th Increase in Dec. (+5'). 6h to 7h Serrated wave in Dec. (-3'). 7th to 7th Increase in Dec. (+5').
- 9^{d} 14\frac{1}{4}^h to 15\frac{1}{2}^h Wave in N.F. (+ 21). 15\frac{3}{4}^h to 16\frac{1}{4}^h Wave in N.F. (+ 20). 19\frac{1}{4}^h to 22^h Wave in N.F. (+ 40). 19\frac{3}{4}^h to 21\frac{1}{2}^h Wave in Dec. (- 7'). 23\frac{3}{4}^h Sharp decrease in Dec. (- 3'). 9^d 23\frac{3}{4}^h to 10^d 0\frac{1}{4}^h Sharp wave in N.F. (+ 32).
- 10^d 22^h to 11^d 1½^h Irregular quadruple wave in Dec. (-6', +6', -8', +5'). 10^d 23^h to 11^d 3^h Irregular double-crested wave in V.F. (-25).
- 11^d 0_4^{3h} to 2^h Wave in N.F. (-35). 4^h to 4_2^{1h} Decrease in N.F. (-20). 4_4^{1h} to 4_3^{3h} Increase in Dec. (+4'). 6_2^{1h} to 7^h Decrease in Dec. (-5'). 14_2^{1h} to 16^h Wave in N.F. (+28). 19^h to 19_2^{1h} Decrease in Dec. (-6'). 19_2^{1h} to 20_2^{1h} Double-crested wave in N.F. (+30). 23^h to 24^h Wave in Dec. (+5').
- $12^{d} 21^{h}$ to $21\frac{1}{2}^{h}$ Truncated wave in Dec. (-3').
- $13^{d} 2_{4}^{h}$ to 3_{4}^{h} Wave in Dec. (+4'). 13_{4}^{h} to 14_{2}^{h} Wave in Dec. (-3'). 13_{4}^{3h} to 14_{4}^{3h} Increase in N.F. (+48). 15_{4}^{h} to 16^{h} Decrease in Dec. (-7').
- 14^d 15^{3h} to 16^{1h} Wave in N.F. (+ 20). 18^h to 19^{1h} Wave in N.F. (+ 54), with sharp wave (- 30) superposed from 18^{1h} to 18^{3h}. 21^h to 22^{1h} Irregular wave in N.F. (+ 26). 21^{1h} to 22^{1h} Decrease in V.F. (- 20). 22^h to 22^{3h} Decrease in Dec. (- 6').
- 15^d oh to 3^h Irregular serrated wave in Dec. (+ 7'). $\circ_{\frac{3}{4}}^{\frac{3}{4}}$ to $3\frac{1}{4}^{\frac{1}{4}}$ Wave in V.F. (- 18). 1^h to $1\frac{1}{2}^{\frac{1}{4}}$ Wave in N.F. (- 20). 15^d 23^h to 16^d $\circ_{\frac{1}{4}}^{\frac{1}{4}}$ Wave in N.F. (+ 20). 15^d 23^h to 16^d 1^h Wave in Dec. (+ 5').
- 16d 18th to 20h Wave in N.F. (+ 22).
- $18^{d} 2^{h}$ to $2\frac{3}{4}^{h}$ Wave in Dec. (-3').

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- 25^d 7^h Sudden increase in Dec. (+6'). 13^h to 14½^h Wave in N.F. (-33). 15^h to 21^h Wave in V.F. (+70). 16^h to 17½^h Irregular wave in N.F. (-36), followed till 19^h by a double wave (-37, +28). 17^h Sharp decrease in Dec. (-5'). 18^h Sharp decrease in Dec. (-5'). 18½^h to 20^h Wave in Dec. (-9').
- 26^d $3\frac{1}{2}$ ^h to $5\frac{3}{4}$ ^h Wave in Dec. (+ 7'). $17\frac{3}{4}$ ^h to 19^h Wave in Dec. (- 4'). 18^h to 19^h Wave in N.F. (+ 27). $22\frac{1}{4}$ ^h to 24^h Wave in Dec. (- 4').
- 27^d 2_4^{th} to 3_4^{th} Wave in Dec. (+ 3'). 2_4^{th} to 3^{h} Wave in N.F. (- 20). 18_2^{th} to 19_4^{3h} Wave in N.F. (+ 24). 27^{d} 23_2^{th} to 28^{d} o $_4^{\text{th}}$ Double wave in Dec. (+ 3', 4'), followed till 1^{th} by a wave (- 3'). 27^{d} 23_4^{3h} to 28^{d} o $_2^{\text{th}}$ Wave in N.F. (+ 20).
- 28d $1\frac{1}{2}^{h}$ to $4\frac{3}{4}^{h}$ Irregular triple wave in Dec. (+ 4', -3', +5'). $1\frac{3}{4}^{h}$ to $3\frac{1}{2}^{h}$ Wave in V.F. (-13). 10h to $12\frac{1}{4}^{h}$ Wave in N.F. (-48). $15\frac{1}{2}^{h}$ to 16h Increase in N.F. (+42). 17h to $18\frac{1}{2}^{h}$ Two successive waves in N.F. (-20,-32). $17\frac{1}{2}^{h}$ to $18\frac{1}{4}^{h}$ Decrease in Dec. (-8'). $17\frac{3}{4}^{h}$ to $19\frac{1}{2}^{h}$ Wave in V.F. (+14). 21^{h} to 23^{h} Sharp sextuple wave in Dec. (-4',+8',-12',+11',-7',+6'), followed till $23\frac{1}{2}^{h}$ by a decrease (-5'). 21^{h} to $21\frac{1}{2}^{h}$ Sharp wave in N.F. (+45), followed till $21\frac{3}{4}^{h}$ by an increase (+60). 21^{h} to $21\frac{1}{2}^{h}$ Irregular decrease in V.F. (-45). 23^{h} to 24^{h} Sharp movements in N.F. (-100,+67,-45).
- 29^d o₄^{3h} to 1^h Very sharp wave in Dec. (+ 11'): sharp increase in N.F. (+ 30), followed by slower partial return: sharp decrease in V.F. (- 36), followed till $3\frac{1}{2}$ ^h by an increase (+ 54). 3^h to 6^h Slow double-crested wave in Dec. (+ 8'). 4^h to 7^h Rounded wave in N.F. (+ 40). 7^h to $9\frac{1}{2}$ ^h Loss of Dec., N.F., and V.F. registers. $19\frac{1}{2}$ ^h to $21\frac{1}{2}$ ^h Wave in Dec. (- 5').
- 30^d o^h to 3^h Double wave in Dec. (+7', -5'), the first portion truncated. Wave in V.F. (-30). 6^h to $8\frac{1}{2}$ ^h Wave in Dec. (+7'). 6^h to $7\frac{1}{2}$ ^h Domed wave in N.F. (-40). $14\frac{1}{4}$ ^h to $15\frac{3}{4}$ ^h Domed wave in N.F. (-30). $23\frac{1}{2}$ ^h to 31^d o $\frac{1}{2}$ ^h Double wave in Dec. (-3', +3'). Wave in N.F. (+20).
- $31^{\text{d}} 3\frac{1}{2}^{\text{h}}$ to 5^{h} Wave in N.F. (-23). $13\frac{1}{4}^{\text{h}}$ to $15\frac{1}{2}^{\text{h}}$ Wave in N.F. (-46). 20^{h} to 21^{h} Sharp wave in Dec. (-9'). $20\frac{1}{4}^{\text{h}}$ to $21\frac{1}{4}^{\text{h}}$ Wave in N.F. (+32), steep at commencement. $23\frac{3}{4}^{\text{h}}$ to 24^{h} Decrease in Dec. (-4').

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- Id oh to Ih Decrease in N.F. (- 30).
- 2^{d} 6^{1h}_{4} to 8^{1h}_{2} Wave in N.F. (-32). 16^{3h}_{4} to 17^{h} Sharp double-crested wave in Dec. (+3'). 16^{3h}_{4} to 17^{1h}_{2} Double wave in N.F. (+50, -23), the first portion very steep and double-crested, followed till 18^{h} by a sharp wave (+43). 18^{1h}_{4} to 18^{1h}_{2} Increase in N.F. (+25). 22^{1h}_{2} to 24^{h} Wave in Dec. (+3').
- 3^{d} rh to $1\frac{1}{2}$ h Increase in Dec. (+ 8'). $2\frac{3}{4}$ h to 6h Wave in V.F. (- 20). $3\frac{1}{2}$ h to 5h Truncated wave in N.F. (+ 20). 4^{h} to $4\frac{1}{2}$ h Decrease in Dec. (- 6'). $22\frac{3}{4}$ h to 24^{h} Double-crested wave in Dec. (+ 3').
- 4^{d} 19^{1h}_{2} to 21^{3h}_{4} Irregular wave in N.F. (+35). 21^{1h}_{2} to 22^{1h}_{4} Wave in Dec. (-4'), followed till 23^{1h}_{2} by an irregular wave (-3').
- $5^{\mathbf{d}}$ $15\frac{1}{4}$ h to $16\frac{1}{2}$ h Wave in N.F. (+ 25). $17^{\mathbf{h}}$ to $18\frac{3}{4}$ h Double wave in N.F. (- 29, + 24). $18\frac{1}{2}$ h to $19\frac{1}{2}$ h Wave in Dec. (- 6'). $19\frac{1}{2}$ h to $21^{\mathbf{h}}$ Two successive waves in N.F. (- 20, -20).
- 6d $1\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 5'). 8h to 10^h Wave in N.F. (- 30). $12\frac{1}{4}^h$ to 13^h Wave in N.F. (+ 20). $13\frac{1}{2}^h$ to 14^h Wave in N.F. (- 30). $18\frac{1}{4}^h$ to 19^h Wave in N.F. (+ 22). 21^h to 22^h Wave in N.F. (+ 23). 6^d $23\frac{1}{2}^h$ to 7^d $0\frac{1}{2}^h$ Wave in Dec. (+ 3').
- 7^{d} $18\frac{1}{2}^{h}$ to $20\frac{1}{2}^{h}$ Triple wave in N.F. (+ 37, 23, + 31), the first portion domed: wave in V.F. (+ 13). $19\frac{1}{4}^{h}$ to $20\frac{1}{2}^{h}$ Wave in Dec. (- 4'). $22\frac{1}{4}^{h}$ to 23^{h} Wave in N.F. (- 23). 23^{h} to $23\frac{1}{2}^{h}$ Wave in Dec. (+ 6'). $23\frac{1}{4}^{h}$ to 24^{h} Decrease in V.F. (- 16). 7^{d} $23\frac{3}{4}^{h}$ to 8^{d} $0\frac{1}{2}^{h}$ Waves in Dec. (- 3') and N.F. (- 35).
- 8d $1^{\frac{1}{4}h}$ to $3^{\frac{1}{4}h}$ Wave in Dec. (-5'). $14^{\frac{1}{2}h}$ to $16^{\frac{3}{4}h}$ Truncated wave in N.F. (+43), with sharp wave (-35), superposed from $15^{\frac{1}{2}h}$ to 16^{h} . $15^{\frac{1}{2}h}$ to $16^{\frac{1}{4}h}$ Wave in Dec. (-5'). $18^{\frac{1}{4}h}$ to 20^{h} Wave in Dec. (-7'). $21^{\frac{1}{2}h}$ to 22^{h} Sharp wave in N.F. (+30). 22^{h} to $23^{\frac{1}{2}h}$ Double-crested wave in Dec. (-4'). $22^{\frac{3}{4}h}$ to $23^{\frac{1}{4}h}$ Decrease in N.F. (-30).
- 9^d 0^{3h} to 1^{1h} Waves in Dec. (+ 7'), and N.F. (- 20). 2^{1h} to 4^h Wave in N.F. (- 25). 3^h to 5^h Wave in Dec. (+ 8'). 15^{1h} to 15^{1h} Sharp decrease in Dec. (- 4'), and increase in N.F. (+ 48). 17^{3h} to 18^{1h} Domed wave in N.F. (+ 20). 18^{3h} to 20^h Wave in N.F. (+ 20). 20^{3h} to 22^{1h} Irregular wave in Dec. (- 7'). 21^h to 22^{2h} Double-crested wave in N.F. (+ 50).
- 10^d oh to 1½^h Wave in Dec. (+ 6'). 20½^h to 20½^h Sharp wave in N.F. (+ 23). 20½^h Sharp decrease in Dec. (-4').
- IId $0\frac{3}{4}h$ to $1\frac{1}{4}h$ Domed wave in Dec.(+ 3'). $2\frac{1}{2}h$ to $4\frac{1}{2}h$ Wave in Dec. (+ 6'). $12\frac{1}{4}h$ to $13\frac{1}{4}h$ Wave in N.F. (- 22). $14\frac{1}{2}h$ to $14\frac{3}{4}h$ Decrease in Dec. (- 5'). 21h to $21\frac{3}{4}h$ Wave in Dec. (+ 3'). $22\frac{1}{4}h$ to $22\frac{3}{4}h$ Decrease in Dec. (- 4').
- 12^{d} $3\frac{3}{4}^{h}$ to 5^{h} Wave in Dec. (+ 4'). $5\frac{1}{2}^{h}$ to $7\frac{1}{2}^{h}$ Flat-crested wave in N.F. (- 24), with small superposed fluctuations.
- $_{1\,3^{\overset{\bullet}{d}}}$ 21½h to 23h Wave in N.F. (+ 30), steep at commencement.
- $14^{d} 12^{h}$ to $12\frac{3}{4}^{h}$ Waves in Dec. (-3'), and N.F. (-20). $20\frac{1}{2}^{h}$ Sharp decrease in Dec. (-5'). $22\frac{1}{4}^{h}$ to 24^{h} Two successive waves in N.F. (-21, -20). 23^{h} to $23\frac{1}{2}^{h}$ Decrease in V.F. (-13). $22\frac{3}{4}^{h}$ to $23\frac{3}{4}^{h}$ Wave in Dec. (+7').
- 15d 15h to 16d 15h. See Plate II.

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- 20d 13^{3h} to 15h Wave in N.F. (-30), steep at commencement.
- $21^{d} 5\frac{1}{2}^{h}$ to 6^{h} Wave in Dec. (-3').
- 22^{d} $16\frac{3}{4}$ to $18\frac{1}{4}$ Wave in N.F. (- 20).
- 23^{d} $15\frac{1}{4}^{h}$ to 17^{h} Wave in N.F. (-25).
- 24^d 8^h to 9½^h Wave in N.F. (— 20). 13½^h to 14½^h Wave in N.F. (— 25). 15^h to 22^h Slow wave in V.F. (+ 36). 16^h to 18^h Irregular double wave in N.F. (— 24, + 20). 17½^h to 18^h Decrease in Dec. (— 8′). 20½^h to 21½^h Sharp double-crested wave in Dec. (— 6′). 20½^h to 22½^h to 22½^h Irregular triple-crested wave in N.F. (+ 48). 22^h to 22½^h Decrease in Dec. (— 5′). 24^d 23½^h to 25^d 2^h Triple wave in Dec. (+ 9′, 5′, + 7′), the middle portion domed, followed till 4½^h by two successive waves (+ 6′, + 17′). 24^d 23½^h to 25^d 1½^h Sharp wave in V.F. (— 29).
- 25^d 0_4^{3h} to 1_4^{3h} Wave in N.F. (-33). 1_2^{1h} to 3^h Irregular wave in V.F. (-13), followed till 6^h by a wave (-36). 3^h to 4_4^{3h} Double wave in N.F. (-30, +20). 7^h to 8^h Decrease in N.F. (-52). 7_2^{1h} to 8_4^{1h} Increase in Dec. (+8'). 9^h to 9_4^{1h} Sharp movements in Dec. (-3', +5'). 11_4^{1h} to 12_2^{1h} Wave in N.F. (-40). 11_2^{1h} to 11_4^{3h} Increase in Dec. (+4'). 16_2^{1h} to 19^h Irregular wave in V.F. (+17). 16_4^{3h} to 17_2^{1h} Wave in N.F. (+37).
- 26d $0\frac{1}{2}^h$ to 2^h Irregular double wave in Dec. (-4', +3'), followed till $3\frac{1}{2}^h$ by a wave (+8'). $0\frac{1}{2}^h$ to 6^h Irregular wave in V.F. (-42). $1\frac{3}{4}^h$ to $2\frac{3}{4}^h$ Double-crested wave in N.F. (-32). 4^h to $4\frac{3}{4}^h$ Wave in Dec. (-4'). 4^h to $5\frac{3}{4}^h$ Irregular wave in N.F. (-23). $5\frac{1}{2}^h$ to 6^h Wave in Dec. (-3'). $12\frac{1}{2}^h$ to $13\frac{1}{4}^h$ Double-crested wave in Dec. (-4'). $12\frac{1}{2}^h$ to 14^h Double-crested wave in N.F. (-24), followed till 15^h by a wave (-24). 15^h to $16\frac{1}{4}^h$ Irregular decrease in Dec. (-7'). $15\frac{1}{4}^h$ to 17^h Double wave in N.F. (-32, +20). $18\frac{1}{2}^h$ to $19\frac{3}{4}^h$ Wave in Dec. (-5'). 19^h to 20^h Wave in N.F. (+20). 22^h to 23^h Decrease in Dec. (-6'), followed till $23\frac{1}{4}^h$ by a sharp wave (+5'). $23\frac{1}{4}^h$ Sharp increase in N.F. (+40); decrease in V.F. (-12). $23\frac{1}{4}^h$ to 24^h Increase in Dec. (+5'): decrease in N.F. (-25).
- $27^{\rm d}$ oh to oh Decrease in Dec. (-5'). $3\frac{3}{4}$ to 6h Wave in Dec. (+5'). $4\frac{1}{2}$ to $7\frac{1}{2}$ h Domed wave in N.F. (+46). $9\frac{1}{2}$ h to $10\frac{3}{4}$ h Wave in N.F. (-38). $13\frac{1}{4}$ h to $13\frac{1}{2}$ h Decrease in Dec. (-7'). $13\frac{1}{4}$ h to $14\frac{1}{2}$ h Truncated wave in N.F. (+25). $18^{\rm h}$ to $19\frac{1}{4}$ h Steep wave in Dec. (-10'). $18\frac{1}{2}$ h to $19\frac{1}{2}$ h Wave in N.F. (+48).
- $28d \circ \frac{1}{2}h$ to $1\frac{1}{4}h$ Waves in Dec. (+ 7') and N.F. (+ 35). $\circ \frac{1}{2}h$ to 2^h Wave in V.F. (- 12).
- 20^d oh to 1^h Wave in Dec. (+7'), steep at commencement. oh to 0½h Sharp increase in N.F. (+20). 0½h to 0½h Decrease in V.F. (-15).
- $30^{\rm d} \ 23^{\rm 3h} \ \text{to} \ 31^{\rm d} \ 0^{\rm 1h} \ \text{Wave in Dec.} \ (-3').$
- 31^d 15^h to 16^h Wave in N.F. (+ 27). 17½^h to 18½^h Increase in N.F. (+ 63). 19½^h to 19½^h Sharp decrease in Dec. (- 16'), followed till 21^h by irregular increase (+ 12'). 19½^h to 19½^h Sharp wave in N.F. (- 54): increase in V.F. (+ 12), followed till September 1^d o½^h by an irregular decrease (- 32). 21½^h to 22½^h Irregular serrated wave in N.F. (- 30). 22½^h to 23½^h Irregular wave in Dec. (- 4'). 21h to 22½^h Increase in V.F. (+ 22). 23½^h to 23½^h Very sharp wave in N.F. (- 40).

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- Id oth to oth Sharp decrease in Dec. (-9'). oth to 1th Double wave in N.F. (-20, +30): wave in V.F. (+12). oth to 1th Uaran Dec. (-9'). oth to 3th Wave in Dec. (-5'), followed by sharp fluctuations in Dec. and N.F. till 9th. Ioth to 1oth Sharp decrease in N.F. (-25). I2th to 15th Irregular triple-crested wave in Dec. (+8'). I2th to 1th Double wave in N.F. (+28, -20), followed till 1th by another double wave (-40, +20). I2th to 15th Serrated increase in V.F. (+35). Ith to 18th Irregular wave in N.F. (+35). Ith to 20th Wave in Dec. (-5'). 21th to 22th Wave in Dec. (+4'). 21th to 22th Sharp wave in N.F. (+31).
- 2^{d} oh to 2^{h} Slow wave in V.F. (-13). $7\frac{1}{2}^{h}$ to $9\frac{1}{2}^{h}$ Wave in N.F. (-21). $20\frac{3}{4}^{h}$ to $21\frac{1}{4}^{h}$ Wave in N.F. (+20). 2^{d} $23\frac{1}{2}^{h}$ to 3^{d} 1^{h} Domed wave in N.F. (+37): decrease in V.F. (-14).
- 3^d 4½^h to 6^h Truncated wave in Dec. (+ 4'). 6¾^h to 8^h Wave in Dec. (+ 4'), with sharp superposed fluctuations. 14^h to 19^h Wave in V.F. (+ 24). 15¾^h to 6½^h Decrease in Dec. (- 8'). 16h to 16¾^h Wave in N.F. (+ 22). 20¼^h to 21h Truncated wave in Dec. (+ 4'). 21½^h to 23½^h Domed wave in N.F. (- 38), with double-crested wave (+ 25) superposed from 22¼^h to 23^h. 22h to 24h Irregular wave in Dec. (+ 11'). 22½^h to 23^h Irregular decrease in V.F. (- 14).
- 4^d o₄^h to 2½^h Irregular wave in Dec. (+ 10'). o½^h to 1½^h Decrease in V.F. (- 18). o¾^h to 1¾^h Wave in N.F. (+ 30). 2^h to 3½^h Serrated wave in N.F. (+ 22). 11^h to 11½^h Serrated wave in N.F. (- 22). 19^h to 20^h Wave in Dec. (- 3'), followed till 21¼^h by a steeper wave (- 8'). 20^h to 21½^h Wave in N.F. (+ 35). 21¾^h to 22^h Sharp increase in Dec. (+ 6'). 21¾^h to 23½^h Wave in N.F. (+ 32). 22^h to 24^h Wave in V.F. (- 14), followed till 5^d 3^h by a sharper wave (- 28). 4^d 23¾^h to 5^d 1¾^h Double wave in Dec. (+ 5', 5'), the first portion truncated: irregular domed wave in N.F. (+ 45).
- 5^d 15^h to 15³/₄^h Increase in N.F. (+ 45). 15³/₄^h to 17^h Wave in Dec. (- 5'). 17³/₄^h to 19^h Decrease in Dec. (- 7'), with very sharp wave (- 10'), superposed from 18^h to 18¹/₂^h. 18¹/₄^h to 19^h Waves in N.F. (+ 60) and V.F. (+ 12). 5^d 23¹/₄^h to 6^d 0¹/₂^h Truncated wave in Dec. (+ 4'). 5^d 23¹/₄^h to 6^d 0¹/₄^h Decrease in V.F. (- 12).

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- 6^{d} $15\frac{1}{4}^{h}$ to $16\frac{1}{4}^{h}$ Wave in N.F. (+32). $15\frac{1}{2}^{h}$ to $19\frac{1}{4}^{h}$ Irregular wave in V.F. (+21). 17^{h} to 19^{h} Very irregular waves in Dec. (-6') and N.F. (+55). 22^{h} to $23\frac{1}{4}^{h}$ Wave in N.F. (+36): decrease in V.F. (-12). $23\frac{1}{2}^{h}$ to 24^{h} Decrease in N.F. (-20).
- $7^{\rm d}$ o₄^h to o₂^h Increase in Dec. (+ 4'). 16^h to 18^h Wave in Dec. (- 5').
- 8^d o^h to 1½^h Double-crested wave in Dec. (+ 4'). o^h to 3½^h Slow wave in V.F. (- 16). o½^h to 1½^h Wave in N.F. (+ 30). 3½^h to 4½^h Wave in N.F. (+ 28). 4½^h to 6^h Wave in Dec. (+ 8'). 4½^h to 6½^h Wave in V.F. (- 12). 8½^h to 9¾^h Wave in N.F. (- 40). 20^h to 21^h Wave in Dec. (- 4').
- 9^{d} Ih to $1\frac{1}{2}$ h Waves in Dec. (-3') and N.F. (-20). $1\frac{3}{4}$ h to 4h Truncated wave in Dec. (+8'). $2\frac{1}{4}$ h to $3\frac{1}{2}$ h Domed wave in N.F. (-23). $20\frac{3}{4}$ h to $21\frac{3}{4}$ h Wave in N.F. (-26). $21\frac{1}{2}$ h to $21\frac{3}{4}$ h Wave in Dec. (-3'). $22\frac{1}{4}$ h to $23\frac{3}{4}$ h Wave in Dec. (-3').
- 10^{d} $18\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (-4'). $21\frac{1}{2}^{h}$ to $22\frac{3}{4}^{h}$ Wave in Dec. (-8').
- 13^d 2^h to 34^h Wave in Dec. (+3'). 144^h Decrease in Dec. (-4'). 144^h to 15^h Wave in N.F. (-21). 142^h to 18^h Wave in V.F. (+16).
- 14^{d} 18^{1h} to 20^h Wave in Dec. (-4').
- 15^{d} $23\frac{3}{4}^{\text{h}}$ to 16^{d} 4^h Irregular triple wave in Dec. (-6', +5', -6').
- 16d 1½h to 4h Truncated wave in N.F. (+ 41). 1½h to 2½h Decrease in V.F. (- 22). 15¾h to 16½h Wave in N.F. (+ 22). 15¾h to 19h Wave in V.F. (+ 28). 20¼h to 23h Irregular double wave in Dec. (- 15′,+ 5′). 21½h to 22¾h Truncated wave in V.F. (+ 17). 16d 23½h to 17d 2h Irregular double wave in Dec. (- 7′,+ 4′).
- $17^{d} \circ_{2}^{1h}$ to 2^{h} Wave in N.F. (-21). 4^{h} to 5_{2}^{1h} Wave in Dec. (+7'). 4_{2}^{1h} to 5_{2}^{1h} Wave in N.F. (+24). 4_{2}^{1h} to 6^{h} Wave in V.F. (-16). 12_{3}^{2h} to 13^{h} Sharp decrease in Dec. (-4'). 12_{3}^{2h} to 14_{4}^{1h} Wave in N.F. (+21). 14^{h} to 16_{2}^{1h} Increase in V.F. (+25). 16_{3}^{2h} Sharp decrease in Dec. (-5') and N.F. (-20). 21^{h} to 22^{h} Double wave in Dec. (+4',-2'): in N.F. small. 23^{h} to 24^{h} Wave in N.F. (+22).
- $18^{d} \stackrel{3^{1h}}{\cancel{4}}$ to 5^{h} Increase in Dec. (+6'). $5^{\frac{1h}{\cancel{4}}}$ to $7^{\frac{1h}{\cancel{4}}}$ Wave in Dec. (+8'). $7^{\frac{1h}{\cancel{4}}}$ Wave in Dec. (+4'). $20^{\frac{1}{\cancel{4}}}$ to $21^{\frac{1}{\cancel{4}}}$ Wave in Dec. (-10'). $20^{\frac{3}{\cancel{4}}}$ to $21^{\frac{3}{\cancel{4}}}$ Domed wave in N.F. (+35). $18^{d} \stackrel{2}{\cancel{3}}$ to $19^{d} \stackrel{1}{\cancel{2}}$ Wave in Dec. (-4').
- 19^d 1½^h to 2^h Wave in Dec. (- 3'). 2^h to 2½^h Increase in N.F. (+ 25). 2^h to 3^h Decrease in V.F. (- 19). 3^h to 3¾^h Sharp wave in Dec. (+ 8'), followed till 4¾^h by a double wave (+ 3', 4'). 3½^h to 3½^h Steep decrease in V.F. (- 28). 7^h to 7½^h Serrated increase in Dec. (+ 8'). 8¼^h to 9½^h Serrated wave in Dec. (- 5'). 8½^h to 12^h Irregular wave in N.F. (- 60). 12^h to 12¾^h Increase in Dec. (+ 7'). 17^h to 18^h Truncated wave in N.F. (- 20). 17¾^h to 18^h Sharp decrease in Dec. (- 7'). 20¾^h to 22^h Sharp wave in Dec. (- 17'). 21^h to 21¾^h Sharp wave in N.F. (+ 40).
- 20^d oh to Ih Sharp wave in Dec. (+ 8'). Ih to $2\frac{1}{4}$ h Wave in N.F. (- 25). I $\frac{1}{2}$ h to 3h Wave in V.F. (- 19). $2\frac{1}{4}$ h to $4\frac{1}{4}$ h Wave in Dec. (+ 10'). $2\frac{1}{2}$ h to $4\frac{1}{2}$ h Wave in V.F. (- 20). $4\frac{1}{4}$ h to 6h Flat-crested wave in N.F. (+ 37), followed till $7\frac{3}{4}$ h by an irregular wave (+ 32). $5\frac{3}{4}$ h to 7h Serrated wave in Dec. (+ 5'). I2h to $12\frac{1}{2}$ h Wave in Dec. (- 3'): increase in V.F. (+ 14). I5 $\frac{1}{2}$ h to $16\frac{1}{4}$ h Wave in N.F. (- 26). 21h to $23\frac{1}{2}$ h Double wave in Dec. (+ 5', 5'). $21\frac{1}{2}$ h to 23^h Wave in V.F. (- 12).
- 21d oh to 22d oh. See Plate III.
- 22^d o_4^{3h} to I^h Increase in Dec. (+5'). 2^h to $4\frac{1}{2}^h$ Waves in Dec. (+6') and N.F. (-25). 13^h to $21\frac{3}{4}^h$ Slow wave in V.F. (+33). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in N.F. (-30). $18\frac{1}{4}^h$ to 19^h Wave in Dec. (-7'). 20^h to $21\frac{1}{4}^h$ Waves in Dec. (-14') and N.F. (+49).
- 23^{d} $o_{\frac{1}{2}}^{1h}$ to $o_{\frac{3}{4}}^{3h}$ Increase in Dec. (+4'). $o_{\frac{1}{2}}^{1h}$ to 24^{h} Decrease in V.F. (-22). 14^{h} to 34^{h} Wave in Dec. (-6'). 42^{h} to 52^{h} Wave in Dec. (+5').
- 24^d 19½^h to 20¾^h Domed wave in Dec. (-5'). 20^h to 21^h Wave in N.F. (+23). 21^h to 23½^h Slow wave in Dec. (-5').
- 27^{d} $14\frac{3}{4}^{h}$ to $16\frac{1}{4}^{h}$ Wave in N.F. (+ 23). $14\frac{3}{4}^{h}$ to 18^{h} Wave in V.F. (+ 25). 16^{h} to 17^{h} Wave in Dec. (- 5').
- 28d $10\frac{3}{4}^{h}$ to $12\frac{1}{4}^{h}$ Wave in N.F. (-24). 12^{h} to $12\frac{1}{4}^{h}$ Steep increase in Dec. (+9'). 13^{h} to 15^{h} Domed wave in N.F. (-42). $14\frac{1}{2}^{h}$ to $17\frac{1}{2}^{h}$ Increase in V.F. (+42). $16\frac{1}{2}^{h}$ to $17\frac{1}{4}^{h}$ Domed wave in Dec. (-4'). $16\frac{3}{4}^{h}$ to $17\frac{3}{4}^{h}$ Wave in N.F. (+23). $17\frac{3}{4}^{h}$ to $18\frac{1}{2}^{h}$ Irregular decrease in Dec. (-8'), followed till 20^{h} by an irregular wave (+6'). 19^{h} to $19\frac{3}{4}^{h}$ Wave in N.F. (+23). $23\frac{1}{2}^{h}$ to 24^{h} Irregular increase in N.F. (+24). 28d $23\frac{1}{2}^{h}$ to 29^{d} $0\frac{1}{2}^{h}$ Decrease in V.F. (-13).
- 29^d 8½^h to 8¾^h Sharp increase in Dec. (+ 4'). 8½^h to 9^h Decrease in N.F. (- 30). 18^h to 21^h Serrated wave in V.F. (+ 16). 19¼^h to 19½^h Wave in Dec. (+ 4'). 19¼^h to 21¼^h Very irregular wave in N.F. (+ 60). 19¾^h to 22¼^h Flat-crested wave in Dec. (- 7'), with small waves superposed. 29^d 23½^h to 30^d 0¼^h Wave in Dec. (+ 4'). 29^d 23½^h to 30^d 1¾^h Two successive waves in N.F. (+ 40, + 43), followed till 3½^h by a serrated domed wave (+ 37). 29^d 23¾^h to 30^d 6^h Irregular wave in V.F. (- 45).
- 30^d Ih to 4½^h Irregular wave in Dec. (-14'), followed till 10^h by rapid small fluctuations. 12½^h to 13½^h Wave in Dec. (+4'). 15½^h to 18½^h Wave in V.F. (+18). 16^h to 17½^h Wave in Dec. (-12'). 16½^h to 17½^h Wave in N.F. (+60). 19¾^h to 22^h Two successive waves in N.F. (+20, +30). 20½^h to 22¾^h Irregular slow wave in Dec. (-5'). 22½^h to 24^h Wave in N.F. (+20).

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- 1^d o¹/₂h to 2^h Wave in Dec. (-9'). 2^h to 2¹/₂h Wave in N.F. (-26). 2¹/₄h to 5^h Wave in V.F. (-24). 3¹/₄h to 4^h Decrease in Dec. (-5). 8¹/₄h to 10¹/₄h Serrated domed wave in N.F. (-40). 19²/₄h to 21^h Sharp waves in Dec. (-14') and N.F. (+78). 22^h to 22¹/₂h Wave in Dec. (+4'). 1^d 23²/₄h to 2^d o²/₄h Wave in N.F. (-20)
- $2^{\mathbf{d}} \circ 3^{\mathbf{h}}$ to $1_{\mathbf{d}}^{\mathbf{h}}$ Wave in Dec. (-3'). $4_{\mathbf{d}}^{\mathbf{h}}$ to $4_{\mathbf{d}}^{\mathbf{h}}$ Wave in Dec. (+3'). $5^{\mathbf{h}}$ to $7^{\mathbf{h}}$ Serrated wave in N.F. (+33). $13^{\mathbf{h}}$ to $14_{\mathbf{d}}^{\mathbf{h}}$ Double-crested wave in Dec. (+4'). $16_{\mathbf{d}}^{\mathbf{h}}$ to $18_{\mathbf{d}}^{\mathbf{h}}$ Wave in Dec. (-10'). $17^{\mathbf{h}}$ to $18_{\mathbf{d}}^{\mathbf{h}}$ Truncated wave in N.F. (+22). $20^{\mathbf{h}}$ to $21^{\mathbf{h}}$ Wave in Dec. (-7'). $20^{\mathbf{h}}$ to $20_{\mathbf{d}}^{\mathbf{h}}$ Increase in N.F. (+27). $22_{\mathbf{d}}^{\mathbf{h}}$ to $23^{\mathbf{h}}$ Increase in N.F. (+20). $23^{\mathbf{h}}$ to $24^{\mathbf{h}}$ Irregular decrease in V.F. (-18). $23_{\mathbf{d}}^{\mathbf{h}}$ to $23_{\mathbf{d}}^{\mathbf{h}}$ Wave in Dec. (-5'). $2^{\mathbf{d}}$ $23_{\mathbf{d}}^{\mathbf{h}}$ to $3^{\mathbf{d}}$ $0_{\mathbf{d}}^{\mathbf{h}}$ Wave in N.F. (-30).
- 3^d oh to o½h Wave in Dec.(-3'). 5^h to 5¾h Wave in Dec. (+4'): increase in N.F. (+47). 8^d to 10^h Slow wave in N.F. (-27). 17^h to 19^h Irregular sharp double-crested wave in Dec. (-13'). 17^h to 18¼h Two successive waves in N.F. (+30, +20). 20^h Sharp decrease in Dec. (-7'). 20^h to 21½h Sharp double-crested wave in N.F. (+43). 20¾h to 22^h Truncated wave in Dec. (+6').
- 4^d o½h to o¾h Sharp increase in Dec. (+ 9'), followed till 2h by a slow irregular decrease (- 5'). 2½h to 3¼h Wave in Dec. (- 3'). 3¾h to 5½h Double wave in Dec. (- 3', + 4'). 14½h to 16¼h Increase in V.F. (+ 22). 15½h to 16¾h Wave in Dec. (- 4'). 16h to 17h Domed wave in N.F. (+ 27). 18¾h to 19¼h Decrease in Dec. (- 9'), followed till 19¾h by a sharp double-crested wave (+ 7'). 18¾h to 20¾h Irregular sharp double-crested wave in N.F. (+ 77). 19h to 21½h Wave in V.F. (- 17), followed till 2¾h by an irregular decrease (- 17). 20¾h to 21ħ Increase in Dec. (+ 4'). 21¾h to 23½h Two successive waves in Dec. (+ 3', + 6'). 22h to 23ħ Wave in N.F. (+ 22).
- 5^d 13½^h to 14^h Wave in Dec. (+ 4'), steep at commencement. 13½^h to 13½^h Wave in N.F. (+ 21), steep at commencement. 14½^h Sudden sharp wave in N.F. (+ 23): in Dec. small. 19½^h to 22½^h Wave in Dec. (- 14'), with sharp wave (+ 9') superposed from 20½^h to 21^h. 20^h to 21^h Wave in V.F. (+ 12). 20½^h to 20½^h Sharp wave in N.F. (+ 20). 21½^h to 21½^h Wave in N.F. (+ 30). 23½^h to 24½^h Sharp increase in Dec. (+ 10') and decrease (- 3'): wave in N.F. (+ 24). 23½^h to 24½^h decrease in V.F. (- 16).
- 6d 04h to 1h Wave in Dec. (-7'). 03h to 12h Domed wave in N.F. (+28). 14h to 13h Decrease in Dec. (-5'). 44h to 54h Slow wave in Dec. (+4'): wave in N.F. (-25). 19h to 194h Sharp decrease in Dec. (-6'). 192h to 202h Truncated wave in Dec. (+3'). 222h to 233h Double-crested wave in Dec. (+8'), steep at commencement: very steep wave in N.F. (+95). 23h to 232h Decrease in V.F. (-25).
- 7^d o¹/₄h to 1¹/₄h Flat-crested wave in Dec. (-3'). 17³/₄h to 18¹/₄h Decrease in Dec. (-6'). 20¹/₄h to 22^h Wave in Dec. (-7'), steep at commencement.
- 8d 64h to 7½h Wave in Dec. (+ 4'). 8d 11h to 9d 11h Loss of N.F. register. 8d 14h to 153h Increase in V.F. (+ 48). 154h to 16h Irregular decrease in Dec. (- 11'), followed till 173h by a sharp quadruple-crested wave (+ 16'). 163h to 184h Sharp double-crested wave in V.F. (+ 33). 18h Very sharp wave in Dec. (- 5'). 18½h to 20h Wave in Dec. (- 14'). 183h to 19½h Wave in V.F. (+ 16). 204h to 21½h Wave in Dec. (+ 5'), with sharp double-crested wave (+ 6') superposed from 21h to 21½h, followed till 22½h by sharp movements (- 10', +9', 5'). 203h to 21½h Decrease in V.F. (- 25).
- $9^{\rm d}$ oh to $7^{\rm h}$ Irregular wave in V.F. (-39). $1^{\rm h}$ to $1^{\rm h}$ Domed wave in Dec. (-3'). $1^{\rm h}$ to $3^{\rm h}$ Two successive waves in Dec. (+8',+4'). $4^{\rm h}$ to $6^{\rm h}$ Irregular wave in Dec. (+8'). $9^{\rm h}$ to $10^{\rm h}$ Irregular increase in Dec. (+7'). $20^{\rm h}$ to $21^{\rm h}$ Wave in Dec. (-4').
- 10^{d} 0_{4}^{3h} to 1_{2}^{1h} Wave in Dec. (+3'). 19^{h} to 20^{h} Wave in Dec. (-3').
- IId 203h to 22h Slightly truncated wave in N.F. (+ 22). 2Ih to 2Ih Decrease in Dec. (- 4').
- 12^{d} $18\frac{3}{4}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (-3'). 23^{h} to 24^{h} Wave in Dec. (+3').
- $14^{d} 20\frac{1}{2}^{h}$ to $21\frac{1}{2}^{h}$ Wave in Dec. (-4').
- 15^d 5½^h to 6½^h Serrated domed wave in Dec. (+ 4'). 5½^h to 6½^h Increase in N.F. (+ 28). 11^h to 11½^h Decrease in N.F. (- 30). 11½^h to 12^h Irregular increase in Dec. (+ 8'). 12½^h to 12½^h Serrated wave in Dec. (+ 4'). 13½^h to 13½^h Wave in Dec. (+ 3'). 13^h to 20^h Slow wave in V.F. (+ 32). 14^h to 15½^h Wave in Dec. (- 4'). 14½^h to 17^h Double wave in N.F. (+ 22, 20), the second portion truncated.
- 16d oh to 17d oh. See Plate III.
- 7¹ 1½h to 2½h Waves in Dec. (+ 4') and N.F. (- 20): decrease in V.F. (- 18). 3½h to 5h Wave in N.F. (+ 30). 4h to 6h Wave in Dec. (+ 7'). 5½h to 7½h Flat-crested wave in N.F. (+ 25). 7½h to 8h Serrated wave in Dec. (- 4'), followed by sharp fluctuations till 9h: fluctuations also in N.F. 9½h to 10h Increase in Dec. (+ 6'). 10h to 10½h Decrease in N.F. (- 30). 12½h to 13½h Double-crested wave in Dec. (+ 5'). 13½h to 18h Flat-crested wave in V.F. (+ 32). 14h to 14½h Decrease in Dec. (- 9'). 15½h to 17h Wave in Dec. (- 4'). 19½h to 21½h Irregular waves in Dec. (- 17') and N.F. (+ 72), with humps at 20½h on the return.
- 18d $5\frac{3}{4}$ h to $7\frac{1}{4}$ h Truncated wave in Dec. (+ 4'). 13 $\frac{3}{4}$ h to 14 $\frac{1}{2}$ h Wave in N.F. (- 27). 20 $\frac{1}{4}$ h to 22h Irregular triple-crested wave in Dec. (- 6'). 20 $\frac{3}{4}$ h to 22h Wave in N.F. (+ 52). 20 $\frac{3}{4}$ h to 23h Wave in V.F. (- 15).
- 19^d 13^h to 13³/₄^h Wave in Dec. (+ 5'). 13¹/₂^h to 18^h Wave in V.F. (+ 40). 14^h to 16^h Double wave in Dec. (+ 6', 4'), the second portion triple-crested. 14^h to 15¹/₄^h Double wave in N.F. (+ 20, -32), the second movement steep. 21^h to 23^h Wave in N.F. (+ 62), followed till 24^h by a truncated wave (+ 26). 21¹/₄^h to 22^h Decrease in Dec. (- 9'). 21³/₄^h to 22³/₄^h Decrease in V.F. (- 21). 19^d 22³/₄^h to 20^d 0¹/₂^h Double wave in Dec. (- 3', + 3').

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- 20^d 0_3^{2h} to 1_2^{1h} Increase in Dec. (+ 10') and decrease (- 3'), followed till 3_2^{1h} by a domed wave (+ 7'). 8_2^{1h} to 9^h Decrease in N.F. (- 35). 18_2^{1h} to 19_2^{1h} Wave in Dec. (- 6'). 19^h to 19_2^{2h} Wave in N.F. (+ 20). 23_1^{1h} Decrease in Dec. (- 5').
- 21^d 19^h to 19½^h Decrease in Dec. (-6'), continued till 20½^h by a double wave (-4', +3'). 19½^h to 20½^h Sharp wave in N.F. (+40).
- 22^d 11^h to 11²/₄^h Waves in Dec. (-3') and N.F. (-20). 22³/₄^h to 23¹/₄^h Wave in Dec. (-3'). 23^h to 23¹/₂^h Wave in N.F. (+27).
- 23^d 20½^h to 21^h Wave in Dec. (+3'). 21½^h to 22^h Decrease in Dec. (-7'). 21¾^h to 22^h Sharp increase in N.F. (+34).
- 24^{d} $12\frac{1}{2}^{h}$ to $13\frac{1}{2}^{h}$ Wave in N.F. (-20). 13^{h} to $13\frac{3}{4}^{h}$ Wave in Dec. (-4').
- 25^{d} 0_{4}^{2h} to 1^{h} Sharp decrease in Dec. (-6'). 14_{4}^{1h} Sharp increase in Dec. (+5'). 14_{4}^{2h} to 16^{h} Wave in N.F. (-20). 25^{d} 23_{4}^{1h} to 26^{d} 1_{4}^{1h} Slow wave in Dec. (-5').
- 26^{d} 12_{4}^{3h} to 13_{4}^{1h} Wave in Dec. (+ 3').
- 28d 13h to 14½h Irregular wave in Dec. (-5'). 13½h to 14½h Domed wave in N.F. (+26). 14½h to 18½h Wave in V.F. (+30). 15½h to 17h Double wave in Dec. (+5', -16'), the second portion very steep. 16h to 17h Double wave in N.F. (-25, +50), the second movement very steep.
- 29^{d} 19^{h} to 20^{h} Wave in N.F. (-21). 21^{h} to 23^{h} Truncated wave in N.F. (+34), with small wave superposed till $21\frac{1}{2}^{h}$. $21\frac{1}{2}^{h}$ Sharp wave in Dec. (+3').
- 30^d 12½^h to 12¾^h Wave in Dec. (+ 3'). 30^d 22½^h to 31^d 0½^h Irregular wave in Dec. (- 8'). 30^d 23^h to 31^d 0½^h Wave in N.F. (+ 38).
- 31^d 3^h to 4^h Irregular wave in Dec. (-4'). 4½^h to 5½^h Wave in Dec. (+7'). 4½^h to 5^h Increase in N.F. (+40). 6½^h to 7^h Increase in Dec. (+7'). 6½^h to 8^h Decrease in N.F. (-50), continued till 9½^h by a triple-crested wave (-30). 8½^h to 9½^h Serrated wave in Dec. (-4'). 10^h to 10½^h Wave in Dec. (+4'). 11½^h to 14½^h Irregular double-crested wave in Dec. (+5'), followed till 15h by an irregular wave (+6'). 14h to 16½^h Wave in V.F. (+17). 14½^h to 15½^h Wave in N.F. (-30). 19h to 20½^h Irregular double wave in Dec. (-3',+3'). October 31^d 23½^h to November 1^d 1^h Wave in V.F. (-18). October 31^d 23½^h to November 1^d 0½^h Wave in Dec. (+8').

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- I^{d} 20h to 21 $\frac{1}{2}^{h}$ Irregular double-crested wave in Dec. (- 5'). 20 $\frac{1}{2}^{h}$ to 21 $\frac{1}{2}^{h}$ Double-crested wave in N.F. (+ 30).
- 2^{d} 15_{4}^{3h} to 17^{h} Wave in N.F. (-30). 16_{4}^{1h} to 17^{h} Wave in Dec. (-5'). 2^{d} 23_{4}^{1h} to 3^{d} 0_{2}^{1h} Double wave in Dec. (+3',-3'), the second portion truncated.
- 4^{d} 22^{h} to $23\frac{1}{4}^{h}$ Irregular wave in N.F. (+24).
- 10^{d} 20 $\frac{1}{4}^{h}$ to 21 h Domed wave in Dec. (-4'). 21 $\frac{1}{2}^{h}$ to 22 $\frac{1}{4}^{h}$ Wave in N.F. (+20). 21 $\frac{3}{4}^{h}$ to 22 h Decrease in Dec. (-5').
- III do $\frac{3}{4}^h$ to $3\frac{1}{2}^h$ Triple wave in Dec. (-6', +8', -6'). I $\frac{1}{2}^h$ to $3\frac{1}{4}^h$ Double wave in N.F. (-22, +24). 2^h to $3\frac{1}{2}^h$ Wave in V.F. (-12). 4^h to 6^h Very irregular double-crested wave in Dec. (+6'). Ioh to IIh Wave in Dec. (-5'). I2 $\frac{3}{4}^h$ to I4h Irregular double-crested wave in Dec. (+5'). I3h to I4 $\frac{3}{4}^h$ Wave in N.F. (-35). I5 $\frac{1}{2}^h$ to I6 $\frac{1}{4}^h$ Wave in N.F. (+20). I5 $\frac{1}{2}^h$ to 20h Wave in V.F. (+39).. I7 $\frac{3}{4}^h$ to 18 $\frac{1}{2}^h$ Double-crested wave in N.F. (-21), followed till 20 $\frac{1}{2}^h$ by a double wave (-38, +62), the second portion very irregular. I8 $\frac{1}{2}^h$ to 20 $\frac{3}{4}^h$ Sharp double wave in Dec. (+3', -18'), with small waves superposed on last movement. 20 $\frac{1}{2}^h$ to 22 $\frac{1}{4}^h$ Wave in V.F. (+12). 21 $\frac{1}{2}^h$ to 23 $\frac{1}{2}^h$ Sharp wave in Dec. (-10'), with double-crested wave (+5'), superposed from 21 $\frac{3}{4}^h$ to 23h. 21 $\frac{1}{2}^h$ to 21 $\frac{3}{4}^h$ Increase in N.F. (+25). 22h to 22 $\frac{1}{4}^h$ Wave in N.F. (+23). 22 $\frac{1}{4}^h$ to 12d o $\frac{1}{4}^h$ Irregular decrease in V.F. (-13). 23h to 23 $\frac{3}{4}^h$ Double-crested wave in N.F. (+22). I1d 23 $\frac{1}{4}^h$ to 12d o $\frac{1}{4}^h$ Irregular wave in V.F. (-15).
- 12^d 1½^h Sharp increase in Dec. (+ 12'): slower decrease in N.F. (- 24). 1½^h to 5½^h Slow double wave in V.F. (- 13,+ 18). 4½^h to 6½^h Slightly truncated serrated wave in Dec. (+ 15'). 4½^h to 5½^h Sharp wave in N.F. (- 47). 6½^h to 7½^h Serrated wave in Dec. (+ 4'). 8h to 9h Serrated decrease in N.F. (- 40). 13^h to 14½^h Irregular truncated wave in Dec. (+ 6'). 13^h to 14^h Serrated truncated wave in N.F. (+ 20), followed till 14½^h by a sharp increase (+ 50). 16¾^h to 17^h Very sharp decrease in Dec. (- 17'), followed till 18h by a sharp double-crested wave (+ 12'), followed till 19¼^h by a double-crested wave (+ 6'). 17^h Sharp increase in N.F. (+ 70), followed till 17¾^h by an irregular partial return (- 45). 17¼^h to 17½^h Decrease in V.F. (- 12). 20^h to 21½^h Wave in N.F. (- 45'), steep at end, followed till 22½^h by a triple wave (- 30, + 20, 20). 21h to 22¼^h Triple wave in Dec. (+ 8, 6', + 6'). 21h to 21½^h Decrease in V.F. (- 14), followed by small waves till 24h. 22¾^h to 23½^h Wave in Dec. (+ 6').
- 13^d 2^h to 5½^h Irregular flat-crested wave in Dec. (+ 6'). 3^h to 7^h Slow irregular double wave in N.F. (- 25, + 30). 12½^h to 13½^h Truncated wave in N.F. (- 30). 16^h to 19^h Two successive waves in Dec. (- 10', 9'). 16^h to 17¾^h Irregular wave in N.F. (+ 47). 19¾^h to 20½^h Sharp waves in Dec. (+ 6') and N.F. (+ 30), decrease in V.F. (- 12). 21½^h to 23^h Irregular triple wave in Dec. (- 4', + 5', 3'): irregular wave in N.F. (+ 64), steep at commencement. 21¾^h to 24^h Wave in V.F. (- 24).
- 14^d 1½^h to 2½^h Wave in Dec. (+ 5'). 17½^h to 18¾^h Wave in N.F. (- 38). 18h to 19½^h Two successive sharp waves in V.F. (+ 12, + 16). 18½^h to 19½^h Sharp wave in Dec. (- 15'). 19h to 19½^h Double wave in N.F. (- 22, + 35), the intermediate portion very steep. 19¾^h to 22h Domed wave in Dec. (- 9'), followed till 22½^h by a wave (- 5'). 21½^h to 22h Wave in N.F. (+ 21); serrated decrease in V.F. (- 12).

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- I 5^d o_4^{3h} Sharp increase in Dec. (+5'). 5^h to 7_4^{1h} Wave in Dec. (+13'), steep at commencement. 5^h to 5_4^{3h} Wave in N.F. (-40). 5_4^{1h} to 6^h Decrease in V.F. (-13). 16_2^{1h} to 17_4^{1h} Wave in N.F. (-33). 16_4^{3h} to 18_4^{1h} Wave in Dec. (-20'), steep at commencement: serrated wave in V.F. (+15). 19_2^{1h} to 20_4^{1h} Wave in Dec. (+7'). 19_2^{1h} to 20^h Wave in N.F. (+28), followed till 20_4^{1h} by an increase (+30). 20_2^{1h} to 20_4^{3h} Decrease in Dec. (-6'), followed till 22_4^{1h} by a sharp triple-crested wave (+13'). 20_2^{1h} to 23^h Three successive waves in N.F. (+50, +42, +23). 21^h to 22_4^{1h} Irregular decrease in V.F. (-32), followed till 22_2^{1h} by an increase (+14). 22_4^{3h} Wave in Dec. (+6').
- 16^d o₂th Sharp increase in Dec. (+ 5'). I₃th to 4₄th Irregular triple wave in Dec. (- 3',+ 3',- 4'). 9₂th to 11th Serrated truncated wave in Dec. (+ 5'). 14₂th to 16₃th Wave in V.F. (+ 12). 15th to 15₃th Wave in Dec. (- 6'). 15₄th to 16th Wave in N.F. (+ 30). 17₂th to 18₂th Triple-crested waves in Dec. (- 10') and N.F. (+ 40). 20₂th to 22th Waves in Dec. (- 10') and N.F. (+ 66): decrease in V.F. (- 22), followed till 17^d 1th by a slow wave (+ 12).
- 17^{d} oh to 1h Wave in Dec. (+7'). $14\frac{1}{2}^{\text{h}}$ to $15\frac{1}{4}^{\text{h}}$ Wave in N.F. (-30). $14\frac{3}{4}^{\text{h}}$ to $15\frac{1}{4}^{\text{h}}$ Decrease in Dec. (-7'). $17\frac{3}{4}^{\text{h}}$ to 18^{h} Wave in Dec. (-3'). 18^{h} to $18\frac{1}{2}^{\text{h}}$ Wave in N.F. (+25). $18\frac{1}{2}^{\text{h}}$ to 19^{h} Wave in Dec. (-3').
- 19^d 17½h to 18½h Wave in N.F. (+ 21). 19^h to 20¼h Double wave in Dec. (-6',+ 4'), the second portion sharp. 19¾h to 20¼h Sharp wave in N.F. (+ 56). 19¾h to 21ħ Wave in V.F. (-28).
- 22^{d} $21\frac{1}{4}^{\text{h}}$ to 22^{h} Decrease in Dec. (-8').
- 23^d $1^{\frac{3}{4}h}$ to $2^{\frac{3}{4}h}$ Wave in N.F. (+28). 2^h to 5^h Very irregular double wave in Dec. (-5', +7'). $3^{\frac{3}{4}h}$ to $4^{\frac{1}{4}h}$ Irregular decrease in V.F. (-13). $6^{\frac{1}{4}h}$ to 8^h Wave in N.F. (+53). $6^{\frac{1}{4}h}$ Wave in V.F. (-17). 7^h to $7^{\frac{3}{4}h}$ Wave in Dec. (-5'), followed till $9^{\frac{3}{4}h}$ by a double wave (-4', +5'). $8^{\frac{3}{4}h}$ to 9^h Decrease in N.F. (-35). $11^{\frac{1}{4}h}$ Three successive waves in Dec. (+10', +4', +5'). $11^{\frac{1}{4}h}$ to $13^{\frac{1}{4}h}$ Two successive waves in N.F. (-32, -27). $11^{\frac{1}{2}h}$ to $15^{\frac{1}{4}h}$ Irregular increase in V.F. (+44). $13^{\frac{1}{4}h}$ to 16^h Irregular triple wave in N.F. (+23, -20, +35). 15^h to $16^{\frac{1}{2}h}$ Irregular double wave in Dec. (-8', +7'). $19^{\frac{3}{4}h}$ to 20^h Wave in Dec. (+3').
- 24^d $3\frac{1}{2}^{h}$ to $4\frac{1}{4}^{h}$ Domed wave in Dec. (+4'). 11^{h} to $11\frac{1}{4}^{h}$ Sharp increase in Dec. (+7'). $11\frac{1}{4}^{h}$ to $13\frac{1}{2}^{h}$ Wave in N.F. (-40). 12^{h} to $13\frac{1}{2}^{h}$ Irregular double wave in Dec. (+7', -5'). 14^{h} to $17\frac{1}{4}^{h}$ Wave in V.F. (+17). 15^{h} to 16^{h} Wave in N.F. (-30). $15\frac{1}{4}^{h}$ to $16\frac{1}{4}^{h}$ Wave in Dec. (-6'). 18^{h} to $20\frac{1}{4}^{h}$ Irregular domed wave in Dec. (-17'). 18^{h} to $21\frac{1}{4}^{h}$ Irregular triple wave in N.F. (-20, +40, +20).
- 25^{d} $16\frac{1}{2}^{h}$ to $17\frac{1}{2}^{h}$ Domed wave in N.F. (-20). 17^{h} to $18\frac{1}{4}^{h}$ Wave in Dec. (-7').
- 27^{d} 3h to 4h Wave in Dec. (+ 4'), steep at commencement.
- 28^{d} $22\frac{1}{2}^{h}$ to $23\frac{3}{4}^{h}$ Irregular wave in Dec. (- 10'). $22\frac{1}{2}^{h}$ to $23\frac{1}{4}^{h}$ Wave in N.F. (+ 30).
- 29^d 18^h to 21^h Four successive sharp irregular waves in Dec. (+ 10', + 10', + 7', + 5'), the first double-crested, the second triple-crested. 18^h to 23½^h Irregular triple-crested wave in V.F. (+ 70). 18½^h to 18½^h Irregular steep decrease in N.F. (- 80). 19^h to 21^h Two successive waves in N.F. (- 31, 37), the second triple-crested. 21½^h Very sharp increase in N.F. (+ 32). 21½^h to 21¾^h Very sharp double wave in Dec. (+ 4', 3'), followed till 23^h by very sharp movements (+ 8', 28', + 26' 20'). 21½^h to 22^h Very sharp triple-crested wave in N.F. (- 40), followed till 23^h by a very sharp triple wave (45', + 90, -65). 23^h to 23¾^h Decrease in N.F. (- 50). 23¼^h to 23¾^h Increase in Dec. (+ 9'), followed till 30^d o¼^h by a decrease (- 5').
- 30^d I^h to I½^h Wave in Dec. (+ 5'), followed till 2^h by a very sharp increase (+ 19'), followed till 2½^h by a slower decrease (- 8'). I^h to 2^h Double wave in N.F. (- 20, + 20), the second portion sharp. I¼^h to I¾^h Sharp wave in V.F. (- 12), followed till 3½^h by a slower wave (- 16). 3^h to 3¼^h Decrease in Dec. (- 4'). I5^h to I6½^h Wave in N.F. (- 23). I7½^h to I8½^h Double-crested wave in Dec. (+ 5'). 20^h to 21^h Wave in N.F. (+ 38). 20¼^h to 20¾^h Sharp wave in Dec. (- 7'), followed till 22¾^h by an irregular slow wave (- 5').

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- Id to 10½h Wave in Dec. (-3'), steep at end. II¾h to 13½h Double wave in Dec. (+4',-4'), the first portion triple-crested: double-crested wave in N.F. (-30). I4h to 21h Wave in V.F. (+42), with double-crested wave (+24) superposed from I5½h to I7½h. I4¾h to I5½h Sharp wave in Dec. (-5'), followed till I7½h by a sharp triple-crested wave (-26'). I5h to I5½h Sharp decrease in N.F. (-50), followed till I7½h by a wave (+60), with three sharp waves (+35,+35,+45), superposed at I6h, I6½h and I6¾h. I7½h Sharp decrease in Dec. (-9'), followed till I9¾h by a double wave (+5',-17'), the first portion domed, the second sharp. I7½h Sharp increase in N.F. (+24). I8½h to 20h Irregular double-crested wave in N.F. (+45). 20½h to 22h Waves in Dec. (-19') and N.F. (+40), the latter truncated. Id 23¼h to 2d Ih Double-crested wave in N.F. (+27).
- 2^d oh to 1^h Increase in Dec. (+9'). 22^h to 23^h Wave in N.F. (+20), steep at commencement.
- 3^{d} 11½h to 12h Truncated wave in Dec. (+ 3'). 14¼h to 18¼h Slow double-crested wave in N.F. (- 40). 16¼h to 18½h Slow wave in V.F. (+ 12). 16¾h to 17¾h Wave in Dec. (- 4'). 20h to 22¼h Irregular wave in Dec. (- 9'). 22h Sharp decrease in N.F. (- 30).
- 4d 15h to 16h Wave in N.F. (-22).

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- 7^d 18½^h to 20½^h Irregular wave in Dec. (-20'), followed till 22^h by a domed wave (-7'). 18½^h to 20^h Wave in V.F. (+13), followed till 24^h by an irregular slow wave (+22). 18¾^h to 19^h wave in N.F. (+64). 22^h to 22½^h Wave in N.F. (+20).
- 8d oh to 9d oh. See Plate IV.
- 9^{d} $1\frac{1}{2}^{h}$ to $5\frac{1}{2}^{h}$ Irregular triple wave in N.F. (-20, +28, -35). 2^{h} to 4^{h} Serrated wave in Dec. (+8'). 3^{h} to 5^{h} Wave in V.F. (-15). $4\frac{1}{2}^{h}$ to 5^{h} Increase in Dec. (+6'). $9\frac{1}{2}^{h}$ to $10\frac{1}{4}^{h}$ Serrated wave in Dec. (+4'). $12\frac{1}{4}^{h}$ to 14^{h} Two successive irregular serrated waves in Dec. (+5', +5'). $13\frac{1}{4}^{h}$ to $14\frac{1}{4}^{h}$ Sharp wave in N.F. (-52). 17^{h} to 18^{h} Double wave in Dec. (+4', -3'), the first portion truncated, followed till $19\frac{1}{4}^{h}$ by two successive waves (-5', -6'), followed till $19\frac{3}{4}^{h}$ by a sharp decrease (-6'). $17\frac{3}{4}^{h}$ to $18\frac{1}{4}^{h}$ Wave in N.F. (+21). 19^{h} to $19\frac{1}{4}^{h}$ Increase in N.F. (+24), followed till $20\frac{1}{2}^{h}$ by a double wave (-24, +21), the second portion domed. $20\frac{1}{2}^{h}$ to $21\frac{1}{2}^{h}$ Truncated wave in Dec. (+6'). $22\frac{1}{2}^{h}$ to 23^{h} Wave in Dec. (-5'). $22\frac{3}{4}^{h}$ to 24^{h} Two successive waves in N.F. (+35, +23). 9^{d} $23\frac{1}{4}^{h}$ to 10^{d} $0\frac{1}{2}^{h}$ Wave in Dec. (+9'). 9^{d} $23\frac{1}{2}^{h}$ to 10^{d} $2\frac{1}{4}^{h}$ Wave in V.F. (-32).
- 10^d 8^h to 9¹/₄^h Wave in Dec. (+ 5'). 9¹/₂^h to 10¹/₄^h Wave in N.F. (- 22). 12^h to 14^h Irregular wave in N.F. (+ 40). 12¹/₂^h to 14¹/₂^h Serrated wave in Dec. (+ 7'), followed till 16¹/₂^h by a double wave (+ 4', 10'), the first portion domed, the second sharp and double-crested. 14¹/₄^h to 16^h Very irregular wave in N.F. (+ 33), followed at 16^h by a sudden increase (+ 50), continued till 16³/₄^h by sharp increase (+ 24) and decrease (- 45). 18^h to 19^h Truncated wave in Dec. (+ 4'), followed till 20^h by a sharp irregular triple-crested wave (+ 7'). 19^h to 19³/₄^h Sharp wave in N.F. (+ 64), followed till 20¹/₄^h by a wave (+ 24). 19¹/₁^h to 21^h Wave in V.F. (- 15). 23¹/₂^h to 24^h Wave in Dec. (- 3').
- 11^d oh to $0\frac{3}{4}$ h Decrease in V.F. (-14). 15^h to 16¼h Irregular waves in Dec. (-7') and N.F. (+22). 18¾h to $20\frac{1}{4}$ h Sharp wave in Dec. (-14'). 19¼h to $20\frac{1}{4}$ h Irregular wave in N.F. (+42). $21\frac{3}{4}$ h to $22\frac{3}{4}$ h Wave in N.F. (+25). 22^h to $23\frac{3}{4}$ h Truncated wave in Dec. (-6'). 22^h to $22\frac{1}{4}$ h Decrease in V.F. (-12).
- 12^d 13½^h to 15^h Wave in N.F. (-28). 17½^h to 18^h Wave in N.F. (-23). 17½^h to 18½^h Wave in Dec. (-7). 20^h to 21½^h Two successive waves in Dec. (-5, -5), the first sharp, the second truncated. 20^h to 20½^h Sharp wave in N.F. (+33).
- 13^d 2^h to 3^h Waves in Dec. (+ 5') and N.F. (- 20). 163^h to 173^h Sharp Wave in Dec. (- 15'). 17^h to 18^h Truncated wave in N.F. (+ 33). 17^h to 18½^h Wave in V.F. (+ 15). 20^h to 22^h Wave in Dec. (- 13'), steep at commencement, with irregular return: wave in N.F. (+ 48). 223^h to 23½^h Sharp increase in N.F. (+ 55) and decrease (- 22): decrease in V.F. (- 12).
- 14^{d} 21^h to 22^h Irregular wave in N.F. (+25). 21^h to 23^h Two successive waves in Dec. (-3', -4').
- 15^{d} $1\frac{1}{2}$ h to 3^{h} Wave in Dec. (+4').
- 17^{d} 3_{4}^{1h} to 4^{h} Wave in Dec. (+4'). 18^{h} to 19^{h} Wave in Dec. (-6').
- 18^{d} $21\frac{3}{4}^{\text{h}}$ Sharp increase in N.F. (+ 30).
- 19^d o^h to 1^h Wave in Dec. (+ 5'). 2^h to 2^{3h} Wave in Dec. (+ 3'). 11^h to 12^h Wave in Dec. (+ 4). 11¹/₂h to 15^h Slow double-crested wave in N.F. (- 32). 12^h to 12^{3h} Increase in V.F. (+ 19). 14^h to 14^{3h} Irregular decrease in Dec. (- 8'). 16¹/₂h to 17¹/₂h Truncated wave in Dec. (+ 4'). 16¹/₂h to 17^h Decrease in N.F. (- 40). 20^h to 21^h Sharp triple wave in Dec. (+ 3', 8', + 4'): sharp double wave in N.F. (- 36, + 28). 23^h to 23¹/₄h Irregular sharp decrease in N.F. (- 30).
- 20^d $2\frac{1}{2}^{h}$ to 4^{h} Wave in Dec. (+5'). $16\frac{1}{2}^{h}$ to $17\frac{1}{4}^{h}$ Sharp wave in N.F. (-36). $16\frac{3}{4}^{h}$ to $17\frac{1}{2}^{h}$ Sharp double wave in Dec. (+3',-3'). $17\frac{3}{4}^{h}$ to 18^{h} Wave in N.F. (+20). $18\frac{1}{4}^{h}$ to $18\frac{3}{4}^{h}$ Wave in Dec. (-5'). $18\frac{1}{2}^{h}$ to 19^{h} Wave in N.F. (+24). 20^{h} to $20\frac{1}{2}^{h}$ Wave in N.F. (-23). $20\frac{1}{2}^{h}$ to $20\frac{3}{4}^{h}$ Wave in Dec. (-5'). 22^{h} to 23^{h} Truncated wave in Dec. (-5'), followed till 21^{d} $0\frac{1}{2}^{h}$ by an irregular wave (-6').
- 21^d 2^h to $2\frac{3}{4}$ Wave in Dec. (-3'). 18^h to $19\frac{1}{4}$ Wave in Dec. (-11'), followed till 20^h by a small wave (-3'). $18\frac{1}{4}$ to $19\frac{1}{4}$ Truncated wave in N.F. (+40).
- 22^d 3^h to 5^h Double wave in Dec. (+4', -3'). 3_4^{3h} to 5^h Wave in N.F. (+22). 20_4^{1h} to 21_4^{3h} Truncated wave in Dec. (-7'), with sharp wave (-5'), superposed from 21^h to 21_2^{1h} , 21^h to 22_4^{1h} sharp wave in N.F. (+53).
- 23^d 0^{1h} to 1^{3h} Wave in N.F. (-27). 0^{1h} to 1^h Wave in Dec. (+4'), followed till 3^{3h} by a triple wave (+6', -5', +7'). 2^{1h} to 3^{3h} Wave in N.F. (-23). 5^h to 6^{1h} Domed wave in N.F. (+21). 5^{3h} to 7^h Wave in Dec. (+5'). 16^{1h} to 17^h Irregular triple wave in Dec. (-4', +4', -3'). 21^h to 21^{1h} Sharp wave in Dec. (-8'), followed till 23^{1h} by a double wave (-5', +4'). 21^h to 21^{1h} Increase in N.F. (+26). 21^{1h} to 23^{1h} Irregular decrease in V.F. (-20).
- $24^{\rm d}$ $13^{\rm h}$ to $14\frac{1}{4}^{\rm h}$ Wave in N.F. (-40). $13\frac{1}{2}^{\rm h}$ to $14\frac{1}{4}^{\rm h}$ Wave in Dec. (-5'). $17\frac{3}{4}^{\rm h}$ to $19^{\rm h}$ Wave in Dec. (-6'). $25^{\rm d}$ $3^{\rm h}$ to $26^{\rm d}$ $3^{\rm h}$. See Plate IV.
- 26^d 3½^h to 3¾^h Decrease in Dec. (-5'). 13^h to 13¼^h Decrease in Dec. (-6'). 17^h to 18¾^h Double wave in N.F. (-20,+45), the first portion truncated. 17¼^h to 19^h Sharp wave in Dec. (-14'). 19¼^h to 22¾^h Double wave in V.F. (+13,-14). 19¾^h to 20¼^h Irregular decrease in N.F. (-40), followed till 20¾^h by a sharp increase (+80). 20½^h to 22½^h Irregular steep wave in Dec. (-20), with double-crested wave (+7'), superposed from 20¾^h to 21½^h, followed till 22¾^h by a sharp wave (-9'). 21½^h to 21¼^h Sharp wave in N.F. (+22). 21¾^h to 22¼^h Sharp decrease in N.F. (-100), and increase (+30).
- $27^{\rm d} \circ_{4}^{3\rm h}$ to $2^{\rm h}$ Wave in Dec (-6').
- 31^d 13^h to $13^{\frac{1}{h}}$ Sharp wave in Dec. (+4'). 19^h to $20^{\frac{1}{h}}$ Waves in Dec. (-5') and N.F. (+23).

EXPLANATION OF THE PLATES.

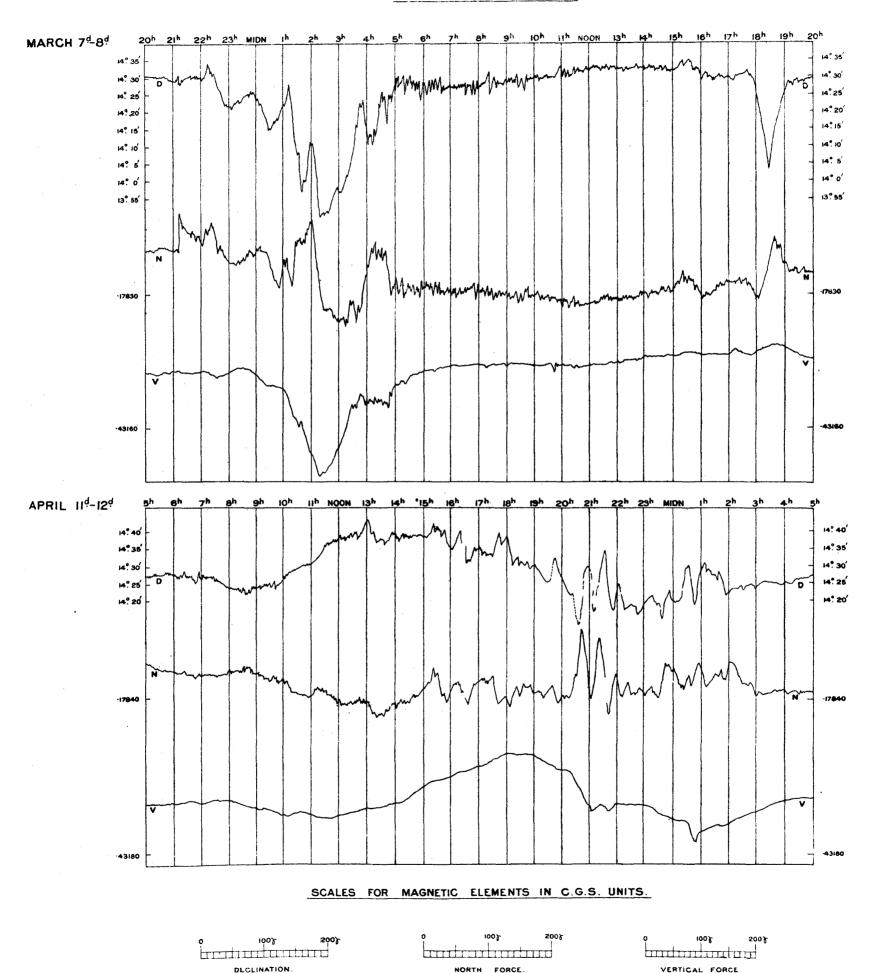
The magnetic motions figured on the Plates are those for days of disturbance selected by the International Committee—March 7^d 20^h to 8^d 20^h; April 11^d 5^h to 12^d 5^h; May 16^d 17^h to 17^d 17^h; August 15^d 15^h to 16^d 15^h; September 21; October 16; December 8; December 25^d 3^h to 26^d 3^h.

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

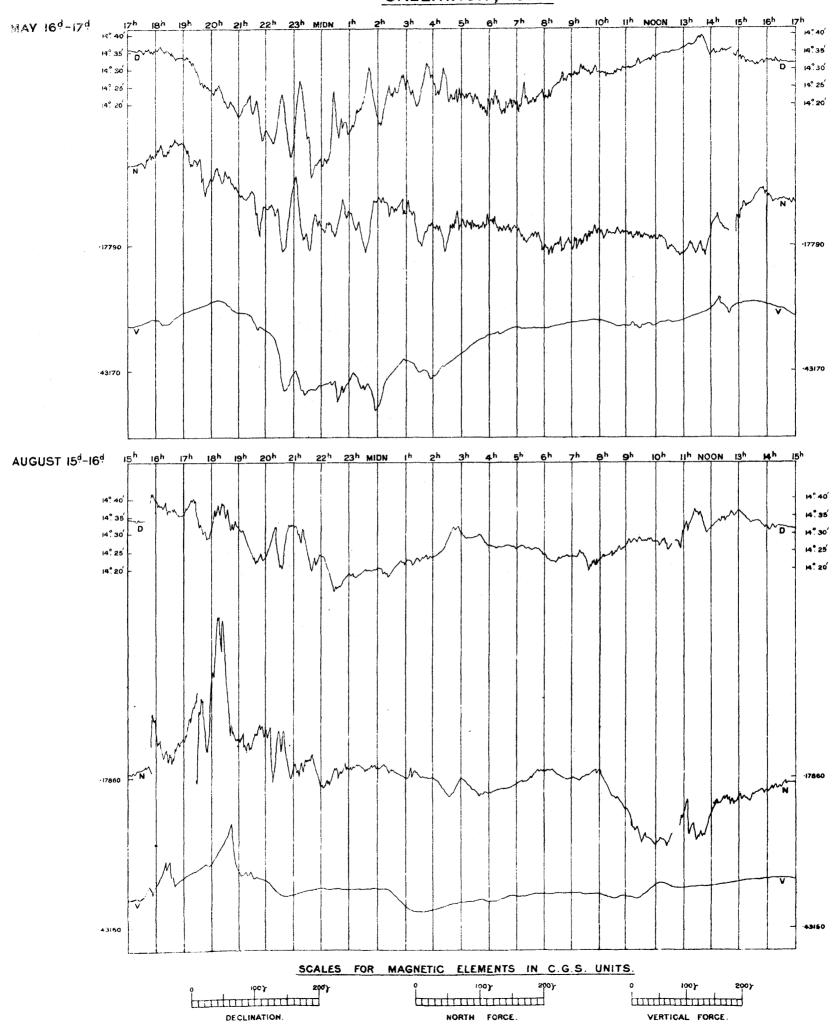
The magnetic declination, north force, and vertical force are indicated by the letters D., N., and V. respectively; the declination (west) is expressed in minutes of arc, the unit for north and vertical force is γ (0.00001 C.G.S.), the corresponding scales being given on the sides of each diagram. Equal changes of amplitude in the several registers correspond nearly to equal changes of absolute magnetic force, 0.001 of a C.G.S. unit being represented by 0ⁱⁿ.69=17.4 in the declination mm. curve, by 0ⁱⁿ.69=17.5 in the north force curve, and by 0ⁱⁿ.59=15.0 in the vertical force curve.

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

MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1918.

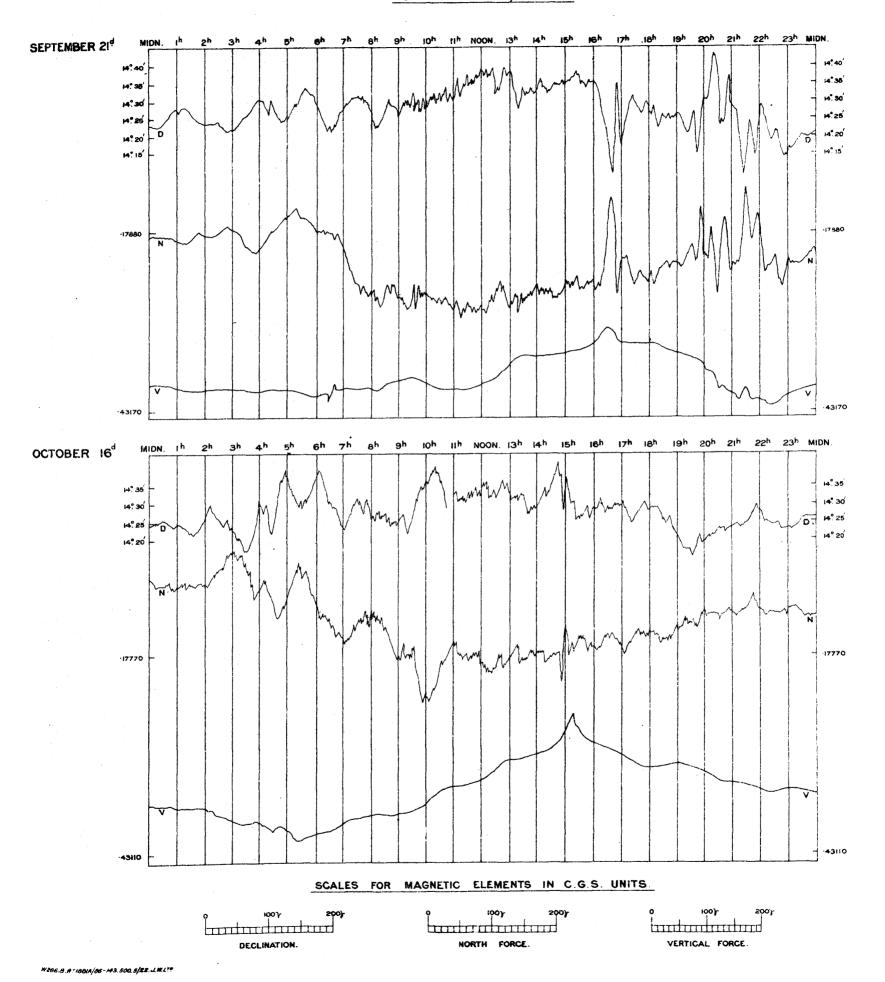


MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1918.

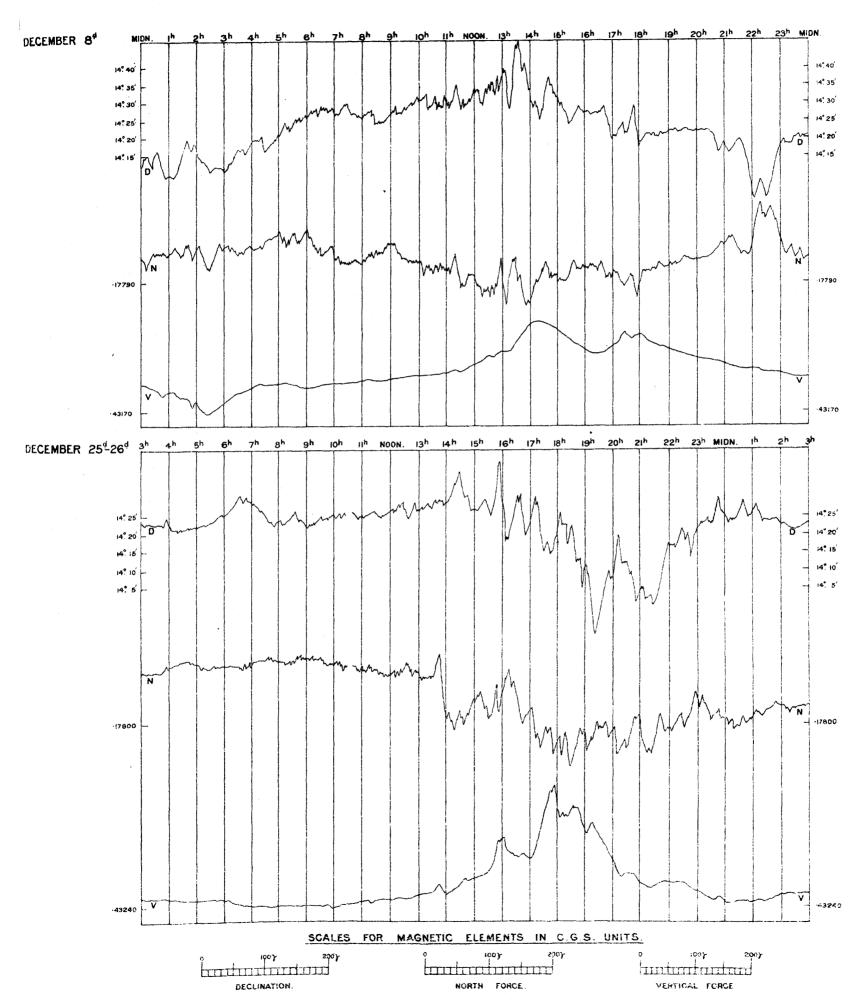


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MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1918.



MAGNETIC DISTURBANCES RECORDED AT THE ROYAL OBSERVATORY, GREENWICH, 1918.



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1918.

	BARO- METER.				Temperat	URE.				erence betw		, t		Temperat	URE.	ge No. rface is round.	
MONTH and DAY,	Hourly rrected i to 32°).			Of the Ai	r.		Of Evapo- ration,	Of the Dew Point.	an	d Dew Poi	nt	Degree of Humidity (Saturation = 100).	Of Rad	liation.	Of the Earth 3 ft. 2 ins.	ed in Gau seiving sur ove the Gr	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree c (Saturat	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surfaceis 5 inches above the Ground.	
Ton r	in.	36·I	0	0	0	0	0	0	3·6	0	0	86	0	0	0	in. 0.008	
Jan. 1	30·044 30·186	39.8	31.4	4.7	33·7 34·9	- 4·9 - 3·5	32.4	30·I	3.7	5·7 7·5	0.0	86	44·9 36·9	30.2	40·52 40·40	0.000	• •
3	30.271	34.5	26.0	8⋅5	31.9	- 6.4	30.6	27.6	4.3	7.1	1.2	82	46.5	20.7	40.33	0.002	••
4	30.286	35.0	23.1	11.9	29.4	- 8.9	28.3	24.6	4.8	5.5	0.0	82	42.2	19.1	40.22	0.000	• •
5	30.158	38⋅1	35.0	3.1	36.6	- I·6	34.4	31.5	5.4	8.8	3.6	81	39.7	31.7	39.97	0.000	• •
6	29.579	38.5	29.9	8.6	35.3	- 2.8	34.1	32.2	3.1	10.2	0.0	89	45·I	26.9	39.78	0.203	• •
7	29.191	36.9	26.3	10.6	34.0	- 4.0	31.5	27·I	6.9	13.6	1.5	75	47.7	21.0	39.69	0.003	$\dots : \dots : wP$
8	29.544	28.9	22.4	6.5	25.4	- 12.5	24.3	18.6	6.8	8.4	1.4	74	40.9	16.4	39.65	0.050	D
9	29.880	39.5	18.5	21.0	29.5	- 8.4	27.7	21.7	7.8	7.6	I.I	72	40.0	13.9	39.45	0.014	$\dots : \dots : wP$
10	29.884	44.0	37.9	6∙1	41.0	+ 3.1	38.1	34.4	6.6	9.2	4.3	78	62.8	32.0	39.28	0.000	wwP: wP: wP
11	29.787	42·I	38.2	3.9	40.3	+ 2.4	38.2	35.5	4.8	8.0	1.8	83	46.9	33.0	39.15	0.020	wP, wwP: wP: wP
12	29.504	41.1	35.2	5.9	38.9	+ 1.0	36.3	32.8	6∙1	9.5	3.8	80	53.0	29.9	39.17	0.000	wP: wP: mP
13	29.619	37.5	29.1	8.4	33.7	- 4.3	31.1	26.4	7:3	11.8	0.6	74	50.7	23.9	39.26	0.006	mP
14	29.790	37.6	26.2	11.4	32.0	- 6.0	29.7	24.4	7·6 3·0	6.7	0.0	72	47.1	28.0	39.13	0.030	wP: wwP, wP: wP wP, wwP: wwP: wP, wwP
15	29·261	50.3	32.5	17.0	40.4	+ 2.3	39.1	37.4	3.0	0.7	1.0	90	53.0	32.1	39 12	0 000	•
16	29.525	35.4	30.1	5.3	33.1	- 5.2	32.2	30.4	2.7	4.8	1.0	90	43.9	24.0	39.00	0.384	wwP:wP:wP
17	29.727	44.7	31.1	13.6	34.2	- 4.3	33.6	32.6	3·8	3.7	0.7	94 87	42.2	26.1	39.01	0.411	wP:wwP:wwN,wwP wwP:wwP;wwN
18	29:397	50.9	44.7	6.2	48.9	+ 10.3	47.1	45·I	3.0	5.7	0.9	0/	57:3	42.2	30./3	0.250	wwi.wwi.wwi,wwi
19	29.348	51.0	47:3	3.7	49.3	+ 10.6	46.7	43.9	5.4	9.8	1.7	82	58.0	43.0	39.07	0.285	wwP: wwP, wP: wP
20	29.213	53.6	44·9 46·8	8.7	50.1	+ 11.3	46·5 46·1	42.7	7·4 6·8	12.6	3.8	77	55·2 85·2	36·7 38·5	39·97 40·63	0.000	wwP : wwP : wP wP, wwP : wP : wP
21	29.280	56.0	40.0	9.2	49.4	+ 10.6	40.1	42.6	0.0	11.5	3.0	77	05.2	30.5	4003	0.000	
22	29.312	56.2	45.4	10.8	49.2	+ 10.4	47·1	44.8	4.4	9.4	1.9	86	84.3	40.1	41.18	0.095	wP
23	29.714	52.0	42.2	9.8	47·6 50·8	+ 8.7	46·0 48·0	44.2	3.4	8.5	0.0	89 81	65·6 85·7	32·8 40·6	41.59	0.030	$egin{array}{c} ext{wP} \ ext{wWP}: ext{wP} \end{array}$
24	30.127	55.6	48.2	7.4	50.8	ĺ (40.0	45·I	5.7	11.4	2 1	01	05 /	400	42 10		
25	30.292	52.0	43.4	8.6	47.6	+ 8.5	46.0	44.2	3.4	5.9	1.7	89	77.0	36.2	42.42	0.000	wP
26	30.234	47:9	40.7	7.2	45.4	+ 6.1		42.4	3.0	5.5	2.4	89 87	65.c 83.9	35.9		0.000	wP wP
27	30.195	52.8	37.5	15.3	43.6	+ 4·I	42.0	40.1	3.2	9.3	0.0	0/	03.9	27.9	43.07	0.000	W I
28	30.184	49.0	36.2	12.8	42.4	+ 2.8	40.9	39.1	3.3	7.9	0.9	89	77.0	26⋅1	43.10	0.004*	wP : wP, wwP : wP
29	30.189	51.5	36·3	15·2 21·4	41.6	+ I·9 - 0·2	37.8	38.9	2.7	9.2	0.2	91	82·1	26.2	43.00	0.009*	wwP : wP : wP wP
30	30.238	51.5	30.1	21.4	39.5	- 0.2	3/10	35.6	3.9	110			021	2,50	42 02	0 00,	
31	30.227	47.9	28.0	19.9	36.5	- 3.3	34.8	32.4	4.1	11.3	0.0	86	74.4	21.8	42.49	0.001*	wP
Means	29.811	44.8	34.6	10.1	39.6	+ 1.0	37.7	34.8	4.7	8.6	1.4	82.8	58.6	29.1	40.22	Sum 2·715	
umber of olumn for eference.	I	2	3	4	5	6	7	8	9	10	II	12	13	14	15	16	17

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

The mean reading of the Barometer for the month was 29in 811, being oin o17 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was $56^{\circ} \cdot 2$ on January 22; the lowest in the month was $18^{\circ} \cdot 5$ on January 9; and the range was $37^{\circ} \cdot 7$. The mean of all the highest daily readings in the month was $44^{\circ}8^{\circ}$, being $1^{\circ} \cdot 7$ higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was $34^{\circ} \cdot 6$, being $0^{\circ} \cdot 9$ higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was $10^{\circ} \cdot 1$, being $0^{\circ} \cdot 7$ greater than the average for the 65 years, 1841-1905.

The mean for the month was $39^{\circ} \cdot 6$, being $1^{\circ} \cdot 0$ higher than the average for the 65 years, 1841-1905.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the photographic records.

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

^{*}Rainfall (Column 16). The amounts entered on January 28, 29, 30, 31 are derived from frost and dew.

1	bine.		WIND AS DEDUC	ED FROM SELF-REGISTERING	ANEMOM	ETERS.	1		
MONTH	f Sunsl	orizon.		Osler's.			Robin- son's.	Clouds	and Weather.
and DAY, 1918.	ration o	Sun above Horizon.	General Di	rection.	Pres on Squar	sure the e Foot.	l Move- he Air.		
	Daily Duration of Sunshine.	Sun s	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	Р.М.
Jan. 1	hours. 0·1 0·0 2·3	7.9 7.9 7.9	NE : ENE N : Calm W N : NNE	NE : NNE W : N N : NNE	lbs. 5·3 1·8 2·1	lbs. 0.55 0.05	miles. 478 195 233	IO, ocsn, ho-fr, w : IO, W 6, mrsh, hofr: f, hofr : f, sltsh 9	10 : 10, ocmr : 10 8, m : pcl,mrsh: 1 1 : 1, m, h, hofr
4 5 6	0·4 0·0 0·0	7·9 7·9 8·0	Calm : W WSW Calm : SW	W : WSW WSW : W SW : W	0·8 1·0	0·03 0·02 0·02	229 229 172	o, sltf, hofr : 1, h 10 : 10, s : 10, s 10 : 8 : 7, cu, scu	ro, ocsltsn : IO : IO IO, S : IO IO, fqsltr: IO, r : IO,mr
7 8 9	3·0 3·4 0·0	8·0 8·0	WSW: NW NW: W: N NW: W: SW	N:NNW:NW N:NW:W W	2·4 7·0 5·4	0·16 0·70 0·39	311 477 508	10, ocmr: : 10 3 : vcl, sn, w: pcl 0, hofr : 9, sn	I : 0 : 0 I : I : 0, hofr IO, W : IO, W
10 11 12	2·7 0·7 0·9	8·I 8·I 8·2	W WSW : W : N WSW : W	W: WSW NW: WSW: SW WSW: W: WNW	5.0 4.7 5.0	0.36	603 439 448	10, w : vcl, w : vcl, cun, w 2, w : 10, sltr. glm 10, w : pcl : 9	vcl, thcl,w : 10, 0cmr, w vcl, cu : 2 : 3, w 10 : 10, 0csltr : 7
13 14 15	3·6 0·0 0·0	8·2 8·2 8·2	NW: W: WSW Calm: NE: SE SSW: SW: WSW	WNW : W SSE : S : SSW WSW : N : E	3·8 2·3 7·I	0.11	362 223 424	o, h, hofr: o, h, hofr: o, h 10, sn : 10 : 10, n 10, r, m-r, w : 10, r, w	1, cu : I : 9, sltsn 9, n, cu : 10 : 10 10, r, glm : 10, sn, sl, r
16 17 18	0·2 0·0 0·5	8·3 8·3 8·4	E: NE: N SSW: S: E SSW: SW	NW: W: SW E: ESE: SSW SW	1·5 0·9 6·2	0.05	284 214 508	IO, r : IO, r, sl, sn IO : IO, r, sn : IO, thr,sn IO : IO, ocslt. r : IO, fqmr, w	9, sn : 0 : 0, h, ho, f 10, r : 10, fqshs : 10, mr 10, ocmr, w : 10, ocsltr, w : 10, r
19 20 21	0·0 0·0 6·2	8·4 8·5 8·5	SW : SSW SSW : S SSW : S	S:SSW S:SSE:SSW S:SSE	4·4 6·2 4·5	0.60	372 474 339	10, r : 8, ocr : 10, ocsltr pcl, w : 10, ocsltr vcl : 2, thcl	IO, OCsltr: 10, thcl: 10, r IO, OCsltr: pcl.w, lu-ha: 2, w vcl: pcl, luha: 9, luha
22 23 24	3.9 1.1 3.2	8·6 8·6 8·7	SSE : S SSW : Calm SW SSW : SW	SSW : S SW : SSW SW : SSW	1·6 2·9 4·1	0.13	251 282 438	10, fqshs : 8 : vcl, s, n, cl, cu 8 : vcl, sltf : pcl, thcl, m 10, fqmr: 10, fqmr : pcl	
25 26 27	4·2 1·4 6·6	8·7 8·8 8·8	SSW SW:SSW SW:Calm:S	SSW : SW SSW : SW S : SSW		0·10 0·17 0·04	286 299 192	10 : 10 : 9, n	6 : 10 : 10 8 : 10, 0cmr : 9, n 0 : 0
28 29 30	4·5 7·6 6·6	8·9 8·9 9·0	S : SW S : Calm Calm : SE	SSW: S SSW: Calm SSE: S: Calm	0.3	0.01	245 199 126	o : 7 : 9, cun o, f, hyd : : 0, m thcl, hyd, hofr : f, hofr	pcl : o, m : o, h r : r, ci : thcl, m o : o, sltf
31	6.5	9.0	Calm E	ESE : Calm	0.3	0.00	127	o, f, hofr: o, tkf, hofr: o, f	o : o, hofr
Means	2.3	8.4			• •	0.23	322		
Number of Column for Reference	18	19	20	21	22	23	24	25	26

the average for the 65 years, 1841-1905.

The mean Temperature of Evaporation for the month was $37^{\circ} \cdot 7$, being $0^{\circ} \cdot 5$ higher than The mean Temperature of the Dew Point for the month was $34^{\circ} \cdot 8$, being $0^{\circ} \cdot 7$ lower than The mean Degree of Humidity for the month was $82 \cdot 8$, being $5 \cdot 2$ less than The mean Elastic force of Vapour for the month was $0^{\ln 2} \cdot 202$, being $0^{\ln 2} \cdot 004$ less than The mean Weight of Vapour in a Cubic Foot of Air for the month was $2^{878} \cdot 4$, being the same as The mean Weight of a Cubic Foot of Air for the month was 553 grains, being 1 grain less than The mean weight of Clear for the month was $610 \cdot 10^{10} \cdot 10^{10} \cdot 10^{10}$.

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·1.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·270. The maximum daily amount of Sunshine was 7·6 hours on

The highest reading of the Solar Radiation Thermometer was 85° 7 on January 24; and the lowest reading of the Terrestrial Radiation Thermometer was 13° 9 on

January 9.

The Proportions of Wind referred to the cardinal points were N. 4, E. 2, S. 12, W. 10. Three days were calm.

The Greatest Pressure of the Wind in the month was 7'1 lbs. on the square foot on January 15. The mean daily Horizontal Movement of the Air for the month was 322 miles; the greatest daily value was 603 miles on January 10; and the least daily value was 126 miles on January 30.

Rain (olin.005 or over) fell on 17 days in the month, amounting to 2^{in.}715 as measured by gauge No. 6 partly sunk below the ground; being olin.834 greater than the average

fall for the 65 years, 1841-1905.

	Baro- meter.				Temperat	URE.				ference be		h .	1	EMPERATU	JRE.	e No. face is	
MONTH and DAY,	Hourly rrected 1 to 32°			Of the	Air.		Of Evapo- ration.	Of the Dew Point.	aı	Air Tempe ad Dew Po Femperatu	oint	Degree of Humidity (Saturation = 100).	Of Rac	liation.	Of the Earth 3 ft. 2 ins.	d in Gaug eiving surf ive the Gr	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Feb. 1 2 3	in. 30·228 30·163 30·015	0 44.4 46.5 48.9	28·4 32·5 41·1	16.0 14.0 7.8	33·8 39·9 44·3	- 5·8 + 0·4 + 4·8	33.0 39.3 42.5	31.6 38.5 40.4	0 2·2 1·4 3·9	6.5 3.7 5.3	° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	95	76°0 51°0 65°9	20·3 21·0 39·2	42·11 41·70 41·50	in. 0.003* 0.093 0.048	wwP, wP wwP wwP
4 5 6	29·914 29·878 29·806	48·1 50·5 51·0	41·9 44·1 40·1	6·2 6·4 10·9	46·0 46·9 46·6	+ 6·5 + 7·3 + 7·0	44·9 45·3 44·4	43.7 43.5 41.9	2·3 3·4 4·7	4·2 5·8 7·2	1.1	89	54·4 65·0 77·1	33.4 36.2 32.7	41.60 41.90 42.25	0.014 0.021 0.160	wwP wwP wwP, wP
7 8 9	29·697 29·689 29·725	55·6 53·6 53·5	47·2 45·7 46·1	8·4 7·9 7·4	50·7 48·9 49·3	+ 11·2 + 9·6 + 10·2	48·9 46·4 46·4	47·0 43·7 43·3	3·7 5·2 6·○	5·5 12·3 9·9	2·5 0·0 2·7	88 83 80	77·1 86·1 82·1	45.0 39.0 39.4	42·56 43·00 43·40	0.000 0.128 0.040	$\begin{array}{c} {\rm wwP} \\ {\rm wwP} \\ {\rm wwP: wP} \end{array}$
IO II I2	29·978 30·125 30·136	56·8 53·6 51·2	48·0 48·1 44·8	8·8 5·5 6·4	50·9 50·8 48·2	+ 12·0 + 12·0 + 9·4	48·0 47·9 46·2	45.0 44.9 44.0	5·9 5·9 4·2	9·7 8·0 7·5	4·I 3·I 2·I	81 81 86	75·2 60·0 72·9	42·2 42·0 43·9	43·68 44·00 44·24	0.000	$egin{array}{l} wwP:wP \ wP \ wP:wwP \end{array}$
13 14 15	29·927 30·182 30·265	51·3 45·6 45·5	44·7 41·0 31·6	6·6 4·6 13·9	48.6 42.8 39.7	+ 9.6 + 3.5 + 0.3	47.0 41.4 37.8	45·2 39·7 35·3	3·4 3·1 4·4	5·7 6·7 7·4	0.3 1.1	89 89 85	58·5 55·1 77·7	43·7 39·1 22·8	44·53 44·71 44·79	0.048 0.000 0.000	wwP: wP: wwP wP, wwP: wP, wwP: wP wP: wP: wP, mP
16 17 18	30·076 30·098 29·964	42·I 38·9 42·9	27·9 23·1 21·3	14·2 15·8 21·6	34·9 30·2 31·0	- 4·6 - 9·4 - 8·5	31·2 28·0 28·7	25·2 21·3 22·5	9·7 8·9 8·5	16·0 12·9 13·3	4.0	68 68 69	89·6 79·7 77·1	17·4 14·0 16·1	44·62 43·97 43·52	0.000	wP:sP,mP :wwP:wwP wwP:wwP:wP
19 20 21	29·948 29·886 29·979	43·3 48·2 48·8	23·2 33·0 36·3	20·I 15·2 12·5	31·3 42·2 42·9	- 8·2 + 2·7 + 3·3	29·7 40·7 38·9	25.6 38.9 34.1	5·7 3·3 8·8	12·2 7·2 13·7	0.0	78 88 72	73·8 59·0 82·2	18·1 28·4 30·0	42·77 42·18 41·85	0.000 0.113 0.000	wwP wwP : wP wwP, wP : wP
22 23 24	30·020 30·333 30·254	55·3 59·1 54·1	43·8 47·2 44·8	9·3 11·5	50·0 52·7 48·9	+ 10·3 + 12·9 + 8·9	47·5 48·7 44·8	44·8 44·7 40·4	5·2 8·0 8·5	6·4 10·8 12·2	2·I 3·2 2·8	83 75 72	72·5 86·8 86·7	39·6 40·0 38·5	41·90 42·20 42·80	0.000 0.000 0.011	wP, wwP : wP wP : mP wP : wP : mP
25 26 27	30·403 30·416 30·013	46·5 49·8 50·0	30·9 30·1	16·4 18·9 10·1	41.7	+ 0.9 + 1.5 + 5.2	38·3 39·2 42·7	34·9 36·1 39·5	6·1 5·6 6·0	13·3 8·9 11·5	0.0 2.5 I.I	79 81 80	84·2 61·0 83·0	24·5 24·8 32·4	43·23 43·45 43·30	0·243 0·000 0·005	wN, wP: wP: mP wP: wP: wP, wwP wwP, wP: mP: mP
28	29.436	44.9	33.3	11.6	37.7	- 2.6	35.3	32.0	5.7	I I · 2		81	78.9	27.7	43.30	0.053	wP:mP,mN:mP
Means	30.020	49:3	37.9	11.4	43.5	+ 3.9	41.2	38.1	5.3	9·1	1·6	81.9	73.2	31.8	43.04	Sum 0.983	
umber of olumn for Reference.	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the photographic records.

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

The readings in Column 15 are taken daily at noon The readings in Column 15 are taken daily at noon.

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

* Rainfall (Column 16). The amount entered on February 1st derived from fog and frost,

The mean reading of the Barometer for the month was 3011.020, being 011.218, higher than the average for the 65 years, 1841-1905

TEMPERATURE OF THE AIR.

The highest in the month was 59°·1 on February 23; the lowest in the month was 21°·3 on February 18; and the range was 37°·8. The mean of all the highest daily readings in the month was 49°·3, being 4°·1 higher than the average for the 65 years, 1841–1905. The mean of all the lowest daily readings in the months was 37°·9, being 3°·7 higher than the average for 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 43°·5, being 4°·0 higher than the average for the 65 years, 1841–1905.

	ine.	1	Wind as Deduc	ED FROM SELF-REGISTERING	ANEMO	METERS.		
	Sunsh	Horizon.		Osler's.			Robin- scn's	Clouds and Weather.
MONTH and DAY, 1918.	ration of	above Ho	Genera	l Direction.	or	essure the re Foot.	l Move- he Air.	
	Daily Duration of Sunshine.	Sun 8	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M. P.M.
Feb. 1 2 3	hours. 4.4 0.0	hours. 9·I 9·I 9·2	Calm: NE: E ESE: SSE Calm: SE	E : ESE S ESE : Calm : S	1bs. 0·3 0·6 0·7	lbs. 0.00 0.02 0.00	miles. 123 162 149	o, f, hofr: f, hofr: 10, f, hofr 9, hofr: 6: 10, r 10, ocsltr: 10, r, sltr 10, ocsltr: 9
4 5 6	0·0 0·9 3·2	9·2 9·3 9·4	S : SSW S : SSW SSW : SW	S S:SSW SW	3·5 2·1 8·1	0·27 0·13 0·65	352 280 483	8 : 10 : 10, n, fqsltr 10, n : 10, fqr : 10, mr 10, r : 8 : 8 10 : 10 : 10 : 10, fqmr 7 : vcl : pcl 9, n, ocsltr : 10, ocsltr, w : 10, sltr, w
7 8 9	0·3 4·5 5·1	9·4 9·5 9·6	SW SSW : SW SW	SW SW SW	7·8 6·4 11·0	0.48		10, fqsltr, w : 10 : 10,00cmr 10, ocmr, w : 10 : 9, n, mrsh 10, r, mr : 10, r : pcl, r pcl,w, sh : 0 : 1 1, w : pcl,thcl,w,sltsh:pcl,cu,ci,w vcl, stw : 10, mr, w : 10, r, w
10 11 12	o.e 0.1 0.9	9·6 9·7 9·7	SW SW SW	SW SW SW:SSW	7·8 6·4 3·2	0·95 0·62 0·26	539	vcl,mrsh, w : 9, w vcl, ci, cu, w : vcl, w vcl, w : vcl, w : 10, w 10, w : 10 10 : 9, cu, n : 10, mr : 10, ocmr
13 14 15	1·8 0·0	9·8 9·8 9·9	SSW: SW: WSW NNE: NE: ENE Calm: ESE	W : NW : NNE ESE : E ESE : SE	I·5 I·4 I·1	0·14 0·06 0·04	313 220 160	10, lir : 10, n, ocmr 10 : 10, fqmr : 10, sltm 10 : 10, mrsh 10 : 10 8 : 10, n 7 : 0, hofr : 10
16 17 18	8·6 9·0 8·7	10·1 10·0 10·0	SSE : S E : SE Calm : ESE : S	SSE: SE: ESE ESE: E: Calm SSE: SE: Calm	2·2 0·4 0·7	/	245 127 109	Io, hofr : I, ci, s, hofr I, cis : I : o, hofr I, hofr : I, cis : I : o, hofr I, hofr, sltf : I, sltf : I, sltf : o, sltf, hofr
19 20 21	4·2 ○·○ 6·2	10.3	Calm SSW W:WSW:SW	Calm: SSW SSW: SW: W WSW: SW	0·4 5·0 4·4	o·oo o·37 o·48	100 384 475	I, hofr : o, sltf, hofr vcl, f : o, sltf : o, sltf IO :IO, ocmr: IO, ocmr IO, mr : IO, ocsltr : IO, ocsltr : IO, ocsltr : O, sltf thcl : I : T, thcl, luha : O, w, luha
22 23 24	0·1 2·9 1·9	10.4	SW WSW: W: WNW WSW: SW	WSW · W : WSW WSW : SW	8·3 4·1 4·5		639 390 393	Io, w : Io, n, sltr Io, n : Io, n Io : vcl : 9 : Io Io : 10 : 9, ocsltr : vcl : vcl, thcl
25 26 27		10·6 10·6 10·7	SW: N SSW: SW W: WNW: WSW	N: Calm: S WSW WSW: SW: W	7·5 5·8 1·8	0·53 0·48 0·13	475	10, r, w : pcl, cu, cu, -n pcl : vcl, thcl, m, h, hofr vcl,thcl,hofr: 2, thcl : g 10 : 10, n 7 : pcl : vcl, n 10, n : 10, sltr : 9
28	3.6	10.7	W:WNW:WSW	Var.: N	2.6	0.20	295	2, hyd : 2, cu, cun 9, ocsltsn : 9 : vcl
Means	2.8	9.9				0.31	353	
Number of Column for Reference	18	19	20	21	22	23	24	25 26

The mean Temperature of Evaporation for the month was 41°·2, being 3°·5 higher than
The mean Temperature of the Dew Point for the month was 38°·1, being 2°·7 higher than
The mean Degree of Humidity for the month was 81·9, being 3·6 less than
The mean Elastic Force of Vapour for the month was oin-230, being oin-023 greater than
The mean Weight of Vapour in a Cubic Foot of Air for the month was 2grs-7, being ogrs-3 greater than
The mean Weight of a Cubic Foot of Air for the month was 553 grains, being the same as
The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·1.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·286.

The maximum daily amount of Sunshine was 9·0 hours on February 17. February 17.

The highest reading of the Solar Radiation Thermometer was 89°.6 on February 16; and the lowest reading of the Terrestrial Radiation Thermometer was 14°.0

on February 17.

The Proportions of Wind referred to the cardinal points were N. 1, E. 3, S. 11, W. 10. Three days were calm.

The Greatest Pressure of the Wind in the month was 11.0 lbs. on the square foot on February 9. The mean daily Horizontal Movement of the Air for the month was 353 miles; the greatest daily value was 722 miles on February 9; and the least daily value was 100 miles on February 19.

Rain (oln.005 or over) fell on 13 days in the month, amounting to oln.983 as measured by gauge No. 6 partly sunk below the ground; being oln.497 less than the average fall for the 65 years, 1841-1905.

	Baro- meter.				[EMPERAT	URE.	<u></u>			erence bety				Temperat	TURE.	No. ace is ound.	
MONTH and DAY,	fourly rected to 32°		(of the Air.			Of Evapo- ration.	Of the Dew Point.	ar	ir Temper id Dew Po emperatur	int	Humidity n = 100).	Of Rac	liation.	Of the Earth	in Gauge ving surfa	
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Highest in Sun's Rays.	Lowest on the Grass.	3 ft. 2 ins. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
Mar. 1	in. 29.700 29.858 29.788	38·9 36·3	30.6 30.1 33.8	0 12:4 8:8	36·0 33·3	- 4·4 - 7·1	32·4 30·I	27·0 23·9	9.0 9.4 1.6	16.3	2.6 3.1	69 68	95·7 78·3	23.7	43·25 42·86	in. 0.004 0.000	wP:mP wP:mP,wP
3 4 5 6	29·866 29·781 29·927	38·8 40·0 51·2	35·2 37·1 37·0	2·5 3·6 2·9 14·2	35.0 37.2 38.6 42.1	- 5·5 - 3·5 - 2·3 + 1·1	34·4 35·9 36·9 39·8	33·4 34·1 34·6 36·9	3·I 4·0 5·2	3·4 6·0 6·4 10·7	0·5 1·2 0·7 0·9	94 89 87 83	41·5 44·8 42·7 92·9	35·0 31·6 30·9	42·33 41·99 41·72 41·72	0.050 0.000 0.117 0.004*	wP, wwP: wwP, wwN: wwP wP, wwP: wP: wP, wwP wwP: wP wP
7 8 9	29·916 29·888 30·000	44·I 42·6 50·4	37·6 29·5 27·4	6·5 13·1 23·0	41·1 36·3 37·2	+ 0·I - 4·8 - 3·8	39·3 34·2 34·9	37·0 31·1	4·1 5·2 5·5	6.5	1.8	86 82 81	62·3 89·7 91·8	31.3	41·70 41·77 41·87	0.000	wP wP wP, wwP : wwP, wP : wP
10 11 12	30·016 29·971 29·896	59.0 61.9 62.6	29·I 37·I 42·6	29·9 24·8 20·0	41·1 48·2 50·7	+ 0·2 + 7·2 + 9·6	38·3 43·6 45·7	34·8 38·6 40·5	6·3 9·6 10·2	17·5 17·5 19·4	0.0 2.5 3.0	79 70 69	90.0	22·7 27·0 27·2	41·73 41·79 42·10	0.002* 0.000 0.000	wP:wP:wP,mP wP:wP,mP:sP mP:mP,ssP
13 14 15	30·142 30·000 29·852	52·7 52·0 47·1	41·9 38·2 32·6	10·8 13·8 14·5	46·2 42·5 39·5	+ 4.9 + 1.0 - 2.2	44·3 40·0 36·6	42·I 37·0 32·8	4·1 5·5 6·7	8·6 15·7 14·1	0·7 0·0 1·8	87 81 78	76·7 102·0 99·2	30·0 36·0 25·6	42·62 43·05 43·35	0.000 0.000	mP, wP: mP wP, mp: mP wwP: mp, sP: ssP, sP
16 17 18	29·791 29·837 29·963	49·9 54·8 61·2	29·0 33·2 36·7	20·9 21·6 24·5	38·5 43·0 46·7	- 3·4 + 1·0 + 4·7	35·6 41·0 43·7	31·7 38·6 40·3	6·8 4·4 6·4	9·7 15·6	0·4 0·0 0·0	77 84 80	89·0 99·4 109·9	17·0 20·9 24·5	43·42 43·21 43·20	0.000 0.001 0.003*	sP, mP : wP, mP : mP, sP wwP : wP : mP wP : mP, sP
19 20 21	29·808 30·094 30·309	52·9 59·0 60·7	36·1 41·8 37·9	16·8 17·2 22·8	44·5 50·0 47·9	+ 2·6 + 8·1 + 6·0	42·7 45·7 44·0	40·6 41·2 39·7	3·9 8·8 8·2	8·9 19·0 18·7	0·7 1·5 0·2	87 72 74	70·0 97·4 99·5	24·3 31·1 29·5	43·34 43·52 43·80	0.059 0.000 0.000	sP, mP: mP: mP, wwP wP, mP: sP, ssP: ssP, sP mP, wwP: wP, sP: ssP, sP
22 23 24	30·303 30·227 30·087	66·5 65·9 65·2	37·I 34·2 33·9	29·4 31·7 31·3	51·1 50·5 48·3	+ 9·1 + 8·3 + 5·9	44·9 43·9 43·4	38·5 37·0 38·0	12·6 13·5 10·3	25·7 22·6 21·5	0·9 2·6 0·5	62 61 68	100·0 90·8 83·2	26·4 24·1 22·9	44·09 44·22 44·46	o.000	sP, mP: mP, ssP: mP mP: mP, ssP: ssP sP: sP, ssP: ssP
25 26 27	29·966 30·012 29·851	53·3 47·8 51·3	35·9 33·0 32·8	17·4 14·8 18·5	44·0 38·9 41·7	+ I·3 - 4·1 - I·6	40·1 35·7 39·0	35·5 31·5 35·7	8·5 7·4 6·0	16·1 14·3 14·4	3·7 0·8 0·7	72 75 80	105·8 91·0 75·5	26·0 20·0 23·0	44·56 44·48 44·37	0.000	ssP, mP: sP, ssP: ssP sP: mP,ssP: ssP, mP mP:
28 29 30	29·354 29·325 29·302	50·0 53·1 48·9	39·8 40·3 33·2	10·2 12·8 15·7	45.3	+ 1.5 + 1.2 - 1.7	43·3 41·7 41·7	41·1 37·5 40·4	4·I 7·8 2·4	8·9 14·6 6·8	0·0 1·8 0·4	86 75 91	75·8 98·3 65·0	32·9 35·8 26·0	44·19 44·20 44·20	0·055 0·214 0·372	: wwP, wwN: mP wwP: sP, mP: sP, mP wP: wwP
31	29.101	54.6	41.1	13.5	47.4	+ 2.5	44.3	40.9	6.5	12.2	0.7	79	93.2	33.2	44.19	0.079	wwP:wP:wP
Means	2 9·869	52.1	35.3	16.8	42.9	+ 1.0	39.9	36.2	6.7	13.7	1.1	78.3	86.0	26.9	43.14	Sum 0·969	
Number of Column for Reference	Î	2	3	4	5	6	7	8	9	10	II	I 2	13	14	15	16	17

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

*Rainfall (Column 16). The amounts entered on March 6, 10 and 18 are derived from dew, fog and frost.

The mean reading of the Barometer for the month was 29in.869, being 0in.123 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was $66^{\circ} \cdot 5$ on March 22; the lowest in the month was $27^{\circ} \cdot 4$ on March 9; and the range was $39^{\circ} \cdot 1$. The mean of all the highest daily readings in the month was $52^{\circ} \cdot 1$, being $2^{\circ} \cdot 3$ higher than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was $35^{\circ} \cdot 3$, being $2^{\circ} \cdot 2$ h gher than the average for the 65 years, 1841-1905. The mean of the daily ranges was $16^{\circ} \cdot 8$, being $2^{\circ} \cdot 1$ greater than the average for the 65 years, 1841-1905. The mean for the month was $42^{\circ} \cdot 9$, being $1^{\circ} \cdot 0$ higher than the average for the 65 years, 1841-1905.

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

	ne.		Wind as Deduc	ED FROM SELF-REGISTERING	ANEMO	METERS.			
	Sunshi	izon.	·	Osler's.			Robin son's	CLOUDS AN	ND WEATHER.
MONTH and DAY, 1918.	ration of	above Horizon.	Genera	l Direction.	O	essure n the are Foot.	Move-		
1910.	Daily Duration of Sunshine.	Sun a	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	Р.М.
Mar. 1 2 3	5.5 5.6 0.0	10.8	N:NNE:NE NNE:NE NE	NNE : NE NE NNE : NE : ENE	lbs. 9·8 10·1 8·8	lbs.	612	3 : 10,sltr,sl : vcl, cun, w o, hofr : 1 : vcl, w 10, ocsltsn, mr, w : 10, n, r, mr	vcl, w : 0 vcl, w : 9, w : 10 10, r : 10, fqr : 10, mr
4 5 6	0.0	11·1 11·1 11·0	Calm: NE: N NNE: ENE: E E	N : NNE E E : ENE	6.0	0.30	376	10, ocmr : 10 10, r, mr : 10, ocmr 6, hyd : 1, ci	10 : 10 10 : vcl, sltsh : 6 1, cis : 10, ocmr : 10
7 8 9	2.4	11.3	ENE : E ENE : NE Calm : E	E:ENE NE:E:ESE E:ESE:Calm	3.0	0·28 0·17 0·02	339 273 126	IO, mrsh : IO I, a : IO : IO, n, m-r, sltsn 2, hofr : f : o, h, f	10 : vcl 3 : 1, hofr o : o, f
IO II I2	7.7	11·4 11·5 11·5	Calm Calm: SSW SSE: S: SSW	Calm: SSW SSW: S: SSE SSW: Calm: N	2.3		245 204	f, hofr : f : o, sltf I : vcl, thcl : 8 10, h, thcl : 7, cu	o, h : pcl, h : o, h I : 2 I, m : I, sltf
13 14 15	6.2	11·6 11·7 11·7	N : NNE NNE : NE : ENE NE : ENE : E	N:NNE:NE E:ENE:NE E:ENE:NE	3.4	0·05 0·33 0·42	196 334 359	10 : 10 10 : 9,mrsh: 1, cu,ci 10, hyd : 1	9 : 10 : 10 7, s, n : 10, sltr : 10 vcl, cun : 10 : 9
16 17 18	2.6	11.9 11.8	NE : Calm E : ENE Calm : S : SSW	SSE : SE : E E : Calm : SE SSW	I • I	0·00 0·06 0·15	201	ro, hofr, sitf : I, hofr, f: I, m o : 9, sltsh : 10 o, hyd : vcl : 9, thcl, cts	1, soha : I 7 : Io, sltsh : I, d 9, cun : 9, luha : vcl, thcl
19 20 21	8.4	12·0 12·1 12·1	SSW : Calm NW : NNW SW	SW:W:NW NNW:NW:SW W:WSW	2.1	0·07 0·20 0·04	290	vcl,thcl,hofr: 10, sltr 10, hyd : 0 : 1 1 : 10, tkf :: 3, f	10, ocsltr : 10, ocsltr I : vcl, thcl, f : r, sltf, thcl I, ci : 2, thcl : I
22 23 24	10.3	12·3 12·3	WSW : W Calm : W Calm	W: NW: Calm Calm: NW Calm: W	0.4	0.02 0.00 0.00		I : I, h o,sltm,hofr : o, h o,m,sltf,hofr : o, m	o, h, f : o, h, m o, h : o, m r, f : o, m : o, m, h
25 26 27	3.3	12·4 12·4 12·5	NNE N:NNE SSW:SW:WSW	NNE : N N : Calm : S WSW : SW : SSW	1.1	0·34 0·12 0·25	212	o, m, d : 10 : 8 I : I : 8, cun 7, slthofr :10, cun	9 : I 8 : 5 : 9 10, n : vcl, cu
28 29 30	o.₀ 3.8 o.₀	12·6 12·7 12·7	SW: SSW WSW: W: NW SW: S: SSE	SSW: SW: WSW WNW: W: WSW S: SW	8·0 8·9 2·4	0.55	505 485 233	vcl : 10, ocmr : 10, sltr 10, t, l, r : 7, cun, ocsltr 7 : 10, r	10, sltr : pcl : 7 10, n, ocsltr : 10 10, r : 2
31	7.8	12.8	S:SSW:SW	SSW : SW	9.9	0.65	479	10, fqr : 8, ocmr, w	vcl, ocshs, w : p cl : v cl
Means	4.4	11.8	••		• •	0.27	295		
Number of Column for Reference	18	19	20	21	22	23	24	25	26

The mean Temperature of Evaporation for the month was 39° 9, being 0° 5 higher than

The mean Temperature of the Dew Point for the month was 36° 2, being 0° 1 lower than

The mean Degree of Humidity for the month was 78° 3, being 2° 2 less than

The mean Elastic Force of Vapour for the month was 0^{in.}214 being the same as

The mean Weight of Vapour in a Cubic Foot of Air for the month was 2^{grs.}5, being the same as

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

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0° 371. The maximum daily amount of Sunshine was 10° 2 hours on March 22 March 23.

The highest reading of the Solar Radiation Thermometer was 109° 9 on March 18; and the lowest reading of the Terrestrial Radiation Thermometer was 17° 0 on

March 16.

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

The Greatest Pressure of the Wind in the month was 10·1 lbs. on the square foot on March 2. The mean daily Horizontal Movement of the Air for the month was 295 miles; the greatest daily value was 612 miles on March 2; and the least daily value was 90 miles on March 24.

Rain (olin.005 or over) fell on 8 days in the month, amounting to olin.969, as measured by gauge No. 6, partly sunk below the ground; being olins.551 less than the average fall for the 65 years, 1841-1905.

	Baro- meter.			1	[EMPERATU	RE.				rence betw ir Tempera		y (T	EMPERATUF	RE.	ge No. face is round.	
MONTH and DAY,	Hourly rrected 1 to 32°			Of the A	Air.		Of Evapo- ration.	Of the Dew Point.	and	l Dew Poir emperature	nt	Degree of Humidity (Saturation = 100).	Of Rac	liation.	Of the Earth	in Gaugaving surve the Gr	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fabrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Меап.	Greatest.	Least.	Degree of (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Apr. 1 2 3	in. 29·286 29·616 29·672	56·7 56·8 56·8	36.8 32.0	° 14.7 20.0 24.8	47.5 44.8 44.5	+ 2·2 - 0·9 - 1·5	44·3 41·5 41·0	40.8 37.7 37.0	6.7 7.1 7.5	12·4 15·1 16·4	° 1·7 ○·7 ○·0	78 76 74	103·9 111·9	34·2 28·3 24·1	44·37 44·53 44·70	in. ○·○38 ○·○25 ○·○08	wwP: wP: wP wwP: mP: wP, wwP wwP::.
4 5 6	29·615 29·825 29·722	50·9 54·0 51·5	41·4 37·0 37·7	9·5 17·0 13·8	46·4 43·0 45·0	+ 0·2 - 3·3 - 1·3	44·2 40·4 43·2	41·1 37·3 41·1	4·7 5·7 3·9	8·8 14·9 8·9	I·I 0·2 0·0	85 80 86	72·0 100·8 67·8	38·3 28·1 29·0	44·70 44·80 45·01	0.040 0.000 0.274	·· ··
7 8 9	29·726 29·763 29·453	52·2 55·5 48·9	35·1 39·1 40·7	17·1 16·4 8·2	42·8 45·8 43·7	- 3·5 - 0·3 - 2·3	40·3 43·2 43·2	37·3 40·2 42·6	5·5 5·6 1·1	12·9 15·2 4·8	o·o o·o o·4	82 82 96	99·9 115·2 69·9	29·0 35·1 40·9	45·15 45·00 45·10	0.046 0.037 0.012	
10 11 12	29·451 29·625 29·752	47.0 49.0 61.3	42·I 43·2 42·9	4·9 6·7 18·4	44·9 45·6 49·6	- 1.0 - 0.2 + 3.7	44·4 45·1 46·8	43·8 44·6 43·8	1 · 1 1 · 0 5 · 8	2·6 2·3 16·0	0·4 0·4 0·4	96 97 81	51·0 59·7 118·9	42·0 39·4 31·4	45·20 45·30 45·40	0·072 0·061 0·001	· · ·
13 14 15	29·730 29·806 29·787	51·7 46·9 48·8	35.9 36.8 33.2	15·8 10·1 15·6	43·6 41·2 39·9	- 2·5 - 5·2 - 6·9	42·6 37·9 38·6	41·4 33·8 36·9	2·2 7·4 3·0	6·1 13·5 9·0	0·0 0·7 0·5	92 75 90	71·2 83·0 95·8	30·0 32·0 32·4	45.60 45.80 45.73	0·003 0·002 0·366	
16 17 18	29·790 29·868 29·889	41·1 44·7 45·0	32·2 41·1 33·0	8·9 3·6 12·0	37·7 42·7 40·1	- 9·5 - 4·9 - 7·9	37·3 42·0 37·4	36·7 41·2 33·9	1·0 1·5 6·2	2·3 2·6 13·6	0·0 0·5 0·0	96 94 78	45.5 50.2 80.8	32·0 40·8 27·6	45·50 45·00 44·79	0·548 0·241 0·003	
19 20 21	29·741 29·652 29·585	46·8 44·1 44·5	32·I 33·5 35·0	14·7 10·6 9·5	36·6 37·1 38·9	- 11·7 - 11·4 - 9·8	33·8 35·5 38·2	29·8 33·3 37·4	6·8 3·8 1·5	11·5 8·0 7·2	1·6 0·7 0·0	77 86 94	104·0 80·9 65·1	27·0 29·7 32·1	44·62 44·41 44·16	0.041 0.083 0.702	
22 23 24	29·720 29·839 29·888	54·9 49·2 54·4	37·3 40·6 36·2	17·6 8·6 18·2	45·3 44·0 45·2	- 3·4 - 4·6 - 3·4	41.6 42.5 43.5	37·3 40·7 41·5	8·0 3·3 3·7	15.0 8.2 7.8	○·7 ○·○ ○·2	74 88 87	104·0 62·7 89·1	29·9 29·9 27·1	43·92 44·08 44·41	0.000 0.085 0.000	·• ··
25 . 26 27	29·828 29·880 30·000	66.0 65.0 64.2	43·I 43·I 42·5	22·9 21·9 21·7	50·8 50·2 49·7		48·4 47·3 45·9	45.9 44.2 41.9	4·9 6·0 7·8	12·6 15·9 23·2	0·4 0·0 0·4	84 81 74	115·8 108·1 113·1	39·3 34·8 32·1	44:75 45:05 45:72	0.044 0.000 0.000	
28 29 30	29·996 29·890 29·866	47.9 54.5 55.9	41·2 40·4 40·1	6·7 14·1 15·8	44·2 45·6 46·1	- 4·6 - 3·4 - 3·0	42·6 43·1	41·4 39·2 39·7	2·8 6·4 6·4	4·2 10·7 10·6	1·5 1·8 2·5	90 79 79	54.0 101.1 97.5	37·1 36·2 35·9	46·12 46·46 46·45	0·114 0·000 0·000	
Means	29:742	52.2	38.2	14.0	44·I	- 3.2	42.0	39.5	4.6	10.4	0.6	84.4	87.1	32.9	45.06	Sum 2·846	
Number of Column for Reference	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 29in.742, being oin.006 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 66° on April 25; the lowest in the month was 32° on April 3; and the range was 34° o. The mean of all the highest daily readings in the month was 52° 2, being 5° o 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 50° 8 lower than the average for the 65 years, 1841-1905. The mean of the daily ranges was 14° 0, being 4° 2 less than the average for the 65 years, 1841-1905. The mean for the month was 44° 1, being 3° 2 lower than the average for the 65 years, 1841-1905.

	ine.	1	Wind as Deduc	ced from Self-Registering	ANEMOM	IETERS.			
MONTH	Sunsh	orizon.		Osler's.			Robin- son's	Clouds	S AND WEATHER.
MONTH and DAY 1918.	ation of	Sun above Horizon.	General	Direction.	on	essure the re Foot.	Move- ne Air.		
	Daily Duration of Sunshine.	Sun a	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	P.M.
Apr. 1 2 3	hours. 3:3 7:4 7:0	hours. 12.9 12.9	SSW: SW: WSW WSW: SW Calm: SSW: SE	SW:W:NW W:SW S:SE:E	lbs. 3.0 4.7 3.0	lbs. 0·28 0·16	miles. 363	pcl : 9, ocr : 8 pcl, hyd : 1 1, hyd, hofr : pcl, cu, cis	9, r : 10 : 10, mr 9, cun, ocsltr : vcl : 0 8, cun : 10, ocmr : 10, mr
4 5 6	0.0 5.2 0.0	13·2 13·1	E : ENE NNE : N SSW : SW	ENE: NE: NNE N: SSE: SSW SSW: SW: WSW	3.6 1.0 4.3	0.11	392 222 362	10 : 10, n	10, mr, r
7 8 9	4·4 5·5 0·0	13·2 13·3 13·4	WSW: NW N: NNE: NE Calm: ESE	N:W:NW NE:ESE E:ENE	2·0 1·2 1·6	0.08	212	o : 7 : 8, sh, mr 10, ocr, mr : v-cl, cu 10, mr, m : 10, ocmr	8, sh : 10, fqsltr : 10, sltr 9 : vcl : 10
IO II I2	0.0 0.0 7.8	13·4 13·5 13·5	ENE : E NNE : NE Calm : SW : W	NNE : N E : Calm W : Calm	2·5 0·5 0·6	0·18 0·03 0·02	149	10, ocmr : 10, ocmr 10, m : 10, r : 10, lir 10 : 10, sltr : 7	10, sltr : 10, mr 10, ocsltr : 10, ocr, m : 10, m 7 : 0, m
13 14 15	o·o o·8 o·6	13.7	Calm : NE NE N : NNE	NNE : NE NE : NNE NNE : N	4·0 8·0 7·1	0.30	596	10, f : 10, m 10, ocmr, w : 10, n, sltsh, w 10, sltr : 10, ocsltr	10 : 10, ocmr 9, w : 9, w : vcl 10, r, ocmr : 10, r, sn
16 17 18		13·9 13·9	N : NNE NNE : NE NNE	N : NNE NNE : NE NNE : N	2·0 2·5 7·0	0·21 0·25 0·76	368	10, r, sn : 10, r, sl 10, sltr : 10, ocmr, r 10, sltr : 10, fqmr, w	10, mr : 10, mr : 10, r : 10, w : 8 : 0
19 20 21		14·0 14·1 14·1	NNW : N W : NW : N SE : ESE	N:NW:SW S:SW:Calm SE:Calm	5·5 0·8 5·6	0·40 0·00 0·27	143	O : 9, oc., sltsn : 7, cun, ocsn IO, r : IO : IO, glm IO, r, ocsn : IO, r, sn, sl	vcl, cu, ocsn : vcl, ocsn, m : IO vcl, ocglm,-sl : IO, ocr,-sl : IO, r, mr IO, r, mr : IO, mr, r
22 23 24	7·7 0·0 2·1	14·3 14·3	Calm: NE: N W: N: Calm Calm: N: NE	N: NNW Calm: NE; E NNE: N	0.5	0.07 0.01 0.09			pcl : 2, h : vcl, thcl 10, sltm : 10 : 9
25 26 27		14·4 14·5 14·5	N:NNE N N	NNE : SE : N N : NNE N : NNE		0·14 0·05 0·24	198		8,fqsltr,t: pcl, ocr,-h: 7 7 : 3 : o, hyd vcl, cu : 3 : 7
28 29 30	ı ·6	14·6 14·7	N : NNE NNE NNE : NE	N : NNE NNE : N ENE : NE		0·53 0·45 0·45	453		10 : 10, sh : vcl 9 : vcl : pcl 10 : 10 :
Means	2.6	13.8				0.25	292		
Number of Column for Reference	18	19	20	2 I	22	23	24	25	26

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The mean Temperature of Evaporation for the month was 42°·0, being 1°·9 lower than

The mean Temperature of the Dew Point for the month was 39°·5, being 0°·6 lower than

The mean Degree of Humidity for the month was 84·4, being 8·6 greater than

The mean Elastic Force of Vapour for the month was 0<sup>in</sup>·242 being 0<sup>in</sup>·006 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 2grs 8, being 0gr. 1 less than

The mean Weight of a Cubic Foot of Air for the month was 547 grains, being 4 grains greater than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 8·2.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·192. The maximum daily amount of Sunshine was 7·8 hours on April 12.

The highest reading of the Solar Radiation Thermometer was 110°·1 on April 2·1 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading of the Solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest reading the solar Radiation Thermometer was 110°·1 on April 2·2 and the lowest
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April 12.

The highest reading of the Solar Radiation Thermometer was 119° 1 on April 3; and the lowest reading of the Terrestrial Radiation Thermometer was 24° 1 on April 3. The Proportions of Wind referred to the cardinal points were N. 15, E. 7, S. 2, W. 3. Three days were calm.

The Greatest Pressure of the Wind in the month was 8.0 lbs. on the square foot on April 14. The mean daily Horizontal Movement of the Air for the month was 292 miles; the greatest daily value was 596 miles on April 14; and the least daily value was 111 miles on April 23.

Rain (olin.005 or over) fell on 19 days in the month, amounting to 2lin.846 as measured by gauge No. 6 partly sunk below the ground; being 1 lin. 280 greater than the average fall for the 65 years, 1841–1905.

	BARO- METER.			5	Гемрекат	JRE.				rence bety		>:		Temperat	URE.	ge No. face is ound.	
MONTH and DAY,	Hourly rected to 32°			Of the A	Air.		Of Evapo- ration.	Of the Dew Point.	an	ir Temper d Dew Poi emperatur	nt	Degree of Humidity (Saturation = 100).	Of Rad	liation.	Of the Earth 3 ft. 2 ins.	in Gaugeiving Surf	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly. Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree o	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
May 1 2 3	in. 30·071 30·127 29·886	49.8 54.0 59.4	41·2 40·3 39·4	8.6 13.7 20.0	44·2 47·3 49·6	- 5·1 - 2·2 - 0·2	40.6 45.1 46.9	36·4 42·7 44·0	7.8 4.6 5.6	13.5 8.2 11.4	0 4.4 2.0 0.9	74 85 82	102·1 88·1 118·9	36·2 32·9 31·8	46.60 46.61 46.82	in. 0.000 0.000 0.290	
4 5 6	29·714 29·565 29·570	67·9 54·5 68·9	48·3 46·2 49·1	19·6 8·3 19·8	55·1 50·4 56·4	+ 5·1 + 5·9	52·0 49·8 53·0	49.0 49.2 49.8	6·1 1·2 6·6	16·9 3·2 16·5	0·4 0·2 0·0	80 96 79	118·0 67·0 125·1	38·2 36·2 42·9	46·99 47·46 48·05	0·133 0·192 0·021	
7 8 9	29·550 29·618 29·672	55·9 68·0 67·7	45·9 45·3 43·2	10·0 22·7 24·5	50·4 54·6 54·2	- 0·3 + 3·6 + 3·0	49.4 50.6 48.7	48·3 46·8 43·3	2·1 7·8 10·9	6·3 15·9 21·2	0.6 2.3 0.0	93 75 67	75·8 121·9 116·9	40·7 35·9 34·9	48·35 48·78 49·15	o·347 o·000 o·000	··
10 11 12	29·710 29·697 29·520	55·5 63·1 60·8	41·0 39·5 45·6	14·5 23·6 15·2	48·7 50·1 51·7	- 2·8 - 1·7 - 0·4	46·1 47·8 47·6	43·3 45·4 43·4	5·4 4·7 8·3	10·3 11·9 16·4	0·9 0·0 1·7	82 85 74	115·9 125·6 110·9	31·9 28·8 37·4	49·50 49·90 50·15	o·ooo o·os9	
13 14 15	29·427 29·603 29·780	60·0 63·7 68·7	45·I 43·I 50·I	14·9 20·6 18·6	50·1 51·8 57·7	- 2·3 - 0·8 + 4·9	48.0 48.8 54.4	45·8 45·8 51·4	4·3 6·0 6·3	9·4 14·8 16·2	o.8 o.o o.o	85 80 80	97·1 115·0 121·9	36·4 35·0 38·6	50·49 50·57 50·59	0·212 0·000 0·000	
16 17 18	29·808 29·765 29·905	76·5 78·9 76·8	48·2 50·2 52·4	28·3 28·7 24·4	62·9 63·1 63·5	+ 9.9 + 10.0 + 10.2	56·0 58·9 58·7	50·1 55·3 54·7	7.8 8.8	23·7 19·0 22·1	I ·4 ○·○ ○·○	63 76 74	137·0 128·9 123·2	37·8 41·0 43·1	50·98 51·70 52·55	0.000 0.096 0.000	
19 20 21	30·101 30·102 30·002	73.0 74.0 83.0	48·9 47·3 47·1	24·I 26·7 35·9	61.0 60.2 64.8	+ 7·5 + 6·4 + 10·6	55·5 53·7 57·6	50·8 48·0 51·6	10·2 12·2 13·2	19·7 26·0 28·4	0·6 0·4 0·6	69 64 62	133.6 137.8 142.1	38·9 36·6 38·0	53·25 53·97 54·65	0.000 0.000	
22 23 24	29·897 29·822 29·867	79·7 66·7 59·9	51·1 49·1 48·2	28·6 17·6 11·7	65·7 56·6 54·4	+ 11·1 + 1·7 - 0·9	58·1 53·2 50·0	51·9 50·0 45·7	13·8 6·6 8·7	27·7 16·1 12·1	1·6 0·0 4·0	61 79 72	133·8 121·8 61·1	40·1 48·5 47·2	55·41 56·00 56·49	0·212 0·313 0·019	· · · · · · · · · · · · · · · · · · ·
25 26 27	29·951 29·989 30·156	71 ·0 61 ·7 68 ·0	54·6 51·5 43·4	16·4 10·2 24·6	60·6 55·3 55·8	+ 5·I - 0·5 - 0·2	55.4 52.6 50.1	50·9 50·0 44·8	9·7 5·3 11·0	16·9 11·2 20·7	3·2 0·8 2·7	70 83 66	117·5 114·2 131·0	47.0 44.5 33.1	56·37 56·03 56·00	0.000 0.013	··· ···
28 29 30	30·225 30·270 30·237	67·9 67·2 74·7	41·2 43·4 40·4	26·7 23·8 34·3	54·3 54·8 58·3	- 1.6 - 1.6	49·7 49·6 51·7	45·2 44·6 45·9	9·1 10·2 12·5	16·0 20·2 23·3	1·1 0·6 0·4	71 68 63	117·5 133·5 124·0	31·0 30·4 28·2	56·01 55·97 56·10	0.000 0.000	
31	30.285	71.9	46.1	25.8	59.7	+ 2.6	54·I	49.1	10.6	18.3	0.8	68	136.8	33.5	56.40	0.000	
Means	29.867	66.7	46.0	20.7	55.6	+ 2.5	51.4	47.5	8.1	16.6	I •0	75.0	116.6	37.3	51.87	1.907	
Number of Column for Reference.	I	2	3	4	5	6	7	8	9	10	ΙΙ	I 2	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 29in.867, being oin.073 higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 83° 0 on May 21; the lowest in the month was 39° 4 on May 3; and the range was 43° 6. The mean of all the highest daily readings in the month was 66° 7, being 2° 8 higher than the average for the 65 years, 1841–1905. The mean of all the lowest daily readings in the month was 46° 0, being 2° 3 higher than the average for the 65 years, 1841–1905. The mean of the daily ranges was 20° 7, being 0° 5 greater than the average for the 65 years, 1841–1905. The mean for the month was 55° 6, being 2° 6 higher than the average for the 65 years, 1841–1905.

	line.		WIND AS DEDUC	CED FROM SELF-REGISTERING	ANEMO	METERS.				
	Sunsh	rizon.	Os	sler's.			Robin- son's	CLOUDS	AND WEATHER.	
MONTH and DAY, 1918.	ration of	Sun above Horizon.	Genera	al Direction.	or	essure the re Foot.	al Move- the Air.			
	Daily Duration of Sunshine.	Sun	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	Р	·.M.
May 1	hours.	hours. 14.8 14.8	NE : ENE : E ENE : NE : E	E : ESE : ENE E	lbs. 3 '4 2 · 0	lbs. 0·30 0·15	miles. 329 240	10 :10 : 9	9 : 10 10 : 3	: IO : O
3	1.9	14.9	E : ENE	E: WSW	6.3	0.40	347	o : pcl : 9	8 : 9	: 10, r
4 5	6·2	14.9	WSW : W Calm : NE	W: Var.: E NNE: E: Calm	1.0	0.08	178 152	10, r, ocmr : 10 : 7 9 : 9, hyd, f: 10, r	pcl : pcl : pcl : 10, slt.	: o, m, h -r : 10, ocmr
6	5.1	15.0	S:SW	SW : var. : E	0.5	0.02		10, r : vcl	8, cun, n : 8	: 9
7 8	0·0 8·3	15.1	NE : N N : NNE	N N : NE : Calm	3·5 2·1	0.24	294 236	10, m, d : 10, r 8 : 10 : vcl, sltsh	10, r : 9 7 : 1	: vcl : 1
9	11.8	15.2	Calm : N	N:NNE	0.8	0.04	184	o, hyd : 7 : 1, ci	1, ci : 1	: 0
10 11	5.6	15.3	NNE : N NE : E SW : NW : W	N : E E : SW : S W : WSW : SW	0.8	0.08 0.03 0.26	200 140	o, hyd : 8 : 8, cun o, hyd : 10, m, mr: 10 10, sh : vcl : 10, sltr, t		: 0
12	7.5	15.3			5.3		293			; I
13 14 15	3·8 6·1	15·4 15·4 15·5	SW : S : SSW SSW : SW SSW : S	SSW: W SSW SSW:SSE	2·8 3·0 1·5	0·25 0·26 0·18	255 298 212	6 : 10,r,mr : 10, r o, hyd : 7 10 : 10, cun		O IO : I,S
16 17 18	12·4 8·7 12·0	15·6 15·6 15·7	SSE : Calm : ESE Calm : NE : SE SW : NNW : N	SE:S:Calm E:SE:Calm N:NNW:ENE	1·8 5·1 0·8	0·10 0·04 0·08	127 107 155	o : vclthcl : 9 o : 2 : 6, t o, h, hyd : : o, h	r : 9, tsm, f : pcl 3 : vcl	o : o, h : 1, thcl
19 20 21	11·4 14·7 13·6	15·7 15·8 15·8	Calm: NE: E Calm: E Calm: E: ESE	E E : Calm ESE : E : Calm	1·4 2·3 1·5	0·09 0·15 0·07	148 191 137	o, d, sltf : o o, hyd : o vcl, thcl, d, tkf : o		: o, h o
22 23 24	13.6 7.8	15·8 15·9 15·9	Calm : E SSW : SW WSW : W	E : SW SW WNW : NW	3·7 19·4 7·7	0·20 1·22 0·83	203 521 522	o, hyd, sltm : o, h 10 : 7, slttsm: 9, sltsh, w 10, ocr, w : 10, ocr, w	6, mrsh, w : 9, r, w	hy-r : 10, tsm : 10, r, w 10, mrsh
25 26 27	2·0 0·1 11·4	16.0	W : NW : N W : N : NE N : NNE	NW : W NNE : N NNE : ENE : Calm		0·09 0·23 0·19	181 243 209	10 : 9, m : 10,0cslt.r	8 : 10 10 : ccl	: I : I0
28 29	5·1 10·4	16·1	Calm: SW: N NNE: NE	N: NNE NE: E: Calm	1.3	0.09	219 165	8, m : thcl, m : 8, cu 2, m : 10 : 3	8, cu : vcl 1 : o	: r : o, h
30	13.1	16.1	Calm : SW : NNW Calm : ENE	N: NE: Calm ENE: E: Calm	1.6	0.02	107	o, m, d : o, h : 2, h	2, h : 1 1 : 0	: 1, thcl : 0
31	14.8	16.2	Caini . ENE	EIVE . E . Cami	-		170	o, n	. 0	. 0
Means	7.0	15.5		••		0.20	223			
Number of Column for Reference	18	19	20	21	22	23	24	25	2	6

The mean Temperature of Evaporation for the month was 51°·4, being 2°·4 higher than
The mean Temperature of the Dew Point for the month was 47°·5, being 2°·5 higher than
The mean Degree of Humidity for the month was 75·0, being 0·8 greater than
The mean Elastic Force of Vapour for the month was oin. 329, being oin.030 greater than
The mean Weight of Vapour in a Cubic Foot of Air for the month was 3grs.7, being ogrs.3 greater than
The mean Weight of a Cubic Foot of Air for the month was 536 grains, being 2 grains less than
The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·3.
The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·454. The maximum daily amount of Sunshine was 14·8 hours on May 21.

May 31.

The highest reading of the Solar Radiation Thermometer was 142°·1 on May 21; and the lowest reading of the Terrestrial Radiation Thermometer was 28°·2 on May 30.

The Proportions of Wind referred to the cardinal points were N. 8, E. 7, S. 5, W. 4. Seven days were calm.

The Greatest Pressure of the Wind in the month was 19·4 lbs. on the square foot on May 23. The mean daily Horizontal Movement of the Air for the month was 223 miles; the greatest daily value was 522 miles on May 24; and the least daily value was 107 miles on May, 17, 30.

Rain (oin-oo5 or over) fell on 12 days in the month, amounting to 110-907, as measured by gauge No. 6 partly sunk below the ground; being 010-008 less than the average

	BARO- METER.			Te	MPERATURE	•				erence bety		b ·	7	[emperatu	RE.	e No. ace is ound.	
MONTH and DAY,	Hourly rected i to 32°		W1 1 2	Of the A	ir.		Of Evapo- ration.	Of the Dew Point.	an	ir Temper d Dew Poi emperatur	nt	Degree of Humidity (Saturation = 100).	Of Rac	liation.	Of the Earth 3 ft. 2 ins.	l in Gaug siving surf ve the Gr	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest,	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of (Saturatio	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the fround.	. *
June 1	in. 30·281	77.9	47.2	30.7	63.2	+ 5.8	56·5	51:0	0 12.2	23.9	I .0	65	124.0	36.2	56.89	in.	
3	30·178 30·066	79·7 67·9	46.9	32.8	65·0 57·8	+ 7·2 - 0·3	56·4 53·I	49·3 48·8	15·7 9·0	26·9 15·4	0.8	57 72	133.9	31.3	57·37 57·85	0.000	
4	30.086	66·1 67·2	43.9	22.2	54.1	- 4.2	49.5	45.0	9.1	15.3	0.8	71	134.0	29.0	58·20 58·20	0.000	
5 6	30.095	72.9	38.1	24·6 34·8	54·5 56·7	- 1·6	49·1	44.5	14.7	26.0	0.9	58	139.1	26.0	58.17	0.000	••
7 8	30.065	65·2 71·1	44·4 48·1	20.8	56.5	- I·7 + I·2	51·2 52·0	46·3 45·6	10.2	19.2	2·I 5·4	68	95·2 132·9	29.2	58·15 58·32	0.003	·· ··
9	29.964	69.1	46.6	22.5	55.9	- 2.1	50.5	45.4	10.5	18.8	3.0	68	125.0	34.0	58.38	0.022	••
11	29·816 30·040	67·2 73·8	47·0 50·1	20.2	55·4 60·5	$\begin{array}{c c} - & 2.7 \\ + & 2.3 \end{array}$	50·2 55·0	45·3 50·2	10.3	18.8	2.3	69	135·0 134·1	40.0	58·39 58·31	0.030	
12	30.067	71.6	50.8	20.8	60.5	+ 2.1	53.7	47.7	12.8	20.3	5.3	63	120.9	38.8	58.29	0.000	••
13	29·994 29·791 29·630	74.0 68.5 64.9	52·6 50·6	17.9	57·7 52·8	+ 3·6 - 1·0 - 6·0	57·I 54·6	52.8	9·3 5·9	12.4	3.6	72 81 66	115.5	44.9	58·49 58·70	0.000	•••
15	29.573	62.8	44.6	20.3	50.1	_ 8·8	47·I	41.4	8.6	16.4	2.0	73	135.0	27.8	58.70	0.000	
17 18	29.650	64·4 61·9	37·I	27·3 17·8	51.0	8 · o5 · 8	47·I 49·2	43.0	8.₀ 8.₄	17·1 16·1	0.0 I.3	75 73	112.5	26.0	58·30 57·80	0·150 0·154	••
19	29.521	68.8	50.6	18.2	56.9	- 2.6	54.1	51.5	5.4	14.2	0.0	82	141.5	49.2	57.50	0.050	••
20 21	29.763	71.9	53·8 54·4	17.5	59·4 60·1	- 0·5 - 0·2	55·0 54·9	50·3	8·3 9·8	20.4	0.8	74 70	137.9	50·1 48·0	57·45 57·50	0·012 0·006	••
22 23	29·802 30·001	68·0 67·4	49·4 45·0	18.6	58·4 55·0	- 2·2 - 5·9	51·1 47·6	44·6 40·5	13·8 14·5	22.8	2·4 6·0	60 58	131·4 131·0	39·5 35·0	57·69 57·89	0.000	
24	29.858	64.2	43.5	20.7	52.8	- 8.4	48.2	43.6	9.2	18.8	0.4	71	123.4	29.9	57.95	0.038	
25 26	29·823 29·872	67·2 66·5	40.0	27.2	52·1 54·7	- 9·3 - 6·8	47·3 48·7	52·4 42·9	9·7 11·8	21·2 18·5	0·0 3·2	70 65	132·2 125·4	26·2 31·4	58·00 57·82	0.017	••
27	29.840	70.0	47.0	23.0		- 2.7	51.8	45.5	13.4	21.1	5.9	61	135.9	36.1	57.73	0.000	
28 29 30	29·884 30·055	72·I 72·5 79·I	52·2 47·2	19·9 25·3	59.5	- I·I - 2·I + I·0	55·2 54·9 55·1	50·6 50·8 48·8	9·9 8·7 13·7	17·5 22·4 24·3	3·6 0·0 0·6	70 73 61	133·5 146·9 131·1	44.0 34.0 32.0	57·78 58·16 58·61	0.000	
30	29.995	/91	44.0	32.1	02.5	1.0	33.1	40.0	13/	24 3			1311	32.0	50 01	Sum	••
Means	29.913	69.6	46.4	23.2	57.2	- 2.2	51.7	47.0	10.6	19.7	r ·8	68·I	128.8	35.4	58.04	0.735	••
lumber of olumn for deference	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the photographic records.

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

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

The mean reading of the Barometer for the month was 29in.913, being oin.098 higher than the average for the 65 years, 1841-1905.

The highest in the month was 79°·7 on June 2; the lowest in the month was 37°·1 on June 17; and the range was 42°·6. The mean of all the highest daily readings in the month was 69°·6, being 1°·1 lower than the average for the 65 years, 1841–1905. The mean of all the lowest daily readings in the month was 46°·4, being 3°·5 lower than the average for the 65 years, 1841–1905. The mean of the daily ranges was 23°·2, being 2°·4 greater than the average for the 65 years, 1841–1905. The mean for the month was 57°·2, being 2°·2 lower than the average for the 65 years, 1841–1905.

	ine.		Wind as Deduct	ED FROM SELF-REGISTERING	ANEMON	METERS.		
	Sunsh	orizon.		Osler's.			Robin- son's	CLOUDS AND WEATHER.
MONTH and DAY, 1918.	Daily Duration of Sunshine.	above Horizon.	General	Direction.	or	essure the re Foot.	al Move- the Air.	
	Daily Du	Sun	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M. P.M.
June 1 2 3	hours. 9.8 13.0 7.4	hours. 16·2 16·2 16·3	Calm: SW Calm: ENE: NW ENE: E: NE	N:NNE:NE NNW:N:NE NNE:N:ENE	lbs. I·I I·I I·9	0.05	miles. 128 133 210	o, m : 8, m : r pcl : o : o o, d, sltm : o, h o : pcl : 8 vcl, d : 1, d : pcl : 0 : 2 : 2
4 5 6	1·5 10·2 14·2	16.3	NNE: N E: NE: N Calm: ESE: SE	NNE : ENE NE : E : Calm SE : E : S	1·8 1·5 2·3	0·07 0·08 0·07	167 165 158	8 : 8 : 9, n 9 : 8 9 : 10 : pcl 8 : pcl : 0 2 : 1, s, cu
7 8 9	10.2	16·4 16·4 16·4	S:SSW NNW:N SE:S:SSW	SSW:SW:NNW N:NE:E SW:WSW:W	1·9 1·5 6·0	0.09	221 140 342	pcl : 10 : 10, ocsltr 10, ocr : 10 : 8 7 : vcl : 1 10, shs : vcl, sh : vcl, sltshs
10 11 12	8·i 5·8	16·4 16·5 16·5	SW:S:NNE NNW:N NNW:N	NNE : N N : E : NNE NNW : WNW : W	6.0 2.0 1.6	0.15	343 207 195	8, ocr, mr : 10, ocmr : 10 9 : 1 0, h : 10 : 7, h 10 : 9 : 1 8 : pcl : 8 8, soha, h : 3 : vcl
13 14 15	3·8 1·9 12·2	16.5	W : SW SW W : WSW	WSW : SW SW : WSW : W SW : W	3·8 3·7 2·9	0.38	313 393 337	0 : 7 : 10, s 9 : 2 : 0 vcl : vcl : 10, mrsh : 10, mr : 10, r : 9, r 3, hyd : 2 : 8, cun 7 : pcl : 0
16 17 18	8·1 6·7 5·2	16·5 16·6	SSW: WSW: W Calm: NW: W Calm: SW	SW:S:Calm Var. SSW:S:SE	2·5 1·6 5·4	0.08	144	I, hyd : pcl : 8, cun I, hyd, sltm: 0, hyd sltm: 7, cun IO : I : 9, cu-n, ci 10, cun, s : 10, r 10, r IO, cun, s : 10, r 10, r IO, cun, s : 10, r IO, cun, s
19 20 21	2·2 4·8 7·6	16·6 16·6	E:SE:S NNW:NW:W W:NW	S:NNW WSW:SW WSW:SW	2·5 4·5 4·5	0·08 0·38 0·47	160 340 394	
22 23 24	11·2 12·3 4·2	16·6 16·6	SW: WSW: W W: WSW: NW W: WSW: SW	W: WNW: NW NW W: NNW: NNE	14·2 7·0 4·1	0.60	550 389 265	thcl, hyd: 8, w : 8, w : 7, w, cun : 8, w : 3
25 26 27	7.1	16·6 16·5 16·5	NNW : W NW : WNW : W	W: NNW NW: SW N: NW: W	3.2	0.13	183 270	,
28 29 3°	12.4	16·5 16·5	NW: W N: NNE Calm: ESE: NE	W: NW: N N: ENE: ESE NE: N: S	1.6	0.05 0.11 0.02	167	10 : 10 : 9 10, hyd, m: pcl : pcl pcl : 0 0, m, h : 0, h
Means	7:5	16.5				0.55	244	
Number of Column for Reference	18	19	20	21	22	23	24	25 26

The mean Temperature of Evaporation for the month was 51°·7, being 3°·2 lower than

The mean Temperature of the Dew Point for the month was 47°·0, being 3°·9 lower than

The mean Degree of Humidity for the month was 68·1, being 5·5 less than

The mean Elastic Force of Vapour for the month was oin 323, being oin 050 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 38° 6, being 08° 6 less than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·5.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·454. The maximum daily amount of Sunshine was 14·2 hours on June 6.

June 6.

The highest reading of the Solar Radiation Thermometer was 146° 9 on June 29; and the lowest reading of the Terrestrial Radiation Thermometer was 26° 0 on June 6, 17.

The Proportions of Wind referred to the cardinal points were N. 8, E. 3, S. 5, W. 9. Five days were calm.

The Greatest Pressure of the Wind in the month was 14·2 lbs. on the square foot on June 22. The mean daily Horizontal Movement of the Air for the month was 244 miles; the greatest daily value was 550 miles on June 22; and the least daily value was 102 miles on June 30.

Rain (0in.005 or over) fell on 11 days in the month, amounting to 0in.735, as measured by gauge No. 6 partly sunk below the ground; being 1·303 less than the average fall for the 65 years, 1841-1905.

	BARO- METER.				Temperat	URE.			Dif the	ference bet Air Tempe	ween	Lty (1	Temperati	JRE.	ge No. face is round.	
MONTH and DAY,	fourly rected to 32°			Of the	Air.		Of Evapo- ration.	Of the Dew Point.	a	nd Dew Po Femperatu	oint	Humidit	Of Ra	adiation.	Of the Earth	in Gaugiving sur	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	Highest in Sun's Rays.	Lowest on the Grass.	3 ft. 2 ins. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	2.000.000)
July 1 2 3	in. 29.898 30.049 30.243	82·0 68·6 70·4	50·7 51·4 47·6	31·3 17·2 22·8	65·2 60·6 58·3	+ 3·7 - 1·0 - 3·5	59·3 55·4 52·3	54·5 50·9 46·9	0 10·7 9·7 11·4	24.0 16.4 19.6	0.0 5.2 2.3	70	142·2 122·4 146·9	39·I 38·I 39·I	59·01 59·46 59·81	in. 0.000 0.000	::sP, wP mP:sP:sP, mP wP:sP, ssP:ssP, mP
4 5 6	30·230 30·068 29·978	76·9 76·8 73·5	47·3 59·1 57·4	29·6 17·7 16·1	61·9 65·5 63·6	+ 3.2	54·I 55·9 55·I	47:4 48:1 48:0	14·5 17·4 15·6	28·7 31·2 24·0	1·3 6·6 7·7	53	147·5 149·1 137·0	33.0 45.6 42.7	60·25 60·30 60·85	0.000	wwP, sP: sP: ssP, mP mP, sP: ssP: ssP ssP: sP: sP
7 8 9	29·968 29·696 29·518	78·5 81·5 73·1	54·7 52·2 48·7	23·8 29·3 24·4	64·6 66·8 60·9	+ 2·2 + 4·4 - 1·5	57·4 59·0 53·3	51·4 52·7 46·7	13·2 14·1 14·2	24·7 27·9 25·4	3.0 2.0 5.1	62 61 60	138·9 138·5 156·9	39·9 40·5 34·3	61·25 61·60 61·76	0.000	mP: mP: wP wwP, mP: mP: sP mP: mP, wwP
10 11 12	29·487 29·495 29·487	66·3 66·9	48·1 48·7 51·9	18·2 11·4 15·0	54·3 53·9 57·0	- 8·2 - 8·8 - 5·9	51·5 52·3 54·2	48·8 50·7 51·6	5·5 3·2 5·4	14·3 5·9 16·0	0·0 I·2 0·2	81 89 82	125·5 101·5 126·6	34·3 39·3 44·2	61·90 61·70 61·20	0·498 1·950 0·307	wwP: wP: mP, wwP wP, wwP: wwN, wwP wwP: wwP, wP: v, mP
13 14 15	29·713 29·648 29·726	72·0 68·9 76·1	50·2 47·5 56·9	21·8 21·4 19·2	58·9 58·0 64·2	- 4·2 - 5·3 + 0·8	55.0 56.4 60.9	51·5 55·0 58·2	7·4 3·0 6·0	17·1 6·7 13·2	0.0 0.6 0.4	77 89 81	133·0 101·2 137·0	40·9 36·1 51·9	60·30 60·30	0·162 0·120 0·000	wP:mP:mP wP:wwP:wP wP:wP,wwP:wP
16 17 18	29·651 29·647 29·689	80·4 76·5 71·0	57·0 56·1 56·0	23·4 20·4 15·0	66·9 64·2 62·1	+ 3·5 + 0·8 - 1·2	63·5 61·6 58·4	60·8 59·4 55·2	6·1 4·8 6·9	15·2 11·8 15·7	0·7 0·0 0·0	81 85 78	133·0 125·1 133·0	46·9 45·5 48·3	60·49 60·81 61·70	0·192 1·253 0·129	wwP:wP,mP:mP wwP:wP:wwP wP:wP:wwP
19 20 21	29·867 29·622 29·681	67·9 72·9 73·8	54·9 57·5 55·4	13·0 15·4 18·4	61·1 62·8 62·5	- 2·I - 0·4 - 0·7	59·4 60·7 56·5	57·9 58·9 51·4	3·9 11·1	8·9 10·0 20·5	0·9 0·6 2·1	90 87 68	97·8 119·7 134·9	47·1 49·9 48·2	61.68 61.62 61.66	0·166 0·219 0·009	wwP: wwP: wP wP: wwP: wP wwP: wP: mP, wP
22 23 24	29·672 29·404 29·643	68·1 71·1 74·1	54·2 56·5 53·4	13·9 14·6 20·7	60·0 61·7 59·4	- 3·1 - 1·3 - 3·5	56·9 59·7 56·1	54·2 58·0 53·2	5·8 3·7 6·2	11·5 8·9 14·6	I·2 0·0 0·2	81 88 81	100·2 107·7 142·6	47.0 50.3 47.7	61·49 61·60 61·61	0·090 0·539 0·826	wP : mP : wwP wP : wwP : wP wP : v, wwP
25 26 27	29·743 29·608 29·716	70·2 66·0 67·1	53·1 53·0 49·6	17·1 13·0 17·5	58·8 57·2 58·3	- 3.9 - 5.3 - 4.1	55·5 54·7 54·4	52·5 52·4 50·9	6·3 4·8 7·4	15·9 13·1 12·0	o·6 o·4 o·4	80 84 76	136·8 113·9 129·4	46·0 45·3 40·9	61·80 61·60	0·353 0·501 0·027	wwP: wwP, mP: wP, wwP wP: wwP, wP wwP: wP, mP.
28 29 30	29·985 30·005 29·943	70·9 77·9 76·4	47·2 51·7 52·9	23·7 26·2 23·5		- 3·2 + 1·7 + 2·3	55·3 59·5 60·5	51·9 55·8 57·1	7·2 8·2 7·5	15·8 18·9 15·1	0·0 0·2 0·0	77 75 77	105·9 119·8 107·2	37·9 43·1 42·6	61·30 61·26 61·30	0.000	wwP, wP wwP: wP: mP wwP: wP, wwP
31	29.880	74.3	51.9	22.4	63.1	+ 0.9	59.1	55.7	7.4	15.1	0.0	77	131.6	40.9	61.48	0.000	wwP:wP:wP
Ieans	29.773	72.6	52.7	19.9	61.3	- I·4	56.9	53.2	8.3	16.7	1.4	75.5	127.2	42.6	61.08	Sum 7·34I	
mber of lumn for ference	I	2	3	4	5	6	7	8	9	10	II	12	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 29in.773, being oin.026 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 82° on July 1; the lowest in the month was 47° on July 28; and the range was 34° 8. The mean of all the highest daily readings in the month was 72° 6, being 1° 6 lower than the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was 52° 7, being 0° 6 lower than average for the 65 years, 1841-1905. The mean of the daily ranges was 19° 9, being 1° 6 lower than the average for the 65 years, 1841-1905. The mean for the month was 61° 3, being 1° 4 lower than the average for the 65 years, 1841-1905.

	ine.		WIND AS DEDUCE	ED FROM SELF-REGISTERING	ANEMON	ETERS.			
	Sunsh	rizon.		Osler's.			Robin scn's		ND WEATHER.
MONTH and DAY, 1918.	ration of	Sun above Horizon.	Gener	al Direction.	or	essure the re Foot.	l Move- he Air.		1
19.00	Daily Duration of Sunshine.	e unS	A.M.	Р.М.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	Р.М.
July 1 2 3			Calm: N: NNW NNW: N NNE: N	Var. NNE : NE N : NNE	lbs. 2·3 4·0 2·9	0.34	miles. 131 314 283	vcl, thcl, h : r, h, sltm vcl, h : pcl, h	7, cun : vcl : vcl, h 10 : 3 : 1 1 : 0 : 0
4 5 6	13·2 3·8 5·7	16.4	NNW: NNE S:SW: NNW W: WSW: NW	N:E:SE N:WNW:W NNW		0.15	231	10 :10 : 9	1, cu, ci : 10, s, n 7, ci, cu : 2 : 7 8 : 1 : 3
7 8 9	4·I 8·4 II·I		NNW : NW Calm : SSW : S W : SW	NW : S S : SSW : SW SW : SSW	1·5 1·5 4·7	0.08 0.14 0.43	213		8, cun : pcl : vcl, cis 9, thcl, soha : pcl : I 8, ci, cu, shs : 7 : I
10 11 12	0.4	16·3 16·2	S:SSE S:SSW S:SSW	SSW:S SW:W:S SSW:SW	3·6 5·3 10·2	0·31 0·47 0·48	291 371 370	2 : 8, r	9, ocr : 9 : 9, r 10, fqhyshs,tsm: 2 8, shs : vcl, sh : I
13 14 15	I · 2	16·2 16·1	SW S:SE:ESE SSW	SW: WNW: SSW SSE: SSW SSW: S: SSE	2.5	0·17 0·18 0·18	274 255 223		8, r, mr : vcl : I 10, r, mr : 9 : vcl 8, mrsh : 7, sltsh : 9, n
16 17 18	7.1	16·1 16·1	SE:S:SW S:Calm:SE SSW	SSW E:W:S SSW:SW	2·I 4·5 I3·8	0·15 0·06 0·78	144	10, tsms : vcl : vcl, cun 0, m,hyd: 8, ocsltr : 10, sltsh 7 : vcl : 8, ocshs, w	
19 20 21	2·7 3·1 12·6		SSW:S S:SE S:WSW	SSW : SE ESE : SSW : SW WSW : SSW	2·2 1·9 8·8	0·16 0·10 0·80	235 207 493	2, hyd : 6 : 10, r vcl : vcl : 10, r, tsm 9 : 6 : 8, cun, ocshs	10, r : 10, r : 10 10, r : 9 : 9 vcl, w : pcl
22 23 24	0·3 2·2 8·9	1 1	SSW : S SSE : SE : E SW	SSW: S WSW: SW SW: WSW: SSW	3·2 4·7 5·0	0.17	310 242 341	10 : 10, m, r : 10, r, mr	10, s, n, ocsltr : 10, r : 10, mr,-sh 10, s, r, mr, m, h 8 : pcl 10, cun, ocshs, t : 10, fqhyshs,oct : 10, shs
25 26 27	4.0	15·7 15·7 15·6	SSW : SW SSW : SW NW : NNW	SSW : SW SSW : SW : W NNW	3.9	0·33 0·24 0·45	284	vcl,hyd: pcl : vcl 10 : 9, ocshs 10 :10,ocmr: 9, cun, fqshs	vcl, shs, t : 9, t 10, r : 10, ocr, slttsm: 10, mr 8, cun, ocshs: 7, shs : 0
28 29 30	7:4	15·6 15·5 15·5	SW:W:NNW SW:W Calm:SW	NNW : W : SSW W : N : Calm Calm : E	o·6 o·6 o·3		143 135 96	thcl,d,m: \circ , m : 7	10 : 9, h : 9, thcl 8, cun : 8 : 1, h 9, thcl, h : 0, hyd, h
31	12.2	15.4	Calm : E	E	2.3	0.07	162	o, hyd, m: r, h, m: o	o : r
Means	6.1	16.1	••	• •		0.25	259		
Number of Column for Reference	18	19	20	21	22	23	24.	25	26

The mean Temperature of the Dew Point for the month was 56°·9, being 1°·0 lower than

The mean Temperature of the Dew Point for the month was 53°·2, being 0°·6 lower than

The mean Degree of Humidity for the month was 75·5, being 2·7 greater than

The mean Elastic Force of Vapour for the month was oin.406, being oin.009 less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 48°s.5, being 08°s.1 less than

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

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·378. The maximum daily amount of Sunshine was 13·2 hours on July 4.

July 4.

The highest reading of the Solar Radiation Thermometer was 156° 9 on July 9; and the lowest reading of the Terrestrial Radiation Thermometer was 32° 3 on July 3. The Proportions of Wind referred to the cardinal points were N. 5, E. 3, S. 13, W. 7. Three days were calm.

The Greatest Pressure of the Wind in the month was 13.8 lbs. on the square foot on July 18. The mean daily Horizontal Novement of the Air for the month was 259 miles; the greatest daily value was 493 miles on July 21; and the least daily value was 96 miles on July 30.

Rain (olim-1005 or over) fell on 17 days in the month, amounting to 7^{lin}-341, as measured by gauge No. 6 partly sunk below the ground; being 4.942 greater than the average fall for the 65 years, 1841-1905.

	Baro- meter.			Т	EMPERATU	RE.				rence betw		×.	נ	[EMPERATU	JRE.	e No. face is	
MONTH and DAY,	fourly rected to 32°			Of the	Air.		Of Evapo- ration.	Of the Dew Point.	and	r Tempera l Dew Poir mperature	nt	Degree of Humidity (Saturation = 100).	Of Rad	iation.	Of the Earth 3 ft. 2 ins.	in Gaugelving surve the Gro	Electricity.
DAY, 1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Aug. 1 2 3	1n. 29·764 29·547 29·506	76°1 66∙0 68∙1	53.0 54.8 52.2	23·I II·2 I5·9	63·4 60·7 59·2	+ 1·2 - 1·4 - 2·9	59.6 58.9 57.2	56·4 57·4 55·4	7.0 3.3 3.8	7·2 10·7	°·4 °·2 °·2	78 89 88	136·1 98·9 108·8	44.9 48.3 45.4	61·71 61·90 62·17	in. 0.000 0.223 0.140	wwP: wP: wP wwP: wP, wwP: wP wwP: wwP, wP: wP
4 5 6	29·602 29·573 29·485	74·8 72·0 68·1	53·9 57·0 53·1	20·9 15·0 15·0	63·5 61·8 59·6	+ I·4 - 0·3 - 2·6	59·3 59·7 55·2	55·8 57·9 51·3	7·7 3·9 8·3	16·8 12·3 15·5	o·o o·8	76 87 74	123·5 122·7 130·4	43.0 54.3 44.3	62·12 62·10 62·21	0.000 0.027 0.040	wwP: wP: wP : wP: wwP wwP, wP: wP, mP: mP,wwF
7 8 9	29·800 29·878 30·013	71·8 71·0 70·2	53·3 54·4 51·5	18·5 16·6 18·7	62·1 61·5 60·5	- 0.8 - 0.8	59·I 57·4 55·2	56·5 53·9 50·6	5·6 7·6 9·9	18·1 18·1	0.0 0.0 1.4	82 76 70	121·0 129·7 121·0	44·1 46·7 43·9	62·28 62·22 62·20	0.002 0.003 0.000	wwP: wwP: wwP, wP wP: wwP, wP wwP: mP: wP, wwP
10 11 12	30·139 30·067 30·003	72·8 77·2 77·8	48·0 49·5 54·2	24·8 27·7 23·6	61.6 63.2 65.6	- 0·7 + 0·8 + 3·1	57·3 58·0 59·7	53·6 53·6 54·9	8·0 9·6 10·7	15·5 19·4 19·4	0·4 0·4 1·0	76 71 69	119·8 136·7 127·8	38·2 39·8 44·6	62·21 62·13 62·20	0.000 0.000	wwP: wwP, mP: mP, wP wwP: wP, wwP: wwP wwP: wwP, mP: ssP, mP
13 14 15	30·123 29·953 29·919	75·1 78·0 74·1	53·8 52·0 54·0	21·3 26·0 20·1	64·5 65·3 63·4	+ 2.0 + 2.8 + 1.0	57·7 59·2 57·4	52·I 54·2 52·4	12·4 11·0	19·5 21·3 19·4	2·3 0·6 0·6	64 68 67	129·6 134·5 139·1	40·9 41·8 40·2	62·50 62·79 62·90	0.000 0.000	sP, mp: mP, sP: ssP, wP wwP: mP: sP, mP wwP: sP: ssP, wP
16 17 18	29·867 29·825 29·863	77·1 70·0 73·1	47·9 54·3 55·8	29·2 15·7 17·3	63·1 60·7 64·1	+ 0.8 - 1.4 + 2.2	55·7 57·2 58·0	49·5 54·2 52·9	13·6 6·5 11·2	21·2 10·6 18·7	0·6 2·3 2·5	61 80 67	137·2 122·5 133·5	35·2 45·9 46·1	63·19 63·20 63·31	o·ooo o·o₃7 o·ooo	wP: mP: ssP mP, wP: mP, wwP wwP: wP, mP: mP, sP
19 20 21	29·961 29·974 30·002	72·9 79·5 84·1	52·0 58·7 60·1	20·9 20·8 24·0	61·4 67·3 69·6	- 0·3 + 5·8 + 8·3	57:4 63:7 65:1	53·9 60·9 61·6	7·5 6·4 8·0	18·2 15·7 18·4	0·4 0·0 0·0	77 80 75	135.0 131.6 141.2	43·0 53·0 50·9	63·20 63·13 63·36	0.000 0.000	mP: mP, wwP wwP, wP,: wP: mP, wP wwP: wP, mP: mP, wP
22 23 24	29·793 29·872 29·834	89·8 69·9 74·1	63·2 55·1 51·6	26.6 14.8 22.5	75.0 61.8 61.5	+ 13·9 + 0·9 + 0·7	66·9 56·8 55·8	61.0 52.5 50.9	9·3 10·6	25·7 18·5 23·6	2·9 1·3 0·0	62 72 69	144·7 131·9 127·6	51·8 49·0 42·2	63·81 64·12 64·48	0.000 0.046 0.000	wP: mP: sP wP, mP: sP: wwP wwP: sP: mP, wP
25 26 27	29·755 29·661 29·792	69·8 65·9 64·1	46·2 54·1 49·2	23.6 11.8 14.9	57·6 58·6 56·6	- 3·I - 2·I - 4·0	54·2 56·3 54·8	51·1 54·2 53·2	6·5 4·4 3·4	9·9 11·3 98·4	0·0 0·0	79 85 88	98·0	34·6 44·9 39·1	64·40 64·09 63·78	0·200 0·130 0·133	wwP: wP, mP: wwP wwP: vP: mP wP, wwP: mP: wwP
28 29 30	29·740 30·026 29·984	65·9 67·6 68·9	54·5 53·0 47·1	11·4 14·6 21·8	59·3 59·3 57·5	- I·I - I·0 2·6	56.6 54.2 54.0	54·2 49·6 50·8	5·1 9·7 6·7	10·9 17·5 15·2	1·1 2·9 0·0	84 70 78	107·0 114·8 123·8	42·0 40·0 34·I	63·28 62·91 62·50	0.005 0.000 0.000	wwP: mP, wP wwP: mP: sP, mP wP, wwP: mP: wP
31	29.674	66.9	52.2	14.7	58.6	<u> </u>	53.6	49.2	9.4	16.7	2.2	71	131.2	43.7	62.29	0.063	wwP, mP:sP:mP
Means	29.839	72.7	53.2	19.5	62.2	+ 0.6	57.8	54.1	8.1	16.4	0.8	75.3	125.4	43.7	62.86	1.049	
Number of Column for Reference.	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 29in.839, being oin.056 higher than the average for the 65 years, 1841-1905.

The highest in the month was $89^{\circ} \cdot 8$ on August 22; the lowest in the month was $46^{\circ} \cdot 2$ on August 25; and the range was $43^{\circ} \cdot 6$. The mean of all the highest daily readings in the month was $72^{\circ} \cdot 7$, being the same as the average for the 65 years, 1841-1905. The mean of all the lowest daily readings in the month was $53^{\circ} \cdot 2$, being $0^{\circ} \cdot 2$ higher than the average for the 65 years, 1841-1905. The mean of the daily ranges was $19^{\circ} \cdot 5$, being $0^{\circ} \cdot 2$ less than the average for the 65 years, 1841-1905. The mean for the month was $62^{\circ} \cdot 2$, being $0^{\circ} \cdot 6$ higher than the average for the 65 years, 1841-1905.

	ne.		WIND AS DEDU	CED FROM SELF-REGISTERING	ANEMON	METERS.			
	Sunshi	rizon.		Osler's.			Robin son's.	CLOUDS AN	ND WEATHER.
MONTH and DAY, 1918.	Daily Duration of Sunshine.	Sun above Horizon.	General D	irection.	or	essure the re Foot.	l Move- he Air.		
	Daily Du	Sun	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M.	P.M.
Aug. 1 2 3	hours. 7.0 0.1 1.4	hours. 15.4 15.3	E E : ENE Calm	E SE:SSW:Calm E:SSW:S	lbs. 2·3 4·0 0·4	1		10, sltsh :10, sh 1	o, cl, ci,s, soha : 8, thcl : 10, n, sltr o, r : 10 : 10 o, ocshs,t: 7 : 5
4 5 6	7·7 o·8 6·6	1)	SW:SSW S:SSE SSW:S	SSW : S SSE : SE WNW : W : S	2·2 1·9 4·0	0.10	211	IO, Mr : 10, ocsltr : 10, ocsltr I	7 : 10, thcl, sltsh 20, ocsltr : 10, ocsltr, sh 8, sltsh : pcl : 0
7 8 9	1·7 2·1 4·7	15·0 15·0	W:WNW SSE:S:SSW SSW:WSW:W	Var. : SSE SW : SSW W : WNW	1 · 2 3 · ○ 3 · ○	0.24	288		0 : 0 0 : 10 0 : pcl : 1, hyd
10 11 12	7.0 7.5 5.9		WNW:S Calm:E:S Calm:SE:SW	Calm: E: SE SE: Calm SW: W: NW	0·5 0·7 1·9	0.02 0.02 0.10	112	o, hyd : 9, ci,-cu	9 : vcl, thcl 7 : 10 7 : vcl : vcl, sltsh
13 14 15	11.5	14·7 14·7 14·6	NW : W : SW S : SSE SW : NW	W:S:Calm S:SSW SW:W:NW	0·7 3·4 1·5	0.23	291	o, hyd, sltm : o	7 : vcl : o, h, hyd o : 1 2 : 1
16 17 18	9.0 0.5 10.0	14.5	N: NE SW: SSW SSW: SW: WSW	S:SW:NW SW:SSW SW:WSW:W	1·2 4·1 4·7	0·07 0·28 0·45	320	10 : 10, ocmr	8 : 8 : 10 o, ocsltr : 10, ocsltr : vcl vcl : pcl : 1
19 20 21	7·5 5·7 9·7	14·4 14·3 14·3	SSW : SW S : SSW : SW S : SSW	SSW: S SSW: S SSW: S: SSE	2·I 2·I 2·I	0·18 0·22 0·15	285 293 249	10 :10	o, n, ocmr : 10 o : o, hyd 1, cu : 1
22 23 24	3·5 10·5	14·2 14·1 14·1	SSE : S W : NW : N N : NW : SW	S:SW N:NE S	3·I I·8 I·2	0·26 0·18 0·05		vcl, thcl: ycl, thcl: 9, thcl	1 : 1 9, cis : 9, ocsltr : 10, ocsltr 7, cun : pcl : 0
25 26 27	3 .5	14·0 13·9 13·9	S:SSE S:SSW:SW SSW:S	S:SE:SSE SW:W SSW:S			298	10, ocsltr: 8 : 10, ocr	o, ocsltr: 10, fq,-shs: 9 o, ocshs: 10, sh: pcl o, sltr: 10, sltr, r
28 29 30	7.5	13·8 13·8 13·7	SSW:WSW:WNW NW NW:W:SSW	WNW : NW NW : W S : SSW	3·5 1·8 3·7	0.10	221	vcl : pcl : pcl IC	o, ocmr : pcl : o o, cun : 10 : 8 9 : 9 : 10, mrsh
31	5.2	13.6	SSW: WSW: W	W:WNW:WSW	4.1	0.38	379	ro : 9, cun	8, cun : 9, r
Means	5.9	14.5		.,	• •	0.16	237		
Number of Column for Reference	18	19	20	21	22	23	24	25	26

The mean Temperature of Evaporation for the month was 57°·8, being 0°·3 higher than

The mean Temperature of the Dew Point for the month was 54°·1, being 0°·1 higher than

The mean Degree of Humidity for the month was 75°3, being 1·0 less than

The mean Elastic Force of Vapour for the month was oin.419, being oin.001 greater than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 4grs.6, being the same as

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

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·403. The maximum daily amount of Sunshine was 12·8 hours on August 22.

The highest reading of the Solar Radiation Thermometer was 144° 7 on August 22; and the lowest reading of the Terrestrial Radiation Thermometer was 34° 1 on

August 30.

The Proportions of Wind referred to the cardinal points were N. 2, E. 2, S. 14, W. 8. Five days were calm.

The Greatest Pressure of the Wind in the month was 4.7 lbs. on the square foot on August 18. The mean daily Horizontal Movement of the Air for the month was 237 miles; the greatest daily value was 427 miles on August 18; and the least daily value was 64 miles on August 3.

Rain (olin.005 or over) fell on 11 days in the month, amounting to 1in.049, as measured by gauge No. 6 partly sunk below the ground; being 1in.295 less than the average fall for the 65 years, 1841-1905.

	Baro- meter.				Temperati	URE.				rence betw			Ti	MPERATUR	æ.	e No. ace is ound.	
MONTH and DAY,	Hourly rected to 32°			Of the Ai	r.	-	Of Evapo- ration.	Of the Dew Point.	and	r Tempera Dew Poi mperature	nt	Degree of Humidity (Saturation = 100).	Of Rad	iation.	Of the Earth 3 ft. 2 ins.	l in Gaugaiving surf	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree of (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Sept. 1 2 3	in. 29.533 29.602 29.793	64·7 65·8 70·6	47·I 48·I 46·4	17.6 17.7 24.2	54·5 55·6 57·1	- 5·3 - 4·1 - 2·5	48.7 50.1 51.4	43·I 44·9 46·2	0 11·4 10·7 10·9	21·4 18·7 21·8	3·2 3·2 1·1	66 67 67	117·2 123·2 124·2	38·9 39·8 36·1	62·12 61·93 61·70	in. 0.000 0.000 0.000	wwP: mP: mP wP, wwP: mP: sP, mP mP, sP: ssP, sP
4 5 6	29·723 29·717 29·818	68·2 67·9 72·0	51·6 57·0 56·9	16.6	58·7 59·4 61·9	- 0.8 - 0.0 + 2.7	55.0 58.2 60.2	51·7 57·2 58·8	7.0 2.2 3.1	15·7 8·5 11·5	o.8 o.o o.4	78 93 90	98·3 123·5 128·5	39·1 51·9 49·0	61·50 61·29 61·29	0·018 0·510 0·267	mP:mP,wP wwP:wP,mP:v,wwP wwP:mP:mP,wwP
7 8 9	29·655 29·271 29·341	72·5 66·4 66·3	55·9 48·9 46·9	16·6 17·5 19·4	61.6 57.8 55.8	+ 2.6 - 1.0 - 2.8	59·4 54·3 51·7	57·5 51·2 47·8	4·I 6·6 8·○	13·9 14·8 18·3	0·4 I·2 0·2	8 ₇ 79 75	115.0 110.0 121.9	48·I 40·2 38·0	61·32 61·39 61·40	0·011 0·144 0·243	wwP: wP, mP: mP, wwP wwP: wP, wwP wwP: mP: wwP
10 11 12	29·187 29·265 29·361	63·4 64·0 63·9	50·1 46·5 49·0	13·3 17·5 14·9	56·3 54·2 53·6	- 2·I - 3·9 - 4·4	51·2 49·8 49·8	46·4 44·5 46·1	9·9 9·7 7·5	16·2 17·3 17·0	4·9 3·0 1·2	69 70 76	120·9 126·2 118·4	40·9 37·4 40·6	61·00 60·70 60·55	0·008 0·022 0·026	wwP, sP: mP, sP, wwP wwP: wwP, sP: sP, mP mP, wwP: sP, mP: wP, wwP
13 14 15	29·759 29·742 29·739	64·8 63·0 71·2	49·3 51·8 51·7	15·5 11·2	55.0 57.6 60.7	- 2·8 - 0·1 + 3·1	50·4 56·1	46·0 54·7 57·7	9·0 2·9 3·0	16·8 4·8 11·0	2·8 2·0 0·6	72 90 90	75.0 114.7	41·2 43·0 40·2	60·00 	0·000 0·161 0·165	wwP, wP: wP, sP: sP, wwP wwP wwP: wwP, wP: wP, wwP
16 17 18	29·558 29·500 29·596	68·8 71·5 70·5	50·0 58·8 56·1	18·8 12·7 14·4	59·6 63·7 61·4	+ 2·1 + 6·5 + 4·5	58·1 60·0 58·7	56·8 56·9 56·4	2·8 6·8 5·0	8.0 15.0 13.1	o.o o.8 o.o	91 78 85	114·0 125·4 120·0	39·9 50·6 47·3		0·010 0·041 0·241	wwP: wP, wwP: wwP wwP: wP, mP: sP, mP wP, wwP: wP, mP: mP,wwP
19 20 21	29·629 29·849 29·643	63·0 63·2 65·2	48·4 44·8 49·3	14·6 18·4 15·9	55.6 52.8 56.5	- 0.9 - 3.4 + 0.6	51·2 48·1 52·4	47.0 43.4 48.6	8·6 9·4 7·9	18·7 17·2 15·2	0·8 2·8 2·1	73 71 75	117·9 115·9	41·2 38·0 44·1	 	0·339 0·136 0·033	wwP: mP, sP: sP, mP mP: sP: sP, mP wP, wwP: wP, mP: mP, wP
22 23 24	29·208 29·200 29·661	58·4 62·5 63·2	48·1 45·6 42·2	10·3 16·9 21·0	54·9 52·4 51·9	- 0·7 - 3·0 - 3·4	52·3 49·3 48·9	49·8 46·1 45·9	5·1 6·3 6·0	10·2 12·5 13·7	2·3 2·0	83 80 80	78·0 107·9 111·8	42·I 37·6 34·7	 	0·694 0·073 0·011	wP, wwP: wP, mP: mP, wwF wwP, wP: wP, mP: sP, mP wP, wwP: mP: mP, wP
25 26 27	29·757 29·836 29·759	62·2 62·5 61·3	46·3 45·2 46·5	15·9 17·3 14·8		+ 0.8 - 1.2 - 2.2	51·5 51·0 48·6	47·3 48·1 44·3	8·7 5·9 8·6	13·7 12·2 15·0	1.0 1.3	73 80 73	111.6 102.2 117.0	36·4 37·2 38·4	 	0·II2 0·000 0·000	wwP: mP, sP: ssP, mP wP: wP, wwP: wP wP: wP, mP: sP, mP
28 29 30	29·619 29·538 29·617	58·7 50·2 51·0	40·9 38·2 40·5	17·8 12·0 10·5	44.0	- 3·8 - 10·7 - 9·8	45.7 42.6 42.3	40·1 40·9 39·6	3·1 5·0	15·1 8·1 10·5	2·7 0·0 1·8	66 89 83	111·7 64·2 77·8	29·0 29·0 29·5		0·144 0·970 0·103	wP:sP,ssP:ssP,sP mP:mP,vvN:vv v:v,sP:mP
Means	29.583	64.6	48.6	16.0	55.7	— I·5	52.2	48.8	6.9	14.1	1.5	78.3	110.7	40.0		Sum 4·482	
Number of Column for Reference	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 291n.583, being 01n.228 lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was $72^{\circ} \cdot 5$ on September 7; the lowest in the month was $38^{\circ} \cdot 2$ on September 29; and the range was $34^{\circ} \cdot 3$. The mean of all the highest daily readings in the month was $64^{\circ} \cdot 6$, being $2^{\circ} \cdot 7$ lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 48°·6, being 0°·5 lower than the average for the 65 years, 1841-1905.

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

The mean for the month was 55°.7, being 1°.6 lower than the average for the 65 years, 1841-1905.

	ne.		Wind as Dedu	CED FROM SELF-REGISTERING	ANEMO	METERS.		
	Sunshi	rizon.		Osler's.			Robin son's	CLOUDS AND WEATHER.
MONTH and DAY, 1918.	Daily Duration of Sunshine.	Sun above Horizon.	Genera	al Direction.	0	essure n the ire Foot.	d Move- he Air.	
	Daily Du	Sun	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M. P.M.
Sept.1	hours. 11.5 7.0 11.2	hours. 13.6 13.5 13.4	W:WNW WSW:W WSW:W	W:WSW W:WNW W:SW	lbs. 6·7 6·2 I·9	lbs. 0.60 0.56 0.21	miles. 461 444 262	pcl : o : pcl, cu 7, w : 2, w : vcl 3 : pcl : vcl, ocsltr vcl, ocsltr, w: vcl, w : o
4 5 6	0·4 1·7 4·0	13·4 13·3 13·2	Calm: E: SE ENE: E: ESE ESE: Calm	S: E: ENE E: ESE SW: Calm	2·5 3·2 0·8	0.06 0.20 0.01	239	IO, sltsh : IO, ocsltr : IO, tsm : IO, tsm
7 8 9	2·8 3·7 7·7	13·1 13·1	SW:S:E S:SSW SW:WSW	SE:S:SSW SW:WSW SW:S	1·9 8·0 7·7		182 456 418	
IO II I2	7·5 4·8	12.9	SW: WSW SSW: SW: WSW SW: WSW: W	WSW: SW NW: W: WSW W: WSW	8·5 8·0	0·53 0·45	591 404 414	2, d : 8, sltsh : 7, w vcl, sh : pcl, ocw : vcl
13 14 15	4·6 o·o 4·3		WSW: W SW: SSW: S SW	W : SW SSW : SW SSW : S	4.6 6.0 2.2	0·29 0·48 0·15	353 387 219	7 : I : 8 9 : 9 : 8 10, r, w : 10, r : 10, ocmr 7 : 2 : pcl, hyd
16 17 18	-	12·6 12·5 12·5	Calm: SW SE:S:SW SSW:SW	SSW : S SSW SSW : SSE	2·2 9·0 2·5		209 430 221	10, r, mr : pcl : vcl, w 7, w : vcl : vcl
19 20 21	8.8	12·4 12·3	SW : W : NW WSW : W SW	WSW SW : SSW SW : SSW	6·5 4·9 6·2	0.45	464 402 498	
22 23 24	0·1 6·2 6·1	12·1 12·1	SSW : SW SSW : SW WSW : WNW	SSW : S SW : W : WNW SW : SSW	6·2 3·0 3·6	0.31	338	10, r : 10, r,mr : 10, sltsl : 10, thcl : 10, sh : 8, ocr 10, ocr : 3 : pcl : 0, sltl : 0, sltl 0, hyd : 0, h : 8 : 10, r
25 26 27	2.8	12·0 11·9	SW: WSW: WNW WSW: SW W: WSW	WNW : W : WSW SW : WSW WSW : SW	7.6	0·41 0·48 0·29	414	ro, ocr : 6, w 7 : r 2, hyd : 2 : 9 9, w : 9, ocsltr : 9 7, hyd : r : ycl : vcl : z
28 29 30	ó·3	11·8 11·8 11·7	SW:W:WNW SW:Calm N:NNW:NW	WNW: W: SW SE: E: NE NW: NNW: N	5.5	0.19	256	10, shs, w : 7, w 7 : 1, hofr : 0, hofr 1, hyd, hofr : 10, soha, r 10, r : 10, r : 10, r 10, r, w, : 10, r : 10, ocsltr : 10, ocsltr : 0, slthofr
Means	5.4	12.6	••	•••	••	0.42	355	
Number of Column for Reference	18	19	20	21	22	23	24	25

The mean Temperature of Evaporation for the month was 52°·2, being 1°·9 lower than
The mean Temperature of the Dew Point for the month was 48°·8, being 2°·4 lower than
The mean Degree of Humidity for the month was 78·3, being 1°·9 less than
The mean Elastic Force of Vapour for the month was oim.345, being oim.032 less than
The mean Weight of Vapour in a Cubic Foot of Air for the month was 32m·9, being ogres.3 less than
The mean weight of a Cubic Foot of Air for the month was 53 grains, being 2 grains less than
The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·9.
The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·428. The maximum daily amount of Sunshine was 11·5 hours on September 1. September 1.

The highest reading of the Solar Radiation Thermometer was 128° 5 on September 6; and the lowest reading of the Terrestrial Radiation Thermometer was 29° 0 on

September 28 and 29.

The Proportions of Wind referred to the cardinal points were N. 1, E. 2, S. 11, W. 14. Two days were calm.

The Greatest Pressure of the Wind in the month was 10·2 lbs. on the square foot on September 10. The mean daily Horizontal Movement of the Air for the month was 355 miles; the greatest daily value was 591 miles on September 10, and the least daily value was 118 miles on September 6.

Rain (olm-005 or over) fell on 24 days in the month, amounting to 4in-482, as measured by gauge No. 6 partly sunk below the ground; being 2in-334 greater than the average fall for the 65 years, 1841-1905.

	Baro- meter.				Temperat	URE.				erence bet		, x		Temperatu	RE.	e No.	
MONTH and DAY,	Hourly rrected d to 32°).			Of the A	Air.		Of Evapo- ration.	Of the Dew Point.	an	Air Temper d Dew Po emperatur	int	Degree of Humidity (Saturation = 100).	Of Ra	diation.	Of the Earth 3 ft. 2 ins.	in Gaug siving surf ve the Gr	
1918.	Mean of 24 Hourly Values ("orrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree o	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Electricity.
Oct. I	in. 30.000 30.048 29.908	56·2 55·7 61·0	33.8 40.1 48.3	22·4 15·6	44.5	- 9·6 - 4·8	41·1 47·1	37·2 45·1	7:3	13.6	1.4	87	97.0 75.7	23.0	0	in. 0.000 0.001	wwP::ssP, wwP
3 4 5 6	29·853 29·885 29·759	58·5 56·9 64·2	39·1 37·5 48·8	19·4 19·4 15·4	53·6 50·4 50·1 56·4	+ 0·3 - 2·6 - 2·7 + 3·9	49.7 45.9 47.6 51.1	45·9 41·2 45·0 46·2	7·7 9·2 5·1 10·2	13·3 17·1 7·2 18·5	2.1	71	104·5 103·5 76·0 107·5	38·6 27·2 26·9 39·3		0.000 0.001 0.038 0.040	wwP: wwP, mP: mP, sP wP: mP, sP: ssP, mP wP, wwP wP, wwP: mP: mP, sP
7 8 9	29·704 29·773 29·867	58·3 56·1 57·3	45·I 38·9 37·9	13.2	51·0 46·0 48·5	- I·3 - 6·0 - 3·I	47·4 42·7 47·5	43·6 38·9 46·5	7:4 7:1 2:0	13·3 15·4 4·6	2.5	76 77 93	98·5 103·8 61·7	34·9 28·5 28·2		0·II2 0·0I2 0·III	mP wP : mP, v : sP mP : mP : wP wP : wwP :
10 11 12	29·881 29·743 29·690	63·5 63·1 51·6	56·2 50·3 47·1	7:3 12:8 4:5	58·8 55·9 49·5	+ 7·5 + 5·0 - 1·1	57·0 54·7 47·6	55·4 53·6 45·6	3·4 2·3 3·9	8·2 6·4 7·6	0.0	88 92 87	90·8 89·0 63·8	50·6 48·9 42·9		0·003 0·217 0·012	wwP wwP wwP: wP: wwP
13 14 15	29·879 29·741 29·612	53·8 56·8 54·7	37.0 34.9 46.0	16·8 21·9 8·7	46·7 46·2 50·3	- 3·6 - 3·9 + o·4	43.5 44.1 48.8	39·9 41·7 47·2	6·8 4·5 3·1	15·2 11·5 7·9	0·7 0·3 0·0	78 85 90	86·1 89·3 67·0	24·7 23·0 38·0	••	0.008	wwP: wwP, wP: mP, wwP wwP: wwP, wP: wwP wwP: wP: wP
16 17 18	29·554 29·599 29·746	52·4 54·1 50·1	39·5 36·3 30·8	12·9 17·8	47·3 46·1 40·6	- 2·5 - 3·5 - 8·7	44·9 43·8 39·6	42·3 41·2 38·4	5.0 4.9 2.2	10·4 13·0 6·0	0.5	84 84 92	70·8 94·0 67·5	28·4 28·0 25·9	• • •	o·ooo o·ooo	wwP : wwP,— : wP, wwP wwP : wP : wP, wwP wwP
19 20 21	29·858 29·921 29·948	55·8 53·5 54·2	39·9 48·4 48·8	15·9 5·1 5·4	48·1 51·7 51·5	- I·0 + 2·9 + 2·9	46·3 50·1	44·3 50·1 48·7	3·8 1·6 2·8	7·9 4·2 5·8	0·4 0·0 0·6	87 94 90	83·6 54·4 71·0	28·0 46·6 45·5		0·180 0·213 0·051	wwP, v : wwP, wP : wP wwP wwP
22 23 24	29·877 29·971 29·915	61.0 58.0 53.0	42·5 39·0 38·4	18·5 19·0 14·6	51·1 47·9 46·7	+ 2·8 - 0·2 - I·2	49·5 46·2 44·8	47·9 44·3 42·6	3·2 3·6 4·I	9·7 11·0 9·1	0·2 0·0 0·7	89 88 87	99·6 83·7 81·0	30·I 26·8 28·2	••	0.037 0.000 0.000	wwP: wwP, wP: wP wwP: wP, wwP: wwP wwP: wwP, wP: wwP
25 26 27	29·730 29·795 29·906	51·2 51·6 59·5	37·4 36·0 40·8	13·8 15·6 18·7	45.7 44.8 51.2	- 2·0 - 2·8 + 3·7	44·I 42·4 49·6	42·3 39·6 48·0	3·4 5·2 3·2	6·1 13·9 7·6	0·5 0·0 0·0	88 82 89	61·9 83·6 85·0	28·4 26·4 35·0		0·013 0·000 0·023	wwP:wwP:wP wP:wP;wP,wwP wwP
28 29 30	30·066 30·150 29·894	57·8 57·9 60·6	50·2 49·9 46·0	7·6 8·0 14·6	53.4	+ 6·3 + 6·1 + 3·9	52·I 5I·3 48·8	50·5 49·2 46·4	3·2 4·2 4·7	6·2 7·9 15·3	I·2 I·0 0·6	89 86 84	85·3 69·5 108·0	46·4 40·I 33·0		0.010 0.000 0.000	wwP wwP : wwP : wP, wwP wwP : wP, wwP
31	29.645	58.7	50.3	8.4	53.6	+ 6.5	52.1	50.6	3.0	6.9	0.0	89	88.5	43.1		0.076	wwP : wwP, wP : wwP
Means	29.836	56.7	42.4	14.3	49.7	- 0.3	47.5	45.1	4.6	9.9	o·7	84.8	83.9	33.7		Sum 1·333	••
Number of Column for Reference	ĭ	2	3	4	5	6	7	8	9	10	II	12	13	14	15	16	17

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

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

The mean reading of the Barometer for the month was 29in.836, being 0in.115 higher than the average for the 65 years 1841-1905.

The highest in the month was $64^{\circ}\cdot 2$ on October 6; the lowest in the month was $30^{\circ}\cdot 8$ on October 18; and the range was $33^{\circ}\cdot 4$.

The mean of all the highest daily readings in the month was $56^{\circ}\cdot 7$, being $0^{\circ}\cdot 8$ lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was $42^{\circ}\cdot 4$, being $0^{\circ}\cdot 8$ lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 14°·3, being equal to the average for the 65 years, 1841–1905. The mean for the month was 49°·7, being 0°·3 lower than the average for the 65 years, 1841–1905.

	ne.		Wind as Dedu	CED FROM SELF-REGISTERING	ANEMO	METERS.		
	Sunsh	rizon.		Osler's.			Robii son's	CLOUDS AND WEATHER.
MONTH and DAY, 1918.	ration of	Sun above Horizon.	General	Direction.	or	essure a the re Foot.	Move- he Air.	
	Daily Duration of Sunshine.	Sun a	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal ment of the	A.M. P.M.
Oct. 1 2 3	hours. 8·9 0·1 4·7	11.6	Calm : W : NW WSW SW	WNW : W SW SW : SSW	lbs. 2·5 2·5 6·0	lbs. 0·15 0·18	miles	o, hofr : o, h, hofr: o, h pcl : 7 : 10, fqsltr : 10, n, ocmr : 10, ocmr : 9
4 5 6	8·0 0·0 6·0	II·4 II·3 II·2	SSW: WSW: NW SW: SSW SW: WSW	NW: W: SW SW WSW: SW	3·2 8·6 7·7 8·2	0·29 0·60 0·99	315 465 580	O : 9, sltsh : pcl, cu 3 : 10, ocmr : 10, cls, n, ocmr 10, ocmr, w : 10, W : 10, r, soha, w O : 8, W : 10, fqr,-mr, w pcl, cun : 3 : 0, h, sltf 10, cls, fqr, w : 10, ocr, mr, w : 10, n, w 7, cu, w : 1 pcl, cun : 0 : 0
9	0.0	II·1 II·0	WSW SW:S:SSW	W: WSW SSW SW: SSW	3·5 5·2	0.22	365	
11	o·4 o·o	10.9	SSW : S N	SW:N N:NNW:NNE	3·5 1·0	0.06	179	10 : 10, r : 9, cun 10, r, mr : 10, r : 10, r 10, r, mr : 10, mr : 9
13 14 15	6·7 0·1 0·0	10·8 10·7	N:NNW Calm:S:SSW Calm:W:N	NNW: SSW: Calm SSW: S: Calm N: NNE	1·5 2·2 1·5	0.10	207	
16 17 18	0.0 3.1 0.2	10·7 10·6 10·5	N:NNW:W Calm:N:NE Calm	NNW: NW: WNW NE: N: Calm Calm: E: NE	2·6 0·8 0·7	0.02	118	vcl, m, f, hyd: : 10, s, cu, n, sltsh 10 : 10, mrsh : 8, cus f, hofr : 2, hofr, f: f 10, Cu, n : 10 : 10, ocmr 8, cun, ci, s : 2, f, hofr : f, hofr 5, cun, ci : pcl, m : vcl, thcl, sltf
19 20 21	2·5 0·0 0·0	10.4	Calm : NNE N : NNE NE : NNE	NNE : N N : NNE : NE NE : E : Calm	1·2 4·0 3·5	0·12 0·45 0·21	4Ó5	10, ocr,-mr : 10, n, fqr : 10, r, mr : 10, fqr : 10, n, ocmr : 10, ocr : 10, n, sltr
22 23 24	4·3 4·5 4·0	10·3 10·1	Calm : S Calm : NE NE : NNE	S : Calm E : NE N : NNE : Calm	I · 2 2 · 0 I · 6	0.07		10, ocmr: 10, r : 7, cu, cicu 7, ci, cicu: 1 : vcl, thcl, hyd 7, f : f : f 3 : 10, ocmr: 10, mr 8 : 8, m : 6 vcl, thcl, cis, cu: 3 : 9, sltf, hofr
25 26 27	0.0 6.3 0.1	10.0	Calm: W N: NE: Calm S: SW	W:N E:Calm:S WSW:SW	0.4	0.01	126	thcl, sltf : 9, ocmr 10, n, r : 9, sltf : 10 10, sltr : 10, mr : 10, n 10, n, s : 10, sltf, hofr : 10, n, s : 10
28 29 30	0·5 0·3 6·3	9·8 9·8	SW : Calm SW : W SSE : SE	SW SW:S:SE SSE:S	1·2 0·5 3·0	0.02	127	
31	0.3	9.7	SSW : SW	SSW : S	I .0	0.07	204	10, ocmr : 10, n, cu, sltsh ro, n, ocsltr : 10, mr : 10, r
Means	2.5	10.7			• •	0.31	255	
Number of Column for Reference	18	19	20	21	22	23	24	25 26

The mean Temperature of Evaporation for the month was $47^{\circ}\cdot5$, being $0^{\circ}\cdot4$ lower than

The mean Temperature of the Dew Point for the month was $45^{\circ}\cdot1$, being $0^{\circ}\cdot6$ lower than

The mean Degree of Humidity for the month was $84\cdot8$, being $0\cdot2$ less than

The mean Elastic Force of Vapour for the month was $0^{in}\cdot30^{i}$, being $0^{in}\cdot006$ less than

The mean Weight of Vapour in a Cubic Foot of Air for the month was $3^{ers}\cdot5$, being the same as

The mean weight of a Cubic Foot of Air for the month was 54° grains, being 2 grains greater than

The mean proportion of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was $7\cdot2$.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was $0\cdot235$. The maximum daily amount of Sunshine was $8\cdot9$ hours on October 1. October 1.

The highest reading of the Solar Radiation Thermometer was 108° 0 on October 30; and the lowest reading of the Terrestrial Radiation Thermometer was 23° 0 on

October 1 and 14.

The Proportions of Wind referred to the cardinal points were N. 7, E. 2, S. 9, W. 8. Five days were calm.

The Greatest Pressure of the Wind in the month was 8.6 lbs. on the square foot on October 5. The mean daily Horizontal Movement of the Air for the month was 255 miles; the greatest daily value was 580 miles on October 6; and the least daily value was 118 miles on October 17, 18.

Rain (0¹⁰.005 or over) fellon 17 days in the month, amounting to 1¹⁰.333, as measured by gauge No. 6 partly sunk below the ground; being 1¹⁰.449 less than the

average fall for the 65 years, 1841-1905.

	Baro- meter.			7	EMPERATU	JRE.				ence betw).y	T	EMPERATU	RE.	ge No. face is cound.	
MONTH and	ourly ected o 32°			Of the Ai	r.		Of Evapo- ration.	Of the Dew Point.	and	r Tempera Dew Poir mperature	it	Degree of Humidity (Saturation = 100).	Ot Rad	iation.	Of the Earth	d in Gaug eiving sur ove the Gr	Electricity.
DAY, 1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly. Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree o (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Nov.I 2 3	in. 29·499 29·299 29·429	57·4 58·5 46·2	50·1 46·2 37·7	7·3 12·3 8·5	53·9 52·9 44·I	+ 6.9 + 6.1 - 2.5	52·0 50·2 43·3	50·1 47·5 42·3	3.8 5.4 1.8	7.6 11.1 3.6	0·4 0·6 0·7	87 82 94	73.0 68.3 47.8	37.0 29.3	••	in. 0.001 0.110 0.528	wwP wwP: wP, wwP wwP
4 5 6	29·467 29·554 29·985	54·5 55·1 47·1	35·7 44·6 41·1	18·8 10·5 6·0	46·0 50·9 44·I	- 0·4 + 4·8 - 1·7	44·5 48·4 42·0	42·8 45·8 39·5	3·2 5·1 4·6	10·0 10·3 8·7	0·2 0·8 0·7	90 83 83	84·9 91·1 57·9	26·8 37·3 34·6	 	0·288 0·140 0·000	wwP wwP wwP
7 8 9	30·013 29·773 30·250	50·5 49·6 51·8	36·2 35·6 29·8	14·3 14·0 22·0	41·1 45·5 41·2	- 4·3 + 0·5 - 3·4	39·6 42·8 38·0	37·7 39·7 34·0	3·4 5·8 7·2	10·6 10·1 12·9	0.0 2.6 2.1	88 81 76	63·7 66·1 83·7	26·1 24·7 19·4	 	0.000 0.135 0.000	wwP wwP wwP: wP, wwP
10 11 12	30·264 30·133 30·299	54.0 54.4 49.5	38·7 44·9 34·7	15·3 9·5 14·8	47·3 49·4 42·3	+ 3.0 + 5.4 - 1.4	44·8 47·7 40·2	42·I 45·9 37·6	5·2 3·5 4·7	9·5 7·0 8·9	0.9	83 89 84	73·6 65·2 76·0	28·5 43·5 24·2		0·002* 0·170 0·000	$egin{array}{c} \mathbf{w}\mathbf{w}\mathbf{P} \\ \mathbf{w}\mathbf{w}\mathbf{P} : \dots \\ \dots \end{array}$
13 14 15	30·349 30·228 30·150	49·2 49·8 48·9	31·3 29·6 34·7	17·9 20·2 14·2	39·6 37·8 40·8	- 3·9 - 5·5 - 2·3	38·1 36·5 38·8	36·1 34·8 36·3	3·5 3·0 4·5	9·6 9·6	o.8 o.o o.7	88 89 85	76·2 80·2 77·0	21·8 20·2 23·3		0·000 0·000 0·002*	wwP::mP,wP wP:wwP,wP:wP
16 17 18	30·084 29·990 30·085	43·8 41·0 43·5	33.0 35.4 35.9	10·8 5·6 7·6	38·3 38·1	- 4·7 - 4·3 - 2·5	35·8 35·9 37·7	32·7 32·7 34·8	5·4 5·6 5·1	7·7 8·5 7·3	0·6 4·0 3·5	80 86	73·5 61·0 49·9	24·6 28·0 29·4	••	0·002* 0·000 0·000	$egin{array}{l} \mathbf{wP} \\ \mathbf{wP} \\ \mathbf{wP} \end{array}$
19 20 21	30·206 30·207 30·050	42·I 38·8 45·9	34·8 31·1 31·6	7·3 7·7 14·3	38·7 35·7 37·0	- 3.6 - 6.5 - 5.1	37·7 35·7 36·0	36·4 35·7 34·6	2·3 0·0 2·4	4·2 1·0 9·5	0·2 0·0 0·0	92 100 91	48·5 49·6 67·3	25·0 29·9 19·5	 	0·000 0·002* 0·004*	$egin{array}{c} \mathbf{wP} \\ \mathbf{wP} \\ \mathbf{wwP} : \mathbf{wP} : \mathbf{wP} \end{array}$
22 23 24	29·750 29·756 29·672	46·1 52·0 52·7	29·4 36·7 44·1	16·7 15·3 8·6	36·9 42·6 47·2	- 5·2 + 0·6 + 5·2	35·9 41·5 46·5	34·6 40·2 45·7	2·3 2·4 1·5	8·3 8·5 4·1	o·o o·o o·4	92 91 95	74·1 77·7 61·8	17·4 21·1 38·9	 	o·oo3* o·oo6* o·oo4	wP wP, wwP wwP
25 26 27	29·585 29·614 29·634	48·9 47·9 50·2	39·5 32·0 39·2	9·4 15·9 11·0	45·9 41·5 43·8	- 0.3	44·9 41·0 42·7	43.8	2·1 1·0 2·3	4·5 2·4 4·7	0·0 0·0 0·7	93 96 91	53·1 53·3 67·2	35·I 23·8 29·0	 	o·168 o·092 o·000	wwP wwP wwP
28 29 30	29·733 29·793 29·985	51.6 51.8 46.0	39·I 45·2 33·0	12·5 6·6 13·0	47.0 48.9 41.6	+ 5·5 + 7·7 + o·6	46·2 48·1 40·7	45·3 47·2 39·6	1·7 1·7 2·0	2·7 4·2 6·4	o.6 o.o o.o	94 94 93	52·5 50·9 72·1	31·5 39·8 22·3		0·283 0·045 0·002	wwP
Means	29.895	49.3	37.0	12.3	43.3	- 0.3	41.8	39.9	3.4	7:4	0.7	88.4	66.6	28.5	••	1 ·987	
Number of olumn for Reference.	I	2	3	4	5	6	7	8	9	10	II	12	13	14	15	16	17

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

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

* Rainfall (Column 16). The amounts entered on November 10, 15, 16, 20, 21, 22 and 23 are derived from dew, fog and frost.

The mean reading of the Barometer for the month was 29in. 895, being oin. 137 higher than the average for the 65 years, 1841-1905.

The highest in the month was 58°·5 on November 2; the lowest in the month was 29°·4 on November 22; and the range was 29°·1. The mean of all the highest daily readings in the month was 49°·3, being 0°·3 higher than the average for the 65 years, 1841–1905. The mean of all the lowest daily readings in the month was 37·0°, being 0°·9 lower than the average for the 65 years, 1841–1905. The mean of the daily ranges was 12°·3, being 1°·2 greater than the average for the 65 years, 1841–1905. The mean for the month was 43°·3, being 0°·2 lower than the average for the 65 years, 1841–1905.

	ine.		WIND AS DEDU	ced from Self-Registering	ANEMO	METERS.		
	Sunsh	rizon.		Osler's.			Robin- son's.	CLOUDS AND WEATHER.
MONTH and DAY, 1918.	ration of	above Horizon.	General	Direction.	or	essure the re Foot.	l Move- he Air.	
	Daily Duration of Sunshine.	Sun a	A.M.	P.M.	Greatest.	Measures.	Horizontal Move- ment of the Air.	A.M. P.M.
Nov. 1 2 3	hours. O·I O·O	hours. 9.6 9.6 9.5	S : SE SSE : S : SSW Calm : N	ESE : SE : SSE SW : Calm N : NNW : W	lbs. 2·3 7·8 4·0	lbs. 0·15 0·68	405	10, mrsh :10,n: 10, sltsh :9 :10 10, fqr,-mr :10, ocr,w:10, n 10, th. cl, sltsh :3 :10 10, sltr :10, r :vcl :0, m, hyc
4 5 6	2·9 3·3 o·o	9·5 9·4 9·3	SW:S:SSW SW:WSW Calm:N:NE	SSW : SW SW NNE : N	10·2 1·1	0.64	412	c, hofr : pcl : 8, cun 10, r : 10, r, w : 10, r, w : 10, r, w : 10, r, w : thcl thcl : 10 : 10, thcl,soha 10, n : vcl : 10
7 8 9	3·1 1·7 7·8	9·3 9·2 9·2	N : Var. SSE : SSW : W Calm : SW	Calm E : SSE W : Calm WSW : SW	1·2 5·6 3·9	0.27	139 319 292	8 :10, r :10, r 3 :0 :0, h
10 11 12	2·6 0·0 4·8	9.0 9.1 9.1	SW SW:WSW Calm:ENE	SW WSW : NE E	4·8 3·9 1·6	0.27	382 315 176	10 : 9, r :10,cun,ocmr 10, r :10, r, glm :10
13 14 15	1·7 4·2 6·9	9.0 8.9 8.9	E : Calm Calm : ESE Calm : ESE	ESE : Calm SE : Calm : E ESE : E	0·3 1·0 2·9	0.03	87 124 207	o, hyd, hofr: tkf, hofr : 0, f pcl, cun, cu : 0 : 0, sltf
16 17 18	5.2 0.1 0.0	8·8 8·8 8·7	E : ESE ENE : NE NE : N	E ENE : NE N : NNW : NW		0·26 0·21 0·15	243 244 183	10 : 10, n : 10
19 20 21	o.o o.o 5.6	8·7 8·6 8·6	NW:W:N SW:S:E Calm:ESE	N:NE:SSE ESE:Calm ESE:SE	1 ·0 0 ·4 1 ·7	, ,		g, hofr : 10, m : pclthcl pcl, thcl : 10, f : 10, f f : f f : f o : 0, hofr : 1, hofr
22 23 24	6·6 6·2 0·1	8·5 8·5 8·4	Calm : SE SSE : S Calm : SSW	SE: Calm SSW: Calm: S S: Calm	0.9	0.06 0.05 0.01	183	I, sltf, hofr : I : I 0, hofr : 0, hofr, hyd Io, hofr : O : I, cicu I, ci, cu : I, f : IO Io, sltsh : IO, n, sh, mr : IO, ocmr : IO, ocmr : IO
25 26 27	1.9 0.0	8·4 8·3 8·3	Calm: SW: W Calm: SE NW: W	NW: WNW: Calm S:W:NW W: WSW	1.1		145	10, ocmr : 10, n, sltsh 10, ocr : 10, mr, r : 10 0, hofr : 9, f : 10, f 10, sltr : 10, r : 10, r 8 : 7 : 10, s vcl, cu, s : 0, hofr : 0, hyd
28 29 30	0.0 0.0 4.2	8·2 8·2 8·2	WSW : SW WNW : E : Calm N : E : SE	WSW: W W: N SE: Calm	1·8 0·7 0·4	0.02	145	pcl : 10, r : 10, r : 10, r : 10, r : 10, sltr, m : 10, mr, m : 10, mr : 10, m
Means	2.3	8.9			••	0.17	225	
Number of Column for Reference	18	19	20	21	22	23	24	25

The mean Temperature of Evaporation for the month was 41°·8, being 0°·1 lower than
The mean Temperature of the Dew Point for the month was 39°·9, being 0°·1 lower than
The mean Degree of Humidity for the month was 88·4, being 1·1 greater than
The mean Elastic Force of Vapour for the month was oin·246, being oin·001 less than
The mean Weight of Vapour in a Cubic Foot of Air for the month was 2grs.8, being the same as
The mean Weight of a Cubic Foot of Air for the month was 551 grains, being 3 grains greater than
The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·3.
The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·261. The maximum daily amount of Sunshine was 7·8 hours on
November 0 November 9.

The highest reading of the Solar Radiation Thermometer was 91°·1 on November 5; and the lowest reading of the Terrestrial Radiation Thermometer was 17°·4 on

November 22.

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

The Greatest Pressure of the Wind in the month was 10.5 lbs. on the square foot on November 5. The mean daily Horizontal Movement of the Air for the month was 225 miles; the greatest daily value was 480 miles on November 4; and the least daily value was 65 miles on November 20.

Rain (0 to 05 or over) fell on 11 days in the month, amounting to 1th 1987, as measured by gauge No. 6 partly sunk below the ground; being 0 to 1th 65 years 1841-1005.

average fall for the 65 years, 1841-1905.

	Baro- meter.			TE	MPERATUR	Е.		_	Diffe	erence bety	veen	ķ.;	Т	EMPERATU	RE.	ge No. face is round.	
MONTH and DAY,	Hourly rrected 1 to 32°			Of the	Air.		Of Evapo- ration.	Of the Dew Point.	an	d Dew Poi	nt	Degree of Humidity (Saturation = 100).	Of Rac	liation.	Of the Earth 3 ft. 2 ins.	d in Gaugeiving surve the G	Electricity.
1918.	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	De- duced Mean Daily Value.	Mean.	Greatest.	Least.	Degree o (Saturati	Highest in Sun's Rays.	Lowest on the Grass.	below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	
Dec. 1	in.	50.5	35.9	14.6	45.1	+ 4.2	44.3	43.4	° 1.7	o 4.4	0.2	94	56°9	28.9	0	in. 0.078	
2	29.922	54.4	50.5	3.9	52.0	+ 11.1	50.6	49.2	2.8	5.8	0.0	90	62.5	45.8		0.100	•
3	29.716	59.5	48.1	11.4	53.6	+ 12.5	52.2	50.8	2.8	6.8	0.0	90	73.1	37.2	• • •	0.046	••
4	29.882	55.4	50.7	4.7	52.7	+ 11.4	51.6	50.5	2.2	5.6	0.4	93	59.0	45.5		0.054	••
5 6	29.854	52.9	50.2	2.7	51.5	+ 10.0	50·3 48·6	49.1	2.4	4.3	1.0	92	58.7	47.4	• • •	0.008	• •
0	29.617	51.1	47.5	3.6	49.3	+ 7.8	40.0	47.9	1.4	2.5	0.3	95	53.0	47.5		0.008	• •
7	29.644	54.5	40.7	10.8	46.7	+ 5.4	45.8	44.8	1.9	6.0	0.0	94	67.5	30.4		0.058	••
8	29.668	50.1	40.0	10.8	46.8	+ 5·8 + 5·8	46.2	45.5	1.3	2·5 5·6	0.0	96	55.2	30.4		0.034	••
9	29.853	50.0	39.2	10.9	46.4	+ 5.8	45.1	43.7	2.7	5.0	0.0	91	59.7	30.6	''	0.090	••
10	29.745	51.3	41.0	10.3	47:3	+ 6.9	46.3	45.2	2.1	4.3	0.4	93	68.5	34.8		0.251	••
II	29.738	51.1	40.3	10.8	46.8	+ 6.6	45.8	44.7	2·I	3.4	0.4	93	60.9	34.4	٠.	0.110	••
12	29.780	56.9	45.9	11.0	51.7	+ 11.4	50.2	48.7	3.0	5.4	1.0	90	62.5	41.8	• • •	0.082	• •
13	29.914	58.2	52.0	6.2	55.8	+ 15.3	53.7	51.7	4.1	5.6	2.6	87	64.6	46.9		0.000	••
14	30.079	55.5	47.6	7.9	52.4	+ 11.7	51.5	50·6 48·8	1.8	4.3	0.6	94	57.° 58.°	43.0	• • •	0.134	••
15	30.008	53.2	47.6	5.6	51.0	+ 10.3	49.9	40.0	2.2	4.9		92	500	43.9	• • •	0 100	••
16	29.787	51.0	41.9	9.1	46.8	+ 6⋅1	44.4	41.7	5.1	8⋅1	2.4	83	59·1	35.1		0.033	••
17 18	29·820 29·286	43.9	34.3	9.6	41.4	+ 1.0	39.3	36·7 40·8	4.7	8.3	0.5	84 87	57.0	28.0	• • •	0.000	••
10	29.200	48.5	40.6	7.9	44.7	+ 4.7	42.9	40.0	3.9	6.5		6/	54.9	35.0	••	0 123	••
19	29.064	45.0	37.4	7.6	41.4	+ 1.0	38.5	34.8	6.6	10.5	3.2	79	60·1	32.0	• • •	0.006	• •
20	29.454	41·I	34.8	6·3	38·9 38·3	- 0·I	37.2	34.9	4.0	5·0 6·2	I.O	87	48·0 48·5	28.3	••	0.000	··· ::
21	29.776	41.1	34.2	0.9	30.3	- 0.4	36.5	34.1	4.2	0.2	10	05	40 3	-	••	0 000	
22	29:447	53.8	39.0	14.8	43.7	+ 5.3	42.4	40.8	2.9	7.1	0.3	90	51.1	36.8		0.098	
23	29.253	48.0	35.2	12·8 7·6	43.3	+ 5·I $-$ 2·3	40.2	36·5 31·6	6.8	15.0	2·I	77 85	51.2	26.9	• • •	0.102	::sP, mP mP:mP, sP:wP
24	29.516	39.7	32.1	/.0	35.9	- 2.3	34.2	31 0	4.3		2.4	0,	43.9	23.9	• • •	0 000	III , IIII , DI . WI
25	29.705	39.6	29.4	10.3	34.9	- 3.5	33.4	31.0	3.9	7.4	0.8	85	50.6	21.8	• • •	0.000	wP, wwP: wwP, wP: wP
26	30.014		28.5	8·9	34.4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	32.9	30.4	4·0 3·6	7·7 7·8	0.0	85	54·0 56·5	20·5 36·0		0.000 0.102	wwP : wwP, sP : mP wwP
27	29.701	52.0	43.1	8.9	47.1	+ 8.3	45.4	43.5	3.0	/ 10	0.0	00	30-3	30.0		0105	w w I
28	29.498	53.5	45.4	8.1		+ 11.8	48.7	4.6.6	4.1	6.3	0.6	87	55.6	40.5		0.139	wwP
29	29.396	55.0	44.2	10.8		+ 12.9	49.3	46.7	5.2	10·4 8·7	2.6	83	59.1	36.4	• • •	0.000	wwP : wwP : wP, wwP wwP : wwP, wP : wP, wwP
30	29.296	48·1	41.6	6.5	44.3	+ 5.4	41.9	39.1	5.2	0.7	2.0	02	59.8	32.8		0.000	wwr.wwr,wr.wr,wwi
31	29.473	42.9	35.3	7.6	40.9	+ 2.2	39.7	38.2	2.7	4·1	I · I	90	45.2	27.7	• •	0.085	wwP
Means	29.675	49.8	41.1	8.7	46.1	+ 6.1	44.5	42.6	3.4	6.3	0.8	88.4	57.2	34.8		Sum 2.010	
Number of Column for Reference	I	2	3	4	5	6	7	8	9	10	II	12	13	14	15	16	17

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the photographic records.

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

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

The mean reading of the Barometer for the month was 29in.675, being oin.110 lower than the average for the 65 years, 1841-1905.

The highest in the month was 59°·5 on December 3; the lowest in the month was 28°·5 on December 26; and the range was 31°·0. The mean of all the highest daily readings in the month was 49°·8, being 5°·6 higher than the average for the 65 years, 1841–1905. The mean of all the lowest daily readings in the month was 41°·1, being 6°·1 higher than the average for the 65 years, 1841–1905. The mean of the daily ranges was 8°·7, being 0°·5 less than the average for the 65 years 1841–1905. The mean for the month was 46°·1, being 6°·2 higher than the average for the 65 years, 1841–1905.

	ine,		Wind as Deduci	ED FROM SELF-REGISTERING	Anemomi	ETERS.		
	Sunshi	rizon.		Osler's.			Robin son's	CLOUDS AND WEATHER.
MONTH and DAY, 1918.	ration of	Sun above Horizon.	General	Direction.	on	ssure the re Foot.	l Move- he Air.	
	Daily Duration of Sunshine.	Sun	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Move- ment of the Air.	A.M. P.M.
Dec. 1 2 3	hours. 0.0 0.0 0.8	8·1 8·1 8·1	Calm:S:SSW SW:SSW SW:WSW	SSW : SW SSW : SW W : SW	1bs. 2·6 3·3 4·5	lbs. 0·15 0·25 0·50		
4 5 6	0·0 0·0	8·0 8·0	SW: WSW SSW: SW S: SSE	WSW : SW : SSW SSW : SW S : SSW	4·5 2·6 2·3	0·20 0·20 0·15	300	10, ocmr : 10, s 10 : 10, sltr 10, mrsh : 10, mr : 10, mr : 10 10, sltr : 10 : 10 : 10, mrsh
7 8 9	5·3 o·o 1·7	8·0 7·9 7·9	SW:W:WSW Calm:S WNW:W:WSW	SW : Calm S : Calm SW : SSW	I·2 I·0 2·6	0.04 0.06 0.13	193	10, ocsltr : 0, hyd : 0 t : 1 : 1, thcl, hofr 10, hyd : 10 : 10, r, mr : 10, mr : 10, mr : 10, sltsh 10, thclm : 1, m : pcl vcl, cun, s: 10, ocsltr: 10, ocsltr
IO II I2	0·1 0·8	7·9 7·9 7·8	SSW: SW SW:S:SW WSW:SW	SW : WSW : W W : WSW WSW : W	5·2 1·5 6·2	0·37 0·15 0·58	270	10, mr : 10, r : 7, ocr vcl, r : vcl, fqr : vcl r : 0, cun, r. ocmr : 10, pluha ro, ocsltr vcl r : 10, thcl : 8
13 14 15	o.o o.o	7·8 7·8 7·8	WSW: W SW: WSW Calm: SW	W:WSW:SW WNW:W:Calm SW:SSW	6·0 3·6 3·2	0.20	267	10, ocmr : 10
16 17 18	3·1 1·6 0·0	7·8 7·8 7·8	SW:NW:W WSW:W:NW SSW:SW:WSW	W:WSW NW:W:SW SW:W:WNW	4·8 2·8 11·0	0·55 0·28 0·61	330	10, ocmr: 10, ocmr: vcl, r 1, sltm: 1 10, ocr: 8, w: 8, s, cicu: 3, cu: 1: 3, cu, s, luha 2, cu: 2, luha: 9, m 10, s, n, ocr: 8, cun, w
19 20 21	4·8 0·4 0·1	7·8 7·8 7·8	WSW: W NNW: WNW: W NW: W: WSW	WSW : W : WNW N : NNW : NW SW : Calm	10·9 7·5 1·2	0·85 0·45 0·04		: pcl vcl, ci, cu, sh : 8, w : 10, slt,-sl,w vcl : vcl : vcl : 10, sltsh : r' slthofr : 7, cis, soha : 10 : 10, sltsh
22 23 24	o·o o·4 o·o	7·8 7·8 7·7	Calm : SE WSW : W WSW	S:SW:WSW NNW:NW:W W:WNW	8·5 11·6 2·0	1.03		8, w : 10, sh,-w : 9, n, ocr, w 10, cun, w : 0 : 0
25 26 27	0·9 5·0 0·0	7·8 7·8 7·8	W: WSW N: WSW SSW: SW: WSW	WNW: NW: N SW: SSW WSW: W: WNW	4.0 3.3 7.5	0.08	248	o, hofr : r, thcl, hofr: 8, n o, hofr : : o, hofr 10, ocmr : : 10, mr : 10 : 1, ci 1, hofr : 1, hofr : 10 10, n : 10
28 29 30	0·0 0·0 0·2	7·8 7·8 7·8	SW: WSW: W WSW: W WSW: SW	W : WSW WSW : W SW : SSW	5·9 8·9 3·0		674	10 : 10, r, ocmr
31	0.0	7.8	SW : Calm : N	N:NNE	7.2	0.53	361	10 : 10, OCr : 10, n, ocmr, w 10 : vcl : 0
Means	0.8	7.9	••	••		0.37	372	
Number of Column for Reference	18	19	20	21	22	23	24	25

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

The mean Temperature of the Dew Point for the month was 42°·6, being 5°·9 higher than

The mean Degree of Humidity for the month was 88·4, being 0·2 less than

The mean Elastic Force of Vapour for the month was oin·273, being oin·055 greater than

The mean Weight of Vapour in a Cubic Foot of Air for the month was 3grs.2, being ogrs.6 greater than

The mean weight of a Cubic Foot of Air for the month was 543 grains, being 9 grains less than

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

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·106. The maximum daily amount of Sunshine was 5·3 hours on December 7.

December 7.

The highest reading of the Solar Radiation Thermometer was 73°1 on December 3; and the lowest reading of the Terrestrial Radiation Thermometer was 20°5 on

The highest reading of the Solar School Proportions of Wind referred to the cardinal points were N. 2, E. 0, S. 11, W. 17. One day were calm.

The Proportions of Wind referred to the cardinal points were N. 2, E. 0, S. 11, W. 17. One day were calm.

The Greatest Pressure of the Wind in the month was 11.6 lbs. on the square foot on December 23; The mean daily Horizontal Movement of the Air for the month was 372 miles; the greatest daily value was 674 miles on December 29; and the least daily value was 189 miles on December 21.

Rain (o^{in.}005 or over) fell on 22 days in the month, amounting to 2^{in.}010, as measured by gauge No. 6 partly sunk below the ground; being o^{in.}183 greater than the average fell for the 65 years, 1841-1905.

HIGHEST and LOWEST READINGS of the BAROMETER, reduced to 32° Fahrenheit, as extracted from the Photographic Records.

MAXIM	Α.	MINIM.	A.	MAXIMA	A.	MINIM	Α.	MAXIMA	1.	MINIM	Α.
Greenwich Civil Time, 1918.	Reading.	Greenwich Civil Time, 1918.	Reading.	Greenwich Civil Time, 1918.	Reading.	Greenwich Civil Time, 1918.	Reading.	Greenwich Civil Time, 1918.	Reading.	Greenwich Civil Time, 1918.	Reading
January		January		May		May		September		September	
d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.
		1. 5. 20	29.926	11. 8. 20	29.774	13. 15. 45	29.362	18. 11. 45	29.633	19. 5. 10	29.434
3. 23. 30	30.385	7. 8. 0	29.162	16. 7. 55	29.834	17. 16. 55	29.723	20. 10. 0	29.933	21. 2. 30	29.631
9. 8. 20	29.971	9. 15. 20	29.807	19. 23. 15	30.152	23. 6. 10	29.757	21. 10. 0	29.719	23. 2. 10	29.021
10. 10. 30	29.932	11. 6. 30	29.770	23. 18. 20	29.884	24. 3. 30	29.799	24. 12. 20	29.723	25. 4. 0	29.565
II. I2. O	29.855	12. 18. 5	29.410	25. 7. 35	29.995	26. 3. 45	29.898	25. 21. 45	29.976	26. 19. 30 28. 6. 0	29.706
14. 9. 45	29.915	15. 6. 25	29.115	29. 8. 25	30.319	30. 17. 15	30.199	27. 9. 25	29.819		29.519
15. 19. 0	29.318	16. 4. 10	29.069			_		28. 22. 0	29.737	29. 21. 55	29102
16. 22. 10	29.935	18. 14. 45	29.319	June		June		•			
19. 11. 20	29.412	20. 15. 5	29.137	I. 7. 20	30.320	3. 17. 0	30.033	October		October	
21. 10. 45	29.320	22. 3. 35	29.245	6. 9. 25	30.119	7. 16. 30	30.037	1. 23. 0	30·07 I	4. 5. 0	29.726
25. 9. 20	30.336	28. 5. 30	30.124	8. 11. 40	30.206	10. 4. 10	29.646	4. 22. 35	30.002	6. 7. 50	29.657
30. 10. 30	30.273			12. 6. 35	30.109	16. 11. 45	29.557	6. 21. 25	29.913	7. 11. 5	29.598
	i	15.1		17. 21. 10	29.719	19. 4. 0	29.411	9. 2. 0	29.933	9. 15. 30	29.798
February		February	6	23. 15. 0	30.040	25. 16. 55	29.774	10. 10. 50	29.921	12. 3. 0	29.626
	0	7. 2. 15	29.647	26. 9. 45	29.910	27. 11. 0	29.828	13. 20. 0	29.915	16. 15. 5	29.520
7. 20. 15	29.738	8. 7. 0	29.641	29. 23. 40	30.103			20. 22. 15	29.987	22. 15. 35	29.840
II. 22. O	30.200	13. 6. 0	29.871	7 1		7 1		23. 11. 0	30.007	25. 16 0.	29.68
15. 10. 30	30.309	16. 16. 0	29.996	July		July	0-6	29. 11. 0	30.183		
17. 11. 15	30.144	18. 15. 40	29.876			1. 17. 10	29.856				
19. 22. 40	29.971	20. 21. 35	29.714	4. 7. 5	30.272	11. 8. 10	29.451	November		November	
21. 18. 25	30.071	22. 4. 40 25. 2. 30	29·927 30·090	11. 22. 25	29.570	12. 11. 0	29.417	November		2. 5. 50	29.17
23. 19. 40	30.402	28. 14. 50	29.322	13. 22. 5	29.776	14. 16. 30	29.568	3. 0. 20	29.508	3. 16. 40	29:370
25. 23. 0	,00,0	20, 14.)	29 322	15. 11. 0	29.757	16. 7. 45 17. 18. 5	29.516	4. 9. 0	29.535	5. 1. 25	29.230
Morob		March		17. 3. 20 19. 8. 25	29.731	20. 16. 40	29.496	7. 9. 45	30.087	8. 9. 35	29.590
March	29.896		20:745	21. 23. 35	29.772	23. 10. 20	29 490	9. 22. 10	30.341	11. 3. 50	30.09
2. 9. 5 4. 8. 15	29.946	3. 13. 25 5. 2. 55	29·745 29·676	25. 14. 30	29.760	26. 17. 0	29.498	13. 9. 0	30.389	17. 14. 0	29.96
6. 10. 10	29.961	8. 15. 40	29.855	28. 23. 55	30.023	20.17. 0	29 490	19. 18. 45	30.257	22. 15. 30	29.67
9. 9. 10	30.038	12. 4. 0	29.829	20. 23. 33	30 023			23. 21. 0	29.817	25. 4. 25	29.554
9. 9. 10 13. 11. 30	30.177	16. 5. 5	29°77I	Angust		August		2 6. 10. 0	29.665	26. 22. 0	29.52
18. 11. 15	30.000	19. 16. 15	29.699	August		3. 4. 0	29.481	28. 2. 5	29.790	28. 14. 25	29.67
22. 0. 0	30.346	25. 4. 50	29.936	5. 0. 15	29.651	6. 0. 55	29.418	30. 23. 10	30.087		
26. 11. 20	30.034	29. 2. 55	29.159	10. 8. 5	30.159	12. 17. 0	29.977				
29. 22. 50	29.508	31. 9. 0	29.050	13. 9. 45	30.162	14. 18. 20	29.839	December		December	
	, ,	,		15. 9. 45	29.948	16. 17. 50	29.792	December		,	29.637
April		April		21. 9. 20	30.058	22. 17. 0	29.697	4. 21. 30	29.946	3. 6. 30 6. 13. 0	, , ,
3. 5. 40	29.716	4. 4. 20	29.553	23. 11. 0	29.920	26. 5. 0	29.578	7. 10. 20	29 940	8. 1. 15	29.55
5. 21. 15	29.877	6. 16. 35	29.596	27. 8. 45	29.837	28. 2. 45	29.603	9. 10. 0	29.913	10. 13. 0	29.66
я́. 8. о́	29.854	10. 2. 25	29.377	29. 23. 25	30.066		,	10. 23. 55	29.849	11. 9. 15	29.64
14. 20. 30	29.845	15. 6. o	29.770	,				11. 23. 55	29.844	12. 14. 0	29.71
17. 23. 0	29.916	21. 6. 5	29.538	September		September		14. 22. 0	30.177	16. 4. 10	29.69
24. 0. 15	29.932	25. 16. 25	29.786	*		1. 1. 30	29.509	16. 11. 0	29.850	17. 4. 0	29.75
27. 23. 55	30.032	29. 17. 45	29.809	3. 10. 45	29.827	5. 4. 0	29.656	17. 16. 15	29.890	18. 18. 55	28.94
	-			6. 10. 45	29.846	8. 13. 5	29.148	19. 11. 0	29.126	19. 19. 0	29.03
May		May		9. 11. 0	29.437	9. 23. 30	29.034	21. 10. 20	29.859	23. 9. 25	29.06
2. 10. 0	30.157	5. 19. 0	29:470	11. 0. 0	29.310	11. 8. 55	29.212	26. 9. 10	30.076	28. 8. 0	29.44
6. 20. 0	29.620	7. 17. 40	29.496	14. 0. 35	29.859	14. 14. 0	29.669	28. 20. 0	29.524	29. 14. 0	29.35
8. 23. 20	29.706	9. 18. 0	29.629	15. 12. 0	29.782	17. 3. 40	29.402	29. 23. 0	29.432	30. 22. 0	29.168

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 oh to 24h.

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

HIGHEST and Lowest Readings of the Barometer in each Month for the Year 1918.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Highest Lowest Range	29.069	in. 30·636 29·322 1·314	in. 30·346 29·050 1·296	in. 30·032 29·155 0·877	in. 30·319 29·362 0·957	in. 30·320 29·411 · 0·909	in. 30·272 29·302 0·970	in. 30·162 29·418 0·744	in. 29·976 29·021 0·955	in. 30·183 29·526 0·657	in. 30·389 29·174 1·215	in. 30·177 28·942 1·235

The highest reading in the year was 30in.636 on February 25. The lowest reading in the year was 28in.942 on December 18. The range of reading in the year was 1in.694.

MONTHIV	RESILTS	Ωf	METEOROLOGICAL	FIRMENTS	for	the	VEAR 19	12

TEMPERATURE OF THE AIR.

		Mean Read	ing					1 EMPERATU	RE OF T	ie Air.						34	_	¥6	Mean
Монтн, 1918.		of the Baromete		Highest.	L	owest.	Range in the Month.	Mean of all the Highest.	Mean all th Lowe	e t	Mean of he Daily Ranges.		nthly ean.	Excess Mean a the Aver 65 Yea	bove age of	Mear Tempera of Evapora	ture	Mean Temper- ature of the Dew Point.	Degree of Humidity. (Saturation = 100).
		in.		0		Ú	0	0	0		0		0	c		0		0	
January		29.811		56.2		18.5	37.7	44.8	34	6	10.1	3	9.6	+ 1	۱٠٥	37	7	34.8	83.4
February		30.020	1	20.1	- 1	21.3	37.8	49.3	37	- 1	11.4	1	3.5		3.9	41.	i	38.1	81.9
March		29.860	1	66.5		27.4	39.1	52·I	35		16.8	1	2.9	-	1.0	39.	[36.2	78.3
April		29.742		66.0	- 1	32.0	34.0	52.2	38.		14.0	1	4·I		3.2	42.0		39.5	84.4
May		29.867	- 1	83.0		39.4	43.6	66.7	46.	1	20.7	1	5.6	_	2.5	51.]	47.5	75.0
June		29.913	;	79.7		37·I	42.6	69.6	46.	4	23.2	1	7.2	- 2	2.2	51.	7	47.0	68∙1
July		29.773	;	82.0	4	17.2	34.8	72.6	52.	7	19.9	6	1.3	- 1	1.4	56.	9	53.2	75.5
August		29.839)	89.8	4	16·2	43.6	72.7	53.	2	19.5	6	2.2	+ 0	0.6	57	8	54·I	75.3
September		29.583	;	72.5	3	38.2	34.3	64.6	48.	6	16.0	5	5.7	1	1.5	52.	2	48.8	78.3
October		29.836	- 1	64.2	3	30·8	33.4	56.7	42.	4	14.3	4	9.7	- 0	.3	47	5	45·I	84.8
November		29.895		58.5		9.4	29.1	49.3	37	0	12.3	4	3.3	- 0	0.2	41.	8	39.9	88.4
December	• • • • •	29.675		59.5	2	28.5	31.0	49.8	41.	I	8.7	4	6∙1	+ 6	.i	44	5	42.6	88.4
Means		29.819	1	Highest 89·8		owest 8.5	AnnualRange 71.3	58.4	42.	8	15.6	5	0.1	+ 0	>.5	47	I	43.9	80.2
			}		_1		F	RAIN.				1	1	Wı	ND.				
		Mean	Moon		oon							F.	rom Osle	er's Anem	ometer				
	Mean	Weight	Mean Weigh	Ter	ean apera-	Mear	Number	A	<u> </u>						ometer.				From
Month,	Elastic	Vapour	of a	N	re at oon the	Amou		Amount collected		mh	of Hours	f Dear	.1	V.			H	Mean	Robin- son's
1918.	Force of	1 -	Cubic	E	arth . 2 in.	of	Rainy	in Gauge No. 6, whose	1	ишьег с				each wh Azimuth.		eu	o mi	Daily	Anemo- meter.
19101	Vapour.	Cubic	Foot	belo	w the	Cloud	Days	receiving Surface is			to din	ciciii i	omits of				E Ca	Pressure	
	•	Foot of	Air.	to	the oil.	(0-10	(oin.oo5	5 inches above the			1	1	1	1	<u> </u>	1	ber o	on the	aily sent
		Air.					or over).	Ground.	N.	N.E.	E.	S.E.	S.	s.w.	w.	N.W.	Number of Calm or nearly Calm Hours.	Square Foot.	Mean Daily Horizontal Movement of the Air
_	in.	grs.	grs.		0			in.	h	h	h	h	h	h	h	h	h 6-	lbs.	miles.
January	0.202	2.4	553	1	0.52	6.1	17	2.715	64	34	20	24	165	213	127	30	67 80		322
February	0.230	2.7	553	- 1	.04	7.1		0·983 0·969	95	118	53	45 26	1	259	78	36	100	J - J -	353
April	0.214	2.5	551		·14 :·06	5·5 8·2	1	2.846	252	167	57	34	77	119	55 36	19	81	,	295
May	0.329	!	547 536	- 1	-87	5.3		1.907	128	72	139	15	59	93	31	43	164	1	292
June	0.329	3.7	536	1 -	3.04	5 3 6·5		0.735	126	49	44	12	53	119	120	81	116	1	244
July	0.406	4.5	53° 528	1 -	.08	6.7	1 1	7.341	88	18	35	34	183	206	42	60	78	I	259
August	0.419	4.6	528		.86	7.0		1.049	16	11	35	36	237	149	72	78	110		237
September	0.345	3.9	531			6.9	1 1	4.482	18	3	36	17	101	304	169	29	43	1	355
October	0.301	3.5	542	1		7.2	17	1.333	125	58	16	12	98	198	92	35	110		255
November	0.246	2.8	551			6.3	1 ' 1	1.987	64	51	59	88	81	117	86	21	153	1	225
December	0.273	3.5	543	i		7.7	22	2.010	34	2	0	16	106	285	232	47	22	1	372
Sums			.:			••	182	28.357	1036	591	612	359	1290	2114	1140	494	1124		
Means	0.294	3.4	542			6.7		• •										0.26	286

The greatest recorded pressure of the wind on the square foot in the year was 19.4 lbs. on May 23.

The greatest recorded daily horizontal movement of the air in the year was 722 miles, on February 9.

The least recorded daily horizontal movement of the air in the year was 64 miles, on August 3.

Hour,							918.						Year
Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mea
Midnight	in. 29.809	in.	in. 29.884	in. 29.739	in. 29.870	in. 29·926	in. 29.786	in. 29.846	in. 29.570	in. 29.854	in. 29.893	in. 29.691	in
I ii	29.803	30.030	29.882	29 735	29.867	29.922	29.784	29.844	29.565	29.851	29.888	29.684	29.8
2	1 /	30.025	29.876		29.863	1 ' '	29.781	29.841	1 /	, ,	29.886		
2	29.797	1 5	29.869	29.731	29.860	29.919			29.560	29.843		29.682	29.8
3	29.791	30.017		29.727	1 /	29.916	29.777	29.838	29.557	29.835	29.883	29.678	29.8
4	29.787	30.013	29.869	29.724	29.861	29.916	29.779	29.835	29.555	29.831	29.880	29.667	29.8
5	29.783	30.014	29.868	29.726	29.864	29.918	29.781	29.839	29.555	29.829	29.882	29.659	29.8
6	29.787	30.017	29.872	29.732	29.869	29.923	29.782	29.844	29.562	29.827	29.883	29.657	29.8
7	29.796	30.023	29.877	29.739	29.874	29.927	29.782	29.850	29.574	29.833	29.889	29.660	29.8
8	29.805	30.030	29.880	29.744	29.879	29.929	29.782	29.853	29.583	29.838	29.899	29.668	29.8
9	29.820	30.037	29.881	29.747	29.880	29.928	29.778	29.854	29.595	29.841	29.902	29.673	29.8
10	29.832	30.039	29.882	29.749	29.879	29.925	29.776	29.854	29.599	29.840	29.907	29.679	29.8
II	29.836	30.040	29.877	29.746	29.876	29.921	29.773	29.850	29.597	29.838	29.904	29.677	29.8
Noon	29.832	30.035	29.871	29.745	29.873	29.918	29.768	29.846		29.833	29.895	29.670	29.8
	29.823	1	29.860		29.868		1 '''	1 / - '	29.597			1 / ./.	
I 3 11	1 /	30.025	,	29.742		29.912	29.764	29.842	29.596	29.828	29.888	29.664	29.8
14	29.813	30.013	29.851	29.738	29.862	29.905	29.763	29.835	29.592	29.822	29.883	29.665	29.8
15	29.811	30.006	29.848	29.733	29.855	29.901	29.759	29.828	29.587	29.818	29.882	29.668	29.8
16	29.813	30.004	29.846	29.732	29.851	29.894	29.754	29.824	29.587	29.819	29.885	29.671	29.8
I 📆	29.816	30.005	29.849	29.734	29.849	29.890	29.753	29.821	29.588	29.824	29.893	29.673	29.8
18	29.818	30.010	29.857	29.739	29.853	29.890	29.753	29.821	29.589	29.835	29.901	29.674	29.8
19	29.821	30.012	29.862	29.748	29.859	29.894	29.760	29.824	29.595	29.840	29.905	29.679	29.8
20	29.821	30.012	29.869	29.759	29.867	29.899	29.767	29.831	29.598	29.844	' ' '	29.688	29.8
	29.819		29.809	. 51	1 1 - 1		1 ' ' '				29.909		-
21	1 / - /	30.011	/ _ /	29.764	29.876	29.909	29.778	29.835	29.596	29.848	29.912	29.691	29.8
22	29.821	30.011	29.872	29.766	29.881	29.913	29.783	29.830	29.595	29.848	29.911	29.693	29.8
23	29.820	30.010	29.874	29.768	29.882	29.914	29.785	29.835	29.592	29.845	29.911	29.690	29.8
24	29.818	30.009	29.872	29.767	29.880	29.913	29.784	29.836	29.584	29.843	29.909	29.684	29.8
∫oh23 ^h .	29.811	30.020	29.869	29.742	29.867	29.913	29.773	29.839	29.583	29.836	29.895	29.675	29.8
$\begin{cases} \frac{0^{n}23^{n}.}{1^{h}24^{h}.} \end{cases}$	29.812	30.019	29.868	29.743	29.868	29.912	29.773	29.838	29.583	29.835	29.895	29.675	29.8
Number of Days employed	31	28	31	30	31	30	31	31	30	31	30	31	•
MONTHLY M	EAN TEM	PERATURE	of the	Air at e	very Ho	ur of the	DAY. a	s deduce	d from tl	ае Риото	OGRAPHIC	RECORD	S.
						19							
Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year Mea
	January.	reordary.	March.	April.	. way. □	June.	o i	August.	o I	October.	o I	o I	
Midnight		10.0			40.7			" 8.0					
Midnight	38.7	42.2	30.1	40.6	49·I	51.5	56.0	58.0	52.7	46.9	42.0	45·I	46.
I µ	38.3	41.9	38.5	40.3	48.6	50.2	55.2	57:3	52.4	46.6	41.8	45.2	46.
2	38.2	41.7	38.4	40.0	48.3	49.2	54.8	56.5	52.2	46.2	41.4	45.1	46.
3	38.0	41.6	37.9	39.8	48.0	48.4	54.4	55.9	51.8	46·1	41.0	45.0	45.
4	37.9	41.1	37.6	39.8	47.7	47.9	54.3	55.1	51.4	46.0	40.5	45.3	45.4
	37.6	40.7	37.5	40.0	48.1	48.7	55.1	54.8	51.3	46.2	40.4	45.4	45
5 6	37.6	40.7	37.6	40.3	50.0	51.2	56.9	56.1	51.3	46.5	40.6	45.4	46.
7	37.5	40.8	38.4	41.2	52.7	54.5	59.5	58·I	52.6	47·I	40.7	45.3	47.4
7 8		1		. 1				61.1	,				
	37.4	41.0	40.4	42.7	55.6	57.7	61.4	3	54.7	48.3	41.1	45.3	48.0
9	37.9	42.6	42.9	44.5	57.6	60.0	63.8	63.2	57.0	50.3	42.5	45.7	50.
10	39.0	44.2	45·I	46.2	59.7	61.9	65.4	65.1	58.8	52.0	44.6	46.4	52.4
II	40.7	45.8	47.2	47.4	61.5	63.3	66·1	67.2	59.9	53.6	46.2	47·I	53.
					60.5		//	(0	60.9	54.6	47.4	47.6	54.
Noon	42·I	46.9	48.5	48.3	62.5	64.0	66.9	68∙1	00.9				
Noon			48·5 49·7									47·8	77.
Noon 13 ^h	42.8	47.5	49.7	49·1	63.2	65.4	67.3	69.0	61.5	55.0	48.0	47·8 48·0	
Noon 13 ^h 14	42·8 42·8	47·5 47·7	49·7 50·2	49·1 49·4	63·2 63·8	65·4 65·4	67·3 66·8	69·0 69·5	61·5 61·1	55·0 54·8	48·0 47·8	48.0	55.0
Noon 13 ^h 14 15	42·8 42·8 42·4	47·5 47·7 47·5	49·7 50·2 49·8	49·1 49·4 48·9	63·2 63·8 63·8	65·4 65·4 64·6	67·3 66·8 67·5	69·0 69·5 69·3	61·5 61·1 61·1	55.0 54.8 54.3	48·0 47·8 47·1	48·0 47·7	55·0
Noon 13 ^h 14 15 16	42·8 42·8 42·4 41·6	47·5 47·7 47·5 46·5	49·7 50·2 49·8 49·2	49·1 49·4 48·9 49·0	63·2 63·8 63·8 63·5	65·4 65·4 64·6 63·9	67·3 66·8 67·5 67·6	69·0 69·5 69·1	61·5 61·1 61·1 60·2	55.0 54.8 54.3 53.3	48.0 47.8 47.1 45.9	48·0 47·7 47·1	55°3 54°3
Noon 13 ^h 14 15 16	42·8 42·8 42·4 41·6 40·6	47.5 47.7 47.5 46.5 45.0	49.7 50.2 49.8 49.2 48.0	49·1 49·4 48·9 49·0 48·5	63·2 63·8 63·8 63·5 62·5	65·4 65·4 64·6 63·9 63·5	67·3 66·8 67·5 67·6 66·8	69·0 69·5 69·3 69·1 67·8	61·5 61·1 61·1 60·2 58·8	55.0 54.8 54.3 53.3 51.9	48·0 47·8 47·1 45·9 44·8	48·0 47·7 47·1 46·7	55.0 55.0 54.0 53.0
Noon 13 ^h 14 15 16 17	42·8 42·8 42·4 41·6	47.5 47.7 47.5 46.5 45.0 44.1	49.7 50.2 49.8 49.2 48.0 46.0	49·1 49·4 48·9 49·0 48·5 47·3	63·2 63·8 63·8 63·5 62·5 60·5	65·4 65·4 64·6 63·9 63·5 62·1	67·3 66·8 67·5 67·6 66·8 65·8	69.0 69.5 69.3 69.1 67.8 66.2	61·5 61·1 61·1 60·2 58·8 57·0	55.0 54.8 54.3 53.3 51.9 50.6	48.0 47.8 47.1 45.9	48.0 47.7 47.1 46.7 46.5	55.0 55.1 54.1 53.1 52.1
Noon 13 ^h 14 15 16 17	42·8 42·8 42·4 41·6 40·6	47.5 47.7 47.5 46.5 45.0 44.1	49.7 50.2 49.8 49.2 48.0 46.0 44.2	49·1 49·4 48·9 49·0 48·5	63·2 63·8 63·8 63·5 62·5	65·4 65·4 64·6 63·9 63·5 62·1 60·4	67·3 66·8 67·5 67·6 66·8	69·0 69·5 69·3 69·1 67·8	61·5 61·1 61·1 60·2 58·8 57·0 55·4	55.0 54.8 54.3 53.3 51.9	48·0 47·8 47·1 45·9 44·8	48·0 47·7 47·1 46·7	55.0 55.3 54.7 53.7 52.1
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Noon 13 ^h 14 15 16 17 18 19 20	42·8 42·8 42·4 41·6 40·6 40·2 39·9 39·5	47.5 47.7 47.5 46.5 45.0 44.1 43.5 43.2	49.7 50.2 49.8 49.2 48.0 46.0 44.2 42.6	49·1 49·4 48·9 49·0 48·5 47·3 45·5 44·1	63·2 63·8 63·8 63·5 62·5 60·5 58·2 55·4	65·4 65·4 64·6 63·9 63·5 62·1 60·4 58·0	67·3 66·8 67·5 67·6 66·8 65·8 63·4 61·2	69·0 69·5 69·3 69·1 67·8 66·2 64·1 62·1	61·5 61·1 61·1 60·2 58·8 57·0 55·4 54·8	55 · 0 54 · 8 54 · 3 53 · 3 51 · 9 50 · 6 49 · 8 49 · 0	48.0 47.8 47.1 45.9 44.8 43.9 43.3 42.9	48·0 47·7 47·1 46·7 46·5 46·1 45·8	55.6 55.3 54.7 53.7 52.1 51.2
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Hour, Greenwich Civil Time. January Midnight Ih 36.8 2 36.8 3 36.7 4 36.6 5 36.4 6 36.2 7 36.2 8 36.1 9 36.5 10 37.4 II 38.6 Noon II 38.6 Noon II 39.7 II 37.6 II 37.6 II 37.6 II 37.6 II 37.6	40·3 40·1 40·0 39·8 39·2 39·1 39·1 39·2 39·4 40·6 41·7 42·5 43·2 43·8 43·9	March. 37.5 37.1 37.0 36.6 36.4 36.1 36.3 37.0 38.6 40.1 41.5 42.7 43.5 44.1	39·6 39·4 39·1 38·8 38·9 39·0 39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	May. 47.7 47.3 47.0 46.8 46.4 46.7 48.3 50.3 51.9 53.1 54.4 55.2 55.6 55.6	June. 48·5 47·8 47·0 46·3 46·1 46·8 48·6 50·5 52·1 53·3 54·0 54·6 54·9 55·7	July. 54.0 53.3 52.9 52.6 52.6 53.4 54.9 56.5 57.4 58.6 59.1 59.7 59.8	August. 55.9 55.4 54.9 54.4 53.9 53.7 54.5 56.1 57.4 58.4 59.2 60.1 60.3	50.9 50.7 50.5 50.3 50.1 50.0 50.0 50.0 51.9 53.1 53.8 54.3	October. 45.6 45.4 45.1 45.0 45.0 45.1 45.5 45.9 46.8 48.3 49.2 49.9 50.3	November. 40.9 40.7 40.4 39.9 39.5 39.6 39.7 39.7 40.1 41.2 42.8 44.0 44.8	December.	Yearl Means 45·I 44·8 44·5 44·2 44·1 44·2 44·7 45·5 46·4 47·5 48·4 49·3 49·8
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2 36.8 3 36.7 4 36.6 5 36.4 6 36.2 7 36.2 8 36.1 9 36.5 10 37.4 11 38.6 Noon 39.4 13 ^h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	40·0 39·8 39·2 39·1 39·1 39·2 39·4 40·6 41·7 42·5 43·8	37.0 36.6 36.4 36.1 36.3 37.0 38.6 40.1 41.5 42.7 43.5 44.1	39·I 38·8 38·9 39·0 39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	47.0 46.8 46.4 46.7 48.3 50.3 51.9 53.1 54.4 55.2 55.6	47.0 46.3 46.1 46.8 48.6 50.5 52.1 53.3 54.0 54.6 54.9	52·9 52·6 52·6 53·4 54·9 56·5 57·4 58·6 59·1 59·7 59·8	54·9 54·4 53·9 53·7 54·5 56·1 57·4 58·4 59·2 60·1	50·5 50·3 50·0 50·0 50·0 50·0 53·1 53·8 54·3	45·I 45·0 45·0 45·I 45·5 45·9 46·8 48·3 49·2 49·9	40·4 39·9 39·5 39·6 39·7 39·7 40·1 41·2 42·8 44·0	43.6 43.6 43.9 44.2 44.1 44.0 44.4 45.0 45.5	44·5 44·1 44·2 44·7 45·5 46·4 47·5 48·4
3 36.7 4 36.6 5 36.4 6 36.2 7 36.2 8 36.1 9 36.5 10 37.4 11 38.6 Noon 39.4 13.h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	39·8 39·2 39·1 39·1 39·2 39·4 40·6 41·7 42·5 43·8	36.6 36.4 36.1 36.3 37.0 38.6 40.1 41.5 42.7 43.5 44.1	38·8 38·9 39·0 39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	46·8 46·4 46·7 48·3 50·3 51·9 53·1 54·4 55·2 55·6	46·3 46·1 46·8 48·6 50·5 52·1 53·3 54·0 54·6 54·9	52.6 52.6 53.4 54.9 56.5 57.4 58.6 59.1 59.7 59.8	54·4 53·9 53·7 54·5 56·1 57·4 58·4 59·2 60·1	50·3 50·0 50·0 50·0 50·0 53·1 53·8 54·3	45.0 45.1 45.5 45.9 46.8 48.3 49.2 49.9	39.9 39.5 39.6 39.7 39.7 40.1 41.2 42.8 44.0	43.6 43.9 44.2 44.1 44.0 44.4 45.0 45.5	44·2 44·2 44·3 44·3 45·9 46·4 47·9 48·4 49·3
4 36.6 5 36.4 6 36.2 7 36.2 8 36.1 9 36.5 10 37.4 11 38.6 Noon 39.4 13.h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	39·2 39·1 39·1 39·2 39·4 40·6 41·7 42·5 43·8	36·4 36·1 36·3 37·0 38·6 40·1 41·5 42·7 43·5 44·1	38·9 39·0 39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	46·4 46·7 48·3 50·3 51·9 53·1 54·4 55·2 55·6	46·1 46·8 48·6 50·5 52·1 53·3 54·0 54·6 54·9	52·6 53·4 54·9 56·5 57·4 58·6 59·1 59·7 59·8	53.9 53.7 54.5 56.1 57.4 58.4 59.2 60.1	50·1 50·0 50·0 50·9 51·9 53·1 53·8 54·3	45·0 45·1 45·5 45·9 46·8 48·3 49·2 49·9	39.5 39.6 39.7 39.7 40.1 41.2 42.8 44.0	43.9 44.2 44.1 44.0 44.4 45.0 45.5	44·2 44·2 44·7 45·5 46·4 47·5 48·4
5 36.4 6 36.2 7 36.2 8 36.1 9 36.5 10 37.4 11 38.6 Noon 39.4 13.h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	39·1 39·2 39·4 40·6 41·7 42·5 43·8	36·1 36·3 37·0 38·6 40·1 41·5 42·7 43·5 44·1	39.0 39.4 40.0 41.3 42.6 43.4 44.2 44.9 45.3	46·7 48·3 50·3 51·9 53·1 54·4 55·2 55·6	46.8 48.6 50.5 52.1 53.3 54.0 54.6 54.9	53·4 54·9 56·5 57·4 58·6 59·1 59·7 59·8	53.7 54.5 56.1 57.4 58.4 59.2 60.1	50·0 50·0 50·9 51·9 53·1 53·8 54·3	45·1 45·5 45·9 46·8 48·3 49·2 49·9	39.6 39.7 39.7 40.1 41.2 42.8 44.0	44·2 44·1 44·0 44·4 45·0 45·5	44.3 44.5 45.5 46.4 47.5 48.4 49.3
6 36·2 7 36·2 8 36·1 9 36·5 10 37·4 11 38·6 Noon 39·4 13 ^h 39·7 14 39·7 15 39·4 16 39·1 17 38·5 18 38·2 19 38·0 20 37·7 21 37·6	39·I 39·2 39·4 40·6 4I·7 42·5 43·2 43·8	36·3 37·0 38·6 40·1 41·5 42·7 43·5 44·1	39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	48·3 50·3 51·9 53·1 54·4 55·2 55·6	48.6 50.5 52.1 53.3 54.0 54.6 54.9	54·9 56·5 57·4 58·6 59·1 59·7 59·8	54.5 56.1 57.4 58.4 59.2 60.1	50·0 50·9 51·9 53·8 54·3	45.5 45.9 46.8 48.3 49.2 49.9	39.7 39.7 40.1 41.2 42.8 44.0	44·2 44·1 44·0 44·4 45·0 45·5	44.7 45.5 46.4 47.5 48.4 49.3
7	39·2 39·4 40·6 41·7 42·5 43·2 43·8	37.0 38.6 40.1 41.5 42.7 43.5 44.1	39·4 40·0 41·3 42·6 43·4 44·2 44·9 45·3	50·3 51·9 53·1 54·4 55·2 55·6	50·5 52·1 53·3 54·0 54·6 54·9	56·5 57·4 58·6 59·1 59·7 59·8	54.5 56.1 57.4 58.4 59.2 60.1	50·9 51·9 53·8 54·3	45.5 45.9 46.8 48.3 49.2 49.9	39.7 39.7 40.1 41.2 42.8 44.0	44·2 44·1 44·0 44·4 45·0 45·5	45.5 46.4 47.5 48.4 49.3
8 36·1 9 36·5 10 37·4 11 38·6 Noon 39·4 13 ^h 39·7 14 39·7 15 39·4 16 39·1 17 38·5 18 38·2 19 38·0 20 37·7 21 37·6	39.4 40.6 41.7 42.5 43.2 43.8	38.6 40.1 41.5 42.7 43.5 44.1	40·0 41·3 42·6 43·4 44·2 44·9 45·3	51·9 53·1 54·4 55·2 55·6	52·I 53·3 54·0 54·6 54·9	57:4 58:6 59:1 59:7 59:8	56·1 57·4 58·4 59·2 60·1	51·9 53·1 53·8 54·3	45.9 46.8 48.3 49.2 49.9	40·I 41·2 42·8 44·0	44.0 44.4 45.0 45.5	45.5 46.4 47.5 48.4 49.3
9 36·5 10 37·4 11 38·6 Noon 39·4 13 ^h 39·7 14 39·7 15 39·4 16 39·1 17 38·5 18 38·2 19 38·0 20 37·7 21 37·6	40.6 41.7 42.5 43.2 43.8	40·I 41·5 42·7 43·5 44·I	42.6 43.4 44.2 44.9 45.3	53·I 54·4 55·2 55·6	53·3 54·6 54·9	58·6 59·1 59·8	58·4 59·2 60·1	53·8 54·3	46.8 48.3 49.2 49.9	40·I 41·2 42·8 44·0	44.0 44.4 45.0 45.5	46·4 47·5 48·4 49·3
10 37.4 11 38.6 Noon 39.4 13 ^h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	40.6 41.7 42.5 43.2 43.8	41·5 42·7 43·5 44·1	43·4 44·2 44·9 45·3	54·4 55·2 55·6	54.0 54.6 54.9	58·6 59·1 59·8	58·4 59·2 60·1	53·8 54·3	48·3 49·2 49·9	42.8	44·4 45·0 45·5	47:5 48:4 49:3
10 37.4 11 38.6 Noon 39.4 13 ^h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	42·5 43·2 43·8	41·5 42·7 43·5 44·1	43·4 44·2 44·9 45·3	54·4 55·2 55·6	54.0 54.6 54.9	59·7 59·8	59·2 60·1	53·8 54·3	49·2 49·9	44.0	45.0 45.5	48·2
11 38.6 Noon 39.4 13 ^h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	42·5 43·2 43·8	42·7 43·5 44·1	44·2 44·9 45·3	55·2 55·6	54·6 54·9	59·7 59·8		54.3	49.9	44.0	45.5	49
Noon 13 ^h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	43·2 43·8	43·5 44·I	44·9 45·3	55.6	54.9	59.8	60.3				15.8	40.5
13h 39.7 14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6	43.8	44.1	45.3	55.6					1 ∪ 1	1 44 0 1	45.0	47
14 39.7 15 39.4 16 39.1 17 38.5 18 38.2 19 38.0 20 37.7 21 37.6		1))		60.2	60.7	54.7	50.4	45·I	45.9	50.1
15 39 4 16 39 1 17 38 5 18 38 2 19 38 0 20 37 7 21 37 6			45.4	55.9	55.6	59.9	61.1	54.9	50.2	44.9	46.0	τ ο·1
16 39 · I 17 38 · 5 18 38 · 2 19 38 · 0 20 37 · 7 21 37 · 6	43.8	44.0	45.1	55.6	55.6	60.3	61.0	54.5	ς́ο∙2	44.5	45.5	₹o•
17 38·5 18 38·2 19 38·0 20 37·7 21 37·6	43.1	43.7	45.0	55.4	55.4	60.2	61.0	54.1	49.7	43.6	45·I	49.6
18 38·2 19 38·0 20 37·7 21 37·6	42.5	42.9	44.5	54.9	55.2	59.6	60.5	53.3	48.9	42.9	44.8	49.0
19 38.0 20 37.7 21 37.6	42.0	41.8	44.0	53.9	54.6	59.3	59.9	52.7	48.3	42.2	44.6	48.5
20 37·7 21 37·6	41.6	40.8	43.0	52.7	54.0	58·1	59.0	52.0	47.8	41.8	44.4	47.8
21 37.6	41.3	39.8	42.1	51.5	52.8	57.2	58.3	51.0	47.3	41.5	44.2	47.1
	41.0	39.2	41.3	50.3	51.7	56·I	57·6	51.6	47.0	41.2	43.8	46.
	40.8	38.8	40.5	49.2	50.6	55.3	56.8	51.2	46.6	40.9	43.7	46.0
23 37.4	40.4	38.2	40.0	48.5	49.5	54.8	56.3	50.8	46.4	40.6	43.6	45.5
24 37·I	40.3	37.8	39.5	48.0	48.7	54.1	55.8	50.5	46.1	40.3	43.7	45.2
$\begin{cases} o^{h} - 23^{h} & 37.7 \\ \hline 1^{h} - 24^{h} & 37.7 \end{cases}$	41.2	39.9	41.9	51.4	51.7	56.9	57.8	52.2	47.5	41.8	44.5	47.0
$\begin{cases} \frac{1^{h}-24^{h}}{37\cdot7} \end{cases}$	41.2	39.9	41.9	51.4	51.7	56.9	57·8	52.1	47.5	41.7	44.5	47.0

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,						19	18.						Yearl
Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean
	1 0		0	٥	0	٥	0	0	0	0	0	٥	0
Midnight	34.9	38.0	35.4	38.4	46.2	45.7	52.1	54.0	49·I	44.2	39.6	42·I	43:3
I µ	34.8	37.9	35.2	38.3	45.9	45.3	51.5	53.7	49.0	44·I	39.4	42.4	43.
2	34.9	37.9	35.1	37.9	45.6	44.6	51.1	53.5	48.8	43.9	39.2	41.8	42.
3	34.9	37.5	34.9	37.5	45.5	44.0	50.8	53.0	48.8	43.8	38.5	42.0	42.
4	34.9	36.8	34.8	37.7	45.0	44.1	50.9	52.7	48.8	43.9	38.3	42.3	42.
5	34.8	37.1	34.2	37.7	45.2	44.8	51.8	52.6	48.7	43.9	38.6	42.8	42.
6	34.3	37·I	34.5	38.3	46.5	45.9	53.1	53.0	48.7	44.4	38.6	42.8	43.
7	34.4	37.2	35.1	38.5	47.9	46.6	53.9	53.8	49.2	44.6	38.5	42.7	43.
8	34.3	37.4	36.3	39.6	48.4	47.0	53.9	54.2	49.2	45.2	38.8	42.5	43.
9	34.6	38.2	36.7	40.4	49.0	47.4	54.2	54.4	49.5	46.2	39.6	42.9	44.
10	35.3	38.7	37.3	40.2	49.7	47.2	54.0	54.4	49.4	46.3	40.7	43.5	44.
ΙΙ	35.9	38.7	37.7	40.6	49.8	47.3	54.5	54.4	49.3	46.3	41.5	43.7	45.
Noon	36.1	39.0	38·1	41.2	49.7	47:3	54.1	54.2	49.3	46.2	42.0	43.8	45.
13 ^h	36.0	39.7	38·I	41.2	49.2	47.8	54.6	54.3	48.8	46.0	41.9	43.8	45.
14	36.0	39.7	37.6	41.1	49.4	47.6	54.4	54.6	49.5	45.8	41.8	43.8	45.
15	35.7	39.7	37.8	41.0	48.8	48.2	54.6	54.6	48.8	46.2	41.6	43·I	45.
16	36.0	39.3	37.8	40.7	48.6	48.3	54.3	54.7	48.7	4 6∙1	41.0	42.9	44.
17	35.8	39.6	37.3	40.2	4.8.4	48.2	53.8	54.7	48.4	45.9	40.7	42.6	44.
18	35.6	39.5	37.0	40.3	48.1	48.2	54.0	54.8	48.7	45.9	40.2	42.5	44.
19	35.5	39.4	36.8	40·I	47.8	48.4	53.7	54.7	48.7	45.7	40.0	42.5	44
20	35.4	39.0	36.4	39.7	47.8	48·I	53.7	55·1	49·I	45.4	39.8	42.1	44.
21	35.1	38.8	36.2	39.4	47.7	4 8∙1	53.3	54.8	49·I	45.2	39.6	42.2	44.
22	35.3	38.7	36.3	38.9	47.0	47.3	52.1	54.4	49.0	45.0	39.5	42·I	43.
23	35.2	38.1	35.9	38.6	46.7	46.3	52.9	54.3	48.8	45.0	39.2	41.9	43.
24	34.9	38.0	35.6	38.1	46.6	45.9	52.3	53.9	48.6	44.7	38.9	42.2	43.
∫oh23 ^h .	35.5	38.5	36.4	39.5	47.7	46.8	53.3	54.1	49.0	45.5	39.9	42.7	44.
{ 	35.2	38.5	36.4	39.5	47.7	46.8	53.3	54.1	49.0	45.2	39.9	42.7	44.

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						19	18.						Year
Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean
Midnight	87	86	87	92	90	82	87	86	88	91	91	89	88
I h	88	87	88	93	91	84	88	88	88	92	92	90	89
2	88	87	88	93	91	85	88	89	88	92	92	89	89
3	89	87	89	92	92	85	88	90	89	92	91	89	89
4	89	85	9ó	93	91	87	88	92	91	93	92	9ó	9ó
	90	87	88	92	90	87	89	92	91	92	94	91	90
5 6	88	87	89	93	8 8	82	87	8 9	91	93	93	91	8 9
7	89	87	88	91	84	75	83	83	89	92	92	91	8 ₇
8	89	87	86	89	77	68	77	78	8 í	90	92	90	84
9	88	85	79	86	73	63	72	73	76	8 6	90	90	8c
10	87	8 r	74	8 r	69	58	67	69	71	8 r	87	90	76
I I	84.	77	70	78	66	57	66	64	68	76	85	89	73
Noon	80	75	67	77	63	55	64	61	66	73	82	88	71
13 ^h	77	75	64	74	61	53	64	59	64	72	80	87	69
14	77	75	62	73	59	52	64	58	66	7 I	81	86	69
15	78	75	63	74	58	56	63	59	64	74	82	85	69
16	8 r	77	65	73	59	57	62	60	66	77	84	86	7 Í
17	84	81	66	73	60	58	63	63	69	80	86	87	72
18	84	83	72	77	64	60	66	67	74	84	86	87	75
19	85	85	75	82	69	64	7 I	72	79	87	88	88	79
20	86	85	79	84	76	70	77	78	81	88	89	88	82
21	85	86	82	87	83	77	82	81	82	89	90	89	84
22	86	86	85	90	86	78	84	84	85	90	91	89	86
23	86	86	86	91	88	79	86	85	87	91	92	89	87
24	87	86	86	91	91	82	88	86	87	91	92	90	88
$\int \circ^{\mathbf{h}23^{\mathbf{h}}}.$	85	83	78	84	76	70	76	76	79	85	88	89	81
l ^h 24 ^h .	85	83	78	84	76	70	76	76	79	85	88	89	81

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 1918.

Month,						Register	ed Durat	tion of Su	ınshine iı	n the Ho	ur ending	; .					Total Registered Duration of	Corre- sponding aggregate period	Proportion of	itude of
1918.	5 ^h	6ћ	7 ^h	8h	дħ	10p	11h	Noon.	13h	14h	15h	16h	17h	18p	19h	20h		during which the Sun was		Mean Altitude the Sun at No
	h	h	h	h	h	h	h	h h	h	h	h	h	h	h	h	h	h	h		0
January					1.8	6.5	8.6	11.6	12.5	12.8	10.8	5.3					69.9	259.0	0.270	18
February				3.4	7.8	11.2	10.9	9.6	10.2	9.0	9.4	6.3	1.3				79·I	276.9	0.286	26
March			0.9	7.3	10.3	13.2	16.2	15.0	16.5	18.1	15.3	14.1	8.1	0.5			135.5	365.6	0.371	37
April			0.6	3.7	6.0	6⋅8	8.6	8.3	8.8	9.5	6.9	8.5	7.0	3.9	0.6		79.2	413.4	0.192	48
May	I ·2	8·1	12.4	12.6	14.0	15.1	18.7	18.2	19.0	18.4	17.9	17.5	18.1	14.8	10.7	1.7	218.4	481.2	0.454	57
June	5.5	14.5	15.2	18.1	16.7	18.4	17.2	15.4	15.1	16.5	15.8	11.4	13.7	14.6	12.7	3.6	224.4	494·I	0.454	62
July	3.6	9.2	14.4	15.7	16.9	16.0	12.6	13.1	12.7	10.6	13.7	14.0	13.4	11.5	9.2	1 .4	188.0	497.6	0.378	60
August	0.3	6∙1	12.4	12.8	13.6	15.6	17.2	15.9	16.8	16.1	13.3	14.1	12.2	10.0	5.1		181.5	450.7	0.403	52
September		0.2	6.6	11.9	16.0	17.5	16.6	16.0	15.9	15.2	15.6	13.8	11.3	5.5			162.0	378.9	0.428	41
October				1.9	3.8	7.1	10.0	11.8	12.0	I I · 2	9.7	7.9	2 · 2	• • •			77.6	330.3	0.235	30
November				0.1	3.7	7.8	10.6	11.5	10.9	10.5	8.9	5.1	0.3				69.4	265.8	0.261	20
December	• •	• •	• •	• • •	0.1	3.4	4.5	3.4	4.9	5.7	3.7	0.4	••	• •	••	• •	25.8	243.8	0.106	16
For the Year	10.6	38.1	62.5	87.5	110.7	138.6	151.4	149.8	155.3	153.6	141.0	118.4	87.6	60.8	38.3	6.7	1510.8	4457.3	0.339	

The hours are reckoned from "apparent" midnight.

	ReA	DINGS									n the MAG							YEAR	1918.		
Days			Bulb Th						hermome the Gro		Days		Dry 4 f	Bulb Th	ermomet the Grou	ers, nd.			et Bulb I ft. above		
of the Month.	Maxi- mum.	Mini- mum.	9 _p	Noon.	15 ^h	21h	9h	Noon.	15h	21h	of the Month.	Maxi- mum.	Mini- mum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
				JA	NUARY	7.									MAR	СН.					1
d I	35.8	° 1	32.9	33.8	33.7	35.8	31.8	31.8	32.3	34:5	d	43.0	32.3	36°5	40.7	40.8	32.8	32.9	34.8	33.9	30.6
2	39.8	28.9	30.1	34.6	35.7	36.0	29.5	32.0	34.8	34.9	2	38.9	30.1	32.6	36.8	36.7	33.4	29.8	31.1	30.3	31.3
3	35.7	28·i	31.5	33.7	32.9	28.7	30.1	31.6	31.6	27·I	3	36.3	33.3	34.5	34.7	36.3	36.3	33.2	34.5	35.7	35.7
4	34.5	23.1	24.5	30.7	34.3	34.5	24.0	28.8	32.0	32.4	4	38.8	35.2	36.7	37.6	37.8	38.5	34.7	35.1	36.4	37.8
5 6	38·I	34.3	36.3	37·7 36·7	38.1	36.5	34.8	35.8	35.7	33.3	5 6	40.0	37.1	37·6 42·6	37.7	38.7	38.7	35.8	35.9	44.7	37.9
7	38.0	29 9 28·9	36.6	35.7	37·4 34·1	37.7	29·5 34·8	34.3	29.7	27.3	7	44.1	39.0	40.5	42.7	42.5	40.4	39.4	41.1	40.2	37.9
8	29.2	23.1	25.6	25.7	25.3	23.8	23.8	22.8	20.9	22.3	8	42.6	31.6	36∙1	37.7	41.7	31.6	33.8	35.5	37.5	30.0
9	39.4	18.5	22.5	30.4	37.4	39.4	20.5	28.7	35.1	36.6	9	50.4	27.4	33.7	46.1	48.7	37.3	32.9	40.8	42.0	36.6
11	44.0 42.1	37·9 38·2	40·I 40·7	43.7	39.5	39.9	37.6	39.9	39.6	38.1	11	59.0	37.1	31.9	46.6	58.7	43.6	31·7 46·6	43.5	48.8	42.6
12	41.1	35.2	36.7	40.5	40.4	38.5	34.6	36.8	37.1	36.7	12	62.6	42.6	51.5	59.7	61.4	46.8	47.5	52.3	50.7	42.1
13	38.5	29.1	30.8	36.8	37.0	34.1	29.2	32.5	32.7	31.4	13	52.7	41.9	45.5	50.6	51.7	43.6	43.5	47.0	47.9	42.6
14	37.6	26.2	26.8	29.5	33.0	37.4	24.4	27.1	31.4	34.4	14	52.0	38.2	44.6	50.6	43.7	39.5	38.9	43.5	40.6	38.3
15 16	50.3	32·7	48.4	46·I 34·6	38·6 35·4	32.7	45·7 32·9	33.3	36.8	32.6	15	49.9	36.9	41·8 35·6	44.5	41.7	36.1	32.4	38.9	36.7	34.2
17	35.4	30.5	32.8	33.7	33.7	39.5	32.2	33.6	33.6	38.9	17	54.8	33.5	40.6	49.9	52.6	43.0	39.3	46.4	48.1	42.6
18	50.9	39.2	48.5	50.5	50.6	49.6	46∙1	48.4	48.0	48·i	18	61.2	36.7	50.6	55.7	55.5	45.2	47.7	48.7	49.5	42.9
19	51.0	47:3	47.8	50.6	50.6	48.5	46.8	47.8	46.6	45.2	19	52.9	36.1	44·I 48·6	49.4	51.5	46.2	43.0	46.7	47.2	45.6
20 21	53.6	44·9 46·8	48·3 47·6	49·8 54·5	52.5	52·5 48·5	45.8	47.0	47.2	46.8	20 21	59.0	37.9	40.7	55.8	58·3	48.7	45.5	49.0	50.7	44.6
22	56.2	45.4	48.7	52.6	50.8	49.2	47.0	49.7	48.0	47.9	22	66.5	37.1	48.9	60.8	65.6	52.8	45.8	50.8	51.6	44.9
23	52.0	42.2	44.4	51.4	49.6	48.7	44·1	48.0	46.9	46.9	23	65.9	34.2	53.2	61.9	65.7	46.0	45.9	51.8	53.7	42·I
24	55.6	48.2	51.5	54.2	53.2	50.5	48.9	49.4	48.4	46.8	24	65.2	33.9	49.5	58.8	63.9	44.5	44.5	52.2	53.8	41.7
25 26	52.0	43.4	44·4 46·0	49·8 45·7	51·6 45·5	47.6	43.6	47·7 44·6	48.9	46.5	25 26	53.3	33.2	45.5	51.6	47.5	38.6	42·7 37·8	38.7	40.6	36.0
20 27	47·9 52·8	42·9 37·5	38.8	50.4	51.5	39.7	38.7	47.0	47.7	38.9	27	51.3	32.8	43·I	46·I	49.9	39.7	41.1	42.9	43.8	38⋅1
28	49.0	36.2	44.2	47.6	47.8	40.8	42.8	44.9	44.8	39.0	28	50.0	39.8	45.7	47.1	45.9	44·I	44.3	45.3	45.0	41.3
29	51.5	36.3	39.3	49.7	49.8	37.7	38.8	46.2	46.1	37.3	29	23.1	40.3	45.8	50·1 46·8	45.8	45.9	41.9	42.9	43·I	41.8
30	51.5	30·I 28·0	33.5	48·8 45·6	50·4 47·3	36.5	31.8	45·9 41·9	45.6	34.9	30 31	48·9 54·6	33.5	46.8	52.0	46.8	43.0	43.8	45.8	46.3	42.7
31	47.9			———	T/ J			T- 7			J-			173	l		ļ- 		ļ- '	ļ .	
Means	44.7	34.6	37.9	42·1 Febr	42·4	39.5	36.5	39.4	39.4	37.6	Means	52.1	35.7	42.9	48·5	49.8	141.6	40.1	43.5	44.0	39.2
	1			1 DDR	011111								0			1 0	0	11 0	T .	0	
I q	44.4	28.4	31.6	36.9	42.5	33.6	31.0	36∙1	40.7	32.7	I	56.7	43.8	50.9	50.4	47:4	47.5	46.4	45.7	45.2	43.7
2	46.5	30.1	37.5	42.8	46·I	43.6	36.8	41.9	45.1	42.9	2	56.8	36.8	45.9	52.6	52.2	41.6	43.2	45·I	46.9	39.1
3	48.9	41.1	41·8 46·5	47·7 47·6	48·4 47·6	43·6 46·9	41.1	45·2 46·2	45·8 46·3	46.0	3 4	56·8 50·9	32·0 43·8	47·8 46·3	54·6 50·6	54·8 49·4	45.0	44·0 44·9	46.3	47·I 46·0	43.7
4	48·1 50·5	41.9	45.8	49.0	47.6	46.2	44.7	46.4	45.8	44.8	5	54.0	37.3	40.7	45.9	52.5	40.4	39.5	42.8	46.5	39.8
6	51.0	40·I	45.6	49.8	49.5	48.4	44.0	46.7	46∙1	45.8	6	51.5	37.0	49.3	50.5	47.0	42.7	47.6	49.6	45.8	40.8
7	55.6	47.2	50.7	54.1	52.8	51.6	49.5	51.7	50.0	48.8	7	52.2	35.1	44.6	47.6	49.5	43.6	41.7	43.6	42.9	41.6
8	53.6	46.0	49.5	50·8 51·6	51.7	46·6 51·2	47.9	45·9 46·9	46·0 47·7	43·7 47·9	8	55·5 48·9	39·I 40·7	46·1 43·7	51·6 48·4	52.0	42.7	43.5	45.5	45.0	42.3
9 10	53.5	45·7 48·0	49.0 52.4	53.3	53.9	49.5	45.9	49.6	49.9	46.2	9 10	47.0	42·I	45.2	46.6	46.5	42.5	44.9	46.0	45.7	43.4
11	53.6	48.1	50.8	52.6	52.6	50.9	47.4	48.9	50.0	49.3	11	49.0	42·I	44.5	46.4	48.6	45.8	44.5	45.9	47.6	45.7
12	51.2	44.8	47.6	48.4	50.7	45.5	45.8	45.4	47.5	44.5	12	61.3	42.9	50.5	57.5	59.8	45.4	47.8	50.7	51.6	45.1
13	51.3	45·3 41·6	47.6	50·2	50.8	47·6 41·6	46.3	47·7 41·9	47.9	46·I 40·8	13	51·7 46·9	35.9	48.5	49.1	45.6	39.5	46·7 37·4	46·9 37·7	43.8	35.7
14 15	47·8 45·5	31.6	39.6	43.6	43.7	34.9	38.1	40.8	40.6	33.8	15	48.8	36.8	43.5	43.7	42.6	36.9	41.6	41.9	41.5	36.6
16	42·I	29.3	34.5	39.7	40.7	30.1	30.9	33.7	33.7	28.0	16	41.0	32.2	35.5	39.6	40.6	40.7	35.0	38.9	40.6	40.7
17	38.9	23.1	30.5	36.7	38.6	27.5	29.0	31.8	32.9	26.2	17	44.7	40.7	42.9	43.6	44.5	42.5	42.3	43.1	43.3	41.8
18	42.9	21.3	30.1	41.5	39.6	29.4	28.8	36·6 37·1	36.2	27.8	18	45.0	34·8 32·1	42·4 37·7	44.1	39.5	34.8	41·4 34·2	39·8 37·6	35.9	32.7
19 20	43.3	23.2	25.6	41.3	46.6	46.9	40·I	43.8	44.4	46.0	20	44.1	33.5	37.5	38.9	38.1	36.7	35.3	36.4	36.1	36.0
21	48.8	36.3	39.5	45.6	46.6	42.5	36.5	39.1	40.1	39.5	21	44.5	35.0	38.2	40.4	43.5	39.3	37.4	39.4	40.8	38.8
22	55.3	42.2	48.6	52.4	53.6	51.7	47.7	49.9	50.3	49.1	22	54.9	37:3	44.1	51.6	54.1	44.6	41.8	44.8	46.6	41.3
23	59·I	47.2	52.7	57.5	58.1	50.6	49.8	51·6 46·1	52·4 46·6	45·9 43·8	23 24	49·2 54·4	40·6 36·2	41.9	44·8 52·4	48.3	46·3 44·6	41.4	43.7	46.6	44.7
24 35	54·I	33·6	49.6	51·6 44·2	45.9	33·6	36.9	39.4	40·I	32.8	25	66.0	43·I	47.9	59.7	59.9	49.5	46.4	54.7	54.6	43.9
25 26	46.5	30.1	40.5	43.2	49.3	48.3	37.8	40.4	44.7	45.9	26	65.0	43.1	45.9	51.4	60.6	51.5	44.9	49.0	53.3	49.0
27	50.0	39.9	43.4	47.7	47.6	45.5	39.8	42.3	42.8	44.6	27	64.2	42.5	45.8	54.1	63.5	46.8	44.8	49.8	53.0	44.5
28	45.7	33.6	37.6	40.8	36.8	35.5	34.8	35.8	35.4	33.6	28 29	47.9	42.0 41.2	43.8	45.7	47.6	42.7	42.9	44.3	45.8	41.6
											30	55.9	40.1	11	53.2	48.8	44.0	44.9	48.1	46.5	40.6
									0			-				ļ	 				
Means	49.4	37.8	42.6	46.9	47.5	42.8	140.6	43.2	43.8	41.0	Means	52.2	38.6	44.5	48.3	48.9	42.9	42.6	44.9	45.1	41.3

			(The	e readii	ngs of						ND in the nometers app								ed.		
Days of the				hermome the Gro				et Bulb T ft. above			Days of the			y Bulb Ti ft. above					et Bulb T ft. above		
Month.	Maxi- mum.	Mini- mum.	9 ^p	Noon.	15h	21h	9 ^h	Noon.	15h	21h	Month.	Maxi- mum.	Mini- mum.	9h	Noon.	15h	21h	9 h	Noon.	15h	21h
				M	AY.											JULY	•				
đ I	49.8	0	46.8	46.6	46.6	42.7	41.6	17.6	0	0	d	82.0	60.5	68.8	76.2	0	60.0	62.5	64.8	64.4	58.8
2	54.0	41.2	49.7	52.2	53.3	42.7	47.2	41.6	40.9	40.7	I 2	68.6	50·7 54·8	64.3	65.2	77.4	57.3	62.5	59.8	59.6	52.5
3	59.4	39.4	53.5	57·I	57.6	50.7	49.9	52.0	51.9	47.9	3	70.4	47.6	58.8	65.8	69.0	56.9	52.7	55.6	57.7	51.9
4	67.9	49.1	52.1	60.8	64.7	51.6	50.3	54.7	56·i	50.7	4	76.9	47.3	61.6	71.8	7.6∙1	60.6	54.8	59.0	59.4	55.1
5	54.5	46.2	53.2	53.8	51.8	20.1	51.8	52.5	51.7	49.8	5	76.8	58.8	66.1	69.7	73.0	64.4	57.5	58.9	58.9	51.9
6	68.9	49.1	58.5	65.8	61.8	54.3	53.6	57.4	55.4	52.7	6	73.5	57.4	61.1	66.1	71.2	60.7	55.2	56.9	59.8	55·7 58·0
7 8	55·9 68·0	47.0 45.3	48·1	50·8 63·4	53.8	48·3	47·8 49·0	49·9	58.4	46·8 48·7	8	78·5 81·5	54·7 52·2	64·7 74·4	74.6	74.5	63.6	59.3	58.9	61.9	57.0
9	67.7	43.2	55·I	63.5	65.7	53.4	49.9	53.9	53.9	47.3	9	73.1	54.3	63.7	68.7	66.5	55.0	54.0	56.8	55.7	49.9
10	55.5	41.0	48.5	52.1	51.5	49.9	45.1	47.8	47.8	48.1	10	66.3	48.7	56.8	61.2	59.4	50.5	54.6	54.1	55.7	48.8
11	63.1	39.5	44.3	54.3	62.6	52.4	44·I	51.5	56.6	49.7	11	60.1	48.1	54.3	56.2	54.6	54.6	5.3.7	55.0	53.7	53.3
I 2	60.8	46.2	53.6	48.4	58.9	50.8	49.4	45.8	50.7	46.3	I 2	66.9	21.9	61.0	64.4	22.I	54.7	58.0	56.9	53.7	52.4
13	63.7	45.1	49.6	55.8	56.6	48.4	49·0 48·8	53:5	21.9	47.6	13	72·0 68·9	50.2	63.8	68·3 59·6	66.1	57.6	57·9 56·4	59.6	60.4	54.3
14 15	68.7	43·1 51·0	57.6	57·4 64·7	65.7	51.9	54.9	59.9	53.5	50.6	14 15	76.1	47·5 56·9	57·2 62·6	68.6	73.6	63.9	60.2	62.8	66.7	59.9
16	76.5	48.2	68.5	74.5	74.7	58.7	59.9	62.3	61.5	55.8	16	80.4	59.8	71.4	75.8	71.0	64.2	65.9	67.8	65.7	60.8
17	78.9	50.2	69.6	76.5	65.3	60.2	62.8	65.7	62.8	58.0	17	76.5	56·1	66.2	72·I	71.1	59.9	63.3	66.6	66.7	58.8
18	76.8	54.4	66.4	71.5	75.5	58.1	60.9	63.0	65.5	54.7	18	71.0	57.4	62.5	67.1	68.6	58.6	59.1	60.3	61.1	55.6
19 20	73.0	48.9	66·1	71.7	71.6	56.7	59.1	62·8 60·7	61.4	52.3	19 20	67.9	54.9	65·8 72·6	62.3	61.4	61.3	61.5	61.6	61·2 59·8	60·9 59·8
21	74.0 83.0	47 4 47 I	71.9	80.8	73·6 82·0	53·6 58·9	63.8	66.8	59·6 65·6	51.6	21	72.9	57·5 56·9	62.6	62.7	70.3	60.3	55.1	55.5	58.3	57.0
22	79.7	51.1	74.7	79.2	77.6	60.5	62.8	64.5	60.8	59.0	22	68·I	54.5	64.4	64.0	64.8	57.5	58.6	58.7	58.9	55.8
23	66.7	49.1	62.2	61.1	57.9	50.2	59.7	54.8	48.8	48.0	23	71.1	56.4	59.6	62.2	66.9	61.7	59.3	60.8	64.7	58.6
24	59.9	48.2	51.5	54.7	58.6	58.4	47.7	49.8	53·I	53.2	24	74.1	53.4	65.5	68.4	61.6	56.1	58.3	61.8	58.8	54.7
25	71.0	54.6	58.6	64.4	67.9	57.4	54.6	58.5	58.5	53.8	25	70.2	53.1	63.6	66.6	59.7	55.6	56.9	58.3	57.5	53.4
26 27	68.5	53·I 47·5	54.6	55.4 64.1	59·5 63·0	53·9 47·8	54.1	53.0	54·0 53·6	50·7 44·6	26 27	66·0	53·0 53·6	58.2	63.5	57.6	54·5 56·4	56.2	56·2 56·6	56·6 54·8	53·9
28	67.9	41.2	59·6 58·5	62.9	63.2	53.7	53.9	55.8	55.3	49.3	. 28	70.0	47.2	61.4	64.6	67.7	58.9	56.7	57.8	59.2	57.6
29	67.2	16.9	52.8	61.7	65.7	48.7	49.8	52.7	53.9	47.6	29	77.9	51.7	70.4	72.2	75.6	63.1	62.6	61.7	63.9	60.8
30	74.7	40.4	64.2	69.4	73.0	57.4	54.7	58.8	58.9	54.0	30	76.4	52.9	69.6	70.2	74.4	61.3	62.0	63.2	64.8	59.7
31	71.9	46.1	66.3	70.4	70.5	54.5	58.3	60.7	60.9	51.7	31	74.3	51.9	64.5	72.9	73.9	59.5	60.9	65.1	65.1	57.8
Means	66.7	46.6	57.6		63.8 JNE.	52.9	1 53.1	55.6	55.6	50.3	Means	72.6	53.3	63.8	66·9 A	67·5 UGUS1	59.2	58.6	59.8	60.3	56.1
d	! 0 !	0	. 0	٥	o NE.	0)	0		0	d	0	0		0		0	0			
I	77:9	47.2	66.7	74.6	77:3	20.1	58.7	62.9		56∙1	I	76·I	53.0	67·I	74.2	70.7	61.5	62.4	65.9	62.9	58.4
2	79.7	46.9	68·I	72.6	78.5	67.7	58.7	60.9	61.8	59.6	2	66.0	58.8	62.6	61.4	63.8	58.8	59.7	60.0	61.3	57.9
3	- 69∙0 - 66∙1	43.9	63·6 55·5	64·1 59·8	63·6 59·5	51·6 54·7	57 ° 6	57·0	55·8 52·7	49·6 51·3	3	68·1 74·8	53.9	59·1	64·8 69·6	63·4 72·6	59·0 63·4	58.6	59·8 61·0	59·2 63·3	57·6 60·6
4 5	67.2	44.7	57.9	61.2	64.5	50.8	52.9	52.0	53.8	46.7	5	72.0	57.0	61.5	66.0	66.9	61.2	60.2	61.7	62.1	60.0
6	72.9	38·I	64.5	69.5	67.7	56.5	53.7	55.6	56.7	48.2	6	68⋅1	53.1	59.3	61.9	65.9	58.2	53.6	55.6	57.8	54.8
7	65.2	44.4	60.6	62.8	60.5	56.4	50.5	54.7	56.0	55.0	7	71.8	53.3	60.8	66.1	68.6	60.6	58.8	60.8	62.3	59·I
8	71.1	48.1	60.8	67.0	68.2	56.6	53.2	55.1	54.9	53.2	8	71.0	54.4	63.4	68.5	67.1	59.7	61.5	59.9	58.0	55.6
9 10	69.1	46.6	62·6 53·4	68·5 63·5	56·9 63·8	52·1 54·8	54·1 48·8	58.0	52·8 53·6	46.7	9	70.2	51·5 48·0	62.2	65·2 69·1	66·4 71·6	60·8 60·6	56.0 58.8	56·8 60·6	57·4 63·5	55·3 57·9
11	73.8	47·0	61.5	70·I	70.0	57.9	56.3	58.5	59.0	55.5	11	77.2	49.5	63.0	73.6	76·I	62.5	58.5	63.3	65.2	59·I
12	71.6	50.8	59.9	65.7	67.2	60.8	53.8	56.9	57.0	54.7	I 2	77.8	54.2	66.9	74.6	73.5	68·i	61.1	63.0	62.7	62.2
13	74.0	52.6	63.0	66.6	69.5	60.5	57.9	59.8	61.8	56.3	13	75.1	53.8	66.6	68.9	70.6	60.2	59.7	58.9	59.6	57.0
14	68.5	52.4	61.8	62.7	59.8	53.0	56.6	56.9	58.6	51.6	14	78.0	52.0	69.4	75.2	75.8	63.6	60.5	63.3	64.5	59.6
15	64·9 62·8	44.6	54·I	56.2	62·8 52·8	50.6	47.5	47.7	50.9	44.9	15 16	74·I	55.1	65.7	70.6	72.7	57·6 64·6	58·7 56·7	59·6 61·0	60·7	54·6 56·6
16 17	64.4	37.1	57·7 59·3	57.0	60.7	46·6 51·0	49.9	48·9 50·8	49·6 52·6	43.9	17	77.1	47·9 54·3	61.1	71·4 59·8	73·4 65·3	60.5	56.9	58.5	59.6	59.2
18	61.9	44.1	29·I	58.0	58.7	50.8	51.5	49.9	50.6	49.9	18	73.1	59.0	68.3	67.7	69.1	60.5	61.7	59.3	58.9	53.8
19	68∙8	50.4	58·8	62.6	57.4	57.5	54.7	56.6	55.0	55.3	19	72.9	52.0	61.6	70.6	67.6	63.0	55.9	59.9	61.3	62.0
20	72.9	53.8	64.6	67.2	59.8	57.5	57.0	57.5	56.0	56.0	20	79.5	58.7	64.7	70.2	77.7	65.1	62.4	65.0	68.9	63.6
21	71.9	54.4	61.3	66.6	62.5	59.8	53.4	53.8	55.9	57.2	21	84.1	60.1	65.5	79.2	82.6	67.3	62.8	69.8	71.8	64.4
22	68·0 67·4	51.8	60.2	63.7	64·8 64·6	54.6	52·9 48·0	52.0	52.3	46.6	22	89.8	63.2	77·9 63·4	87·1 67·8	88·2 66·3	70·0 56·5	68·8 56·6	72·8 58·0	73·I	63·6 54·6
23 24	64.2	45·0 45·9	54.6	59.6	60.0	54·4 49·4	50.8	49.5	50.2	47.3	23 24	74.1	55.9	61.8	70.6	69.9	59.0	54.9	59.7	58.1	55.4
25	67.2	40.0	56.7	61.4	65.7	48·I	51.4	52.0	53.7	46.6	25	69.8	46.2	64.7	68·I	63.7	56.2	59.3	59.2	56·I	55.2
26	66.5	43.0	55.6	59.9	62.6	56.4	48.5	51.6	52.9	51.7	26	65.9	54.6	59.3	58.6	61.9	58.5	56.7	56.8	58.9	54.7
27	70.0	47.0	57.4	65.2	67.3	62.2	51.0	55.2	57.4	54.8	27	64.1	49.2	59.4	62.2	60.7	56.9	55.6	57.9	57.6	56.3
28	72·I	52.2	59.6	63.1	69.2	60.4	55.0	56.8	59.2	56.1	28	65.9	56.1	58.5	60.6	62.9	56.4	57.8	57:3	57.6	53.4
29 20	72.5	51.9	68·6	67.7	67.5	52·6 60·8	55.5	58·9 61·4	57·8 62·3	50·9 56·6	29 20	67.6 68.9	53.0	58.6	64.9	64.3	60.4	52.7	56.8	56·2 58·7	55·6 58·2
30	79.1	44.0	1,00.0	74.4	75.1	00.0	57.9	01.4	02.3	50.0	30	66.9	47·I	55·I	62.0	65.0	60.7	51.9	55.7	-	50.8
J		I	-	i	l		il.	i			3 I	00.0	55.1	59·I	61.6	61.8	55.1	52.3	52.8	53.7	500

	1		Bulb Th	ermomet	ers,	the ma	We	t Bulb T	hermome	eters,	mometers ap	pply to	Dry	Bulb Th	ermomet	ers,	ng 21h)		t Bulb T		
Days of the Month.	Maxi-		t. above t		nd.	T	4 1	t. above	the Grou	ind.	Days of the Month.	Maxi-		ft. above		nd.	1	4 1	t. above		and.
	mum.	mum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h	Month.	mum.	mum.	9h	Noon.	15h	21 h	9ћ	Noon.	15h	21h
d	T . 1				EMBER		1	1	1			1	ı	Į!	i	EMBER	Ī	((!		
I	64.7	47·1	54.0	59.1	62.5	52.6	47·8	50.0	50.7	48·7	d I	57.4	50.1	53.8	55.5	55.8	53.1	52.5	53.6	52.7	50.9
2	65.8	48∙1	58.5	60.1	62.9	54.6	52.8	52.3	53.8	50.1	2	58.5	46.5	56.6	56.7	54.6	47.3	52.9	51.4	49.7	45.1
3	70.6	46.4	58·6 58·4	64.5	68·2 66·8	55.6	53.2	54.7	58.0	50.3	3	47:3	40.3	45.8	45.5	43.6	40.8	44.9	44.7	42.9	39.8
4 5	67.9	51·6 57·0	60.7	65.6	61.6	58.7	55.7	60.3	58.8	57.6	4 1 5	54·5	35·7 46·1	46.1	53.2	48.8	46.5	44.2	48·7 47·8	46.8	50·6 45·I
6	72.0	56.9	59.9	71.3	69.8	59.6	.59.5	64.9	64.7	58.8	6	47.1	41.1	44.2	46.8	45.9	42.8	42.7	42.8	42.2	40.9
7	72.5	55.9	63.5	65.4	69.6	60.6	61.6	61.2	62.8	58.9	7	50.5	36.2	38.2	42.6	49.5	38⋅1	37.2	40.8	45.4	36.8
8 9	66·4 66·3	51·3 46·9	59·3 58·6	64.4	61.4	56.1	57.7	59.3	54.8	47.6	8 9	49.6	36.9	48.7	46.1	47.7	39.7	47.7	44.1	42.8	36.8
10	$\frac{63.4}{63.4}$	52.0	58.3	60.7	59.9	52.4	52.9	54.9	54·7 52·6	55.3	10	54.0	38.7	40·4 47·1	20.2	50.4	50.2	35·0 45·7	44.6	44.6	40.3
II	64.0	46.5	56.6	60·I	61.9	53.1	52.7	51.6	53.7	48.9	11	54.4	44.9	50.7	52.5	52.5	45.6	49.2	50.7	51.6	45.0
I 2	63.9	49.0	54.8	58.6	58.4	52.8	50.0	51.9	21.9	50.0	I 2	49.5	34.7	39.2	48.5	46.9	41.6	37.6	44.3	43.7	38.8
13 14	64.8	49.3	55·6 56·6	58.6	59.7	55.2	50.5	58.5	52·3	51.3	13	49.8	31.3	38·2 32·6	48.0	46.8	38.3	37.7	44.3	43.7	36.9
15	71.2	53.6	61.9	59.4	66.3	53.8	61.0	61.7	61.8	53.6	14	48.9	34.7	41.0	47.8	46.1	37·2 40·6	39.3	44.0	42.6	38.6
16	68.8	50.0	64.6	64.7	66.6	61.5	60.8	62.2	63.1	60.7	16	43.8	33.0	37.7	42.5	41.1	39.4	35.7	39.5	38.3	36.8
17	71.5	59.2	64.6	69.9	69.6	60.7	60.4	62.9	61.6	57.9	17	41.0	35.4	38.2	40.5	39.9	38.6	35.8	37.0	37.4	35.8
19 18	70.5	56·1	53.3	65·3 59·7	57.8	59.2	59·2 48·9	50.3	50.9	58·8 47·0	10	43.5	37.8	39.4	42.7	42.7	37.8	37.9	39.8	39.7	35.8
20	63.2	44.8	54.7	50.6	58.9	53.7	49.0	52.3	50.8	49.7	20	38.8	31.1	31.5	36.4	37.0	37.7	31.5	36.4	39.6	37.7
21	65.2	49.3	57.6	63.4	60.5	57.4	53.1	56.6	53.4	53.7	21	45.9	33.3	35.3	43.6	43.3	34.8	35.3	40.8	39.8	34.4
22	58.4	49.6	54.9	57.0	56.6	49.6	53.7	52.7	52.8	48.6	22	46.1	29.4	37.3	45.0	44.2	35.4	36.7	42.2	41.8	35.0
23 24	62.5	48·I 42·2	54.5	56.8	56.5	53.4	50.1	52.8	51.1	46.8	23 24	52·0 52·7	43.1	40.6	50.1	49.0	43.5	46.8	47·8 49·0	46.7	43.4
25	62.2	49.5	56.6	60.6	59.6	49.6	50.2	51.8	50.7	47·I	25	48.9	44.4	45.6	48.6	47.2	44.7	44.9	46.8	45.8	44.2
26	62.5	45.2	56.3	58.6	59.6	58.2	50.9	53.3	55.2	56.6	26	47.2	32.0	36.4	44.6	46.6	47·I	36.3	43.7	45.9	47.0
27	61.3	46.5	53.8	60.4	57.2	49.9	49.3	51.3	50.0	45.7	27	50.2	39.9	41.6	47.1	47:4	41.3	41.0	45.6	45.4	39.8
28 29	58.7	43·9 38·2	52·I 48·5	57·4 47·6	57.0	44.3	45.3	47.9	46.8	47.3	28 29	51.8	39.1	45.4 47.1	50.5	51.5	51·4 46·4	44·8 47·0	49.8	50.7	50.8
30	51.0	41.6	43.5	48.3	48.7	44.0	41.4	44.7	44.6	41;4	30	46.4	33.2	40.7	44.5	43.6	35.4	40.1	42.3	41.7	34.8
Means	64.6	49:3	57.0	60·9		54.2	53.1	54.7	54.5	51.6	Means	49.3	37.4		47·4		42.5	41.2	44.8	44.5	41.2
	·		1	1		ı İ					d		!		DECE	MBER.	1 1	ı I			
· I	56.2	33.8	44.3	52.4	54.3	45.9	41.3	46.2	46.7	43.2	I	50.0	33.0	44.5	46.5	48.8	50.0	43.3	46.0	48°·1	49.7
2	55.7	40·I	51·I	52.7	54.1	52.0	47.9	50.6	21.3	50.0	2	54.4	49.4	52.7	52.7	52.8	52.6	49.6	51.0	51.6	51.3
3	61.0	49.6	22.1	57.4	59.2	50.2	51.4	51·4 48·6	52.3	48.0	3	59.5	48.1	55.0	58.6	56.5	49.0	53.8	55.2	53.8	48 8
4	58·5 56·9	42·4 37·5	52.9	55.9	56·2 55·5	42·5 54·4	46.9	52.9	47·4 53·7	40·6 51·7	4 5	55.4	48·4 50·2	55.0	53.7	52.5	50.7	54·0 49·6	50.9	49.7	50.2
5 6	64.2	50.4	57.4	62.8	62.4	50.6	55.6	54.3	52.4	46.3	6	51.5	47.5	48.4	48.5	48.5	49.6	48.0	48.0	47.7	48.8
7	58.3	46.7	52.8	51.2	56.2	47.2	51.6	48.7	50.9	42.8	7	51.5	40.7	44.4	47:3	47.9	41.0	44.0	46.4	45.7	41.0
8	56.1	38.9	46.8	52.1	52.1	43.1	43.6	46.6	44.9	40·9 56·7	8	20.1	40.0	47·I	49.6	49.1	49·I	46.5	48.7	48.9	48.9
9 10	57·3 63·5	37·9 56·2	47·7	51.8	52·8 60·6	57·2 58·6	46·1 57·1	49·8 57·6	51·7 58·7	57.0	9	20.1	39·2 42·1	48.9	48·5 50·8	47.7	49.1	39·9 48·4	45.8	45·9 46·5	47.6
11	63.1	50.3	59.2	61.6	56.5	50.6	57.8	58.7	54.9	50.0	11	21.1	40.3	48.7	50.5	49.8	47.4	48.0	48.6	48.8	46.3
I 2	51.6	48.0	50.1	50.7	20.1	48.2	47.7	47.7	48.1	46.2	12	56.9	45.9	53.7	55.6	55.7	50.4	53.0	54.0	53.0	48.3
13	53.8	38.5	48.1	52.7	51.5	39·9 48·6	44·8 46·1	45.9	44·7 48·3	39·3 48·2	13 14	58.2	50·1	56.6	57.4	56.4	55.3	54.6	54.6	53.9	53.5
14 15	56·8 54·7	34·9 49·1	49.3	54.6	54.0	49.5	48.4	49.8	49.8	47.5	15	53.2	47.6	54.6	53.0	52.5	48·1 51·6	53.8	52·7 51·0	50·8 50·8	47·9 49·0
16	52.4	39.5	48·I	21.3	50.6	48.6	46.6	47.2	46.7	45.9	16	51.9	42.3	46.9	45.4	45.8	42.6	43.7	42.8	42.0	40.3
17	54·I	38.4	47.2	52.5	51.8	39.4	45.4	46.7	46.0	39.0	17	43.9	34.3	41.7	43.5	42.0	37.9	39.8	40.4	39.0	36.8
18	50.1	30.8	37.2	47.3	49.3	43.5	36·7 46·8	45.6	46·1	42·8 47·7	18	48.5	37·4 38·0	43·5 38·0	46.2	47.8	41.9	40.8	44.3	44.8	40.5
19 20	55.8	39·9 48·4	47·6 52·8	52.6	54·0 52·6	49·6 52·5	51.8	49·5 51·6	49.9	51.6	19 20	45.0	34.8	36.7	39.9	42.5	43·7 41·1	35·6 36·1	38·4 38·3	39·6 38·6	39.0
21	54.5	49.3	52.5	53.4	52.9	49.5	50.7	50.8	50.8	48.9	2 I	41.1	34.2	34.2	39.0	39.1	38.5	33.5	36.7	37.1	36.9
22	61.0	43.9	55.6	59.8	57.5	44.8	54.2	55.0	53.5	44.8	22	53.8	38.0	40.3	41·I	43.6	51.8	39.7	40.7	43.3	48·I
23	58.0	39.0	44.6	56.4	56.6	47.5	44.6	51·4 47·7	51·3 47·6	46·8 39·9	23 24	39.7	37·5	45.7	37.9	42.9	37.8	42.9	41.8	36.7	34.8
24 25	53.0	40·1 37·4	44·2 45·1	51·5 49·6	50.4	50.1	43.4	46.7	47.6	48·3	24 25	39.6	29.4	34·9 32·1	37.6	39·7 39·4	35.3	33.7	32.1 32.9	37·2 36·6	35.0
25 26	51.6	37.0	45.5	50.8	49.4	37.5	43.6	44.5	44.0	37.0	26	38.8	28.5	29.1	36.5	37.7	37.7	28.3	34.0	35.2	35.7
27	59.5	36.0	51.4	57.6	57.8	52.9	50.6	53.8	54.6	51.9	27	52.0	37.6	48.8	52.0	51.6	45.0	48.3	51.0	50.0	43.3
28	57.8	50.2	54.3	56.4	56.9	54.2	52.6	53·3 52·5	54·4 53·5	52·4 50·3	28 29	53.5	44.2	52.6	53.3	53.5	50.1	50.7	51.1	51.0	49.8
29 20	57·9 60·6	49·9 46·0	53.0	56·5 59·6	56.9	50.5	49.8	51.6	49.4	48.9	29 30	48.1	45·I 41·6	53·5	54·6 47·1	54·9 46·7	45.2	51·8 41·4	52·2 43·6	51·0 42·7	43.0
30 31	58.7	50.3	53.5	57.2	54.3	54.8	51.3	53.7	52.9	53.7	31	43.2	38.1	41.4	40.6	41.7	38.3	40.8	39.4	40.0	36.8
Means	56.7	42.9	50.3	54.6	54.3	48.6	48.3	50.3	50.2	47.0	Means	50.0	40.8	45.7	47.6	47.7	45.3	44.4	45.8	45.5	43.8

AMOUNT of	RAIN	COLLECTED	in each	MONTH	of the	VEAD	1012
AMOUNT OF	IXAIN	COLLECTED	in each	MUNIH	or the	I P.AR	1910

						Monthly A	mount of Ra	ain collected	in each Ga	uge.					Height of Sur	Receiving face.
Gauges partly sunk in the Ground the Magnetic Pavilion Enclosure.	Number of Gauge.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Sums.	Above the Ground.	Above Mean Sea Level,
auges part in the Gr nagneti Enclosu	6	in. 2·715	in. 0.983	in. 0·969	in. 2·846	in. 1 · 907	in. 0.735	in. 7·341	in. 1 ·049	in. 4·4 ⁸ 2	in. 1·333	in. 1·987	in. 2.010	in. 28·357	ft. in.	ft. in. 149 6
in th	8	2.764	0.993	0.958	2.803	1.910	0.700	7.391	I ·020	4.470	1.300	1.981	1.999	28.289	1 0	150 1
Number of Rainy Days (o ⁱⁿ .005 or over).	} · ·	17	13	8	19	I 2	11	17	11	24	17	II	22	182		• •

Mean Hourly Measures of the Horizontal Movement of the Air in each Month, and Greatest Hourly Measures as derived from the Records of Robinson's Anemometer.

Hour ending.		1918.											Mean fo
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year
h	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.	miles.
I	13.4	13.9	10.8	10.7	7:5	8.5	10.1	9.1	12.7	9.4	8.7	14.4	10.8
2	14.0	14.0	10.8	10.4	7.7	8.1	9.7	8.6	12.9	9.6	9.0	15.3	10.8
3	14.4	14.4	11.3	11.0	8.1	8.8	9.4	8.6	12.1	8.9	9.0	14.4	10.9
4	13.9	14.1	11.1	11.1	7.2	7.9	9.0	8.2	11.7	8.9	8.4	15.1	10.6
5	13.5	14.3	11.0	I I · 2	7.3	7.8	8.8	8.0	12.1	9.1	8.5	16.1	10.6
6	12.5	13.7	11.4	11.2	7.7	7.6	9.3	7.9	12.0	8.9	8.7	16.1	10.6
7	13.0	13.5	12.0	12.0	8.7	·9·2	10.0	8.9	12.3	9.8	8.8	16.5	I I ·2
8	13.0	13.5	I 2·7	12.4	8.9	10.2	10.8	9.1	14.2	10.3	8·1	16.5	11·6
9	12.6	14.3	12.8	12.6	10.0	11.0	11.1	9.0	14.6	11.5	8.7	15.8	12.0
IÓ	12.6	15.3	13.0	12.7	10.3	10.3	11.6	9.3	15.5	11.6	9.1	15.9	12.3
11	13.0	15.1	12.7	12.3	10.4	11.2	12.3	9.7	15.9	13.1	9.4	15.2	12.5
Noon	13.2	14.1	12.9	12.0	11.0	11.5	12.1	10.3	16.2	13.2	9.4	15.5	12.6
13 ^h	13.8	15.5	13.6	13.7	10.5	11.3	13.1	11.8	19.1	11.9	9.9	16.7	13.4
14	14.0	16.9	14.9	14.2	11.0	11.8	13.0	11.7	18.7	12.7	11.5	17.0	13.9
15	14.0	16.2	15.9	13.9	11.4	12.3	12.7	11.9	18.5	12.4	11.6	16.0	13.9
16	13.4	15.4	14.9	13.6	11.7	12.4	12.4	11.4	19.4	11.7	10.3	15.3	13.5
17	12.5	15.7	13.7	14.5	11.4	12.0	12.7	11.8	18.2	10.7	10.5	16.1	13.3
18	12.6	14.9	13.7	13.6	11.1	12.8	11.6	11.8	16.8	10.9	10.1	16.1	13.0
19	12.3	14.3	12.1	11.7	9.4	1 I · I	10.5	10.7	14.1	10.1	9.2	15.1	11.7
20	12.5	14.4	11.4	11.8	9.5	11.1	10.4	9.9	13.1	10.3	9.5	15.5	11.6
21	14.5	14.9	0.11	12.6	9.3	10.0	10.5	10.4	14.1	10.4	10.1	15.1	11.9
22	14.9	15.1	10.7	11.4	8.0	9.3	9.4	10.0	14.2	10.0	9.1	14.7	11.4
23	13.8	14.6	10.6	10.9	7.6	8.8	9.5	9.3	13.2	9.7	8.2	13.7	10.8
Midnight	14.0	14.7	10.2	10.2	7.8	8.7	9.1	9.2	13.3	9.5	8.8	13.6	10.8
Ieans	13.4	14.7	12.3	12.2	9.3	10.3	10.8	9.9	14.8	10.6	9.4	15.5	11.9
Greatest (I)	37	39	35	31	37	34	34	28	33	33	38	37	•••
$\begin{array}{ccc} \text{Hourly} & & \\ \text{Jleasures} & & \\ \end{array} (2)$	29	30	27	25	29	27	27	23	26	26	29	29	

⁽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.

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