

RESULTS OF THE MAGNETIC  
AND METEOROLOGICAL OBSERVATIONS

MADE AT THE ABINGER MAGNETIC STATION, SURREY  
AND THE ROYAL OBSERVATORY, GREENWICH  
RESPECTIVELY IN THE YEAR

**1944**

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

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## E R R A T A

### RESULTS OF THE MAGNETIC AND METEOROLOGICAL OBSERVATIONS, 1938.

INTERNATIONAL DISTURBED DAYS: -

TABLE VIII

TABLE IX

NORTH COMPONENT, 4TH HARMONIC

Page D 32	Winter:	<i>for</i>	$\overset{Y}{-} 2.3, \overset{Y}{-} 2.2$	<i>read</i>	$\overset{Y}{-} 3.0, \overset{Y}{-} 0.9$	<i>for</i>	$228^\circ$	<i>read</i>	$255^\circ$
	Equinox:	<i>for</i>	$- 0.3, - 1.3$	<i>read</i>	$- 1.3, + 0.4$	<i>for</i>	192	<i>read</i>	290
WEST COMPONENT, 1ST HARMONIC									
	Equinox:	<i>for</i>	$-14.7, -10.7$	<i>read</i>	$-22.1, -11.7$	<i>for</i>	$\overset{Y}{18.2}, 234^\circ$	<i>read</i>	$\overset{Y}{25.0}, 243^\circ$

TABLE XI

Page D 33	Year:	<i>for</i>	$+0.10, -12.3, + 4.0$	<i>read</i>	$+0.11, -13.4, + 4.3$
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THE ROYAL OBSERVATORY, GREENWICH,

AND

ABINGER MAGNETIC STATION, SURREY.

MAGNETIC AND METEOROLOGICAL OBSERVATIONS, 1944.

## INTRODUCTION

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### STAFF

During the year 1944 the staff serving in the Magnetic and Meteorological Department consisted of W. M. Witchell, Superintendent, E. A. Chamberlain, G. F. Wells, P. L. Rickerby, D. Oliver and Miss J. Mounteney. Mr. Chamberlain, resident observer and assistant-in-charge, and his assistant Mr. Rickerby were employed exclusively at the Abinger Magnetic Station.

### ABINGER MAGNETIC OBSERVATIONS

**THE MAGNETIC STATION**—*Site* (Lat.  $51^{\circ} 11' 5''$  N; Long.  $0^{\circ} 23' 12''$  W). Established in 1924; the station is situated on the northern slope of Leith Hill, Surrey, 800 feet above sea level. It is approximately 26 miles from the former site at Greenwich in a direction a little south of south-west. The nearest railway track lies at a distance of about  $2\frac{1}{2}$  miles.

*The Pavilions.* The absolute observations are made in the main pavilion which is constructed of carefully chosen non-magnetic materials. It is approximately 28 feet long by 15 feet wide and contains four stoutly built hard wood piers embedded into concrete bases which are free from contact with the floor. On the north pier is mounted the declination instrument; on the central pier, the coil magnetometer for measuring horizontal intensity; on the south-east pier, the coil magnetometer for measuring vertical intensity; and on the south-west pier, the Earth-inductor for observing magnetic inclination.

A second pavilion, erected in 1926 for the testing and standardising of magnetic instruments (work formerly undertaken at Kew Observatory), and measuring 16 feet by 12 feet, is situated about 40 feet south-east of the main pavilion and contains three concrete piers passing through the floor without contact.

A third pavilion measuring 20 feet square was added in 1932. More convenient and suitable for comparative observations than the second, this pavilion occupies a corresponding position to the north-east of the main pavilion. It contains three circular wooden piers set into concrete and free from contact with the floor, similar to those in the main pavilion.

*The Magnetograph House* stands 50 feet east of the main pavilion and is oriented with its principal axis north and south. An inner chamber, designed to house the magnetographs at a uniform temperature, measures 15 feet long by 12 feet wide by 8

## ABINGER MAGNETIC OBSERVATIONS, 1944.

feet high and is supported on small concrete piers. The whole structure is contained within an outer chamber whose walls are constructed to have a low thermal conductivity and are nearly two feet thick. Between the walls of the two chambers is an air space of from 2 to 3 feet. The inner chamber is electrically heated by a series of low-temperature non-magnetic metallic resistances distributed along the base of the walls and fed by alternating current drawn from the public mains supply.

The temperature of the magnetograph chamber is controlled by a thermostat placed at the centre of the room at the same level as the magnetic instruments. Daily readings of a thermometer attached to one of the variometers show that the departures from a mean temperature do not exceed  $0^{\circ}.2$  C.

Projecting up through the floor are five concrete piers. Two of these, designed originally to support recording mechanisms, occupy the north-west and south-east corners of the room, their longer sides being transverse to the meridian. In 1938 a massive slate slab measuring 8 feet by 2 feet by  $1\frac{1}{4}$  inches was cemented upon the pier occupying the south-east corner. The other three piers are situated at positions 2 feet west and 2 feet 6 inches south of the north-east corner; 5 feet 6 inches west and 5 feet south of the same corner, and 2 feet east and 3 feet north of the south-west corner. Also, in 1938 a heavy wooden table 8 feet by 3 feet was installed near the centre of the room to carry new recording mechanism. The legs of this table pass freely through the floor of the chamber and are cemented into the concrete base of the main building.

LAYOUT OF RECORDING INSTRUMENTS. At the beginning of March 1938 the apparatus used since 1925 to record D and H was superseded by La Cour variometers. These instruments are set up at the south end of the recording chamber in a line running geographically east and west. They occupy the eastern half of the slate slab previously described. The La Cour recording mechanism is mounted upon the table also referred to in the previous paragraph.

Occupying the western halves of the slate slab and wooden table is a "quick-run" magnetograph (see p. vii). On the opposite corner pier is mounted the recording mechanism of a wide-range magnetograph, the declinometer of which is carried by the same pier (see p. vii). The accompanying H variometer is mounted on the south-west pier, formerly occupied by the Watson quartz-fibre Z variometer.

VARIOMETERS - *The La Cour Horizontal Intensity Variometer.* A complete description of this instrument is to be found in *Publikationer fra det Danske Meteorologiske Institut*, No. 11 (Copenhagen 1930), but for general information some details are given here. The magnet of cobalt steel is 8 millimetres long and weighs about 25 milligrams, the magnetic moment being 3.2 c.g.s. units. It is suspended at right angles to the Earth's horizontal field by means of a quartz fibre thickened at each end to form a small cone. Each cone fits into a conical brass socket having a fine slit in its side through which the fibre has passed. The focal length of the lens which projects the ray from the mirror attached to the magnet is 160 cms. Compensation for the effect of temperature on the moment of the magnet and the torsional constant of the quartz fibre is attained by optical means in which compensatory deflection of the emergent ray is produced by proportional curving (under temperature changes) of a bi-metallic lamina which supports a prism controlling the ultimate direction of the ray.

## ABINGER MAGNETIC OBSERVATIONS, 1944.

A small Helmholtz-Gaugain coil, having a field of 7.43 gamma per milliampere and made to envelop the variometer, is used both to orientate the magnet correctly with respect to the earth's field and to determine the scale-value of the record. The orientation of the magnet was last adjusted on 1943 January 13 and was then correct within  $0^{\circ}.5$ . The adopted scale-value during 1944 was 4.35 gamma per millimetre.

*The La Cour Declination Variometer.* The general features of this instrument correspond closely to those of the variometer just described. The scale-value adopted during 1944 was  $0'.92$  per millimetre. Expressed as magnetic intensity the scale-value would be 4.97 gamma per millimetre at the present time.

*The La Cour Vertical Intensity Variometer.* This instrument is fully described in *Publikationer fra det Danske Meteorologiske Institut No. 8*. The recording magnet, including knife-edges and mirror, is fashioned from a single piece of cobalt steel, with the purpose of eliminating the possibility of relative movements among its parts. It is oriented approximately at right-angles to the magnetic meridian. Compensation for temperature changes is optically effected as in the horizontal intensity variometer. The scale-value, determined by the small Helmholtz-Gaugain coil already mentioned, is 4.35 gamma per millimetre.

*The Quick-run Variometers.* These consist of a set of instruments closely resembling those described above and adapted by La Cour's method to record on a time scale of 3 mm. to one minute, i.e. twelve times as great as the normal scale. This recorder has been in regular use since 1938 November.

*The Wide-range Variometers.* Instruments formerly serving as standard variometers for H and D have been adapted to serve as wide-range recorders capable of registering on a small scale the largest variations in the two elements deemed possible of occurrence at Abinger. The H variometer, which was superseded as the standard by the La Cour recorder, has been "desensitised" by the addition, immediately beneath its base-plate, of a bundle of strongly magnetised needles set at right-angles to the magnetic meridian. The scale-value is 19.5 gamma per millimetre. The D variometer used at Greenwich from 1917 to 1925 is now fitted with a lens of 50 cms. focal length, which gives a scale-value of  $3'.7$  per millimetre. The two instruments are located as described on p. vi. The present position of the D variometer is such that it is necessary to deflect the recording light rays towards the recording cylinder through a large angle, and an appropriate mirror rigidly supported between the variometer and cylinder forms part of the apparatus. The wide-range variometers have been in regular operation since 1940.

*Recording Mechanism.* The two principal features of the La Cour recorders are: the three elements H, D and Z are recorded on separate strips of a single photographic sheet; the range over which the elements are able to record is greatly extended by the use of prisms in the optical train which furnish a multiple set of images. For each element are formed six secondary images, three on each side of the principal image, the separation being so adjusted that the image from one prism appears at the edge of the record just before the adjacent image passes off the opposite edge. The time-scale is approximately 15 mm. to the hour.

The time-marks are in all cases photographically printed on the sheets by momentary automatic illumination of an electric lamp. In the case of the La Cour magnetograph the original arrangement provides a series of small dots which constitutes a second, interrupted, trace of the element. These marks, however, have been



## ABINGER MAGNETIC OBSERVATIONS, 1944.

supplemented by thin time lines extending the whole width of each record, these lines being produced by adjustable long narrow mirrors which reflect light from an auxiliary time signal lamp. In the case of the "quick-run" and "wide-range" recorders, only the thin lines are printed.

The time-signals are derived from a relay connected to a mean solar clock in the computing room. For a period of one second at every tenth minute of Universal Time the clock operates a relay which in turn operates the lamps. Additional signals at the first and fifty-ninth minute of each hour serve to distinguish the hour signals. The error of the clock is observed daily by comparison with a time-signal radiating from one of the official broadcasting stations. The error, which seldom exceeds one second, is eliminated by temporarily adjusting the clock rate electromagnetically over the required period of a minute or two.

OBSERVING INSTRUMENTS - *Declinometer*. A hollow cylindrical magnet with scale and collimating lens is used in conjunction with a small telescope mounted independently on the same pier. The magnet is suspended by tungsten wire of diameter 0.02 mm. Frequent reversals are made to eliminate the collimation error of the magnet from the results, and the position of torsional zero of the suspension wire is also frequently checked.  $90^\circ$  of torsion deflects the magnet about  $3'$ . The telescope has a six-inch circle on which azimuths are read by means of two microscope-micrometers to  $1''$ . An azimuth mark is fixed on the top of a concrete pillar 10 feet high, erected at the northern extremity of the Observatory grounds at a distance of approximately 300 feet from the observing pier. Determinations of the azimuth of this mark are made at intervals by means of observations of Polaris. During each observation both direct and reflected views of the star are taken. The effect of error of level of the telescope is thus entirely eliminated. Reflection is obtained from the surface of mercury contained in a shallow copper dish.

*The Schuster-Smith Coil Magnetometer*. This instrument is on loan to the Observatory from the National Physical Laboratory. It is the second of the type constructed and is rather smaller than the original instrument, a detailed description of which is to be found in *Philosophical Transactions of the Royal Society*, Vol. 223 (1923), pp. 175-200. It is erected on a pier in the centre of the absolute observation pavilion and was brought into use as the standard instrument for measurement of horizontal intensity on 1927 February 1. In general eight independent determinations are made each week-day.

The following is a brief description of the instrument and the method employed in measuring horizontal intensity:-

A hollow marble cylinder of 50 cms. diameter rests, with its axis horizontal, on a brass support which can be turned in azimuth. The azimuth may be read to  $10''$  from a graduated circle on the base-plate by the usual vernier attachment. On the periphery of the cylinder, near each end and at a mean distance of 25 cms. from each other, are two windings, in series, of ten turns of bare silver wire, the method of winding in a double spiral being that adopted in the original instrument referred to above. The whole forms a Helmholtz-Gaugain system at the centre of which a very uniform magnetic field parallel to the axis exists when an electric current is passing through the coils.

## ABINGER MAGNETIC OBSERVATIONS, 1944.

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

To afford an easy means of reading the azimuth of the cylinder and the indications of the magnet, graduated ivorine scales are placed horizontally on stands at a distance of approximately 2 metres from the pier, and spots of light are reflected to them by small concave mirrors in the instrument.

Situated outside the observing pavilion, about 40 feet to the south, is a storage battery of 25 cells which produces the current required for the observation. The amount of current employed is very accurately adjusted to a specific quantity by rheostat according to the indications of a Broca galvanometer in a potentiometer circuit in which the fall of potential across a known resistance is brought to equality with the voltage of a Weston standard cell.

Careful precaution is exercised in arranging the circuits both to eliminate accidental magnetic fields and to secure the highest degree of insulation. The latter has been found, in practice, to be of great importance, especially with regard to insulation of the galvanometer circuit, as any stray current here will lead to a difference of potential between the terminals of the standard cell and the standard resistance. It is desirable that the resistance of the galvanometer should be as low as possible consistent with sensitivity.

### Theory of the observation:-

If a horizontal magnetic field whose intensity is slightly greater than that of the earth is imposed at an angle of nearly  $180^\circ$  with the earth's field, a precise angle can be found at which the resultant of the two fields becomes directed at right angles to the earth's field. The intensity  $F$  of the imposed field, and its angle  $\alpha$  with the earth's field being known, the horizontal intensity of the earth's field can then be calculated from the simple relation  $H = F \cos \alpha$ .

### An observation proceeds as follows:-

Torsion having been eliminated from the suspension thread by substituting a copper bar of similar dimensions for the magnet, the magnet is replaced and allowed to hang freely in the earth's field. The position on the appropriate scale of the spot of light reflected by the magnet-mirror is noted. This scale is normally on the west side of the instrument. By optical methods, reference marks on two other scales placed respectively to the magnetic north and south of the instrument are adjusted accurately to points  $90^\circ$  from the spot reflected by the magnet mirror. A current is next passed round the coil in the direction which produces a field augmenting that of the earth, and the coil is turned in azimuth until the addition of the imposed field produces no alteration in the direction of the magnet. The axis of the coil is then accurately parallel to the horizontal component of the earth's field, and the coil-mirror can be adjusted so that it reflects a spot of light to the reference mark, i.e. to the zero graduation of the north scale as already set.

## ABINGER MAGNETIC OBSERVATIONS, 1944.

The current is now reversed in the coil by a commutator switch and the coil is turned until the resultant force on the magnet is in a direction at right angles to the earth's field. This is indicated on either the north or south scale by the magnet-mirror, which is carried round  $90^\circ$  by the magnet. The azimuthal angle through which the coil has been turned is read from the north scale, and the coil is then turned to an approximately equal angle on the opposite side of the magnetic meridian. This reverses the direction of the resultant field and a further small adjustment of the coil brings the spot of light reflected by the magnet-mirror accurately to the reference mark on the opposite scale to that last used. A second reading of the azimuth of the coil completes the observation.

The suspension box and tube are turned by the observer as the magnet turns, so that no torsional change is introduced. The effect of any small error in the assumed direction of the Earth's horizontal field, due, say, to residual torsion on the suspension thread, is eliminated on taking the mean of the two results.

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

If  $F$  be the factor of the coil and  $i$  be the current passing, in amperes, then the intensity of the field at the centre of the coil, in gamma units, is  $Fi \times 10^4$ . The adopted value of the factor  $F$  of the coil is 3.59570 ( $1 - .0000043t$ ),  $t$  being temperature Celsius.

The observed value of horizontal intensity obtained from this instrument is subject to a correction of  $-1\gamma$  for the effect of the field of magnets in instruments placed permanently in the vicinity. The effect is determined experimentally by reversal of the magnets. The correction is applied in the reduction of the observation.

The constants of the coil and of the potentiometer at various standard temperatures have been precisely determined at the National Physical Laboratory and are checked from time to time. The dimensions of the coil were re-examined in November 1931. The electrical constants on which the reduction of observations made in 1944 is based were verified in August 1943. To convert the measure of current from international units to c.g.s. units the factor adopted prior to 1938 January 1 was .99997; but from this date onward the value adopted has been .99988. The change introduced a discontinuity into the deduced values of  $H$  of  $-1.7\gamma$ .

*A Kew-Pattern Unifilar Magnetometer.* (Casella No. 181) is also used to determine absolute horizontal intensity. Deflection observations are made at three distances, namely 22.5, 30 and 40 cms. Twelve observations of the moment of inertia of the collimator magnet were made during the year 1944. The mean observed value of  $\log. K$  from these determinations was 2.42356. This value has been used in the reductions and is based on the Greenwich Standard Inertia Cylinder (see Appendix II of the Magnetic Results 1926).

The mean values of the distribution constants  $P$  and  $Q$  derived from 18 normal determinations made during the year are +10.04 and -1796 respectively.

The values used in the reduction of the 1944 observations, however, are the mean values obtained from a series of 235 special observations made during 1936. These values are:-  $P = +9.17$ ;  $Q = -1409$ . The principle and method employed in the

## ABINGER MAGNETIC OBSERVATIONS, 1944.

reduction of these special observations are described in the Results for 1936. In computing the observed values of horizontal intensity the deflection at 22.5 cms. has not been used since 1936.

The magnetometer, mounted until August 1928 in the main pavilion, is now used in the north-east pavilion (see p. v).

*The Vertical Intensity Coil Magnetometer.* This instrument, designed by D. W. Dye for direct measurement of vertical intensity and constructed under his supervision at the National Physical Laboratory, Teddington, is on loan to the Royal Observatory from the Laboratory. It is erected on the south-east pier of the observing pavilion and was adopted as the standard for measurement of vertical intensity from 1929 January 1.

A full description of the instrument is published in *Proceedings of the Royal Society*, Ser. A, Vol. 117 (1928), pp. 434-458. In brief, the instrument consists of a Helmholtz-Gaugain coil wound on a marble cylinder, the axis of which is vertical as truly as can be determined, together with accessory apparatus for accurately controlling and measuring the current passed through the coil, and for testing the resultant field at its centre.

The observation consists of an adjustment of the current until the artificial field imposed at the centre of the coil exactly annuls the vertical component of the earth's field. The intensity of this component is then easily calculable from a knowledge of the dimensions of the coil and the amount of current indicated by potentiometer measurement (*cf* p. x). The current is taken from the battery which supplies the *Schuster-Smith* instrument.

The special feature of the instrument is the means adopted for ascertaining when the vertical component of the Earth's field is exactly annulled at the centre of the marble cylinder. This consists of a diamond-shaped vibrating test-coil about 2 cms. long suspended by bronze strip stretched horizontally between two supports and carrying a light plane mirror. The principle of the instrument requires that the axis of rotation of the detector coil should be horizontal and its plane vertical in the equilibrium position. The method of securing these adjustments is included in the full description mentioned above.

A weak alternating current, supplied from a generator at some distance from the instrument, passes through the test coil. The reaction between the field produced and the surrounding magnetic field subjects the test-coil to a forced oscillation which vanishes only when the vertical field is annulled. The resulting vibration is brought to a maximum by adjustment of the generator frequency to synchronism with the natural frequency of the coil (about 15 per second) and high sensitivity is thus obtained. Microscopic vibration is exhibited by projection from the small mirror on the test-coil of an image of illuminated cross-wires to a screen erected about 2 metres distant.

The adopted value of the factor  $F$  of the coil is  $F = 3.59643 (1 - 0.0000079t)$ ,  $t$  being temperature Celsius. The constants of the potentiometer in use during the year 1944 for the measurement of the current were verified at the National Physical Laboratory in 1943 August. The factor adopted for the conversion from international units to c.g.s. units was the same as for the *Schuster-Smith* coil (see p. x). The change on 1938 January 1 introduces a discontinuity of  $-3.9\gamma$  into the deduced values of  $Z$ .

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*The Absolute Inclination Instrument.* An Earth Inductor by the Cambridge Instrument Company, in conjunction with a Broca galvanometer, is used to determine magnetic inclination. About six determinations are made each week. Observations are made in four positions to eliminate any small errors arising from slight asymmetry in the instrument. After the first adjustment the coil support is reversed about a horizontal axis and a second adjustment is obtained; the instrument is then reversed in azimuth and two further adjustments are made. The circle for the measurement of inclination is 8 inches in diameter and is read by means of microscope-micrometers to one second of arc. The levels on the base can likewise be read to one second. A detailed description of the inductor will be found in the volume for 1915. Since 1929 January 1 the observations of inclination have not been used for determination of vertical intensity.

REDUCTION OF RESULTS - *Time* - The system of time used in the reductions is *Universal Time* (U.T.).

*Hourly Values.* The estimated mean ordinates of the photographic traces for each hour are measured from the base-line by the aid of an etched glass scale - the hour being the period of sixty minutes commencing at the time named in the tables. From the tables of these measures are obtained the mean daily and mean monthly values for each hour of the day and the value of the elements for each day of the month.

*Base-lines.* Values of the base-lines are adopted from smooth curves drawn through points plotted upon charts, each point representing the mean of several independently observed values. Ten observations of declination, eight of horizontal intensity and six of vertical intensity are made, on an average, each week-day. Prior to 1929 the base-line values for vertical intensity traces were computed from absolute observations of inclination  $I$ , combined with simultaneous values of horizontal intensity  $H$ , taken from the magnetograms, in accordance with the relation  $Z = H \tan I$ . From 1929 January 1 the values have been obtained directly from observations of vertical intensity with the coil-magnetometer. The change introduces a discontinuity of about  $30\gamma$  into the definitive values of vertical intensity, corresponding to  $0'.9$  in inclination. The latter is to be attributed to hitherto unsuspected wear in the bearings of the Earth inductor which, at the time of its discovery, made the observed values of inclination too large by this amount.

*Temperature Corrections.* As the magnetograph chamber is maintained at a sensibly constant temperature and, moreover, the temperature compensation in the variometers themselves has been closely attained, in general no temperature corrections are required.

*K - Indices.* In conformity with a resolution passed at the Washington Assembly of the International Association of Terrestrial Magnetism and Electricity in 1939 September, the magnetic character of each day is estimated by means of three-hour-range indices, the index "K" for each three-hour period from 0<sup>h</sup> to 24<sup>h</sup> U.T. being assigned according to the principles described in an article published in *Terrestrial Magnetism and Atmospheric Electricity*, Vol. 44, pp. 411 *et seq* (December 1939).

The scale adopted for this purpose is constructed as follows:- The average quiet day variation during a particular three-hour period being reckoned as "0", any excess greater than  $5\gamma$  but less than  $10\gamma$  is reckoned as "1"; an excess between  $10\gamma$

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and 20  $\gamma$  as "2"; between 20  $\gamma$  and 40  $\gamma$  as "3"; between 40  $\gamma$  and 70  $\gamma$  as "4"; between 70  $\gamma$  and 120  $\gamma$  as "5"; between 120  $\gamma$  and 200  $\gamma$  as "6"; between 200  $\gamma$  and 330  $\gamma$  as "7"; between 330  $\gamma$  and 500  $\gamma$  as "8"; greater than 500  $\gamma$  as "9".

The traces of all three elements are examined and the largest variation recorded in the interval is used to give the "K" index for that interval.

THE TABLES. Tables I to III contain respectively the hourly mean values of declination, horizontal intensity and vertical intensity.

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

Table IVA contains, for each day of the year, the eight individual K-indices, arranged in succession, together with their sums.

Tables V to VII contain the mean diurnal inequalities obtained from "All" days and from "Quiet" and "Disturbed" days as selected by the International Committee. In addition to monthly and annual values there are given values for the seasons, viz. Winter (January, February, November, December), Equinox (March, April, September, October) and Summer (May, June, July, August). The values in these tables are *not* adjusted for the effect of non-cyclic change.

The figures quoted for the north and west components and the inclination are computed from the corresponding inequalities in declination, horizontal intensity and vertical intensity, the computations being in general carried out to one significant figure beyond that printed. Extreme values are indicated in heavy type.

Tables VIII and IX contain the harmonic coefficients obtained from an analysis of the inequalities in the north (X), west (-Y) and vertical (Z) components. In the case of the International Quiet and Disturbed days, the inequalities are adjusted for non-cyclic change before analysis, but in analysing the results for "All" days the non-cyclic change is ignored. The phase-angles in Table IX are corrected to refer to Abinger Local Mean Time.

Table X. In the annual volumes from 1926-1931 this table contains the range of the mean diurnal inequalities abstracted from the figures given in Tables V to VII for the months, the year and the seasons. In 1932 a change was made which was inadvertently not noted at the time. Thenceforth the figures given for the *year and the seasons* are derived from Table X itself by meaning the values of the months constituting the particular group.

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

Table XII contains the mean monthly and annual values of the components collected together. In forming this table corrections are applied when necessary, to the values of H and Z taken from Table IV to remove the effect of any small secular changes in potentiometer constants found at the periodical re-measurement of the constants at the National Physical Laboratory.

Tables XIII to XVA contain the daily values of the base-lines of the magnetograms reduced from the absolute observations.

GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

Table XVI. The first part of this table contains mean annual values of magnetic elements determined at the Royal Observatory, Greenwich, over the whole period of observation. Included in the table are results of early observations of declination made from 1818 to 1820. The second part contains corresponding values determined at the Abinger Station since 1925.

REPRODUCTION OF MAGNETOGRAMS. A brief descriptive summary of the more significant movements recorded in the magnetic elements during the year is accompanied by reduced copies of the Abinger Magnetograms illustrating disturbances of special interest.

GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

GENERAL. The majority of the meteorological instruments are situated in an enclosure in Greenwich Park, 350 yards to the east of the Astronomical Observatory. In the enclosure (which will be referred to as "The Christie Enclosure") there are the barometer, the thermometers used for ordinary eye observations, the recording wet-bulb and dry-bulb thermometers, thermometers for solar and terrestrial radiation, two earth thermometers and two rain gauges; also the instrument for automatically recording pollution of the air.

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

The observations comprise eye observations of the ordinary meteorological instruments, including the barometer, dry-bulb and wet-bulb thermometers, radiation and earth thermometers; continuous autographic record of the variations of the barometer, dry-bulb and wet-bulb thermometers; continuous automatic record of the direction, pressure and velocity of the wind and of the amount of rain; registration of the duration of sunshine and at night of the visibility of stars near the celestial Pole; the general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud and estimations of "visibility"; registration and measurement of the pollution of the air by solid matter.

*Universal Time (U.T.)* - which at the Royal Observatory coincides with local Mean Solar Time - has been employed throughout the meteorological section, except in regard to the sunshine registers (see p. xviii).

INSTRUMENTS. *Standard Barometer.* The standard barometer is Newman No. 64. Its tube is 0.565 inch in diameter, and the depression of the mercury due to capillary action is 0.002 inch, 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 0.05 inch, sub-divided by vernier to 0.002 inch.

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. On 1917 April 3 it was transferred to the new magnetograph house in the Christie Enclosure, where the height above mean sea level is 152 feet (see also p. xix).

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

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

*The Photographic Barometer.* A siphon barometer is employed which, at its open end, operates a plunger resting on the surface of the mercury. On account of the optical magnification associated with a moving mirror at some distance from the recording drum, the motion of the plunger must be mechanically reduced in being transferred to the arm which carries the mirror. In the actual arrangement two levers are used. One is connected to the stem of the plunger resting on the free surface of the mercury and is 12 inches long from plunger to pivot. A pin with a rounded conical point is screwed into this lever at a distance of 1 inch from the pivot. On this pin rests the plane under-surface of a shorter lever, which is 4 inches long from its pivot to the pin and is set at right angles to the first lever. Both levers are approximately horizontal in their mean position. The moving mirror of the instrument is mounted horizontally, in a suitable frame, just above the pivots of, and attached to the short lever. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. The recording drum is horizontal and the motion of the beam of light is transformed, so as to be horizontal, by a fixed right-angles 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 electric lamp to a focus on the drum. A base-line mirror, similar to the moving mirror, is mounted in a vertical plane below the lower half of this lens. Provision is made for all the necessary adjustments of the directions of the two beams of light. The weight of the plunger and lever mechanism is relieved by a balance-weight on the far side of the pivot, so that the plunger rests on the mercury surface without appreciably depressing it.

The instrument is 12 feet from the recording drum. At this distance the calculated scale-value of the record is 3 inches on the sheet for 1 inch change of height of the standard barometer. (Near the free surfaces of the mercury, both arms of the siphon tube are of the same bore, so that the plunger moves through one half the change of the indication of the standard barometer).

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

The photographic sheets being 9½ inches wide, a range of over 3 inches barometric motion can be included and re-adjustment of position of the trace is unnecessary.

*Dry-bulb and Wet-bulb Thermometers.* On 1937 December 31 the standard dry-bulb and wet-bulb thermometers and maximum and minimum self-registering thermometers, both dry- and wet-bulb, were transferred from the revolving open screen, on which hitherto they had been mounted, to a Stevenson screen of large dimensions which had been set up a few yards to the westward. The old screen was subsequently erected in a new position on the north side of the Christie Enclosure, and daily readings, at 9<sup>h</sup>, of maximum and minimum temperature in the open screen were resumed from 1938 May 1.



## GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

The corrections to be applied to the thermometers in ordinary use are determined by comparison with the Kew standard thermometer No. 515.

The dry-bulb thermometer used throughout the year was Negretti and Zambra No. 45354. The correction  $-0^{\circ}.4$  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  $-0^{\circ}.3$  has been applied to the readings of this thermometer.

The dry-bulb and wet-bulb thermometers are read at 9<sup>h</sup>, 12<sup>h</sup> (noon) and 15<sup>h</sup> every day. Readings of the maximum and minimum thermometers are taken at 9<sup>h</sup> and 15<sup>h</sup> every day. The readings are employed to correct the indications of the recording dry-bulb and wet-bulb thermometers.

*Dry-bulb and Wet-bulb Recording Thermometers.* The photographic apparatus which had been in use since 1887 was superseded on 1938 January 1 by a distant-recording thermograph. The action of this instrument depends on the pressure of mercury in a long flexible capillary tube of steel. The pressure alters the curvature of a Bourdon coil which in turn controls the position of a recording pen.

The thermometers exerting the pressure are mounted in the Stevenson screen which contains also the standard thermometers. The recording mechanism is set up in the basement of the building, about 40 feet distant, constructed for the Yapp equatorial telescope, and the steel tube transmitting the pressure is laid in earthenware pipes buried about eighteen inches beneath the surface of the ground. The traces (in ink) showing the variations in temperature are directly visible through a window. The scale-value is approximately  $20^{\circ}$  F per inch.

*Radiation Thermometers.* These thermometers are placed in an open position in the Christie Enclosure. The thermometer for solar radiation is a mercurial maximum thermometer with its bulb blackened and enclosed in a glass sphere from which the air has been exhausted. The thermometer employed was DB 3544. The thermometer for radiation to the sky is a spirit minimum thermometer. N.Z. No. CG 18256 was broken on April 19 and was replaced by DC 30597. The thermometers are laid on short grass, freely exposed to the sky.

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

*Osler Anemometer.* This self-registering instrument, devised for continuous registration of the direction and pressure of the wind together with the amount of rain, is fixed above the north-western turret of the ancient part of the Observatory. The direction of the wind is registered by means of a large vane (9 ft. 2 in. in length), connected by shaft and pinion with a rack-work carrying a pencil; the latter marks on a flat sheet of paper, moving horizontally. 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 near 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.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

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 strong winds. The scale is determined experimentally in pounds per square foot from time to time. The most recent determination was made on 1934 November 20. The recording sheet is changed daily at noon. The time scale is approximately 15 millimetres to the hour. The instrument was brought into use as long ago as 1840.

*Robinson Anemometer.* This instrument, for registration of the horizontal movement of the air, is mounted above the roof of the Octagon Room and was brought into use in 1866. The four hemispherical cups are 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 approximately to horizontal motion of the air through 100 miles. The time scale is the same as for the Osler anemometer and the sheet is also changed daily at noon.

The velocity recorded by the instrument is three times the actual velocity  $v$  of the cups.

After certain structural alterations were carried out in 1941 October, which included the introduction of a ball bearing for the revolving shaft, a series of comparisons was made between wind speed deduced from the pressure recorded by the Osler anemometer and the velocity of the cups, known from the above-mentioned relation. These comparisons established a new empirical formula, valid at all ordinary speeds and very close to  $V = 2.70 v$ . Accordingly, from 1942 January 1, the formula  $V = 2.70 v$  has been adopted to modify the velocity recorded by the instrument.

*Rain Gauges.* During the year 1944 three rain gauges were employed. The gauge No. 1 forms part of the Osler anemometer apparatus and is self-registering, the record being made on the sheet on which the direction and pressure of the wind are recorded. The apparatus is fully described in volumes previous to 1914.

Gauge No. 6 is an 8 inch circular gauge placed with the receiving surface 5 inches above the ground. No. 8 is a newer gauge of the same diameter, but of the modified Snowdon pattern adopted by the Meteorological Office, having its receiving surface 1 foot above the ground. It is fixed about 4 feet north of the standard gauge No. 6 which is read daily at 9<sup>h</sup> and 15<sup>h</sup>. No. 8 is used as a check on the readings of No. 6 and is normally read at 9<sup>h</sup> only. The gauges are also read at midnight on the last day of each calendar month.

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 Christie Enclosure in 1899 January.

The monthly amounts of rain collected in gauges Nos. 6 and 8 are given on page D 84 of the Meteorological Results.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

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

*Night-Sky Recorder.* The object of this instrument is to supplement the daily sunshine record in so far as it gives an indication of the amount of cloud. It consists of a small camera constructed of wood, mounted on a brick pier about 20 yards south of the Altazimuth building, and permanently directed towards the celestial pole. The lens is of 18.8 inches focal length and 0.8 inch aperture. The actual camera is enclosed in a larger box about twice its length, extending nine inches beyond the lens. The lens itself is further surrounded by a hood. Adequate protection from dew is thus obtained, and also from rain, except when hard driven from the north. The photographic plates used are ordinary quarter-plate ( $3\frac{1}{4}$  by  $4\frac{1}{4}$  inches). Exposure is intended to be made during the period that the sun remains more than  $10^\circ$  below the horizon. The period is thus centred approximately on apparent midnight, but in practice the mean times of commencing and ending the exposure are not varied at intervals of less than seven days.

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

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

ARRANGEMENT OF RESULTS. The results given in the Meteorological Section refer to the day commencing at  $0^h$  U.T., excepting the case of the night-sky record, for which they relate to the period from dusk on the day named to dawn of the following day.

All results in regard to atmospheric pressure, temperature of the air and of evaporation, with deductions therefrom, are derived from the continuous records, excepting that the maximum and minimum values of air temperature are those given by eye observation of the ordinary maximum and minimum thermometers, reference being made, however, to the autographic register; when necessary, to obtain the values

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corresponding to the limits "midnight to midnight". The hourly readings for the elements mentioned are measured direct from the traces and reduced so as to be based fundamentally, both as regards scale and zero, on the readings of the standard instruments.

The barometer results are not reduced to sea-level, neither are they corrected for the effect of gravity by reduction to the latitude of 45°. The monthly mean barometer reading is, however, corrected for the effect of the change of site of 1917 April before deducing the deviation from the mean of sixty-five years 1841-1905 (pp. D 52-75). This correction, amounting to -.007 inch, was by oversight omitted in the years 1917-1926.

From 1926 January 1 the mean daily temperature of the dew-point and degree of humidity have been deduced from the mean daily temperatures of the air and of evaporation by use of *Hygrometric Tables*, issued by the Meteorological Office, Air Ministry. In the same way the mean hourly values of the dew-point temperature and degree of humidity in each month (pp. D 79 and D 80) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pp. D 78 and D 79).

The excess of the mean temperature of the air on each day above the average of sixty-five years, given in the "Daily Results of the Meteorological Observations" is found by comparing the numbers contained in column 5 with a table of average daily temperatures obtained by smoothing the accidental irregularities of the daily means derived from the observations for 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, also in the Introduction to *Results* for 1910.

In the case of maximum and minimum temperature the average of sixty-five years has been corrected for the presumed effect of the change of thermometer screen which took place on 1938 January 1. The corrections are given below. They were derived from comparisons between readings on the revolving stand and in a closely adjacent Stevenson screen, recorded daily during the period 1900 April to 1913 December.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Maximum Temp.	0°.0	-0°.3	-0°.6	-1°.1	-1°.7	-1°.8	-2°.1	-1°.9	-1°.1	-0°.5	-0°.1	0°.0
Minimum Temp.	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.6	+0.6	+0.6	+0.5	+0.5

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 (see p. xvii). The continuous record of the Osler self-registering gauge shows whether the amounts measured at 9<sup>h</sup> are to be placed to the same, or to the preceding day; and also gives, in cases in which rain fell both before and after midnight, the means of ascertaining the proper proportion of the 9<sup>h</sup> amount which should be placed to each day. The number of days of rain given in the footnotes and in the abstract tables pages D 77 and D 84, is formed from the records of gauge No. 6. In this numeration only those days are counted on which the fall amounted to, or exceeded 0.005 inch.

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It may be understood that the greatest wind pressures usually occur in gusts of short duration. In the "Mean of 24 Hourly Measures" each measure represents the mean hourly value centred at the nominal hour. With regard to "Proportions of wind referred to the cardinal points" in the monthly summary on pages D 52-75, formerly the figures were such that the whole month was represented by the number of days in the month. In the "Results" for 1933 a change was made, and the whole month is now represented by 100, so that the figures are the equivalent of "percentages".

The mean amount of cloud given in the footnotes on the right-hand pages D 53 to D 75, and in the abstract table, page D 77, is the mean found from observations made at 9<sup>h</sup>, 12<sup>h</sup> (noon), 15<sup>h</sup> and 21<sup>h</sup> each day.

As regards the notation for clouds and weather, several changes were made in the 1934 volume in order to bring the symbols into general accordance with those in use at the British Meteorological Office.

The following are the symbols which have been adopted. Where a change from the symbols previously in use has been made, an asterisk (\*) is placed after the word or words for which the symbol stands.

### BEAUFORT WEATHER NOTATION

(modified in conformity with the usage of the British Meteorological Office)

b	blue sky (less than one quarter covered with cloud)
bc	sky partially cloudy (less than three quarters covered)
c	sky generally cloudy, but not completely overcast
d	drizzle
e	wet air without falling rain
f	fog, with objects invisible distant more than 1100 yards
F	fog, with objects invisible distant more than 220 yards
g	gloom (*)
h	hail (*)
i	intermittent
k	storm (in combination with other symbols) (*)
l	lightning
m	mist, with limit of visibility between 1100 and 2200 yards
o	sky overcast with unbroken cloud
p	passing showers (*)
q	squall (*)
r	rain
s	snow (*)
rs	sleet (*)
t	thunder
u	threatening sky
v	exceptional visibility; i.e. abnormal transparency of air
w	dew (*)
x	hoar frost (*)
y	dry air; i.e. relative humidity less than 60 per cent
z	haze (*)

A capital letter indicates "intense"

The suffix o indicates "slight"

A letter repeated indicates "continuous"

GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

CLOUD FORMS (\*)

<i>Acu</i>	Alto-cumulus	<i>Cist</i>	Cirro-stratus	<i>St</i>	Stratus
<i>Ast</i>	Alto-stratus	<i>Cu</i>	Cumulus	<i>Stcu</i>	Strato-cumulus
<i>Ci</i>	Cirrus	<i>Cunb</i>	Cumulo-nimbus	<i>Fr</i>	Fracto-
<i>Cicu</i>	Cirro-cumulus	<i>Nbst</i>	Nimbo-stratus		

ADDITIONAL SYMBOLS

<i>lu-ha</i>	lunar halo	<i>prhn</i>	Parhelion	<i>so-ha</i>	solar halo
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ROYAL OBSERVATORY, GREENWICH.  
ABINGER MAGNETIC STATION.

# Results of Magnetic Observations

1944













TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

Table with columns for U.T. (0h to 24h) and rows for hours of the day (1 to 30). It includes data for November and December, with sub-sections for '10° + Tabular Quantities'. The table contains numerical values representing magnetic declination. Summary rows for Mean, Mean \*, and Mean \*\* are provided at the end of each month's data.

\* International Quiet Day. \*\* International Disturbed Day.















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

Table with columns for U.T. (0h to 24h) and rows for hourly magnetic intensity means in January and February. Includes sub-headers '43000 Y + Tabular Quantities (in Y)' and summary rows for 'Mean', 'Mean \*', and 'Mean \*\*'.

\* International Quiet Day. \*\* International Disturbed Day.















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

Table with columns for Date, Declination West, Horizontal Intensity, and Vertical Intensity. Rows include monthly data for March and April, and summary rows for Mean, Mean \*, and Mean \*\*.

\* International Quiet Day. \*\* International Disturbed Day.







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

Table with columns for Date, Declination West (Mean Daily Value, Maximum, Minimum, Range), Horizontal Intensity (Mean Daily Value, Maximum, Minimum, Range), and Vertical Intensity (Mean Daily Value, Maximum, Minimum, Range). Rows include dates from November 1 to December 31, with mean values at the bottom of each month.

\* International Quiet Day. \*\* International Disturbed Day.



TABLE IV(A). - THREE-HOUR-RANGE INDICES "K" FOR THE YEAR 1944.\* (SEE INTRODUCTION PAGE x11).

Date	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3132 5453	26	2111 2121	11	2231 1123	15	3112 3355	23	4233 5644	31	3111 3330	15
2	2221 1331	15	0221 1122	11	3311 3242	19	4467 5454	39	4444 4433	30	1322 1121	13
3	1101 2010	6	0111 1021	7	2201 1101	8	4432 3244	26	3322 4321	20	1012 2121	10
4	3111 1123	13	0111 3332	14	3244 4333	26	3345 4334	29	2114 3455	25	1111 2343	16
5	5233 1432	23	0021 1233	12	2111 3343	18	3434 3454	30	5223 4332	24	3122 2431	18
6	1111 2133	13	2012 2111	10	3433 4354	29	4344 3543	30	4234 4553	30	2212 2330	15
7	2011 1111	8	2334 6555	33	4433 5534	31	4243 2355	28	1343 4433	25	0012 1321	10
8	1212 1231	13	4333 4456	32	2322 4464	27	4213 5243	24	3333 1123	19	0111 1311	9
9	3112 1313	15	2243 4453	27	4425 4454	32	2123 2344	21	1111 1232	12	2222 3322	18
10	1122 2236	19	3334 3453	28	3345 5554	34	4453 3323	27	3211 2112	13	2122 2321	15
11	3334 3663	31	4334 3434	28	2333 2243	22	4222 2434	23	2220 3212	14	1131 3433	19
12	3343 4433	27	3333 4331	23	3333 4555	31	4222 3120	16	2112 3333	18	1210 1210	8
13	5343 5354	32	1022 2345	19	3232 4421	21	0111 1101	6	1111 1111	8	0111 3332	14
14	4333 3653	30	4654 3343	32	3333 3241	22	0113 0100	6	1221 2211	12	2112 4224	18
15	4432 3455	30	4333 3444	28	1221 2233	16	2122 4335	22	3221 2110	12	4343 3443	28
16	4234 4534	29	3222 2303	17	2313 2311	16	5344 3643	32	0111 2211	9	3233 3333	23
17	3333 4444	28	2011 3123	13	1011 1111	7	4322 3223	21	2111 2112	11	3121 2313	16
18	2224 3453	25	1112 2100	8	0122 2355	20	4010 1103	10	2112 2111	11	2221 2211	13
19	3331 1433	21	0112 2100	7	5524 3245	30	3011 2121	11	2121 2121	12	1112 1213	12
20	3122 2334	20	0213 4344	21	4222 2121	16	2211 1320	12	1111 2210	9	3333 3334	25
21	3211 1231	14	3322 1223	18	1301 2234	16	0111 3311	11	1211 1212	11	3443 3332	25
22	3121 1131	13	3321 1210	13	3323 3322	21	0110 0201	5	1111 3222	13	3433 4524	28
23	1212 0134	14	1121 2113	12	2231 1244	19	0010 2110	5	0221 3332	16	2142 3423	21
24	3111 2320	13	1222 1113	13	1021 2200	8	3332 4323	23	3233 3333	23	3232 2211	16
25	0001 2224	11	3110 1201	9	1123 3344	21	3221 2133	17	1311 2232	15	1112 1331	13
26	1022 3444	20	1121 1121	10	3343 5335	29	3221 2333	19	3222 3321	18	1213 4444	23
27	3222 3243	21	1112 1011	8	6645 3343	34	3213 3344	23	3333 3221	20	4323 2322	21
28	3222 1131	15	2111 1121	10	2222 3334	21	3223 3342	22	1123 3322	17	1213 3312	16
29	2111 3232	15	1221 2233	16	4443 3333	27	1233 4321	19	3323 4435	27	4422 2311	19
30	1211 1112	10			4332 3435	27	3344 3423	26	4224 4221	21	2132 3312	17
31	1111 1333	14			2332 3122	18			1221 2423	17		

\* Corresponding figures for the years 1929-1939 are given in an Appendix to the Magnetic and Meteorological Results for 1940.

TABLE IV(A). - THREE-HOUR-RANGE INDICES "K" FOR THE YEAR 1944.\* (SEE INTRODUCTION PAGE x11).

Date	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3111 3321	15	2222 3210	14	4113 3214	19	4124 3455	28	0012 1103	8	2112 2332	16
2	2222 2223	17	1213 4544	24	5433 3443	29	1002 3133	13	0212 1111	9	4232 1453	24
3	1122 2322	15	5543 4233	29	3133 3321	19	3332 3343	24	0012 3311	11	3322 3123	19
4	3112 1131	13	3111 3121	13	2112 3244	19	3023 1331	16	2132 3423	20	2221 1021	11
5	2222 1310	13	1122 2223	15	3121 2201	12	2232 3111	15	2443 3455	30	1122 1223	14
6	1122 3213	15	2332 2322	19	1113 2323	16	2122 2344	20	3332 4222	21	3211 1221	13
7	3211 1211	12	2202 3312	15	1232 1111	12	3221 3132	17	0111 3323	14	1100 1111	6
8	0112 2122	11	0212 3442	18	1112 2344	18	1010 0112	6	2122 1101	10	0111 1112	8
9	3342 3321	21	2113 3321	16	3111 1122	12	3111 0000	6	3131 1131	14	2211 1122	12
10	2111 3341	16	2233 3322	20	1221 1333	16	0011 2133	11	0033 3440	17	3111 1111	10
11	1211 1211	10	3222 2234	20	2213 3214	18	5521 3534	28	0011 2310	8	2112 1100	8
12	1112 2313	14	3422 3323	22	2133 2113	16	1222 2333	18	1021 1111	8	1112 0121	9
13	3122 2221	15	3033 3121	16	2001 1333	13	3111 3434	20	0011 1001	4	1123 3544	23
14	1123 2322	16	1013 3233	16	3332 3331	21	3023 3445	24	1011 1122	9	3432 3210	18
15	3232 3232	20	2231 2211	14	1223 1001	10	5433 2346	30	2111 1111	9	1011 1234	13
16	1222 3343	20	1122 3323	17	0211 2210	9	3232 3333	22	1211 1110	8	4345 7853	39
17	1323 3221	17	3212 2121	14	0111 3311	11	2222 2114	16	0011 1112	7	2554 5656	38
18	1111 1233	13	3353 3333	26	3332 2121	17	3223 2211	16	3121 3312	16	4332 3333	24
19	3223 3322	20	3231 1312	16	0011 3000	5	2112 0010	7	3212 2321	16	1222 1233	16
20	3333 3112	19	3121 2112	13	0011 2334	14	0021 1234	13	2332 4544	27	1221 1234	16
21	2223 3323	20	1121 1121	10	5333 3322	24	2121 1122	12	2111 1011	8	4321 2211	16
22	2122 2232	16	2212 1103	12	3112 2245	20	1111 2321	12	1011 1211	8	1111 2243	15
23	1122 2211	12	4232 3122	19	4312 2344	23	2232 2445	24	2000 1111	6	2120 1112	10
24	0111 1111	7	3432 4311	21	5344 4134	28	5233 3243	25	0111 1000	4	0011 1111	6
25	1111 1200	7	1121 1210	9	3212 2143	18	3211 1143	16	0001 1011	4	1111 1111	8
26	1112 2211	11	1101 2223	12	4212 3323	20	4333 1133	21	4121 1210	12	0113 2333	16
27	0112 2322	13	3121 1242	16	1233 3443	23	3111 3422	17	0111 2110	7	3323 4655	31
28	1101 2323	13	2254 4334	27	1221 1222	13	1222 2132	15	1101 1131	9	5223 3321	21
29	2111 2232	14	2112 3321	15	1232 2133	17	1002 1233	12	0100 1101	4	1321 1243	17
30	2212 3312	16	3223 3332	21	1112 4565	25	2121 0101	8	3111 2322	15	4321 3334	23
31	3323 2122	18	3334 2333	24			2232 2343	21			2112 3124	16

\* Corresponding figures for the years 1929-1939 are given in an Appendix to the Magnetic and Meteorological Results for 1940.

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

"All" Days

DECLINATION WEST (Unit 0.01)

Table with columns: Month and Season, 1944; Universal Time. Hour commencing (0-23); and 23 columns of numerical data for Declination West.

INCLINATION (Unit 0.01)

Table with columns: Month and Season, 1944; and 23 columns of numerical data for Inclination.

HORIZONTAL INTENSITY (Unit 0.1γ)

Table with columns: Month and Season, 1944; and 23 columns of numerical data for Horizontal Intensity.



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

International Quiet Days

DECLINATION WEST (Unit 0.01)

Table with columns: Month and Season, 1944; Universal Time. Hour commencing (0-23); and 24 columns of declination values for each month and year.

INCLINATION (Unit 0.01)

Table with columns: Month and Season; and 24 columns of inclination values for each month and year.

HORIZONTAL INTENSITY (Unit 0.1γ)

Table with columns: Month and Season; and 24 columns of horizontal intensity values for each month and year.









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

Values of a\_n, b\_n, in the series Σ (a\_n cos nt + b\_n sin nt), t being reckoned in hours from 0^h U.T. and converted into arc at the rate of 15° to each hour.

Main table for TABLE VIII showing harmonic components (North, West, Vertical) for 1944, including monthly data, International Quiet Days, and International Disturbed Days. Components are labeled a1, b1, a2, b2, a3, b3, a4, b4.

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

Values of c\_n, alpha\_n in the series Σ c\_n sin (nT + alpha\_n), T being reckoned in hours from midnight, Abinger Local Mean Time, and converted into arc at the rate of 15° to each hour. New phase-angles expressing the inequalities relative to Local Apparent Time may be obtained from the tabulated angles by applying corrections alpha, 2alpha, 3alpha, 4alpha respectively, where alpha has the following values:-

Summary table for TABLE IX showing phase angles for various months: January +2 19, February +3 28, March +2 12, April +0 4, May -0 51, June +0 5, July +1 22, August +0 59, September -1 12, October -3 28, November -3 42, December -1 6, Winter +0 12, Equinox -0 36, Summer +0 24.

Main table for TABLE IX showing harmonic components (North, West, Vertical) for 1944, including monthly data, International Quiet Days, and International Disturbed Days. Components are labeled c1, alpha1, c2, alpha2, c3, alpha3, c4, alpha4.

TABLE X. - RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1944

Month and Season	"All" Days			Quiet Days			Disturbed Days			"All" Days			Quiet Days			Disturbed Days		
	D	I	H	D	I	H	D	I	H	X	Y	Z	X	Y	Z	X	Y	Z
	'	'	Y	'	'	Y	'	'	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
January	5.78	1.20	15.8	4.18	0.77	11.8	10.84	3.20	37.6	16.5	30.2	12.9	11.7	22.4	6.8	34.6	60.3	33.0
February	5.01	1.34	17.8	4.92	0.74	14.2	10.66	4.75	60.8	20.1	24.7	11.6	16.7	26.3	11.4	63.9	56.1	35.6
March	7.10	1.57	26.5	6.50	0.87	17.0	9.56	3.49	52.8	29.5	35.4	20.8	18.9	33.5	15.4	57.4	49.5	47.0
April	8.18	2.31	38.2	8.50	1.19	23.6	11.36	6.70	100.6	39.4	44.5	24.4	24.8	44.6	21.0	104.7	57.3	41.2
May	8.59	1.36	26.8	9.14	1.44	26.6	8.56	2.90	52.8	29.7	45.1	29.4	25.6	48.6	23.8	57.7	44.0	41.4
June	10.15	1.75	31.3	9.30	1.57	27.4	12.28	2.46	38.4	29.4	54.4	26.8	25.0	51.2	23.6	39.3	65.4	35.6
July	10.07	1.84	33.5	9.22	2.10	39.0	10.32	2.38	38.4	33.4	53.1	23.1	38.4	48.7	19.6	44.6	51.4	25.4
August	9.21	1.65	30.1	8.96	1.76	28.8	11.76	3.16	43.8	31.1	47.5	22.9	29.7	49.6	21.8	47.3	58.6	33.0
September	8.39	1.65	24.9	7.48	1.56	27.6	10.28	2.11	31.4	27.1	45.4	19.8	27.9	40.9	15.0	36.8	51.6	27.6
October	7.28	1.36	23.0	7.48	1.75	28.0	12.20	1.97	22.4	27.2	36.4	15.3	28.5	39.7	15.0	30.5	66.8	38.8
November	4.79	1.22	17.3	3.30	0.75	13.2	10.42	3.13	43.2	20.0	23.6	11.7	15.2	16.7	7.8	46.7	51.1	25.8
December	5.07	1.80	19.1	3.16	0.72	10.2	11.10	7.41	76.8	19.1	27.4	19.6	9.5	17.9	5.4	72.2	56.9	80.6
Mean for Year	7.47	1.59	25.4	6.85	1.27	22.3	10.78	3.64	49.8	26.9	39.0	19.9	22.7	36.7	15.6	53.0	55.8	38.8
Winter	5.16	1.39	17.5	3.89	0.75	12.4	10.76	4.62	54.6	18.9	26.5	14.0	13.3	20.8	7.9	54.4	56.1	43.8
Equinox	7.74	1.72	28.2	7.49	1.34	24.1	10.85	3.57	51.8	30.8	40.4	20.1	25.0	39.7	16.6	57.4	56.3	38.7
Summer	9.51	1.65	30.4	9.16	1.72	30.5	10.73	2.73	43.4	30.9	50.0	25.6	29.7	49.5	22.2	47.2	54.9	33.9

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

Month 1944	"All" Days			Quiet Days			Disturbed Days		
	Declination	Horizontal Intensity	Vertical Intensity	Declination	Horizontal Intensity	Vertical Intensity	Declination	Horizontal Intensity	Vertical Intensity
	'	Y	Y	'	Y	Y	'	Y	Y
January	+0.06	+0.1	+0.5	-0.30	+5.0	-0.8	+1.52	-1.4	+0.4
February	+0.09	+0.7	-0.4	+0.56	+2.8	-1.8	+1.14	-7.4	-0.2
March	-0.05	-0.3	+0.1	-0.28	+5.6	-1.6	+1.92	-3.0	+4.0
April	-0.03	+1.1	-0.2	+0.62	+0.8	-0.2	-0.06	-11.6	+6.8
May	-0.01	-0.5	+0.4	+0.36	+3.0	+1.0	+0.28	-4.6	-4.4
June	0.00	+0.4	-0.1	+0.04	+3.0	-1.4	-0.40	-7.2	-1.8
July	-0.05	-0.3	-0.1	-0.34	+0.4	-0.6	+0.04	-7.4	+1.8
August	-0.04	+0.0	-0.1	0.00	+5.0	-2.2	-1.28	-11.4	-1.6
September	-0.11	+0.1	+0.0	0.00	+3.2	-1.6	+0.84	-0.8	-4.2
October	+0.13	-0.4	+0.4	+0.86	+3.0	+0.4	+1.64	-9.8	+6.8
November	-0.02	+0.1	0.0	+0.62	+2.8	-1.4	-0.92	-7.6	+2.2
December	-0.09	-0.5	+0.4	+0.10	+1.8	-0.2	-2.82	-16.2	+1.8
Year	..	..	..	+0.19	+3.0	-0.9	+0.16	-7.4	+1.0

TABLE XII. - MEAN MONTHLY AND ANNUAL VALUES OF GEOMAGNETIC ELEMENTS AT THE ABINGER MAGNETIC STATION

Month 1944	Declination West	Inclination	Intensity				
			Horizontal	North	West	Vertical	Total
	o	'	c.g.s.	c.g.s.	c.g.s.	c.g.s.	c.g.s.
January	10 11.5	66 44.9	.18557	.18264	.03284	.43190	.47008
February	10 10.9	66 44.7	.18559	.18267	.03281	.43188	.47007
March	10 10.0	66 44.7	.18558	.18267	.03276	.43185	.47003
April	10 9.4	66 44.7	.18560	.18269	.03273	.43188	.47007
May	10 8.8	66 43.8	.18571	.18281	.03272	.43185	.47009
June	10 8.2	66 43.6	.18575	.18285	.03269	.43185	.47010
July	10 7.9	66 43.5	.18576	.18286	.03268	.43184	.47010
August	10 7.1	66 43.8	.18571	.18282	.03264	.43185	.47009
September	10 6.1	66 44.1	.18569	.18281	.03257	.43188	.47011
October	10 5.4	66 44.4	.18564	.18277	.03250	.43195	.47016
November	10 4.9	66 44.0	.18571	.18284	.03251	.43195	.47019
December	10 3.6	66 45.1	.18560	.18274	.03242	.43204	.47022
Year	10 7.8	66 44.3	.18566	.18277	.03265	.43189	.47011

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

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

Jan. 4. The Recording-Room Temperature was lowered from 16.0 C to 11.0 C.  
 May 2. " " " " " raised " 11.0 C " 16.0 C.  
 May 30. " " " " " " " 16.0 C " 21.0 C.  
 Oct. 2. " " " " " lowered " 21.0 C " 16.0 C.  
 Dec. 11. " " " " " " " 16.0 C " 11.0 C.



TABLE XIV. - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE SCHUSTER-SMITH COIL MAGNETOMETER IN THE MAGNETIC PAVILION AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE HORIZONTAL INTENSITY MAGNETOGRAMS

Universal Time					Universal Time					Universal Time										
h m		h m		Y	Y	h m		h m		Y	Y	h m		h m		Y	Y			
No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	No. of Obs.			Observed Horizontal Intensity	Deduced Value of Base-line	No. of Obs.	Observed Horizontal Intensity			Deduced Value of Base-line	No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line					
Sept. 4	8 7	-	8 17	8	18560	18367	Oct. 13	8 52	-	9 2	8	18561	18366	Nov. 20	9 45	-	9 53	8	18567	18366
5	9 19	-	9 32	8	18544	18366	14	9 49	-	9 58	8	18541	18366	21	9 39	-	9 47	8	18567	18368
6	8 14	-	8 24	8	18563	18366	16	9 47	-	9 54	8	18550	18368	22	9 49	-	9 57	8	18565	18368
7	8 44	-	8 52	8	18549	18366	17	9 21	-	9 32	8	18557	18367	23	9 45	-	9 54	8	18567	18367
8	7 56	-	8 7	8	18570	18367	18	9 35	-	9 43	8	18560	18367	24	8 55	-	9 6	8	18578	18367
9	8 7	-	8 17	8	18559	18367	19	9 42	-	9 49	8	18536	18367	25	9 45	-	9 53	8	18578	18368
11	8 13	-	8 22	8	18573	18368	20	8 59	-	9 10	8	18556	18368	27	9 42	-	9 51	8	18564	18367
12	8 39	-	8 49	8	18556	18367	21	9 50	-	9 58	8	18553	18367	28	9 47	-	9 55	8	18565	18368
13	8 52	-	9 17	8	18570	18367	23	9 41	-	9 50	8	18563	18368	29	9 16	-	9 26	8	18581	18368
15	8 1	-	8 11	8	18561	18368	24	9 39	-	9 49	8	18556	18367	30	9 37	-	9 44	8	18580	18367
16	8 59	-	9 7	8	18555	18367	25	9 44	-	9 53	8	18557	17368	Dec. 1	9 51	-	10 0	8	18581	18367
18	9 52	-	10 0	8	18550	18367	26	9 37	-	9 46	8	18543	18368	2	9 52	-	10 0	8	18556	18367
19	10 27	-	10 39	8	18562	18367	27	9 41	-	9 49	8	18550	18368	4	9 48	-	9 56	8	18573	18367
20	11 10	-	11 22	8	18566	18367	28	9 44	-	9 52	8	18557	18369	5	9 32	-	9 45	8	18558	18368
21	11 32	-	11 43	8	18545	18368	30	9 40	-	9 47	8	18560	18368	6	9 52	-	9 59	8	18570	18366
22	10 21	-	10 33	8	18560	18367	31	8 44	-	8 53	8	18551	18367	7	9 55	-	10 3	8	18577	18368
23	10 18	-	10 29	8	18556	18367	Nov. 1	8 35	-	8 47	8	18568	18367	8	9 43	-	9 51	8	18583	18368
25	9 43	-	9 51	8	18553	18367	2	9 14	-	9 22	8	18565	18367	9	9 44	-	9 53	8	18580	18367
26	9 11	-	9 40	8	18545	18367	3	8 49	-	8 59	8	18575	18367	12	8 39	-	8 50	8	18588	18367
27	9 38	-	9 46	8	18555	18368	4	9 42	-	9 50	8	18553	18368	13	9 20	-	9 31	8	18590	18368
28	9 29	-	9 37	8	18552	18367	6	9 51	-	9 58	8	18542	18367	14	9 46	-	9 54	8	18544	18368
29	9 14	-	9 23	8	18567	18368	7	8 52	-	9 3	8	18570	18368	15	9 13	-	9 22	8	18564	18368
30	9 50	-	9 58	8	18572	18368	8	9 44	-	9 52	8	18557	18367	16	9 56	-	10 11	8	18596	18368
Oct. 3	8 55	-	9 6	8	18538	18367	9	9 44	-	9 51	8	18572	18368	18	9 49	-	9 57	8	18527	18367
4	9 39	-	9 48	8	18536	18368	10	8 55	-	9 7	8	18589	18367	19	9 41	-	9 49	8	18544	18368
5	9 42	-	9 49	8	18532	18367	11	9 32	-	9 39	8	18557	18367	20	9 28	-	9 39	8	18549	18367
6	9 34	-	9 42	8	18549	18367	13	9 43	-	9 51	8	18568	18369	21	9 31	-	9 41	8	18550	18367
7	9 50	-	10 1	8	18547	18367	14	9 36	-	9 45	8	18573	18368	22	9 40	-	9 51	8	18557	18368
9	9 40	-	9 48	8	18552	18367	15	9 51	-	9 59	8	18578	18367	27	9 48	-	9 57	8	18556	18367
10	8 46	-	8 58	8	18562	18366	16	9 45	-	9 53	8	18569	18367	28	9 39	-	9 47	8	18547	18368
11	9 50	-	9 57	8	18570	18366	17	9 0	-	9 12	8	18571	18368	29	9 42	-	9 55	8	18548	18369
12	9 44	-	9 52	8	18554	18368	18	9 54	-	10 5	8	18566	18367	30	9 48	-	9 55	8	18556	18369

Jan. 4. The Recording-Room Temperature lowered from 16.0° C to 11.0° C.  
 May 2. " " " " raised " 11.0° C " 16.0° C.  
 May 30. " " " " " " 16.0° C " 21.0° C.  
 Oct. 2. " " " " lowered " 21.0° C " 16.0° C.  
 Dec. 11. " " " " " " 16.0° C " 11.0° C.

TABLE XIV(A). - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE UNIFILAR MAGNETOMETER CASELLA 181 AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE HORIZONTAL INTENSITY MAGNETOGRAMS

Universal Time					Universal Time					Universal Time							
h m		h m		Y	Y	h m		h m		Y	Y	h m		h m		Y	Y
No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	No. of Obs.			Observed Horizontal Intensity	Deduced Value of Base-line	No. of Obs.	Observed Horizontal Intensity			Deduced Value of Base-line	No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line		
May 9	10 11	-	11 19	18556	18373	July 25	8 16	-	9 37	18565	18372	Oct. 3	9 3	-	10 3	18542	18369
23	8 35	-	9 51	18563	18371	Aug. 2	8 19	-	9 39	18571	18369	10	9 13	-	10 8	18559	18367
June 8	8 34	-	9 56	18566	18371	29	8 18	-	9 40	18554	18364	17	9 17	-	10 19	18556	18369
20	8 36	-	9 52	18555	18377	Sept. 5	8 8	-	9 30	18546	18362	24	9 17	-	10 20	18558	18367
July 11	8 35	-	9 56	18556	18370	12	8 6	-	9 30	18564	18368	Nov. 1	9 17	-	10 17	18562	18371
18	8 28	-	9 50	18561	18372	26	9 0	-	10 15	18548	18367	7	9 26	-	10 22	18569	18370



TABLE XV. - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF VERTICAL INTENSITY FROM OBSERVATIONS MADE WITH THE DYE COIL MAGNETOMETER IN THE MAGNETIC PAVILION AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE VERTICAL INTENSITY MAGNETOGRAMS

Universal Time					Universal Time					Universal Time										
h m		h m		No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line	h m		h m		No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line	h m		h m		No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line
Y	Y	Y	Y				Y	Y	Y	Y										
Sept. 4	8 25	-	8 43	8	43188	43012	Oct. 13	9 13	-	9 32	8	43188	43013	Nov. 20	9 17	-	9 39	8	43188	43015
5	8 15	-	9 0	8	43184	43014	14	9 23	-	9 45	8	43189	43015	21	9 13	-	9 34	8	43193	43013
6	8 34	-	8 55	8	43189	43012	16	9 21	-	9 42	8	43191	43015	22	9 19	-	9 43	8	43195	43014
7	8 11	-	8 39	8	43190	43013	17	8 53	-	9 14	8	43190	43016	23	9 23	-	9 40	8	43197	43014
8	8 13	-	8 30	8	43193	43012	18	9 15	-	9 30	8	43195	43014	24	9 18	-	9 34	8	43195	43015
9	8 23	-	8 42	8	43188	43012	19	9 18	-	9 37	8	43195	43016	25	9 24	-	9 40	8	43189	43013
11	8 33	-	8 54	8	43183	43013	20	9 24	-	9 46	8	43192	43014	27	9 16	-	9 37	8	43192	43014
12	8 6	-	8 31	8	43183	43011	21	9 18	-	9 46	8	43192	43014	28	9 24	-	9 40	8	43188	43013
13	8 18	-	8 45	8	43187	43011	23	9 20	-	9 36	8	43185	43015	29	9 34	-	9 55	8	43187	43014
15	8 18	-	8 39	8	43185	43012	24	9 13	-	9 34	8	43190	43016	30	9 14	-	9 32	8	43182	43013
16	8 27	-	8 53	8	43187	43014	25	9 19	-	9 37	8	43195	43012							
18	9 21	-	9 47	8	43185	43013	26	9 12	-	9 34	8	43199	43013	Dec. 1	9 30	-	9 46	8	43185	43012
19	9 32	-	9 58	8	43182	43012	27	9 18	-	9 38	8	43194	43014	2	9 20	-	9 48	8	43189	43012
20	9 19	-	10 20	8	43181	43014	28	9 19	-	9 39	8	43187	43015	4	9 20	-	9 42	8	43191	43013
21	9 45	-	11 24	8	43179	43012	30	9 15	-	9 35	8	43191	43012	5	9 12	-	9 28	8	43192	43012
22	9 20	-	9 58	8	43187	43013	31	9 1	-	9 18	8	43189	43015	6	9 23	-	9 46	8	43192	43013
23	9 20	-	9 50	8	43182	43013							7	9 19	-	9 51	8	43193	43014	
25	9 13	-	9 40	8	43189	43012	Nov. 1	8 55	-	9 11	8	43191	43014	8	9 21	-	9 39	8	43192	43014
26	8 27	-	8 58	8	43192	43012	2	9 34	-	9 49	8	43184	43013	9	9 21	-	9 39	8	43189	43014
27	9 14	-	9 32	8	43186	43012	3	9 9	-	9 26	8	43185	43013	12	9 5	-	9 32	8	43189	43014
28	9 8	-	9 24	8	43192	43011	4	9 17	-	9 35	8	43193	43012	13	8 51	-	9 14	8	43183	43013
29	8 48	-	9 8	8	43184	43013	6	9 16	-	9 47	8	43194	43013	14	9 22	-	9 41	8	43191	43013
30	9 11	-	9 38	8	43182	43011	7	9 21	-	9 45	8	43191	43012	15	9 30	-	9 48	8	43192	43013
							8	9 11	-	9 38	8	43190	43012	16	9 23	-	9 52	8	43182	43014
Oct. 3	9 15	-	9 38	8	43189	43010	9	9 19	-	9 40	8	43196	43015	18	9 25	-	9 42	8	43212	43011
4	9 15	-	9 34	8	43184	43011	10	9 16	-	9 42	8	43185	43013	19	9 18	-	9 38	8	43203	43010
5	9 13	-	9 39	8	43192	43013	11	9 13	-	9 27	8	43195	43010	20	8 36	-	9 11	8	43210	43011
6	9 3	-	9 29	8	43184	43013	13	9 21	-	9 37	8	43189	43012	21	8 49	-	9 22	8	43204	43010
7	9 25	-	9 44	8	43190	43010	14	9 12	-	9 32	8	43191	43015	22	9 11	-	9 31	8	43207	43010
9	9 16	-	9 35	8	43189	43013	15	9 23	-	9 46	8	43186	43013	27	9 20	-	9 42	8	43199	43011
10	9 9	-	9 33	8	43189	43014	16	9 21	-	9 37	8	43191	43012	28	9 16	-	9 33	8	43211	43012
11	9 21	-	9 45	8	43190	43017	17	9 25	-	9 44	8	43193	43013	29	9 18	-	9 35	8	43203	43011
12	9 14	-	9 39	8	43197	43016	18	9 29	-	9 51	8	43193	43013	30	9 27	-	9 44	8	43204	43012

Jan. 4. The Recording-Room Temperature lowered from 16.0 C to 11.0 C.  
 May 2. " " " " raised " 11.0 C " 16.0 C.  
 May 30. " " " " " " 16.0 C " 21.0 C.  
 Oct. 2. " " " " lowered " 21.0 C " 16.0 C.  
 Dec. 11. " " " " " " 16.0 C " 11.0 C.

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TABLE XV(A). - DAILY VALUE OF THE BASE-LINE OF THE VERTICAL INTENSITY MAGNETOGRAMS AT THE ABINGER MAGNETIC STATION, DEDUCED FROM OBSERVATIONS OF MAGNETIC DIP MADE WITH THE EARTH INDUCTOR

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	Y 43010	Y -	Y 43012	Y 43013	Y 43014	Y 43019	Y 43003	Y 43008	Y 43013	Y -	Y 43015	Y 43018
2	-	43013	-	-	-	43018	-	43014	43014	-	43015	43019
3	43011	-	43010	43015	43022	43018	43011	-	-	43013	43015	-
4	-	43010	43014	43014	43016	-	43002	43012	43017	43013	43012	43018
5	43012	-	-	43013	43018	43018	43008	-	43016	43012	-	-
6	43010	-	43013	43014	43017	-	43009	-	43011	43011	43014	43017
7	43010	43010	43012	43013	-	43019	43008	-	43012	43010	-	43018
8	43012	-	43012	-	43017	43018	43008	43011	43017	-	43009	43015
9	-	-	43013	-	43015	43018	-	43014	43009	43011	43016	43014
10	43010	-	43012	-	43015	43018	43007	43017	-	43008	43016	-
11	-	43013	43012	43011	43014	-	43007	43013	43007	43014	43013	-
12	43010	-	-	43010	43013	43018	43013	43014	43010	43015	-	43015
13	43012	-	43014	43012	43014	43021	42993	-	43012	43013	43012	43017
14	43012	43014	43013	43014	-	43016	42996	43010	43012	43011	43016	43016
15	43011	-	43019	43017	43012	43017	43009	43011	43012	-	43018	43019
16	-	-	43014	-	43015	43019	-	43012	43010	43014	43013	43019
17	43010	-	43014	43014	43015	-	43008	43010	-	43016	43015	-
18	43013	-	43014	43015	43017	-	43009	43011	43009	43015	43015	43017
19	43015	43012	-	43014	43019	-	43008	43012	43013	43009	-	43015
20	43013	-	43014	43013	43019	43018	43011	-	43011	-	43013	43016
21	43013	43011	43018	43017	-	43019	43010	43010	43010	43014	43015	43016
22	-	-	43015	43011	43015	43017	43011	-	43011	-	43013	43017
23	-	-	43014	-	43015	43020	-	43014	43009	43012	43013	-
24	43016	43014	43014	43013	43015	43016	43011	43008	-	43017	43016	-
25	43016	43012	-	43015	43019	-	43014	43013	43012	43014	43017	-
26	43014	-	-	43014	43018	43018	43009	43010	43009	43011	-	-
27	43010	-	-	43016	-	-	43012	-	43011	43014	43013	43013
28	43013	43010	43011	43013	-	-	43012	43012	43010	43013	43016	43014
29	43012	43012	43014	43014	-	43011	43007	43014	43010	-	43014	43015
30	-	-	43013	-	-	43011	-	43012	43009	43013	43019	43015
31	43012	-	43013	-	43015	-	43011	43014	-	43014	-	-

Jan. 4. The Recording-Room Temperature was lowered from 16.0° C to 11.0° C.  
 May 2. " " " " " raised " 11.0° C " 16.0° C.  
 May 30. " " " " " " " 16.0° C " 21.0° C.  
 Oct. 2. " " " " " lowered " 21.0° C " 16.0° C.  
 Dec. 11. " " " " " " " 16.0° C " 11.0° C.

On June 29 the bearings of the inductor were tightened.

Following a complete overhaul of the inductor formerly in use at Greenwich, this instrument was employed (by way of a test) during the periods June 30 - August 1 and August 3 - September 14. On August 30 the axis of this instrument was adjusted and on September 6 the bearings were tightened.



TABLE XVI(A). - MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ROYAL OBSERVATORY, GREENWICH, BETWEEN THE YEARS 1818-1925

Year	Declination West	Horizontal Intensity	Vertical Intensity	Dip	Year	Declination West	Horizontal Intensity	Vertical Intensity	Dip
	° ' †	C.G.S. Unit	C.G.S. Unit	° ' †		° ' †	C.G.S. Unit	C.G.S. Unit	° ' †
1818	24 19 †	..	..	..	1882	18 22.3	0.1806	0.4375	67 34.2
1819	24 21	..	..	..	1883	18 15.0	0.1812	0.4381	67 31.7
1820	24 21	..	..	..	1884	18 7.6	0.1814	0.4379	67 29.7
1841	23 16.2	..	..	..	1885	18 1.7	0.1817	0.4380	67 28.0
1842	23 14.5	..	..	..	1886	17 54.5	0.1818	0.4377	67 27.1
1843	23 11.7	..	..	69 0.6	1887	17 49.1	0.1819	0.4380	67 26.6
1844	23 15.3	..	..	69 0.3	1888	17 40.4	0.1822	0.4383	67 25.6
1845	22 56.7	..	..	68 57.5	1889	17 34.9	0.1823	0.4380	67 24.3
1846	22 49.6	0.1731	..	68 58.1	1890	17 28.6	0.1825	0.4381	67 23.0
1847	22 51.3	0.1736	..	68 59.0	1891	17 23.4	0.1827	0.4380	67 21.5
1848	22 51.8	0.1731	..	68 54.7	1892	17 17.4	0.1829	0.4379	67 20.0
1849	22 37.8	0.1733	..	68 51.3	1893	17 11.4	0.1831	0.4373	67 17.9
1850	22 23.5	0.1738	..	68 46.9	1894	17 4.6	0.1831	0.4374	67 17.4
1851	22 18.3	0.1744	..	68 40.4	1895	16 57.4	0.1834	0.4378	67 16.1
1852	22 17.9	0.1745	..	68 42.7	1896	16 51.7	0.1835	0.4382	67 15.1
1853	22 10.1	0.1748	..	68 44.6	1897	16 45.8	0.1838	0.4377	67 13.5
1854	22 0.8	0.1749	..	68 47.7	1898	16 39.2	0.1840	0.4377	67 12.1
1855	21 48.4	0.1756	..	68 44.6	1899	16 34.2	0.1843	0.4380	67 10.5
1856	21 43.5	0.1759	..	68 43.5	1900	16 29.0	0.1846	0.4380	67 8.8
1857	21 35.4	0.1769	..	68 31.1	1901	16 26.0	0.1850	0.4381	67 6.4
1858	21 30.3	0.1762	..	68 28.3	1902	16 22.8	0.1852	0.4377	67 3.8
1859	21 23.5	0.1761	..	68 26.9	1903	16 19.1	0.1852	0.4368	67 1.2
1860	21 14.3	..	..	68 30.1	1904	16 15.0	0.1854	0.4359	66 57.6
1861	21 5.5	0.1773	..	68 24.6	1905	16 9.9	0.1854	0.4355	66 56.3
1861		0.1759		68 15.8	1906	16 3.6	0.1854	0.4353	66 55.6
1862	20 52.6	0.1763	0.4403	68 9.6	1907	15 59.8	0.1855	0.4357	66 56.2
1863	20 45.9	0.1764	0.4396	68 7.0	1908	15 53.5	0.1854	0.4356	66 56.3
1864	..	0.1767	0.4393	68 4.1	1909	15 47.6	0.1854	0.4348	66 54.1
1865	20 33.9	0.1767	0.4388	68 2.7	1910	15 41.2	0.1855	0.4345	66 52.8
1866	20 28.0	0.1773	0.4397	68 1.3	1911	15 33.0	0.1855	0.4342	66 52.1
1867	20 20.5	0.1777	0.4392	67 57.2	1912	15 24.3	0.1855	0.4340	66 51.8
1868	20 13.1	0.1779	0.4395	67 56.5	1913	15 15.2	0.1853	0.4333	66 50.5
1869	20 4.1	0.1782	0.4396	67 54.8	1914	15 6.3	0.1853	0.4333	66 50.8
1870	19 53.0	0.1784	0.4392	67 52.5	1915	14 56.5	0.1851	0.4331	66 51.6
1871	19 41.9	0.1786	0.4389	67 50.3	1916	14 46.9	0.1848	0.4326	66 52.2
1872	19 36.8	0.1789	0.4383	67 47.8	1917	14 37.1	0.1848	0.4330*	66 53.0
1873	19 33.4	0.1793	0.4386	67 45.8	1918	14 27.8	0.1846	0.4325	66 52.8
1874	19 28.9	0.1797	0.4387	67 43.6	1919	14 18.2	0.1845	0.4324	66 53.3
1875	19 21.2	0.1797	0.4383	67 42.4	1920	14 8.6	0.1845	0.4325	66 53.6
1876	19 8.3	0.1799	0.4383	67 41.0	1921	13 57.6	0.1845	0.4322	66 53.0
1877	18 57.2	0.1800	0.4381	67 39.7	1922	13 46.7	0.1844	0.4318	66 52.3
1878	18 49.3	0.1802	0.4382	67 38.2	1923	13 35.1	0.1843	0.4314	66 51.9
1879	18 40.5	0.1805	0.4382	67 37.0	1924	13 22.8	0.1843	0.4311	66 51.6
1880	18 32.6	0.1805	0.4380	67 35.7	1925	13 9.9	0.1841	0.4308	66 51.4
1881	18 27.1	0.1807	0.4379	67 34.7					

In 1818, 1819 and 1820 numerous observations of Declination were made with a Dollond needle.

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

N.B. - In the above table the values of Vertical Intensity for the years 1862-1913 inclusive were computed from the corresponding values of Horizontal Intensity and Dip, the values of Dip being the mean of all the absolute observations taken in any year, and the time of observation approximating to noon on the average. Beginning with 1914 the values of Dip have been computed from the corresponding annual mean values of Horizontal and Vertical Intensity.

† Mean of seven months, June to December.

\* Mean of ten months, March to December.

TABLE XVI(B). - MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ABINGER MAGNETIC STATION,  
FOR THE YEARS 1925-1944

Year	Declination West	Horizontal Intensity	Vertical Intensity	Inclination
	° ' "	C.G.S.Unit	C.G.S.Unit	° ' "
1925	13 22.7	0.18597	0.42946	66 35.1
1926	13 10.4	0.18581	0.42947	66 36.3
1927	12 58.4	0.18575	0.42932	66 36.2
1928	12 47.0	0.18564	0.42941	66 37.3
1929	12 35.8	0.18555	0.42918	66 37.2
1930	12 24.6	0.18542	0.42924	66 38.2
1931	12 13.7	0.18543	0.42923	66 38.1
1932	12 2.6	0.18536	0.42940	66 39.1
1933	11 51.7	0.18532	0.42942	66 39.4
1934	11 41.1	0.18533	0.42955	66 39.7
1935	11 30.3	0.18527	0.42981	66 40.9
1936	11 20.0	0.18524	0.43007	66 41.8
1937	11 10.4	0.18522	0.43031	66 42.7
1938*	11 1.4	0.18522	0.43050	66 43.2
1939	10 51.9	0.18528	0.43074	66 43.5
1940	10 43.0	0.18533	0.43099	66 43.9
1941	10 33.8	0.18539	0.43128	66 44.3
1942	10 24.8	0.18554	0.43146	66 43.9
1943	10 16.2	0.18556	0.43172	66 44.5
1944	10 7.8	0.18566	0.43189	66 44.3

The values of Inclination are computed from the corresponding values of horizontal and vertical intensity.

Commencing with the years 1927 and 1929 respectively, the values of horizontal and vertical intensity are based upon observations with Coil-magnetometers.

\* Discontinuities of  $-1.7\gamma$  in H and  $-3.9\gamma$  in Z were introduced in 1938. See Introduction p. x and xi.

January. There was a short-lived disturbance on 1<sup>d</sup>, beginning at 12<sup>h</sup> with fluctuations in D, nearly regular in period (about one hour) and amplitude (3'). These were accompanied by a steady rise in Z (50γ) until 16<sup>h</sup> and by a sharp fall in H (90γ) at 14<sup>h</sup>. The disturbance ended with a wave in D (15'E) at 20½<sup>h</sup>. During the next three days conditions were practically quiet, though a few small isolated bays appeared on the traces. At 5<sup>d</sup> 0<sup>h</sup>-1<sup>h</sup> a prominent wave occurred in H (+100γ). Smaller movements were recorded in D and Z, of no special significance, and these were followed by a period of slight general unsteadiness which lasted until 10<sup>d</sup> 18<sup>h</sup>. At 10<sup>d</sup> 20<sup>h</sup> a period of moderate disturbance began, continuing with scarcely any intermission until 19<sup>d</sup> 0<sup>h</sup>. There were several large movements during the earlier stages, but the greatest activity was shown on 14<sup>th</sup> and 15<sup>th</sup> after which a general decline took place. Some of the principal movements will be mentioned. In H, a wave at 10<sup>d</sup> 23<sup>h</sup> (+100γ); at 14<sup>d</sup> 17½<sup>h</sup>, a wave (-130γ); between 15<sup>d</sup> 15<sup>h</sup> and 16<sup>d</sup> 0<sup>h</sup> several movements approaching 100γ; in D, a wave at 10<sup>d</sup> 23<sup>h</sup> (23'E); at 11<sup>d</sup> 17<sup>h</sup>-19<sup>h</sup> a wave (30'E); at 14<sup>d</sup> 17½<sup>h</sup> a wave (26'E); between 15<sup>d</sup> 17<sup>h</sup> and 16<sup>d</sup> 2<sup>h</sup> many irregular fluctuations covering a range of 25'; at 16<sup>d</sup> 17<sup>h</sup> a wave (15'E). The disturbance in Z was relatively much smaller than in the other two elements. After 19<sup>d</sup> 0<sup>h</sup> the traces were still frequently disturbed by irregularities, but they were of an unimportant character. From 24<sup>d</sup> 18<sup>h</sup> to 25<sup>d</sup> 20<sup>h</sup> conditions were quiet. Unsteadiness then set in. There was a decrease in H (85γ) between 26<sup>d</sup> 14½<sup>h</sup> and 20½<sup>h</sup>, followed by markedly irregular fluctuation. Declination moved 22'E between 26<sup>d</sup> 19<sup>h</sup> and 22½<sup>h</sup>, but had recovered by 27<sup>d</sup> 4<sup>h</sup>. From 28<sup>d</sup> 0<sup>h</sup> unsteadiness rapidly died away. Minor irregularities continued to affect the traces at intervals, however, especially during 31<sup>d</sup>.

The range in declination during the month was from 9° 40.4 on 11<sup>th</sup> to 10° 21.9 on 1<sup>st</sup>; in horizontal intensity, from .18448 on 14<sup>th</sup> to .18636 on 10<sup>th</sup>; in vertical intensity, from .43160 on 13<sup>th</sup> to .43230 on 1<sup>st</sup>.

February. During the first four days only a few irregularities, and these of small amplitude, appeared on the traces. A short period of unsteadiness occurred from 5<sup>d</sup> 17<sup>h</sup> to 6<sup>d</sup> 2<sup>h</sup> but the first period of pronounced activity did not begin until 7<sup>d</sup> 8<sup>h</sup>. It lasted (with an intermission of about eighteen hours on 13<sup>th</sup>) until the end of 15<sup>th</sup>. In the early stages, and again between 13<sup>d</sup> 22<sup>h</sup> and 14<sup>d</sup> 12<sup>h</sup>, the disturbance reached the dimensions of a small storm. On 7<sup>th</sup> there were numerous movements approaching 100γ in H and a range of 36' in D; there was also a fluctuating decrease in Z between 7<sup>d</sup> 20<sup>h</sup> and 8<sup>d</sup> 1<sup>h</sup> (65γ). A prominent wave in H (+100γ) appeared at 8<sup>d</sup> 21½<sup>h</sup>, after which the movements became much smaller though still very numerous. Moderate activity prevailed until 12<sup>d</sup> 6<sup>h</sup> and then almost ceased, the period from 12<sup>d</sup> 22<sup>h</sup> to 13<sup>d</sup> 16<sup>h</sup> being practically quiet. From 13<sup>d</sup> 20<sup>h</sup> disturbance rapidly increased, and by 22<sup>h</sup> the larger movements in H were again of the order of 100γ. The most prominent of these was at 14<sup>d</sup> 3½<sup>h</sup> to 5½<sup>h</sup> (+120γ). It was followed by a temporary westerly movement in D (20') and accompanied by an irregular decrease in Z (40γ). By 14<sup>d</sup> 11<sup>h</sup>, however, the main disturbance was virtually over and the succeeding movements were on a smaller scale, the largest of them being a wave in D (14'E) at 15<sup>d</sup> 18<sup>h</sup>. From 16<sup>d</sup> 10<sup>h</sup> to 20<sup>d</sup> 10<sup>h</sup> conditions were nearly quiet. A short period of moderate activity extended from 20<sup>d</sup> 10<sup>h</sup> to 21<sup>d</sup> 2<sup>h</sup>, of which the chief feature was the oscillatory character of the movements in H during the earlier hours. A period of rather unsteady conditions followed, from 21<sup>d</sup> 19<sup>h</sup> to 22<sup>d</sup> 6<sup>h</sup>, after which, for the remainder of the month, the traces were disturbed only by occasional short spells of slight unsteadiness.

The range in declination during the month was from 9° 50.5 on 7<sup>th</sup> to 10° 29.6 on 14<sup>th</sup>; in horizontal intensity, from .18457 on 7<sup>th</sup> to .18649 on 8<sup>th</sup>; in vertical intensity, from .43127 on 14<sup>th</sup> to .43236 on 7<sup>th</sup>.

March. There was a small wave in each trace at 2<sup>d</sup> 20½<sup>h</sup>, (11'E in D; +70γ in H), but apart from these the first significant movement occurred at 4<sup>d</sup> 8½<sup>h</sup> when a rapid decrease in H (100γ) was followed by considerable unsteadiness in all elements, which gradually increased until at 6<sup>d</sup> 18<sup>h</sup> the movements were sufficiently large to constitute a state of mild disturbance. This degree of disturbance persisted until the end of 12<sup>d</sup> with only slight intermission. The largest movements averaged 15' in D, and scarcely any movements in H exceeded 100γ but smaller movements were very numerous. The daily range in Z was about 30γ greater than on undisturbed days. After 13<sup>d</sup> 3<sup>h</sup> there was a marked decline in activity and the period from 16<sup>d</sup> 20<sup>h</sup> to 18<sup>d</sup> 17<sup>h</sup> was quiet. A spell of brisk activity between 18<sup>d</sup> 17½<sup>h</sup> and 19<sup>d</sup> 6<sup>h</sup>, in which a range of 100γ in H, 85γ in Z and 25'

in D occurred, was followed by a further period of considerable unsteadiness, but by 20<sup>d</sup> 2<sup>h</sup> relatively quiet conditions were restored. There were still isolated movements recorded on the traces, however, and the only truly quiet period was from 24<sup>d</sup> 0<sup>h</sup> to 25<sup>d</sup> 10<sup>h</sup>. Renewed activity then set in, increasing rapidly after 25<sup>d</sup> 18<sup>h</sup>. Between 26<sup>d</sup> 12<sup>h</sup> and 14<sup>h</sup> there was a wave in H (+110γ) upon which many sharp oscillations were superposed, the last two being notable for an amplitude of 70γ within three minutes of time in each case. These also had counterparts in Z (20γ). After a short quiet interval from 26<sup>d</sup> 15<sup>h</sup> to 23<sup>h</sup> the largest disturbance of the month began abruptly at 26<sup>d</sup> 23<sup>h</sup> 10<sup>m</sup>. The early stages of this disturbance, also, were characterised by rapidly succeeding oscillations, which in the case of Z comprised the whole range of intensity during the disturbance (86γ) and in the case of H included several movements exceeding 100γ. The most conspicuous movements in D were between 27<sup>d</sup> 0<sup>h</sup> and 1<sup>h</sup> (25' W) and between 27<sup>d</sup> 3<sup>h</sup> and 5<sup>h</sup> (20' W). Activity subsided to a marked extent after 27<sup>d</sup> 6<sup>h</sup>, but continued as a more or less regular fluctuation in the values of the elements until 28<sup>d</sup> 0<sup>h</sup>. A further quiet period then ensued, lasting for about eighteen hours, followed by renewed activity on a considerable scale (chiefly confined to the hours of darkness) during 29th and 30th. Several movements of 50γ in H and 10' in D appear on the traces for these two days, but activity had practically ceased by 31st.

The range in declination during the month was from 9° 51'.7 on 19th to 10° 26'.9 on 27th; in horizontal intensity, from .18452 to .18665, both on 27th; in vertical intensity, from .43111 on 27th to .43230 on 7th.

April. A disturbance began at 1<sup>d</sup> 18<sup>h</sup> which at first showed no remarkable features. A rather rapid easterly movement in D (15') ceased at 1<sup>d</sup> 20<sup>h</sup> and was followed by a wave in H (+90γ) at 1<sup>d</sup> 23<sup>h</sup>. At 2<sup>d</sup> 6<sup>h</sup> a notable decrease in H began, which, in two stages, amounted to 330γ. The first stage ended at 7<sup>h</sup> 50<sup>m</sup>; the second, beginning at 9<sup>h</sup> 10<sup>m</sup> ended at 10<sup>h</sup> 2<sup>m</sup>. The whole decrease was then recovered by 12<sup>h</sup> 30<sup>m</sup> in one fluctuating rise. Declination experienced a wave (25' W) between 6<sup>h</sup> and 9<sup>h</sup> and a further temporary shift west (25') from 9<sup>h</sup> to 10<sup>h</sup>; but Z was scarcely affected during these large changes in the other elements. The subsequent course of the disturbance was uninteresting. There were numerous small irregular fluctuations but these virtually ceased by 3<sup>d</sup> 8<sup>h</sup>. There was renewed and pronounced unsteadiness, however, from 3<sup>d</sup> 18<sup>h</sup> which continued with little intermission and with occasional brisk, if short-lived, activity until 12<sup>d</sup> 8<sup>h</sup>. The most active periods were: 5<sup>d</sup> 15<sup>h</sup> to 6<sup>d</sup> 3<sup>h</sup> (a wave in D, 16' E, at 18<sup>h</sup>); 7<sup>d</sup> 18<sup>h</sup> to 8<sup>d</sup> 3<sup>h</sup> (a wave in H, +110γ, and in D, 16' W, at 20<sup>h</sup>); 9<sup>d</sup> 20<sup>h</sup> to 10<sup>d</sup> 6<sup>h</sup>; 11<sup>d</sup> 17<sup>h</sup> to 12<sup>d</sup> 3<sup>h</sup>. The period from 12<sup>d</sup> 12<sup>h</sup> to 15<sup>d</sup> 12<sup>h</sup> was practically quiet. Activity was then apparent and was occasionally brisk, until 17<sup>d</sup> 3<sup>h</sup>. The most conspicuous movement, a wave in D (23' E), occurred at 16<sup>d</sup> 17<sup>h</sup>. After 17<sup>d</sup> 3<sup>h</sup> there was a spell of almost quiet conditions lasting until 24<sup>d</sup> 1<sup>h</sup>. At 24<sup>d</sup> 1<sup>h</sup> 14<sup>m</sup> a small abrupt movement occurred in all traces. The sequel, however, was no more than general unsteadiness, which persisted for the remainder of the month but did not rise to the dimensions of a "disturbance" at any time.

The range in declination during the month was from 9° 51'.3 on 16th to 10° 32'.8 on 2nd; in horizontal intensity, from .18259 on 2nd to .18638 on 1st; in vertical intensity, from .43136 on 2nd to .43256 on 16th.

May. From 1<sup>d</sup> 12<sup>h</sup> to 24<sup>h</sup> there was a brisk disturbance, with a range of 135γ in H, 100γ in Z and 25' in D. Activity on a smaller scale was sustained during the next six days, though the period from 3<sup>d</sup> 18<sup>h</sup> to 4<sup>d</sup> 10<sup>h</sup> was practically quiet. After 8<sup>d</sup> 6<sup>h</sup> movements were few and of no significance until 22<sup>d</sup> 12<sup>h</sup>, (that is during an interval of quiet by far the longest since the year began). Slight unsteadiness then appeared and gradually increased. It was considerable on 28<sup>d</sup>, and from 29<sup>d</sup> 0<sup>h</sup> 2<sup>m</sup> to 0<sup>h</sup> 55<sup>m</sup> exhibited the phenomenon of "pulsation". There were at least 32 quite regular oscillations recorded in H and D and on the open time-scale traces these were well shown as 'sine curves' having a total amplitude of 5γ at maximum. Pulsations were again recorded between 29<sup>d</sup> 23<sup>h</sup> 20<sup>m</sup> and 23<sup>h</sup> 55<sup>m</sup>, but of a less regular character and rather smaller amplitude. Activity was also considerable on 29th and 30th, diminishing to a negligible amount on 31st.

The range in declination during the month was from 9° 51'.2 on 4th to 10° 24'.4 on 1st; in horizontal intensity, from .18492 on 1st to .18642 on 29th; in vertical intensity, from .43150 on 30th to .43266 on 1st.

June. During the first eight days conditions were quiet, in general, but there was usually a short spell of unsteadiness each day, the most frequent period being between 14<sup>h</sup> and 20<sup>h</sup>. After 8<sup>d</sup> 10<sup>h</sup> unsteadiness was nearly continuous until 12<sup>d</sup> 6<sup>h</sup>. A period of quiet followed lasting until 13<sup>d</sup> 10<sup>h</sup>. Unsteadiness was then resumed and gradually increased, reaching a climax of mild disturbance between 14<sup>d</sup> 21<sup>h</sup> and 16<sup>d</sup> 3<sup>h</sup>. The largest movements, however, seldom reached 50γ and the state of continuous unsteadiness, varying in magnitude, persisted practically through the remainder of the month. Features worthy of mention occurred at 22<sup>d</sup> 16<sup>h</sup> (a wave in H, -100γ); from 26<sup>d</sup> 10<sup>h</sup> to 27<sup>d</sup> 4<sup>h</sup> (many movements, approaching 50γ in H and 10' in D); and at 29<sup>d</sup> 5<sup>h</sup> (a broad wave in D, 10'W).

The range in declination during the month was from 9° 59'.2 on 20th to 10° 22'.1 on 26th; in horizontal intensity, from .18516 on 23rd to .18635 on 4th; in vertical intensity, from .43152 on 20th to .43220 on 26th.

July. The general characteristic of the magnetic conditions throughout the month was moderate unsteadiness. There were no periods of marked disturbance, but, on the other hand, no day was strictly quiet during the whole twenty-four hours. The days of greatest unsteadiness were 7th, 9th, 10th and 14th to 19th. The quietest day was 24th. The largest single movement in H did not exceed 50γ, while very few movements in D exceeded 5'. It was the most featureless month for several years past.

The range in declination during the month was from 9° 59'.7 on 7th to 10° 18'.4 on 10th; in horizontal intensity, from .18524 on 9th to .18626 on 10th; in vertical intensity, from .43147 on 29th to .43205, which was reached on three days, 9th, 16th and 22nd.

August. During the first two days numerous small irregular movements were recorded on the traces. The movements increased rapidly in amplitude after 2<sup>d</sup> 12<sup>h</sup> and by 2<sup>d</sup> 21<sup>h</sup> a brisk disturbance of moderate intensity was in progress. There was a decrease in Z of about 100γ in three stages spaced roughly two hours apart, accompanied by several prominent oscillations in D and irregularities in H, between 2<sup>d</sup> 21<sup>h</sup> and 3<sup>d</sup> 4½<sup>h</sup>, the largest movement in D occurring around 3<sup>d</sup> 2<sup>h</sup> (21'W). Z then gradually recovered while H decreased 130γ between 3<sup>d</sup> 3¾<sup>h</sup> and 7¼<sup>h</sup>. All traces continued to show irregular fluctuations, greatly diminished in amplitude, which did not finally cease until 4<sup>d</sup> 3<sup>h</sup>. The unsteadiness was resumed at 4<sup>d</sup> 9<sup>h</sup> and continued with little intermission until 18<sup>d</sup> 6<sup>h</sup> but very few movements exceeded 50γ in H or 10' in D. At 18<sup>d</sup> 7<sup>h</sup> to 8½<sup>h</sup> there was a rapid decrease in H (90γ), which however was not followed by any significant change in the general conditions, and was partially regained during the next hour. A nearly quiet period supervened from 21<sup>d</sup> 0<sup>h</sup> to 22<sup>d</sup> 21<sup>h</sup>. This was followed, at 23<sup>d</sup> 1<sup>h</sup>, by a prominent movement in all traces, that in D (10'W) being the greatest. Persistent unsteadiness continued to be the most marked feature of the traces, however, until 28<sup>d</sup> 6<sup>h</sup>. A short-lived disturbance lasted from 28<sup>d</sup> 6<sup>h</sup> to 23<sup>h</sup>, in which the chief movement was a wave in D (15'W). A series of nearly regular oscillations in H, with amplitudes averaging 30γ succeeded the movement in D, but by 15<sup>h</sup> the regularity had disappeared and the amplitudes had considerably diminished. Unsteadiness continued in a marked degree for the remainder of the month.

The range in declination during the month was from 9° 51'.0 on 3rd to 10° 20'.9 on 24th; in horizontal intensity, from .18478 to .18643 both on 3rd; in vertical intensity, from .43079 on 3rd to .43211 on 31st.

September. From 1<sup>d</sup> 23<sup>h</sup> to 3<sup>d</sup> 2<sup>h</sup> a state of slight general disturbance existed, though the largest movement - which was in H - did not exceed 100γ. Unsteadiness continued until about 7<sup>d</sup> 10<sup>h</sup> and then a nearly quiet period followed lasting twenty-four hours. General irregularity was resumed, after this short spell, with occasional prominent waves (chiefly in H) none of which, however, exceeded 40γ. The period from 15<sup>d</sup> 6<sup>h</sup> to 17<sup>d</sup> 12<sup>h</sup> was almost quiet, and after further unsteadiness another nearly quiet period was shown, extending from 18<sup>d</sup> 6<sup>h</sup> to 20<sup>d</sup> 12<sup>h</sup>. During the remainder of the month there were several active spells, mostly of short duration. The principal examples were:- 20<sup>d</sup> 22½<sup>h</sup> to 21<sup>d</sup> 4<sup>h</sup> (range in D, 20'); 22<sup>d</sup> 19<sup>h</sup> to 23<sup>d</sup> 4<sup>h</sup> (range in D, 13'; range in H, 80γ); 23<sup>d</sup> 18<sup>h</sup> to 24<sup>d</sup> 4<sup>h</sup> (range in D, 16'; range in H, 85γ and in Z, 45γ); and 30<sup>d</sup> 13<sup>h</sup> to 24<sup>h</sup>. The last was

the most considerable, and reached the dimensions of a small storm. It comprised waves in H at 15<sup>h</sup> (+90γ), at 20<sup>h</sup> (-120γ) and 23½<sup>h</sup> (-90γ); in D, at 15½<sup>h</sup> (20'E), at 19½<sup>h</sup> (25'E); and a total range of 70γ in Z.

The range in declination during the month was from 9° 42'.0 to 10° 18'.6, both on 30th; in horizontal intensity, from .18484 to .18648 both on 30th; in vertical intensity, from .43159 on 24th to .43243 on 30th.

October. The prevailing magnetic condition during the month was similar to that in September, namely a general tendency to continual unsteadiness with few intervals of complete quiet. There was slight activity on 1<sup>d</sup>, between 11<sup>h</sup> and 24<sup>h</sup>, chiefly in D, but no movement exceeded 10'. Marked irregularity persisted from 2<sup>d</sup> 19<sup>h</sup> to 4<sup>d</sup> 1<sup>h</sup>, the largest movement being one of -60γ in H at 3<sup>d</sup> 20½<sup>h</sup>-21½<sup>h</sup>. A further period of slight disturbance was shown from 6<sup>d</sup> 16<sup>h</sup> to 7<sup>d</sup> 3<sup>h</sup>, with a range of 18' in D and 65γ in H. From 8<sup>d</sup> 0<sup>h</sup> to 10<sup>d</sup> 18<sup>h</sup> conditions were almost quiet. Activity was then resumed on an increasing scale. A wave in D (17'W) at 11<sup>d</sup> 3<sup>h</sup> was preceded by a fluctuating decrease in Z (60γ). The latter, however, was quickly restored and was normal by 11<sup>d</sup> 6<sup>h</sup>. On 11<sup>d</sup> there was a decrease in H (100γ) between 15<sup>h</sup> 40<sup>m</sup> and 16<sup>h</sup> 40<sup>m</sup> together with an abnormal diurnal range in D (28'). Considerable unsteadiness on 12th and 13th led up to the largest disturbance of the month on 14th. This lasted from 14<sup>d</sup> 15<sup>h</sup> to 16<sup>d</sup> 0<sup>h</sup>, but the main portion was over by 15<sup>d</sup> 6<sup>h</sup>. At the culmination, which occurred at about 15<sup>d</sup> 0<sup>h</sup>, there were two steep waves in H (-100γ) and movements in D up to 20'E, while the value of Z decreased by 90γ and did not recover for six hours. The final movement was an isolated wave in H (+125γ) at 15<sup>d</sup> 22½<sup>h</sup> which was accompanied by a sharp decrease in Z (50γ). Periods of unsteadiness continued until 19<sup>d</sup> 0<sup>h</sup>. Then a quiet period ensued, lasting from 19<sup>d</sup> 3<sup>h</sup> to 20<sup>d</sup> 18<sup>h</sup>. Slight unsteadiness was followed at 23<sup>d</sup> 15<sup>h</sup>, by a rapid increase in activity, which included oscillatory changes in H - the largest being a wave at 23<sup>d</sup> 22<sup>h</sup> (+80γ) - several prominent waves in D - the largest (also at 23<sup>d</sup> 22<sup>h</sup>) (18'E) - and a temporary decrease in Z (40γ). The normal condition was restored by 24<sup>d</sup> 4<sup>h</sup>, and, with the exception of a period of slight disturbance from 25<sup>d</sup> 19<sup>h</sup> to 26<sup>d</sup> 3<sup>h</sup>, continued until the end of the month. There was, however, a nearly quiet interval from 30<sup>d</sup> 4<sup>h</sup> to 31<sup>d</sup> 2<sup>h</sup>.

The range in declination during the month was from 9° 37'.2 on 14th to 10° 22'.1 on 11th; in horizontal intensity, from .18476 on 14th to .18651 on 15th; in vertical intensity, from .43125 on 15th to .43236 on 23rd.

November. Apart from a few minor irregularities, conditions were quiet until 3<sup>d</sup> 12<sup>h</sup>. Unsteadiness then became general and gradually increased. During 5th there was a period of brisk disturbance lasting from 14<sup>h</sup> to 24<sup>h</sup>. The most active part of this disturbance extended from 17<sup>h</sup> to 23<sup>h</sup> during which interval there were five waves in D approaching 10' in amplitude and a range of 100γ in H. There was also a marked decrease in Z (50γ) between 5<sup>d</sup> 21<sup>h</sup> and 22½<sup>h</sup>. From 6<sup>d</sup> 0<sup>h</sup> to 10<sup>d</sup> 10<sup>h</sup> moderate unsteadiness was general, and increased to the dimensions of slight disturbance between 10<sup>d</sup> 10<sup>h</sup> and 10<sup>d</sup> 20<sup>h</sup>, there being a wave in D (13'E) at 17<sup>h</sup>, accompanied by a wave in H (-60γ). A quiet period ensued, lasting, with negligible interruptions, until 18<sup>d</sup> 0<sup>h</sup>. Unsteadiness then returned and was the prevailing condition until 20<sup>d</sup> 12<sup>h</sup>, when a short disturbance began, which lasted about twelve hours. The most prominent movement was a wave in D (15'E) at 20<sup>d</sup> 16<sup>h</sup>. From 21<sup>d</sup> 6<sup>h</sup> until 29<sup>d</sup> 0<sup>h</sup> conditions were practically quiet, with a short intermission at 26<sup>d</sup> 0<sup>h</sup> to 3<sup>h</sup>. General unsteadiness was resumed on 30th.

The range in declination during the month was from 9° 50'.1 on 5th to 10° 14'.5 on 20th; in horizontal intensity, from .18496 on 20th to .18621 on 5th; in vertical intensity, from .43172 on 2nd to .43238 on 20th.

December. Small irregularities on 1<sup>d</sup> were succeeded on 2<sup>d</sup> by a short disturbance of mild intensity, beginning at 16<sup>h</sup> and ending at 23<sup>h</sup>. The chief movement was a temporary easterly movement in D (17'). There were also several oscillations in H, the largest being a wave at 20<sup>h</sup> (+80γ). The next ten days were nearly quiet, though a brief period of unsteadiness was shown from 5<sup>d</sup> 22½<sup>h</sup> to 6<sup>d</sup> 3<sup>h</sup>, and irregularity occurred also on 9th and 10th. On 13<sup>d</sup> signs of an approaching disturbance appeared on the traces at 8½<sup>h</sup>. The disturbance, however, did not develop until 13<sup>d</sup> 15½<sup>h</sup> and then

was only of slight intensity, consisting of a series of irregular oscillations, the largest of which did not exceed  $70\gamma$  in H and  $8'$  in D. Quiet conditions were temporarily restored by  $14^d 10^h$  and lasted until  $15^d 18^h$ . At  $15^d 18^h 52^m$  there was an abrupt increase of  $30\gamma$  in H which was the initial movement of what proved to be the largest disturbance registered at the station since 1942 March 1. The first movement in D occurred at  $22^d 4^h$ . It was accompanied by a second movement in H and then at intervals of roughly one and one half hours a sequence of single sharp oscillations followed in each trace, ending at  $16^d 5^d 5^h$ . Between  $16^d 6^h 40^m$  and  $8^h 0^m$  movements were crowded closely, there being an oscillation every two or three minutes though none exceeded about  $30\gamma$  in amplitude. Following this stage there was a lull until  $16^d 10^d 10^h$ . The main storm then developed rapidly to its climax which was reached between  $15^h$  and  $17^h$ . The disturbance collapsed quite suddenly at about  $19^h$ , but revived after an interval of eighteen hours though in a much less intense degree. The extreme ranges in the elements were: in D,  $69'$ ; in H,  $265\gamma$ ; in Z,  $410\gamma$ . From  $17^d 13^d 13^h$  to  $18^d 2^h$  disturbance was still considerable and large irregular movements were continuous. Notable instances in D were shown at  $17^d 15^h$ , (a wave,  $25'E$ ) and at  $17^d 17^d 17^h$  (a wave,  $27'E$ ). Accompanying changes in H reached  $100\gamma$  in each case; while the outstanding movement in this element (a wave,  $+130\gamma$ ) occurred at  $17^d 23^h$ . Smaller related changes in Z were apparent also, the largest ( $+45\gamma$ ) taking place at  $17^d 15^h$ . The traces continued to exhibit great unsteadiness until  $19^d 0^h$ . Conditions then became nearly quiet until  $26^d 10^h$ , although a few short spells of unsteadiness occurred, notably from  $20^d 22^h$  to  $21^d 6^h$  and from  $22^d 19^h$  to  $23^d 1^h$ . At  $26^d 10^d 10^h$  traces began to show irregularity, and this increased after  $21^h$ , from which time until  $27^d 4^h$  movements though small, were very numerous. At  $27^d 12^h$  a period of considerable activity began, which lasted until  $28^d 3^h$ . The characteristic was a long series of oscillations at more or less regular intervals in all traces, there being a temporary easterly shift in declination of about  $15'$ . Between  $27^d 16^d 16^h$  and  $28^d 1^h$  Z decreased  $120\gamma$ , after a previous rise of  $80\gamma$ , which coincided with a rapid change in declination ( $25'E$ ) between  $15^d 15^h$  and  $16^d 16^h$ . The disturbance ended with a brief temporary increase in H ( $80\gamma$ ) near  $28^d 0^h$  and a rapid return to normal declination shortly afterwards. During the remainder of the month spells of unsteadiness occurred at irregular intervals but the only movements calling for comment were in declination, namely a rapid westerly movement of  $15'$  between  $30^d 2^h$  and  $3^d 3^h$  and a prominent wave ( $12'E$ ) at  $30^d 22^h$ .

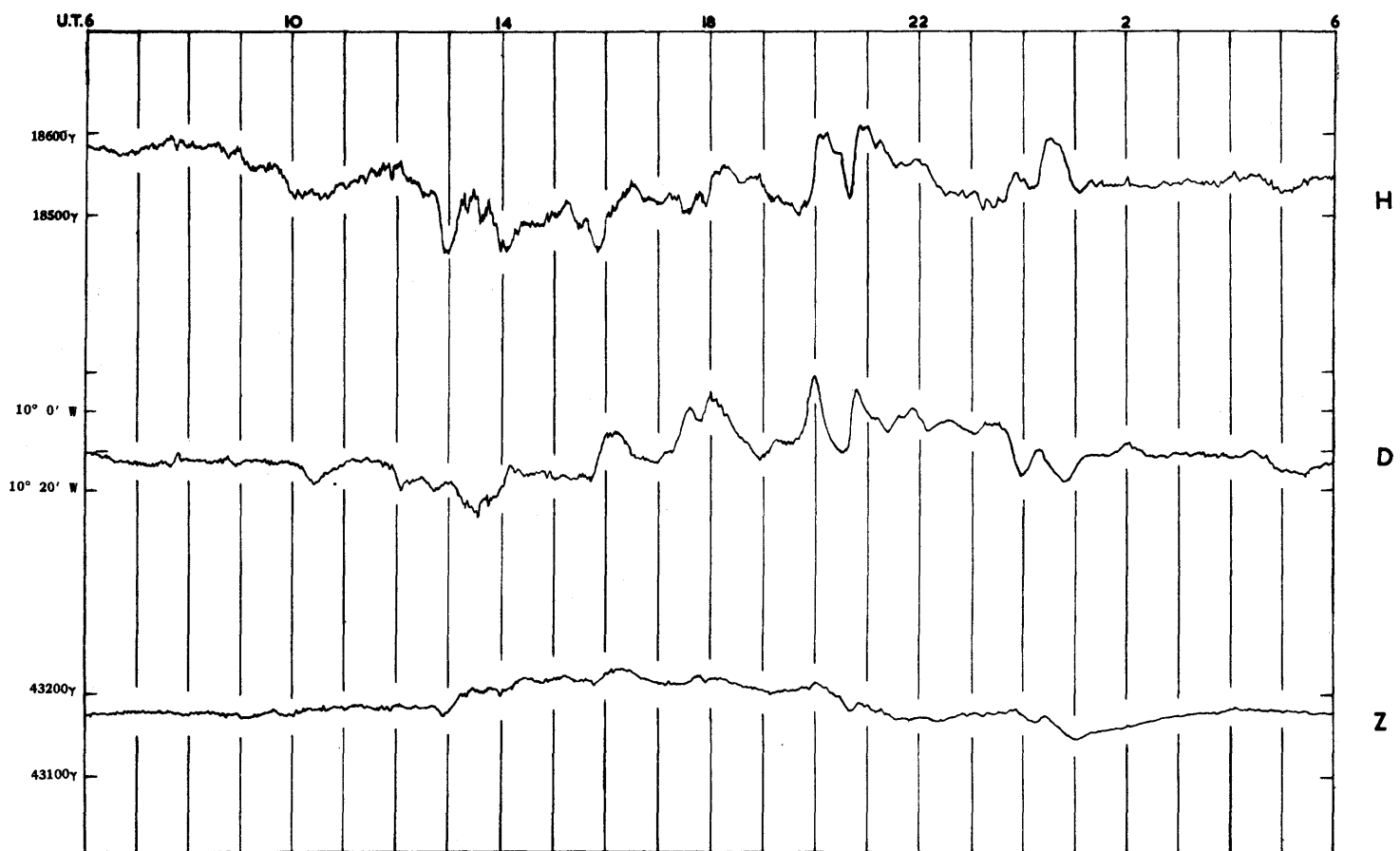
The range in declination during the month was from  $9^\circ 27'.9$  to  $10^\circ 36'.6$ , both on 16th; in horizontal intensity, from .18359 to .18625 both also on 16th; in vertical intensity, from .43164 on 14th to .43586 on 16th.

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

Declination,  $10^\circ 36'.6$  W on December 16th;  $9^\circ 27'.9$  W on December 16th.  
 Horizontal Intensity, .18665 on March 27th; .18259 on April 2nd.  
 Vertical Intensity, .43586 on December 16th; .43079 on August 3rd.

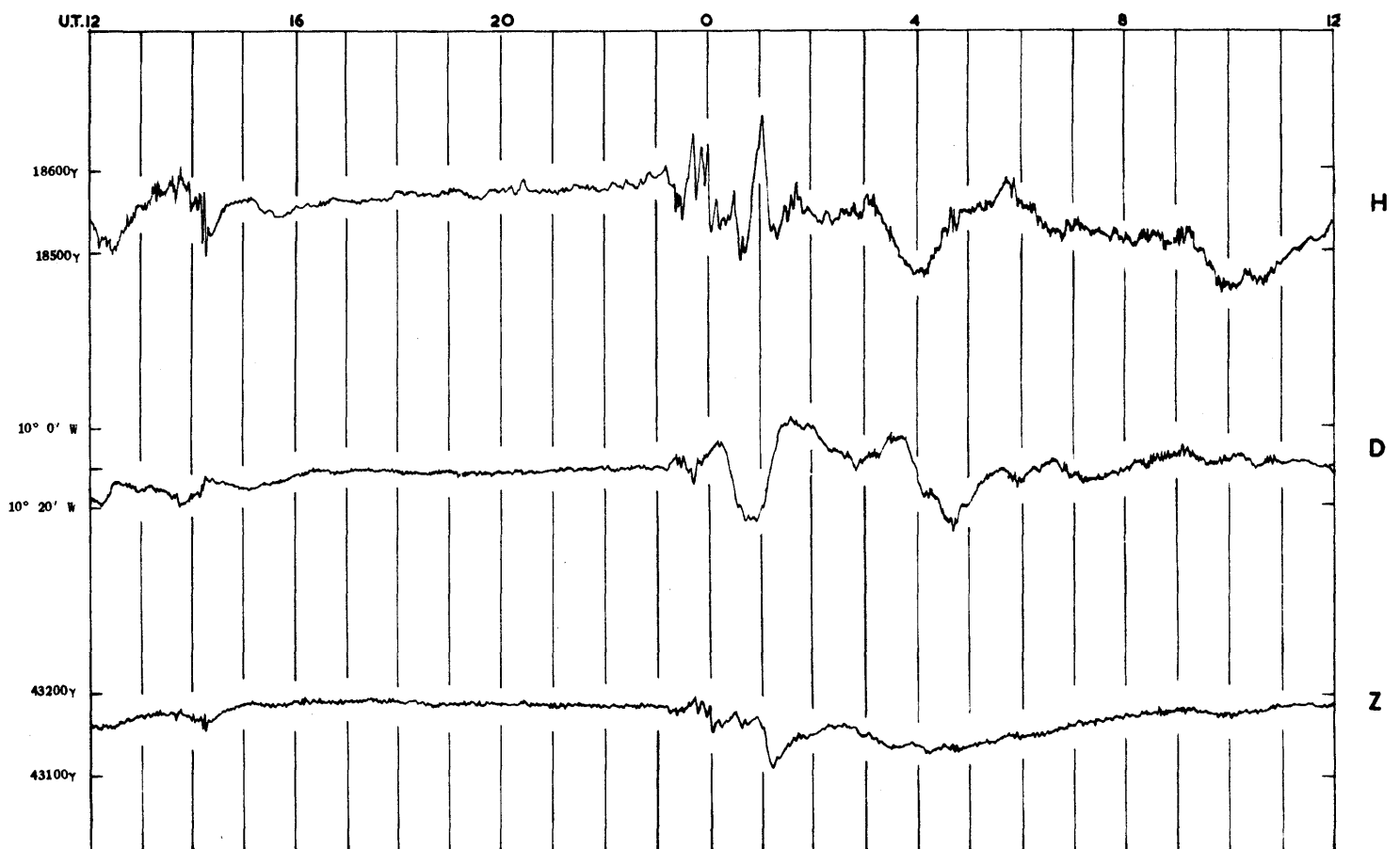
1944 FEB 7-8

Plate I



1944 MARCH 26 - 27

Plate II



SCALES FOR THE MAGNETIC ELEMENTS

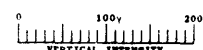
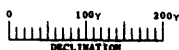
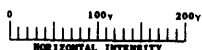




Plate III

1944 APRIL 1 - 2

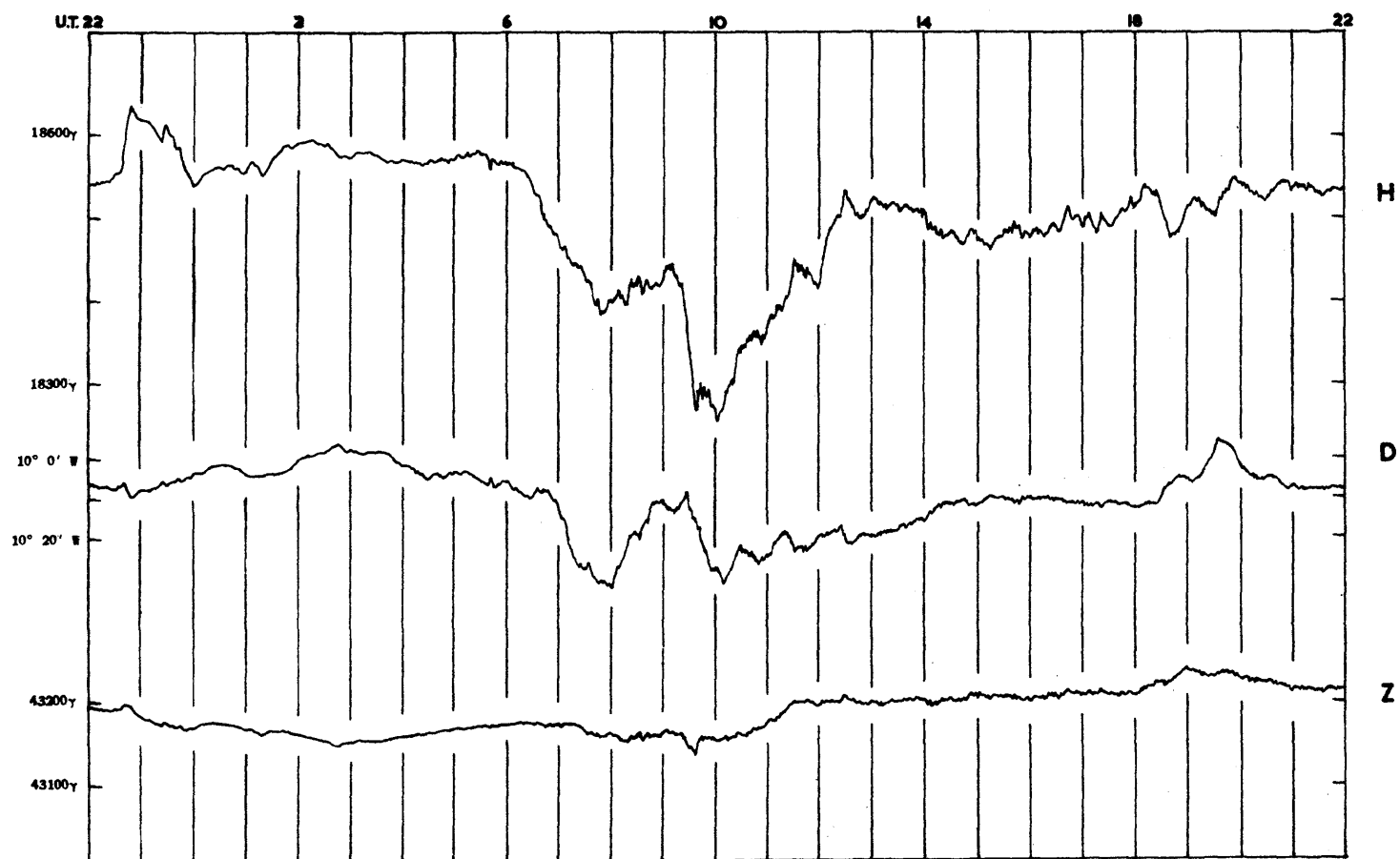
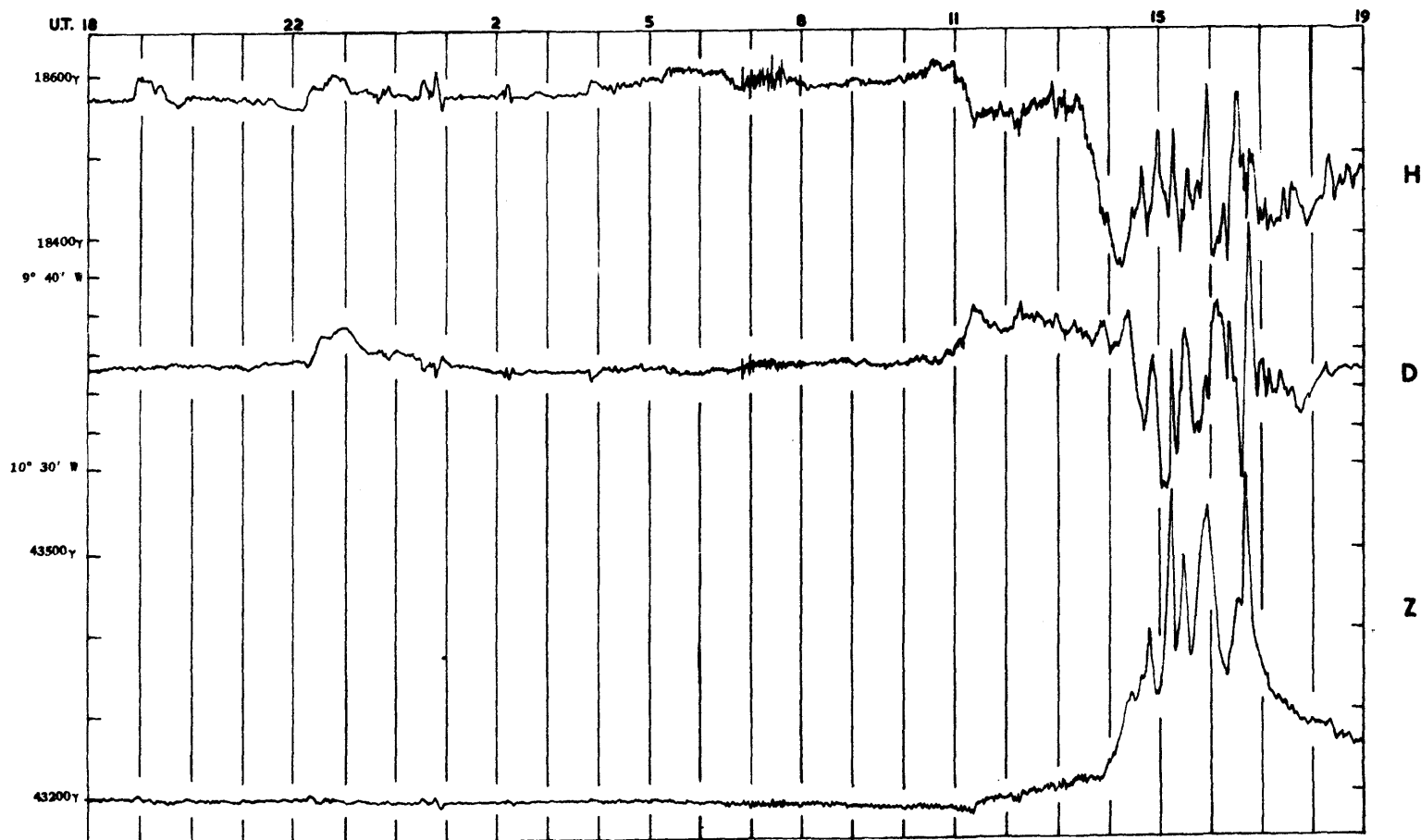
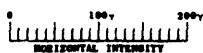


Plate IV

1944 DEC 15 - 16



SCALES FOR THE MAGNETIC ELEMENTS



**ROYAL OBSERVATORY, GREENWICH.**

**Results of  
Meteorological Observations**

**1944**

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature	Degree of Humidity (saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon		
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point			Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value			Mean	Greatest	Least				Highest in Sun's Rays	Lowest on the Grass
Jan. 1	30.038	49.4	42.6	6.8	46.1	+ 7.5	43.5	40.2	5.9	10.0	1.8	80	62.3	37.0	45.3	0.000	0.3	7.9
2	30.010	49.5	44.0	5.5	47.1	+ 8.7	43.5	38.9	8.2	12.6	5.0	73	56.2	35.1	45.2	0.000	0.0	7.9
3	29.838	50.8	42.2	8.6	48.2	+ 9.9	45.5	42.3	5.9	7.4	3.2	80	56.0	36.0	45.2	0.050	0.0	7.9
4	30.083	42.8	33.1	9.7	38.9	+ 0.6	35.4	29.5	9.4	14.1	2.1	68	56.2	25.5	45.1	0.000	4.5	8.0
5	30.384	42.2	28.4	13.8	35.2	- 3.0	32.9	28.9	6.3	11.2	0.0	77	51.0	20.8	45.1	0.000	2.1	8.0
6	30.189	47.4	42.0	5.4	45.2	+ 7.1	41.0	34.9	10.3	11.7	6.3	67	53.6	38.0	45.1	0.000	0.0	8.0
7	30.059	48.6	41.9	6.7	44.6	+ 6.6	41.8	37.9	6.7	10.3	2.8	77	62.8	36.4	45.0	0.000	1.4	8.0
8	29.780	48.1	41.3	6.8	45.7	+ 7.8	43.2	40.0	5.7	7.9	1.6	80	58.5	35.1	45.0	0.000	0.1	8.1
9	29.601	51.6	48.1	3.5	49.9	+12.0	47.9	45.7	4.2	7.0	2.5	86	54.6	45.5	45.1	0.060	0.0	8.1
10	29.767	51.6	28.2	23.4	39.8	+ 1.9	37.7	34.5	5.3	11.1	2.6	81	45.4	24.7	45.0	0.207	0.0	8.1
11	29.942	45.0	26.2	18.8	35.0	- 2.9	34.2	32.8	2.2	6.3	0.0	92	45.0	22.7	45.0	0.230	0.0	8.2
12	29.918	51.2	44.6	6.6	47.6	+ 9.7	46.5	45.2	2.4	3.9	0.6	91	53.5	42.0	45.1	0.000	0.0	8.2
13	29.863	52.9	46.6	6.3	51.6	+13.6	49.7	47.8	3.8	5.5	2.8	87	55.0	42.0	45.1	0.000	0.0	8.2
14	30.314	48.6	33.4	15.2	41.6	+ 3.6	39.2	35.6	6.0	12.8	1.1	79	57.6	27.9	45.1	0.000	6.5	8.3
15	30.487	37.5	27.7	9.8	32.1	- 6.0	32.1	32.1	0.0	1.9	0.0	100	43.7	24.6	45.1	0.000	2.0	8.3
16	30.449	45.5	29.0	16.5	33.3	- 5.0	32.6	31.4	1.9	6.1	0.0	93	65.0	28.1	45.0	0.003*	2.9	8.3
17	30.359	47.8	31.4	16.4	40.6	+ 2.1	39.7	38.5	2.1	3.6	0.7	92	56.1	30.5	45.0	0.000	0.0	8.4
18	30.159	48.5	47.0	1.5	47.7	+ 9.1	46.8	45.8	1.9	3.0	1.2	93	54.4	41.5	45.0	0.118	0.0	8.4
19	30.031	49.1	42.4	6.7	47.3	+ 8.6	46.4	45.3	2.0	4.2	0.6	93	59.7	34.1	45.0	0.240	0.0	8.5
20	30.051	46.4	37.5	8.9	41.3	+ 2.5	39.8	37.8	3.5	9.0	1.5	87	65.4	29.9	45.0	0.000	3.2	8.5
21	30.055	49.6	39.0	10.6	43.6	+ 4.8	40.8	36.9	6.7	10.3	3.2	77	79.2	31.4	45.0	0.000	5.7	8.6
22	29.709	51.0	44.4	6.6	48.7	+ 9.9	46.2	43.4	5.3	8.7	2.0	81	59.0	40.6	45.0	0.010	0.0	8.6
23	29.257	50.0	38.6	11.4	44.7	+ 5.8	41.8	37.8	6.9	13.2	3.0	76	72.1	33.0	45.0	0.327	3.4	8.6
24	29.423	49.1	34.6	14.5	42.6	+ 3.7	40.6	37.7	4.9	8.2	1.9	83	64.3	29.0	45.0	0.058	0.6	8.7
25	29.267	48.0	40.2	7.8	44.6	+ 5.5	40.0	33.0	11.6	14.5	8.1	64	74.9	32.0	45.0	0.009	2.9	8.7
26	29.874	52.6	36.8	15.8	44.0	+ 4.7	41.9	39.2	4.8	12.9	1.8	83	53.0	28.6	45.0	0.092	0.0	8.8
27	30.037	55.6	48.7	6.9	52.3	+12.8	50.0	47.7	4.6	8.7	3.0	84	61.8	40.8	45.1	0.000	0.1	8.9
28	30.229	52.6	47.2	5.4	51.3	+11.7	47.6	43.4	7.9	12.5	4.6	74	59.3	41.0	45.1	0.000	0.0	8.9
29	30.239	50.1	44.6	5.5	47.3	+ 7.6	44.6	41.5	5.8	8.7	3.2	79	55.9	38.3	45.2	0.000	0.0	8.9
30	30.243	54.4	40.5	13.9	47.6	+ 7.9	45.1	42.2	5.4	11.2	2.0	81	84.8	33.5	45.5	0.000	4.4	9.0
31	30.180	45.9	38.9	7.0	42.1	+ 2.4	40.5	38.3	3.8	5.9	1.2	86	77.8	29.6	45.4	0.000	0.9	9.1
Means	29.995	48.8	39.1	9.8	44.1	+ 5.5	41.9	38.9	5.2	8.9	2.3	82.1	59.8	33.4	45.1	Sum 1.404	1.3	8.4
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

\* Rainfall (Column 16). The amount entered on January 16 is derived from wet-fog.

The mean reading of the Barometer for the month was 29.995 in., being 0.194 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 55°.6 on January 27; the lowest in the month was 26°.2 on January 11; and the range was 29°.4.

The mean of all the highest daily readings in the month was 48°.8, being 5°.7 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 39°.1, being 4°.9 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 9°.8, being 0°.9 greater than the average for the 65 years, 1841-1905.

The mean for the month was 44°.1, being 5°.5 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSAE MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
Jan. 1	5.2	0.38	4.5	0.33	W:WSW	W:WSW	2.9	0.26	378	c m mo	c Ast Prst Ci Acu	c Stcu Prst bc	c b
2	5.1	0.37	4.0	0.29	WSW	WSW	4.0	0.52	446	b c	c Stcu	c Stcu bc	bc c
3	7.7	0.56	7.4	0.54	WSW	WSW:NNW	6.0	0.87	502	c	c Nbst Ast Prst ro	ro c Nbst Stcu q	do do r c
4	13.7	0.99	13.4	0.98	NW:NNW	N:NNW	11.0	0.55	392	c b q b	b Cicu Prcu y	b Prcu y	b
5	6.3	0.46	5.1	0.37	W:WSW	WSW	3.0	0.10	246	b x f	c Acu Cicu b f	b bc f m	bc m mo c
6	0.8	0.06	0.5	0.04	SW:WSW	WSW	3.2	0.42	417	c	c Stcu	c Nbst	c
7	0.5	0.04	0.4	0.03	WSW	WSW	3.3	0.17	299	c	c Acu Stcu Ast	bc Ci Acu	c do c
8	0.3	0.02	0.0	0.00	SW:WSW	WSW	5.0	0.37	353	c	c Nbst Stcu iro	c ro c	c
9	0.6	0.05	0.3	0.02	WSW	WSW	4.8	0.71	464	c	c Nbst	c Nbst iro d	iro r
10	12.5	0.93	12.1	0.90	WSW	NE	2.7	0.17	273	iro rro	iro c	c b	b x
11	0.0	0.00	0.0	0.00	Calm:SSE	SSE:Calm	0.5	0.02	129	b x	c Stcu Nbst r	rro Nbst c	c m d F m
12	0.0	0.00	0.0	0.00	WSW	WSW:SW	2.0	0.10	262	c m	c Nbst m mo	c Nbst mo	c do
13	7.3	0.54	7.3	0.54	SW	SW:NNW	8.7	0.88	439	c ido	c Nbst Stcu	c Nbst Stcu ido	ido c
14	12.3	0.91	12.2	0.90	NW:SW	WSW:SW	0.3	0.03	167	b m x	b Ci m	b m f	b f m
15	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	63	b m x	Fe Fe	b fe Fe	Fe Fe
16	0.0	0.00	0.0	0.00	Calm	Calm	0.1	0.00	61	Fe Fe x	b Fe b f	b f Fe	Fe fe
17	0.0	0.00	0.0	0.00	Calm	SSW:SW	1.2	0.08	189	ffe	o St fe fe c	c Stcu Prcu Acu mo	do do mo
18	3.1	0.23	3.0	0.22	SW	SW:SSW	1.2	0.15	282	do r do	do Nbst c	c Nbst do d	d c
19	0.0	0.00	0.0	0.00	SW:SSW	SSW	1.0	0.11	260	c bc c	c Stcu Ast	c Ast Stcu Nbst ro rr	rr c
20	11.0	0.83	10.6	0.80	NNW:SW	SW	1.0	0.05	221	c	c Stcu b m	b bc Ci Acu Cicu so-ha mo	b c b
21	..	..	..	..	WSW	WSW:SW	2.8	0.27	371	b x m	b Ci m	b c Prcu Ci Stcu	c b c
22	0.0	0.00	0.0	0.00	SW:WSW	SW	13.8	2.72	677	c q	c Nbst Stcu q	c iro c q	c iro q
23	9.6	0.74	9.1	0.70	SW:WSW:W	WSW:WNNW	14.3	2.47	629	c iro rr c q	c Acu Cumb b Cu Stcu q	b c Nbst q r do	c b
24	10.7	0.82	9.7	0.75	W:WSW:SSW	SSW:SW	14.0	1.37	473	b mo	b c Acu Ci Nbst ir	c ro d r q	b c q
25	11.5	0.89	11.1	0.86	WSW	W:NNW	12.5	2.28	640	c b q pale	b Ci Cicu Acu bc q	bc y Acu Stcu c p c q	c b q b
26	1.4	0.11	1.0	0.08	W:WSW	SW:WSW	4.7	0.36	341	b bc m	c Ast Nbst ro r mo	rr d c Nbst	c
27	3.2	0.24	2.4	0.18	WSW	WSW	8.0	1.08	476	c	c Nbst	c Prcu Stcu Ci q bc	b c d c
28	2.9	0.22	2.4	0.18	WSW	WSW	3.6	0.57	395	c	c Stcu	c Stcu	c
29	4.8	0.38	4.4	0.35	WSW	WSW:SW	3.0	0.27	320	b c	c Stcu	c Stcu	c
30	4.1	0.33	3.8	0.30	WSW	WSW:SW	1.6	0.18	291	bc b w f	b bc f m	bc c	c b
31	0.0	0.00	0.0	0.00	SW:WSW	WSW:SW	0.9	0.13	257	b c	c St Stcu mo	c Stcu Prst	c
Means	4.5	0.34	4.2	0.31	..	..	..	0.56	345				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 41°.9, being 4°.7 higher than  
 The mean *Temperature of the Dew Point* for the month was 38°.9, being 3°.8 higher than  
 The mean *Degree of Humidity* for the month was 82.1, being 4.7 less than  
 The mean *Elastic Force of Vapour* for the month was 0.237 in., being 0.032 in. greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.9.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.158. The maximum daily amount of *Sunshine* was 6.5 hours on January 14.  
 The highest reading of the *Solar Radiation Thermometer* was 84°.8 on January 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°.8 on January 5.  
 The *Proportions of Wind* referred to the cardinal points were N.6, E.2, S.27, W.54, calm or nearly calm conditions 11, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 14.3 lbs. on the square foot on January 23. The mean daily *Horizontal Movement of the Air* for the month was 345 miles; the greatest daily value was 677 miles on January 22, and the least daily value was 61 miles on January 16.  
*Rain* (0.005 in. or over) fell on 11 days in the month, amounting to 1.404 in., as measured by gauge No. 6 partly sunk below the ground; being 0.477 in. less than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 Hourly Values (corrected to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years							Highest in Sun's Rays	Lowest on the Grass				
Feb. 1	30.009	52.4	41.4	11.0	47.7	+ 8.1	46.1	44.3	3.4	6.0	1.4	88	62.6	38.0	45.7	0.000	0.0	9.1
2	29.841	55.6	50.6	5.0	53.3	+13.8	51.0	48.8	4.5	7.5	1.8	84	61.6	45.0	45.7	0.037	0.0	9.2
3	29.654	52.5	40.4	12.1	49.2	+ 9.7	44.6	38.8	10.4	13.8	4.6	67	77.9	33.0	45.8	0.000	1.1	9.2
4	29.857	42.0	35.4	6.6	39.4	- 0.1	35.0	27.3	12.1	17.4	6.0	60	80.6	27.9	45.8	0.014	3.6	9.3
5	30.208	41.4	32.3	9.1	36.4	- 3.2	32.6	25.7	10.7	13.4	6.3	62	80.7	27.1	45.8	0.000	3.7	9.3
6	30.293	43.7	24.3	19.4	35.8	- 3.8	32.8	27.4	8.4	18.7	2.9	70	64.6	18.1	45.6	0.056	1.2	9.4
7	29.946	54.0	43.4	10.6	48.6	+ 9.1	45.6	41.9	6.7	11.4	2.9	78	61.0	36.3	45.5	0.002	0.3	9.4
8	29.925	46.2	38.2	8.0	42.8	+ 3.5	38.4	31.3	11.5	17.9	5.9	64	77.0	31.5	45.3	0.000	4.0	9.5
9	29.822	47.2	36.3	10.9	41.5	+ 2.4	39.0	35.2	6.3	12.1	2.1	78	80.7	29.6	45.2	0.055	1.4	9.6
10	29.672	46.0	33.9	12.1	37.7	- 1.2	34.7	29.7	8.0	12.4	2.5	72	67.5	29.1	45.0	0.076	3.7	9.6
11	29.958	44.5	36.4	8.1	39.6	+ 0.8	37.6	34.5	5.1	8.6	2.3	82	69.3	30.0	45.0	0.019	1.9	9.7
12	29.980	41.8	34.3	7.5	38.9	+ 0.1	36.7	33.2	5.7	8.3	1.5	79	77.5	28.9	45.0	0.070	0.9	9.7
13	30.054	39.6	32.4	7.2	36.4	- 2.6	34.3	30.6	5.8	10.3	1.5	79	63.8	27.9	44.8	0.000	0.0	9.8
14	30.110	43.0	34.4	8.6	38.4	- 0.9	35.3	30.0	8.4	10.3	6.7	71	61.3	30.0	44.6	0.003	0.0	9.9
15	30.167	46.0	31.7	14.3	37.5	- 1.9	34.7	29.9	7.6	13.2	3.0	73	92.7	28.1	44.6	0.000	5.7	9.9
16	29.932	41.2	36.0	5.2	39.3	- 0.2	38.1	36.3	3.0	5.4	0.5	89	48.0	33.0	44.4	0.347	0.0	10.0
17	29.996	40.6	33.0	7.6	36.2	- 3.4	34.5	31.6	4.6	5.9	1.7	83	39.0	31.7	44.2	0.004	0.0	10.0
18	30.165	36.0	31.8	4.2	33.3	- 6.2	31.5	28.5	4.8	7.0	2.1	81	53.5	29.1	44.1	0.007	0.0	10.1
19	30.169	35.8	32.5	3.3	34.4	- 5.1	32.2	28.3	6.1	7.5	3.0	77	48.4	29.8	44.1	0.000	0.0	10.2
20	30.276	39.7	32.9	6.8	35.7	- 3.8	32.7	27.3	8.4	13.6	5.4	70	86.7	30.1	44.0	0.000	2.1	10.2
21	30.263	40.6	32.8	7.8	36.2	- 3.4	32.8	26.7	9.5	15.4	4.1	66	87.2	27.2	44.0	0.000	0.8	10.3
22	30.107	39.0	30.8	8.2	33.9	- 5.8	31.5	27.7	6.2	11.3	1.6	76	82.5	25.2	43.6	0.008	0.2	10.4
23	30.037	38.3	28.8	9.5	33.6	- 6.2	32.2	29.9	3.7	6.8	1.3	85	61.7	22.2	43.5	0.024	0.0	10.5
24	30.176	40.2	26.6	13.6	33.3	- 6.7	30.3	25.2	8.1	17.0	1.3	69	95.5	20.0	43.4	0.000	8.4	10.5
25	29.984	41.0	30.7	10.3	36.3	- 3.8	34.1	30.2	6.1	9.7	1.3	78	53.0	23.1	43.2	0.000	0.0	10.6
26	29.479	40.9	33.8	7.1	37.0	- 3.2	35.8	33.8	3.2	5.2	0.5	89	57.4	30.7	43.0	0.040	0.0	10.7
27	29.222	37.3	32.0	5.3	35.7	- 4.6	34.4	32.1	3.6	6.3	0.0	87	47.0	28.0	43.1	0.011	0.0	10.7
28	29.323	41.1	28.7	12.4	33.7	- 6.6	31.4	27.7	6.0	14.0	1.1	77	91.7	23.3	43.0	0.000	5.2	10.8
29	29.403	40.4	27.1	13.3	33.9	- 6.4	30.4	24.3	9.6	26.9	0.0	65	81.7	22.5	42.8	0.000	7.1	10.9
Means	29.932	43.0	33.9	9.1	38.5	- 1.1	35.9	31.7	6.8	11.5	2.6	75.8	69.4	28.8	44.5	Sum 0.773	1.8	9.9
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29.932 in., being 0.123 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 55° .6 on February 2; the lowest in the month was 24° .3 on February 6; and the range was 31° .3.

The mean of all the highest daily readings in the month was 43° .0, being 1° .9 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 33° .9, being 0° .8 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 9° .1, being 1° .1 less than the average for the 65 years, 1841-1905.

The mean for the month was 38° .5, being 1° .1 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
Feb.1	0.0	0.00	0.0	0.00	SW:SSW	SW	4.6	0.69	401	c Id <sub>o</sub>	c Ast Prst Id <sub>o</sub>	c Nbst Id <sub>o</sub> c Ast Prst	c
2	6.5	0.52	4.7	0.37	WSW	WSW	6.2	0.96	489	c rr Id <sub>o</sub>	c	c	c l u-ha
3	6.6	0.53	5.8	0.47	WSW	W:WNW	14.0	1.86	579	c	c Nbst Stcu q	c	c b q
4	10.8	0.87	9.9	0.79	W:NNW	NNW:NNW	10.0	1.75	541	b c Ir <sub>o</sub>	c Acu Ci Ir <sub>o</sub> ps brn	b Prcu c Stcu y	b
5	7.7	0.63	6.2	0.51	NNW	N	2.5	0.23	257	b m x	b bc Cist so-ha brn y	bc Ci Cist c Stcu y	c b c
6	1.6	0.13	1.0	0.08	Calm	WSW:SW	2.6	0.12	216	c b x f	b f m bc Cist y	c Ast	do c rr c
7	4.0	0.33	3.9	0.32	SW:WSW	W:WNW	3.2	0.36	391	c	c Nbst Prst r <sub>o</sub>	r <sub>o</sub> Nbst c Stcu Acu	c
8	12.3	1.00	12.3	1.00	W:NW	NW	6.8	0.80	475	c b	b bc Prcu Stcu y	bc c Ast Stcu Prcu y	bc b
9	1.9	0.15	1.9	0.15	W:W	W:WSW:NW	4.2	0.37	387	b bc x m	bc c Cicu Cist so-ha brn	c Nbst r <sub>o</sub> r	r <sub>o</sub> r <sub>o</sub>
10	6.1	0.50	5.2	0.42	N:NNW	N:NNW	14.6	1.43	510	r <sub>o</sub> r c b	b c Prcu Cu q	c s <sub>o</sub> b c Ir <sub>s</sub>	b c
11	4.9	0.40	4.5	0.36	NNW:N	N	3.5	0.34	321	c	c b Cu Acu c Cicu Prcu	c Nbst Acu r <sub>o</sub> r ig	r <sub>o</sub> r c
12	0.0	0.00	0.0	0.00	NNW:N	N:NNE	2.0	0.12	219	c b x m	b c Acu Stcu m	c r <sub>o</sub> c	do d rr
13	2.0	0.16	1.8	0.15	Calm: SSE	S: Calm	0.1	0.00	108	c	c Ast Nbst Is <sub>o</sub> c	c Stcu Acu Cu	b c
14	1.2	0.10	1.1	0.09	S:SSW	SSW	0.2	0.03	175	c	c Nbst Ast Ir <sub>o</sub> c	c Ir <sub>o</sub>	r <sub>o</sub> c
15	1.3	0.10	0.3	0.03	S: SSE	SSW: S	0.4	0.02	146	c b c	bc c Acu b	b Cu Prcu	c
16	0.6	0.05	0.3	0.03	S	Calm: N	3.0	0.20	261	c	c Nbst rr	rr g G f r <sub>o</sub> m <sub>o</sub>	c Id
17	0.0	0.00	0.0	0.00	N:NE	NE	4.5	0.54	409	c Id m <sub>o</sub>	c Nbst d r <sub>o</sub>	c r <sub>o</sub> Is <sub>o</sub>	Is <sub>o</sub>
18	1.5	0.13	1.1	0.09	NE: NNE	NE: NNE	2.4	0.20	294	c Is <sub>o</sub>	c Nbst s <sub>o</sub>	c s <sub>o</sub> c ps c	bc c
19	1.1	0.09	0.4	0.04	NNE: NE	NNE: NE	4.0	0.35	392	c	c Is <sub>o</sub> c Ast Acu Prst	s <sub>o</sub> Nbst c	Is <sub>o</sub> c
20	1.3	0.11	0.7	0.06	NE: ENE	ENE: NE	8.2	0.61	449	c	c Nbst s <sub>o</sub> c Stcu brn	c Stcu y	c
21	8.5	0.74	8.3	0.72	NE: NNE	NE	3.6	0.25	361	c b c	c Ast Nbst Is <sub>o</sub> c y	c Stcu Prcu y	c b
22	6.5	0.56	5.4	0.47	NE: NNE	NNE	1.1	0.15	256	b x	b c s <sub>o</sub> c Cicu Acu Ast	c Ast Acu Cu Stcu Is	c b
23	11.5	1.00	11.4	0.99	Calm	E: ENE	0.6	0.03	147	c f Is <sub>o</sub>	c St Stcu Is <sub>o</sub>	c Stcu Acu Nbst s <sub>o</sub> c b	b
24	9.0	0.78	8.7	0.75	Calm: NE: ENE	ENE: NE	3.4	0.32	274	b m x	b x m Prcu y	b y	b
25	0.0	0.00	0.0	0.00	NE	NE	1.6	0.15	256	b x c	c Nbst Stcu	c Stcu	c Id <sub>o</sub>
26	0.0	0.00	0.0	0.00	NNE: N	Calm	0.3	0.01	86	c rs m	o St Id <sub>o</sub> g r m	c Nbst r g m	r do c m
27	7.4	0.67	6.8	0.62	Calm	Calm	0.2	0.01	84	c m	r <sub>o</sub> Nbst St g f	c f m	c m
28	10.3	0.94	10.1	0.92	NE	NE: NNE	3.2	0.20	298	c b x m	b Prcu Cu m bc	bc Is <sub>o</sub> b	b
29	..	..	..	..	N	NNW: W: SW	1.5	0.14	247	b x m	b Cu Prcu	bc Ci Cu so-ha y	bc
Means	4.5	0.37	4.0	0.34	..	..	..	0.42	312				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 35° .9, being 1° .8 lower than  
 The mean Temperature of the Dew Point for the month was 31° .7, being 3° .3 lower than  
 The mean Degree of Humidity for the month was 75.8, being 7.8 less than  
 The mean Elastic Force of Vapour for the month was 0.178 in., being 0.026 in. less than  
 The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.8.  
 The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.178. The maximum daily amount of Sunshine was 8.4 hours on February 24.  
 The highest reading of the Solar Radiation Thermometer was 95° .5 on February 24; and the lowest reading of the Terrestrial Radiation Thermometer was 18° .1 on February 6.  
 The Proportions of Wind referred to the cardinal points were N.37, E.17, S.13, W.20, calm or nearly calm conditions 13, the whole month being represented by 100.  
 The Greatest Pressure of the Wind in the month was 14.6 lbs. on the square foot on February 10. The mean daily Horizontal Movement of the Air for the month was 312 miles; the greatest daily value was 579 miles on February 3, and the least daily value was 84 miles on February 27.  
 Rain (0.005 in. or over) fell on 13 days in the month, amounting to 0.773 in., as measured by gauge No.6 partly sunk below the ground; being 0.707 in. less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Of Radiation				Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years			Highest in Sun's Rays	Lowest on the Grass	Mean			Greatest	Least			
Mar. 1	29.482	43.0	35.0	8.0	39.0	- 1.4	35.3	29.0	10.0	19.9	4.1	66	57.8	29.0	42.7	0.012	0.0	10.9
2	29.635	41.9	30.2	11.7	36.7	- 3.7	32.4	24.3	12.4	21.6	3.8	60	87.6	22.5	42.6	0.010	6.8	11.0
3	29.724	42.4	28.3	14.1	34.8	- 5.7	30.7	23.3	11.5	25.0	0.6	60	92.9	20.6	42.5	0.000	7.3	11.0
4	29.858	39.5	27.1	12.4	33.5	- 7.2	29.7	22.8	10.7	19.8	4.0	61	89.5	21.1	42.4	0.000	5.5	11.1
5	30.168	41.1	29.0	12.1	35.2	- 5.7	32.2	26.9	8.3	14.6	3.2	69	99.9	22.0	42.2	0.000	1.7	11.2
6	30.368	43.3	22.7	20.6	33.7	- 7.3	30.7	25.5	8.2	18.7	2.2	70	65.9	15.3	42.1	0.000	0.3	11.2
7	30.437	45.8	31.4	14.4	37.1	- 3.9	34.2	29.2	7.9	22.2	2.4	72	96.2	19.2	42.0	0.000	3.5	11.3
8	30.497	49.2	32.4	16.8	38.4	- 2.7	35.7	31.1	7.3	20.8	1.4	75	104.4	25.2	42.0	0.000	6.8	11.3
9	30.349	43.0	29.5	13.5	37.6	- 3.4	35.6	32.3	5.3	8.8	2.5	81	61.9	19.0	42.0	0.000	0.0	11.4
10	30.114	47.0	29.8	17.2	39.9	- 1.0	37.9	34.9	5.0	6.7	1.3	82	63.7	24.8	42.0	0.000	0.0	11.5
11	29.872	49.7	38.5	11.2	44.4	+ 3.4	41.2	36.7	7.7	11.3	3.7	74	70.3	27.0	42.0	0.001	0.1	11.6
12	29.794	54.7	40.0	14.7	45.9	+ 4.8	43.0	39.2	6.7	10.5	2.2	77	73.7	28.0	42.1	0.001	0.0	11.6
13	29.526	49.3	38.0	11.3	45.3	+ 4.0	40.2	32.4	12.9	27.9	5.5	61	94.2	29.2	42.1	0.036	5.3	11.7
14	29.654	43.2	35.9	7.3	39.7	- 1.8	35.9	29.5	10.2	11.6	8.1	66	60.5	27.1	42.3	0.000	0.0	11.8
15	29.879	47.0	29.7	17.3	38.6	- 3.1	34.0	25.9	12.7	23.0	1.7	58	87.5	18.0	42.4	0.000	4.9	11.8
16	29.911	46.4	29.8	16.6	39.8	- 2.1	37.4	33.6	6.2	10.9	2.1	78	67.7	19.0	42.5	0.000	0.2	11.9
17	30.053	50.6	36.7	13.9	42.7	+ 0.7	41.0	38.6	4.1	8.8	0.4	85	67.3	24.9	42.4	0.000	0.0	12.0
18	30.085	54.0	36.6	17.4	45.4	+ 3.4	41.6	36.2	9.2	14.1	2.8	70	95.4	25.0	42.5	0.000	1.3	12.0
19	29.960	52.3	40.4	11.9	46.9	+ 5.0	42.4	36.3	10.6	18.4	3.3	66	97.3	31.0	42.8	0.022	1.8	12.1
20	30.041	49.4	37.5	11.9	44.5	+ 2.6	40.8	35.4	9.1	14.0	3.8	70	83.3	27.9	42.6	0.000	0.6	12.1
21	29.930	48.0	39.7	8.3	44.2	+ 2.3	41.1	36.7	7.5	10.1	4.3	75	59.6	33.0	42.7	0.001	0.0	12.2
22	29.906	47.9	34.0	13.9	40.6	- 1.4	36.6	29.9	10.7	19.7	1.9	65	102.3	22.3	43.0	0.000	5.6	12.3
23	30.029	53.0	33.0	20.0	42.3	+ 0.1	38.2	31.6	10.7	20.6	0.8	66	98.5	21.1	43.0	0.000	5.3	12.3
24	30.150	56.3	34.2	22.1	44.6	+ 2.2	40.8	35.1	9.5	19.0	1.3	69	101.5	24.0	43.1	0.000	2.7	12.4
25	30.279	61.2	34.2	27.0	47.3	+ 4.6	43.4	38.4	8.9	16.9	0.6	70	105.1	22.1	43.2	0.000	3.1	12.5
26	30.187	68.4	38.7	29.7	52.4	+ 9.4	44.7	33.9	18.5	34.5	3.4	49	112.3	24.6	43.5	0.000	10.5	12.6
27	30.125	55.0	34.6	20.4	44.8	+ 1.5	42.7	39.9	4.9	10.2	0.0	83	107.3	19.9	43.4	0.000	5.5	12.6
28	29.907	60.2	40.6	19.6	48.0	+ 4.3	44.6	40.3	7.7	16.8	1.0	74	104.2	24.0	43.5	0.000	5.0	12.7
29	29.593	46.7	37.2	9.5	41.8	- 2.3	40.0	37.5	4.3	8.6	0.7	84	52.5	28.4	43.6	0.006	0.0	12.7
30	29.531	48.5	33.6	14.9	39.8	- 4.7	35.8	29.0	10.8	24.2	1.9	65	118.8	21.7	43.8	0.019	5.5	12.8
31	29.739	48.5	29.6	18.9	39.4	- 5.5	35.7	29.5	9.9	23.3	0.0	66	108.5	17.7	44.0	0.000	5.3	12.9
Means	29.961	49.2	33.8	15.4	41.4	- 0.5	37.9	32.4	9.0	17.2	2.4	69.9	86.7	23.7	42.7	Sum 0.108	3.1	11.9
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic 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 Psychrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

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

The mean reading of the Barometer for the month was 29.961 in., being 0.208 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 68° 4 on March 26; the lowest in the month was 22° 7 on March 6; and the range was 45° 7.

The mean of all the highest daily readings in the month was 49° 2, being the same as the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 33° 8, being 1° 8 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 15° 4, being 1° 8 greater than the average for the 65 years, 1841-1905.

The mean for the month was 41° 4, being 0° 5 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		S URSAE MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
hours		hours				lbs.	lbs.	miles	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>	
Mar. 1	5.9	0.54	5.5	0.50	WSW:W:W	NW:WSW	3.0	0.20	298	c r c	c St Ast Stcu	c Stcu b y	b c
2	10.8	0.98	10.7	0.97	NW:W:W	NW:W:W:WSW	5.6	0.31	358	c prs bc	bc Frcu Prst y	bc Stcu Cu b y	b
3	7.6	0.69	7.3	0.67	WSW:NNW	NW:NNW	3.0	0.30	319	b x	b bc Stcu Cu y	bc Cu b y	b
4	2.6	0.25	2.2	0.21	NW:NNW	NNW:WSW	4.2	0.27	318	b c b x	b bc Cicu y	bc c y	c bc c
5	8.8	0.84	8.6	0.82	WSW:Cal:m:NNE	NE:Cal:m	0.2	0.00	115	c so c m	c Nbst Cu Ci y	c Cu Ci Stcu y	c b c x
6	7.5	0.72	5.2	0.49	Cal:m	NE:Cal:m	0.3	0.01	76	b x m	b c Stcu m f c y	c Stcu y	c b
7	8.3	0.79	8.3	0.79	Cal:m:NNE	NE	2.3	0.17	248	c	c so c Ast Prst Stcu	b Acu c y	b c b
8	0.0	0.00	0.0	0.00	NE:NNE	NNE:NE	3.0	0.29	358	b x	b Acu Cu mo b y	b Ci bc c Cu Frcu	c
9	5.6	0.53	4.6	0.44	NNE:NE	NNE:Cal:m	1.5	0.11	232	c	c Stcu St	c b m	b x c m
10	3.9	0.38	1.1	0.10	Cal:m:NW:N	N:Cal:m	1.0	0.04	137	c m	c Stcu St m	c St do c Stcu Cu mo	c x
11	2.0	0.20	1.8	0.18	WSW:W	NW:NNE	4.0	0.25	313	c bc mo	c Stcu Prst	c Stcu Cu Ci Acu	c ro bc
12	0.7	0.07	0.3	0.03	NNW:Cal:m:W	W:WSW	1.7	0.15	260	c bc c m	c Nbst do c St m	c b m	b c
13	8.7	0.87	7.8	0.78	WSW:W	NW	14.0	1.83	618	c	c q r i r o Frcu Stcu Ci y	ro c Nbst bc Stcu b q y	b
14	7.1	0.71	6.7	0.67	W:W	NW:N:NNE	3.2	0.33	304	b c	c Stcu Cu c Nbst ro	c Nbst ro so	c b
15	10.0	1.00	10.0	1.00	NNW:Cal:m	WSW:SW	0.6	0.04	155	b m x	b c Stcu Cu zo y	c Cicu Acu Cu b y	b m b
16	3.9	0.39	3.0	0.30	SW:WSW	SW:WSW	0.4	0.04	191	b x	c Stcu Ast Nbst mo	do c Stcu mo	c mo
17	9.1	0.91	7.8	0.78	WSW:Cal:m	Cal:m:SW	0.1	0.00	137	c b f x	o St ff	b ff	b ff m
18	0.0	0.00	0.0	0.00	SW:WSW	WSW:SW	4.2	0.23	291	b bc m x	bc Cist Ci mo so-ha y	bc Cist c y	c
19	9.7	1.00	9.7	1.00	WSW:NNW	NW:W:W	2.8	0.32	324	c	c Nbst ro c d bc Ci Acu y	bc Ci Cist Acu y	b
20	0.6	0.06	0.5	0.05	W:W	W:W	3.0	0.28	313	b x mo	b bc Ci Frcu c Ast	c Ast Nbst iro	c ro c
21	5.2	0.53	4.5	0.46	NNW:N	NNW:N	2.5	0.17	241	c	c Ast Nbst iro	c Ast Nbst iro c	c
22	3.7	0.38	3.0	0.31	NNE:N	NNE:NE	0.8	0.07	178	c b x	b bc c Cu Frcu y	c Stcu Cu y	c b c
23	8.5	0.87	7.2	0.74	Cal:m	Cal:m:SW	0.2	0.01	94	c x	c Acu Stcu b Ci y	bc Cicu Ci brhm so-ha y	bc b
24	8.1	0.83	7.4	0.76	SW:WSW	NW:Cal:m	0.4	0.02	162	b x m	b Acu f c Stcu y	c Stcu bc y	b m
25	8.7	0.97	8.6	0.96	Cal:m	Cal:m:SSW	0.5	0.02	98	b c b x f	b f zo bc Cist y	bc so-ha c zo y	bc b
26	9.0	1.00	9.0	1.00	SW:WSW	NE	0.3	0.05	203	b f	b f z y	b zo b y	b y b
27	4.1	0.46	3.5	0.39	Cal:m	E:Cal:m	0.2	0.01	80	b x m	b St fe f b Cu	b Ci Frcu	b x c m
28	7.5	0.83	7.4	0.82	Cal:m:SW	WSW	0.5	0.05	165	c x f	o St f b m	b Ci zo y	b m
29	0.0	0.00	0.0	0.00	WSW:NE:ENE	E:Cal:m:ENE	1.3	0.04	172	b o ido	o c Nbst m mo	c Stcu Prst	c i r ro
30	7.4	0.83	7.4	0.82	NE	NE:Cal:m	1.2	0.10	201	ir ro c	c bc Cu y	bc Cu y	b
31	4.0	0.44	3.5	0.39	Cal:m:NNW	NNW:Cal:m	0.7	0.05	141	b mo	c Cu Stcu y	bc c Stcu y	c do b
Means	5.8	0.58	5.2	0.53	..	..	..	0.19	229				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 37°.9, being 1°.5 lower than  
 The mean *Temperature of the Dew Point* for the month was 32°.4, being 3°.2 lower than  
 The mean *Degree of Humidity* for the month was 69.9, being 8.2 less than  
 The mean *Elastic Force of Vapour* for the month was 0.183 in., being 0.026 in. 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 0.257. The maximum daily amount of *Sunshine* was 10.5 hours on March 28.  
 The highest reading of the *Solar Radiation Thermometer* was 118°.8 on March 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°.3 on March 6.  
 The *Proportions of Wind* referred to the cardinal points were N.28, E.9, S.9, W.30, calm or nearly calm conditions 24, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 14.0 lbs. on the square foot on March 13. The mean daily *Horizontal Movement of the Air* for the month was 229 miles; the greatest daily value was 618 miles on March 13, and the least daily value was 76 miles on March 6.  
*Rain* (0.005 in. or over) fell on 6 days in the month, amounting to 0.108 in., as measured by gauge No. 6 partly sunk below the ground; being 1.412 in. less than the average fall for the 65 years, 1841-1905.



TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature	Degree of Humidity (saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon		
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point			Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years					Highest in Sun's Rays	Lowest on the Grass						
	in.	°	°	°	°	°	°	°	°	°	°	°	°	in.	hours	hours		
Apr. 1	29.915	47.6	33.1	14.5	39.6	- 5.7	36.9	32.4	7.2	15.8	1.1	76	73.7	20.6	44.0	0.020	0.0	12.9
2	29.590	57.0	37.0	20.0	46.3	+ 0.6	44.3	41.9	4.4	10.7	1.1	84	85.8	35.4	44.0	0.193	0.0	13.0
3	29.279	59.4	48.7	10.7	53.2	+ 7.2	50.6	48.0	5.2	8.4	1.6	83	103.4	42.3	44.0	0.453	0.4	13.1
4	29.453	60.7	49.0	11.7	52.8	+ 6.6	50.3	47.8	5.0	11.7	0.8	83	98.6	41.7	44.0	0.047	1.6	13.1
5	29.726	59.2	49.3	9.9	53.6	+ 7.3	50.4	47.2	6.4	13.4	2.8	79	103.7	41.4	44.3	0.007	0.7	13.2
6	29.974	51.0	42.0	9.0	47.5	+ 1.2	45.4	43.0	4.5	6.8	2.3	84	85.3	39.2	44.6	0.000	0.0	13.3
7	29.954	48.9	39.8	9.1	43.3	- 3.0	41.5	39.0	4.3	9.6	1.2	85	91.8	35.3	44.9	0.000	1.3	13.3
8	29.702	59.6	38.3	21.3	48.5	+ 2.4	45.9	42.9	5.6	13.0	1.2	80	114.8	33.8	45.1	0.000	5.1	13.4
9	29.613	59.8	46.5	13.3	52.6	+ 6.6	49.2	45.6	7.0	20.2	0.9	77	97.8	35.0	45.4	0.029	3.6	13.4
10	29.885	59.6	41.6	18.0	49.8	+ 3.0	46.2	41.9	7.9	18.8	0.9	74	117.7	29.1	45.6	0.000	4.0	13.5
11	29.855	60.9	43.4	17.5	50.2	+ 4.4	47.0	43.3	6.9	16.7	1.6	77	112.8	32.1	45.6	0.062	2.7	13.6
12	29.755	66.2	39.3	26.9	50.6	+ 4.7	45.6	39.3	11.3	23.6	0.9	65	126.3	27.0	46.0	0.000	7.4	13.7
13	29.648	58.1	42.3	15.8	51.1	+ 5.0	47.4	43.2	7.9	15.5	2.1	74	88.3	31.4	46.0	0.018	0.8	13.7
14	29.530	64.2	40.4	23.8	51.9	+ 5.5	47.3	42.0	9.9	21.2	1.2	69	119.8	29.5	46.1	0.009	3.8	13.8
15	29.379	58.1	45.2	12.9	51.6	+ 4.8	49.9	48.2	3.4	8.1	0.8	88	86.9	32.1	46.3	0.070	0.4	13.8
16	29.328	51.9	47.5	4.4	49.3	+ 2.1	48.7	48.1	1.2	3.8	0.0	96	64.3	43.2	46.4	0.327	0.0	13.9
17	29.644	51.0	45.7	5.3	48.1	+ 0.5	45.7	43.0	5.1	8.2	2.0	82	77.8	39.4	46.5	0.000	0.0	14.0
18	29.898	58.4	37.5	20.9	48.0	- 0.0	43.2	36.7	11.3	20.8	2.4	65	119.6	26.5	46.8	0.000	9.8	14.0
19	29.918	62.2	35.3	26.9	48.4	+ 0.1	44.0	38.3	10.1	18.8	1.2	68	125.8	24.0	47.0	0.200	9.0	14.1
20	29.885	59.0	46.6	12.4	52.8	+ 4.3	47.3	40.7	12.1	22.2	3.2	64	116.2	35.0	47.0	0.075	7.9	14.2
21	30.129	61.2	39.9	21.3	52.6	+ 3.9	47.6	41.9	10.7	19.6	1.2	67	123.7	27.4	47.1	0.000	4.8	14.2
22	30.288	68.0	46.9	21.1	55.6	+ 6.9	48.3	39.7	15.9	33.4	4.8	55	115.3	36.3	47.4	0.000	12.1	14.3
23	30.247	70.1	42.8	27.3	56.4	+ 7.8	50.8	45.0	11.4	19.9	3.8	65	128.7	31.0	47.8	0.000	8.2	14.4
24	30.147	61.5	48.1	13.4	54.4	+ 5.8	49.8	45.0	9.4	13.4	2.3	70	100.9	37.6	47.8	0.000	2.0	14.4
25	30.273	58.6	44.8	13.8	51.5	+ 2.9	45.0	36.6	14.9	21.7	7.5	56	116.0	33.6	48.0	0.000	8.1	14.5
26	30.417	61.8	43.0	18.8	51.9	+ 3.3	45.5	37.3	14.6	21.5	5.4	57	121.8	29.3	48.1	0.000	8.3	14.5
27	30.280	71.3	40.8	30.5	56.6	+ 7.9	49.0	40.2	16.4	32.9	2.0	54	129.3	27.1	48.5	0.000	12.4	14.6
28	30.201	58.8	44.3	14.5	51.8	+ 3.0	46.6	40.3	11.5	23.0	3.4	65	118.1	28.0	48.6	0.000	6.7	14.7
29	30.206	60.0	46.0	14.0	53.1	+ 4.1	48.5	43.4	9.7	14.0	4.5	70	111.5	40.0	48.6	0.000	1.3	14.7
30	30.122	72.3	45.5	26.8	59.6	+10.5	51.4	42.6	17.0	31.7	3.7	54	131.3	34.8	49.0	0.000	10.9	14.8
Means	29.875	59.9	43.0	16.9	51.1	+ 3.8	47.0	42.2	8.9	17.3	2.3	72.2	106.9	33.3	46.3	Sum 1.510	4.4	13.9
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the Barometer for the month was 29.875 in., being 0.120 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 72° 3 on April 30; the lowest in the month was 33° 1 on April 1; and the range was 39° 2.

The mean of all the highest daily readings in the month was 59° 9, being 3° 8 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 45° 0, being 3° 5 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 16° 9, being 0° 3 greater than the average for the 65 years, 1841-1905.

The mean for the month was 51° 1, being 3° 8 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSAE MINORIS		OSLER'S				Robin-son's				
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
Apr. 1	0.0	0.00	0.0	0.00	Cal <sup>m</sup> :SE	S:SSE	1.7	0.07	165	b bc c m	c St Ast m	c St Ast y	c r o r
2	..	..	..	..	SE:S	SSW:Cal <sup>m</sup> :SE	1.2	0.09	194	r o r r	c St	c so-ha c Ast	c
3	0.0	0.00	0.0	0.00	SSE:S:SSW	SSW:Cal <sup>m</sup> :WSW	3.2	0.14	239	c r c	c Nb <sup>st</sup> i r o	i r o c Nb <sup>st</sup> Ast Cu r o r	r r c
4	2.0	0.24	1.8	0.21	WSW:SW	SW	3.7	0.26	351	c r r o c	c Nb <sup>st</sup> Ast Stcu p	c Acu Nb <sup>st</sup> p	c
5	0.4	0.05	0.3	0.04	WSW:W	W	2.2	0.19	304	c	c Fr <sup>st</sup> Nb <sup>st</sup> p o	c	p o c r c
6	0.0	0.00	0.0	0.00	NW:NNW:N	NE:E	1.0	0.09	186	c m o	c Nb <sup>st</sup> St m o	c m o	c m o
7	1.8	0.22	1.3	0.15	E	E:ENE	2.7	0.20	246	c o m o	o m o o St	o bc c	c
8	5.2	0.65	4.9	0.62	E:ENE	E:Cal <sup>m</sup>	1.6	0.13	205	c m	c bc Cist so-ha m	b Cist c Acu	c bc
9	8.0	1.00	8.0	1.00	Cal <sup>m</sup> :SSW	SW:WSW	3.0	0.27	284	b c	r o c Cu Acu	c Acu r c Cu bc	b
10	5.3	0.66	5.2	0.65	WSW	SW:SSW	2.0	0.19	257	b m	b m c Cu Acu Stcu y	c Cu Ci p o c y	c b
11	8.0	1.00	8.0	1.00	Cal <sup>m</sup> :SW	SW:SSW	1.2	0.05	159	b c	c Acu Stcu Nb <sup>st</sup> i r o c p	c Acu Cu bc y	b
12	3.6	0.45	3.1	0.39	Cal <sup>m</sup> :SE	SE:ESE:ENE	1.7	0.12	163	b x bc	bc Cist Acu so-ha br <sup>h</sup> n y	bc Cu Cist br <sup>h</sup> n c b y	b c
13	7.7	0.97	7.5	0.94	ENE:Cal <sup>m</sup>	SW:SSW	0.7	0.03	157	c b bc	bc Cist Acu so-ha c	c Stcu Ast Nb <sup>st</sup> r r o c	bc b
14	2.4	0.30	2.3	0.29	SSE:SSW	S:SSE	3.5	0.14	214	b bc	bc c Ci Cicu Acu Cu y	c Ast Nb <sup>st</sup> y i r o	c
15	0.3	0.03	0.0	0.00	S:Cal <sup>m</sup>	Cal <sup>m</sup>	0.4	0.02	117	b c bc	c Ast so-ha c Nb <sup>st</sup>	c r r c	c
16	0.1	0.01	0.0	0.00	Cal <sup>m</sup> :NE	N:NNW	1.0	0.07	164	l d o m f	l d o r R f m	r c m r r c m o	c m o
17	0.0	0.00	0.0	0.00	Cal <sup>m</sup> :NNE	NNE	1.0	0.07	175	c m o	c m o Stcu	c St Stcu	c
18	7.4	0.99	7.4	0.99	NNE:ENE	ESE:Cal <sup>m</sup>	0.6	0.04	143	c	c b Fr <sup>cu</sup> y	b Fr <sup>cu</sup> y	b
19	0.0	0.00	0.0	0.00	Cal <sup>m</sup> :SSW	SSW	5.0	0.43	298	b x W	b bc Ci Acu y	bc Ci Acu c Ast br <sup>h</sup> n y	c r r
20	7.4	0.98	7.4	0.98	SW:W:NW	NW	3.0	0.37	303	r r r o c	bc Cu. Fr <sup>cu</sup> y	bc c Cu Stcu bc y	bc b
21	2.9	0.39	2.7	0.36	SW:WSW	WSW:W	3.2	0.30	301	b w bc br <sup>h</sup> n	bc Ci Acu so-ha y	c Ast p o c y	c
22	..	..	..	..	NW:NNW	WSW:SSW	1.4	0.10	183	c b w	b Ci z o y	b z o y	br <sup>h</sup> n b
23	6.6	0.95	6.3	0.90	WSW:W	W:SW	0.7	0.06	185	b	bc Ci so-ha y	bc Cist br <sup>h</sup> n so-ha y	bc
24	6.8	0.97	6.8	0.97	SW:WSW	NNW:NW	4.7	0.42	311	bc c w	c Cist Stcu Fr <sup>cu</sup> so-ha	c Acu Stcu Cumb	bc b
25	1.0	0.14	0.9	0.12	NNW:N	NNW:NE	4.3	0.42	287	b	b bc Stcu Cu Ci c y	c Cu Stcu y	c b c
26	7.0	1.00	7.0	1.00	N:NNE	NNE:ESE:S	2.3	0.15	205	c	c Stcu bc y	bc Stcu Cu b y	b
27	3.4	0.49	3.3	0.47	SW:Cal <sup>m</sup>	NNW:N	2.2	0.20	225	b w b z	b z y	b y	b c
28	0.9	0.13	0.8	0.12	N	NNE:Cal <sup>m</sup>	1.8	0.16	220	c b c	c Stcu Fr <sup>st</sup> y	c Stcu Fr <sup>st</sup> y	c b c
29	5.2	0.80	4.9	0.75	Cal <sup>m</sup> :N	NW:W	0.6	0.05	165	c	c Acu Ci c Stcu y	c Stcu bc	bc b
30	6.5	1.00	6.5	1.00	W:NW	NW:W	1.5	0.13	241	b	bc Ci z o bc y	bc Ci b y	b y b
Means	3.6	0.48	3.4	0.46	..	..	..	0.17	222				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 47°.0, being 3°.1 higher than  
 The mean *Temperature of the Dew Point* for the month was 42°.2, being 2°.6 higher than  
 The mean *Degree of Humidity* for the month was 72.2, being 2.3 less than  
 The mean *Elastic Force of Vapour* for the month was 0.270 in., being 0.026 in. greater than } the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.320. The maximum daily amount of *Sunshine* was 12.4 hours on April 27.

The highest reading of the *Solar Radiation Thermometer* was 131°.3 on April 30; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20°.6 on April 1.

The *Proportions of Wind* referred to the cardinal points were N.19, E.16, S.22, W.26, calm or nearly calm conditions 17, the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 5.0 lbs. on the square foot on April 19. The mean daily *Horizontal Movement of the Air* for the month was 222 miles; the greatest daily value was 351 miles on April 4, and the least daily value was 117 miles on April 15.

*Rain* (0.005 in. or over) fell on 13 days in the month, amounting to 1.510 in., as measured by gauge No.6 partly sunk below the ground; being 0.056 in. less than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Great-est	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years							Highest in Sun's Rays	Lowest on the Grass				
May 1	30.028	69.6	47.4	22.2	58.7	+ 9.4	52.3	45.9	12.8	21.7	2.6	62	127.4	34.8	49.0	0.000	10.2	14.8
2	29.778	73.9	46.3	27.6	59.4	+ 9.9	51.7	43.6	15.8	35.0	3.3	56	129.6	37.6	49.1	0.000	10.1	14.9
3	29.744	60.2	46.0	14.2	53.8	+ 4.0	45.6	34.5	19.3	31.5	8.6	48	125.3	33.0	49.3	0.000	12.0	14.9
4	29.669	54.4	36.3	18.1	47.2	- 2.8	43.0	37.5	9.7	21.9	3.3	68	95.3	21.3	49.4	0.012	0.3	15.0
5	29.380	60.5	40.8	19.7	49.0	- 1.3	44.5	38.8	10.2	27.4	3.8	68	114.8	33.2	49.4	0.123	6.9	15.1
6	29.843	50.9	38.2	12.7	45.8	- 4.7	41.3	34.8	11.0	20.1	3.8	65	102.8	26.0	49.5	0.000	2.1	15.1
7	30.190	55.0	34.0	21.0	44.7	- 6.0	39.4	30.9	13.8	25.1	2.8	58	127.6	21.6	49.8	0.000	12.4	15.2
8	30.261	61.9	29.8	32.1	46.6	- 4.4	40.9	32.3	14.3	27.4	0.4	57	128.1	15.3	49.7	0.000	12.8	15.2
9	30.235	67.0	32.4	34.6	51.1	- 0.1	43.0	31.0	20.1	38.8	1.8	46	134.1	19.1	49.5	0.000	12.5	15.3
10	30.086	67.9	39.7	28.2	54.7	+ 3.2	46.9	36.9	17.8	37.5	2.5	51	115.5	24.7	49.6	0.000	5.0	15.3
11	30.052	76.3	42.0	34.3	60.0	+ 8.2	52.9	45.8	14.2	24.8	2.0	59	134.3	30.6	49.6	0.000	12.2	15.4
12	29.911	77.5	47.9	29.6	62.6	+10.5	54.2	46.1	16.5	29.6	2.6	55	136.5	32.5	50.0	0.000	11.9	15.5
13	29.811	76.4	45.7	30.7	58.3	+ 5.9	51.6	44.7	13.6	30.8	2.0	61	131.1	31.4	50.0	0.070	6.1	15.5
14	30.104	57.4	40.5	16.9	50.1	- 2.5	45.2	39.2	10.9	22.4	3.6	66	127.0	30.5	50.1	0.000	6.8	15.6
15	30.200	51.5	36.7	14.8	44.1	- 8.7	39.0	30.7	13.4	21.3	5.5	59	113.7	26.8	50.0	0.000	4.9	15.6
16	29.948	49.4	40.5	8.9	43.2	- 9.8	40.6	36.9	6.3	12.0	1.1	79	95.7	36.7	50.0	0.249	0.7	15.7
17	29.858	55.0	39.5	15.5	44.4	- 8.7	42.4	39.8	4.6	18.2	1.0	84	116.2	32.4	50.2	0.141	1.8	15.7
18	29.864	55.7	39.7	16.0	47.4	- 5.9	44.0	39.7	7.7	13.1	1.2	74	110.8	31.0	50.0	0.007	3.0	15.7
19	29.797	59.0	35.4	23.6	48.0	- 5.5	44.0	38.8	9.2	19.9	0.8	70	98.3	25.4	50.0	0.000	3.1	15.8
20	29.712	62.5	36.0	26.5	49.7	- 4.1	44.6	38.1	11.6	24.0	1.6	64	122.3	24.6	50.2	0.000	8.2	15.8
21	29.730	55.3	41.4	13.9	47.6	- 6.6	43.4	37.9	9.7	15.7	4.6	69	95.3	35.2	50.2	0.000	4.2	15.9
22	29.998	61.1	40.2	20.9	51.3	- 3.3	45.4	37.8	13.5	24.6	3.5	60	118.6	33.7	50.0	0.000	8.7	15.9
23	30.070	59.3	45.3	14.0	52.2	- 2.7	47.1	41.2	11.0	17.0	3.4	66	107.3	34.0	50.1	0.000	0.9	16.0
24	30.098	69.0	40.6	28.4	55.0	- 0.3	48.4	40.7	14.3	25.5	1.0	59	126.9	27.1	50.2	0.000	9.1	16.0
25	30.037	64.5	45.1	19.4	55.2	- 0.3	50.9	46.6	8.6	12.5	4.6	73	108.1	35.4	50.2	0.000	0.9	16.1
26	30.069	74.6	54.6	20.0	62.5	+ 6.7	57.7	53.8	8.7	16.9	1.8	73	129.3	44.6	50.4	0.000	6.0	16.1
27	30.185	81.8	54.2	27.6	66.3	+10.3	58.9	53.0	13.3	31.4	1.8	62	139.2	42.0	50.8	0.000	10.9	16.2
28	30.165	82.0	50.6	31.4	65.2	+ 9.0	59.4	54.9	10.3	20.2	0.6	70	137.0	35.4	51.1	0.000	12.8	16.2
29	30.040	89.3	56.5	32.8	73.1	+16.7	64.7	59.1	14.0	29.2	1.3	62	143.3	44.7	51.4	0.012	12.0	16.2
30	29.947	85.8	58.5	27.3	70.3	+13.6	62.3	56.5	13.8	26.2	1.6	62	138.8	38.3	51.6	0.000	11.5	16.2
31	29.871	72.8	54.0	18.8	62.7	+ 5.6	56.4	50.9	11.8	20.2	3.2	66	131.9	37.6	52.0	0.000	10.9	16.3
Means	29.957	65.7	43.1	22.6	54.2	+ 1.1	48.4	41.9	12.3	23.9	2.6	63.6	121.4	31.5	50.1	Sum 0.614	7.5	15.6
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the Barometer for the month was 29.957 in., being 0.156 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 89° 3 on May 29; the lowest in the month was 29° 8 on May 8; and the range was 59° 5.

The mean of all the highest daily readings in the month was 65° 7, being 3° 5 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 43° 1, being 1° 1 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 22° 6, being 4° 6 greater than the average for the 65 years, 1841-1905.

The mean for the month was 54° 2, being 1° 1 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSAE MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Move-ment of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
May 1	4.3	0.65	3.3	0.52	W: SW:WNW	WNW: WSW	1.5	0.11	222	b	b Ci Cu y	bc Cist Prcu so-ha y	bc lu-ha
2	2.7	0.41	2.2	0.33	WSW	WSW	9.5	1.54	514	c	c b Cicu Acu y	b Ci Cist y q	b c q
3	6.4	0.98	5.8	0.89	WSW: W: NW	NW: NNW	6.5	1.10	445	c q c p o	bc Cu Stcu y	bc Cu Prcu b y	b y c
4	6.5	1.00	6.5	1.00	Calm: SW	SSW: WSW	7.0	0.35	286	c b bc	c Cist Acu Ast so-ha y	c Ast Nbst 1ro	q r b
5	1.2	0.18	1.1	0.17	WSW: SW	WSW: NW	10.5	1.16	508	b	c Cu Nbst Cumb y t l r	t l h r Cumb Nbst c q y	c d o q c
6	6.0	1.00	6.0	1.00	NNW: NNE	NNE: NE	4.5	0.57	346	c	c Acu Stcu Nbst Cumb y	c Cumb Stcu Acu ro c y	c b
7	6.0	1.00	6.0	1.00	N: NE	NE: ESE: Calm	0.7	0.05	157	b x	b bc b Cu Acu Stcu y	b y	b
8	6.0	1.00	6.0	1.00	S: Calm	SE: ESE: S	1.1	0.03	129	b x	b Ci y	b Ci bc so-ha prhn y	b
9	6.0	1.00	6.0	1.00	Calm	SE: Calm	0.3	0.01	97	b x	b bc Ci so-ha b y	b so-ha Ci y	b
10	5.7	0.94	5.7	0.94	Calm	NW: N: Calm	0.6	0.03	130	b x c	c Acu Cicu zo y	c Acu b y	b bc b
11	6.0	1.00	6.0	1.00	Calm: SW	Calm: SSW	0.3	0.01	125	b zo	b zo b y	b y	b
12	6.0	1.00	5.9	0.98	Calm	SSW: Calm	0.4	0.01	99	b	b Ci y	b Prcu Ci bc so-ha y	bc
13	0.0	0.00	0.0	0.00	Calm	Calm: NNE	5.2	0.27	175	bc	bc b Ci c Cist so-ha y	c Nbst r t 1ro	c r r c
14	5.5	1.00	5.5	1.00	NNE	NNE: NE	5.0	0.66	378	c	c St bc Prcu y	bc Prcu Cu y	b
15	0.0	0.00	0.0	0.00	NNE: N	NNE	3.3	0.23	268	b	b c Cu Stcu y	c Stcu Acu Cu Nbst y	c
16	0.7	0.12	0.0	0.00	NW: W: WNW	Var: Calm	1.8	0.05	161	c	c Nbst Stcu ro c 1r	1r c Cist Cu Acu so-ha 1r	c
17	2.0	0.36	2.0	0.36	E: NE	E: NE	3.2	0.18	246	c 1r	1r c Cumb Nbst	c Nbst Cumb ro c P H c	c t c
18	5.4	0.98	5.4	0.98	NE: NNE	NE: ESE: Calm	0.9	0.05	184	c b c	c Stcu Cu Nbst	c Stcu Cumb Ci p c	c b
19	5.5	1.00	5.5	1.00	Calm	Calm: SSW	0.7	0.02	96	b x	b c Stcu Cumb f c zo y	c Stcu y	c b
20	1.7	0.33	1.5	0.31	Calm: NE	NNE: ENE	3.0	0.18	206	b x	b bc Prcu zo y	c bc b y	c b c
21	0.0	0.00	0.0	0.00	NNE	NNE	3.5	0.49	373	c b	b c Stcu Cu	c ro c	c
22	1.0	0.21	1.0	0.20	N: NNE	NNW: Calm	1.7	0.11	187	c b c	b Prcu bc Cu Stcu y	bc Cu Prcu c b c y	c
23	4.0	0.80	3.8	0.76	NNW: N	Calm: SSW	0.8	0.04	156	c bc c	c Acu Stcu y	c y	c b bc
24	5.0	1.00	5.0	1.00	SW: Calm: WSW	SW: WSW	2.2	0.18	219	bc b	b c Stcu Cu zo y	c bc Cu Stcu y	bc b
25	0.0	0.00	0.0	0.00	WSW: SW	SW	4.5	0.54	366	b bc prhn	c Ast Acu so-ha 1ro	c Ast Stcu	c
26	3.0	0.59	2.9	0.57	SW: WSW	SW	3.6	0.47	356	1do	1do c Stcu Nbst	c Stcu St Cicu Acu b y	b
27	4.7	1.00	4.7	1.00	SW: Calm	Calm: NE	0.2	0.03	138	c	c b Ci y	b y	b
28	4.7	1.00	4.7	1.00	Calm	E: Calm	1.4	0.08	152	b m	b Ci zo y	b Ci zo bc y	bc b
29	4.7	1.00	4.7	1.00	Calm	Calm: NNE	1.2	0.02	103	b	b	b Cu Prcu	c t l p b
30	4.7	1.00	4.7	1.00	Calm: NNE	NE: E: Calm	1.0	0.05	148	b	b Ci zo y	b Ci y	bc b
31	2.8	0.60	2.7	0.57	NE: ENE	E	2.6	0.23	248	b	b Ci zo bc Acu Cicu y	bc c bc Cist Cicu y	bc c
Means	3.8	0.68	3.7	0.66	..	..	..	0.29	233				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 48°.4, being 0°.6 lower than  
 The mean *Temperature of the Dew Point* for the month was 41°.9, being 2°.9 lower than  
 The mean *Degree of Humidity* for the month was 63.6, being 10.3 less than  
 The mean *Elastic Force of Vapour* for the month was 0.267 in., being 0.031 in. less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5.1.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.477. The maximum daily amount of *Sunshine* was 12.8 hours on May 8 and 28.  
 The highest reading of the *Solar Radiation Thermometer* was 143°.3 on May 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°.3 on May 8.  
 The *Proportions of Wind* referred to the cardinal points were N.24, E.14, S.13, W.19, calm or nearly calm conditions 30, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 10.5 lbs. on the square foot on May 5. The mean daily *Horizontal Movement of the Air* for the month was 233 miles; the greatest daily value was 514 miles on May 2, and the least daily value was 96 miles on May 19.  
*Rain* (0.005 in. or over) fell on 7 days in the month, amounting to 0.614 in., as measured by gauge No.6 partly sunk below the ground; being 1.301 in. less than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature	Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the ground	Daily Duration of Sun-shine	Sun above Horizon		
		Of the Air					Of Evaporation	Of the Dew Point			Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years					Mean of 24 Hourly Values	Deducted Mean Daily Value					Mean	Greatest
June 1	29.732	68.4	50.8	17.6	59.6	+ 2.2	55.4	51.7	7.9	18.6	1.8	75	125.6	41.0	52.2	0.016	1.3	16.3
2	29.899	68.4	53.3	15.1	61.0	+ 3.2	52.5	43.7	17.3	31.6	6.8	53	127.3	50.0	52.5	0.000	11.9	16.4
3	29.937	72.2	52.3	19.9	62.0	+ 3.9	54.5	47.5	14.5	27.5	2.6	59	123.3	42.2	52.8	0.000	3.2	16.4
4	29.734	73.3	52.9	20.4	61.1	+ 2.8	53.7	46.5	14.6	29.0	5.7	59	139.8	47.4	53.0	0.020	5.7	16.4
5	29.617	64.2	49.1	15.1	56.7	- 1.7	51.0	45.1	11.6	18.1	4.2	65	119.0	41.6	53.0	0.000	3.4	16.4
6	29.586	58.6	49.0	9.6	53.3	- 5.0	47.0	39.3	14.0	22.7	4.6	59	116.9	41.9	53.2	0.070	4.4	16.5
7	29.642	58.4	49.3	9.1	54.1	- 4.1	49.2	43.9	10.2	13.9	5.3	69	84.3	46.0	53.2	0.000	0.3	16.5
8	29.666	65.5	47.2	18.3	56.1	- 2.0	51.5	46.9	9.2	20.7	2.8	71	109.6	35.4	53.4	0.045	3.3	16.5
9	29.475	64.6	53.0	11.6	57.2	- 0.8	55.5	54.1	3.1	8.3	1.4	89	110.8	49.0	53.4	0.644	0.1	16.5
10	29.492	62.6	46.2	16.4	54.5	- 3.6	49.6	44.4	10.1	22.5	2.9	69	127.1	32.9	53.3	0.000	2.9	16.6
11	29.661	63.5	41.3	22.2	54.7	- 3.5	50.8	46.9	7.8	19.5	1.2	75	114.6	28.0	53.3	0.000	0.5	16.6
12	29.922	70.2	48.9	21.3	59.1	+ 0.7	51.9	44.4	14.7	27.6	2.2	59	134.5	40.7	53.4	0.000	10.3	16.6
13	29.807	71.0	50.3	20.7	58.7	+ 0.2	52.9	47.3	11.4	26.0	1.8	66	130.6	41.8	53.4	0.113	6.9	16.6
14	29.886	65.4	47.8	17.6	57.1	- 1.6	50.3	42.9	14.2	23.5	3.8	59	130.3	40.8	53.4	0.000	8.7	16.6
15	30.027	71.1	47.1	24.0	59.0	+ 0.2	52.3	45.6	13.4	29.6	1.8	61	137.7	36.1	53.6	0.008	8.5	16.6
16	29.811	63.7	54.4	9.3	58.2	- 0.7	53.5	49.2	9.0	15.4	1.8	72	103.5	50.2	53.5	0.000	0.9	16.6
17	30.007	64.0	47.2	16.8	56.6	- 2.4	50.1	43.0	13.6	21.2	4.6	60	129.3	37.3	53.8	0.000	12.2	16.6
18	30.035	68.7	46.7	22.0	58.2	- 1.0	51.3	44.0	14.2	24.1	3.6	60	138.5	36.8	54.0	0.000	12.3	16.6
19	29.997	69.7	46.7	23.0	57.7	- 1.8	51.7	45.7	12.0	23.0	2.2	64	122.1	38.9	54.0	0.000	6.6	16.6
20	30.009	73.0	48.7	24.3	59.9	- 0.0	52.0	43.8	16.1	31.7	4.9	55	133.7	41.6	54.1	0.000	14.3	16.6
21	30.037	62.4	49.6	12.8	54.3	- 6.0	50.0	45.5	8.8	14.2	3.3	72	113.6	43.5	54.0	0.000	5.4	16.6
22	29.926	70.9	47.4	23.5	59.7	- 0.9	52.2	44.4	15.3	27.6	3.4	57	135.9	40.5	54.2	0.000	12.2	16.6
23	29.904	64.2	48.0	16.2	56.5	- 4.4	50.5	44.1	12.4	19.7	5.4	63	121.5	31.0	54.2	0.000	4.7	16.6
24	29.898	76.0	42.1	33.9	58.8	- 2.4	51.4	43.5	15.3	25.9	2.8	57	130.2	24.9	54.4	0.000	13.5	16.6
25	29.658	74.0	48.9	25.1	61.3	- 0.1	53.6	46.1	15.2	33.6	5.4	57	138.8	..	54.6	0.000	6.4	16.6
26	29.442	64.8	56.3	8.5	58.9	- 2.6	57.0	55.5	3.4	8.0	1.8	89	112.0	51.2	54.6	0.344	0.1	16.6
27	29.344	63.0	49.4	13.6	55.6	- 6.0	52.1	48.7	6.9	14.4	1.4	77	125.1	44.8	54.7	0.191	9.3	16.6
28	29.556	68.5	51.3	17.2	58.4	- 3.2	55.1	52.2	6.2	14.5	2.8	80	124.3	43.6	54.9	0.016	2.2	16.6
29	29.635	72.5	55.8	16.7	62.4	+ 0.8	58.0	54.6	7.8	16.7	1.5	75	138.8	49.0	55.0	0.014	3.5	16.6
30	29.656	73.0	53.3	19.7	60.8	- 0.7	55.9	51.7	9.1	20.4	1.0	72	136.8	44.1	55.0	0.035	5.8	16.6
Means	29.767	67.5	49.5	18.0	58.1	- 1.3	52.4	46.7	11.3	21.7	3.2	66.6	124.5	41.1	53.7	Sum 1.516	6.0	16.5
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29.767 in., being 0.065 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 76°.0 on June 24; the lowest in the month was 41°.3 on June 11; and the range was 34°.7.

The mean of all the highest daily readings in the month was 67°.5, being 1°.4 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 49°.5, being 0°.9 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 18°.0, being 0°.5 less than the average for the 65 years, 1841-1905.

The mean for the month was 58°.1, being 1°.3 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
June 1	0.1	0.02	0.0	0.00	CalM: WSW	WNW: NW	4.4	0.27	269	b c	c Nbst 1r0 Ast Cumb t y	c y Nbst Acu t p c	c
2	2.5	0.53	2.4	0.51	NW: NNW	NW: WNW	4.3	0.43	348	c	c bc Ci Stcu Prcu y	b Ci y	b y c
3	1.4	0.31	1.1	0.25	WSW: W	WNW: W	4.7	0.39	334	b c	c Acu Ast Stcu r o c y	c Ci Acu Cicu y	c
4	2.2	0.49	2.1	0.47	WSW: SW	SW: WSW	8.5	1.15	450	c	c Ast Ci y	bc c Acu Ast Ci y	c r r o c
5	0.7	0.15	0.5	0.12	WSW	WSW: W	4.0	0.63	400	b	b c Ast Nbst y	c Stcu Nbst y	c
6	0.1	0.02	0.1	0.01	WNW: NW	NW: WNW	3.8	0.37	356	c P c	bc c Stcu Nbst y	c 1r0 Nbst y	c r r o c
7	0.9	0.19	0.4	0.10	WNW: N	N: NW: WNW	3.3	0.24	286	c	c Ast Nbst	c Ast Nbst	c
8	0.0	0.00	0.0	0.00	WSW: WNW	W: WSW	3.0	0.15	255	c bc	bc c Prcu Nbst y	c Ast Nbst rr	r c do do
9	0.3	0.07	0.2	0.04	WSW	WSW: W: WNW	1.0	0.14	244	do rr	rr c Nbst Ast	c Nbst r c r R	ro ro c
10	4.5	1.00	4.5	1.00	W: NW	NNW: N: Calm	3.0	0.17	226	c	c Ast Nbst y	c Acu Cu Cumb y	c b
11	4.2	0.94	4.2	0.94	WSW: SW	SW: W	3.5	0.22	270	b	c Acu Ci y	c Nbst 1r0	1r0 c b
12	3.7	0.83	3.4	0.75	W	W: SW	3.0	0.27	304	b	b Cu Acu Stcu y	bc c Cist Cu Acu so-ha y	c bc
13	4.5	1.00	4.5	1.00	SW: SSW	WSW: W	11.0	0.69	379	bc c 1r	c Nbst 1r c Prcu so-ha	c b Cu q b y	b
14	3.8	0.84	3.8	0.84	W	WNW: W	5.6	0.62	371	b	b c Cu Stcu y	c do bc Acu Cicu c p	c b
15	0.0	0.00	0.0	0.00	WSW: W	WSW: SW	4.0	0.33	279	b	bc Cu Acu Cicu y	bc Acu Cicu c y	c 1r0 do
16	2.1	0.48	1.9	0.42	WSW: WNW: NW	NW	3.5	0.62	363	do do c	c Prcu Stcu	c Ast Nbst Macu	c bc
17	2.6	0.59	2.6	0.59	NNW: N	N: NNE	6.7	1.12	416	c	c bc Stcu Prcu y	bc Prcu b y	b
18	3.9	0.86	3.9	0.86	N: NNE	NNE	1.8	0.20	256	c	b Acu bc Cu Prcu y	bc c Stcu bc v y	b v b
19	4.5	1.00	4.5	1.00	NNE	NE: NNE	6.0	0.67	405	b c	c b c Stcu Cu	c b Cicu Acu y	b
20	0.0	0.00	0.0	0.00	NNE: NE	NE: NNE	5.6	0.79	421	b	b Ci Cicu Prcu y	b Ci y	b c
21	0.4	0.08	0.3	0.06	NNE: NE	NNE	3.5	0.60	392	c	1do Nbst c Stcu	c bc Stcu Cu b y	b c
22	0.0	0.00	0.0	0.00	NNE	NNE: Calm	3.6	0.48	304	c	b bc Ci Cu Prcu y	c b Ci Prcu y	b c
23	4.5	1.00	4.5	1.00	Calm: NE	NNE: NE	1.5	0.16	236	c	c Stcu	c bc Stcu b y	b
24	3.7	0.83	3.2	0.71	Calm	Calm: SW	2.3	0.12	152	b x	b Zo y	b y	b
25	0.3	0.07	0.0	0.00	SSW: SW	SW	5.0	0.34	291	b	c Acu Cicu y	c Acu y	c
26	0.0	0.00	0.0	0.00	SSW: S	SSW	2.4	0.15	233	ro c	1r0 r Nbst Stcu	c 1r R Nbst	c rr
27	4.1	0.90	3.9	0.88	WSW: SW	SW: SSW	20.3	0.68	366	r c b	b c Cist Nbst pt by	bc qt lhp Cumb Ci b	c p b
28	0.0	0.00	0.0	0.00	SSW: SW	SSW: SW	8.6	1.09	422	b bc c 1r0	1r0 d Nbst Stcu Cu so-ha	c Stcu Ast Nbst dd	c
29	0.0	0.00	0.0	0.00	SW: SSW	S: Calm	2.5	0.25	243	c	c bc Cu Cicu Ci prhn c	c Ast Stcu Cu y	rr o c
30	0.0	0.00	0.0	0.00	Calm: WSW	SW: SSW	3.3	0.19	228	c	c Stcu St	bc Stcu Cu Ci b prhn so-ha	c 1r0 rr
Means	1.8	0.41	1.7	0.38	..	..	..	0.45	317				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 52°.4, being 2°.5 lower than  
 The mean *Temperature of the Dew Point* for the month was 46°.7, being 4°.1 lower than  
 The mean *Degree of Humidity* for the month was 66.6, being 6.6 less than  
 The mean *Elastic Force of Vapour* for the month was 0.320 in., being 0.055 in. less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.1.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.364. The maximum daily amount of *Sunshine* was 14.3 hours on June 20.  
 The highest reading of the *Solar Radiation Thermometer* was 139°.8 on June 4; and the lowest reading of the *Terrestrial Radiation Thermometer* was 24°.9 on June 24.  
 The *Proportions of Wind* referred to the cardinal points were N.25, E.6, S.20, W.43, calm or nearly calm conditions 5, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 20.3 lbs. on the square foot on June 27. The mean daily *Horizontal Movement of the Air* for the month was 317 miles; the greatest daily value was 450 miles on June 4, and the least daily value was 152 miles on June 24.  
*Rain* (0.005 in. or over) fell on 12 days in the month, amounting to 1.516 in., as measured by gauge No.6 partly sunk below the ground; being 0.522 in. less than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Great-est	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
July 1	29.694	69.9	54.3	15.6	61.8	+ 0.3	58.8	56.5	5.3	10.3	2.0	83	125.3	51.8	55.2	0.189	1.0	16.6
2	29.687	72.3	60.4	11.9	64.7	+ 3.1	61.8	59.8	4.9	10.8	1.6	84	131.6	56.8	55.4	0.093	1.0	16.6
3	29.532	64.9	56.8	8.1	61.6	- 0.2	60.0	58.9	2.7	5.7	1.4	91	91.3	50.0	55.4	0.394	0.0	16.5
4	29.563	72.6	53.5	19.1	62.0	- 0.1	56.5	51.7	10.3	22.1	2.1	69	129.1	45.8	55.7	0.000	4.8	16.5
5	29.646	71.5	53.3	18.2	61.2	- 1.1	57.5	54.5	6.7	17.6	1.4	79	128.6	40.7	55.9	0.025	4.8	16.5
6	29.643	79.4	56.0	23.4	67.8	+ 5.4	60.7	55.4	12.4	26.4	1.3	64	141.3	48.2	56.0	0.000	13.7	16.4
7	29.547	74.3	56.8	17.5	65.5	+ 3.1	60.1	56.0	9.5	22.3	2.9	72	130.0	45.5	56.1	0.065	4.6	16.4
8	29.667	75.7	55.3	20.4	65.0	+ 2.6	59.8	55.9	9.1	18.8	2.4	73	150.0	44.0	56.4	0.058	6.6	16.4
9	29.578	66.4	54.0	12.4	59.4	- 3.0	56.2	53.6	5.8	12.9	2.8	81	123.3	45.4	56.4	0.100	3.8	16.4
10	29.549	68.3	53.4	14.9	59.6	- 2.9	55.4	51.7	7.9	12.4	5.1	75	128.3	45.9	56.6	0.013	4.2	16.3
11	29.788	64.4	54.2	10.2	59.3	- 3.4	54.5	50.1	9.2	12.8	5.7	72	103.3	43.8	56.6	0.000	0.3	16.3
12	29.899	68.9	52.4	16.5	60.5	- 2.4	54.3	48.6	11.9	19.0	5.3	64	128.0	42.0	56.6	0.000	2.0	16.3
13	29.776	70.0	57.9	12.1	61.8	- 1.3	59.3	57.5	4.3	11.5	1.5	85	124.4	47.7	56.7	0.241	0.5	16.3
14	29.757	73.8	55.5	18.3	63.0	- 0.3	59.0	56.0	7.0	12.0	1.1	77	145.7	45.3	56.7	0.000	3.9	16.2
15	29.793	72.5	56.7	15.8	63.1	- 0.3	59.6	57.0	6.1	11.1	2.2	81	118.8	48.1	56.8	0.019	2.3	16.2
16	29.939	77.1	59.4	17.7	67.5	+ 4.1	62.6	59.3	8.2	14.5	1.4	75	148.5	47.6	57.1	0.000	6.8	16.2
17	29.952	81.0	57.2	23.8	67.0	+ 3.6	61.1	56.7	10.3	23.4	0.9	70	144.9	44.2	57.1	0.000	8.7	16.1
18	29.897	74.8	55.1	19.7	63.5	+ 0.2	58.1	53.7	9.8	20.9	2.0	71	145.9	47.9	57.3	0.000	10.1	16.1
19	29.888	72.7	55.3	17.4	63.2	- 0.0	58.3	54.4	8.8	17.9	2.8	73	134.3	50.8	57.4	0.000	7.2	16.0
20	29.818	72.0	54.3	17.7	61.9	- 1.3	56.7	52.3	9.6	17.1	2.6	71	133.7	49.4	57.6	0.000	8.3	16.0
21	29.621	68.4	52.4	16.0	59.4	- 3.8	54.0	49.0	10.4	16.6	3.0	69	120.3	48.7	57.6	0.070	0.8	16.0
22	29.688	64.3	52.1	12.2	57.8	- 5.3	54.4	51.3	6.5	10.0	2.4	79	97.6	50.3	57.6	0.030	0.0	15.9
23	29.946	65.9	55.5	10.4	60.4	- 2.6	54.5	49.1	11.3	17.7	5.6	66	107.7	52.2	57.6	0.000	0.3	15.9
24	29.986	70.6	56.3	14.3	62.3	- 0.6	56.6	51.7	10.6	21.1	3.3	69	113.0	47.0	57.8	0.000	0.0	15.8
25	29.885	73.0	47.7	25.3	62.5	- 0.2	56.0	50.3	12.2	20.0	2.0	65	121.6	33.2	57.9	0.000	2.0	15.8
26	29.660	79.5	61.3	18.2	68.2	+ 5.7	61.6	56.9	11.3	20.0	3.2	67	148.4	54.5	58.0	0.020	8.4	15.8
27	29.630	76.0	59.3	16.7	66.2	+ 3.8	61.0	57.2	9.0	16.0	2.5	73	140.7	54.0	58.0	0.005	8.5	15.7
28	29.777	79.1	57.9	21.2	66.3	+ 4.0	60.2	55.6	10.7	22.8	2.4	69	154.6	47.8	58.0	0.000	3.7	15.6
29	29.695	69.6	58.0	11.6	62.0	- 0.3	59.0	56.7	5.3	11.8	1.5	83	125.3	45.8	58.0	0.151	1.7	15.6
30	29.734	74.3	57.3	17.0	64.6	+ 2.3	59.7	56.0	8.6	17.1	2.3	74	139.8	46.2	58.2	0.000	4.1	15.5
31	29.993	73.4	56.7	16.7	63.9	+ 1.7	59.3	55.8	8.1	14.4	2.4	75	125.6	43.8	58.1	0.000	4.4	15.5
Means	29.749	72.1	55.7	16.5	63.0	+ 0.3	58.3	54.5	8.5	16.4	2.6	74.2	129.1	47.2	57.0	Sum 1.473	4.1	16.1
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the Barometer for the month was 29.749 in., being 0.057 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 81° 0 on July 17; the lowest in the month was 47° 7 on July 25; and the range was 33° 3.

The mean of all the highest daily readings in the month was 72° 1, being the same as the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 55° 7, being 1° 9 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 16° 5, being 1° 8 less than the average for the 65 years, 1841-1905.

The mean for the month was 63° 0, being 0° 3 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S				Robinson's				
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 hourly Measures					
July 1	0.1	0.02	0.0	0.00	SSW:SW	SW	3.5	0.27	269	rr c	c Nbst Stcu Frst	c Stcu Frst	ro c
2	0.1	0.02	0.1	0.02	SW	SW:SSW	2.6	0.17	232	c ido	c Frst Stcu	c Nbst ir o r	c
3	3.7	0.78	3.5	0.74	S:CalM	WNW:W	0.9	0.03	140	c	c r R Ast Nbst ir R ro	Nbst Cumb r ir o c	c bc
4	3.9	0.81	3.9	0.81	W:CalM	WSW	1.1	0.06	170	bc c	c bc Ci Acu Cu y so-ha	c Ci Acu Cu so-ha c y	c ro c b
5	..	..	..	..	WSW:SW	SW:SSW	2.6	0.17	219	b bc	bc c Stcu Frcu	c Stcu Ast ro c	ro d c
6	0.3	0.06	0.2	0.04	CalM:SSE	SE:ESE	3.6	0.34	230	bc b c	bc Cu Cicu Ci y	b Frcu Cicu y	c l c
7	4.3	0.91	4.2	0.88	Var:SW	SW:SSW	2.2	0.15	183	c ir ro	ir ro c Ast Acu Cist Nbst	c bc Ci Cicu Frcu y	bc
8	0.0	0.00	0.0	0.00	S:CalM:SW	SW:CalM	1.3	0.09	150	bc	bc Ci Cicu Frcu c y	c Acu Ast Cu y	c rr c
9	3.5	0.70	3.4	0.68	W:WSW	SW:W	3.6	0.39	311	c b	b c Acu Nbst ro r	Nbst rr o c bc	bc b
10	0.5	0.11	0.4	0.07	WSW:W	W:WNW	5.6	0.78	421	b c	c Nbst	c Acu Stcu Nbst Cu ir o	ro c
11	3.6	0.72	3.5	0.70	WNW:NW	NW:NNW	3.0	0.45	348	c ro c	c Stcu	c Frst	c b
12	0.0	0.00	0.0	0.00	NW	WNW:W	1.6	0.12	211	b c	c Stcu Acu y	c Frcu Acu y	c
13	3.1	0.61	2.9	0.57	W	WSW:W	2.0	0.13	203	c do c	c Stcu Nbst Ast	Nbst ir R c r c	c P r b c
14	0.9	0.17	0.5	0.11	WSW:W	W:WSW	1.6	0.08	195	b c	c b Acu Ci Cu c Stcu	c Ast Stcu Macu Cumb	b c
15	1.3	0.25	1.3	0.25	WSW	WSW	2.7	0.17	237	c ido	c Nbst Stcu ido c r	r Nbst c	ir o c
16	5.3	1.00	5.3	1.00	CalM:W	WNW:CalM	1.0	0.05	130	c	c Stcu Acu bc Cu Ci	bc Cu Ci Acu	bc b
17	4.5	0.85	3.6	0.68	CalM	ESE	3.6	0.19	149	b w m	b zo Acu bc Cu Cicu Ci y	bc Acu Ci y	bc
18	1.5	0.29	1.0	0.18	E:ENE:ESE	ESE	1.7	0.18	216	b c	c bc Ci Cu Frcu y	b Ci Cu y	b c
19	1.6	0.30	1.3	0.24	E:ESE	SE:ESE	1.2	0.14	202	c	c St bc Acu Cu	bc b Acu y	b c
20	3.2	0.60	2.7	0.51	E	ESE:E	1.8	0.31	257	c	c Acu y	b Ci bc y	bc
21	0.0	0.00	0.0	0.00	ENE	ENE:NE	4.5	0.55	365	bc c	c Stcu St y	c y	c ro r
22	0.0	0.00	0.0	0.00	NE:NNE	NNE:N	1.5	0.16	225	ir ro mo	ir ro c Stcu Nbst	c Stcu	c
23	0.0	0.00	0.0	0.00	N	NNE:CalM	0.6	0.03	134	c	c Stcu y	c Stcu y	c
24	3.5	0.61	3.4	0.59	CalM:WSW	SW:CalM	0.2	0.01	108	c mo	c Stcu y	c Stcu Cu y	c bc
25	0.2	0.03	0.1	0.01	CalM:S	S:SE	0.8	0.06	143	bc	bc Cist so-ha c Ast Cu	c ir o	c ir o
26	2.3	0.41	2.2	0.38	SSE:WSW	SW	2.6	0.25	259	c p bc	bc c Ci Frcu bc Ci Cu y	b c Stcu Ci Cu	c b c p c
27	3.5	0.61	3.0	0.52	SW:WSW	WSW:W	4.2	0.64	354	bc c	c ir o c Stcu Acu Nbst pc	bc Stcu Acu y	bc b c
28	3.5	0.61	2.6	0.46	W:WSW	WSW:SW	1.2	0.15	247	c b c	c Acu Cu Frcu bc	c Acu Cumb Stcu y	c bc c
29	0.7	0.11	0.5	0.08	SW	SW	1.7	0.14	232	c	c Ast Nbst ro rr ro	c Ast Stcu Nbst	c
30	3.9	0.62	3.8	0.60	W:NW	NW:N	1.1	0.07	183	c	c b c Stcu po	c Stcu y	c b
31	1.7	0.27	1.4	0.22	NNE:N	CalM:NE	0.4	0.04	139	b c mo	c St mo	c St bc Cu Ci b zo	b c mo
Means	2.0	0.38	1.8	0.34	..	..	..	0.21	221				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 58°.3, being 0°.4 higher than  
 The mean *Temperature of the Dew Point* for the month was 54°.5, being 0°.4 higher than  
 The mean *Degree of Humidity* for the month was 74.2, being 1.0 greater than  
 The mean *Elastic Force of Vapour* for the month was 0.427 in., being 0.006 in. greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.7.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.257. The maximum daily amount of *Sunshine* was 13.7 hours on July 6.  
 The highest reading of the *Solar Radiation Thermometer* was 154°.6 on July 28; and the lowest reading of the *Terrestrial Radiation Thermometer* was 33°.2 on July 25.  
 The *Proportions of Wind* referred to the cardinal points were N.12, E.15, S.21, W.35, calm or nearly calm conditions 17, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 5.6 lbs. on the square foot on July 10. The mean daily *Horizontal Movement of the Air* for the month was 221 miles; the greatest daily value was 421 miles on July 10, and the least daily value was 108 miles on July 24.  
*Rain* (0.005 in. or over) fell on 15 days in the month, amounting to 1.473 in., as measured by gauge No. 6 partly sunk below the ground; being 0.926 in. less than the average fall for the 65 years, 1841-1905.



TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature	Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon		
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point			Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value			Mean	Greatest	Least				Highest in Sun's Rays	Lowest on the Grass
Aug. 1	30.048	68.0	60.0	8.0	62.5	+ 0.3	58.9	56.2	6.3	10.6	1.7	80	118.1	52.0	58.1	0.000	3.9	15.4
2	29.986	70.7	58.2	12.5	62.0	- 0.1	58.8	56.3	5.7	14.5	0.9	82	134.3	54.0	58.1	0.000	4.8	15.4
3	30.008	75.1	57.8	17.3	64.1	+ 2.0	60.0	57.0	7.1	18.3	0.9	78	130.8	46.0	58.4	0.001	6.5	15.3
4	30.112	81.0	55.0	26.0	65.1	+ 3.0	59.8	55.9	9.2	19.1	1.8	72	140.3	41.1	58.4	0.133	7.6	15.3
5	30.090	78.3	55.9	22.4	65.9	+ 3.8	59.9	55.3	10.6	27.5	1.5	69	140.3	46.8	58.6	0.000	9.0	15.2
6	30.000	78.4	55.3	23.1	64.1	+ 1.9	58.4	53.9	10.2	22.3	2.7	70	137.9	46.9	58.7	0.000	4.5	15.2
7	29.930	81.0	51.8	29.2	64.7	+ 2.5	57.1	50.6	14.1	35.1	0.9	60	148.8	34.9	58.7	0.000	11.7	15.1
8	29.775	83.5	56.4	27.1	67.9	+ 5.6	60.9	55.7	12.2	31.8	0.7	65	146.7	39.3	58.8	0.000	6.2	15.0
9	29.717	81.8	56.0	25.8	68.5	+ 6.2	60.7	54.8	13.7	25.7	2.3	61	149.1	39.1	58.9	0.000	6.7	15.0
10	29.793	81.9	59.6	22.3	69.1	+ 6.8	63.0	58.8	10.3	19.1	4.1	70	143.9	49.7	58.9	0.000	4.4	14.9
11	29.890	83.2	60.5	22.7	70.3	+ 7.9	63.9	59.6	10.7	20.9	1.6	69	148.5	48.9	59.0	0.000	11.5	14.9
12	29.962	80.6	59.3	21.3	68.5	+ 6.0	61.9	57.2	11.3	27.7	1.1	67	145.3	49.6	59.0	0.000	3.6	14.8
13	30.025	77.9	56.4	21.5	66.3	+ 3.8	58.7	52.5	13.8	27.9	2.9	61	138.9	41.0	59.2	0.000	9.5	14.8
14	30.039	74.2	54.0	20.2	63.0	+ 0.5	55.7	49.1	13.9	29.8	2.0	61	139.2	38.2	59.3	0.000	13.1	14.7
15	29.864	74.1	55.6	18.5	63.7	+ 1.3	57.4	52.2	11.5	22.5	1.9	66	137.7	47.0	59.5	0.000	11.4	14.7
16	29.650	88.0	51.6	36.4	69.9	+ 7.6	60.8	53.8	16.1	33.8	1.6	56	140.7	38.8	59.6	0.000	11.6	14.6
17	29.748	79.7	61.1	18.6	69.2	+ 7.1	62.9	58.5	10.7	21.5	3.6	69	140.7	50.9	59.7	0.000	4.3	14.5
18	29.692	80.6	63.1	17.5	70.2	+ 8.3	63.3	58.5	11.7	20.9	3.4	67	140.4	55.0	59.8	0.000	9.6	14.5
19	29.537	79.0	60.7	18.3	66.5	+ 4.8	62.4	59.6	6.9	17.9	2.9	79	124.8	52.2	59.6	0.250	1.2	14.4
20	29.581	65.5	55.0	10.5	61.1	- 0.4	59.0	57.5	3.6	7.2	0.8	87	101.1	52.8	59.6	0.586	0.2	14.3
21	29.739	59.0	54.5	4.5	56.8	- 4.5	55.1	53.7	3.1	4.5	1.9	89	66.4	53.0	59.6	0.110	0.0	14.3
22	29.800	67.0	57.4	9.6	62.0	+ 0.9	61.2	60.7	1.3	2.2	0.0	95	78.5	56.0	59.6	0.065	0.0	14.2
23	29.780	80.1	61.3	18.8	68.3	+ 7.4	63.5	60.3	8.0	23.6	0.3	76	134.6	56.0	60.0	0.027	6.2	14.2
24	29.890	76.1	57.6	18.5	63.3	+ 2.5	60.8	59.1	4.2	13.7	1.2	86	131.3	49.0	59.8	1.409	1.0	14.1
25	30.040	79.3	52.7	26.6	65.4	+ 4.7	60.9	57.7	7.7	19.5	1.0	76	127.2	40.8	60.0	0.000	7.3	14.0
26	30.072	81.3	55.3	26.0	68.0	+ 7.3	62.4	58.5	9.5	23.0	1.3	72	137.6	44.0	60.0	0.003*	10.1	14.0
27	29.892	81.6	55.6	26.0	67.9	+ 7.3	60.9	55.7	12.2	28.6	1.3	65	137.1	43.8	60.0	0.000	11.1	13.9
28	29.691	70.6	57.4	13.2	62.0	+ 1.6	56.4	51.5	10.5	20.6	1.8	69	127.6	48.3	60.0	0.090	5.4	13.8
29	29.643	65.8	55.2	10.6	59.1	- 1.2	55.1	51.6	7.5	13.1	2.0	77	104.6	48.7	59.9	0.055	0.1	13.8
30	29.512	72.2	56.2	16.0	61.5	+ 1.4	56.9	53.1	8.4	21.1	2.0	74	135.0	50.9	60.0	0.006	5.8	13.7
31	29.475	69.0	54.1	14.9	58.5	- 1.4	53.9	49.7	8.8	22.9	3.5	72	136.0	46.5	59.8	0.127	7.7	13.7
Means	29.838	76.3	56.8	19.5	65.0	+ 3.4	59.7	55.6	9.4	20.9	1.8	72.3	131.1	47.1	59.3	Sum 2.862	6.3	14.6
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

\* Rainfall (Column 16). The amount entered on August 26 is derived from dew.

The mean reading of the Barometer for the month was 29.838 in., being 0.048 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 88° on August 16; the lowest in the month was 51° on August 16; and the range was 36°.

The mean of all the highest daily readings in the month was 76° 3, being 5° 5 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 56° 8, being 3° 2 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 19° 5, being 2° 3 greater than the average for the 65 years, 1841-1905.

The mean for the month was 65° 0, being 3° 4 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
hours		hours				lbs.	lbs.	miles	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>	
Aug. 1	0.0	0.00	0.0	0.00	Calm:E	E:ESE	1.1	0.09	163	c mo	c St Stcu	c St b Prst	b c
2	0.0	0.00	0.0	0.00	E	E	1.6	0.24	249	c ldo mo	c St Nbst	c St Prst b Cu Prcu c	c do
3	6.3	1.00	6.3	1.00	E	E	1.0	0.15	213	do c	c St	c b Ci y	b c
4	5.9	0.95	5.9	0.95	NNE:NE	NE:Calm	2.4	0.10	181	b c	c b Prst y	b c Nbst Cumb P c	c b
5	3.7	0.55	3.7	0.55	NE	E	2.4	0.15	219	b c	c Prst b c Cumb Stcu y	c Cumb Stcu b y	b
6	5.4	0.80	5.4	0.80	NE:NNE	ESE:Calm	0.6	0.07	148	b c	c Stcu	c Stcu t y	c bc b
7	2.5	0.37	2.4	0.36	Calm	N:Calm	0.2	0.02	88	b w	b y	b y	b c
8	4.0	0.59	4.0	0.59	Calm	WSW:Calm	0.5	0.02	86	c f	c mo b Ci y	b c Acu Cu y	c b
9	5.2	0.78	4.6	0.68	Calm:NW	WNW	1.4	0.12	214	b c	c zo b Ci Cu Acu y	c Ci Acu Cu so-ha y	c bc
10	6.7	1.00	6.7	1.00	W	W	3.3	0.27	292	bc w-ha c	c Acu Cu	c Stcu Cu y	b
11	6.1	0.90	5.9	0.87	WSW:SW	WSW	3.7	0.22	254	b	b bc Ci Acu Cu c	bc y	bc b
12	4.4	0.61	4.3	0.60	WSW:WNW	W:Calm:NE	1.2	0.05	170	b c b c	c Stcu Cu Acu y	c Cist Acu so-ha y	c b
13	7.3	1.00	7.3	1.00	NE:NNE	NNE:ESE:Calm	1.1	0.05	145	b c	c Cu Acu y	b y	b
14	7.3	1.00	7.3	1.00	Calm:ESE	ESE:E	3.5	0.17	222	b w	b bc b Prcu y	b Prcu y	b
15	7.3	1.00	7.2	0.99	E:ESE	ESE:E	3.3	0.22	263	b bc	bc Ci Cist Cicu so-ha	bc Ci Cicu Acu	bc b
16	6.7	0.92	6.5	0.90	Calm	WSW:W	2.4	0.12	170	b	b z y	b bc Cu Cicu y	b y b
17	4.8	0.67	4.2	0.58	WSW	WSW:SW	3.0	0.20	265	b c	c Acu Cu Cicu	c Ci Acu Stcu Cu y	b
18	3.3	0.46	2.5	0.34	SW	SW:SSW	3.0	0.25	288	b c	c b Cu Ci bc Acu y	bc Stcu Prcu c y	bc c
19	1.3	0.17	1.2	0.15	SSW	SW	2.8	0.10	213	b c b	c Acu Cu Nbst po y	c Nbst ro rr c	c
20	0.0	0.00	0.0	0.00	Calm:NE:N	NNW:N	2.7	0.16	233	c	r R Nbst m c	c ldo	c ldo
21	0.0	0.00	0.0	0.00	N:NNE	NNE:NE	6.0	0.53	410	c	c Nbst	do d Nbst rr o	o do d
22	0.0	0.00	0.0	0.00	NE	ENE	1.0	0.05	217	ddo	ddo Nbst m	d do St c m	o mo
23	0.0	0.00	0.0	0.00	ENE:Var:SW	SW:Calm	1.4	0.07	223	o mo	d c Stcu mo bc Cicu Cu	bc Ci Acu Cu c prha	c p c
24	6.5	0.84	6.5	0.84	Calm	Var:SW	1.0	0.00	119	c	c Acu Ast Stcu Cumb	c Cumb Nbst t l RR	RR c b
25	6.3	0.82	5.4	0.70	Calm:SW	SW:Calm	0.0	0.00	128	b	c b Cu Acu Cicu c	bc Acu Stcu y	b bc
26	6.9	0.84	6.3	0.76	Calm	Calm	0.0	0.00	71	c b W	b Ci Cicu bc y	c Prcu Ci y	c bc b
27	4.0	0.48	3.7	0.45	Calm:W	WSW:SW	1.0	0.04	177	b w	b Cicu y	b c Cicu prha y	b c
28	0.6	0.07	0.1	0.02	SW:W	WNW:NW	8.2	0.40	358	c	c rr Nbst Stcu b c Cu y	c Stcu Cu so-ha y	c
29	0.0	0.00	0.0	0.00	Calm	Calm	0.1	0.00	95	c po	c Acu Stcu	c Ast Acu Cumb lrd c	c r c
30	4.9	0.60	4.3	0.52	Calm:W	WSW:SW	1.8	0.13	251	c	c ldo d c Cicu Acu y	bc Acu Cu c so-ha y	c bc
31	8.0	0.97	7.7	0.94	WSW:W	WSW	7.0	0.47	402	bc bc	c b Acu Cu Prcu c p t	c Acu Ci Cumb Cu p t	b
Means	4.0	0.56	3.9	0.54	..	..	..	0.14	211				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 59°.7, being 2°.2 higher than  
 The mean *Temperature of the Dew Point* for the month was 55°.6, being 1°.3 higher than  
 The mean *Degree of Humidity* for the month was 72.3, being 4.5 less than  
 The mean *Elastic Force of Vapour* for the month was 0.445 in., being 0.021 in. greater than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.0.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.434. The maximum daily amount of *Sunshine* was 13.1 hours on August 14.  
 The highest reading of the *Solar Radiation Thermometer* was 149°.1 on August 9; and the lowest reading of the *Terrestrial Radiation Thermometer* was 34°.9 on August 7.  
 The *Proportions of Wind* referred to the cardinal points were N.13, E.23, S.12, W.27, calm or nearly calm conditions 25, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 8.2 lbs. on the square foot on August 28. The mean daily *Horizontal Movement of the Air* for the month was 211 miles; the greatest daily value was 410 miles on August 21, and the least daily value was 71 miles on August 26.  
*Rain* (0.005 in. or over) fell on 11 days in the month, amounting to 2.862 in., as measured by gauge No.6 partly sunk below the ground; being 0.518 in. greater than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 6 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Of Radiation				Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value	Mean	Greatest	Least		Highest in Sun's Rays	Lowest on the Grass				
Sept. 1	29.661	72.2	55.0	17.2	61.4	+ 1.6	55.0	49.1	12.3	26.8	5.2	64	132.1	47.0	59.8	0.020	8.9	13.6
2	29.411	62.2	53.4	8.8	56.5	- 3.2	53.5	50.8	5.7	8.8	1.2	81	116.3	46.1	59.6	0.540	3.9	13.5
3	29.821	63.9	48.4	15.5	57.0	- 2.6	52.8	48.8	8.2	15.7	2.7	75	113.1	41.3	59.6	0.060	4.9	13.5
4	29.527	64.0	56.8	7.2	61.1	+ 1.6	58.8	57.1	4.0	6.1	1.6	87	81.9	50.0	59.4	0.345	0.0	13.4
5	29.444	67.4	51.0	16.4	59.9	+ 0.5	54.0	48.6	11.3	22.4	2.0	66	123.5	40.7	59.3	0.000	9.1	13.3
6	29.633	65.2	47.3	17.9	55.3	- 3.9	50.5	45.5	9.8	19.4	3.2	70	116.1	37.0	59.1	0.000	5.2	13.3
7	29.532	56.3	47.5	8.8	51.9	- 7.1	50.5	49.1	2.8	5.9	0.9	90	79.6	40.0	59.0	0.837	0.0	13.2
8	29.681	61.0	45.4	15.6	51.0	- 7.8	47.3	43.0	8.0	20.2	0.7	74	118.0	37.5	59.0	0.140	7.2	13.1
9	29.935	61.4	42.7	18.7	51.3	- 7.3	46.1	39.7	11.6	20.8	2.3	65	116.7	35.1	58.8	0.000	10.1	13.1
10	30.196	62.2	37.5	24.7	49.9	- 8.5	45.1	39.2	10.7	22.9	1.2	66	126.3	27.2	58.6	0.000	8.6	13.0
11	30.262	63.4	37.7	25.7	51.7	- 6.4	47.1	41.8	9.9	19.7	0.9	69	122.6	25.7	58.2	0.000	10.0	12.9
12	30.174	65.5	43.7	21.8	55.5	- 2.5	51.4	47.3	8.2	19.8	0.7	74	120.3	29.3	58.0	0.000	9.3	12.9
13	29.997	67.9	48.8	19.1	57.8	- 0.0	53.7	50.0	7.8	20.3	0.8	75	120.1	33.4	58.0	0.000	7.3	12.8
14	29.869	74.9	46.6	28.3	60.3	+ 2.6	56.7	53.7	6.6	15.9	0.4	79	126.7	35.9	57.9	0.000	2.4	12.8
15	29.830	70.4	53.4	17.0	61.6	+ 4.0	58.4	55.9	5.7	12.7	0.9	82	121.7	44.2	57.7	0.000	0.7	12.7
16	30.070	65.4	49.1	16.3	56.7	- 0.8	52.2	47.9	8.8	16.1	1.4	72	120.5	39.9	57.6	0.000	6.8	12.6
17	30.210	69.4	46.8	22.6	57.2	- 0.0	53.6	50.3	6.9	17.1	0.9	78	126.6	33.2	57.8	0.000	6.3	12.6
18	30.142	61.2	49.4	11.8	56.2	- 0.7	53.4	50.9	5.3	10.5	1.0	82	118.0	35.2	57.5	0.000	0.0	12.5
19	29.943	62.9	54.7	8.2	58.5	+ 2.0	56.4	54.7	3.8	8.9	0.9	87	87.6	50.4	57.5	0.048	0.0	12.4
20	29.879	66.4	51.6	14.8	57.4	+ 1.2	54.4	51.7	5.7	16.7	1.0	82	95.3	39.2	57.4	0.000	1.6	12.4
21	29.954	63.1	48.2	14.9	55.6	- 0.3	53.8	52.2	3.4	7.4	0.8	82	98.3	35.8	57.4	0.000	0.9	12.3
22	29.751	66.1	51.3	14.8	57.5	+ 1.9	55.3	53.5	4.0	9.2	1.0	86	117.1	37.9	57.4	0.030	1.0	12.2
23	29.747	62.1	51.3	10.8	56.1	+ 0.7	50.9	45.5	10.6	22.8	1.6	68	121.2	48.0	57.4	0.020	5.6	12.2
24	29.522	55.8	46.3	9.5	51.7	- 3.6	48.8	45.7	6.0	10.2	2.9	80	90.3	43.0	57.1	0.318	1.1	12.1
25	29.846	59.3	43.7	15.6	53.3	- 1.9	49.7	46.0	7.3	14.3	1.1	76	87.9	35.4	57.1	0.000	0.8	12.0
26	29.855	62.1	46.4	15.7	56.3	+ 1.1	50.6	44.6	11.7	20.4	1.1	65	117.3	37.5	57.1	0.024	8.3	12.0
27	29.816	60.3	44.7	15.6	51.2	- 3.9	47.2	42.6	8.6	15.3	3.2	73	117.3	35.8	57.0	0.042	5.0	11.9
28	30.025	57.1	40.5	16.6	49.6	- 5.3	45.9	41.5	8.1	17.5	0.7	73	96.3	29.3	56.9	0.000	3.4	11.8
29	29.942	64.1	48.4	15.7	56.6	+ 1.9	53.4	50.5	6.1	11.9	2.4	80	108.2	44.0	56.8	0.006	1.0	11.8
30	29.955	65.1	50.0	15.1	57.3	+ 2.9	52.2	47.2	10.1	16.8	2.0	69	117.2	46.0	56.6	0.297	4.8	11.7
Means	29.854	63.9	47.9	16.0	55.8	- 1.5	52.0	48.1	7.6	15.7	1.5	75.7	111.8	38.7	58.0	Sum 2.727	4.5	12.7
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29.854 in., being 0.036 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 74° on September 14; the lowest in the month was 37° on September 10; and the range was 37°.

The mean of all the highest daily readings in the month was 63° 9, being 2° 3 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 47° 9, being 1° 8 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 16° 0, being 0° 5 less than the average for the 65 years, 1841-1905.

The mean for the month was 55° 8, being 1° 5 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
Sept. 1	0.5	0.06	0.2	0.03	WSW:W	WSW:SW:S	3.6	0.25	320	b	b bc Frcu Cu c Acu Stcu y	c Cicu Acu Stcu bc y	c r
2	5.5	0.65	5.0	0.59	S:SSW	S:NW	8.8	0.65	397	rr c ir	b c Nbst r R c P	r R Nbst Cu Acu bc c	c
3	0.0	0.00	0.0	0.00	WNW:W	WSW:SW	6.6	0.55	377	b	b c Acu Cu y	c ir ro	ir o r
4	7.3	0.85	6.8	0.80	W:SW	SW	12.7	1.10	479	rr c	c Nbst	do Nbst c rr	bc b
5	8.5	1.00	8.5	1.00	SW:WSW	W:WSW	7.4	0.80	445	b bc	bc Cu Stcu Nbst do bc y	bc Acu Stcu Cu b y	b
6	0.0	0.00	0.0	0.00	WSW	SW:Caln	1.3	0.13	206	b w	b Ci Cu c Cist Frcu y	c so-ha c Ast Stcu Cu y	c
7	5.3	0.62	4.7	0.55	Caln:N	W:Caln	1.6	0.05	184	c rr	rr Nbst	rr Nbst c P	P bc
8	8.5	1.00	8.5	1.00	WSW:WNW	WNW:WSW	6.4	0.21	283	bc c	c Ci Frcu bc b Acu	bc Ci Cicu Cumb p c p bc	b
9	8.3	0.92	7.7	0.85	W:NW	N:Caln	1.0	0.08	200	b w	b bc Cu Frcu Ci y	bc Ci Cu b y	b bc
10	9.0	1.00	9.0	1.00	Caln	Caln	0.3	0.02	97	bc b x	b Frcu y	b Frcu y	b
11	9.0	1.00	9.0	1.00	Caln:E	E:ESE	1.0	0.05	137	b x m	b m b Cu y	b Cu y	b mo
12	9.0	1.00	9.0	1.00	E:ESE	ESE:E	3.7	0.27	264	b w mo	b Cu y	b Cu Ci y	b
13	7.8	0.87	7.7	0.86	Caln:E	ESE:Caln	1.4	0.06	167	b w f m	f m bc Ci Cu so-ha y	bc Ci Cicu so-ha bc y	bc b c b
14	1.7	0.19	1.1	0.13	Caln	SW	1.0	0.04	114	b m f w	bc Acu Stcu f c Acu zo	c Cicu Acu c Cu Stcu d c	c
15	9.0	1.00	9.0	1.00	SSW:SW	SW:WSW	3.0	0.22	267	c	c Acu Ast Frst	c Ci Acu Cu Stcu	bc b
16	6.3	0.66	6.1	0.64	W:WNW	NW:WNW:W	1.5	0.14	243	b w	b Cu c Stcu y	c Stcu Frcu y	bc b
17	4.4	0.46	3.8	0.40	Caln	Caln	0.2	0.00	87	b c b w m	b m bc Cu Acu Frcu mo	bc c Stcu Frcu mo	b w
18	0.4	0.04	0.1	0.01	Caln:E	E	0.8	0.05	148	c w m	c Acu Ast m c Nbst	ro c Cumb ro	c
19	0.3	0.03	0.0	0.00	Caln	Caln	0.0	0.00	82	c	c St Frst Acu	c Nbst ro r ir	c
20	6.8	0.72	4.7	0.49	Caln	W	0.2	0.01	141	c m	c St Stcu Acu mo	c bc b t c Acu Cu mo	c b m
21	4.9	0.51	1.0	0.11	W:Caln	NE:Caln	0.0	0.00	96	b m f w	o ff b m	b Cu mo c m	b c m
22	0.0	0.00	0.0	0.00	Caln	SW	0.3	0.01	119	c b c m	c St mo	c Acu Cicu c ro	ir ro c
23	0.9	0.09	0.7	0.07	WNW:N	WNW:W:WSW	1.6	0.10	242	c p c	c bc Ci Cicu Cu y	c Ci Cu Stcu Ast y	c ir ro
24	2.8	0.28	2.8	0.28	SW:WNW	NW:NNW	14.0	1.51	524	c ir o r	Ast Nbst ir c q	c Acu Nbst Stcu q	d do q c
25	0.1	0.01	0.0	0.00	NW:WNW	W	3.0	0.26	317	c b mo	c Acu Cicu Cu prn	c Cicu Acu Nbst y	c ir o
26	10.2	0.99	10.2	0.99	W:NNW	NW:WNW:W	4.1	0.30	339	c r c	c b Cu Frcu bc y	bc b Stcu y	b
27	10.0	0.97	9.9	0.96	W:WNW	WNW:NW	6.0	0.36	356	b c	c Stcu Acu y	c r c Stcu Acu Nbst	b
28	0.7	0.07	0.6	0.06	NW	WNW:WSW	0.7	0.05	194	b m w	b m b Ci prha bc so-ha	c Frcu Acu Ast bc prha y	c
29	0.2	0.02	0.0	0.00	WSW	WSW:W	2.2	0.17	302	c	c ir o c Ast	c Cu Cicu Ci Acu	c
30	1.3	0.12	1.1	0.11	W:N:NNW	NW:N:NNE	0.3	0.04	160	c	c b Acu Ci bc	bc Acu Cu c y	c r o c r R
Means	4.6	0.50	4.2	0.46	..	..	..	0.25	243				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 52°.0, being 2°.1 lower than  
 The mean *Temperature of the Dew Point* for the month was 48°.1, being 3°.0 lower than  
 The mean *Degree of Humidity* for the month was 75.7, being 4.2 less than  
 The mean *Elastic Force of Vapour* for the month was 0.337 in., being 0.042 in. less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.2.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.354. The maximum daily amount of *Sunshine* was 10.1 hours on September 9.  
 The highest reading of the *Solar Radiation Thermometer* was 132°.1 on September 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°.7 on September 11.  
 The *Proportions of Wind* referred to the cardinal points were N.12, E.9, S.14, W.40, calm or nearly calm conditions 25, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 14.0 lbs. on the square foot on September 24. The mean daily *Horizontal Movement of the Air* for the month was 243 miles; the greatest daily value was 524 miles on September 24, and the least daily value was 82 miles on September 19.  
*Rain* (0.005 in. or over) fell on 14 days in the month, amounting to 2.727 in., as measured by gauge No.6 partly sunk below the ground; being 0.579 in. greater than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER Mean of 24 Hourly Values (Corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature	Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon		
		Of the Air					Of Evaporation	Of the Dew Point			Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years					Highest in Sun's Rays	Lowest on the Grass						
Oct. 1	29.948	56.1	44.0	12.1	50.7	- 3.4	46.9	42.5	8.2	14.3	1.8	73	104.3	35.0	56.5	0.023	6.0	11.6
2	30.086	57.6	39.6	18.0	48.0	- 5.7	42.9	35.8	12.2	28.6	3.2	63	107.9	30.5	56.6	0.000	9.6	11.6
3	29.895	57.3	48.0	9.3	51.2	- 2.1	46.4	40.6	10.6	16.6	4.2	67	109.4	44.5	56.3	0.029	6.5	11.5
4	29.842	53.3	45.1	8.2	48.0	- 5.0	45.8	43.3	4.7	7.2	2.2	83	104.2	40.2	56.0	0.277	1.7	11.4
5	30.011	56.3	45.0	11.3	50.2	- 2.6	47.0	43.3	6.9	13.4	1.4	77	100.3	39.0	55.9	0.000	6.0	11.4
6	30.048	60.4	47.6	12.8	53.1	+ 0.6	49.0	44.7	8.4	19.0	2.4	73	113.4	41.8	55.8	0.000	9.1	11.3
7	29.828	55.4	47.2	8.2	51.5	- 0.8	49.4	47.2	4.3	5.5	1.5	85	74.9	42.6	55.6	0.000	0.2	11.3
8	29.842	56.0	43.0	13.0	49.7	- 2.3	48.7	47.7	2.0	5.3	0.0	93	78.0	34.2	55.4	0.015	0.1	11.2
9	29.807	56.1	48.2	7.9	51.7	+ 0.1	50.4	49.1	2.6	5.2	0.9	91	72.6	44.4	55.3	0.020	0.0	11.1
10	29.691	58.3	45.7	12.6	51.8	+ 0.5	49.3	46.6	5.2	11.6	0.9	82	99.3	33.3	55.2	0.000	2.2	11.1
11	29.475	61.0	50.2	10.8	54.3	+ 3.4	52.2	50.2	4.1	8.3	1.6	86	94.1	43.0	55.0	0.240	0.5	11.0
12	29.418	57.1	45.0	12.1	51.5	+ 0.9	49.8	48.1	3.4	6.1	1.2	88	78.3	36.0	55.0	0.203	0.2	10.9
13	29.387	57.8	38.5	19.3	49.1	- 1.2	46.9	44.5	4.6	11.6	0.0	84	105.9	28.0	55.0	0.170	5.2	10.9
14	29.397	59.1	44.7	14.4	52.0	+ 1.9	48.4	44.5	7.5	15.3	1.3	75	103.5	35.0	54.9	0.027	7.7	10.8
15	29.479	57.6	40.6	17.0	47.8	- 2.1	45.8	43.5	4.3	10.0	0.0	85	91.2	28.6	54.8	0.000	1.4	10.7
16	29.091	59.6	40.0	19.6	50.1	+ 0.3	48.1	45.9	4.2	11.2	0.0	86	112.5	27.2	54.8	0.535	5.1	10.7
17	29.196	59.0	46.5	12.5	52.6	+ 3.0	50.8	49.1	3.5	6.3	1.0	87	81.3	41.8	54.4	0.537	0.9	10.6
18	29.080	57.3	47.9	9.4	52.3	+ 3.0	48.3	43.9	8.4	14.2	2.4	73	105.9	42.3	54.4	0.126	5.1	10.6
19	29.474	56.0	45.1	10.9	51.6	+ 2.5	47.6	43.0	8.6	15.1	1.9	73	69.1	38.0	54.1	0.000	0.2	10.5
20	29.342	55.9	45.1	10.8	50.1	+ 1.3	48.9	47.7	2.4	4.8	1.0	91	64.9	38.0	54.0	0.281	0.4	10.4
21	29.481	58.4	48.7	9.7	52.9	+ 4.3	51.3	49.8	3.1	6.4	1.4	89	97.3	41.1	54.0	0.007	1.3	10.4
22	29.827	55.9	47.5	8.4	51.2	+ 2.9	49.5	47.8	3.4	7.1	0.8	88	93.2	39.9	54.0	0.000	..	..
23	29.647	52.4	42.4	10.0	47.4	- 0.7	46.2	44.8	2.6	6.2	0.9	91	66.5	37.6	53.8	0.165	0.0	10.2
24	29.737	52.9	41.6	11.3	47.0	- 0.9	45.0	42.6	4.4	9.6	1.8	85	64.3	36.8	53.6	0.115	0.0	10.2
25	30.019	52.9	46.6	6.3	49.2	+ 1.5	48.0	46.8	2.4	3.8	0.6	91	70.3	34.8	53.6	0.002	0.1	10.1
26	29.937	52.0	46.4	5.6	47.5	- 0.1	47.1	46.7	0.8	3.1	0.0	97	59.3	36.8	53.4	0.000	0.0	10.0
27	29.632	50.4	37.3	13.1	46.9	- 0.6	44.0	40.5	6.4	17.9	0.6	78	90.3	38.7	53.3	0.200	4.5	10.0
28	29.443	49.4	34.7	14.7	42.5	- 4.9	40.2	36.8	5.7	11.5	0.0	80	89.4	26.1	53.1	0.029	1.9	9.9
29	29.521	46.7	34.3	12.4	40.4	- 6.9	39.4	38.0	2.4	3.9	0.0	91	60.0	24.9	53.0	0.035	0.3	9.9
30	29.860	51.5	41.0	10.5	46.1	- 1.1	43.0	39.0	7.1	14.0	3.5	76	90.9	30.0	52.7	0.000	5.1	9.8
31	29.901	50.0	44.4	5.6	47.3	+ 0.2	45.5	43.4	3.9	7.2	1.4	86	54.4	38.6	52.7	0.045	0.0	9.7
Means	29.656	55.5	43.9	11.5	49.5	- 0.5	47.2	44.4	5.1	10.3	1.3	82.8	87.3	36.1	54.6	Sum 3.081	2.7	10.7
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the Barometer for the month was 29.656 in., being 0.072 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 61° 0 on October 11; the lowest in the month was 34° 3 on October 29; and the range was 26° 7.

The mean of all the highest daily readings in the month was 55° 5, being 1° 5 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 43° 9, being 0° 1 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 11° 5, being 1° 7 less than the average for the 65 years, 1841-1905.

The mean for the month was 49° 5, being 0° 5 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		S URSA: MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
Oct. 1	9.4	0.89	9.3	0.88	NNE:N	NNW:N	3.0	0.20	295	rr c b	b c Cu Nbst y	c Cu Nbst	c Po b
2	0.5	0.05	0.4	0.04	N:NNE	NW:WSW	2.2	0.10	224	b mo	b mo b y	b y	c
3	1.5	0.14	1.3	0.13	WSW:W:NW	NNW:NW	4.0	0.25	338	c p c	c b Prcu Cu c y	c p b Cu Cicu	b c
4	6.9	0.66	6.8	0.65	NNW:N	NNE	8.3	0.30	329	c	ro ro rr Nbst p	c Acu Stcu Nbst t p c	bc
5	5.5	0.52	4.1	0.39	NNE:ENE	E:NE	2.5	0.18	285	bc	bc b Acu Cicu cCuStcu	c Stcu Acu Prcu b	b c
6	3.0	0.28	1.8	0.17	NE:ENE	ENE:NE	6.0	0.65	420	b c	b Acu y	b Cicu y	c
7	3.9	0.35	1.8	0.16	NE:ENE	E:Calm	3.9	0.32	294	c bc c	c Nbst	rr Nbst b m	b c m
8	0.3	0.03	0.2	0.02	Calm	Calm:NE	0.4	0.02	124	bc m o f Fe	o Fe Fe b f c Ast f	c Ast f c	c r c bc
9	2.5	0.22	1.8	0.17	Calm:NE	Calm:NE	0.2	0.00	127	c	c ido d mo Nbst	ido d Nbst Iro mo	Iro c mo
10	1.4	0.13	1.0	0.09	Calm	Calm:SW	0.0	0.00	92	c mo	c Acu bc b Acu Prcu	b c Acu	c
11	10.2	0.93	10.9	0.91	SSW	SSW:SW	9.4	0.60	383	c b c	c Prst Nbst ro	ro ro rr Nbst bc	b
12	7.3	0.66	7.3	0.66	SW	SW:Calm	2.6	0.18	250	b c	c Nbst Iro c r	rr Nbst c	c m b
13	6.1	0.55	5.5	0.50	WSW:SW	SW	8.5	0.68	369	b w	b bc Ci so-ha prha	c Cist Acu Nbst ro r ro	rr o b c p b
14	11.0	0.96	10.3	0.90	WSW:W	W:WSW	8.7	0.95	414	b c b	b bc Acu Cu Ci y	b c p c	b
15	7.9	0.69	7.6	0.66	SW	Calm:SSW	0.1	0.00	154	b m w	b c Stcu Acu Cicu	c Acu bc	bc b
16	5.5	0.48	4.9	0.42	SE:WSW	SW:WSW	6.2	0.40	329	b c	rr c Prst Nbst bc c p	c Ir bc Cu Prcu	c r R bc b
17	5.5	0.48	4.4	0.38	W:WSW	SW:WSW	9.0	0.98	450	b c	c Acu Stcu Ci c r	r R r Nbst	b
18	7.4	0.64	7.3	0.63	WSW	WSW	7.0	1.23	510	b c	bc Acu Prst po bc	bc Acu Ci Prcu p brhn rr	c p c t l b
19	2.3	0.20	0.0	0.00	W:NW	NW:WSW	5.0	0.67	378	b	c Stcu Nbst ro c	c Stcu	c bc c
20	3.8	0.33	2.5	0.21	SW:SSW	SSW:S:SE	7.2	0.42	282	c rr	c Nbst ro r	rr Stcu Nbst c p	bc p bc
21	2.7	0.22	1.3	0.11	E:NE	NE	0.6	0.05	204	c mo	c St Prst c Cu Acu	bc Nbst c p	bc c bc
22	0.0	0.00	0.0	0.00	N:NE	NE:Calm	0.3	0.00	131	bc c m w	c m w c Stcu Acu mo	c Stcu Acu mo	c mo
23	4.5	0.37	3.2	0.27	Calm:SW	NNW	2.0	0.10	202	c m	c Nbst ido d mo	rr c bc Stcu Cu mo	bc c mo
24	3.4	0.28	2.9	0.24	NNW:N:NNE	NE:NNE	3.2	0.35	336	c rr	r c Nbst c Stcu Macu	c Stcu Acu Cu Nbst b	b c
25	2.5	0.20	0.9	0.08	NNE	NNE:Calm	0.2	0.02	160	c m w	c St Cu mo	c b Ci Acu brhn c m mo	c m
26	0.0	0.00	0.0	0.00	Calm	Calm:SSW	0.1	0.00	67	o m f f w	o F f	o c b Acu c ff	c f c
27	11.0	0.92	9.6	0.80	SSW:N	NNW:WNW	2.6	0.13	270	c ro rr	c Ast Nbst Iro b Prcu	b bc Stcu Cu Prcu y	b
28	8.4	0.67	5.8	0.47	WSW:W	W:Calm	1.4	0.05	191	b x bc c	do r c Stcu Acu mo	c Stcu Cumb mo	c b mo
29	7.1	0.57	6.9	0.55	Calm:NNE	E:ENE	0.6	0.04	152	b x c m	c Acu Stcu ro r c Nbst	c Stcu	b c p c b
30	2.4	0.19	2.2	0.18	ENE:NE	NE:NNE	4.3	0.37	346	b c b c b	b c Acu Cu	c Stcu	bc c
31	0.1	0.01	0.0	0.00	NNE	NNE	2.1	0.31	312	bc c	c Stcu	c Stcu Nbst Iro	Iro rr c
Means	4.6	0.41	3.9	0.34	..	..	..	0.31	272				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 47°.2, being 0°.7 lower than  
 The mean *Temperature of the Dew Point* for the month was 44°.4, being 1°.2 lower than  
 The mean *Degree of Humidity* for the month was 82.8, being 2.1 less than  
 The mean *Elastic Force of Vapour* for the month was 0.294 in., being 0.014 in. less than  
 The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7.2.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.253. The maximum daily amount of *Sunshine* was 9.6 hours on October 2.  
 The highest reading of the *Solar Radiation Thermometer* was 113°.4 on October 6; and the lowest reading of the *Terrestrial Radiation Thermometer* was 24°.9 on October 29.  
 The *Proportions of Wind* referred to the cardinal points were N.27, E.16, S.15, W.24, calm or nearly calm conditions 18, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 9.4 lbs. on the square foot on October 11. The mean daily *Horizontal Movement of the Air* for the month was 272 miles; the greatest daily value was 510 miles on October 18, and the least daily value was 67 miles on October 26.  
*Rain* (0.005 in. or over) fell on 20 days in the month, amounting to 3.081 in., as measured by gauge No.6 partly sunk below the ground; being 0.299 in. greater than the average fall for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Nov. 1	29.872	50.5	40.9	9.6	45.4	- 1.6	43.2	40.3	5.1	12.8	0.7	83	85.4	31.2	52.4	0.000	1.1	9.7
2	29.579	48.7	36.4	12.3	42.2	- 4.6	40.5	38.1	4.1	9.3	0.4	85	80.0	26.7	52.2	0.000	1.6	9.6
3	29.541	47.6	35.4	12.2	42.3	- 4.3	41.3	40.0	2.3	5.9	0.0	91	49.6	26.7	52.0	0.074	0.0	9.6
4	29.667	55.2	41.4	13.8	49.0	+ 2.6	46.0	42.4	6.6	10.7	1.2	78	87.7	34.4	51.9	0.000	6.5	9.5
5	29.627	59.4	41.7	17.7	52.2	+ 6.1	49.1	45.8	6.4	13.5	1.3	79	87.8	32.8	51.8	0.628	0.7	9.5
6	29.697	53.2	38.1	15.1	45.2	- 0.6	42.6	39.1	6.1	10.3	0.9	80	82.3	29.2	51.8	0.347	3.4	9.4
7	29.451	48.4	42.0	6.4	45.8	+ 0.4	42.0	36.4	9.4	15.9	2.0	70	63.3	37.8	51.4	0.062	0.1	9.3
8	29.499	42.9	34.8	8.1	39.1	- 5.9	37.8	35.0	3.2	5.3	0.8	88	50.0	29.7	51.2	0.183	0.0	9.3
9	29.710	42.8	33.6	9.2	38.5	- 6.1	35.4	30.1	8.4	15.1	2.7	71	73.9	27.8	51.0	0.000	4.2	9.2
10	30.124	42.6	32.8	9.8	37.8	- 6.5	34.3	28.2	9.6	13.3	4.8	67	65.5	27.0	50.8	0.000	0.2	9.2
11	30.093	41.9	31.2	10.7	38.4	- 5.6	36.6	33.7	4.7	6.6	0.6	83	48.1	24.5	50.5	0.003	0.0	9.1
12	29.847	41.4	31.0	10.4	36.8	- 6.9	36.0	34.6	2.2	5.2	0.0	92	45.9	24.3	50.1	0.063	0.0	9.1
13	29.459	42.4	36.0	6.4	39.7	- 3.8	38.1	35.9	3.8	8.5	0.9	86	62.3	29.8	49.9	0.015	0.8	9.0
14	29.085	42.6	34.8	7.8	38.7	- 4.6	37.3	35.3	3.4	7.6	0.5	87	66.1	28.9	49.8	0.020	1.6	8.9
15	29.315	40.1	32.0	8.1	36.9	- 6.2	35.6	33.5	3.4	7.5	0.0	87	50.7	26.7	49.5	0.049	0.0	8.9
16	29.718	42.0	32.2	9.8	35.3	- 7.5	34.2	32.3	3.0	8.6	0.0	89	58.9	29.4	49.2	0.002*	1.9	8.8
17	29.555	54.8	36.3	18.5	48.6	+ 6.0	47.7	46.8	1.8	4.0	0.0	93	57.0	33.0	49.0	0.775	0.0	8.8
18	29.555	56.0	50.7	5.3	53.3	+10.9	51.4	49.6	3.7	6.9	1.0	87	68.3	46.0	49.0	0.106	0.0	8.7
19	29.363	56.6	52.0	4.6	53.9	+11.6	51.8	49.8	4.1	5.1	2.4	86	59.6	47.4	49.0	0.080	0.0	8.7
20	29.208	56.8	43.0	13.8	51.8	+ 9.6	49.1	46.2	5.6	10.0	2.2	81	70.6	37.5	49.1	0.066	1.7	8.6
21	29.952	45.0	34.2	10.8	40.0	- 2.1	37.5	33.5	6.5	12.3	1.1	77	56.9	26.1	49.1	0.015	3.4	8.6
22	29.537	58.0	41.0	17.0	52.2	+10.1	50.9	49.6	2.6	4.4	0.6	91	61.7	38.0	49.4	0.279	0.0	8.5
23	29.334	58.0	50.5	7.5	55.2	+13.2	53.3	51.6	3.6	7.8	1.5	87	86.1	42.8	49.4	0.476	2.4	8.5
24	29.133	55.3	44.6	10.7	51.8	+ 9.8	49.7	47.5	4.3	8.0	2.0	85	76.7	41.0	49.4	0.064	0.3	8.4
25	29.190	46.3	38.0	8.3	42.1	+ 0.2	40.1	37.2	4.9	10.1	2.1	83	62.7	32.8	49.3	0.030	3.7	8.4
26	29.616	41.7	31.4	10.3	38.0	- 3.8	36.4	34.0	4.0	9.6	1.0	85	55.8	24.9	49.4	0.074	2.0	8.4
27	29.907	45.0	35.2	9.8	39.6	- 2.1	38.4	36.7	2.9	6.7	0.0	89	64.6	28.0	49.4	0.000	1.4	8.4
28	29.758	54.3	42.6	11.7	49.5	+ 8.0	48.1	46.6	2.9	5.9	2.0	90	59.0	39.0	49.4	0.233	0.1	8.3
29	30.005	50.1	38.1	12.0	44.0	+ 2.8	42.1	39.7	4.3	8.8	1.5	85	71.2	30.9	49.0	0.000	6.0	8.3
30	30.151	52.0	43.1	8.9	46.4	+ 5.4	44.7	42.6	3.8	6.6	0.5	87	74.6	32.7	49.0	0.001*	2.4	8.2
Means	29.618	49.1	38.5	10.6	44.3	+ 0.8	42.4	39.8	4.6	8.8	1.1	84.1	66.1	32.2	50.1	Sum 3.645	1.5	8.9
No. of Col. for Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic 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 Psychrometric Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

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

\* Rainfall (Column 16). The amounts entered on November 16 and 30 are derived from dew.

The mean reading of the Barometer for the month was 29.618 in., being 0.147 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 59°.4 on November 5; the lowest in the month was 31°.0 on November 12; and the range was 28°.4.

The mean of all the highest daily readings in the month was 49°.1, being 0°.2 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 38°.5, being 0°.1 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 10°.6, being 0°.1 greater than the average for the 65 years, 1841-1905.

The mean for the month was 44°.3, being 0°.8 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
Nov. 1	4.5	0.36	3.9	0.31	NNE:NE	NNE:N	0.6	0.08	201	c m	c Stcu Cu Acu m c	c Stcu	c b
2	6.3	0.50	5.3	0.42	N:NNE	NNE:N	0.6	0.03	146	b c m	c Stcu Acu Cu	c Stcu	c b m x
3	5.9	0.47	4.7	0.38	WSW	WSW	1.4	0.10	256	b c m	c r c rr c Stcu m	c Stcu mo	ro c
4	4.4	0.34	4.2	0.33	WSW	WSW:SW	5.4	0.70	424	c b	b c Acu b bc so-ha	b Acu c	c b c
5	8.1	0.63	7.9	0.62	WSW:SW	SW:NNW:WSW	20.8	1.96	516	c q	c Stcu Prst q gale	c Nbst ir ro RR	r c b
6	2.8	0.22	1.8	0.14	WSW	WSW	13.0	0.79	383	b mo	bc Acu mo c	c Nbst Ast r c	c q c R
7	3.6	0.28	2.1	0.16	W:WNW	WNW	8.5	1.22	507	c r c	c Acu Prst q y	c Ast q c	c
8	10.7	0.84	8.8	0.69	W:WSW:CalM	CalM:NNW:W	0.7	0.05	184	c b c m	c Ast Nbst ro m	rr g f Nbst bc	bc b m c b x
9	12.7	1.00	12.7	1.00	W:WNW:NW	NNW:NW	4.7	0.53	423	b c	c bc Acu	bc c Acu b Prcu y	b
10	1.6	0.13	0.3	0.03	NW:NNW	NNW	1.7	0.20	278	b m	c Acu brha so-ha mo	c Acu mo'	b c
11	7.7	0.59	0.0	0.00	NNW:CalM	CalM	0.2	0.02	107	c mo	c St iro ff c m	c St b m	b m
12	0.0	0.00	0.0	0.00	CalM	W:CalM	0.4	0.00	113	b c x w f	c Stcu ff	c St f iro m	rr ro
13	8.7	0.67	6.7	0.52	NNE:N:NNW	NW:WNW	1.3	0.13	255	rr o m	c bc c Prcu Prst mo	c Prcu mo	c b c mo
14	0.0	0.00	0.0	0.00	W	CalM:ENE	0.7	0.03	193	c bc b w m	c Acu m	c f g c St mo	bc b c iro
15	4.4	0.34	4.4	0.34	ENE	NE:NNE	1.4	0.10	223	rr mo	rr c Stcu mo	c b mo	b c m
16	2.0	0.15	0.0	0.00	WNW:W	WNW:SW:SSE	0.6	0.03	184	c m w	c St b m	b c m	bc m c
17	0.0	0.00	0.0	0.00	SSE:SSW:SW	SW:WSW	4.9	1.04	443	c rr	rr Nbst	rr Nbst	ir
18	1.5	0.12	0.6	0.04	WSW	SW:SSW	4.3	0.57	367	ir	ir c Stcu Ast	c Ast ro c	ir ro
19	0.5	0.04	0.5	0.04	SSW:SW:WSW	WSW:SW	10.5	1.86	543	c ir ro	c Stcu Prst q	c Stcu q c	c ir
20	8.0	0.60	7.5	0.57	SW:WSW	WNW:NNE:NNW	7.0	1.02	452	c ir	c Stcu Prcu	c g rro	po c b
21	2.4	0.18	0.0	0.00	NW:NNW	CalM:SW	2.3	0.11	207	b m	b m mo	b bc Ci mo ff	f c r
22	0.0	0.00	0.0	0.00	SW:W	W:WSW	4.5	0.45	336	rr c	c Prst	c Stcu r	rr c
23	3.1	0.23	2.0	0.15	WSW:W	W	5.8	0.51	370	c R r	ir o Nbst c Ci Prcu	bc Acu c	c bc
24	4.1	0.31	3.1	0.23	SW:W	W:CalM	6.4	0.47	273	c iro	c Nbst Prst iro	c Prst so-ha c	r c rr c
25	7.9	0.59	6.4	0.48	WNW	W:N	1.5	0.12	244	c b m	b Ci m bc	bc Ci c rr c	c
26	5.2	0.38	4.7	0.35	WNW:W	SW:W	1.0	0.05	211	b m x	b Acu Ci Stcu m	c ro P	b m
27	0.0	0.00	0.0	0.00	N	CalM:SW	2.0	0.05	167	b c m	c St m	c Acu bc Ast Prcu c m	c
28	10.0	0.74	9.6	0.71	SW	WSW:WNW	10.4	1.25	441	c ir ro	ir ro Nbst ido	c Nbst ido c Acu Prst	rr c b
29	3.9	0.29	1.6	0.12	W	W:WSW	0.4	0.05	204	b w f	ff b m	b m	c w m
30	2.4	0.18	0.8	0.06	WSW:W	W:WSW	0.7	0.05	199	c w m	c bc Ci b m	bc Acu Ci m	bc c lu-ha
Means	4.4	0.34	3.3	0.26	..	..	..	0.45	295				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 42°.4, being 0°.5 higher than  
 The mean *Temperature of the Dew Point* for the month was 39°.8, being 0°.1 higher than  
 The mean *Degree of Humidity* for the month was 84.1, being 2.5 less than  
 The mean *Elastic Force of Vapour* for the month was 0.246 in., 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 7.7.  
 The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.170. The maximum daily amount of *Sunshine* was 8.5 hours on November 4.  
 The highest reading of the *Solar Radiation Thermometer* was 87°.8 on November 5; and the lowest reading of the *Terrestrial Radiation Thermometer* was 24°.3 on November 12.  
 The *Proportions of Wind* referred to the cardinal points were N.18, E.4, S.14, W.51, calm or nearly calm conditions 13, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 20.8 lbs. on the square foot on November 5. The mean daily *Horizontal Movement of the Air* for the month was 295 miles; the greatest daily value was 543 miles on November 19, and the least daily value was 107 miles on November 11.  
*Rain* (0.005 in. or over) fell on 20 days in the month, amounting to 3.645 in., as measured by gauge No.6 partly sunk below the ground; being 1.425 in. greater than the average fall for the 65 years, 1841-1905.



TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sun-shine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Of Radiation				Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years			Highest in Sun's Rays	Lowest on the Grass	Mean			Great-est	Least			
Dec.1	29.995	51.1	45.7	5.4	48.8	+ 7.9	46.4	43.7	5.1	7.5	1.6	82	59.0	41.5	48.8	0.000	0.0	8.2
2	29.708	50.4	39.0	11.4	45.3	+ 4.4	41.8	36.9	8.4	16.5	2.9	72	70.0	32.7	48.7	0.074	3.2	8.2
3	29.603	54.0	38.2	15.8	47.2	+ 6.1	44.7	41.7	5.5	14.7	2.0	81	54.0	31.9	48.7	0.062	0.0	8.1
4	29.458	50.0	38.0	12.0	44.8	+ 3.5	40.6	34.3	10.5	13.8	3.7	66	74.1	30.5	48.8	0.000	3.8	8.1
5	29.470	46.9	37.0	9.9	40.4	- 1.1	38.0	34.3	6.1	11.6	1.6	78	72.0	29.6	48.6	0.000	5.3	8.1
6	29.317	45.8	32.1	13.7	39.6	- 1.9	38.2	36.2	3.4	8.1	0.0	87	68.8	23.8	48.4	0.020	3.1	8.0
7	28.957	42.6	34.0	8.6	38.8	- 2.5	37.7	36.0	2.8	5.4	0.7	90	58.0	28.5	48.2	0.087	0.6	8.0
8	28.939	38.8	32.5	6.3	36.3	- 4.7	34.8	32.3	4.0	6.7	1.2	85	49.7	27.0	47.9	0.067	0.3	8.0
9	29.325	40.1	31.4	8.7	35.8	- 4.8	34.1	31.1	4.7	8.3	1.0	83	49.6	26.1	47.7	0.000	0.3	7.9
10	29.196	44.0	32.4	11.6	37.9	- 2.5	36.7	34.8	3.1	5.3	1.3	89	46.2	26.9	47.3	0.115	0.0	7.9
11	28.944	46.6	36.8	9.8	41.5	+ 1.3	39.5	36.6	4.9	7.8	2.0	83	75.3	28.6	47.2	0.000	3.1	7.9
12	29.450	43.5	36.5	7.0	40.7	+ 0.4	38.9	36.3	4.4	6.7	2.6	84	45.5	30.5	47.0	0.026	0.0	7.9
13	30.032	39.0	29.1	9.9	33.3	- 7.2	32.8	31.9	1.4	2.6	0.0	95	41.1	23.0	46.8	0.000	0.0	7.9
14	29.964	42.2	31.2	11.0	37.0	- 3.7	36.2	34.8	2.2	4.6	0.0	92	50.2	28.3	46.7	0.000	0.0	7.9
15	29.637	41.1	34.5	6.6	37.9	- 2.9	36.9	35.3	2.6	4.1	0.8	91	52.3	29.5	46.7	0.000	0.0	7.9
16	29.445	49.3	34.3	15.0	43.6	+ 2.9	42.6	41.3	2.3	3.0	0.9	92	54.0	29.6	46.3	0.015	0.5	7.9
17	29.197	53.2	46.0	7.2	49.5	+ 9.1	48.2	46.8	2.7	3.9	1.8	90	64.5	40.0	46.7	0.672	0.1	7.9
18	29.586	51.5	39.8	11.7	46.1	+ 6.1	44.5	42.5	3.6	8.4	0.5	87	79.0	29.4	46.3	0.030	4.9	7.8
19	30.005	46.2	37.9	8.3	41.6	+ 2.1	41.2	40.7	0.9	2.1	0.0	97	54.8	29.0	46.4	0.009	0.0	7.8
20	30.244	38.0	32.9	5.1	36.2	- 2.8	36.1	36.0	0.2	1.0	0.0	99	38.2	27.6	46.3	0.007*	0.0	7.8
21	30.320	46.1	33.2	12.9	41.2	+ 2.5	40.6	39.8	1.4	2.5	0.0	95	50.4	30.3	46.3	0.007	0.0	7.8
22	30.352	47.0	39.4	7.6	43.2	+ 4.8	43.1	42.9	0.3	1.0	0.0	99	46.4	36.0	46.2	0.153	0.0	7.8
23	30.483	44.0	36.4	7.6	40.6	+ 2.4	39.8	38.7	1.9	3.9	0.7	93	61.3	31.0	46.2	0.000	0.9	7.8
24	30.420	40.7	29.5	11.2	35.1	- 3.1	33.9	31.8	3.3	8.6	0.0	88	89.6	23.6	46.1	0.000	5.0	7.8
25	30.271	30.0	24.5	5.5	27.7	-10.7	27.6	27.2	0.5	0.8	0.0	99	34.6	16.0	46.0	0.000	0.0	7.8
26	30.205	31.0	24.2	6.8	27.9	-10.7	27.8	27.4	0.5	0.8	0.0	99	36.5	18.2	45.7	0.000	0.0	7.9
27	30.035	30.0	23.1	6.9	26.0	-12.8	25.8	25.3	0.7	2.1	0.0	97	32.5	22.0	45.4	0.000	0.0	7.9
28	30.246	35.1	25.9	9.2	30.9	- 8.0	29.9	28.3	2.6	2.7	1.1	88	45.0	17.9	45.1	0.000	0.0	7.9
29	30.407	28.6	19.9	8.7	25.6	-13.4	25.3	24.6	1.0	1.3	0.0	96	29.3	17.8	45.0	0.000	0.0	7.9
30	30.178	39.6	27.0	12.6	32.9	- 6.0	32.3	31.3	1.6	2.7	0.6	93	45.0	23.0	44.7	0.013	0.0	7.9
31	30.256	37.3	30.6	6.7	33.7	- 5.0	32.3	30.0	3.7	6.9	1.6	85	52.4	23.5	44.3	0.000	2.1	7.9
Means	29.795	42.7	33.3	9.4	38.3	- 1.6	37.0	35.2	3.1	5.7	0.9	88.9	54.2	27.5	46.8	Sum 1.357	1.1	7.9
No. of Col. of Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

\* Rainfall (Column 16). The amount entered on December 20 is derived from wet-fog.

The mean reading of the Barometer for the month was 29.795 in., being 0.003 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 54° 0 on December 3; the lowest in the month was 19° 9 on December 29; and the range was 34° 1.

The mean of all the highest daily readings in the month was 42° 7, being 1° 5 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 33° 3, being 2° 2 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 9° 4, being 0° 7 greater than the average for the 65 years, 1841-1905.

The mean for the month was 38° 3, being 1° 6 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1944	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	Polaris		δ URSÆ MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
Dec.1	0.8	0.06	0.6	0.04	WSW	WSW:SW	9.3	0.69	399	c	c Prst	c Prst Nbst	ro c
2	11.1	0.81	9.8	0.71	WSW:W	W	9.5	0.94	463	c ir q	c ir c Stcu by	b	b c
3	..	..	..	..	W:WSW	W:WNW	13.0	1.24	493	b c	c rr m Nbst c ir	c ir q	ro b q
4	13.6	0.99	13.6	0.99	WNW	WNW:W	8.8	1.46	503	b c q	c b bc Cist Prcu q	bc Prcu Cist b y	b
5	13.5	0.98	13.5	0.98	WSW:W	W:WSW	2.5	0.26	324	b mo x	b Cicu	b	b
6	2.1	0.16	1.3	0.10	WSW	WSW	3.2	0.24	299	b x m	b bc Cist Ci	c Cist ro r	ro r c
7	9.2	0.67	8.5	0.62	WSW	WSW:SW	1.3	0.11	224	c b c r	rr c Cicu St m	c r Nbst c ro	iro b
8	9.5	0.69	9.2	0.67	WSW:WNW	NNW	3.0	0.25	331	b c rs r m	rs c m	c Nbst ro so	c b
9	11.2	0.81	8.3	0.60	WNW:NW	NW:WNW	1.0	0.10	250	b f x	b c f x b Ci m	b bc Prcu mo	bc b
10	7.4	0.54	5.7	0.42	WSW:SW	SSW:WSW	6.3	0.44	332	b x c f	c f m c r	rr	r c
11	3.6	0.26	2.5	0.18	WSW	WSW:WNW	1.7	0.11	256	c b x m	b Acu Ci m bc prhn	bc so-ha prhn c	bc c
12	7.3	0.53	6.9	0.50	WNW:NNW	NNW	3.2	0.23	298	c ir	c St ir g m	c Ast mo	c b
13	2.4	0.18	0.0	0.00	Calm	Calm	0.1	0.00	63	b m	b x ff	FF	F c m
14	0.5	0.04	0.3	0.02	Calm:SSE	SSE	1.0	0.05	160	c x m	c mo	c mo	c mo
15	1.5	0.11	0.0	0.00	SSE:Calm	Calm	0.1	0.00	96	c	c Acu f	c Acu mo	c
16	0.7	0.05	0.7	0.05	Calm:S	SSW	7.5	0.17	255	c	c Nbst ro	ro b bc Acu	c
17	7.8	0.56	7.1	0.51	SSW:SW	SW	20.0	2.30	545	c rr q	rr c Acu Cicu	c Acu Cicu	c ir c
18	9.5	0.68	9.1	0.65	SW	SW:S	3.5	0.24	270	c p b	b Acu	b Acu	b
19	0.6	0.05	0.0	0.00	S:Calm	Calm	0.0	0.00	98	c iro	c Prst f m	c St m Fe	Fe Fe
20	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	72	Fe Fe	Fe Fe	Fe Fe	Fe Fe c id f
21	0.0	0.00	0.0	0.00	SW:W	Calm	0.3	0.00	118	c id f	o ff	o ff	o ff
22	2.1	0.15	0.0	0.00	Calm:NE	Calm	0.2	0.00	106	rr d f	o dd ff	o dd ff	c f
23	10.9	0.78	10.6	0.76	Calm:ENE	NE:ENE	0.6	0.02	146	c f	c Prst f mo	c mo	c b
24	14.0	1.00	14.0	1.00	ENE:NE	NE:ENE	0.1	0.00	166	b x f	b x m	b Ci m	b x m
25	0.0	0.00	0.0	0.00	Calm	Calm:N	..	..	..	b x m f	b f F x	F f x	ff x
26	0.0	0.00	0.0	0.00	Calm:NE	Calm	..	..	..	f F x	FF x	F f x	ff x
27	6.8	0.49	1.0	0.07	Calm:WSW	W:Calm	..	..	..	ff x	F f x	ff x	c x f
28	13.0	0.93	6.2	0.45	Calm:NNE	NE:Calm	..	..	..	b x ff	b f m x	b m x	b f x
29	3.4	0.24	3.4	0.24	Calm	Calm:WSW	..	..	..	b m x	FF x	FF x	F b x f
30	13.3	0.97	9.7	0.71	WSW:W	W:NNW	..	..	192	b x f	c d ff x	c bc ff x	bc b f x
31	11.7	0.85	10.7	0.78	N:NNE	NNE	1.0	0.08	242	b x f	bc x f m	b x m	b x m
Means	6.3	0.45	5.1	0.37	..	..	..	0.36†	258*				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 37°.0, being 1°.5 lower than  
 The mean *Temperature of the Dew Point* for the month was 35°.2, being 1°.2 lower than  
 The mean *Degree of Humidity* for the month was 88.9, being 1.4 greater than  
 The mean *Elastic Force of Vapour* for the month was 0.205 in., being 0.011 in. 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 0.135. The maximum daily amount of *Sunshine* was 5.3 hours on December 5.  
 The highest reading of the *Solar Radiation Thermometer* was 89°.6 on December 24; and the lowest reading of the *Terrestrial Radiation Thermometer* was 16°.0 on December 25.  
 The *Proportions of Wind* referred to the cardinal points were N.13, E.5, S.15, W.36, calm or nearly calm conditions 31, the whole month being represented by 100.  
 The *Greatest Pressure of the Wind* in the month was 20.0 lbs. on the square foot on December 17. The mean daily *Horizontal Movement of the Air* for the month was 258 miles; the greatest daily value was 545 miles on December 17, and the least daily value was 63 miles on December 13.  
*Rain* (0.005 in. or over) fell on 14 days in the month, amounting to 1.357 in., as measured by gauge No.6 partly sunk below the ground; being 0.470 in. less than the average fall for the 65 years, 1841-1905.  
 † Mean of 25 days only, instrument frozen. \* Mean of 26 days only, instrument frozen.

TABLE XVIII(A). - HIGHEST AND LOWEST READINGS OF THE BAROMETER, REDUCED TO 32° FAHRENHEIT, AS EXTRACTED FROM THE PHOTOGRAPHIC RECORDS

MAXIMA		MINIMA		MAXIMA		MINIMA		MAXIMA		MINIMA	
U.T., 1944.	Reading	U.T., 1944.	Reading	U.T., 1944.	Reading	U.T., 1944.	Reading	U.T., 1944.	Reading	U.T., 1944.	Reading
d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.
January		January		June		June		October		October	
2. 9. 0	30.054	1. 13. 15	29.989	3. 7. 30	29.985	1. 12. 30	29.689	2. 9. 45	30.142	1. 3. 30	29.904
5. 9. 50	30.438	3. 18. 45	29.723	7. 21. 20	29.738	7. 2. 0	29.515	6. 8. 25	30.104	4. 11. 0	29.796
11. 0. 45	30.065	10. 1. 0	29.457	12. 20. 50	29.996	9. 17. 15	29.416	8. 9. 15	29.868	7. 13. 30	29.782
12. 19. 55	29.960	11. 19. 20	29.813	15. 8. 5	30.090	13. 12. 15	29.719	8. 9. 15	29.868	11. 16. 10	29.308
15. 10. 05	30.519	13. 15. 0	29.800	17. 20. 40	30.106	16. 8. 40	29.756	13. 8. 0	29.512	14. 0. 0	29.178
20. 11. 0	30.106	19. 21. 45	29.941	21. 9. 0	30.059	19. 16. 20	29.945	14. 23. 30	29.565	16. 14. 50	29.003
24. 5. 20	29.714	23. 3. 20	29.060	24. 2. 0	29.979	22. 17. 50	29.871	17. 9. 30	29.313	17. 16. 15	29.124
28. 22. 30	30.262	24. 22. 35	29.016	29. 7. 25	29.671	27. 2. 5	29.233	18. 1. 20	29.193	18. 18. 20	28.936
February		February		July		July		November		November	
6. 8. 15	30.367	3. 15. 0	29.542	1. 21. 30	29.730	3. 10. 40	29.491	22. 10. 0	29.860	24. 6. 0	29.566
9. 2. 45	29.993	7. 15. 15	29.840	6. 1. 0	29.717	7. 4. 35	29.461	25. 20. 30	30.061	28. 19. 50	29.393
15. 9. 25	30.207	9. 23. 55	29.510	8. 21. 20	29.693	9. 17. 30	29.478	30. 21. 35	29.962		
21. 0. 0	30.350	17. 2. 15	29.852	12. 7. 0	29.929	13. 18. 0	29.708				
24. 10. 30	30.208	23. 5. 25	29.987	16. 23. 0	29.989	21. 17. 35	29.543				
March		March		August		August		December		December	
8. 9. 0	30.528	27. 14. 20	29.176	24. 9. 45	30.002	27. 4. 50	29.590	4. 9. 50	29.705	3. 13. 50	29.510
12. 1. 45	29.883	28. 21. 0	29.814	28. 21. 0	29.814	29. 17. 40	29.621	6. 11. 40	29.788	5. 14. 0	29.550
18. 8. 35	30.144	31. 23. 5	30.074	31. 23. 5	30.074			8. 5. 0	29.546	6. 23. 5	29.367
20. 8. 40	30.114							10. 19. 0	30.188	8. 15. 45	29.430
25. 9. 25	30.319							16. 20. 50	29.835	14. 12. 30	29.036
April		April		September		September					
1. 7. 45	29.954	11. 15. 20	29.780	5. 0. 0	30.150	2. 17. 0	29.952	18. 11. 15	29.613	19. 7. 20	29.274
6. 23. 15	30.025	13. 5. 55	29.417	14. 8. 45	30.078	9. 17. 30	29.690	19. 18. 5	29.413	20. 12. 0	29.016
10. 10. 0	29.910	19. 5. 10	29.888	18. 0. 20	29.786	16. 16. 40	29.593	21. 17. 50	30.046	25. 2. 0	29.070
19. 0. 30	29.986	22. 15. 0	29.877	22. 20. 0	29.836	19. 15. 40	29.493	26. 10. 0	29.695	26. 17. 35	29.582
22. 9. 30	30.346	30. 15. 40	29.513	24. 14. 40	29.905	23. 6. 15	29.679	27. 18. 10	30.041	28. 13. 5	29.640
26. 9. 25	30.444			26. 8. 10	30.116	24. 15. 5	29.813	30. 19. 45	30.183		
28. 20. 30	30.236			28. 23. 15	29.752	28. 9. 50	29.631				
May		May		October		October					
3. 22. 15	29.875	1. 10. 0	29.715	3. 9. 30	29.926	2. 12. 50	29.138	3. 2. 25	29.805	2. 4. 10	29.640
8. 7. 35	30.289	3. 9. 30	29.926	6. 9. 20	29.674	5. 5. 0	29.360	5. 9. 30	29.511	3. 22. 40	29.378
14. 23. 10	30.257	11. 9. 0	30.291	11. 9. 0	30.291	7. 7. 15	29.461	10. 2. 20	29.471	7. 21. 35	28.786
24. 7. 15	30.137	17. 9. 30	30.242	17. 9. 30	30.242	15. 15. 10	29.783	13. 19. 0	30.095	10. 18. 25	28.867
27. 10. 30	30.211	21. 9. 15	29.998	21. 9. 15	29.998	20. 3. 40	29.826	23. 19. 20	30.497	17. 5. 0	29.059
		23. 10. 55	29.793	23. 10. 55	29.793	23. 0. 0	29.662	29. 9. 15	30.464	27. 14. 0	29.975
		25. 9. 10	29.916	25. 9. 10	29.916	23. 0. 0	29.662			30. 16. 10	30.120
		26. 11. 35	29.921	26. 11. 35	29.921	24. 5. 25	29.320				
		28. 20. 0	30.069	28. 20. 0	30.069	26. 1. 50	29.725				
		30. 9. 40	30.002	30. 9. 40	30.002	27. 15. 10	29.753				
						29. 17. 0	29.890				

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 Universal Time.

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.

TABLE XVIII(B). - HIGHEST AND LOWEST READINGS OF THE BAROMETER IN EACH MONTH FOR THE YEAR 1944

	January	February	March	April	May	June	July	August	September	October	November	December
HIGHEST	in. 30.519	in. 30.367	in. 30.528	in. 30.444	in. 30.289	in. 30.106	in. 30.074	in. 30.150	in. 30.291	in. 30.142	in. 30.188	in. 30.497
LOWEST	29.016	29.176	29.417	29.199	29.282	29.233	29.461	29.412	29.138	28.936	29.016	28.786
RANGE	1.503	1.191	1.111	1.245	1.007	0.873	0.613	0.738	1.153	1.206	1.172	1.711

The highest reading in the year was 30.528 ins. on Mar. 8. The lowest reading in the year was 28.786 ins. on Dec. 7. The range of reading in the year was 1.742 ins.

TABLE XIX. - MONTHLY RESULTS OF METEOROLOGICAL ELEMENTS FOR THE YEAR 1944

MONTH 1944	Mean Reading of the Barometer	TEMPERATURE OF THE AIR								Mean Temperature of Evaporation	Mean Temperature of the Dew Point	Mean Degree of Humidity (Saturation = 100)
		Highest	Lowest	Range in the Month	Mean of all the Highest	Mean of all the Lowest	Mean of the Daily Ranges	Monthly Mean	Excess of Mean above the Average of 65 Years			
	in.	°	°	°	°	°	°	°	°	°	°	
January	29.995	55.6	26.2	29.4	48.8	39.1	9.8	44.1	+5.5	41.9	38.9	82.1
February	29.932	55.6	24.3	31.3	43.0	33.9	9.1	38.5	-1.1	35.9	31.7	75.8
March	29.961	68.4	22.7	45.7	49.2	33.8	15.4	41.4	-0.5	37.9	32.4	69.9
April	29.875	72.3	33.1	39.2	59.9	43.0	16.9	51.1	+3.8	47.0	42.2	72.2
May	29.957	89.3	29.8	59.5	65.7	43.1	22.6	54.2	+1.1	48.4	41.9	63.6
June	29.767	76.0	41.3	34.7	67.5	49.5	18.0	58.1	-1.3	52.4	46.7	66.6
July	29.749	81.0	47.7	33.3	72.1	55.7	16.5	63.0	+0.3	58.3	54.5	74.2
August	29.838	88.0	51.6	36.4	76.3	56.8	19.5	65.0	+3.4	59.7	55.6	72.3
September	29.854	74.9	37.5	37.4	63.9	47.9	16.0	55.8	-1.5	52.0	48.1	75.7
October	29.656	61.0	34.3	26.7	55.5	43.9	11.5	49.5	-0.5	47.2	44.4	82.8
November	29.618	59.4	31.0	28.4	49.1	38.5	10.6	44.3	+0.8	42.4	39.8	84.1
December	29.795	54.0	19.9	34.1	42.7	33.3	9.4	38.3	-1.6	37.0	35.2	88.9
Means	29.833	89.3	19.9	69.4	57.8	43.2	14.6	50.3	+0.7	46.7	42.6	75.7

MONTH 1944	Mean Elastic Force of Vapour	Mean Tempera- ture of the Earth 4 feet below the Surface of the Soil	Mean Amount of Cloud (0-10)	RAIN		WIND											From Robin- son's Anemo- meter			
				Number of Rainy Days (0.005 in. or over)	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	From Osler's Anemometer												Number of Calm or Nearly Calm Hours	Mean Daily Pressure on the Square Foot	Mean Daily Horizontal Move- ment of the Air
						Number of Hours of Prevalence of each Wind referred to different Points of Azimuth														
						N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.							
	in.	°			in.	h	h	h	h	h	h	h	h	h	h	h	h	lbs.	miles	
January	0.237	45.1	7.9	11	1.404	18	17	-	6	33	337	216	32	85	0.56	345				
February	0.178	44.5	7.8	13	0.773	134	181	25	5	43	87	58	74	89	0.42	312				
March	0.183	42.7	6.5	6	0.108	96	98	17	8	3	126	92	129	175	0.19	229				
April	0.270	46.3	6.9	13	1.510	80	48	69	38	70	131	92	66	126	0.17	222				
May	0.267	50.1	5.1	7	0.614	99	120	39	14	22	129	59	40	222	0.29	233				
June	0.320	53.7	7.1	12	1.516	92	90	-	1	40	206	160	92	39	0.45	317				
July	0.427	57.0	7.7	15	1.473	37	48	60	48	32	197	138	55	129	0.21	221				
August	0.445	59.3	6.0	11	2.862	38	88	113	26	10	139	118	25	187	0.14	211				
September	0.337	58.0	6.2	14	2.727	31	12	53	18	15	147	162	104	178	0.25	243				
October	0.294	54.6	7.2	20	3.081	102	152	40	8	33	146	81	49	133	0.31	272				
November	0.246	50.1	7.7	20	3.645	73	38	9	2	11	186	236	74	91	0.45	295				
December	0.205	46.8	6.7	14	1.357	41	49	7	12	41	133	174	58	229	0.36	258				
Sums	..	..	..	156	21.070	841	941	432	186	353	1964	1586	798	1683	..	..				
Means	0.284	50.7	6.9	..	..	..	..	..	..	..	..	..	..	..	0.32	263				

The greatest recorded pressure of the wind on the square foot in the year was 20.8 lbs. on Nov.5.

The greatest recorded Daily Horizontal Movement of the Air in the year was 677 miles on Jan.22.

The least recorded Daily Horizontal Movement of the Air in the year was 61 miles on Jan.16.



TABLE XXII. - MONTHLY MEAN TEMPERATURE OF EVAPORATION AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE AUTOGRAPHIC RECORDS

Hour, Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means	
0 <sup>h</sup>	41.7	35.4	35.8	44.7	45.5	50.5	56.1	57.7	50.7	45.6	41.3	36.2	45.1	
1	41.5	35.1	35.6	44.2	44.6	50.0	55.6	57.2	50.6	45.3	41.2	36.0	44.7	
2	41.3	35.0	35.3	44.0	43.9	49.6	55.4	57.0	50.3	45.3	41.1	35.6	44.5	
3	41.0	34.6	35.0	43.6	43.2	49.3	55.3	56.8	50.0	45.2	41.1	35.4	44.2	
4	40.9	34.5	34.7	43.3	42.8	48.8	55.2	56.5	49.6	45.2	41.0	35.2	44.0	
5	40.7	34.4	34.6	43.1	42.7	48.8	55.1	56.1	49.0	45.3	41.2	35.3	43.9	
6	40.4	34.3	34.8	43.1	43.8	49.8	55.9	56.4	48.6	45.2	41.3	35.5	44.1	
7	40.3	34.2	35.3	44.3	46.0	50.9	57.0	57.8	49.2	45.6	41.4	35.7	44.8	
8	40.4	34.4	36.3	45.7	48.0	51.7	57.9	59.1	51.0	46.4	41.6	36.0	45.7	
9	40.7	35.2	38.0	47.3	49.5	52.8	58.9	60.6	52.6	47.8	42.4	36.6	46.9	
10	41.4	36.0	39.2	48.4	50.8	53.6	59.9	61.6	53.6	48.7	43.3	37.7	47.9	
11	42.1	36.7	39.9	49.5	51.6	54.2	60.4	62.1	54.1	49.2	43.9	38.5	48.5	
12	42.7	37.2	40.4	50.0	52.1	54.8	60.7	62.4	54.5	49.5	44.3	39.0	49.0	
13	43.2	37.6	41.2	50.5	52.6	54.8	60.7	62.8	54.7	49.6	44.5	39.4	49.3	
14	43.4	37.9	41.6	50.8	53.1	55.3	61.0	62.8	54.8	49.7	44.5	39.5	49.5	
15	43.3	37.8	41.5	50.7	53.2	55.4	60.9	62.7	54.9	49.6	44.2	39.3	49.5	
16	43.0	37.5	41.3	50.5	52.8	55.0	61.0	62.5	54.5	49.2	43.7	38.8	49.1	
17	42.8	37.2	40.9	50.1	52.5	54.8	60.6	62.2	53.9	48.5	43.1	38.2	48.7	
18	42.7	36.7	40.3	49.4	51.7	54.5	60.2	61.7	53.2	48.0	42.6	37.9	48.2	
19	42.8	36.3	39.3	48.2	50.5	53.8	59.5	60.7	52.4	47.4	42.2	37.4	47.5	
20	42.5	36.0	38.3	47.5	49.5	53.3	58.6	59.6	51.8	46.9	42.0	37.0	46.9	
21	42.4	35.9	37.6	46.8	48.4	52.7	58.0	59.3	51.5	46.5	41.8	36.5	46.5	
22	42.2	35.6	36.8	46.1	47.3	51.8	57.3	58.6	51.1	46.1	41.7	36.2	45.9	
23	41.9	35.4	36.2	45.6	46.3	51.1	56.8	57.9	50.8	45.8	41.6	36.0	45.5	
24	41.7	35.1	35.8	45.2	45.5	50.6	56.3	57.4	50.6	45.5	41.3	35.7	45.1	
Means	0 <sup>h</sup> -23 <sup>h</sup>	41.9	35.9	37.9	47.0	48.4	52.4	58.3	59.7	52.0	47.2	42.4	37.0	46.7
	1 <sup>h</sup> -24 <sup>h</sup>	41.9	35.9	37.9	47.0	48.4	52.4	58.3	59.7	52.0	47.2	42.4	37.0	46.7
No. of Days Employed	31	29	31	30	31	30	31	31	30	31	30	31	..	

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

Hour, Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means	
0 <sup>h</sup>	39.2	32.2	32.3	42.1	42.3	47.4	54.1	55.9	48.9	43.9	39.5	34.5	42.7	
1	39.0	32.1	32.7	41.6	41.9	47.3	53.4	55.6	49.0	43.7	39.6	34.4	42.5	
2	38.8	32.3	32.7	41.7	41.5	47.1	53.8	55.7	48.8	43.8	39.5	34.0	42.5	
3	38.6	31.5	32.7	41.5	41.1	47.1	53.9	55.5	48.7	43.8	39.8	34.1	42.4	
4	38.8	31.8	32.6	41.5	41.1	46.9	54.0	55.3	48.4	43.9	39.4	34.1	42.3	
5	38.6	31.1	32.1	41.3	40.5	46.5	53.6	54.5	47.3	44.1	39.6	33.9	41.9	
6	38.0	30.8	32.1	40.6	40.9	47.0	53.7	54.8	46.7	43.5	39.5	33.7	41.8	
7	37.8	30.5	32.5	41.6	41.7	47.1	54.2	55.7	47.0	43.9	39.5	33.9	42.1	
8	37.4	30.9	32.9	41.9	41.9	46.7	54.8	56.2	48.4	44.2	39.3	34.1	42.4	
9	37.4	31.4	33.7	42.4	41.8	47.1	54.9	56.5	48.8	45.2	39.9	34.8	42.8	
10	38.0	31.5	33.4	42.5	41.9	46.7	55.3	56.5	48.8	45.3	40.5	35.8	43.0	
11	38.2	31.3	33.1	42.7	41.7	46.3	55.1	55.9	48.3	45.3	40.6	36.4	42.9	
12	38.6	31.2	32.4	42.8	41.6	45.9	54.9	55.9	47.7	45.3	40.0	36.3	42.7	
13	39.1	31.1	32.4	42.8	41.7	45.2	54.9	55.4	47.7	45.2	39.8	36.7	42.7	
14	39.2	31.3	32.3	42.8	41.8	45.9	54.8	55.0	48.0	45.4	40.0	36.6	42.8	
15	39.5	31.7	31.6	42.6	42.1	46.2	54.6	54.9	48.3	45.3	40.4	36.6	42.8	
16	39.3	31.8	31.4	42.5	42.2	45.9	55.2	55.1	48.0	45.1	40.2	36.4	42.8	
17	39.5	32.0	31.8	42.9	42.9	46.6	55.0	55.7	48.5	44.8	40.0	36.0	43.0	
18	39.6	31.5	32.3	42.8	43.2	47.0	55.0	56.0	48.6	45.0	39.7	35.9	43.1	
19	39.8	31.7	32.1	42.4	43.2	47.3	55.0	56.1	48.6	44.8	39.8	35.5	43.0	
20	39.7	31.8	32.3	42.9	43.9	48.0	54.5	55.8	48.7	44.6	39.8	35.0	43.1	
21	39.9	32.0	32.4	43.1	43.8	48.5	54.9	56.4	49.0	44.5	39.8	34.6	43.2	
22	39.7	31.9	32.3	43.0	43.3	47.7	54.5	56.1	48.8	44.1	39.7	34.1	42.9	
23	39.5	32.2	32.2	42.9	42.9	47.5	54.5	55.7	48.8	44.1	39.7	34.1	42.8	
24	39.3	31.7	32.3	42.5	42.5	47.7	54.3	55.4	48.9	43.8	39.5	33.9	42.7	
Means	0 <sup>h</sup> -23 <sup>h</sup>	38.9	31.6	32.4	42.3	42.1	46.9	54.5	55.7	48.3	44.5	39.8	35.1	42.7
	1 <sup>h</sup> -24 <sup>h</sup>	38.9	31.5	32.4	42.3	42.1	46.9	54.5	55.7	48.3	44.5	39.8	35.0	42.7

GREENWICH METEOROLOGICAL OBSERVATIONS, 1944.

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

Hour, Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means	
0 <sup>h</sup>	84	82	80	83	80	80	85	87	87	89	89	91	85	
1	85	82	83	84	82	82	84	87	89	90	90	91	86	
2	85	84	84	86	85	83	88	89	90	91	90	91	87	
3	86	82	86	87	87	85	89	90	91	91	91	93	88	
4	87	84	88	88	88	87	91	91	91	92	90	94	89	
5	87	81	85	88	86	85	88	89	88	92	90	92	88	
6	85	80	84	85	82	82	84	88	87	89	89	90	85	
7	84	79	83	83	74	75	83	85	85	89	88	90	83	
8	82	80	80	77	65	69	77	78	82	85	86	90	79	
9	81	79	76	70	58	64	73	72	76	83	85	90	76	
10	79	75	69	66	53	60	69	65	70	78	83	88	71	
11	77	70	65	62	49	55	65	60	64	75	79	86	67	
12	76	68	60	60	47	52	62	57	60	74	74	83	64	
13	75	66	56	58	45	49	61	54	58	73	73	83	63	
14	75	65	55	56	44	50	61	53	59	73	74	83	62	
15	77	68	53	56	45	51	60	53	61	73	76	83	63	
16	78	69	52	57	46	51	61	55	61	74	78	85	64	
17	80	71	55	60	50	54	63	58	66	76	81	86	67	
18	82	72	59	62	54	57	65	62	71	80	82	87	69	
19	83	75	64	67	59	61	70	68	76	83	85	88	73	
20	83	76	68	73	67	68	72	73	79	85	86	88	77	
21	85	78	72	78	72	73	77	79	83	86	87	89	80	
22	85	79	76	80	75	74	80	82	84	86	87	88	81	
23	85	81	77	82	79	76	83	83	86	88	88	90	83	
24	85	81	80	82	80	80	85	86	88	89	89	90	85	
Means	0 <sup>h</sup> -23 <sup>h</sup>	82	76	71	73	66	68	75	73	77	83	84	88	76
	1 <sup>h</sup> -24 <sup>h</sup>	82	76	71	73	66	68	75	73	77	83	84	88	76

TABLE XXV. - 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 1944

MONTH 1944	Registered duration of Sunshine in the Hour ending:-																Total Registered Duration of Sunshine in each Month	Corresponding aggregate Period during which the Sun was above the Horizon	Proportion of Sunshine	Mean Altitude of the Sun at Noon
	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>				
January	-	-	-	-	0.6	4.1	7.7	8.7	8.9	6.6	3.9	0.5	-	-	-	-	41.0	260.1	0.158	18
February	-	-	-	-	3.9	7.7	9.7	9.6	7.7	5.3	3.9	3.1	0.4	-	-	-	51.3	288.5	0.178	26
March	-	-	0.4	2.1	8.0	11.9	10.0	13.0	13.2	13.0	10.9	8.6	3.3	0.2	-	-	94.6	368.5	0.257	37
April	-	1.1	6.3	10.1	10.7	9.8	13.6	12.9	13.0	11.7	12.3	12.3	9.7	8.4	1.4	-	133.3	416.1	0.320	48
May	-	6.9	17.2	19.7	19.8	19.2	18.9	18.4	17.6	19.7	19.7	17.9	17.1	13.9	4.7	0.2	230.9	484.2	0.477	57
June	1.2	7.5	12.1	14.4	12.7	12.3	12.4	14.2	12.4	14.5	13.8	14.0	11.4	13.1	10.6	4.2	180.8	496.5	0.364	62
July	0.8	3.3	7.7	7.7	7.5	10.8	11.5	11.7	9.1	10.7	11.3	11.7	10.7	10.3	3.4	0.3	128.5	499.4	0.257	60
August	-	2.9	8.1	10.7	14.2	17.6	18.1	17.7	17.7	20.5	18.4	17.5	13.8	13.4	5.4	-	196.0	451.7	0.434	52
September	-	0.2	5.0	11.8	15.4	15.9	16.8	14.2	13.3	11.3	10.8	9.7	7.3	2.4	0.1	-	134.2	379.6	0.354	41
*October	-	-	-	4.6	9.5	9.9	10.8	10.4	9.5	8.2	6.8	7.6	4.0	-	-	-	81.3	320.8	0.253	30
November	-	-	-	-	2.6	6.0	7.4	7.6	10.4	6.0	4.6	0.9	-	-	-	-	45.5	266.9	0.170	20
December	-	-	-	-	-	3.9	7.5	7.8	5.8	5.4	2.8	-	-	-	-	-	33.2	245.6	0.135	16
For the Year	2.0	21.9	56.8	81.1	104.9	129.1	144.4	146.2	138.6	132.9	119.2	103.8	77.7	61.7	25.6	4.7	1350.6	4477.9	0.302	..

\* Register lost on October 22.  
The hours are reckoned from "Apparent" midnight.









TABLE XXVII. - READINGS OF THERMOMETERS AT 9<sup>h</sup> ON THE REVOLVING OPEN STAND (FORMERLY CALLED 'ORDINARY') IN THE NEW SITE IN THE CHRISTIE ENCLOSURE

1944	January	February	March	April	May	June	July	August	September	October	November	December
Day	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.
1	44.8 33.7	46.9 40.9	41.4 31.2	49.8 31.7	73.8 47.3	75.6 50.2	73.2 54.1	75.7 59.3	68.4 53.7	64.1 45.2	49.6 42.8	52.0 42.5
2	49.9 43.6	53.1 46.4	43.4 32.3	48.4 37.2	70.6 46.1	70.1 53.3	71.2 60.3	71.1 58.6	73.7 52.8	57.3 38.4	51.9 35.0	51.4 45.4
3	49.6 45.4	55.6 48.3	42.5 27.4	57.5 41.9	73.5 49.2	70.2 52.2	73.2 60.1	72.9 57.8	63.0 48.0	57.3 44.6	49.8 34.1	46.9 37.8
4	51.1 36.6	52.9 35.2	43.6 26.6	60.5 48.8	61.5 35.3	73.7 52.9	65.0 53.2	78.1 53.8	64.7 57.2	59.3 45.0	48.8 39.9	54.2 42.8
5	40.9 26.9	42.1 31.7	40.2 30.2	61.6 48.9	55.2 40.5	73.3 49.0	73.1 52.8	82.2 55.0	64.5 56.3	53.5 44.0	56.8 48.0	47.6 36.7
6	45.4 31.3	42.0 23.2	43.2 22.2	60.1 47.0	62.0 41.1	64.9 48.2	73.8 55.3	81.0 55.1	68.0 46.7	57.2 46.8	59.8 37.4	46.4 31.3
7	47.7 42.0	49.2 28.2	43.7 29.7	52.2 40.6	53.4 34.1	60.6 49.4	81.0 61.6	81.2 50.2	65.8 50.0	61.6 47.2	53.3 43.0	46.2 34.9
8	48.5 41.3	54.0 39.6	47.2 31.7	51.1 38.0	57.8 30.0	62.6 46.8	76.4 54.3	83.2 56.3	56.6 45.3	56.0 42.0	48.6 39.0	42.4 32.1
9	49.8 44.2	46.5 35.6	50.3 35.4	60.8 46.3	63.6 32.4	66.9 54.1	76.5 55.1	84.7 55.2	61.6 42.2	56.1 45.9	43.6 34.2	38.8 30.9
10	51.6 37.4	47.3 33.5	43.7 28.6	61.1 41.3	70.1 39.2	65.3 49.2	67.2 53.3	82.7 59.3	62.4 36.2	57.0 43.9	43.1 31.6	40.3 31.9
11	39.7 24.9	41.6 34.7	47.4 36.2	60.2 42.7	69.3 42.5	64.9 42.2	63.4 56.2	83.3 60.2	63.5 37.1	58.9 49.9	43.0 36.7	44.4 34.2
12	46.1 33.6	45.6 33.3	50.4 39.0	61.9 38.5	77.9 46.8	65.0 48.6	66.1 51.7	83.8 59.2	64.7 41.6	61.9 49.2	42.2 30.1	46.2 36.2
13	52.2 45.5	42.4 34.6	55.0 43.6	66.5 43.9	78.4 45.1	71.1 49.3	70.1 59.2	82.0 57.2	67.0 46.6	57.7 38.4	41.4 35.0	43.3 28.7
14	53.4 34.1	40.2 32.2	49.6 35.5	58.9 40.6	77.8 48.0	72.0 47.7	71.0 55.1	80.1 52.1	69.1 45.5	57.8 48.4	42.7 34.5	36.7 30.5
15	47.6 27.2	43.2 31.4	43.9 28.6	64.7 44.3	58.4 35.2	67.1 47.0	75.2 56.3	77.3 54.3	74.1 57.9	59.1 40.1	43.0 35.3	42.3 35.0
16	37.9 29.2	45.1 34.0	47.6 29.3	58.9 47.5	53.7 40.5	72.0 51.4	74.0 58.3	77.2 50.7	71.5 48.6	58.1 38.9	40.4 30.4	44.0 34.4
17	44.2 30.2	41.3 35.4	47.0 35.8	52.2 45.4	49.9 38.0	63.9 51.2	78.8 56.6	88.9 60.9	66.9 46.2	59.0 46.3	47.4 32.4	50.3 43.4
18	48.4 37.4	36.9 32.7	50.6 35.2	52.0 42.7	57.3 38.9	66.7 44.7	82.5 54.3	80.0 62.5	69.1 48.6	58.3 48.0	55.1 47.0	53.6 45.0
19	48.7 42.3	36.3 31.4	54.2 44.8	59.5 34.7	58.5 34.6	72.0 46.1	77.0 54.9	80.7 60.3	61.5 55.5	57.1 49.2	56.4 50.6	50.5 39.3
20	49.6 37.8	36.2 32.7	53.6 36.9	62.0 48.2	60.2 34.8	72.6 48.4	75.3 55.5	79.3 59.8	63.5 52.4	56.4 45.2	56.8 51.8	46.5 35.7
21	45.0 37.2	40.0 33.5	50.3 43.0	61.1 39.2	64.3 40.7	75.8 50.0	74.3 52.4	65.4 54.6	67.4 47.2	56.5 48.2	55.8 36.0	42.2 32.0
22	50.3 40.2	41.9 30.2	45.9 32.1	62.0 45.8	56.6 39.9	65.5 46.8	70.6 52.1	60.1 55.8	64.2 50.2	58.9 46.7	54.8 34.8	45.5 33.0
23	51.4 43.2	40.8 30.6	49.8 32.7	69.0 42.4	62.7 44.8	73.6 52.2	65.1 55.2	68.4 59.7	66.9 51.9	56.9 47.2	57.3 54.0	46.2 36.0
24	45.6 34.3	38.9 25.5	53.6 34.1	70.8 48.1	61.6 40.1	67.9 40.7	66.6 56.2	80.1 59.8	63.0 46.1	53.0 41.2	57.8 50.0	44.6 29.0
25	49.8 38.2	40.6 29.5	57.1 34.2	62.5 44.2	70.1 44.8	77.7 48.7	71.0 47.7	76.2 51.8	56.1 43.2	52.7 45.2	55.2 38.0	40.6 22.6
26	46.8 36.4	42.0 35.2	61.4 38.3	60.1 46.1	64.8 55.2	75.1 56.2	74.2 60.6	80.3 54.4	60.0 51.5	53.2 45.8	45.1 31.2	30.1 23.3
27	53.3 40.1	41.0 33.6	69.6 33.3	64.0 40.4	76.0 53.9	66.9 49.3	80.4 58.8	83.0 54.8	63.3 44.2	52.2 44.2	42.2 33.8	31.1 23.3
28	55.7 48.3	37.9 28.1	56.2 38.0	72.9 47.5	83.9 48.6	63.8 51.1	76.4 57.7	81.8 57.2	60.9 39.4	50.3 34.3	49.4 35.8	30.2 23.5
29	52.7 44.7	42.3 26.7	60.5 38.0	61.0 43.2	85.0 55.2	69.6 57.0	79.5 56.4	71.5 54.9	57.9 46.9	50.2 32.7	54.3 37.8	35.1 19.9
30	50.4 43.4		45.1 35.2	60.8 45.1	90.9 57.5	73.8 52.9	71.4 56.7	66.5 55.7	64.0 53.1	47.4 38.5	49.5 38.7	32.0 22.9
31	54.2 39.0		50.8 28.6		88.1 54.2		76.4 55.4	73.0 54.6		52.0 44.0		40.3 31.2
Means	48.5 37.7	43.6 33.4	49.6 33.8	60.1 43.1	67.3 43.0	69.3 49.6	73.4 55.7	77.8 56.5	64.8 48.1	56.4 44.0	49.8 38.6	43.3 33.1

TABLE XXVIII. - AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1944

Gauges partly sunk in the ground in the Christie Enclosure	Monthly Amount of Rain collected in each Gauge														Height of Receiving Surface	
	Number of Gauge	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sums	Above the Ground	Above Mean Sea Level
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	ft. in.	ft. in.
6	1.404	0.773	0.108	1.510	0.614	1.516	1.473	2.862	2.727	3.081	3.645	1.357	21.070	0 5	149 6	
8	1.367	0.755	0.108	1.447	0.595	1.493	1.427	2.828	2.748	3.058	3.565	1.356	20.747	1 0	150 1	
Number of Rainy Days (0.005 in. or over)	11	13	6	13	7	12	15	11	14	20	20	14	156	..	..	

TABLE XXIX. - 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	January	February	March	April	May	June	July	August	September	October	November	December	Mean for the Year
h	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
1	14.4	11.5	8.5	8.2	8.3	10.4	7.6	7.6	9.1	9.7	11.4	11.1†	9.8
2	14.2	10.7	8.2	8.2	8.1	10.2	7.6	7.2	8.9	10.5	11.7	10.8	9.7
3	13.3	11.1	8.4	7.9	7.9	10.3	7.7	6.5	8.7	10.2	11.6	11.2	9.6
4	13.8	11.3	8.8	8.1	8.3	10.6	7.2	6.7	8.9	10.6	12.8	10.9	9.8
5	13.5	11.6	8.6	7.6	7.6	11.0	7.3	7.3	8.3	10.4	12.3	10.6	9.7
6	13.2	12.0	8.5	7.3	8.0	11.0	7.5	7.5	8.1	10.5	12.8	10.4	9.7
7	13.1	12.2	8.3	8.1	8.2	12.7	7.8	7.1	8.6	10.9	13.4	10.2	10.0
8	13.4	12.4	8.6	8.6	8.5	12.8	8.8	7.4	8.7	11.1	12.9	9.5	10.2
9	14.2	12.9	9.8	8.6	9.5	13.9	9.5	7.9	9.5	11.7	13.7	10.0	10.9
10	14.1	14.0	9.8	9.2	10.5	13.8	9.5	9.0	10.3	12.1	13.2	10.4	11.3
11	15.1	14.7	10.0	9.9	10.4	14.4	10.3	9.6	10.9	12.6	13.6	11.0	11.9
12	15.4	15.0	10.2	10.9	10.9	14.8	10.4	10.7	11.6	13.7	14.2	11.3	12.4
13	16.5	15.2	11.6	10.1	9.8	15.5	10.6	10.0	11.3	13.3	14.1	10.9	12.4
14	16.0	15.2	11.0	10.5	10.6	15.8	10.9	11.1	12.1	13.0	13.7	11.2	12.6
15	15.6	15.0	11.0	11.2	11.7	16.6	11.3	11.3	12.6	12.4	12.4	11.4	12.7
16	15.1	14.4	10.8	11.1	12.1	16.2	11.1	10.7	12.6	12.0	11.2	10.7	12.3
17	14.9	14.2	11.1	10.9	11.6	16.3	11.7	10.7	12.3	11.6	11.4	11.0	12.3
18	14.5	13.2	10.4	11.0	11.7	15.5	11.2	10.1	11.2	11.7	11.1	11.2	11.9
19	14.6	13.0	9.4	10.7	11.4	14.9	10.4	9.5	10.8	11.0	11.3	10.4	11.5
20	14.6	13.0	9.6	9.9	10.3	13.6	9.8	9.1	10.4	10.7	11.5	10.4	11.1
21	14.1	12.7	9.4	8.6	9.9	12.0	9.3	8.6	10.0	10.4	11.5	10.3	10.6
22	13.9	12.5	9.4	8.1	9.6	11.8	8.3	8.7	9.7	10.5	11.1	10.9	10.4
23	13.7	12.3	9.1	8.5	9.2	11.5	8.1	8.2	9.4	10.6	11.3	11.4	10.3
24	14.1	11.3	8.5	8.4	8.6	11.0	7.4	7.9	9.2	10.5	10.9	10.7	9.9
Means	14.4	13.0	9.5	9.2	9.7	13.2	9.2	8.8	10.1	11.3	12.3	10.7	11.0
Greatest Hourly Measures	39	32	37	24	33	28	20	26	31	29	36	37	..

\* The measures are derived from the motion of the cups by the formula  $V = 2.7v$ , where  $v$  is the hourly motion of the cups in miles. See Introduction p.xvii.

† Means for 26 days only; instrument frozen December 25 to 29.



