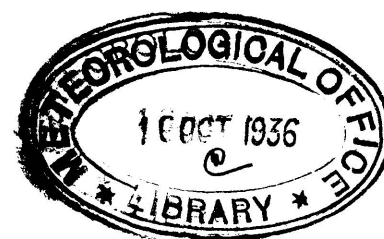


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THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

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PREFACE.

From 1908 to 1921, the serial statistical publications of the Meteorological Office were grouped together as though they were parts of one comprehensive book. This book, which was entitled "The British Meteorological and Magnetic Year Book," consisted of:—

Part I	..	..	..	..	The Weekly Weather Report.
Part II	..	..	..	..	The Monthly Weather Report.
Part III, Section I	..	..	..	..	Daily Readings at Meteorological stations of the First and Second Orders.
Section II	..	..	..	..	Geophysical Journal, Daily Values of Meteorological and Geophysical Elements.
Part IV, Section I	..	..	..	..	Hourly Values from Autographic Records, Meteorological Section.
Section II	..	..	..	..	Hourly Values from Autographic Records, Geophysical Section.
Part V	..	..	..	..	Réseau Mondial.

The data for the year 1922 and subsequent years are found in the following publications:—

New Publication from 1922.				Corresponding parts of the British Meteorological and Magnetic Year Book until the end of 1921.	
The Weekly Weather Report	Part I.
The Monthly Weather Report	Part II.
The Observatories' Year Book	Part III, Section II.
				..	Part IV, Section I.*
				..	Part IV, Section II.
The Réseau Mondial	Part V.

It will be noticed that Part III, Section I, of the old publication is not included in the new issues. This part contained "Daily Readings at Meteorological Stations of the First and Second Orders," and it has been decided that as the Observatories' Year Book contains daily values of the meteorological elements for the principal first order stations and the Daily Weather Report contains daily values for these and about 40 other stations, it is not necessary to revive the issue of this section, which ceased with the data for 1921.

The present volume is the thirteenth issue of the Observatories' Year Book. It contains geophysical data for Lerwick, Eskdalemuir, Valentia and Kew, meteorological data for Aberdeen, Eskdalemuir, Valentia and Kew, and in addition an aerological section giving the results of soundings of the upper atmosphere by means of registering balloons.

The table of mean annual values of magnetic data for observatories of the globe has been contributed by the Astronomer Royal. It will be found at the end of the Eskdalemuir section.

*Part IV, Section I, Hourly Values from Autographic Records, Meteorological Section, was discontinued after the data for 1913 had been published. The hourly values for the years 1914 to 1921 are, however, available in manuscript.

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ERRATA IN PREVIOUS VOLUMES.

Year Book, 1931.

P. 306. Table 390.—Sum 0-24h. For 29·7 read 129·7.

Year Book, 1932.

P. 289. Table B.—Heading. For Barometric Pressure read Temperature.

290 P. 278. Table 341.—Karsani, 1931, Inclination. For 56° 28'·4 read 58° 28'·4.

Year Book, 1933.

P. 126. Table 131.—Mean 14-15h. For ·32 read ·32.

P. 139. Table 147.—Mean 13-14h. For 4·7 read 4·7.

P. 195. Table 179.—Sea Level 5h. For 015·7 read 015·27.

P. 356. List of Objects. Standard Distance. Last two lines. Delete >.

LIST OF OBSERVATORIES.

	Latitude.	Longitude.	G.M.T. of Local Mean Noon.	Height above M.S.L.
	° ' "	° ' "	h m	metres
Lerwick, Shetland Isles	60 8 N.	1 11 W.	12 5	81·7
Aberdeen	57 10 N.	2 6 W.	12 8	24·1†
Eskdalemuir, Dumfries-shire	55 19 N.	3 12 W.	12 13	242·0
Valentia Observatory, Cahirciveen, Co. Kerry.	51 56 N.	10 15 W.	12 41	9·1
Kew Observatory, Richmond, Surrey ..	51 28 N.	0 19 W.	12 1	5·5

Note.—The height given is that of the site of the rain-gauge. The heights of other meteorological instruments are shown in the appropriate Tables.

† The site of the rain-gauge was altered on 1st June 1928 to a height of 11·4 metres and on 1st April 1933 to a height of 24·1 metres.

NORMAL VALUES AND MONTHLY SUMMARIES.

Monthly and annual normals of pressure, dry bulb temperature, and rainfall for each hour of the day and for the period of 45 years, 1871–1915, are published for the observatories, Aberdeen, Valentia, Kew and Falmouth in *Hourly Values from Autographic Records*, 1917 (Part IV of the British Meteorological and Magnetic Year Book, 1917), and in previous volumes of that series. Corresponding normals of wind-speed and sunshine* are published there for the same observatories and for the period of 35 years, 1881–1915, while corresponding normals of relative humidity are also published there for the period of 30 years, 1886–1915. For Eskdalemuir the same publication gives hourly averages for the months and for the year, referred to the period 1911–1915.

It should be noted, however, that the normal hourly values in the case of wind, rainfall and sunshine refer to periods of 60 minutes centred at exact hours G.M.T., and are therefore not directly comparable with the values printed in this volume which refer to periods of 60 minutes ended at exact hours G.M.T.

Summaries giving additional mean values and frequencies of occurrence of various meteorological phenomena will be found for all the observatories in *The Monthly Weather Report* and its Annual Summary. The latter also contains special summaries of the tabulations of the anemographs.

Monthly normal values of maximum, minimum and mean temperature, rainfall and sunshine for the period 1881–1915 are published in the *Book of Normals*, Section I, for Aberdeen, Valentia, Kew and Falmouth. Section IV of the same publication gives information regarding the range of variation of temperature and rainfall at the same observatories, and monthly frequencies of the normal numbers of days of hail, thunder, snow, snow-lying and ground frost. Section VI of the *Book of Normals* gives tables and isopleth diagrams showing the normal diurnal and seasonal variation of relative humidity at all the observatories for which data of relative humidity are included in this volume.

Monthly average values of maximum, minimum and mean temperature for 1901–1930 in the cases of Aberdeen, Valentia and Kew, and for the period 1910–1930 in the case of Eskdalemuir are published in *Averages of Temperature for the British Isles*.

Averages of total monthly duration and daily mean duration of bright sunshine for similar periods are published in *Averages of Bright Sunshine for the British Isles*.

*The normals of hourly values of sunshine for Aberdeen for all months except February are incorrect, owing to an error in computation. The published values except February, should be increased by one-third.

GENERAL INTRODUCTION TO THE METEOROLOGICAL TABLES.

The elements dealt with in the following meteorological tables for the Observatories at Aberdeen, Eskdalemuir, Valentia and Kew are:—barometric pressure, air temperature, humidity, rainfall, sunshine, wind speed and direction, minimum night temperature on the grass, temperature in the ground, cloud, visibility and weather, and in some cases solar radiation and level of underground water.

The positions of the Observatories and the heights of the sites are given on p. 8.

NOTES ON THE INSTRUMENTS AND TABULATION OF THE RECORDS.

A detailed description of the barograph, thermograph, and Beckley rain-gauge used for obtaining the records of pressure, temperature, humidity, and rainfall is given in the *Reports* of the Meteorological Office for the years 1867 and 1869; for a description of other instruments in use reference may be made to the *Meteorological Observer's Handbook* and to the article on Meteorological Instruments in the *Dictionary of Applied Physics*, Vol. III. The following notes are supplementary and are given partly for reference and partly as containing information necessary for the interpretation of the tables.

Barometer.—The record of barometric pressure is obtained photographically from a mercurial barometer.

By means of a source of light, a condenser and an objective arranged as in the ordinary optical lantern, an image of the space above the mercury in the tube, reduced to very small width by means of a diaphragm, is projected upside down upon a sheet of photographic ("bromide") paper carried upon a cylinder which is rotated by means of clockwork and makes one revolution about its vertical axis in rather more than 48 hours. The image is in the form of a vertical line of light, the upper edge of which is defined by the position of the mercury in the barometer tube, while the lower edge is defined by a plate actuated by a zinc rod. The purpose of the zinc rod is to provide an automatic compensation for temperature changes, the arrangement being such that any shortening of the line of light due to a rise of temperature and consequent expansion of mercury in the tube is balanced by an equal lengthening due to movement of the plate carried on the zinc rod.

The barogram is, therefore, a continuous photograph of a narrow illuminated vertical line and appears as a horizontal ribbon, the depth of which is constantly varying with the rise or fall of the mercury in the tube of the barometer.

A time-scale is recorded upon the barogram by means of a shutter actuated by the clock. This shutter cuts off the light for the space of four minutes every two hours, thus producing interruptions which appear on the record as narrow white spaces corresponding with intervals of four minutes centred at the half hours 1h 30m, 3h 30m, etc. Until 1918 these time-breaks occurred at the even hours, 2h, 4h, 6h, etc., but it was found that when the edge of the record was not critically sharp owing to various causes, a systematic error was introduced when measuring the records, whereby the values at the even hours were slightly in excess of those at the odd hours where no time-break existed. From 1918 onwards the clock was so arranged that the time-breaks should occur half an hour before the even hours; by this means both even and odd hour-values are measured at points on the trace which are unaffected by any systematic difference.

Control readings of a standard barometer are taken three times a day by different observers. The control readings are first corrected for index error, temperature and gravity, and then compared with the corresponding readings of the barogram. The differences between the control readings and the corresponding tabulated values

are then found and a correction derived therefrom is applied to all the tabulated values. This correction, known as the "residual correction," is so applied as to run smoothly throughout the whole length of each record—a period of 48 hours—and alterations in the amount of the correction occur, where necessary, in steps not exceeding 0.1 millibar.*

The scale value of the barograms is found from a comparison of a series of such standard and curve readings. The indications of a curve are converted into numerical values by measuring the ordinates with a tabulating instrument, graduated according to the ascertained scale value.

Thermometers.—The air temperature and humidity data at each Observatory are derived from records obtained photographically from two mercurial thermometers. One thermometer is used as a dry bulb and the other as a wet bulb thermometer.

Each thermometer has a large cylindrical bulb four inches long and a very long stem. The latter is bent twice at right angles to enable the bulb to be exposed outside the building in a louvred screen attached to the north wall of the Observatory.† The column of mercury in the vertical portion of the stem inside the building is broken at a convenient point by a small air space which moves up or down the stem with rise or fall of temperature. The record is obtained by passing a reflected beam of light through the air space and photographing its image upon a moving sheet of "bromide" paper in the same manner as described in the case of the barometer. A base line is traced on the paper by a pencil of light passing through a small aperture in the brass frame carrying the recording thermometer. The time-scale is automatically recorded upon the curves, a time-break occurring half an hour before each even hour.

Two large standard thermometers with very open scales graduated in degrees absolute and having bulbs similar to those of the thermograph are mounted in the screen side by side and close to the thermograph bulbs. One of the thermometers is arranged as a dry bulb, the other as a wet bulb. Control readings of these thermometers are made three times a day for comparison with the corresponding readings obtained from the thermograms.

The scale-value of the curves is found by a comparison of the readings of the standard thermometers, corrected for any errors they may have, with the corresponding measurements of the curves. The curves are measured by means of a plate of glass ruled with lines corresponding with the ascertained scale-value of the record, both for temperature and for time. The scale is graduated so as to read degrees vertically and hours horizontally.

Two alternative methods of reading the curves have been adopted.

- (a) At Kew the scale is set by the base-line and after hourly readings have been obtained for the whole record comparisons are made with the control readings. The residual correction so determined (normally the same for the whole record of 48 hours) is applied to the tabulations.
- (b) At Aberdeen, Eskdalemuir and Valentia, the practice is to adjust the glass scale so that the readings at the control hours on the trace are made to show general agreement with the corresponding eye-readings of the standard thermometers. The temperature equivalent of any part of the curve can then be read off. The base-line photographed on the record serves as a useful check.

* At Valentia and Kew the rule is to apply the same correction for the whole chart.

† At Eskdalemuir the screen stands in the open.

Rainfall.—This element is recorded by a Beckley self-registering rain-gauge, in which the rain as it falls is collected in a receiver supported on a float in a vessel of mercury. As the rain passes into the receiver, the float gradually sinks, carrying with it a pen which records its position upon a chart wrapped round a clock-driven cylinder. The displacement of the mercury by the float is arranged so as to give a uniform scale throughout. When five millimetres (two-tenths of an inch) of rain have entered the receiver a siphon comes into action, and, by discharging its contents, causes the float to rise till the pen is brought back to the zero line, from which the record begins again.

The collecting funnel of the Beckley rain-gauge has an area of approximately 100 square inches. Each gauge stands on level ground and its distance from every other object is greater than twice the height of the object. The height of the rim of the Beckley rain-gauge above the surface of the surrounding ground varies from 0.4 m. to 0.6 m. at the different observatories. Details are given at the head of the tables of hourly values. A check gauge with funnel 8 inches in diameter is installed near by.

The records obtained from the Beckley self-registering rain-gauge are, if necessary, subjected to a proportional correction whereby they are brought into agreement with the amount of rainfall as recorded by the check rain-gauge which is read twice daily at, 7h. and 18h.

Rate of Rainfall.—The instantaneous rate of rainfall is registered by means of the Jardi recorder a description of which is given in *British Rainfall* 1930, Part IV, p. 284. In this instrument, rainwater collected by a funnel, 1 metre in diameter, enters a chamber at the bottom of which is a hole through which passes a tapering spindle attached to a float. When water enters the chamber the float rises and thereby opens the hole in the bottom of the chamber to an extent which increases as the float rises, until a position is reached when the rate of outflow is equal to the rate of inflow. The equilibrium position of the float is therefore a measure of the rate of rainfall, and the record is obtained by recording the movements of the float on a suitably graduated chart.

Sunshine.—The record of sunshine is obtained from a Campbell-Stokes recorder in which instrument the sun's rays are focussed through a 4-inch spherical lens of crown glass upon a strip of blue card, which is scorched, or burned right through, according to the intensity of the sun's rays. Three different patterns of card are used at different seasons of the year. The cards are exposed in a metal bowl, and the focussed image of the sun leaves its mark behind it as it travels along the surface of the card with the apparent motion of the sun through the heavens. The intensity of the burn is not measured, but the record is regarded as that of "bright" sunshine whenever the card has been distinctly scorched. When measuring the duration of sunshine which is represented by intermittent burns, an allowance is made for the extension of the trace by the charring of the card.

Wind - Speed and Direction.—The hourly values of wind-speed and direction for Eskdalemuir, Valentia and Kew which appear in this volume are derived from the records of Dines Pressure Tube Anemometers, a description of which will be found in the *Meteorological Observer's Handbook*. In the case of Aberdeen, data from the Robinson cup anemograph, adjusted as explained in the sectional introduction, have again been printed for 1934. Instantaneous velocities for Aberdeen refer, however, to a Dines Pressure Tube Anemometer on the Glebe site (see sectional introduction). At Eskdalemuir records of Dines Pressure Tube Anemometers have always been used, but at the older observatories the data printed in volumes previous to that of 1926

were obtained from Robinson cup anemographs. At Kew a new Dines Pressure Tube Anemometer, erected on the dome in the position formerly occupied by the Robinson cup anemograph, but with its vane 3 metres higher than the original height of the cups, has been brought into use from January 1st, 1931. At Valentia Observatory a new Dines Pressure Tube Anemometer, with 1-inch connecting pipes, was brought into use as from January 1st, 1932. The new instrument was erected alongside the old instrument, and a comparison extending over the period May, 1931, to January, 1932, showed that the new instrument recorded higher velocities than the old. In hourly mean values the difference was nearly uniform and equal to .4 m/s or 1 mi/hr. In gust velocities the increase was approximately 12 per cent. of the velocity recorded by the old instrument. At Eskdalemuir a new Dines Pressure Tube Anemometer with 1-inch connecting pipes was brought into use as from 11th August 1933. The diameter of the connecting pipes of the old instrument was $\frac{1}{2}$ inch. Particulars of the exposure of the instruments at each Observatory will be found in the sectional introductions.

The relation between the values of wind speed recorded by the cup and pressure tube anemometers at the several observatories was briefly discussed in the General Introduction to the volume for 1926. The following table gives, for the various wind directions, the mean values of wind speed recorded by the pressure tube anemometers, expressed as percentages of the corresponding values recorded by the cup anemographs:—

*Average values of the quantity $100 \times \frac{\text{Speed by pressure tube anemometer}}{\text{Speed by cup anemograph}}$
at the three observatories, arranged according to the direction of the wind.*

North = 360°, East = 90°, South = 180°, West = 270°.

Wind Direction in degrees from North.	Aber- deen. (to 1929)	Valen- tia. (to 1931)	Kew.		Wind Direction in degrees from North.	Aber- deen. (to 1929)	Valen- tia. (to 1931)	Kew.	
			1926-30	1931				1926-30	1931
10	131	103	99	114	190	138	137	96	107
20	132	103	100	113	200	132	134	99	107
30	130	104	103	114	210	124	128	99	104
40	117	103	103	110	220	115	115	100	104
50	115	104	104	109	230	108	102	100	104
60	115	105	99	103	240	110	90	100	103
70	119	105	99	102	250	112	88	101	106
80	113	104	97	99	260	114	85	101	107
90	110	102	101	103	270	128	82	101	108
100	126	98	104	106	280	124	81	103	111
110	121	97	102	103	290	110	83	101	111
120	118	98	100	102	300	99	88	96	108
130	118	100	104	105	310	100	92	93	103
140	125	103	102	105	320	108	95	96	107
150	128	107	98	102	330	111	97	99	115
160	137	114	92	99	340	120	98	98	116
170	133	123	92	103	350	138	99	103	119
180	135	134	95	106	360	135	102	104	122

Details in regard to the comparison of the new and old pressure tube anemometers at Kew will be found in the sectional introduction for the year 1931.

Minimum Night Temperature on the Grass.—This is the temperature determined by a minimum thermometer exposed freely over the surface of the grass. The stem of the thermometer is enclosed in an outer glass jacket, but the spirit bulb is freely exposed to the air. The thermometer is supported on two small Y-shaped pieces of wood so that it lies horizontally, with its bulb about one or two

inches above the ground, which is covered with short grass. When snow has fallen the thermometer is supported so as to lie just above the surface of the fallen snow, but not touching it.

The thermometer is laid out at 18h. each day, having been kept in an upright position, bulb downwards, inside the Stevenson Screen during the daytime, so that any spirit that may have condensed in the upper part of the stem may be able to run down and join the main spirit column.

Earth Temperature.—At each observatory the earth temperature is read daily at 9h at depths of 30 cm. and 122 cm. below the surface. For this purpose use is made of Symons' earth thermometers, in which the bulb is embedded in paraffin wax for the purpose of introducing sufficient "lag" to ensure that the reading will not change appreciably during the process of drawing up the thermometer in order to take the reading. The thermometers are supported at the correct depth in steel tubes sunk into the ground. At Aberdeen discontinuities have occurred on several occasions in recent years owing to changes of site. (See sectional introduction).

NOTES ON THE TABLES.

General.—Interpolated values are printed within brackets, (). Maximum and minimum values are underlined.

Standard of Time.—The observations are referred to *Greenwich Mean Time* except as regards sunshine, for which element *local apparent time* is used.

Units.—In accordance with the practice introduced in 1911, as a consequence of certain resolutions of the Gassiot Committee of the Royal Society, the values in the tables are expressed throughout in units based upon the C.G.S. System: tables for conversion to other units are given in the *British Meteorological and Magnetic Year Book (Part IV)* for 1913 and are also to be found in the *Computer's Handbook*.

Daily Mean Values.—The daily means of pressure, temperature, and relative humidity are obtained by adding half the sum of the values for the initial and final midnights to the sum of the 23 intermediate hourly values and dividing by 24.

For wind speed the tabulated hourly values are means for periods of 60 minutes between the exact hours 0h and 1h, 1h and 2h, etc.* The daily mean is therefore obtained by dividing the sum of the 24 hourly values by 24.

In the preparation of the tables of diurnal inequalities for individual months and for the year, it is assumed that the difference of value between the means for the initial and final midnights, which may be termed, so far as the hourly variations are concerned, the non-cyclic variation, is equally distributed over the whole 24-hour period.

A note on the computation of the correction for non-cyclic change will be found at the end of this Introduction.

Annual Values.—The mean values or totals for the whole year (given either in separate tables or at the end of the corresponding monthly tables), are computed as the means or sums of 365, in leap year 366, daily values.† The annual values of pressure at sea level are computed from the annual means at station level and the annual means of air temperature; the annual values of vapour pressure are derived from the annual means of air temperature and relative humidity.

Atmospheric Pressure.—All pressures recorded in this volume are expressed in *millibars*, one millibar being equal to 1000 dynes per square centimetre. The following are the values of physical constants used in evaluating the data:—

* See Note, p. 17.

† At Eskdalemuir the annual values for the years 1922 to 1926 were computed as the means or sums of 12 monthly values.

Density of Mercury = 13.5955 grams per cc. at 0°C.

Intensity of Gravity at Sea Level (Lat. 45°) = 980.617 centimetres per second per second.

1 inch = 25.4000 millimetres.

Hence a pressure of 1000 millibars corresponds with a reading of 750.076 millimetres on a mercury barometer at temperature 0°C. in Lat. 45° and is equivalent to 29.5306 inches under standard conditions of temperature (mercury at freezing point, scale at 62° F.) in Lat. 45°.

The true pressure in millibars can only be obtained from the reading of a barometer after the latter has been suitably corrected for (a) index error, (b) temperature, and (c) gravity.

These corrections have been applied to the barometer readings in obtaining the pressure values published in this volume. The corrections for index error (including those for capillarity) are given in the certificates issued by the Kew Observatory or the National Physical Laboratory in respect of the standard barometers at each observatory. The corrections for temperature are equivalent to those published in the *International Meteorological Tables* (Gauthier-Villars, Paris, 1890). The correction for the variation of gravity from its standard value at sea level in latitude 45°, quoted above, is in accordance with the formula adopted in the *International Tables*, viz. :—

$$g_{\lambda}/g_{0.45} = (1 - 0.00259 \cos 2\lambda) (1 - 5z/4E)$$

where z = height of the station above M.S.L.
 E = earth's radius, both expressed in the same units,
and λ = latitude of station.

Except at Eskdalemuir, the correction for the variation of gravity with height, contained in the second factor of the above equation, is insignificant.

Unless otherwise stated, all pressure values refer to the level of the observatory, as given in the headings of the tables. The reduction to sea level, wherever made, is effected by tables drawn up for each observatory in accordance with the following scheme :—

If p is pressure at station level, and P is pressure at sea level, the correction required to reduce p to sea level is $P - p$ where

$$\log_e (P/p) = \bar{g}z (1 - 3\bar{w}/8p) / K\bar{T}.$$

z = height of station in centimetres.

e = base of Napierian logarithms.

K = gas constant for dry air = $10^9/348.4$ C.G.S. units.*

\bar{T} = mean absolute temperature of the air column between station level and mean sea level.

\bar{w} = mean value of water vapour pressure in the column.

\bar{g} = mean value of the acceleration of gravity in the air column. Even at Eskdalemuir, the highest station, the effect on the correction of the variation of gravity with height is, in this case, negligible, so that

$$g = 980.617 (1 - 0.00259 \cos 2\lambda).$$

The factor $(1 - 3\bar{w}/8p)$ in the above formula is practically unity except at Eskdalemuir. Its value for that observatory was discussed in the Introduction to the Eskdalemuir section for the year 1928.

In the same way, the value of \bar{T} at each observatory differs inappreciably from the value of air temperature at the observatory, except in the case of Eskdalemuir (see Introduction to Eskdalemuir section for details).

* This value depends on a coefficient of expansion of dry air of $1/273$ and on the density of dry air at pressure 1013.23 mb. and temperature 273°A, viz., 1293.052 g/m³.

Hence at all observatories except Eskdalemuir, no corrections are applied for the effects of water vapour, or of change of air temperature in the column of air between the station and sea level.

The scheme for correcting barometer readings outlined above was introduced for Eskdalemuir at the beginning of 1927. For the other observatories, it has come into effect as from 1st January, 1928. The effects of the introduction of the scheme on the tabulated values are briefly referred to in the several introductions to the individual sections. Only at Eskdalemuir are they at all appreciable.

The tables contain values of pressure at exact hours obtained from the photographic barograms in the manner described on p. 9; also daily, monthly and annual means of hourly values, together with the monthly and annual means of diurnal inequalities. Monthly and annual means of the hourly values after reduction to mean sea level are also given.

There is also a table showing the daily extremes of pressure, *i.e.*, the maximum and minimum values recorded during each day.

Temperature.—The scale on which temperatures are recorded is such that the freezing point of water under atmospheric pressure is 273°A precisely. Other temperatures differ by 273·0 from readings on the Centigrade scale.

The scale approximates to the absolute scale defined by Lord Kelvin, on which the temperature of the freezing point is 273·1 to the nearest tenth of a degree.* Accordingly, to convert temperatures published in this volume to the Kelvin scale, a correction + 0·1 is to be added to each reading.

As an alternative to the application of this correction modified values may be used for the constants which enter certain formulæ. For example:—At temperature t on the scale adopted in the Year Book, the radiation according to Stefan's Law† is

$$5\cdot709 \times 10^{-8} (t + 0\cdot1)^4 \text{ erg/(cm.}^2 \text{ sec.)}; \text{ or } 5\cdot717 \times 10^{-8} t^4 \text{ erg/(cm.}^2 \text{ sec.)}$$

In using the modified formulæ we are virtually adopting a scale of temperature with the degrees greater than those of the Centigrade scale, in the ratio of 273·1 to 273. This is the practice of the *Computer's Handbook* of the Meteorological Office.

The tables give the values of temperature at exact hours obtained from the photographic thermograms; also daily, monthly and annual means of hourly values, together with the monthly and annual means of diurnal inequalities. There is also a table showing the daily extremes of temperature.

Humidity.—When the temperature of the wet bulb is above 273°A, values of relative humidity at exact hours are deduced from the corresponding values of dry and wet bulb temperatures obtained from tabulations of the photographic thermographs, complete saturation being taken as 100. Until the end of the year 1925 the reduction was effected from tables based on Glaisher's hygrometric factors,‡ but from 1st January, 1926, tables have been employed which proceed from Regnault's formula

$$x = f - Ap(t - t'),$$

where x = vapour pressure under the conditions of observation.

f = saturation vapour pressure at the temperature (t') of the wet bulb.

p = pressure of the air.

t = temperature of the dry bulb in absolute (Centigrade) degrees.

t' = temperature of the wet bulb in the same units.

A = a constant.

The tables used in this volume for determining the hourly values of relative humidity when the wet bulb is above the freezing point are *Jelineks Psychrometer-Tafeln* (6th edition, Leipzig, 1911).§

* A. L. Day and R. B. Sosman, *Dictionary of Applied Physics*. Macmillan, London, 1922. Vol. I, p. 840.

† The constant 5·709 is the value which has been adopted by the International Research Council for publication in the "*International Critical Tables*."

‡ Glaisher's *Hygrometrical Tables*, 7th edition, London, 1885.

§ These tables give values which are in almost exact agreement with those given by *Hygrometric Tables* published by the Meteorological Office in 1924 (M.O. 265) for general use at second and third order stations. The latter tables are not suited to the purposes of this Year Book, because in them temperature is expressed in Fahrenheit degrees, whereas the absolute Centigrade scale of temperature is used at the observatories.

No allowance for variation of pressure p is made and the standard value used in Jelinek's tables, *i.e.*, 755 mm. of mercury (1006.57 mb.), is adhered to. Similarly no allowance is made in the adopted value of the constant "A" for the speed of the air flowing past the wet bulb, though it is well known that "A" is not independent of the ventilation. "A" is regarded as fixed and equal to .0008. In view of the well-marked diurnal variation of wind-speed, the diurnal variation of humidity, derived in this manner, is subject to slight modification.

When the wet bulb reading does not exceed 273°A , the above method of reduction is not followed, but values of relative humidity are derived from the record of the hair hygograph. To these values are applied appropriate corrections based on a comparison between the readings of the record of that instrument and the corresponding values of humidity computed from dry and wet bulb readings during neighbouring periods when the wet bulb readings exceeded 273°A .

The mean values of vapour pressure are computed by slide rule from a table* of saturation vapour pressure over water, and the corresponding mean values of relative humidity and air temperature.

The normal hourly values of relative humidity for the period 1886-1915, published for certain Observatories in "Hourly Values from Autographic Records, 1917," were derived from tables based on Glaisher's factors. The application of the new tables to the normal hourly values of dry and wet-bulb temperature gives results for normal relative humidity which are only slightly different from those which have been published. At Kew Observatory in winter the difference is negligible; in July it does not exceed 1 per cent. at any hour, in October it does not exceed 2 per cent. at any hour. The effect is greatest in April, when the published normal values of average relative humidity are reduced by 3 per cent. at noon and at 16h. and by smaller amounts at other hours.

Of greater importance is the effect on the values of absolute minimum humidity. Under the old system, entries of relative humidity less than 30 per cent. seldom occurred; under the new system, such entries may occur not infrequently.

Tables are printed giving the values of relative humidity at exact hours together with daily, monthly and annual means of hourly values. Monthly and annual means of vapour pressure computed from the corresponding mean values of temperature and relative humidity, together with monthly and annual means of diurnal inequalities of relative humidity, are also given.

Rainfall.—Tables are given showing for the 60-minute intervals between exact hours† the amount of precipitation, expressed in millimetres, derived from the record of the Beckley gauge (see p. 11). Totals of amount are given for each day, and for each month; the latter totals referring both to the complete days of the month, and to each of the hours of the day. When zero rainfall is assigned to a particular hour, the entry appears as "...". Corresponding totals of durations of rainfall are also given, the duration being regarded as the number of hours during which rain falls at a rate of not less than 0.1 millimetre per hour. If slight precipitation, due to rain, snow, fog or dew, extends over some hours, and if the amounts collected in some or all of the hours are less than .1 mm., the fact is indicated by a succession of entries, each of which is enclosed within brackets, covering the period over which precipitation is known or believed to have occurred. In such cases entries of (.1) are allocated evenly among the hours concerned in such a way that their sum is equal to the aggregate fall during the period, and the

* The saturation vapour pressures used are those employed in the preparation of *Hygrometric Tables*. They are equivalent to those published by Scheel and Heuse in *Annalen der Physik*, 1910.

† For the years 1904 to 1920 it was the practice to tabulate rainfall for the periods of 60 minutes centred at the exact hours; the reversion to the method in use before 1904 occurred on 1st January, 1921.

remaining entries are (...), (*), (\equiv) or (\triangle) according as the precipitation took the form of rain, snow, fog or dew. Slight precipitation which takes other forms such as hail, sleet, hoar frost, glazed frost and rime is dealt with similarly. When it is impossible to determine the hourly amounts of precipitation, *e.g.*, during snowfall or on occasions when the record has failed, the normal procedure is to consider each case on its merits, and to assign hourly values derived from estimates made by the observers as soon as possible after the event. Such values are also enclosed in brackets.

Annual totals of hourly amounts and duration and notes on special features of the rainfall of the year are also given.

Maximum Rate of Rainfall.—The last column of the rainfall tables shows the maximum instantaneous rate of fall as registered by the Jardi recorder. When, owing to an instrumental defect, the value has been estimated from the Beckley record or otherwise, the reading is entered within brackets. When the maximum rate exceeded 5 mm./hr. the hour in which the maximum rate occurred is shown by a dagger (†) in the appropriate column of the table.

Sunshine.—Tables are given showing for each of the 60-minute intervals between exact hours* according to *local apparent time*, from sunrise to sunset, the duration of bright sunshine recorded by the Campbell-Stokes instrument. The sums and means of hourly amounts are also given. For each day is shown the total duration of bright sunshine, and also the percentage this represents of the "possible" duration for the day. The "possible" for each day is computed as the period of time beginning and ending at the instants when the centre of the sun is apparently on the horizon, due allowance being made for atmospheric refraction. Even on a clear day the sun, when at an altitude less than $2\frac{1}{2}^{\circ}$ to 3° above the horizon, fails to make a scorch on the card of the Campbell-Stokes recorder.

A distinction is made in the tables between (a) sunshine not possible, and (b) sunshine possible but none recorded. If, in any hour, sunshine is not possible, the symbol "—" is used; if more than 3 minutes of "possible" sunshine falls in the 60-minute interval between exact hours according to local apparent time, and if no sunshine was recorded, the symbol "... " is printed.

The values for the months and for the year of percentage of possible duration of sunshine are obtained by comparing the total recorded sunshine for the period with the total "possible" sunshine for the period.

Wind.—Tables are printed giving the hourly values of wind speed and direction, together with the mean speed for each day, each hour, and for the month and year. Values of speed are expressed in metres per second (1 metre per second = 2.2369 miles per hour): those of direction are given in degrees from true north. The values of direction and speed† are averages for periods of sixty minutes, between the exact hours of Greenwich Mean Time. They are obtained by estimation from the records with the aid of a transparent scale, with engraved graduations corresponding with the velocity, direction and time scales of the record.

When the record shows that the vane is sticking and is not responding to the variations of the wind the readings of both direction and velocity are regarded as untrustworthy and are not tabulated, the symbol "... " being entered instead. In such cases the velocity is usually less than 1 m/s and the symbol "... " is regarded

* Before 1st January, 1921, sunshine was tabulated for the periods of 60 minutes centred at exact hours.

† Before 1st May, 1915, it was the practice to take the direction at the exact hour whilst wind speed referred to 60 minute intervals centred at exact hours. Thereafter until 1st January, 1932, both wind speed and direction were tabulated for periods of 60 minutes centred at the exact hours. At a meeting on 17th December, 1931, the Gassiot Committee resolved that hourly values of terrestrial magnetism, potential gradient and wind velocity and direction should be brought into accordance with the practice decided upon for Polar Year stations by the International Commission for the Polar Year 1932-1933, *viz.*, that hourly mean values should refer to periods of 60 minutes between exact hours of standard time. (See also Introduction to *Hourly Values from Autographic Records*, 1913, p. xv.)

as equivalent to 0.5 m/s for the purpose of evaluating the daily mean velocity. In other cases of lost record, estimated values are entered within brackets wherever possible.

The daily values of the speed and time of occurrence of the maximum gust and the monthly distribution of wind are shown in other tables.

Minimum Night Temperature on the Grass.—Values are given for each day of the year together with monthly and annual mean values. The interval to which the reading refers is from 18h the previous day to 7h on the day to which it is entered.

Diary of Cloud, Visibility and Weather.—In these tables are given particulars of the cloud forms observed daily at 7h, 13h, and 18h, the total cloud amount observed at 7h, 9h, 13h, 15h, 18h, and 21h, the range of visibility at each of these six hours and the kind of precipitation when any was falling at those hours. There is also a column devoted to remarks on the weather of the day.

Cloud Form.—The observations of cloud form are made in accordance with the International classification, and the following abbreviations are used in the tables:—

Cirrus	...	...	...	...	...	Ci.
Cirrocumulus	...	...	...	...	...	Cicu.
Cirrostratus	...	...	...	...	...	Cist.
Alto cumulus	...	...	...	...	...	Acu.
Altostratus	...	...	...	...	...	Ast.
Stratocumulus	...	...	...	...	...	Stcu.
Stratus	...	...	...	...	...	St.
Nimbostratus	...	...	...	...	...	Nbst.
Cumulus	...	...	...	...	...	Cu.
Cumulonimbus	...	...	...	...	...	Cunb.
Fracto (prefix as in fractostratus)	...	...	...	...	...	Fr.
Cumuliformis (as in stratus cumuliformis)	...	...	...	...	...	Cuf.
Lenticularis (as in altocumulus lenticularis)	...	...	...	...	...	Lent.
Mammatus (as in cumulus mammatus)	...	...	...	...	...	Mam.
Castellatus (as in altocumulus castellatus)	...	...	...	...	...	Cast.

All the cloud forms noted by the observer at the time of observation are printed where space permits. When the number of forms is too great to allow of this, the predominating forms selected at the time of observation to give the best representation of the cloud canopy are printed. If high or medium cloud can be seen, one of the selected types is normally a high or medium cloud.

Cloud Amount.—The figure given for the amount of cloud denotes the proportion of the sky covered by cloud, the numerical scale running from 0, cloudless, to 10, completely overcast. The figure denotes the total cloudiness irrespective of form. In the case of fog through which it is impossible to discern the sun or stars the cloud amount is entered as 10, but if cloud can be seen through the fog, the form and amount of that cloud are entered in the usual way. If the sun or stars are visible through fog and if there is no evidence of cloud above the fog the amount is entered as 0.

Visibility.—Observations of the range of horizontal visibility made every day at 7h, 9h, 13h, 15h, 18h, and 21h, are printed in the diaries of cloud and weather.

As described in detail in the *Meteorological Observer's Handbook*, a series of selected objects, A, B, C. . . , as nearly as possible at the standard distances given in the table which follows, is used for this observation. The objects are selected so as to be readily seen and identified from specified observing points in daylight, when the air is clear. A variation up to 10 per cent. from the standard distances is considered admissible. Particulars of the objects in use at each observatory, together with a statement of their actual distances and bearings from the point of observation and notes on local peculiarities which affect the observations, will be found in the Introductions to the sections for the individual observatories.

The method of observing consists in determining which is the most distant of the selected objects that can be identified and entering the corresponding letter. In cases of uncertainty when the observer, though recognising the presence of an object, would be unable to identify its nature from the observations he is able to make *at the time*, the letter corresponding with the next nearer object is entered. If object A, the nearest of the selected objects cannot be identified, an entry X is made. At night the letters are used to denote as nearly as possible corresponding degrees of atmospheric obscurity.

SCHEME FOR OBSERVATIONS OF RANGE OF VISIBILITY AND OF FOG,
MIST AND HAZE.

Indication Letter of Object.	Standard Distance of Object.	Verbal Description.	BEAUFORT LETTERS.	
			Detailed Scale.*	Contracted Scale
(X)	Metres. —	Dense fog	8 f	} F
A	25		7 f	
B	50		Thick fog		6 f
C	100	5 f		
D	200	Fog	4 f	} f
E	500	Moderate fog	3 f	
F	1,000	Mist, haze or very poor visibility	m or z	m or z.
G	2,000	Poor visibility	} m ₀ or z ₀	m ₀ or z ₀
H	4,000	Moderate visibility		
I	7,000			
J	10,000	Good visibility		
K	20,000	Very good visibility		
L	30,000			
M	50,000	Excellent visibility		

NOTE.—The grouping of the letters by the horizontal lines indicates the limits of the several figures of the International Telegraph Code for visibility, from 0 to 9, which grouping is also adopted in the tables of frequencies published in the *Monthly Weather Report*.

Small letters are used to indicate interpolations or extrapolations made in cases where it has not been possible to find suitable objects within 10 per cent. of the standard distances. In such cases the observer may use objects at other than the standard distances to guide his judgment. Particulars of such auxiliary objects will be found in the sectional introductions.

At Valentia, visibility is recorded in both landward and seaward directions. The observations of visibility landwards are printed in the main tables. Particulars of occasions when visibility seawards differed from visibility landwards are set out in the Introduction to the Valentia Section.

* Not used in this Year Book.

Fog, Mist and Haze.—The table of standard distances of visibility objects also summarizes the descriptions used in connection with the phenomena of fog, mist and haze, and relates them to the scale of visibility. It also contains the Beaufort letters used for these phenomena in the Remarks column of the diary. In this Year Book as in other publications of the Meteorological Office, statistics of fog, mist and haze are based solely on visibility observations. The term *fog* is restricted to occasions when the visibility is less than 1 kilometre (*i.e.*, object F not visible); the terms *mist* and *haze* to occasions when the visibility is greater than 1 kilometre, but less than 2 kilometres (*i.e.*, object "F" visible, but "G" not visible). The distinction between mist (m) and haze (z) is determined by the depression of the wet bulb. When the visibility is between the limits specified for mist or haze, haze is recorded when the depression of the wet bulb is more than 1°F; if the depression of the wet bulb does not exceed this limit, the term *mist* is used.

In volumes previous to 1926, occasions of haze, mist and fog were indicated by the International symbols for these phenomena, *viz.*, ∞, = ° and ≡ respectively, but the relation of these terms to the visibility scale was less rigorous. In order to indicate that a change in procedure has occurred in this matter, the three International symbols for haze, mist and fog are no longer used.

Precipitation.—Whenever precipitation is falling at one of the six hours of observation there is printed in the Diary of Cloud and Weather under the heading "Precipitation" the International weather symbol which indicates the kind of precipitation, in accordance with the list below.

Remarks.—For the purposes of the column headed "Remarks on the Weather of the Day," it is usual to consider the day as divided into three portions, *viz.*, morning, afternoon and night, denoted by *a*, *p*, *n*, respectively, but it should be noted that no arrangements are made for regular eye observation of weather changes in the period 21h 30m to 6h 30m.

The entries in the remarks column consist very largely of international weather symbols and the letters of the Beaufort scale. These symbols and letters are as follows:—

Beaufort Notation and International Weather Symbols.

b	blue sky, whether with clear or hazy atmosphere.	r	●	rain.
c	cloudy, <i>i.e.</i> , detached opening clouds.	←	←	ice crystals in the air.
o	overcast, <i>i.e.</i> , the whole sky covered with one impervious cloud.	s	*	snow.
g	gloomy.	rs	*	sleet.
u	ugly, threatening.	+	+	drift snow.
v	visibility, abnormal transparency of atmosphere.	⊗	⊗	snow lying. (More than half the surrounding country covered with snow.)
z	haze.*	h	▲	hail.
m	mist, light fog.*	△	△	soft hail.
f	fog.*	t	T	thunder.
fe	wet fog, <i>i.e.</i> , fog which deposits water copiously on exposed surfaces.	l	<	lightning.
w	dew.	tlr	⚡	thunderstorm.
x	hoar frost.	q	☃	gale.
	rime.		⊙	squalls.
	glazed frost.		⊕	solar corona.
e	water deposited copiously on exposed surfaces, without rain falling.		⊗	solar halo.
y	dry air. (Relative humidity less than 60 per cent.)		☾	lunar corona.
p	passing showers.		☾	lunar halo.
d	drizzling rain.		☾	rainbow.
			☾	aurora.
			☾	zodiacal light.
			☾	mirage.

* To indicate varying intensities of haze, mist and fog the notation shown in the last two columns of the table on p. 19 is used.

The letter *i* preceding a letter or symbol which denotes some form of precipitation indicates that the precipitation is of an "intermittent" or "occasional" character.

The letter *j* preceding a letter or symbol which denotes some form of precipitation indicates that the precipitation is within sight, though not actually falling at the station.

The figure 0 written after and above a symbol indicates slight, whilst the figure 2 indicates strong or heavy; thus \bullet^0 slight rain, \bullet^2 heavy rain. The figures 0 and 2 written after and below the letters of the Beaufort notation are also used with a similar significance, thus d_0 stands for slight drizzle.

The letters b, c, o, g and u, are used to describe the general appearance of the sky. The use of the letters g and u is sufficiently clear from the definitions given above. o is used whenever the sky is completely overcast with a uniform layer of thick or heavy cloud; c is used to denote that there is some cloud present, but o is not appropriate; b denotes that there is some blue sky.*

In order to meet difficulties which occur when there are only small quantities of cloud or blue sky present, c is not used unless the sky is more than a quarter covered, and b unless there is more than a quarter of the sky free from cloud. If there is more than a quarter of the sky covered with cloud and more than a quarter of the sky free from cloud b and c are both recorded.

Up to 1931 the gale symbol \equiv was used in this publication to indicate that the wind as recorded by the anemometer averaged at least 17.2 m/s for one or more "centred" hours. At Kew Observatory the symbol has been used with the word gust in brackets to indicate the occurrence of gusts reaching 17.2 m/s.

The symbol is now used to indicate occasions when the mean velocity reached or exceeded the lower limit corresponding to Beaufort Force 8 at any time in the 24 hours of the civil day. The lower limit of velocity is dependent upon the "effective height" of the anemometer (see *Meteorological Magazine* 67, 1933, p. 278). The allotted values at the several observatories are:—

Aberdeen	Eskdalemuir	Valentia	Kew
17.2	17.2	17.2	18.8 m/s.

Note on the Computation of the Correction for Non-cyclic change.

The non-cyclic change is the average increase from one midnight to the next. If, as in the case of barometric pressure, curves are read at each hour G.M.T. and tabulated under the headings 0h, 1h...23h, 24h, and the means for each of the hours in a calendar month are taken out, the mean for 0h, will not in general be the same as the mean for 24h. Let x_n be the mean value corresponding to hour n ; then the non-cyclic change is represented by $x_{24} - x_0$. Let \bar{x} be the mean value for the whole 24 hours. In the case under consideration the value of \bar{x} is

$$\frac{1}{24} \left[\frac{1}{2} (x_0 + x_{24}) + x_1 + x_2 + \dots + x_{23} \right]$$

$x_n - \bar{x}$ is the "diurnal inequality" at hour n . To apply a correction for non-cyclic change we assume that the non-cyclic change arises from a steady rise or fall, entering as a linear term. The correction applicable at hour n is therefore proportional to the time reckoned from 12h and takes the form:—

$$\frac{12 - n}{24} (x_{24} - x_0)$$

the corrected diurnal inequality having the value

$$x_n - \bar{x} + (12 - n) (x_{24} - x_0) / 24.$$

* The present usage with regard to b, c and o dates from 1st Jan., 1926.

In the present volume the hourly values refer either to readings at the exact hour or to means for periods of 60 minutes between exact hours, *i.e.*, centering at the half hours. In the latter class of tabulations, the first hour of the day runs from 0h to 1h and the n^{th} hour from $(n - 1)$ h to n h. For the calculation of non-cyclic change we assume that the value of the variable at midnight is represented to a close enough approximation by the mean of the values tabulated for the hours preceding and following midnight, thus the mean value for the first midnight is $\frac{1}{2} (x_0 + x_1)$ and for the second midnight $\frac{1}{2} (x_{24} + x_{25})$, where x_0 represents the value for the hour preceding the first midnight and x_{25} represents the value for the hour following the second midnight. The value of the non-cyclic change is therefore $(x_{24} + x_{25} - x_0 - x_1)/2$. Remembering that the interval from noon to the middle of a tabular hour is, in this class of tabulation, an odd number of half hours, we get as the expression for the diurnal inequality at the n^{th} hour, corrected for non-cyclic change

$$d_n = x_n - \bar{x} + (25 - 2n) (x_{24} + x_{25} - x_0 - x_1)/96.$$

A correction in this form has been applied to the diurnal inequalities of terrestrial magnetism and atmospheric electricity printed in this volume.

It will be seen that the computation of the non-cyclic change (when derived from "all days"), requires a knowledge of the value for the first tabular hour in the following year. The values of wind velocity and terrestrial magnetism for the hour 0-1h on January 1st, 1935, have accordingly been appended to the appropriate tables.

M.O. 380
(Lerwick)

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

LERWICK

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON
HIS MAJESTY'S STATIONERY OFFICE
1936

LERWICK OBSERVATORY

Latitude	..	..	..	..	..	60°	8' N.
Longitude	..	..	..	..	..	1°	11' W.
G.M.T. of Local Mean Noon	..	..	..	..	..	12h.	5m.
Height of Site above Sea-level	..	..	..	..	..	From 80.5 metres	to 90.0 metres

INTRODUCTION

GENERAL REMARKS.

In 1919 the establishment of an observatory in the Shetlands was included in the programme of the Meteorological Office. A wireless station, built in 1913 by the Admiralty and transferred after the war to the Post Office, but used by that Department only in case of emergency, offered suitable accommodation in the way of offices and living quarters. It proved possible to make an arrangement under which the Air Ministry has the use of the station as an observatory.

The Observatory was opened on the 7th June, 1921, when the first instalment of the instrumental equipment arrived. Later on in the same year the construction of a magnetograph house and of huts for absolute magnetic and auroral observations was commenced. The magnetograph house is a heavy concrete structure with walls 2 feet 6 inches (76 cm.) thick, of internal dimensions 16 feet by 10 feet (4.9 m. x 3 m.), and after construction several months had to elapse before the thick concrete walls and roof could be thoroughly dried and the recording instruments placed in position. These instruments, which are described below, consist of magnetographs recording magnetic declination and horizontal and vertical force. More recently subsidiary magnetographs recording the same elements have been installed in one of the adjacent non-magnetic huts; the records obtained therefrom are used to cover lacunæ in the standard traces or for special investigations.

Other instruments installed at the Observatory included barometers, barograph, hygrograph, psychrometers, nephoscope, rain-gauges (ordinary and self-recording), sunshine recorder and Dines Pressure Tube Anemometer and, later, an electrograph; and in 1928 a Krogness auroral camera. But meteorological observations have been restricted, and the time of the somewhat limited staff available has been devoted chiefly to magnetic work, to some work in atmospheric electricity and latterly to auroral photography.

The site and the work in Atmospheric Electricity and Terrestrial Magnetism will now be described.

SITE

The Observatory is situated on a ridge of high ground about a mile and a half (2.4 km.) to the south-west of Lerwick and adjoins the main road between Lerwick and Scalloway. The site slopes upward from west-north-west to east-south-east, the average height above M.S.L. being about 280 feet (85 metres). The ground to the east and south-east rises slightly for about $\frac{1}{4}$ mile (.4 km.) then slopes sharply down to the sea. In other directions there is a downward slope for about $\frac{1}{4}$ mile extending to the Loch of Trebister on the south-west, Sandy Loch to north-west, and to the Burn of Sound to north-north-west; beyond these and distant about $\frac{3}{4}$ mile (1.2 km.) from the Observatory are small hills - Munger Hill to the south is about 320 feet (97 metres) above M.S.L., Shurton Hill to west-north-west rises to 576 feet (176 metres), and Stony Hill to the north to about 400 feet (122 metres). In clear weather it is possible to see the Outer Skerries, 25 $\frac{1}{2}$ miles (41 km.) north-east by north, and Sumburgh Head, 20 miles (32 km.) south by west; the horizon in other directions is limited to a few miles.

The average depth of soil in the vicinity is about a foot, and outcrops of sandstone occur in many places. The surrounding country is barren and desolate, the vegetation being chiefly coarse grass, stunted heather, and moss, with occasional patches of bare black peat. The Observatory ground is of a very uneven nature, and, owing to lack of proper drainage, is frequently waterlogged. Views of the station are shown and the arrangement of buildings and situation of instruments are set out on a site plan in "The Observatories' Year Book", 1928.

ATMOSPHERIC ELECTRICITY

Notes on the Instruments.- The records of potential gradient are obtained from a Benndorf electrograph (No. 108, by L. Castagna, Vienna) which since 1926 has been installed in the west corner of the Office Block.

Though there is distortion of the equipotential surfaces by adjacent houses etc., and though the site is a comparatively large distance (236 metres) away from the ground where absolute determinations are made, yet the values of the reduction factor suggest that these disadvantages are less serious than might be anticipated.

The collectors are of polonium deposited on a copper rod, about 4 cm. long by 0.5 cm. diameter; these are recoated periodically by arrangement with the Government Chemist, and a fresh collector is brought into use on the first day of each quarter. The collector is screwed into the end of a tube which projects about 120 cm. through a window in the north-west wall, at 190 cm. from the corner of the building and 476 cm. above ground. The inner end of the tube passes through a hole in a wooden box in which it is supported horizontally by two metal rods embedded in sulphur. A number of small 2-volt electric bulbs are kept burning inside the box in order to improve the insulation of the supports for the collector rod during wet weather, and a similar bulb is placed inside the case of the electrometer. The rod is connected to the base of the acid pot of the Benndorf electrometer by a fine wire. A

detailed description of this instrument is to be found in "Phys. Zeit." 7 (1906), p. 98, whilst the general principle is described in Mathias' "Traité d'Electricité Atmosphérique et Tellurique," p. 54, and in Chauveau's "Electricité Atmosphérique," pp. 61-64.

The record consists of a series of dots made once a minute on a long roll of paper as it is unwound from a drum by clockwork, exact hours being indicated by dots near the edge of the sheet. Timing is taken from electric clock No. 1,031, governed by the Observatory standard, Shelton No. 35. The needle of the electrometer is earthed at least once daily, and a zero line is obtained by connecting up these earth marks; owing to the constancy of the perpendicular distances between the zero line and the line through the hour marks, further intermediate positions of the zero are easily obtained. The scale value has been about 25 volts per millimetre, which permits a range from + 1600 to -1600 volts per metre in the open to be recorded.

Combined tests of the insulation of the system and scale value of the record are made daily, the procedure being to remove the collector and to charge the needle, which is connected to a Wulf electrometer. The rate of leak is obtained for a period of 4 minutes with a positive charge and for the same interval with a negative charge. Considering the climatic difficulties the behaviour of the instrument in the matter of insulation has been very satisfactory. The rate of leak has been in general small, the average during 1934 being such that the instrument would lose half its potential in 43 minutes. It has been found that the scale value remains reasonably steady and may, for all practical purposes, be taken as constant across the full width of the sheet. The factor by which the recorded potential must be multiplied for conversion into potential gradient in the open is obtained from absolute measurements above a levelled piece of ground near the old site of the electrograph (see site plan in "The Observatories' Year Book," 1928). An insulated wire, stretched horizontally between two stout wooden posts about 9 m. apart, carries at its centre a burning fuse exactly 1 metre above the ground. A Wulf electrometer, usually No. 5225 (Günther & Tegetmeyer, Brunswick), is connected to one end of the wire and twenty to thirty readings are obtained from the electrometer at half-minute intervals. The reduction factor is deduced from the mean of these values and the corresponding mean potential at the collector as recorded by the Benndorf electrograph. Smoothed monthly means of the factors so obtained are employed in reduction of the records. The calibration of the Wulf electrometers is checked periodically, using a Gambrell potentiometer and standard cells. There was no change in any essential part of the apparatus or in the observational technique throughout the year 1934.

Monthly scale values and exposure factors, together with data relating to rate of leak, are shown in the following table:-

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Mean value of - $\frac{d}{dt} \log_e V$	·017	·013	·015	·016	·017	·018	·018	·014	·014	·018	·017	·017	·016
No. of days used in mean.	22	20	23	22	22	23	22	22	20	19	20	19	254
Highest - $\frac{d}{dt} \log_e V$	·022	·021	·019	·024	·021	·025	·019	·021	·021	·021	·019	·021	
Lowest	·006	·005	·007	·011	·011	·011	·015	·007	·007	·014	·011	·015	
Scale value (v/mm.)	24·5	24·6	25·0	25·1	24·8	24·5	24·8	24·2	24·2	24·2	24·2	24·3	24·5
Mean exposure factor	1·24	1·34	1·32	1·27	1·32	1·31	1·29	1·29	1·27	1·30	1·27	1·28	1·29
Applied Exposure Factor	1·27	1·31	1·31	1·29	1·31	1·31	1·29	1·29	1·28	1·29	1·28	1·27	1·29
No. of Determinations of Exposure Factor	5	4	10	7	9	11	11	10	7	5	7	4	90

Tests of the rate of rise of potential of the Benndorf recorder with a polonium collector were made in September, 1930, and it was found that the potential rose from zero to half the final value in about 4 seconds. Sometimes when there is no wind the rate of rise of potential is very much slower and apparently nearly linear. If the instrument rises through a potential V and has a capacity C^* a quantity of electricity CV has to be given to the air in the neighbourhood of the collector, and in the absence of wind and the presence of fog this may hang about in the form of a heavily charged cloud for a considerable time before being dispersed. Fortunately these conditions are rare at Lerwick except in early summer.

If we assume the leaking and the charging to be exponential, i.e., -

$$\text{If } \frac{dV}{dt} = -K_1 V$$

$$\text{and } \frac{d(V_0 - V)}{dt} = K_c (V_0 - V)$$

where K_1 measures the rate of leak,

K_c " " charging,

and V_0 is the potential of the air near the collector,

then the potential finally acquired by the instrument is $V_0 K_c / (K_1 + K_c)$.

The ratio K_1/K_c is only about 1/600 so that there is no appreciable error in the readings from this cause.

* The capacity was measured in October, 1930, and found to be approximately 75 cm.

In the mean for the years 1927-33 the exposure factor shows a maximum of 1.33 in June and a minimum of 1.25 in January with secondary maximum of 1.32 in September and secondary minimum of 1.28 in August. In individual years however the variations are somewhat irregular. The vegetation in the vicinity of the site for the absolute observations changes very slightly throughout the year and the grass on the site itself is kept short. A larger contribution to the variations of the factor is probably made by a combination of effects due to peculiarities of the electrograph site and wind direction. In this connection the following table shows the mean values of the exposure factor for 1927-33 summarized according to wind direction:-

	Calm	N	NE	E	SE	S	SW	W	NW	1927-33
Mean Factor	1.32	1.31	1.31	1.26	1.26	1.33	1.31	1.30	1.27	1.30

Relatively high values of the factor are on the average associated with winds from north and north-east, south and south-west and with calms. The courtyard is open at the north-east and south-west sides and the electrograph is situated near the open south-west side. The exposure in other directions is obstructed by buildings, and the depression of the factor, resulting from the higher potential of the collector when shielded from the wind, would be in agreement with R.A. Watson's conclusion that potential gradient is inversely dependent upon wind speed. (Geophysical Memoir No. 38).

On 28th June, 4th July, and 12th September, 1928, measurements were made of potential gradient above fairly smooth ground near sea level. The determinations on the two earlier dates were taken at the Point of Trebister, $2\frac{1}{4}$ km. south-south-east of the Observatory, those on the third near the Sands of Sound, 1 km. to the east. In all, ten series of observations were obtained. The mean electrograph exposure factor computed therefrom works out at 1.36, a value in close agreement with the standard determinations.

IDENTIFICATION NUMBERS OF INSTRUMENTS USED IN 1934.

Benndorf electrograph (L. Castagna, Vienna)	..	..	..	..	..	108
Wulf bifilar electrometer (Günther & Tegetmeyer, Brunswick)	..	..				5225
"	"	"	"	"	"	2965

Review of Results.- Days when there was a complete trace have been classified as follows by means of an electric character figure:-

0, denotes a day during which, from midnight to midnight, no negative potential was recorded.

1, denotes a day with excursions to the negative not amounting in the aggregate to more than three hours.

2, denotes a day with negative potential amounting in the aggregate to more than three hours.

a, denotes that the range of potential gradient in the open did not exceed 1,000 volts in any of 24 hourly periods of the day.

b, denotes that this range was exceeded in at least one, but in fewer than six, of these periods.

c, denotes that this range was exceeded in six or more of the hourly periods.

The character figures so assigned are given in Table 4.

In the Observatories' Year Book for 1928, for the first time, this table contained also details of the duration of negative potential for each day for which an estimate could reasonably be made. If the record failed when no precipitation fell it was assumed that the potential gradient remained positive; if, however, precipitation fell when part of the record was lacking no estimate was made except when the part of missing record was small enough and the conditions of precipitation sufficiently continuous to permit the interpolation of the gradient conditions from those obtaining before and after the break.

In the year 1934 there were 124 hours more negative potential gradient than in 1933, and thirteen more days on which negative gradients occurred. The daily mean duration of negative gradient was thus 1.66 hours, against 1.32 for 1933, 1.53 for 1932, 1.52 for 1931, 1.55 for 1930, 1.55 for 1929 and 1.63 for 1928. In each year the month-to-month variations of mean duration of negative gradient and of mean electric character figure show a close relationship to the variations in rainfall.

Curves are read by use of a mean value glass scale graduated in millimetres, the tabulated values being 60 minute means between exact hours G.M.T. The ordinates are converted into volts per metre in the open by multiplying by the product of the appropriate scale value and reduction factor. Values are assigned for the hours ending at 3h, 9h, 15h and 21h, on all days, and for each hour on "a" days.

An indication of the characteristics of indeterminate potentials may be obtained from the tabulations, in which:-

1. Values prefixed by the symbols $>$, $<$, indicate that for one or more periods during the hour potential passed beyond the range recorded by the electrograph.
2. z is marked against hours when the potential passed beyond the recorded range in both directions.

The values for the hours ending at 3h, 9h, 15h, and 21h are given in Table 1; estimated values, enclosed within brackets, are given in cases where the record was in some manner defective; a dash is entered against hours for which no value can be given with any degree of assurance. Two sets of mean values are given:- "a" The means of all positive values; hours when the trace passed off the top of the sheet are included in obtaining these means, the upper limit of registration being taken as the value for the period not recorded. "b" The means for all days on which all four hours were completely recorded or could be estimated.

In all months the general "a" mean from the four selected hours exceeds the "b" mean, the difference over the year as a whole amounting to 23 v/m. In seven months the means from the 0a days are greater than the "a" means; over the year as a whole the 0a day mean is 6 v/m greater than the "a" mean. The

annual mean daily values derived in these three ways for the eight years 1927-1934 during which the electrograph has been in the same position are:-

			Oa	"a"	"b"
1927	..	..	213 v/m	179 v/m	160 v/m
1928	..	..	166 v/m	156 v/m	134 v/m
1929	..	..	162 v/m	161 v/m	133 v/m
1930	..	..	181 v/m	175 v/m	158 v/m
1931	..	..	161 v/m	163 v/m	147 v/m
1932	..	..	159 v/m	159 v/m	141 v/m
1933	..	..	168 v/m	170 v/m	152 v/m
1934	..	..	188 v/m	182 v/m	159 v/m

It is a defect of the Benndorf recorder that even with such a high scale value as 25 v/mm the width of the sheet is frequently exceeded during oscillatory movements. In 1934 there were 100 days on which the electrometer needle went beyond the limits of registration on the positive side and 147 on the negative side; these occasions were mainly when precipitation was falling on the collector. The greatest number of extreme positive excursions were associated with snow or sleet showers and were almost invariably only momentary.

The following are the occasions of potential gradients (positive and negative) exceeding 1000 v/m persistent over periods of at least one hour, a specified hour defining the 60 minute interval ended at the exact hour G.M.T.:-

Positive. April 7d 15h - 16h; April 8d 1h - 2h.

Negative. Jan. 14d 16h - 18h; Jan. 15d 11h - 12h; Jan. 17d 7h - 8h; Mar. 2d 6h - 7h; Mar. 24d 1h - 3h; Apr. 20d 21h - 22h; May 19d 15h-16h; Dec. 7d 9h - 10h.

Occasions when the potential gradient was negative for prolonged periods with perhaps only a few temporary changes to positive were noted as follows:-

- (1) Jan. 15d 5h 48m. to 16h 30m. Potential negative for all but 15 mins. Mean gradient < -970 v/m. Moderate to heavy rain.
- (2) Jan. 17d 6h 18m to 13h 22m. Potential negative for all but 10 mins. Mean gradient < -810 v/m. Moderate or heavy rain throughout.
- (3) Feb. 9d 2h 56m to 8h 38m. Potential negative for whole period. Mean gradient -467 v/m. Moderate rain throughout.
- (4) Apr. 20d 19h 45m to 21d 1h 48m. Potential negative for whole period. Mean gradient < -1212 v/m. Moderate rain throughout.
- (5) Dec. 15d 12h 0m to 17h 45m. Potential negative for whole period. Mean gradient -230 v/m. Moderate rain throughout

Notable spells of high potential were:-

(1)	April 13d 14h to 22h 45m.	Mean gradient 567 v/m.	slight haze.
(2)	" 17d 7h to 22h.	" " 548 "	moderate fog.
(3)	May 30d 14h to 21h.	" " 540 "	" "
(4)	July 5d 20h to 6d 8h.	" " 581 "	" "
(5)	August 3d 23h to 4d 9h.	" " 491 "	mist.
(6)	September 4d 12h to 23h.	" " 556 "	" "
(7)	" 28d 16h to 29d 4h.	" " 536 "	" "

There were 85 days on which there occurred apparent changes of potential gradient from the limit of the sheet on the positive side to the limit on the negative side, at least once within an interval of 60 minutes. If these changes were real and not due to charges given to the collector rod by precipitation, they connote a range exceeding 3200 v/m within an hour. Assuming that in Shetland the charge associated with rain may occasionally attain 10 E.S.U. per cc., it has been found that the gradient recorded may contain a contribution of not less than 50 volts arising from the charge given by the rain. In some of the hours the extreme reversal occurred at least twice within the period.

The diurnal inequalities for 0a days for the months, seasons, and year, are given in Table 2, together with mean values of the potential gradient and particulars of the non-cyclic change and the number of days used; the inequalities and other entries for these seasons and year are the means of the corresponding entries for the appropriate months. Similar data for the 1a and 2a days together are given in Table 3.

The annual mean diurnal variation for 0a days during 1934 has a well marked minimum at 5h and a conspicuous maximum at 21h; a secondary maximum and a secondary minimum occur at 8h and 10h respectively. This secondary oscillation however is a small one, the year resembling, in this respect, 1929, 1932 and 1933 rather than 1927, 1928, 1930 or 1931, in all of which the secondary oscillation was pronounced. The inequality for the equinoctial months is very similar to that for the year, but the range is almost twice as great. The summer inequality has its principal minimum at 10 h. with secondary minima at 1h and 5h. The winter inequality consists of an almost linear rise and fall between minimum at 3h and maximum at 21h, the variations of shorter period being suppressed.

The inequalities for 1a and 2a days are naturally more irregular than those for 0a days, but their general form is approximately the same. The range tends to be smaller, but the semi-diurnal variation is more marked.

TERRESTRIAL MAGNETISM.

Notes on the Instruments.

Up to April 20th, 1934, the standard records of declination (D) and horizontal force (H) were obtained from the Munro magnetographs, which were in use at Falmouth until 1912, and those of vertical force (V) from the Watson quartz fibre instrument, which at the end of 1929 had replaced a Munro variometer.

Early in 1934 a complete magnetograph set of the la Cour type was received. This set had been used by the British Polar Year Expedition at Fort Rae, Canada during 1932-33. It was installed in the magnetograph house and was adopted as the standard on April 20th, the former standard set becoming the auxiliary.

The la Cour set consists of H, D and V variometers. The H and D magnets are about 1 cm. in length, and each is supported by a single quartz fibre. A description of the H variometer is given in Publikationer fra det Danske Meteorologiske Institut, Communications Magnétiques, No. 11 (le Variomètre de Copenhague). The V magnet is larger; it is supported by knife edges resting on agates, and is enclosed in a sealed vessel under reduced pressure. A description of this instrument is given in Pub. fra det Danske Met. Inst., Communications Magnétiques, No. 8 (la Balance de Godhavn).

The recording apparatus is so designed that the three elements are recorded on one sheet of photographic paper, with a single electric lamp as source of light. Time marks are made by a second lamp, the circuit of which is closed by a clock for about 10 seconds every five minutes. The width of paper is 10 cm. for each element, but the effective width is increased by a number of small prisms which reflect light from the lamp into the variometers, producing a series of light-spots at intervals of slightly less than 10 cm.

Scale values of H and V are measured by passing a current through Helmholtz-Gauguin coils placed over the variometers, the resulting deflexions being recorded on the photographic paper. The current is measured by a small milli-ammeter (Weston, No. 55896). After the end of the year this was calibrated, and found to read about 0.8% too high, but scale values have been derived from uncorrected current readings. The scale value of H was about 4.9 γ /mm and that of V about 5.5 γ /mm. The scale-value of D depends only on the geometry of the system, with a small correction for torsion; a value of 0.99/mm was used up to the end of September, but a more accurate measurement made later gave 0.95/mm, and this value was used thereafter.

The H and V variometers are capable of accurate compensation for temperature. The final adjustment to the temperature compensation of the V instrument was made on July 9th, since when it has been impossible to detect any variation of base-line value with temperature; in fact, apart from discontinuities caused by other adjustments, there is no evidence of a variation of base value by so much as 1 γ during the rest of the year.

The H variometer has not yet been so accurately compensated, but the variations of base line value can be accounted for entirely by variations of temperature, and there has been no drift such as occurred sometimes with the Munro instrument.

On Dec. 20th the H magnet, which ought to lie at right angles to the magnetic meridian, was found to be between 7° and 8° away from this azimuth, in the direction north of east and south of west. Until this date the instrument had not been altered since it was installed; therefore the hourly values, maxima and minima have been corrected by the formula

$$H = H' - 0.55\delta D$$

where H is the true value, H' the value derived from the records in the usual way, and δD the difference of Declination, in minutes of arc, from the monthly mean of its values during the absolute observations of H. The corrections were small, nearly all of them lying between -1γ and $+3\gamma$ inclusive.

The records of declination, horizontal force and vertical force have been tabulated hour by hour. The values are read off by means of graduated glass scales, a value being the mean reading for 60 minutes between exact hours G.M.T.

Base values for the records are obtained from the results of absolute observations, the determinations of horizontal force being made at least twice weekly, those of declination five or six times in each week. Horizontal force and declination are determined with the unifilar magnetometer on the centre pillar (No. 2) of the absolute hut, the azimuth of the fixed mark being taken as $8^{\circ} 43' 2''$ east of south. In the deflection experiment three distances, 25, 30 and 35 cm., are used for obtaining the distribution coefficients the horizontal force being computed from the deflection at 25 cm. only.

Mean annual values of the P and Q correction have been derived from observations during the period March 1923 to the end of 1934. An accident caused some change to the magnet in March 1923, and values for earlier months have been discarded.

The values during these years are as follows:-

Year	P.	Q.	$\log_{10}(1 + P/25^2 + Q/25^4)$.
1923 (March-December)	-2.40	-30	1.99830
1924	-1.24	-481	99860
1925	-1.17	-892	99820
1926	+1.23	-1727	99893
1927	+2.23	-2200	99910
1928	+0.22	-1412	99858
1929	-0.54	-969	99855
1930	-1.21	-853	99821
1931	-1.04	-911	99826
1932	+1.37	-1866	99887
1933	-0.12	-1098	99869
1934	+2.98	-2397	99940

The values of P and Q and of $\log_{10}(1 + P/25^2 + Q/25^4)$ for 1934 are the largest of the twelve year series. The reason is not known. The collimator magnet was dropped on June 11th, and the lens was cracked, but this was not the cause of the abnormal values of P and Q, since it has been found that the abnormality lies in the observations made earlier, those made after the accident giving values much closer to the means of the preceding years.

After the computing for 1934 had been finished, a small error was found in one of the constants used in computing Q for every year except 1929. The correction of this error increases the numerical value of Q by 16.0 and reduces $\log_{10}(1 + P/25^2 + Q/25^4)$ by .000018; the effect on H and V would be a reduction of 0.3 γ and 0.9 γ respectively for all years up to the end of 1934. The figures in the table above have been corrected.

The mean value of $\log_{10}(1 + P/25^2 + Q/25^4)$ employed in the reduction of all observations for 1934 was the mean of the values derived up to the end of 1933, namely, 1.99859. If the 1934 value is added, the mean for the total available period becomes 1.99866. The adoption of this latter value would raise all the hourly values, monthly means, etc., as given in the tables by 1.2 γ in the case of H and 3.8 γ in the case of V .

In October 1932 a Smith portable magnetometer (No. L45434, by the Cambridge Instrument Co.) was installed on the West (No. 1) pillar of the absolute observatory. The principle of this instrument is explained in the Dictionary of Applied Physics, Vol. 11, pp. 528-532.

Observations of H were made with this instrument also, but certain anomalies were found in the results, and pending further investigation the observations were discontinued at the end of the year.

Inclination was measured in the early part of the year with dip circle No. 238 placed on the East pillar (No. 3) using $3\frac{1}{2}$ inch needles. Needles Nos 1 & 2 had hitherto been generally in use, but on January 2, the needle No. 2 was broken and another (No. 4) was brought into use. An appreciable rise was then found in the values of dip and thus of calculated base line values of V . Needle No. 2, after repair, was brought into use again on July 27th but it was evident from the calculated base line values of V that the needle had changed to an important extent and it now gave, in fact, results about the same as No. 4 which had been temporarily in use. From July 27 until December 13, the routine observations were continued with needles Nos. 1 & 2. Steps had in the meantime been taken to have another dip circle (No. 120 together with four needles Nos. 1-4 belonging to Circle No. 239) whose behaviour was well known, sent to Lerwick. In the latter part of December and during part of the year 1935 observations were made with Circle No. 120, and the needles just mentioned. The results generally supported the view that dip circle No. 238 with needles 1 & 2 had prior to January 2, 1934, been giving low values of inclination.

Before adopting a new standard, however, it was important to have as adequate confirmation as possible. In April 1935, with the kind permission of the Astronomer Royal, the earth inductor which had been in use at Fort Rae during the Polar Year was borrowed again from the Royal Observatory, Greenwich and sent to Lerwick. Comparative series of observations showed that the Greenwich inductor (with the recommended correction of +10.7" added) led to values of V only some 7 γ less than those given by dip circle 120 with needle 239/4.

In July 1935 it was decided to adopt the standard given by the inductor and to determine base line values of V for the earlier part of 1935 and also throughout the year 1934 by working backward, applying approximate flat corrections in different periods of time, according to the dip circles and needles in use. The result is to produce a discontinuity of +3' in inclination or +144 γ in V from 1st January 1934 as compared with the published values of earlier years.

In the table of absolute determinations and base line values given at the end of this section, the values printed for I are uncorrected, i. e. as actually measured at the time with the circles and needles mentioned above. The individual computed base line values of V are not given, but only the values finally adopted on the basis described above.

As stated in the general remarks, the walls of the magnetograph chamber are of concrete, 76 cm. in thickness. The diurnal variation of temperature within the chamber is, for most days of the year, negligibly small and no corrections for this diurnal variation have been applied to the diurnal inequalities or other data published in this volume. From the magnetograph house temperatures for each day given in the Tables, however, it will be noted that the day-to-day change of temperature is sometimes considerable. The average day-to-day change in degrees absolute over each of the twelve months of 1934 and for the year as a whole was as follows:-

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
0.34	0.48	0.20	0.33	0.33	0.28	0.31	0.29	0.21	0.42	0.32	0.35	0.32

There were 9 occasions on which the change reached or exceeded 1°A . To take account of the long period temperature changes while allotting base line values for the H magnetograph, a temperature coefficient of about $+4\gamma$ per 1°A was used during most of the year.

As mentioned above, no attempt has been made to correct the diurnal inequalities for the very small and rather uncertain diurnal variation of temperature to which the chamber may be subject.

The results of the absolute determinations of D, I and H are summarized in the subjoined table, and the values of m, the moment of collimator magnet 3951A are also given. Considerations of space make it necessary to limit the observations printed to about two per week, but, as indicated above, absolute observations of some of the elements are made more frequently. For each set of absolute observations are shown the deduced base line values of H, D and V, and, in brackets, the adopted base line values. Thus, the entry 428 (427) under H signifies: deduced base line value 14,428, adopted base line value 14,427. The adopted values were obtained as described in the foregoing, and therefore the base line values corresponding to dates between those given in the table may be obtained by interpolation.

LERWICK OBSERVATORY

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ABSOLUTE DETERMINATIONS OF D, I AND H, AND BASE LINE VALUES OF H, D AND V.

Lerwick		1934								
		Declination		Inclination		Horizontal Force.		Base line values (deduced and adopted)		
Date	Mean Time.	D.	Mean Time.	I*	Mean Time.	H.	M.	H.	D.	V*
	h. m.	° ' "	h. m.	° ' "	h. m.	γ		14,000γ+	° ' "	46,000 γ +
Jan. 2	11 30	13 30 53	-	-	11 58	14445	1047.9	428 (427)	12 25.1 (25.2)	-
3	-	-	12 33	72 46.9	-	-	-	-	-	(845)
5	11 51	28 26	10 41	46.7	12 23	476	7.6	434 (429)	26.1 (25.2)	(844)
9	12 13	29 21	10 33	46.1	12 33	471	8.0	430 (431)	25.2 (25.1)	(848)
12	12 13	28 13	10 49	46.3	12 39	474	8.5	434 (434)	24.7 (24.8)	(853)
16	12 7	28 6	11 47	47.0	12 29	461	8.6	429 (436)	24.6 (24.7)	(851)
19	12 7	29 12	10 48	46.4	12 29	469	7.7	440 (439)	24.7 (24.7)	(846)
23	-	-	-	-	12 5	460	8.3	436 (441)	-	-
24	12 29	29 5	11 53	46.7	-	-	-	-	24.8 (24.7)	(848)
26	12 6	30 57	10 33	47.3	12 24	456	9.0	430 (443)	24.9 (24.7)	(848)
30	12 7	29 49	11 47	45.9	12 27	458	8.7	437 (446)	25.5 (25.5)	(848)
Feb. 2	12 12	13 29 32	11 51	72 46.7	12 33	14468	1048.3	448 (448)	12 25.6 (25.5)	(847)
6	11 41	30 5	11 19	46.9	12 13	444	9.0	443 (451)	25.4 (25.4)	(845)
9	12 7	33 49	12 47	46.5	12 29	462	8.3	451 (454)	25.5 (25.2)	(843)
16	12 7	29 43	11 42	46.0	12 31	468	8.7	458 (459)	25.0 (24.6)	(837)
20	12 7	28 50	11 49	46.9	12 29	461	8.1	467 (462)	24.7 (24.4)	(837)
23	-	-	12 22	46.3	-	-	-	-	-	(839)
24	12 9	27 29	-	-	12 32	468	8.6	468 (462)	23.8 (24.4)	-
28	12 9	30 23	11 19	46.5	12 29	452	8.7	453 (462)	24.2 (24.4)	(849)
Mar. 7	11 49	13 26 47	-	-	12 24	14443	1048.1	462 (462)	13 54.7 (55.2)	-
8	-	-	11 45	72 47.3	-	-	-	-	-	(862)
14	12 13	30 55	-	-	12 33	450	8.3	425 (432)	56.2 (55.7)	-
15	-	-	12 23	46.1	-	-	-	-	-	(863)
20	11 40	30 13	10 28	46.9	12 31	459	8.0	435 (434)	56.1 (55.7)	(865)
21	11 52	28 59	12 52	46.6	12 13	451	9.1	426 (434)	54.9 (55.7)	(866)
30	12 17	30 17	11 57	47.2	12 41	453	7.8	468 (467)	55.5 (55.5)	(883)
Apr. 4	11 29	13 26 43	12 47	72 47.6	11 56	14436	1048.0	467 (467)	13 55.7 (55.5)	(884)
8	-	-	-	-	12 49	457	8.3	465 (467)	-	-
9	12 9	28 49	10 51	47.1	-	-	-	-	55.6 (55.5)	(889)
11	10 55	26 27	10 23	47.6	12 5	455	8.6	471 (467)	55.4 (55.5)	(891)
18	11 35	28 7	10 37	47.6	13 3	453	8.4	383 (389)	55.5 (55.5)	-
21	11 40	27 20	12 39	46.6	12 2	462	8.6	396 (389)	12 34.9 (35.0)	(631)
26	9 39	22 34	9 5	47.5	10 51	450	8.4	390 (389)	35.7 (35.0)	(631)
28	10 40	27 11	11 49	47.3	11 1	439	8.2	386 (389)	35.5 (35.0)	-
May 1	9 14	13 23 8	8 43	72 47.1	11 11	14440	1048.1	386 (389)	12 35.5 (35.0)	-
6	10 37	22 37	11 48	48.3	10 59	437	7.7	416 (411)	30.7 (31.5)	(607)
8	9 23	19 10	8 53	46.8	11 3	445	8.2	412 (411)	28.9 (31.5)	(608)
11	10 45	27 35	8 54	46.1	11 17	458	8.1	412 (411)	31.5 (31.5)	(613)
15	10 39	26 12	9 2	47.3	11 19	441	8.2	407 (411)	31.5 (31.5)	(602)
18	9 13	30 45	8 45	47.4	10 59	457	7.9	298 (304)	-	(594)
22	10 45	25 21	-	-	13 33	452	8.3	301 (304)	56.9 (57.6)	-
23	-	-	8 41	48.0	-	-	-	-	-	(605)
25	9 3	21 22	-	-	11 31	451	8.5	307 (304)	58.2 (57.6)	-
26	-	-	8 44	48.1	-	-	-	-	-	(601)
29	9 3	20 47	-	-	10 53	452	7.9	305 (304)	57.7 (57.6)	-
June 1	10 39	13 27 35	8 33	72 47.3	11 12	14442	1047.9	304 (305)	12 57.9 (57.6)	(615)
5	9 18	19 27	8 55	48.5	11 8	416	7.6	305 (306)	57.9 (57.4)	(624)
8	9 1	19 28	8 35	47.9	11 35	463	8.3	316 (309)	57.4 (57.4)	(626)
14	10 45	22 50	8 57	48.1	11 12	429	7.8	311 (312)	57.5 (57.3)	(636)
16	10 36	21 29	8 55	47.4	11 5	450	7.5	315 (313)	57.4 (57.3)	(634)
19	9 21	17 20	8 55	48.5	11 0	440	7.3	316 (313)	57.1 (57.3)	(635)
22	10 36	20 40	8 37	47.3	10 59	443	7.3	314 (313)	56.9 (57.3)	(628)
26	9 8	19 53	8 40	47.9	10 57	441	7.6	311 (313)	57.3 (57.3)	(628)
29	9 4	19 17	-	-	10 57	413	8.1	314 (313)	57.3 (57.3)	-
30	-	-	10 33	47.3	-	-	-	-	-	(635)

* See page 35-36.

† From March 7 to April 18 values are taken from supplementary D magnetograph.

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ABSOLUTE DETERMINATIONS - (Continued)

	Declination		Inclination		Horizontal Force.			Base line values (deduced and adopted)			
Date	Mean Time	D.	Mean Time.	I	Mean Time.	H.	M.	H.	D.	V.	
	h. m.	° ' "	h. m.	° ' "	h. m.	γ		14,000 γ+	° ' "	46,000 γ+	
July 3	10 31	13 22 12	8 29	72 47.7	11 2	14440	1048.0	308 (312)	12 57.4 (57.3)	(633)	
6	9 7	17 6	8 43	48.2	10 53	444	7.5	315 (311)	57.4 (57.3)	(635)	
10	9 0	17 52	8 37	47.3	11 8	450	7.9	314 (317)	57.2 (57.2)	(538)	
13	9 11	19 15	8 48	47.9	11 19	428	7.7	317 (316)	57.5 (57.2)	(542)	
17	9 6	16 2	8 39	48.3	10 53	436	7.8	320 (320)	57.7 (57.2)	(544)	
20	11 3	20 2	9 5	48.1	11 23	440	7.9	320 (317)	56.6 (57.2)	(544)	
24	11 8	22 48	9 7	47.4	11 28	443	7.5	315 (316)	56.8 (57.2)	(544)	
28	11 3	17 58	9 13	46.6	11 23	447	7.7	315 (308)	- (57.2)	(544)	
Aug. 1	11 11	13 25 41	8 17	72 48.3	11 33	14426	1048.2	303 (306)	12 57.1 (57.2)	(543)	
9	8 49	15 36	8 28	46.3	11 25	441	7.9	320 (321)	58.0 (58.0)	(538)	
14	8 42	15 53	8 23	47.4	11 5	426	7.9	309 (308)	58.3 (58.0)	(538)	
24	11 4	22 29	9 10	47.3	11 46	442	7.9	296 (296)	58.4 (58.1)	(538)	
25	9 13	18 17	8 43	47.2	10 59	443	7.8	299 (294)	58.6 (58.1)	(538)	
28	9 11	22 13	8 34	48.6	11 21	410	7.3	296 (296)	58.1 (58.1)	(538)	
31	9 11	19 42	8 43	48.2	10 48	411	7.6	296 (297)	58.0 (58.1)	(539)	
Sept. 4	10 39	13 22 27	8 57	72 47.6	11 11	14418	1048.4	297 (291)	12 57.8 (58.1)	(537)	
7	9 4	17 7	8 37	47.8	10 57	418	7.9	287 (292)	57.9 (58.0)	(537)	
11	9 7	17 54	8 41	47.7	11 3	442	8.0	292 (290)	57.7 (58.0)	(537)	
15	10 41	20 29	8 48	47.8	11 9	446	7.3	298 (292)	57.9 (58.0)	(537)	
19	10 37	20 53	9 42	47.6	11 10	438	7.8	292 (290)	58.3 (58.0)	(538)	
22	10 57	22 7	9 41	48.4	11 29	435	7.8	283 (283)	57.9 (58.0)	(538)	
25	11 13	25 7	9 40	48.9	11 41	416	6.8	283 (279)	57.8 (58.0)	(538)	
28	10 43	22 26	9 45	48.4	11 21	422	7.9	282 (282)	57.9 (58.0)	(538)	
Oct. 2	10 44	13 18 53	9 47	72 47.8	11 17	14442	1047.7	292 (288)	12 58.7 (58.8)	(538)	
5	11 21	21 22	9 45	47.3	11 49	446	8.4	275 (274)	58.8 (58.8)	(539)	
9	10 5	16 45	9 37	47.5	12 13	439	8.0	273 (273)	58.8 (58.8)	(539)	
12	10 33	21 57	11 56	47.9	13 1	449	7.8	272 (272)	59.0 (58.8)	(539)	
16	12 27	22 29	11 47	48.1	12 57	429	7.8	266 (267)	58.6 (58.8)	(539)	
19	11 39	20 58	10 45	48.1	12 13	444	7.9	267 (263)	59.2 (58.8)	(540)	
23	12 11	23 55	-	-	12 41	441	7.8	270 (271)	58.9 (58.8)	(540)	
24	-	-	11 45	48.7	-	-	-	-	-	(540)	
26	11 48	19 26	10 45	49.1	12 23	424	8.0	367 (369)	58.3 (58.8)	(540)	
30	-	20 32	10 35	47.8	12 12	437	8.1	363 (363)	58.9 (58.8)	(540)	
Nov. 2	10 43	13 20 15	10 15	72 46.8	11 53	14452	1047.8	357 (354)	12 58.5 (58.8)	(540)	
6	12 53	19 53	10 38	47.3	12 21	457	8.5	362 (356)	58.7 (58.8)	(541)	
9	13 10	19 35	-	-	12 39	433	7.8	354 (355)	58.3 (58.8)	(541)	
15	12 10	20 43	11 34	47.5	-	-	-	-	57.8 (58.8)	(541)	
16	12 15	20 13	10 17	46.5	12 40	446	7.8	356 (357)	58.0 (58.8)	(541)	
21	9 59	17 2	12 12	47.1	10 27	446	8.0	363 (362)	58.6 (58.8)	(542)	
23	11 59	19 7	9 46	47.1	10 35	447	7.9	361 (363)	58.4 (58.8)	(542)	
27	-	-	-	-	12 21	460	7.9	372 (372)	-	(542)	
30	-	-	11 57	46.7	-	-	-	-	-	(542)	
Dec. 1	-	-	-	-	12 43	14461	1047.8	363 (363)	- (58.8)		
4	11 40	13 19 39	-	-	12 16	436	8.0	363 (363)	12 57.8 (58.8)		
5	-	-	12 33	72 47.1	-	-	-	-	-	(542)	
10	11 45	18 59	10 14	46.6	12 41	460	8.5	335 (329)	-		
13	12 27	18 25	11 55	45.6	-	-	-	-	61.8 (61.8)	(652)	
15	11 49	18 57	-	-	12 22	454	7.7	331 (331)	62.1 (61.8)		
19	11 44	16 43	-	-	12 27	455	8.1	331 (332)	61.6 (61.7)		
25	12 37	19 12	11 26	49.3	-	-	-	-	57.3 (57.5)	(610)	
29	12 59	20 1	-	-	12 13	442	7.9	394 (389)	57.6 (57.5)		
31	12 29	17 44	14 41	49.0	11 44	433	8.1	388 (391)	57.7 (57.5)	(602)	

AURORA

From about September to April a watch for aurora is maintained, normally until about 23h G.M.T. each evening, and observations - as a rule at intervals of 15 to 20 minutes - are made of the northern horizon and of general meteorological conditions. The records form what is called the auroral log, a brief summary of which is given in Table 67. When any auroral display is observed, a second observer is called and detailed observations are maintained until the display subsides. These detailed observations have consisted in noting and making descriptions of the phenomena seen during the display, and have been supplemented whenever possible by photographs taken with the Krogness camera. The descriptive notes are entered in a second log reserved for records of actual auroral displays. Extracts from this latter log may be obtained by anyone requiring the detailed information.

A general auroral table for Scotland (Table 68) is also included. This table has been compiled from the records of all stations at which climatological observations or weather logs are maintained. The observers at these stations, whilst noting occasions of aurora which they may happen to observe, do not in general maintain a special watch.

Notes on the Tables.

The hourly values of H , D and V , obtained as described above, appear in three of the four monthly tables. The variations in D , being expressed in minutes, may be readily converted to units of force (γ) of the component perpendicular to the magnetic meridian by multiplying by a factor which for 1934 is approximately 4.21. The mean value for the day is computed as the mean of the twenty-four hourly values.

The letters "Q" and "D", prefixed to dates, denote the five quiet and the five disturbed days as selected at De Bilt.

In the fourth table for each month are given:-

- (a) The values and times of the daily maximum and minimum and the values of the absolute daily range for each of the elements H , D and V .
- (b) The value of $HR_H + VR_V$ for each day, where R_H and R_V denote the absolute ranges in force for a calendar day of the horizontal and vertical components.
- (c) The daily magnetic character figures, assigned according to the international scheme wherein "0", "1", "2", respectively, denote quiet, moderately disturbed, and highly disturbed conditions.
- (d) The daily values of temperature in the magnetic chamber.

Mean diurnal inequalities of H , D and V on all days and on international quiet and disturbed days are given, for the months, seasons and year, in Tables 53 to 61.

In calculating diurnal inequalities the non-cyclic change has been eliminated on the assumption that its time rate is linear. The values of the range of the mean diurnal inequalities of the several elements in the three categories of days are brought together in Table 62, and the values of the

non-cyclic change are given in Table 64. The "Average Departures" or mean values of the 24 hourly constituents of the inequalities irrespective of sign, are given in Table 63.

The mean values of $HR_H + VR_V$ are summarized in Table 65.

In former years Table 66 has given for the months and year the mean values of N, W, V, D, I, H and Total Force T on all days. Similar data are supplied by Table 66 for 1934 but the table has been re-arranged and extended to give in addition the mean values of the primary elements H, D and V on the internationally selected groups of quiet and disturbed days. For all days the means of N, W, I and T are derived from the corresponding values of H, D and V.

Finally, in Tables 67 and 68 are given summaries of auroral observations obtained as already described.

Review of Results.

Mean and Extreme Values of the Magnetic Elements, 1934.- The mean values of the magnetic elements for the years 1933 and 1934 are given in Table 1. The values of H, D and V have been computed from the hourly values derived from the autographic records of all days, standardized by means of the absolute observations; those of N, W, I and T have been deduced from the values of H, D and V.

TABLE 1.

Year	H.	D. (West)	I.	N.	W.	V.	T.
	γ	° /	° /	γ	γ	γ	γ
1933	14477	13 34.0	72 44.6	14073	3396	46605	48802
1934	14463	13 21.9	72 48.4	14071	3343	46744	48930

The decrease in westerly declination from 1933 to 1934 (12'1) was the same as in the previous year. The rates for the eight earlier years were 13'·8 for 1923-24, 13'·0 for 1924-25, 14'·9 for 1925-26, 12'·9 for 1926-27, 12'·8 for 1927-28, 13'·7 for 1928-29, 12'·4 for 1929-30 and 11'·6 for 1930-31. In comparing the values of I, and V and T for the two years in Table I the discontinuity of +3' in I or +144 γ on Jan. 1st 1934 is to be borne in mind. The reasons for this are outlined in an earlier paragraph (p...35)

Mean values derived from (a) international quiet days and (b) international disturbed days are as follows:- (a) H, 14466γ; D, 13° 22'·0; V, 46745γ, (b) H, 14459γ; D, 13° 21'·8; V, 46743γ.

The extreme values of H, D and V recorded during 1934 are given in Table II.

TABLE II

Element.	Maximum		Minimum		Absolute Annual Range.
	Value.	Date. 1934	Value.	Date. 1934	
Horizontal Force	15095 γ	d. h. m. Dec. 29 18 53	13794 γ	d. h. m. May 11 23 5	1301 γ
Declination	14° 0'8	May 11 22 59	12° 9'8	Dec. 4 1 34	1° 50'0
Vertical Force	47003 γ	Jan. 1 18 37	46305	Dec. 4 1 48	698 γ

The range of 1° 50'0 in declination is equivalent to a range of 464 γ in the component of force perpendicular to the magnetic meridian. In the year 1933 larger ranges were recorded in H and D.

Magnetic character of the year.- The following table shows the mean sunspot numbers for recent years, together with the mean absolute daily range of declination, as a rough measure of magnetic activity:-

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Mean Sunspot No.	5.8	16.7	44.3	63.9	69.0	77.8	65.0	35.7	21.2	11.1	5.7	8.7
Mean absolute daily range of D.	14'9	15'4	18'1	25'0	20'0	21'4	24'3	28'5	19'2	21'3	19'6	18'0

During these twelve years the sunspot numbers show a fairly regular rise and fall, with maximum in 1928 and minimum in 1933; the D ranges, however, show maxima in 1926 and 1930, the latter the larger, although the sunspot number was comparatively small, and they continued to fall in 1934 although the sunspot number was 3 units higher than in 1933 in the first of a new cycle of years.

In the next table the magnetic conditions for individual months of the year 1934 are set out. together with the provisional sunspot numbers.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sunspot number	3.4	7.8	4.3	11.3	19.7	6.7	9.3	8.3	4.0	5.7	8.7	15.4
Mean absolute daily range of D	15'1	19'5	23'1	16'9	17'3	16'2	16'6	20'8	22'9	15'4	12'6	19'3
Mean $\frac{HR_H + VR_V}{10,000}$	308	417	711	415	547	425	373	561	674	371	277	779

The values of mean absolute daily range for the months and seasons of the year are given in Table IV, where for convenience of comparison, the ranges of declination in angle have been converted to units of force of the component perpendicular to the magnetic meridian. If comparison be made with the corresponding table in the Eskdalemuir Section it will be seen that in 1934 the ratios of the annual mean ranges of H, D and V at Lerwick to those at Eskdalemuir are 1.2, 1.1 and 2.2. The ratios of the mean daily ranges for the six years 1926-31 of Lerwick H to Eskdalemuir N, Lerwick D to Eskdalemuir W, and Lerwick V to Eskdalemuir V, are 1.4, 1.1 and 1.9; the greatest variation from year to year appears in the case of the vertical component; scarcely any variation appears in the ratio of the W or D component and a slight variation in the case of the H or N component.

TABLE III

Month.	Magnetic Character Figures.			Mean Character Figures.		Mean Value of $\frac{HR_H + VR_V}{10,000}$		
	"0" days.	"1" days.	"2" days.	Lerwick.	International.	All days.	Q days.	D days.
January	24	6	1	.26	.52	308	123	733
February	15	11	2	.54	.65	417	144	1094
March	7	20	4	.90	.76	711	186	1430
April	20	8	2	.40	.45	415	203	1020
May	20	7	4	.48	.51	547	186	1766
June	20	9	1	.37	.44	425	205	993
July	14	16	1	.58	.43	373	180	753
August	7	23	1	.81	.68	561	187	1005
September	8	19	3	.83	.68	674	168	1407
October	10	19	2	.74	.50	371	103	995
November	15	14	1	.53	.39	277	75	790
December	8	21	2	.81	.66	496	105	1821
Year, 1934	168	173	24	.61	.56	465	155	1151
Year, 1933	157	169	39	.59	.64	563	166	1413
Year, 1932	97	230	39	.84	.71	644	182	1602
Year, 1931	121	212	32	.75	.66	589	196	1394
Year, 1930	64	235	66	1.01	.83	1063	250	2515
Year, 1929	113	214	38	.80	.67			
Year, 1928	126	211	29	.74	.63			
Year, 1927	137	206	22	.68	.63			
Year, 1926	208	134	23	.50	.65			
Year, 1925	207	130	28	.51	.56			
Year, 1924	229	114	23	.44	.55			

LERWICK OBSERVATORY

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TABLE IV.- ABSOLUTE DAILY RANGE. MEAN MONTHLY VALUES.

Month.	Mean Absolute Daily Range 1934.			Mean Daily Range expressed as Percentage of Yearly Mean. 1934.		
	H.	D.	V.	H.	D.	V.
	Y	Y	Y	%	%	%
January	43	64	53	55	84	71
February	65	82	69	83	108	92
March	93	97	124	119	128	165
April	70	71	67	90	93	89
May	126	73	78	162	96	104
June	88	68	63	113	90	84
July	79	70	51	101	92	68
August	94	88	91	121	116	121
September	106	96	115	136	126	153
October	53	65	63	68	86	84
November	36	53	48	46	70	64
December	79	81	82	101	107	109
Winter	56	70	63	72	92	84
Equinox	81	82	92	104	108	123
Summer	97	75	71	124	99	95
Year	78	76	75	-	-	-

The frequency distribution of absolute daily ranges recorded in 1934 is shown in Table V. A comparison with the corresponding figures for Eskdalemuir (Table V. on page 183) indicates that ranges in excess of 200γ are again much more frequent at Lerwick than at Eskdalemuir, even in the case of Dranges, of which the frequency distributions at the two places usually show less divergence. Apart from this it is notable that the ranges of maximum frequency at Lerwick fall in the intervals 50-59γ for H, 40-49γ for D, and 20-29γ for V, that is, at much the same points as at Eskdalemuir, though V has many more ranges in excess of 200γ than have H and D.

TABLE V.- FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE.

	Number of Cases, 1934.			Percentage Distribution.		
	H.	D.	V.	H.	D.	V.
0- 9	0	0	1	0.0	0.0	0.3
10- 19	19	3	42	5.2	0.8	11.5
20- 29	26	18	64	7.1	4.9	17.1
30- 39	47	29	61	12.9	7.9	16.7
40- 49	42	62	36	11.5	17.0	9.9
50- 59	50	61	21	13.7	16.7	5.8
60- 69	47	51	16	12.9	14.0	4.4
70- 79	31	24	21	8.5	6.6	5.8
80- 89	25	23	6	6.9	6.4	1.6
90- 99	16	20	11	4.4	5.5	3.0
100- 109	9	10	16	2.5	2.7	4.4
110- 119	6	5	2	1.6	1.4	0.6
120- 129	5	14	9	1.4	3.8	2.5
130- 139	6	8	5	1.6	2.2	1.6
140- 149	5	11	4	1.4	3.0	1.1
150- 159	3	4	6	0.8	1.1	1.6
160- 169	5	5	4	1.4	1.4	1.1
170- 179	1	3	3	0.3	0.8	0.8
180- 189	5	4	2	1.4	1.1	0.6
190- 199	4	2	3	1.1	0.6	0.8
200+	13	8	32	3.6	2.2	8.8
Days omitted	0	0	0	-	-	-

TABLE VI.- PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT LERWICK, 1934.

Where the beginning of a disturbance has been marked by a "sudden commencement", the serial number is followed by an asterisk (*), and the time entered in the second column is that of the sudden commencement, estimated to the nearest minute. In other cases, the exact hour nearest the time at which disturbance may be regarded as having begun is entered in the second column. To the tabulated values of maximum and minimum, the following have to be added:- H, 14,000γ; D, 13°; V, 46,000γ.

No.	From		To	Horizontal Force.					Declination.					Vertical Force.				
				Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range
		d. h. m.	d. h.	γ	d. h. m.	γ	d. h. m.	γ	γ	d. h. m.	γ	d. h. m.	γ	γ	d. h. m.	γ	d. h. m.	γ
1	Jan.	1 8	Jan. 2 19	712	1 8 12	402	1 21 57	310	51.7	1 18 28	1.9	1 17 37	49.8	1003	1 18 37	669	1 22 50	334
2*	Feb.	8 17 16	Feb. 12 24	580	9 17 18	396	9 1 56	184	44.5	9 16 45	-7.9	9 0 42	52.4	973	9 17 37	556	9 2 38	417
3*	Feb.	15 11 21	Feb. 18 24	824	16 20 28	402	16 14 17	422	59.4	16 20 6	-3.1	17 21 5	62.5	976	16 17 10	701	18 22 12	275
4	Mar.	4 10	Mar. 8 7	608	4 21 30	282	4 21 5	326	42.7	5 8 44	-1.9	7 20 19	44.6	887	4 18 53	521	7 22 35	366
5	Mar.	22 4	Mar. 26 2	524	22 5 22	312	25 2 6	212	54.4	22 22 15	-9.9	25 2 3	64.3	827	25 16 57	478	25 1 30	349
6	Mar.	28 12	Apr. 6 20	551	5 15 25	353	29 0 50	198	42.5	5 15 2	-11.7	4 23 27	54.2	912	5 15 47	561	4 23 56	351
7	May	1 22	May 3 24	547	2 18 40	178	2 23 50	369	33.8	2 23 53	-1.4	3 1 48	35.2	800	2 18 25	437	2 23 50	363
8	May	11 20	May 13 2	515	11 20 15	-206	11 23 5	721	60.8	11 22 59	-5.9	11 23 38	66.7	766	12 15 40	605	11 23 31	161
9	May	18 2	May 19 3	856	18 17 34	320	19 1 1	536	52.5	18 17 39	7.0	19 0 41	45.5	978	18 16 2	608	19 0 31	370
10	June	4 23	June 6 24	536	4 20 7 5 17 45	293	6 0 33	243	39.3	6 0 25	1.6	5 3 5	37.7	834	6 17 34	545	6 0 37	289
11	June	11 11	June 12 19	539	11 19 33	335	12 0 30	204	34.2	12 17 8	6.7	12 2 51	27.5	784	11 19 9	604	12 0 40	180
12*	July	3 10 31	July 5 8	560	3 17 35	416	3 10 39	144	39.2	3 13 40	14.7	4 8 34	24.5	835	3 18 5	691	4 2 30	144
13*	July	30 3 17	Aug. 6 24	576	30 13 18	324	4 23 14	252	52.0	30 13 33	-3.5	3 18 1	55.5	887	30 13 41	546	5 0 16	341
14	Aug.	12 15	Aug. 14 23	533	12 19 1	363	12 22 51	170	32.6	13 14 0	-8.7	12 23 5	41.5	792	12 19 42	588	12 23 17	204
15*	Aug.	26 5 42	Aug. 29 24	516	29 20 26	352	27 21 55	164	37.5	27 4 46	-6.6	26 22 28	44.1	808	28 15 54	590	27 4 56	218
16	Sept.	1 10	Sept. 4 23	548	2 16 8	329	3 1 6	219	31.2	1 12 51	-3.5	2 16 4	34.7	898	2 16 41	520	3 1 22	378
17	Sept.	24 7	Sept. 25 23	898	25 17 53	273	25 19 17	625	57.6	25 18 12	-25.6	25 17 57	83.4	927	25 17 13	512	24 22 47	415
18	Oct.	24 0	Oct. 26 20	622	25 17 9	391	24 9 32	231	36.7	24 5 40	-13.1	25 17 20	49.8	928	25 17 5	631	24 6 22	297
19	Nov.	7 5	Nov. 8 24	510	7 19 44	371	7 23 31	139	35.1	7 12 12	-11.0	7 19 53	46.1	924	7 16 54	604	7 23 50	320
20	Dec.	3 21	Dec. 4 24	491	3 23 15	-13	4 1 48	504	28.0	4 6 0	-50.2	4 1 34	78.2	854	4 14 12	305	4 1 48	549
21	Dec.	29 6	Dec. 31 4	1095	29 18 33	324	29 19 10	771	42.7	29 18 42	-32.0	29 18 47	74.7	954	29 17 42	527	29 23 35	427

DIURNAL VARIATION OF THE MAGNETIC ELEMENTS LERWICK 1934

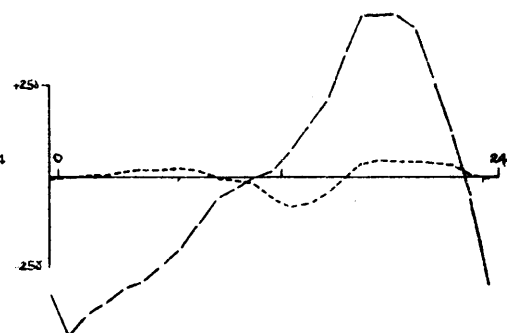
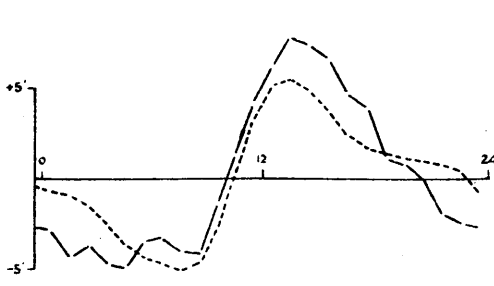
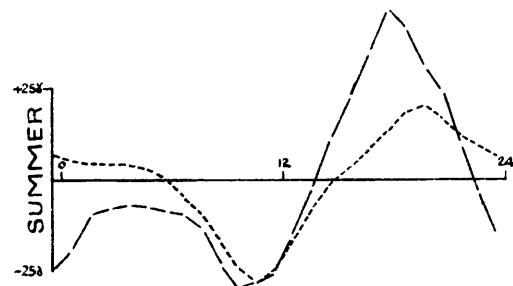
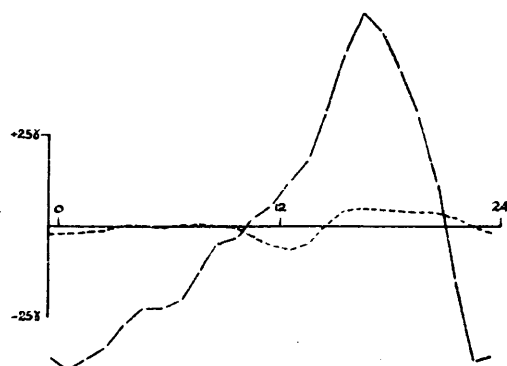
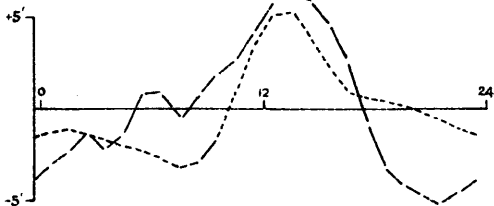
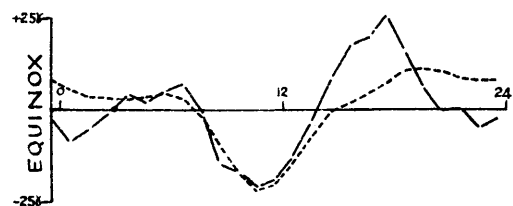
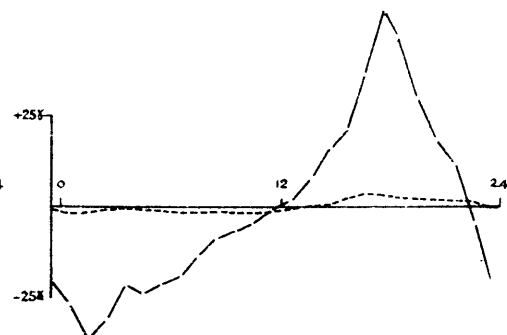
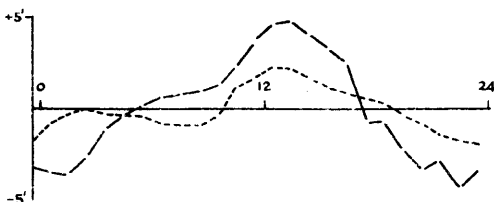
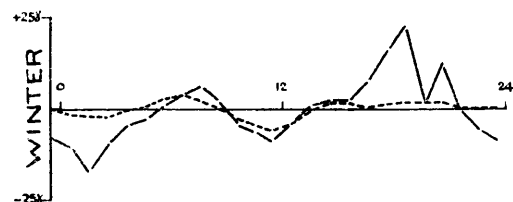
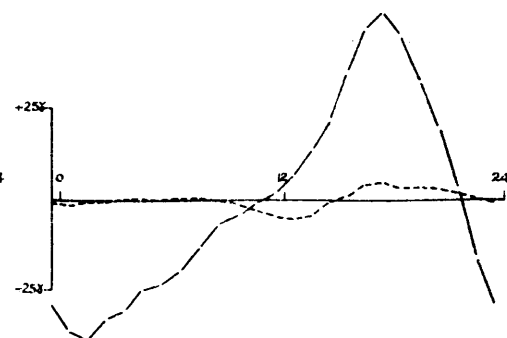
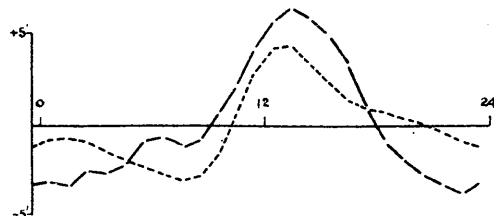
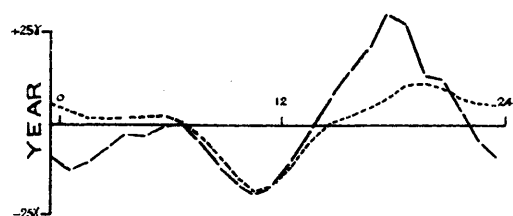
QUIET DAYS -----

DISTURBED DAYS ———

HORIZONTAL FORCE

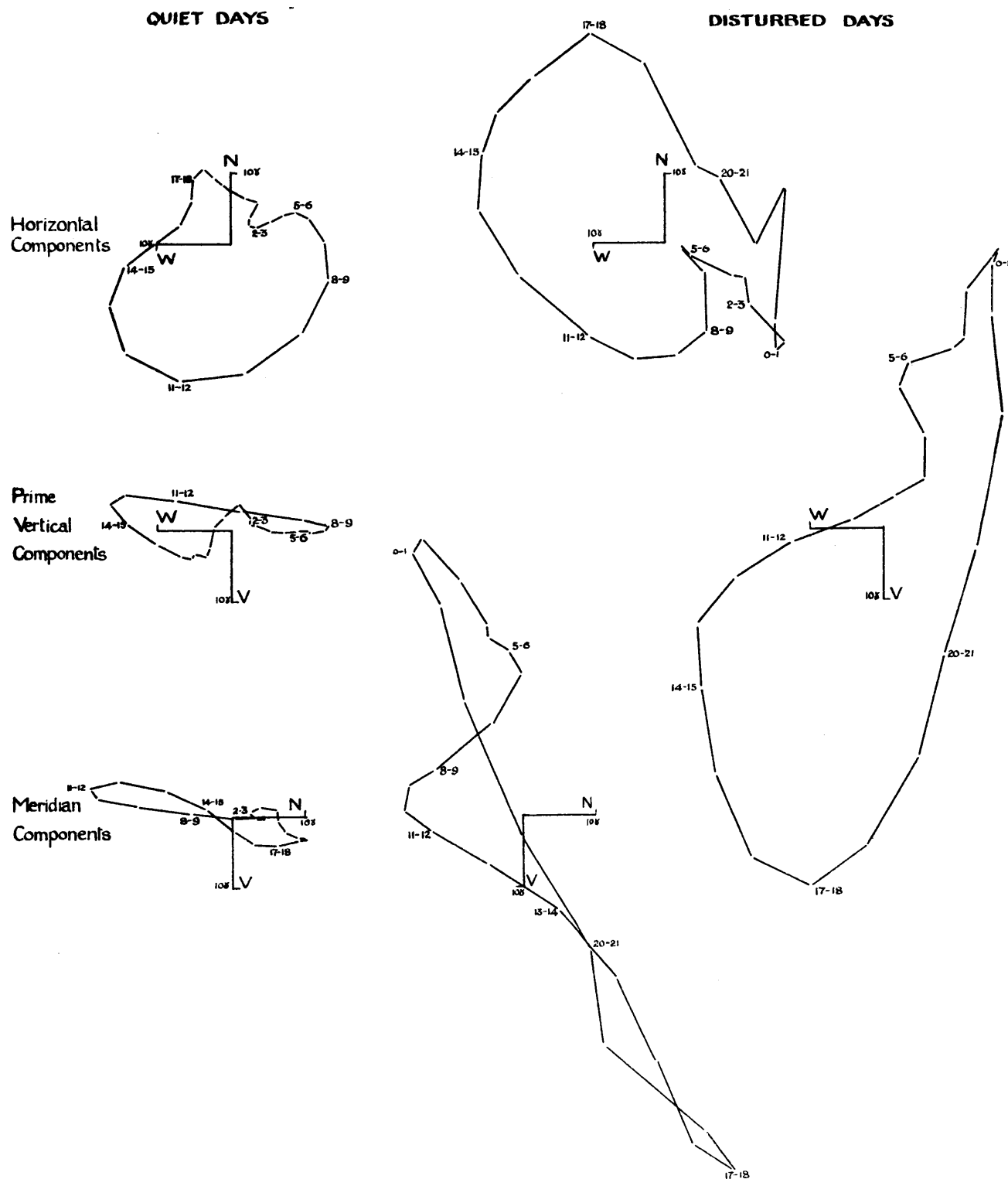
DECLINATION

VERTICAL FORCE



**VECTOR DIAGRAMS ILLUSTRATING
DIURNAL VARIATION OF MAGNETIC FORCE**

LERWICK 1934



"Diurnal Inequalities".- The mean diurnal inequalities for all days, international quiet and disturbed days, for the months, seasons and the year, are given in Tables 53-61, and the corresponding inequality ranges in Table 62. The inequalities of H, D and V for international quiet and disturbed days are shown graphically in Plate I, whilst in Plate II are given vector diagrams illustrating the diurnal variation of magnetic force in the horizontal, the prime vertical and the meridian planes respectively.

All days.- The ranges of the annual mean inequalities of H and D are higher in 1934 than in 1933 but the range of V is lower than in any year since 1925 except 1927-28.

Quiet days.- The H and D ranges are greater than for any of the preceding three years and for V greater than for either of two preceding years.

In V, 1927, 1928 and 1929 had the smallest Q-day ranges, in the seasons as well as the years, 1930 considerably the largest; but in H and D the relation between the years is not so clear, 1927, 1928, and 1929 tending to have the largest ranges, 1931-33 the smallest, with the disturbed years 1926 and 1930 intermediate.

Disturbed days.- The range of the annual inequality of H is less than in any year since 1924. Although May was the outstanding month of 1934 as in 1933, the range then was only 57% of that of May 1933 - a reflection of the generally low standard of disturbance throughout 1934.

The annual inequality ranges in D and V are the smallest of all years for which comparable ranges are available at Lerwick, viz. 1923 in D and 1926 in V.

In contrast with the average year the seasonal mean range for the summer months of 1934 was greater than for the equinoctial months in both H and D.

A comparison of the records of Eskdalemuir and Lerwick shows that in general the declination inequalities at the two places for all, quiet and disturbed days are very similar in general appearance, although minor irregularities on the one set of values are not always reproduced on the other, or, if so, only with diminished amplitude. Differences are more obvious on the horizontal force curves even on quiet days; and become conspicuous in the disturbed day inequalities in H in some months. In the case of vertical force these differences are even more marked. The table below shows the ratios of the ranges of the inequalities in the various months.

Ratio of the Range of the Inequality at Lerwick to that at Eskdalemuir. (1934)

Type of Day.	Element.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
q	D	1.03	1.17	.97	1.06	1.07	1.14	1.12	1.03	.96	.92	.90	.98
d	D	1.15	1.19	1.14	1.16	1.13	1.24	1.24	1.22	1.04	1.08	1.13	1.34
q	H	1.09	.88	1.05	1.18	1.22	1.20	1.10	1.03	1.03	1.03	.90	.83
d	H	1.50	2.98	1.04	1.18	2.46	1.70	1.20	1.30	1.57	.85	.92	2.71
q	V	1.23	1.60	.79	.95	.73	1.01	.75	1.08	1.05	.69	.89	1.24
d	V	2.16	2.37	2.44	2.33	2.21	2.24	1.71	2.06	2.05	2.02	2.37	2.38

Magnetic Disturbances.- Particulars of the principal magnetic disturbances recorded at Lerwick during the year are given in Table VI. In the Eskdalemuir Section will be found a similar list which deals with the same disturbances as recorded at that Observatory. Within the limits of accuracy of measurement and registration, "sudden commencements" appear to occur simultaneously at the two Observatories.

Remarks on the Autographic Records, 1934.

JANUARY.- (Average Character Figure 0.26).

An exceptionally quiet month. The records of the 1st were quiet until nearly 17h, but in H a fine peak, 270γ high, appeared at 18h 12m. V also showed a striking hump 255γ high, but this was divided by a bay, 130γ deep, the minimum of which coincided exactly with the maximum of H. In D there was a bay with a minimum of 12° 1.9' at 17h 37m, followed immediately by a swift rise to the maximum for the day, 12° 51.7', reached at 18h 28m. After a small night bay in H, only 48γ deep, there was a second sharp H peak about 75γ in height at 22h 34m. On this occasion D movements closely resembled, while V movements were opposed in direction to, those in H.

Apart from small bays, respectively 60γ and 100γ deep, between 23h and 24h on the 22nd H and V movements during the rest of the month were all extremely small. In D there were a few bays - at 2d 14h 47m, 15' in depth; at 2d 18h 6m, 22' in depth; at 14d 21h 57m, 29' in depth; and at 18d 20h 25m, 25' in depth.

Aurora, mostly faint, was seen from one or more places in Scotland on the evenings of January 2, 7, 8, 14-16, 21 and 22.

FEBRUARY.- (Average Character Figure 0.54).

Another quiet month, though less so than January.

Apart from a D bay, 23' deep at 2d 20h 31m, the first eight days of the month were quiet. Following a sudden commencement at 8d 17h 16m all elements were low for a long period early on the 9th, the V bay especially being about 180γ deep and lasting from 0h 30m to 8h. From 8h to 15h the traces were quiet, but there were humps respectively 122γ and 210γ high in H and V at about 17h 30m.

At 10d 18h 50m a small hump in H and V was accompanied by a bay in D 27' deep; and a further period of small disturbance occurred between 12d 21h and 13d 2h, of which the main feature was an H hump some 65γ high at 21h 20m.

A "sudden commencement" appeared, in H only, at 15d 11h 21m. The movements were -3γ, +18γ. After this, the traces were fairly quiet until 16d 14h, when V began a rapid rise of 100γ and bays 100γ and 14' deep occurred in H and D. Between 16h and 21h H showed a series of fine peaks, reaching values of 14748γ at 18h 30m, 14824γ at 20h 28m and 14799γ at 20h 42m. During this period V was always high, varying about a mean line roughly 170γ above normal, and showed almost incessant, though not very large, movements. D was also much agitated, but its movements were on both sides of the normal. The largest was a rise of 46' at 19h 57m.

By 23h the records were normal again. At 17d 20h there was a 60γ hump in H, followed by a shallow bay in all elements; and D showed a bay 26' deep at 18d 17h 40m. The remainder of the month was quiet.

Aurora was seen from one or more places in Scotland on the evenings of February 3-5, 12, 16 and 18-20. That of 16th was rather more widely seen than others.

MARCH.- (Average Character Figure 0.90).

A month of frequent, but not large, disturbance.

H and V fell rapidly between 4d 19h 40m and 21h, and continued disturbed and well below normal until 5d 9h. A fine H peak, 300γ in height, appeared immediately after the minimum of 14282γ had been reached at 21h 5m. There was a corresponding V peak, 100γ high. D values were generally low during the night, but individual swings were small.

Well defined night bays appeared in H and V on the 5th-6th. At 7d 22-23h there was a bay 230γ deep in V, while D showed a hump 27' high. This was divided by a 14' bay at 22h 25m; and at the same time a peak 100γ high similarly divided a corresponding H bay, 150γ deep.

At 10d 19h 51m and 11d 20h 2m there were bays, respectively 23' and 29' deep, in D; while V showed bays 70γ and 120γ deep on the 15th (1h to 8h) and at 17d 1h 3m.

On the evening of the 22nd there were bays 110γ and 190γ deep in H and V, and a corresponding D peak, 41' high. As on the 7th, the H bay and D hump were sub-divided by a vigorous swing towards the normal, which occurred in both elements at 22h 25m. Further, but smaller, disturbance occurred on the following evening.

The night of 24th-25th showed rather greater disturbance, the depressions of H, D and V around 25d 1h to 2h amounting to about 140γ, 30' and 250γ respectively.

From 28d 21h to 29d 3h a V bay 180γ deep appeared. There were two bays in D 23' and 20' deep, at 28d 21h 33m and 29d 0h 7m, and two in H, 90γ and 100γ deep, at 28d 23h 54m and 29d 0h 50m. Some further disturbance occurred on the night of the 30th-31st. The chief features were two H bays, respectively 65γ and 75γ deep at 30d 23h 26m and 31d 8h 35m.

Aurora was seen from one or more places in Scotland on the evenings of March 2, 4-12, 16-18, 22 and 25. As seen from Lerwick all were weak displays except that of the 4th, which, unfortunately, was largely hidden by clouds. This display was observed from as far south at Edinburgh.

APRIL.- (Average Character Figure 0.40).

An extraordinarily quiet month. Such disturbance as there was, occurred in the first week.

All three records were lively throughout the 1st, although there were no large movements. D showed a bay 20' deep at 17h 25m. Just after 2d 0h H and V reached the minima of shallow bays respectively 100γ and 140γ deep,

but the remainder of the 2nd was fairly quiet.

The largest disturbance of the month was that of the 4th to 5th. H showed small peaks, 60γ and 40γ high at 4d 18h 13m and 21h 9m, the former accompanied by a 22' bay in D; and in all three elements there were moderately deep bays covering roughly the period 4d 21h 30m to 5d 1h. Further peaks in H and V were recorded just before 5d 16h. They were respectively 80γ and 140γ high and were accompanied by a 20' bay in D.

Except for some small movements, of no very definite character, on the 15th and 16th, the remainder of the month was quiet.

Aurora was seen from one or more places in Scotland on the evenings of April 4-6, 8, 12, 15-17, 21 and 28.

MAY.- (Average Character Figure 0.48).

In this month there were three very short periods of severe disturbance. Apart from these, it was a very quiet month.

Deep bays, with minima a little after midnight, were recorded on the night of 2nd-3rd. The H bay was 280γ deep, the V bay 250γ and the D bay 33'. On the following night, between 22h and 24h, a wave appeared in all elements. Though not large (the range of V was only 70γ) it was unusual in that the V movements were opposed in direction to those in H and D.

From this time until 11d 22h the records were fairly quiet. Then there was a huge bay in H, 680γ deep, with a minimum at 11d 23h 5m. The movements were very rapid, and H was back to about its normal value by midnight. In D there was a sharp rise of 40' to a maximum at 22h 59m, followed by an almost equally swift fall of 67' to the minimum at 23h 38m. The V range was relatively small; although there was a bay, 130γ deep, extending from 11d 22h to 12d 1h, this was divided by a sharp peak, 150γ high, accompanying the H minimum. A second bay of moderate depth was recorded in all elements a little before 12d 4h. On the following night at about midnight there were two successive shallow bays in V and D but not, curiously enough, in H.

The only other important disturbance occurred on the 18th to 19th, and was interesting because of the huge afternoon hump. In V this was 240γ high and lasted from 18d 12h until 22h; in H it was 370γ high and lasted from 14h 30m until 20h. D values were also a little high during this period.

The night bay that followed was relatively small - about 150γ deep in both H and V. The minima occurred a little after midnight.

Aurora was reported from two places in the north of Scotland on the evenings of May 5 and 16 respectively.

JUNE.- (Average Character Figure 0.37).

There were bays in all elements between 5d 1h and 5d 6h, 50γ deep in H, 100γ in V, 20' in D.

During the afternoon of the 5th both H and V were a little high, and there were a number of rapid fluctuations in H. Two bays, respectively 100γ and

150γ deep, appeared in H at 5d 22h 29m and 6d 0h 33m. These were accompanied by bays, 60γ and 130γ deep, in V and by D humps 12' and 28' in height. Slight disturbance reappeared on following evening, in the form of a small H and V humps, and a 12' bay in D at 6d 17h 41m.

From 11d 13h to 20h every feature of the V record was inverted with respect to corresponding feature in H. These movements were all fairly small, however, and the two H bays, 130γ and 80γ deep, which appeared at 12d 0h 30m and 3h 44m were accompanied by V bays 130γ and 80γ deep. The D record showed a number of small movements including a 15' bay at 11d 19h 11m.

There was a further short period of disturbance on the 14th to 15th. It began with a sudden commencement at 14d 12h 37m. This was no more than a quiver in the D and V traces, but in the H the movements were -2γ, +25γ, -10γ. The main features of the disturbance that followed were two V bays each about 80γ deep at 14d 23h 6m and 15d 3h 11m. These were accompanied by D humps 16' and 23' high and by very small H bays.

A short period of mild disturbance, 18d 13h to 18h, again showed the V record inverted with respect to H.

The remainder of the month was quiet.

JULY.- (Average Character Figure 0.58)

A quiet month. Apart from a brief period of minor activity on the 3rd, beginning abruptly at 10h 24m and lasting for about eight hours, there was only one disturbance worthy of notice.

This began with a "sudden commencement" at 30d 3h 17m (initial movements, H -3γ, +37γ, D -3'.0, +9'.8, V +2γ, -2γ). The maxima of all three elements occurred between 13h and 14h; after this the disturbance began to die away, and conditions were calm by 18h. There was slight disturbance during 31st.

AUGUST.- (Average Character Figure 0.81)

There was no large magnetic storm this month, but conditions were slightly disturbed during the periods:- 1st to early hours of 5th, 12d 16h to 13d 3h, and afternoon of 26th to end of 30th. During the night of 4th-5th there were dips roughly 170γ in both H and V, accompanied by irregular fluctuations; D also fluctuated irregularly through a range of some 30'. The disturbance of 12th-13th was very similar in general outline in all three elements. The disturbance of 26th-30th presents no marked features for description, but consists mainly of irregular fluctuations of small range. It may be remarked that during each of these three disturbances there are examples of very rapid falls of about 30' in D, usually beginning abruptly and followed by a less rapid return.

Aurora was seen from Baltasound on the evening of 27th.

SEPTEMBER.- (Average Character Figure 0.81).

There was slight disturbance during the first four days, the periods of greatest activity being 2d 14h-19h and 2d 23h-3d; after this, apart from a little disturbance on the nights of 6th-7th, 11th-12th, 16th-17th, 19th-20th and 21st-22nd, conditions were calm until the morning of 24th, when disturbance set in. From 19h until 25d 8h there were irregular fluctuations in all elements, especially from 22h to midnight, during which interval there was

a fall of about 200 γ in V, followed by a partial recovery. V continued to fluctuate around a low value until 6h, thereafter rising rather rapidly.

Considerable activity occurred again after 13 $\frac{1}{2}$ h, the largest and most rapid movements taking place between 17h and 19h. There were several sharp peaks in H, the largest. between 17h 47m and 17h 56m, being 350 γ high; this was followed by a very irregular fall to a minimum at 19h 17m. D began to fall rapidly at 17h 45m, reached a sharp minimum at 17h 57m, rose abruptly by 83' to a maximum at 18h 12m, fell again by 72' to a minimum at 18h 25m and rose by 43' in the next 5 minutes. In V the most notable feature was a fall of 280 γ between 17h 49m and 18h 0m. After 19h the disturbance rapidly died away.

Slight disturbance occurred from the evening of 26th till the end of 27th, after which conditions were moderately calm till the end of the month.

Aurora was seen from one or more places in the north of Scotland on the evenings of September 1-6, 11, 16, 19, 26, 27, 29 and 30.

OCTOBER.- (Average Character Figure 0.74).

The first 12 days were quiet. From about 12d 18h to 14d 1h there was slight disturbance. A brief disturbance occurred on the afternoon of 15th, when there was a hump of about 130 γ in V between 15h and 21h, followed by a small dip between 21h and 22 $\frac{1}{2}$ h; at 23h conditions were calm.

After eight days free from disturbance - the period 18d 10h to 20d 7h being of the very quiet type found in winter - there was a renewal at the end of 23rd. A small dip occurred in V between 24d 4h and 8h, and a hump during the afternoon, with maxima between 15h and 16h. Disturbance was then slight until the next evening, when there was a period of activity from 16h to 19h.

The succeeding days became progressively quieter, the last three days of the month being very quiet.

Aurora was seen from Baltasound on the evening of October 1 and from Lerwick on October 12, 15 and 16.

NOVEMBER.- (Average Character Figure 0.53).

Conditions were very quiet during almost the entire month.

A minor disturbance began on the morning of 7th, and lasted some 48 hours. The most disturbed period was 7d 16h to 8d 2h. V rose rapidly to a maximum at 16d 54m, afterwards falling irregularly by 320 γ to a minimum at 23h 50m; there was a dip of 35' in D between 16h and 18h and a smaller one between 19 $\frac{1}{2}$ h and 21h; the fluctuations in H were small and irregular.

There was very slight disturbance on the night of 24th-25th.

Aurora was seen from one or more places in Scotland on the evenings of November 4, 5, 7, 8, 11, 12 and 22.

DECEMBER.- (Average Character Figure 0.81.).

A small "sudden commencement" at 1d 4h 57m was followed by small and rapid oscillations in all elements, and a very slight disturbance developed during the following night.

A considerable disturbance began at the end of 3rd. Immediately after 22h H and D began to fall. The fall was interrupted by a hump in each about an hour later, but after 23h it continued rapidly though irregularly. V began to fall abruptly at 22h 50m. In each element there was a marked increase in the rate of fall soon after 4d 1h, and sharp minima were reached between 1h 30m and 1h 50m. The extent of the fall from 22h to the minimum was 490γ in H, 67' in D and 500γ in V. This was followed by a rapid rise in each case. After about 8h there was much agitation but no large movements, and the disturbance died away during the morning of 5th.

Conditions were then fairly quiet until 29th, the periods 16d 3h to 18d 20h and 23d 8h-22h being very quiet.

Small movements of an unusual type occurred at 11d 10h 33m and 12d 12h 16m. These are somewhat oscillatory. The first was followed by small and rapid oscillations in all elements till 22h, the second by no perceptible increase of activity.

On 29th small and rapid oscillations from about 6h marked the beginning of disturbance, which did not, however, develop until after 16h. Soon after this hour H and V began to rise rapidly, and D to fall, and all elements were greatly disturbed until 20h. Very large and rapid fluctuations occurred between 18h 30m and 50m. H reached a sharp peak, some 650γ above its undisturbed value, at 18h 33m; D rose to a sharp peak at 18h 42m, fell by 75' to a minimum 6 minutes later and rose again by 54' in the next 5 minutes; V fell by 560γ between 18h 31m and 40m, immediately rising abruptly. After 18h 40m all elements continued to oscillate rapidly, h falling 770γ from its maximum to its minimum at 19h 10m. Between 18h and 20h D and H were on the average falling. After 20h disturbance was less intense until 22h, D falling by roughly 45' in this interval. From 22h till 30d 1h there were irregular fluctuations in all elements, V reaching its absolute minimum for the storm at 23h 35m.

Small and rapid oscillations continued throughout 30th, decreasing after 20h.

Aurora seen from one or more places in Scotland on the evenings of December 3, 4, 24, 25, 29 (widely) and 31.

POTENTIAL GRADIENT (reduced to level surface): VOLTS PER METRE.
Mean values for periods of sixty minutes, ending at exact hours, Greenwich Mean Time.

1. LERWICK.

1934.

Day	January. Factor 1.27				February. Factor 1.31				March. Factor 1.31			
	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.
1	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.
2	-81	131	78	137	119	77	113	145	121	98	<-703	232
3	112	87	149	146	184	155	145	158	134	118	92	187
4	Z±	93	185	155	68	113	151	161	282	190	Z±	350
5	50	47	44	103	100	64	128	90	> 654	144	183	206
6	124	109	-109	146	58	68	108	103	131	190	170	229
7	96	93	165	249	126	122	151	184	114	> 817	> 602	124
8	196	174	78	134	187	119	-77	386	< 147	Z±	114	33
9	> 544	Z±	> 420	165	241	138	142	151	72	Z±	98	157
10	118	230	155	323	42	-174	16	200	62	65	124	190
11	-152	124	389	404	Z±	Z±	248	245	121	Z±	Z±	> 1145
12	295	180	202	31	122	64	84	113	75	141	Z±	196
13	227	47	233	261	87	84	113	177	Z±	134	131	311
14	208	174	199	218	309	196	222	361	131	298	180	> 1145
15	155	205	124	53	<-354	180	145	155	163	Z±	245	> 817
16	<-715	<-778	-190	171	109	109	145	206	245	157	147	141
17	<-47	87	115	137	119	200	209	213	101	134	183	209
18	<-233	<-933	93	44	177	193	270	138	(98)	(131)	14	190
19	140	124	280	34	171	171	81	Z±	173	<-229	<-49	> 1014
20	90	68	(62)	93	322	122	171	Z±	<-278	294	150	186
21	87	81	118	137	241	108	132	81	173	163	160	186
22	<-358	159	162	165	64	81	-42	< 10	-360	206	180	203
23	299	174	295	171	116	122	97	180	43	36	163	180
24	Z±	218	190	180	81	106	122	180	144	98	144	370
25	271	255	302	330	174	-129	Z±	<-129	<-1161	101	108	98
26	227	295	196	261	113	119	187	> 741	62	114	206	245
27	230	174	165	143	> 403	> 660	354	145	255	160	-7	222
28	68	84	115	155	81	100	108	155	219	101	131	180
29	81	81	137	53	109	106	148	132	186	213	379	458
30	118	-78	-19	112	---	---	---	---	108	131	128	183
31	121	180	171	143	---	---	---	---	108	78	65	163
(a)	171	139	178	163	151	143	151	192	158	170	170	313
(b)	132	130	154	168	134	103	126	176	100	130	131	216
Mean	(a) 163		(b) 146		(a) 159		(b) 135		(a) 203		(b) 144	
Day	April. Factor 1.29				May. Factor 1.31				June. Factor 1.31			
	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.
1	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.
2	87	-6	-113	198	120	78	195	406	112	224	166	160
3	<-859	-65	162	<-113	107	104	117	111	128	176	224	186
4	Z±	Z±	113	149	85	97	189	195	147	173	154	202
5	65	36	113	181	117	137	114	306	355	131	240	208
6	168	23	162	220	71	<-85	416	237	144	173	186	272
7	84	97	149	156	234	270	-97	149	195	237	192	221
8	227	65	Z±	<-1215	75	156	146	149	288	141	163	154
9	> 680	272	162	117	182	215	387	312	115	166	224	214
10	91	172	149	188	189	127	65	59	122	154	173	218
11	91	162	162	204	101	156	211	205	506	301	339	259
12	78	126	230	217	88	120	65	130	208	147	224	256
13	143	181	275	292	85	211	120	130	195	189	176	294
14	65	87	441	739	33	-78	78	140	154	192	48	74
15	256	269	188	204	-29	26	81	85	96	128	108	134
16	285	168	308	243	75	101	146	179	96	118	58	397
17	237	97	246	237	127	120	153	-123	339	426	195	557
18	194	441	502	794	<-1397	-7	130	91	112	-6	182	198
19	564	654	292	350	97	127	88	104	192	160	211	(320)
20	78	78	97	156	(97)	111	<-943	130	112	256	413	263
21	62	123	207	<-1428	104	-16	117	159	90	125	109	83
22	159	175	237	207	133	267	205	182	93	96	61	266
23	133	139	165	198	91	146	156	143	122	176	176	179
24	133	143	172	159	130	114	140	> 715	163	128	157	179
25	120	181	194	421	107	120	149	215	96	147	214	202
26	136	149	-97	42	101	120	140	166	192	160	189	288
27	Z±	75	178	214	123	-692	68	0	141	309	237	304
28	126	139	194	181	211	133	130	175	410	397	118	202
29	113	110	211	188	133	127	140	166	173	115	51	96
30	117	113	107	227	81	130	123	185	51	147	234	192
31	117	243	162	622	273	283	383	406	(192)	128	173	208
(a)	171	167	207	263	130	142	162	190	178	180	180	226
(b)	152	166	189	276	127	99	145	163	178	174	180	226
Mean	(a) 202		(b) 196		(a) 156		(b) 133		(a) 191		(b) 189	

Note:- The Potential Gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the notation Z is used.
(a) Mean of all positive readings. (b) Mean from all complete days using both positive and negative readings.

1. LERWICK.

1934.

Day	July. Factor 1.29				August. Factor 1.29				September. Factor 1.28				
	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	
1	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	
2	134	445	144	186	462	218	250	312	380	155	158	220	
3	74	77	51	160	300	253	156	108	260	158	127	155	
4	112	80	112	179	75	281	178	343	260	<-310	357	298	
5	(128)	288	419	544	340	484	406	456	248	270	499	660	
6	211	109	205	461	480	262	374	209	149	201	146	201	
7	490	285	496	269	421	253	300	374	112	198	164	412	
8	157	24	141	192	209	168	162	184	124	152	-34	81	
9	118	138	218	243	84	90	203	162	322	449	353	161	
10	211	189	150	51	356	165	265	243	186	291	105	217	
11	320	320	214	182	<-109	103	106	200	90	124	189	251	
12	90	192	189	176	178	134	187	-3	298	285	465	310	
13	227	131	208	192	-281	140	59	125	118	146	201	449	
14	99	234	432	429	90	125	125	94	273	443	434	735	
15	246	256	99	170	103	112	125	150	422	394	459	806	
16	147	182	214	320	106	128	156	150	201	533	201	285	
17	234	160	157	432	103	125	78	140	155	124	164	543	
18	234	224	336	448	90	78	103	119	198	273	387	9	
19	202	397	<-1376	208	0	243	134	215	201	279	260	369	
20	464	656	448	<-1043	84	108	75	122	205	118	71	109	
21	173	227	160	128	84	106	172	-125	59	77	102	<-15	
22	189	109	224	266	94	112	150	259	81	127	105	124	
23	176	304	> 256	192	90	109	218	387	87	139	<-868	143	
24	198	310	298	208	94	75	6	106	2	143	87	167	
25	384	202	29	470	75	81	109	162	96	105	71	-177	
26	16	224	144	157	103	112	187	390	84	139	130	201	
27	67	125	118	192	109	284	228	356	298	-357	295	651	
28	77	179	125	160	649	128	203	312	< 25	118	109	161	
29	90	147	80	150	187	181	165	228	201	-171	341	632	
30	90	106	83	51	-72	-31	103	-156	474	279	298	< 310	
31	45	189	314	608	172	356	222	246	155	307	394	453	
31	483	368	294	554	243	190	212	284	---	---	---	---	
(a)	190	228	212	266	192	173	175	230	198	223	238	325	
(b)	181	204	204	274	168	169	177	198	202	198	237	327	
Mean	(a) 224 (b) 216				(a) 193 (b) 178				(a) 247 (b) 241				
Day	October. Factor 1.29				November. Factor 1.28				December. Factor 1.27				
	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	2 - 3 h.	8 - 9 h.	14 - 15 h.	20 - 21 h.	
1	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	
2	125	122	119	119	90	40	130	198	232	148	281	352	
3	75	137	109	25	143	130	155	198	297	-105	-87	93	
4	100	165	75	331	96	139	251	-481	-74	-12	145	151	
5	> 858	156	200	265	<-831	81	105	84	96	105	151	111	
6	> 187	250	175	231	62	146	115	248	74	71	331	139	
7	103	112	162	128	164	310	158	139	56	151	164	102	
8	456	296	162	172	96	105	59	90	56	-59	-15	145	
9	250	250	24	175	62	93	155	189	303	349	294	380	
10	24	165	197	162	90	-62	112	(-155)	430	155	250	-155	
11	6	175	359	144	(93)	109	105	155	182	232	269	210	
12	112	119	184	181	65	90	329	121	352	358	247	182	
13	112	-218	159	140	47	62	109	353	238	105	182	139	
14	103	131	119	87	19	74	177	149	182	318	272	294	
15	-156	140	172	165	71	71	105	65	155	28	<-819	-111	
16	37	<-94	172	122	136	81	84	81	127	59	-309	-83	
17	184	103	< 44	75	19	93	217	217	142	155	24	204	
18	66	153	-125	103	121	96	124	115	139	59	139	210	
19	81	106	69	84	71	112	164	93	133	133	71	-87	
20	81	75	100	109	87	112	124	112	207	210	-93	96	
21	78	262	109	137	62	53	112	149	96	167	108	71	
22	562	97	165	237	87	115	47	102	62	83	49	56	
23	181	190	140	< 125	22	-105	143	93	90	37	108	148	
24	24	< 6	184	> 905	74	71	99	65	59	-49	34	15	
25	-3	165	172	353	53	77	77	121	-216	121	139	105	
26	87	150	-31	-203	43	65	133	-419	49	74	49	<-185	
27	-103	> 608	> 749	237	40	43	77	115	0	> 473	24	-20	
28	106	309	24	> 686	96	84	93	96	34	53	3	62	
29	168	187	281	106	53	87	124	77	-127	25	124	124	
30	106	0	156	153	74	96	118	263	-238	-303	43	142	
31	<-187	97	185	187	-205	<-1054	149	180	62	151	-297	182	
31	209	125	<-100	655	---	---	---	---	-6	-155	77	49	
(a)	177	167	181	220	76	98	132	143	148	153	153	150	
(b)	119	125	132	135	76	85	132	91	105	89	99	120	
Mean	(a) 186 (b) 128				(a) 112 (b) 96				(a) 151 (b) 103				
					Annual Means.				(a)	162	165	178	224
									(b)	140	139	159	197
									(a)	182			159
									(b)				

The Potential Gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the notation Z is used.
(a) Mean of all positive readings. (b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES (in volts per metre).
The departures from the mean of the day are adjusted for non-cyclic change.*
*0a DAYS ONLY.

2. LERWICK.

1934.

Month and Season	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	† Non-cyclic Change	No. of Days Used	Mean Values
Jan.	v/m. + 8	v/m. -18	v/m. -56	v/m. -59	v/m. -40	v/m. -23	v/m. -20	v/m. + 3	v/m. -1	v/m. -19	v/m. -18	v/m. -27	v/m. -22	v/m. -6	v/m. -10	v/m. + 6	v/m. + 3	v/m. +21	v/m. +40	v/m. +47	v/m. +52	v/m. +46	v/m. +59	v/m. +30	v/m. -44	5	203
Feb.	-21	-3	-15	-24	-27	-28	-17	-22	-27	-10	-3	+11	-6	-5	-4	+11	+30	+35	+25	+24	+30	+28	+13	+4	+13	9	151
Mar.	-18	-26	-34	-48	-49	-46	-53	-36	-31	-38	-23	-14	+4	+21	+25	+37	+47	+52	+49	+81	+73	+43	+18	-35	+57	5	160
Apr.	-19	-29	-45	-29	-32	-25	-21	-15	-19	-12	-9	-1	-24	-12	+28	+53	+33	+23	+29	+42	+57	+34	+17	-24	+9	4	149
May	-32	-28	-18	-6	-27	-41	-25	-36	-37	-39	-27	-12	-22	-5	+24	+30	+45	+70	+86	+63	+19	+30	+10	-24	-20	9	184
June	-3	-13	+16	-1	-18	-34	-11	+12	-5	-5	-2	-3	-13	-12	-3	+3	+8	+19	+20	+20	+18	+8	+1	-1	+12	17	193
July	+14	+10	-15	-26	-20	+6	+3	-12	-31	-53	-19	-12	-10	-3	+15	+20	+13	+2	-7	+21	+27	+12	+34	+33	+38	11	226
Aug.	-14	+2	+15	+4	-25	-5	+22	+10	-41	-51	-21	-19	-3	-4	-9	-14	-6	-3	+9	+17	+45	+62	+31	-3	-38	18	225
Sept.	+2	-16	-43	-46	-52	-46	-21	+16	-3	-41	-46	-29	-37	-20	-11	-41	-30	-1	+25	+118	+141	+104	+49	+33	+10	11	268
Oct.	No 0a days in October.																										
Nov.	-42	-50	-55	-35	-35	-33	-25	-29	-27	-15	+2	+14	+11	+18	+22	+44	+39	+31	+35	+51	+46	+35	+10	-15	+22	4	107
Dec.	-15	-17	-21	+1	-2	0	-6	-11	+1	-6	-4	-10	+7	+5	+15	+2	+2	+17	+14	+15	+17	+18	+4	-25	+33	4	199
Year	-13	-17	-25	-24	-30	-25	-16	-11	-20	-26	-15	-9	-10	-2	+8	+14	+17	+24	+30	+45	+48	+38	+22	-2	+8	95	188
Winter	-17	-21	-37	-29	-26	-21	-17	-15	-13	-13	-6	-3	-3	+3	+6	+16	+19	+26	+29	+34	+36	+32	+21	-1	+6	22	165
Eqnx.	-12	-24	-41	-41	-44	-40	-32	-12	-18	-30	-26	-15	-19	-4	+14	+16	+17	+25	+34	+80	+90	+60	+28	-9	+25	20	192
Summer	-9	-7	-1	-7	-23	-19	-3	-7	-29	-37	-17	-11	-12	-6	+7	+10	+15	+22	+27	+30	+27	+27	+19	+1	-2	53	207

3. LERWICK.

*1a AND 2a DAYS ONLY.

1934.

Month and Season	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	† Non-cyclic Change	No. of days used	Mean Values
Jan.	v/m. +29	v/m. -6	v/m. -72	v/m. -120	v/m. -105	v/m. -38	v/m. +3	v/m. -26	v/m. -57	v/m. -22	v/m. +41	v/m. +67	v/m. +67	v/m. +30	v/m. -26	v/m. -39	v/m. 0	v/m. +59	v/m. +54	v/m. +60	v/m. +19	v/m. +23	v/m. +41	v/m. +19	v/m. -41	3	96
Feb.	+8	+6	-3	-2	-12	-11	+7	-4	-7	-4	+3	+4	-37	-9	+14	+17	-44	+6	-16	+9	+22	+12	+24	+17	+19	6	122
Mar.	-8	-8	+5	+11	+18	+85	-9	-39	0	-20	-29	-18	-28	-4	+2	+11	+2	+5	+23	+33	+33	-43	-9	-13	-19	1	159
Apr.	-27	-29	-54	-47	-41	-57	-54	-18	-15	+2	-80	-15	-21	-10	+36	+52	+59	+51	+51	+72	+77	+65	+13	-10	-94	5	154
May	+7	-10	0	-27	-29	-18	-9	+31	+5	-12	-6	-43	-53	-50	-26	-44	-27	+1	+52	+34	+22	+56	+91	+55	+42	4	136
June	-14	-62	-62	-83	-50	-24	-19	-34	-11	-8	-54	-42	-7	+1	-39	+12	+85	+73	+37	+46	+93	+141	+27	-6	-149	5	182
July	+20	+13	0	+15	+60	+28	+4	0	-9	-31	-27	+1	+6	-18	-50	+8	-30	-40	-20	-16	+39	+17	+19	+12	+48	10	194
Aug.	-6	-48	-62	-3	-10	-22	+4	+37	+23	+46	-19	-56	+8	+28	-12	+8	+8	-23	+12	+20	-29	+30	+34	+33	+45	5	180
Sept.	-108	-119	-13	+30	+40	+80	+137	+126	+37	-1	-12	-30	-73	+23	+66	+64	+18	+6	+9	-70	-80	-58	-77	-65	+26	3	250
Oct.	-10	-19	-36	-48	-43	-37	-30	-5	+5	+3	-17	-12	-1	+5	-16	+6	+51	+51	-7	+25	+28	+42	+27	+37	-61	6	111
Nov.	-43	-32	-22	-26	-42	-45	-20	-16	-17	-30	-32	+2	+11	+11	+9	+15	+33	+47	+68	+51	+39	+49	+8	-21	-15	11	101
Dec.	+8	-27	+5	+19	-4	-12	-21	+4	+8	-17	+27	+21	+28	+33	+37	+29	-42	+31	-29	+16	-8	-53	-41	-11	+17	4	145
Year	-12	-26	-26	-23	-18	-6	-1	+5	-3	-8	-17	-10	-8	+9	0	+12	+9	+22	+19	+23	+21	+23	+13	+4	-15	63	151
Winter	+1	-15	-23	-32	-41	-27	-8	-11	-18	-18	+10	+23	+17	+16	+9	+5	-13	+36	+19	+34	+18	+8	+8	+1	-5	24	116
Eqnx.	-38	-44	-25	-13	-7	+18	+11	+16	+7	-4	-35	-19	-31	+21	+22	+33	+33	+28	+19	+15	+15	+1	-11	-13	-37	15	169
Summer	+2	-27	-31	-25	-7	-9	-5	+9	+2	-1	-27	-35	-11	-10	-32	-4	+9	+3	+20	+21	+31	+61	+43	+23	-3	24	168

† See page 21.

* Note for explanation of 0a, 1a, 2a Days, see page 55.

ELECTRICAL CHARACTER OF EACH DAY, AND APPROXIMATE DURATION OF NEGATIVE POTENTIAL GRADIENT.

4. LERWICK.

1934.

Day.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.	Char- acter. Dura- tion of nega- tive pot. grad.
1	2a 3-7	Oa 0-5	2c 4-0	2c 5-5	2b 4-4	Oa ...	1b 1-3	Oa ...	Oa ...	1a 0-2	1c 1-3	Oa ...
2	1b 0-5	Oa ...	2c 4-9	2c 8-6	1b 0-1	Oa ...	Oa ...	1b 1-1	Oa ...	1b 1-5	1b 0-1	2b 5-9
3	1b 2-7	Oa ...	1c 2-6	2c 4-9	Oa ...	Oa ...	Oa ...	1b 1-8	1b 2-3	1b 1-9	2c 6-1	2a 3-4
4	1b 2-3	Oa ...	1c 1-9	1b 2-1	1a 0-3	Oa ...	(1a) (1-0)	Oa ...	Oa ...	1b 1-0	2b 5-1	1b 0-3
5	1b 1-4	1a 0-1	1b 1-5	1c 1-2	2b 3-7	Oa ...	Oa ...	Oa ...	Oa ...	1b 2-5	1b 1-5	1b 1-9
6	2b 4-3	1a 0-5	1c 0-7	1a 0-1	1b 1-7	Oa ...	Oa ...	Oa ...	Oa ...	1a 0-1	1b 0-8	1a 0-3
7	2b 3-7	1b 2-7	1c 3-0	2c 9-1	1b 2-4	Oa ...	1b 0-7	Oa ...	1b 2-5	1b 0-6	1a 0-2	2b 6-2
8	1c 2-7	1b 0-6	1b 0-9	1c 0-8	Oa ...	Oa ...	Oa ...	1b 0-6	1b 0-7	1c 2-2	Oa ...	1b 1-9
9	Oa ...	2b 8-4	Oa ...	1b 0-3	1a 0-1	Oa ...	1a 0-1	Oa ...	1a 0-4	1b 0-7	2b 3-6	1b 1-6
10	1b 2-9	2c 3-6	1c 1-8	Oa ...	Oa ...	Oa ...	Oa ...	1b 1-2	Oa ...	1b 0-9	(1a) 0-7	Oa ...
11	1b 1-4	2a 3-2	1b 0-7	Oa ...	Oa ...	Oa ...	1a 0-2	2b 3-7	1a 0-8	1a 0-5	1b 1-5	1a 1-0
12	1b 3-0	Oa ...	1c 1-1	1a 0-9	1b 0-3	Oa ...	Oa ...	1b 2-8	Oa ...	1b 3-0	1a 1-0	1a 1-1
13	1b 0-1	Oa ...	1c 1-2	2b 3-1	2b 7-9	1a 1-8	Oa ...	Oa ...	Oa ...	1a 2-2	1b 2-0	Oa ...
14	2b 7-8	1b 1-9	1c 1-5	1a 1-3	2b 3-9	Oa ...	1a 0-5	Oa ...	Oa ...	2b 5-0	1a 0-9	2c 5-7
15	2c 15-1	Oa ...	1c 2-2	1b 0-8	1b 0-2	1b 1-6	1b 1-0	1a 0-8	Oa ...	2c 3-2	1a 0-1	2b 10-1
16	1b 2-0	Oa ...	Oa ...	1b 1-3	2c 5-1	1a 0-1	1a 0-1	1a 0-8	1b 1-9	1b 1-0	Oa ...	1b 2-1
17	2c 9-7	1a 0-4	2b 3-5	1b 0-4	2c 7-4	1b 2-3	Oa ...	Oa ...	1a 1-1	1a 2-0	1a 0-7	1b 1-2
18	1b 1-1	1b 2-4	1c 2-9	Oa ...	Oa ...	1a 0-5	1b 2-6	1a 1-1	Oa ...	1a 0-1	1a 0-1	2b 3-4
19	Oa ...	1c 1-8	1b 2-5	1a 1-1	2b 5-3	1b 2-5	2b 5-0	Oa ...	1b 2-7	1b 0-7	1a 0-9	1b 2-5
20	Oa ...	2c 3-6	1a 0-1	2b 5-0	1b 1-6	1a 0-4	1a 0-3	1a 0-9	1b 2-1	1b 0-3	1a 0-3	1b 1-9
21	1b 3-0	2b 4-9	1b 2-0	1b 1-9	1b 2-7	1b 2-1	1a 0-1	2b 3-1	1b 1-0	1b 2-0	2b 3-4	Oa ...
22	1b 0-8	1a 1-6	2b 3-8	1b 0-8	1a 2-6	1b 0-4	1b 2-8	Oa ...	2b 7-1	1c 1-0	2b 7-7	Oa ...
23	1c 1-7	1a 1-7	1b 0-3	1b 1-6	1b 0-8	Oa ...	Oa ...	1b 1-2	2b 6-4	1c 2-3	1a 0-3	1b 2-8
24	Oa ...	2c 4-1	2c 9-5	1b 1-3	1b 0-3	Oa ...	1a 0-2	1b 1-3	2b 3-1	1b 1-8	Oa ...	2b 4-5
25	Oa ...	1c 1-9	Oa ...	1b 2-3	1b 1-9	Oa ...	1b 1-6	Oa ...	1b 1-3	2b 7-1	1b 3-0	2c 3-5
26	1b 1-3	1c 0-7	1b 1-4	1b 1-5	2b 8-4	1a 0-3	1b 0-9	1a 0-1	2c 7-6	2c 4-3	Oa ...	2c 4-9
27	1b 1-2	Oa ...	1b 0-2	1a 0-3	Oa ...	Oa ...	Oa ...	Oa ...	1b 0-7	2c 4-1	1a 1-2	2b 6-9
28	1a 0-8	1b 0-8	Oa ...	Oa ...	Oa ...	1a 1-5	1a 0-1	Oa ...	1b 2-5	1c 2-0	1b 2-2	2b 4-9
29	2a 3-1	Oa ...	1a 0-1	Oa ...	1a 0-4	1a 1-9	1a 0-1	2b 6-1	1b 2-2	1b 2-2	1a 0-3	2b 7-9
30	Oa ...	Oa ...	Oa ...	1b 1-0	Oa ...	Oa ...	1a 0-1	Oa ...	1b 2-2	1b 0-3	1b 2-7	2b 3-8
31	1b 0-2	Oa ...	1b 1-2	Oa ...	Oa ...	Oa ...	1b 1-2	Oa ...	Oa ...	1c 1-7	Oa ...	2b 5-7
Total	32 76-5	25 44-9	31 55-5	31 55-1	30 59-5	12 15-4	21 19-9	18 26-6	23 49-2	36 58-4	31 47-7	40 95-4
No. of days used.	31 31	28 28	31 31	30 30	31 31	30 30	31 31	31 31	30 30	31 31	30 30	31 31
Mean	1-03 2-5	0-9 1-6	1-00 1-8	1-03 1-8	0-97 1-9	0-40 0-5	0-68 0-6	0-58 0-9	0-77 1-6	1-16 1-9	1-03 1-6	1-29 3-1

Annual Values :- Character Frequency. 0 1 2
 99 202 64
 Mean Character Figure 0-90 (365 days)
 Duration of negative pot. grad: Total 604.1 hrs.
 No. of days 365
 Mean 1-66

Explanatory Note:- The electrical character of the day is indicated by the figures 0, 1, or 2, according to the character of the trace of the electograph as regards negative potential gradient. The explanation of these symbols is as follows:-

- 0. denotes a day during which from midnight to midnight no negative potential was recorded.
- 1. denotes a day with excursions to the negative not amounting in the aggregate to more than three hours.
- 2. denotes negative potential extending in the aggregate over three hours or more.
- a. denotes that within the 24 periods of 60 minutes for which an estimate of the mean potential gradient has to be made in the process of tabulation, there was in no case a range of potential gradient in the open exceeding 1000 volts.
- b. denotes that a range of potential gradient in the open exceeding 1,000 volts was reached in at least one but in fewer than six of the 24 hourly periods referred to above.
- c. denotes that a range of 1,000 volts or more occurred in at least six of the 24 hourly periods.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

5. LERWICK. (H.)

14,000 γ (-14 C.G.S. unit) +

JANUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	473	472	473	474	476	476	478	477	475	472	476	477	471	477	473	474	480	509	620	456	453	431	445	451	477
2 D	456	456	461	458	435	454	470	474	466	461	441	434	454	467	454	466	456	454	463	457	458	464	464	464	458
3	462	460	463	465	466	470	477	467	459	454	458	464	469	472	471	460	449	454	463	465	463	461	464	464	463
4	461	463	462	468	469	471	473	471	469	466	465	465	471	475	473	472	469	465	468	467	467	472	476	473	469
5 Q	471	469	469	471	473	473	477	473	472	471	470	470	472	475	476	475	472	473	473	473	476	476	474	476	473
6 Q	474	473	473	476	477	479	479	478	478	478	473	473	478	483	478	473	472	471	463	467	470	477	478	474	475
7	473	473	474	478	477	480	483	480	480	480	478	479	480	484	482	480	477	470	467	470	470	466	468	471	476
8	470	469	471	468	478	465	482	481	479	475	478	474	474	476	478	480	480	475	476	478	478	476	474	481	477
9 Q	470	468	469	470	474	478	480	478	476	476	477	474	474	480	482	480	480	479	480	481	483	471	487	470	476
10	475	476	475	473	475	479	481	481	482	481	481	480	482	487	482	479	480	477	477	485	468	470	472	472	477
11	480	472	467	470	472	475	477	479	477	476	474	471	470	477	476	476	476	475	470	471	471	473	473	473	474
12 Q	472	472	473	471	472	479	482	481	479	478	474	469	475	478	477	476	477	478	478	474	476	475	474	472	475
13 Q	469	469	471	473	474	475	477	478	480	478	476	473	474	478	479	482	477	476	478	476	477	475	473	472	475
14 D	472	471	473	476	479	483	485	483	476	469	476	478	477	481	480	475	471	468	474	465	471	464	448	444	472
15	447	453	466	461	467	472	476	474	475	480	478	474	473	475	475	474	476	479	471	452	457	463	469	470	469
16	454	458	459	463	479	491	486	479	477	469	452	453	469	475	477	476	474	473	473	471	476	470	477	474	471
17	473	473	474	474	475	477	476	474	473	473	474	472	474	477	478	478	476	473	478	479	476	474	469	471	475
18 D	471	471	479	477	478	483	486	492	486	478	475	475	474	477	477	477	476	477	478	477	471	459	464	473	476
19	462	458	469	470	469	473	478	478	471	468	465	466	468	472	476	476	476	476	474	476	477	476	476	475	472
20	478	475	475	476	477	477	480	482	479	479	475	470	465	477	482	482	480	480	483	482	479	481	481	480	478
21	477	477	476	473	479	480	482	479	471	468	475	474	473	477	477	478	468	471	471	476	473	473	476	475	475
22	474	473	472	473	476	477	476	477	477	473	473	470	472	477	484	484	483	481	480	478	483	484	458	449	475
23	477	472	468	464	473	479	478	480	473	464	457	464	467	472	475	478	464	463	463	475	479	471	474	479	471
24	469	466	478	468	471	475	476	476	467	468	466	464	467	473	479	479	473	466	469	473	472	465	476	462	471
25	462	468	477	468	469	472	480	472	482	464	463	468	471	475	473	468	470	468	469	467	465	466	469	468	469
26	468	470	469	468	468	472	474	475	475	469	458	464	469	475	480	476	477	475	470	468	465	464	462	466	470
27	464	465	458	465	470	471	471	470	469	466	464	465	466	469	476	476	475	476	474	473	475	473	469	470	470
28	469	470	472	472	473	473	474	474	473	470	472	470	474	477	484	487	486	479	469	461	463	468	470	471	473
29 D	473	477	478	482	482	483	490	485	477	471	473	474	470	474	477	474	473	478	475	469	465	472	473	473	476
30	481	477	473	471	473	483	483	481	479	475	472	470	467	472	474	477	478	481	482	479	474	469	472	474	476
31	476	471	469	473	475	479	478	478	468	469	467	464	467	471	478	479	480	472	467	483	471	472	475	475	473
Mean	469	469	471	471	473	477	479	478	474	471	469	469	471	476	477	476	474	474	477	471	471	469	470	470	473

MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

6. LERWICK. (D.)

13° +

JANUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day																									
1 D	28.1	28.5	28.6	28.6	28.5	28.2	28.0	27.7	29.1	31.1	31.2	31.1	30.1	32.4	31.4	28.3	31.8	19.2	39.3	30.8	27.7	20.2	26.2	26.2	28.8
2 D	27.5	27.5	28.9	27.9	30.6	29.1	27.2	27.3	27.0	28.7	31.0	32.2	33.3	31.8	26.2	27.0	29.7	25.2	14.4	23.5	24.5	25.2	26.2	27.2	27.5
3	27.2	27.2	27.3	27.3	27.7	27.9	28.2	26.6	28.9	30.2	27.7	28.5	29.7	29.3	27.7	27.3	26.0	27.7	27.7	26.4	26.0	24.5	24.1	25.8	27.3
4	26.2	27.3	29.9	24.5	25.4	25.3	26.2	26.8	27.0	27.2	27.3	27.9	29.3	28.9	27.7	27.7	27.7	27.7	27.2	26.6	25.8	24.9	24.1	25.0	26.9
5 Q	26.8	26.8	27.2	27.0	27.5	28.1	28.2	25.4	25.6	26.0	27.2	27.9	28.7	28.7	27.7	27.3	27.5	27.3	27.3	25.4	26.2	25.8	26.6	26.8	27.0
6 Q	27.2	27.3	27.5	27.5	27.5	27.2	27.0	26.8	27.3	28.3	29.1	30.0	30.2	29.3	28.9	29.3	28.3	25.4	27.0	26.2	26.8	26.8	26.4	27.7	
7	26.8	27.2	27.9	28.5	27.7	27.7	27.2	27.0	26.8	27.3	27.9	28.5	29.1	29.1	28.1	27.7	28.1	30.4	29.7	28.3	24.5	23.5	24.6	26.0	27.5
8	26.0	26.8	27.2	27.7	27.5	26.4	27.0	27.3	27.5	27.9	29.5	31.2	32.2	32.9	30.8	30.0	29.7	31.4	28.9	26.9	26.5	25.7	24.0	26.2	
9 Q	25.7	26.1	27.1	27.1	27.2	27.2	24.7	26.5	26.5	27.4	28.6	29.8	29.8	29.6	28.4	28.0	28.2	28.0	27.6	27.2	27.1	23.4	24.2	26.2	27.1
10	29.3	27.9	26.8	25.6	26.0	25.8	26.2	26.2	26.4	28.1	27.9	28.7	29.8	29.8	28.5	28.3	28.1	27.9	28.3	26.0	26.0	24.1	23.7	24.4	27.1
11	25.0	25.0	25.4	27.0	25.9	26.3	26.9	26.5	26.3	27.4	29.2	30.3	30.1	29.9	29.0	28.4	29.2	29.2	27.0	25.9	25.7	26.1	25.3	26.9	27.2
12 Q	26.9	27.0	26.9	27.2	27.2	26.3	26.3	26.1	26.2	26.9	28.9	28.5	28.9	28.9	28.3	27.7	27.7	27.9	27.7	26.9	27.7	26.6	25.6	25.2	27.2
13 Q	25.6	28.1	27.5	26.8	26.4	26.4	26.4	26.0	25.8	26.8	27.7	27.7	28.1	28.2	27.8	28.4	28.8	28.4	27.8	27.2	26.5	25.9	25.5	25.7	27.1
14 D	25.9	27.2	27.2	26.3	25.9	26.1	25.9	26.3	25.5	27.0	28.0	28.8	29.9	30.7	30.9	30.3	32.4	32.6	31.9	29.7	29.2	21.6	13.9	15.1	27.0
15	18.7	22.2	23.6	25.9	27.8	27.2	26.1	25.9	25.7	27.4	29.2	29.5	31.1	30.9	29.2	28.8	28.2	28.2	29.0	27.6	28.2	25.5	22.9	15.9	26.4
16	21.6	23.2	23.6	24.9	24.0	26.5	27.4	26.8	26.5	26.8	27.8	29.0	29.5	31.5	29.7	28.2	27.6	27.2	26.7	25.3	21.8	24.9	21.6	24.0	26.1
17	27.2	26.1	26.5	26.3	26.7	26.1	26.3	26.3	26.3	26.8	28.6	28.2	28.6	28.8	28.0	28.2	29.4	27.2	28.4	26.7	25.7	25.5	24.0	24.5	26.9
18 D	24.1	25.3	25.3	25.3	26.5	26.7	26.3	26.1	26.1	26.3	27.4	29.7	29.9	30.3	29.0	28.2	28.6	27.0	27.4	23.8	8.5	23.2	21.8	25.5	26.8
19	27.2	30.7	25.9	23.8	25.7	26.1</																			

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

57

7. LERWICK. (V.)

46,000 γ (·46 C.G.S. unit) +

JANUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	748	748	750	750	748	747	747	745	743	740	739	742	748	746	755	755	759	895	949	841	778	764	736	719	766
2 D	748	747	747	746	732	711	735	741	746	747	755	763	758	758	781	782	776	776	773	763	759	754	752	748	754
3	748	751	751	751	747	746	742	746	747	748	751	748	747	748	751	758	765	765	756	754	754	753	748	743	751
4	743	738	732	734	742	745	745	745	745	745	745	745	745	745	750	751	752	753	752	754	753	746	743	738	745
5 Q	742	745	748	747	747	748	748	748	747	748	745	746	748	750	750	751	753	753	753	754	751	749	747	745	748
6 Q	745	745	747	748	748	749	749	749	746	745	745	745	745	744	745	748	750	752	761	760	760	753	751	751	749
7	748	746	746	743	746	746	746	748	747	748	742	741	743	744	746	746	748	754	763	764	768	768	762	750	750
8	747	747	745	746	739	739	747	748	750	749	747	748	748	747	749	750	753	757	758	758	757	756	755	738	749
9 Q	741	748	749	751	752	754	755	755	756	754	753	754	754	753	751	751	750	751	751	753	754	761	764	756	753
10	747	739	741	744	745	744	744	745	745	743	743	746	746	748	749	751	750	751	753	764	762	761	759	756	749
11	744	736	743	743	743	743	744	746	751	751	750	752	750	751	752	750	749	749	755	758	758	755	754	753	749
12 Q	752	749	748	747	744	743	743	743	745	745	745	749	749	749	748	749	748	748	749	754	754	755	757	756	749
13 Q	758	750	747	750	750	749	747	748	748	747	750	754	754	754	754	754	754	753	751	753	754	755	755	756	751
14 D	756	755	752	751	750	747	746	746	749	750	746	752	754	754	758	760	764	779	811	828	817	834	815	783	769
15	764	756	752	760	760	757	755	756	754	752	753	756	758	758	759	759	758	757	762	793	790	782	763	752	761
16	760	756	759	745	751	750	745	749	750	750	758	758	753	753	757	760	761	761	760	759	757	751	742	737	753
17	747	749	755	756	757	756	755	755	751	747	745	746	745	748	752	756	757	760	756	755	755	755	757	753	753
18 D	752	752	740	742	748	747	745	739	739	738	738	738	738	740	744	749	753	754	754	756	765	757	754	744	747
19	744	737	729	737	746	748	748	747	748	748	747	747	746	748	748	750	753	755	758	757	755	753	752	751	748
20	737	743	749	751	752	753	752	752	751	750	749	748	751	747	747	753	755	756	756	758	757	755	750	748	751
21	746	746	746	745	743	746	747	746	749	748	748	747	747	747	748	749	762	764	768	763	757	755	748	746	750
22	741	739	740	742	743	743	745	746	746	746	745	745	743	740	740	741	743	748	754	754	749	745	758	692	743
23	692	715	728	737	729	737	742	741	745	746	755	755	752	751	751	756	765	768	769	760	748	752	752	729	745
24	723	732	725	733	739	739	740	740	745	745	742	743	747	746	746	748	748	756	755	757	748	750	719	722	741
25	733	738	733	739	742	744	740	742	749	747	748	748	748	748	749	754	750	757	756	757	758	758	756	750	748
26	749	747	747	747	744	740	745	747	747	748	747	748	748	750	750	750	749	750	756	759	778	789	787	767	754
27	744	742	750	740	742	747	747	748	749	750	747	749	750	752	752	750	750	749	750	750	749	750	756	756	749
28	754	752	751	750	749	749	748	747	749	748	748	749	747	749	751	750	752	755	761	768	766	757	748	740	752
29 D	728	728	738	741	742	739	723	730	732	738	739	740	747	748	749	751	749	749	750	758	749	748	748	747	742
30	731	729	739	746	744	741	742	744	745	744	740	739	740	747	749	749	749	749	748	750	758	752	749	740	744
31	732	738	745	749	749	748	748	747	747	741	740	741	744	748	749	752	755	759	763	755	755	750	750	750	748
Mean	743	743	744	745	746	745	745	746	747	747	747	748	748	749	751	753	754	761	765	763	760	759	754	748	750

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

8. LERWICK.

JANUARY, 1934.

Day	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ	Magnetic Character of Day. (0 - 2)	Temperature in Magnet House. 200 +						
	Horizontal Force.						Declination.						Vertical Force.											
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +			Minimum 46,000 γ +			Range			
	h.	m.	γ	Y	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	Y	h.	m.	γ	Y			
1 D	18	12	712	402	21	57	310	18	28	51.7	1.9	17	37	49.8	18	37	1003	669	22	50	334	2005	2	77.6
2 D	7	15	481	421	11	17	60	12	44	34.5	4.0	18	6	30.5	14	47	800	703	5	20	97	539	1	77.9
3	6	21	480	444	18	50	36	9	16	30.6	23.1	22	50	7.5	18	55	771	741	6	10	30	192	0	78.3
4	22	58	482	453	2	4	29	2	16	33.7	23.1	22	55	10.6	19	20	756	723	2	40	33	196	0	78.3
5 Q	5	54	478	468	11	5	10	5	6	29.5	23.1	19	37	6.4	19	50	755	740	0	0	15	85	0	78.5
6 Q	13	18	485	458	18	18	27	13	26	30.6	23.9	18	24	6.7	18	25	765	743	14	0	22	142	0	78.0
7	13	30	484	459	19	24	25	17	54	31.8	21.7	21	17	10.1	21	0	771	740	11	31	31	180	0	77.9
8	23	21	497	466	3	48	31	13	31	33.3	22.0	23	30	11.3	17	16	759	727	23	30	32	194	0	77.7
9 Q	20	20	487	463	21	37	24	12	24	30.3	19.1	21	45	11.2	21	54	771	739	0	25	32	184	0	77.2
10	13	6	488	459	19	46	29	0	35	31.0	21.4	22	10	9.6	19	55	772	736	1	12	36	210	0	76.7
11	0	45	498	463	1	55	35	12	8	31.1	22.7	0	36	8.4	20	15	759	729	1	9	30	191	0	77.3
12 Q	6	43	484	467	11	16	17	12	43	29.6	23.7	24	0	5.9	23	10	758	741	6	44	17	104	0	77.2
13 Q	15	33	483	463	1	12	20	16	38	29.2	23.6	0	0	5.6	0	35	759	744	1	47	15	99	0	78.1
14 D	16	35	491	429	22	20	62	18	16	36.5	0.4	21	57	36.1	21	53	868	744	10	30	124	68	1	78.3
15	22	54	484	446	19	56	38	20	40	33.0	11.2	23	14	21.8	19	59	807	742	2	0	65	358	1	77.9
16	5	45	496	446	10	55	50	12	55	32.1	17.6	20	0	14.5	20	10	765	730	23	5	35	236	0	77.6
17	17	56	481	465	22	7	16	16	37	30.1	22.8	22	25	7.3	17	37	763	743	0	0	20	116	0	77.3
18 D	7	41	496	455	21	12	41	11	55	32.2	2.3	20	25	29.9	20	25	772	737	14	46	35	222	1	77.3
19	19	11	487	450	0	58	37	1	30	32.4	20.9	19	8	11.5	18	56	764	724	1	53	40	240	0	77.6
20	15	4	489	459	12	4	30	13	55	31.5	22.6	0	50	8.9	17	10	757	733	0	44	24	155	0	76.7
21	6	44	484	460	8	56	24	17	18	32.6	22.8	22	18	9.8	18	40	771	741	4	20	30	175	0	76.4
22	21	44	493	431	23	46	62	23	23	34.2	15.3	24	0	18.9	22	16	763	642	23	46	121	654	1	76.8
23	19	40	495	452	17	42	43	13	50	33.2	13.1	0	12	20.1	18	19	773	667	0	0	106	556	1	77.6
24	20	11	492	455	21	4	37	13	02	30.3	13.3	22	25	17.0	19	5	758	711	22	48	47	273	0	77.8
25	2	8	491	456	0	0	35	13	18	31.3	21.6	0	0	9.7	20	35	759	727	2	08	32	200	0	78.2
26	14	38	483	453	22	4	30	13	4	32.4	19.3	20	36	13.1	21	5	797	739	5	7	58	313	0	78.1
27	14	31	479	451	2	44	28	12	46	30.8	18.6	23	42	12.2	23	28	760	738	3	30	22	144	0	78.3
28	16	15	492	459	14	47	33	13	6	34.9	13.8	21	43	21.1	19	40	770	738	23	40	32	197	0	77.6
29 D	6	15	495	459	8	50	36	5	55	35.2	22.2	3	25	13.0	19	25	758	720	0	35	38	229	0	77.8
30	0	53	493	464	12	40	29	12	47	31.5	19.5	20	48	12.0	20	38	760	713	1	10	47	261	0	78.0
31	19	25	502	459	11	46	43	13	13	31.7	15.5	19	19	16.2	19	0	768	730	0	25	38	239	0	78.0
Mean	--	--	496	453	--	--	43	--	--	32.7	17.6	--	--	15.1	--	--	779	726	--	--	53	308	0.26	77.7
No. of Days Used	--	--	31	31	--	--	31	--	--	31	31	--	--	31	--	--	31	31	--	--	31	31	31	31

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

9. LERWICK. (H.)

14,000 Y (·14 C.G.S. unit) +

FEBRUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	469	470	469	472	473	476	478	478	473	469	470	470	469	469	474	477	477	475	478	478	479	475	475	475	474
2	475	476	476	477	476	480	484	482	480	476	471	468	467	472	479	476	475	479	479	475	469	460	458	472	474
3	473	470	471	470	475	476	478	475	469	469	464	463	464	471	478	478	478	478	478	471	470	459	463	469	471
4	470	463	473	476	472	474	474	475	471	468	464	464	463	468	479	478	453	464	464	465	469	469	481	467	470
5	464	468	464	466	467	469	469	471	471	467	461	459	463	468	477	479	468	463	453	448	459	460	464	464	465
6 Q	460	464	463	465	467	468	466	465	464	460	457	453	453	459	462	469	468	467	466	466	466	465	468	465	464
7	473	466	467	468	471	472	473	470	466	463	459	456	456	461	465	471	471	474	465	466	465	466	466	469	467
8	467	469	467	467	467	468	470	469	468	462	455	457	462	464	464	464	466	469	460	457	462	465	473	462	465
9 D	443	426	428	434	447	468	484	467	457	451	457	462	466	478	476	477	508	544	455	457	458	460	457	456	463
10 D	453	451	458	462	463	460	461	462	463	467	466	467	468	473	474	447	467	464	466	452	458	458	463	463	462
11	462	461	455	436	458	469	470	463	465	466	462	459	458	458	459	467	471	469	473	463	463	464	468	463	463
12	468	464	465	467	465	466	472	466	463	464	462	463	461	460	465	465	467	469	465	468	466	460	464	439	464
13	437	448	460	460	464	466	467	468	465	462	453	450	455	460	464	466	464	466	465	459	461	463	461	455	460
14 Q	461	461	460	461	465	466	469	466	463	460	455	453	455	454	461	467	470	472	474	473	472	471	470	466	464
15	464	462	465	466	467	469	472	475	474	469	464	466	466	467	476	487	467	465	465	470	466	465	466	468	468
16 D	467	468	466	467	467	470	472	474	466	467	467	465	468	485	456	482	437	559	601	546	685	499	466	451	494
17 D	451	446	440	448	451	453	453	451	456	444	447	447	443	445	461	453	446	463	465	466	482	446	426	441	451
18 D	453	452	448	446	459	463	464	458	454	450	439	453	450	443	455	459	466	473	457	454	462	459	455	453	455
19	458	458	457	455	445	455	463	467	464	458	449	447	447	450	458	467	463	457	467	464	458	463	460	458	458
20	459	460	458	455	456	466	469	478	472	463	459	456	455	459	458	464	469	471	464	463	465	466	469	468	463
21	471	466	465	466	470	471	472	470	471	464	460	454	459	467	476	478	471	476	472	476	478	470	468	465	469
22	470	458	465	462	468	475	475	475	466	463	455	459	464	465	464	468	468	467	469	471	470	469	469	468	467
23 Q	465	469	466	469	470	473	474	476	475	471	467	462	460	460	470	467	464	468	469	472	469	463	466	469	468
24	471	470	469	469	469	471	471	471	470	467	460	455	460	463	460	468	470	466	464	462	459	470	466	466	466
25	465	466	466	464	465	466	468	466	464	464	459	437	432	453	454	461	465	469	465	465	466	464	473	463	462
26 Q	467	461	464	464	467	469	468	466	467	464	465	464	458	460	464	465	467	473	476	476	475	475	475	476	468
27	476	475	475	475	476	476	477	476	475	471	466	460	454	464	468	472	575	570	472	473	471	472	475	476	471
28	477	476	472	470	471	472	474	472	469	464	459	461	464	470	466	465	463	465	471	471	465	475	477	476	469
Mean	464	462	463	463	465	469	471	470	467	464	460	458	459	463	467	469	471	475	472	469	475	467	465	463	466

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

10. LERWICK. (D.)

13° +

FEBRUARY, 1934

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1 Q	26.5	27.1	26.9	27.5	27.3	26.5	26.3	26.3	26.1	26.3	27.8	28.6	28.4	28.4	28.8	28.0	27.6	28.0	27.8	27.5	27.1	26.5	26.7	26.7	27.3
2	26.9	27.1	27.8	27.1	27.1	26.7	26.1	25.7	25.9	27.1	28.6	30.0	30.3	30.3	30.3	29.2	28.4	27.5	27.8	25.7	8.3	15.9	21.3	26.1	28.0
3	26.9	26.9	27.3	27.8	26.5	25.3	24.9	25.9	25.3	25.9	28.2	29.4	29.8	30.0	28.8	28.0	27.6	27.6	27.8	22.6	22.2	24.6	24.8	26.7	
4	24.9	29.8	28.3	26.8	24.8	25.5	25.7	25.5	25.7	26.1	27.8	29.6	30.2	30.3	31.3	30.7	25.9	29.0	29.0	16.5	20.3	24.2	21.1	19.7	26.0
5	23.0	24.9	24.9	25.9	24.8	25.3	26.1	25.9	26.1	27.5	29.6	31.1	31.1	30.7	30.0	29.4	28.4	24.0	25.7	26.4	23.8	23.0	25.9	26.3	26.7
6 Q	27.5	26.7	27.3	27.2	27.0	26.8	26.4	26.0	26.0	26.2	27.4	29.9	32.0	32.6	31.8	29.7	28.5	28.5	28.5	27.4	27.0	24.5	24.5	24.7	27.7
7	24.8	26.4	26.0	26.2	25.8	26.4	25.8	25.4	25.8	25.8	26.6	29.7	31.4	32.4	31.4	29.9	29.5	28.5	26.4	25.6	26.8	24.7	26.0	25.4	27.2
8	24.8	26.0	26.4	26.0	26.2	26.3	26.3	26.5	26.7	26.9	26.9	28.4	29.6	30.1	29.4	28.4	27.4	27.4	24.4	24.2	23.4	26.5	26.3	25.7	26.7
9 D	6.8	13.0	2.4	17.4	19.5	17.4	26.7	28.1	31.2	29.5	29.9	32.7	32.4	33.3	37.0	35.6	39.3	39.9	31.4	28.1	26.8	26.6	26.6	26.6	26.5
10 D	25.8	26.2	26.0	25.8	25.6	25.2	25.4	25.6	26.0	26.9	29.4	27.6	31.7	33.6	36.1	28.2	27.4	28.0	20.9	15.7	26.1	26.1	24.4	23.4	26.6
11	25.3	25.5	24.2	31.5	24.0	24.2	25.7	26.1	25.9	26.5	27.2	27.1	29.5	29.7	29.1	26.4	27.9	27.9	20.4	24.1	25.4	23.9	23.9	21.7	26.0
12	25.4	25.4	26.0	25.4	26.0	26.4	26.6	25.0	24.1	24.3	26.0	27.3	28.1	29.0	29.0	28.0	27.4	27.0	26.1	26.3	25.9	15.3	21.6	13.9	25.2
13	15.7	23.4	23.8	24.0	25.7	25.1	25.9	25.5	23.4	25.3	27.4	28.6	29.4	29.7	29.9	29.2	28.1	26.8	26.2	25.6	25.0	24.1	14.6	17.1	25.0
14 Q	22.1	23.9	26.6	25.4	24.6	25.0	24.6	24.4	23.5	23.3	25.4	27.7	29.5	29.5	28.7	27.3	26.2	25.6	25.6	25.7	25.5	25.7	24.7	22.0	25.5
15	21.4	23.6	24.7	24.9	24.9	24.5	24.0	23.6	24.0	24.7	26.1	29.2	31.1	30.3	31.5	31.7	34.4	32.1	29.0	26.8	21.6	17.6	23.6	25.4	26.3
16 D	25.8	25.6	26.0	26.6	25.6	25.4	25.0	24.8	24.6	25.4	27.3	29.6	30.0	35.4	36.0	40.6	39.9	34.5	25.8	28.3	38.3	25.2	26.9	23.9	29.0
17 D	24.4	24.0	21.3	24.8	23.2	25.1	26.8	33.0	27.6	27.8	23.6	27.4	30.3	27.6	28.2	25.7	27.8	28.3	24.7	23.6	15.6	9.1	13.9	19.3	24.2
18 D	23.4	23.2	24.9	24.7	25.9	25.9	24.9	24.7	25.5	27.2	27.0	29.2	31.5	29.0	28.3	27.7	23.7	11.9	20.9	27.9	25.6	27.3	20.4	23.1	25.2
19	25.4	25.4	24.8	24.0	25.2	24.4	22.7	24.0	24.8	24.4	26.2	27.3	28.9	28.9	27.9	27.5	27.1	23.3	25.4	26.7	25.2	22.9	23.1	23.5	25.4
20	24.4	24.0	25.0	25.8	25.6	25.2	25.6	25.8	25.4	25.0	24.8	29.1	29.4	31.0	29.8	26.9	27.5	23.3	25.0	22.9	25.6	25.2	24.6	24.4	25.9
21	25.0	25.0	25.8	25.2	25.0	25.0	24.8	25.0	24.6	24.2	26.4	27.7	27.7	29.1	30.2	29.6	28.7	28.5	29.2						

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

59

11. LERWICK. (V.)

46,000 γ ($\cdot 46$ C.G.S. unit) +

FEBRUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	753	752	754	750	750	750	748	748	747	745	745	747	748	749	750	754	756	757	752	749	747	747	746	746	750
2	745	745	745	745	747	745	745	743	743	741	739	738	738	738	742	746	747	747	747	749	759	744	745	739	744
3	739	742	744	744	744	744	743	744	745	741	741	740	739	739	741	744	745	746	747	748	753	757	748	745	744
4	742	734	716	707	726	738	742	744	743	739	737	737	737	739	744	748	775	766	764	751	739	745	736	717	740
5	736	737	740	741	743	742	745	744	743	743	739	737	736	736	739	741	749	761	784	795	789	786	770	749	751
6 Q	727	735	743	745	745	745	745	746	746	747	746	745	745	745	746	745	748	752	755	755	755	755	753	751	747
7	737	738	737	739	738	740	742	743	744	744	744	744	743	742	742	742	743	744	753	754	754	754	753	742	744
8	737	735	737	738	739	742	743	744	745	749	751	749	750	752	752	754	755	754	762	771	773	769	755	757	751
9 D	722	601	583	597	574	612	642	669	701	714	723	732	737	747	759	806	849	931	841	778	763	760	763	764	724
10 D	765	763	756	753	750	750	749	748	748	743	742	746	747	750	761	787	783	760	785	771	758	759	754	746	756
11	742	741	743	722	702	723	730	740	742	742	745	748	752	753	756	759	755	754	755	757	759	761	754	729	744
12	732	742	746	747	746	743	741	745	746	742	741	746	748	748	749	751	751	749	751	748	749	738	711	704	742
13	704	728	734	740	740	740	739	738	738	738	738	739	743	746	750	754	756	753	755	756	755	752	746	735	742
14 Q	733	737	739	740	742	744	742	741	744	743	741	740	743	748	750	750	749	747	744	743	740	741	741	742	743
15	738	736	739	744	745	745	743	742	740	738	737	736	736	739	741	748	772	781	782	768	765	750	738	737	747
16 D	735	727	728	731	738	741	742	740	737	734	728	726	729	736	811	829	906	921	918	902	890	860	805	772	767
17 D	750	747	738	745	746	742	735	718	727	736	750	749	750	763	766	771	773	764	758	764	734	716	708	727	744
18 D	736	729	729	727	736	744	743	744	743	736	736	735	743	752	748	753	758	772	767	780	752	732	707	727	742
19	734	740	743	744	744	734	738	742	745	746	747	748	749	748	748	753	761	765	762	759	765	762	756	754	749
20	748	744	747	744	737	729	734	734	745	746	749	749	753	753	759	768	765	767	767	766	758	756	754	753	751
21	746	747	747	749	749	750	750	753	753	754	751	750	749	746	747	750	753	754	756	757	749	759	758	747	751
22	724	711	687	691	720	734	737	738	743	743	745	744	743	742	744	745	747	749	751	748	748	750	744	745	736
23 Q	741	738	735	736	738	739	739	738	738	738	739	739	739	739	741	748	754	752	753	751	754	759	751	747	744
24	743	744	744	744	744	742	744	744	746	746	743	742	740	741	749	748	748	750	766	764	762	762	763	738	750
25	742	745	745	743	741	742	741	741	740	740	741	749	757	751	756	758	758	756	753	752	762	758	746	746	748
26 Q	746	749	749	749	749	749	749	748	748	748	748	749	752	753	754	758	758	757	751	750	750	750	750	749	751
27	750	750	750	749	749	748	747	746	745	745	745	747	749	749	749	750	751	758	759	758	758	754	748	740	750
28	734	731	739	741	741	741	740	739	737	731	730	736	739	740	745	749	759	760	749	748	749	741	739	739	742
Mean	739	735	733	734	734	737	739	739	741	741	741	742	744	746	751	757	764	769	767	764	761	757	747	742	747

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

12. LERWICK.

FEBRUARY, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ^2	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +												
	Horizontal Force.						Declination.						Vertical Force.																	
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range			Maximum 13° +			Minimum 13° +						Range			Maximum 46,000 γ +			Minimum 46,000 γ +			Range		
	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.				γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	$\gamma$
1 Q	6	2	481	465	13	3	16	11	45	29.0	24.8	0	12	4.2	17	8	757	743	10	5	14	88	0	77.6						
2	20	53	487	443	21	54	44	14	7	30.9	4.1	20	31	26.8	20	30	766	737	13	10	29	199	1	77.3						
3	14	47	481	455	21	48	26	13	35	30.5	17.2	21	0	13.3	21	20	761	737	10	10	24	150	0	78.0						
4	19	33	509	437	16	25	72	1	39	35.2	12.4	19	18	22.8	16	42	794	702	3	35	92	533	1	78.1						
5	15	33	482	439	19	1	43	13	4	31.7	18.4	17	56	13.3	19	4	807	728	0	0	79	430	1	78.5						
6 Q	22	44	475	451	11	33	24	13	25	33.1	23.1	22	30	10.0	23	0	758	724	0	38	34	193	0	79.0						
7	0	13	481	451	11	58	30	13	2	33.1	22.7	21	37	10.4	18	45	757	733	0	40	24	155	0	79.3						
8	22	26	481	450	18	16	31	13	30	30.3	19.3	19	53	11.0	20	5	778	734	1	40	44	250	0	79.6						
9 D	17	18	580	396	1	56	184	16	45	44.5	-7.9	0	42	52.4	17	37	973	556	2	38	417	2210	2	78.7						
10 D	14	29	504	427	15	22	77	14	44	38.2	2.5	18	57	35.7	18	50	824	739	9	50	85	508	1	78.5						
11	18	35	486	426	3	44	60	3	24	33.8	17.3	18	22	16.5	21	59	762	692	4	12	70	413	1	78.2						
12	21	20	516	422	23	49	94	22	10	30.5	11.4	22	58	19.1	21	12	759	696	22	30	63	430	1	78.0						
13	7	56	475	430	0	48	45	14	32	30.7	8.2	22	55	22.5	19	50	758	686	0	17	72	401	1	78.5						
14 Q	20	0	476	451	13	58	25	12	52	30.2	20.8	0	0	9.4	16	5	752	732	0	40	20	129	0	78.8						
15	15	51	502	450	16	54	52	17	24	36.9	11.2	21	0	25.7	16	55	792	732	1	39	60	355	1	79.0						
16 D	20	28	824	402	14	17	422	20	6	59.4	5.7	18	7	53.7	17	10	976	724	11	24	252	1786	2	79.1						
17 D	20	17	519	402	22	25	117	7	13	36.5	-3.1	21	5	39.6	18	35	776	702	22	18	74	515	1	79.8						
18 D	17	44	485	428	10	25	57	12	6	33.0	-0.1	17	40	33.1	17	56	780	701	22	12	79	451	1	80.1						
19	15	51	475	439	4	42	36	12	27	30.2	21.1	6	18	9.1	17	34	767	731	5	31	36	220	0	80.1						
20	7	26	481	450	11	54	31	13	44	31.6	19.4	19	43	12.2	15	17	771	725	5	30	46	259	0	79.3						
21	20	2	493	450	11	33	43	14	28	30.8	17.1	23	4	13.7	19	32	764	737	24	0	27	188	0	78.1						
22	7	13	480	446	1	59	34	2	52	30.8	20.6	1	10	10.2	18	2	754	681	2	40	73	389	0	77.9						
23 Q	8	18	478	455	13	2	23	12	43	30.2	20.8	21	45	9.4	21	33	762	730	2	57	32	182	0	78.7						
24	22	1	521	447	22	40	74	16	57	32.1	2.8	21	56	29.3	20	50	798	712	22	34	86	508	1	79.4						
25	22	6	484	423	12	19	61	11	27	32.9	20.4	22	6	12.5	17	00	760	733	23	0	27	214	0	79.4						
26 Q	24	0	481	454	12	37	27	13	16	30.2	23.1	9	36	7.1	15	34	760	741	0	35	19	128	0	78.4						
27	15	49	486	449	13	43	37	13	32	34.5	22.5	24	0	12.0	18	10	761	737	24	0	24	166	0	76.8						
28	0	57	482	452	17	4	30	13	7	33.5	21.7	17	17	11.8	17	14	766	729	1	3	37	215	0	76.2						
Mean	--	--	504	439	--	--	65	--	--	33.7	14.2	--	--	19.5	--	--	785	716	--	--	69	417	0.54	78.6						
No. of Days Used	--	--	28	28	--	--	28	--	--	28	28	--	--	28	--	--	28	28	--	--	28	28	28	28						

§ For explanation see p. 39.

Q denotes an "International Quiet Day", while D denotes a disturbed day used for the computation of Tables 56-61.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

13. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

MARCH, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	475	475	472	474	474	476	479	479	477	470	461	457	459	462	469	471	475	478	475	471	483	485	480	480	473
2	479	475	471	474	475	474	479	471	470	467	455	438	435	447	466	482	466	465	472	475	466	475	440	431	464
3	470	467	464	465	466	471	469	467	460	453	450	450	453	452	459	469	471	476	475	470	472	470	469	470	465
4 D	470	469	469	469	470	470	470	467	464	458	454	454	459	461	472	467	469	469	508	517	404	399	423	465	464
5 D	440	441	434	403	399	441	462	434	379	434	411	449	450	453	462	471	475	466	453	460	476	471	464	422	444
6	433	427	404	455	470	465	468	452	453	449	442	455	457	466	461	473	470	476	476	483	471	469	467	466	459
7 D	465	458	433	439	470	477	475	459	464	447	442	442	443	469	464	478	461	469	475	473	461	461	390	461	457
8	459	461	445	448	449	452	465	467	464	462	459	460	461	465	471	476	477	475	467	471	471	474	478	471	465
9	469	462	464	467	475	466	467	472	465	460	454	453	454	466	472	471	478	475	462	470	471	465	467	468	468
10	474	467	448	469	467	454	471	473	461	452	458	458	458	463	468	474	478	475	475	471	465	468	473	473	466
11	473	468	458	414	444	463	480	474	468	464	462	451	448	462	463	467	466	469	479	473	452	468	455	466	463
12 Q	462	452	457	459	468	469	470	464	464	459	451	456	461	469	477	474	473	468	472	472	473	474	469	475	466
13 Q	472	472	472	473	473	472	473	473	468	462	458	456	458	469	472	472	473	474	478	479	478	475	475	482	471
14 Q	474	473	473	473	473	475	475	472	463	457	452	451	456	463	471	474	475	473	475	475	477	475	475	477	470
15	471	478	461	461	460	473	485	478	467	457	447	445	450	445	467	475	474	472	474	478	480	481	479	479	468
16	478	477	476	475	474	472	476	469	455	457	461	460	464	472	480	470	475	474	473	475	474	474	475	484	472
17	463	463	465	469	472	475	475	475	470	480	448	451	463	464	471	478	469	474	475	479	480	476	460	478	470
18	474	465	468	470	473	475	476	466	465	458	447	450	455	463	473	484	481	478	469	473	467	462	479	474	469
19 Q	469	466	470	469	470	472	471	471	467	457	449	447	453	463	471	469	470	472	474	475	475	475	475	475	468
20 Q	475	469	470	469	474	477	477	473	465	457	453	453	458	464	465	470	473	475	476	477	479	477	481	480	470
21	480	481	476	479	478	479	476	475	471	465	461	460	462	469	475	478	480	484	487	489	490	490	488	485	477
22	466	461	476	473	475	513	467	477	469	461	454	457	460	465	471	470	480	489	497	482	484	461	406	451	472
23	452	465	462	465	465	462	466	466	465	462	461	458	460	466	467	476	484	493	468	492	457	475	462	474	468
24	474	471	472	471	471	470	467	456	455	450	448	448	453	459	463	465	472	481	482	488	470	465	477	432	465
25 D	339	366	396	460	470	476	467	460	454	440	420	444	447	456	470	476	466	487	477	472	452	454	462	466	449
26	450	457	467	466	467	468	467	462	455	450	447	445	450	456	460	463	467	470	473	475	467	467	477	477	463
27	475	463	461	467	469	468	467	466	461	455	451	451	455	467	467	473	473	482	474	472	482	478	465	473	467
28	473	471	470	470	470	470	470	468	461	456	450	445	445	455	470	469	467	477	478	485	459	459	429	421	462
29	397	435	457	466	438	449	458	455	456	452	448	458	455	458	469	475	474	477	477	479	476	475	476	484	460
30	469	469	469	466	469	465	476	476	462	452	448	447	450	460	469	469	474	476	487	484	492	486	460	436	467
31 D	453	452	476	480	476	470	469	453	407	438	454	454	449	450	467	476	470	476	482	476	469	501	478	475	465
Mean	461	461	460	463	466	470	472	467	459	455	450	452	454	461	459	473	473	476	477	478	470	471	464	466	465

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

14. LERWICK. (D.)

13° +

MARCH, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	25.1	25.3	25.5	25.5	25.5	4.9	24.3	23.7	23.6	23.9	25.9	28.8	30.1	30.5	29.7	28.6	26.8	25.5	25.5	23.0	24.1	26.1	24.9	24.9	25.9
2	24.9	24.3	25.5	22.8	21.2	22.2	22.6	23.7	23.2	24.9	28.6	30.3	30.3	34.4	31.8	33.2	35.5	32.0	27.8	26.3	20.1	15.3	17.4	14.3	25.5
3	23.7	21.4	23.2	24.7	25.1	25.3	24.9	23.7	23.4	23.7	25.9	28.4	31.1	31.1	29.0	27.4	26.4	26.3	25.7	23.6	24.3	24.7	25.1	25.3	25.6
4 D	25.5	25.7	25.7	25.5	25.3	24.9	24.3	23.9	23.6	24.1	26.3	28.6	30.7	31.3	32.4	31.1	34.9	29.0	17.2	19.3	14.9	6.2	17.2	22.2	24.6
5 D	21.0	22.6	24.9	22.0	21.0	23.0	24.7	27.0	39.0	37.1	33.0	28.8	28.8	28.2	28.4	27.0	23.2	21.4	23.6	25.5	25.3	29.1	17.6	15.4	25.7
6	18.5	20.8	29.0	22.8	20.8	23.6	24.9	24.9	26.6	26.3	25.0	27.9	28.3	30.8	28.0	29.8	24.9	24.0	22.8	19.9	21.6	23.7	25.3	25.7	24.8
7 D	26.2	23.8	30.1	28.1	23.4	21.7	23.6	28.3	27.2	28.0	26.4	29.5	29.0	32.4	28.6	27.9	27.1	27.4	27.0	25.4	12.0	20.5	29.5	19.7	25.9
8	20.3	19.8	21.8	22.8	23.2	20.7	22.7	24.0	24.0	25.7	26.5	28.9	30.5	31.2	30.4	29.0	27.9	27.3	25.5	25.5	25.0	25.6	23.2	23.4	25.2
9	24.5	25.8	27.8	24.5	23.7	24.0	25.4	25.0	24.0	25.5	27.3	30.3	32.4	33.3	32.8	28.4	28.1	18.2	24.1	26.0	19.1	20.8	24.1	25.9	
10	26.3	23.7	25.6	23.7	21.5	25.0	22.7	23.4	23.7	25.4	27.2	30.1	31.5	34.1	31.2	29.2	28.1	26.8	26.0	20.2	23.6	25.1	24.7	25.3	26.0
11	25.4	24.0	24.2	29.1	28.0	21.0	23.6	24.0	24.8	25.3	28.0	30.1	32.5	31.8	29.5	28.5	27.4	26.6	26.3	22.3	17.3	18.8	20.7	22.5	25.5
12 Q	22.3	21.3	23.9	25.8	24.1	22.7	21.9	22.4	22.6	24.3	27.0	29.9	32.1	32.5	31.2	30.0	28.6	26.8	26.7	26.5	25.8	26.1	25.5	25.9	26.1
13 Q	26.4	24.8	25.0	24.8	24.9	24.8	24.7	24.2	23.7	24.0	25.0	28.1	29.9	30.9	30.2	28.2	27.5	27.0	26.7	26.4	23.0	22.4	24.4	25.2	26.0
14 Q	25.8	26.0	25.8	25.6	25.4	25.3	24.9	24.1	23.3	24.3	26.7	29.6	31.5	32.3	31.5	29.8	28.4	27.6	26.7	26.9	26.4	26.2	25.4	26.0	26.9
15	29.8	23.5	15.6	17.7	17.1	20.9	20.8	22.4	23.2	23.7	27.5	30.1	33.6	36.1	33.1	30.9	28.8	27.6	26.8	26.4	26.2	26.1	26.1	25.9	25.8
16	25.7	25.8	26.0	25.7	25.2	25.1	25.0	22.5	24.1	24.8	27.2	29.7	30.7	32.1	32.2	29.8	28.4	28.3	25.1	27.2	24.6	22.8	24.4	25.3	26.6
17	26.3	21.2	22.9	23.7	23.8	24.2	24.4	24.2	24.8	25.9	27.9	29.7	32.5	33.2	30.7	30.1	27.7	26.4	26.0	25.7	24.5	25.9	25.1	23.0	26.2
18	20.8	25.3	23.8	23.0	24.4	24.0	23.4	23.1	23.9	24.7	26.9	29.7	31.7	33.1	32.6	32.8	25.1	28.2	30.0	28.4	24.6	24.8	25.1	22.6	26.3
19 Q	22.2	26.6	24.9	24.7	24.9																				

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

61

15. LERWICK. (V.)

46,000 γ (+46 C.G.S. unit) +

MARCH, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	741	741	741	741	740	739	735	732	732	732	731	733	735	736	741	742	742	741	743	749	734	731	732	733	737
2	733	735	731	722	725	728	725	732	733	731	725	737	751	742	738	748	748	771	762	752	763	753	714	690	738
3	636	677	721	733	736	736	738	737	736	736	736	736	736	743	745	745	746	745	747	749	743	740	737	737	732
4 D	737	739	741	744	745	745	745	745	746	743	739	738	738	738	746	762	771	818	852	823	737	710	655	739	750
5 D	711	719	742	699	690	702	729	727	735	712	738	748	750	757	767	770	778	784	780	769	751	656	644	632	729
6	620	655	633	684	716	731	737	746	751	753	761	760	752	754	768	762	779	779	772	754	752	760	752	751	737
7 D	743	721	702	679	683	713	724	728	725	738	752	753	753	753	782	787	779	763	760	764	778	752	599	627	732
8	683	686	685	683	712	713	736	750	753	752	750	749	750	752	754	755	756	758	761	761	760	753	786	736	737
9	744	744	736	742	744	744	743	744	751	752	751	750	751	751	758	775	775	771	775	765	766	752	745	748	753
10	737	724	735	721	728	724	723	740	748	753	749	751	755	758	756	756	759	761	769	778	776	767	762	749	749
11	746	753	752	728	681	700	730	741	747	749	749	753	751	749	751	755	756	754	752	759	765	742	739	745	744
12 Q	742	736	732	737	733	741	745	750	752	753	755	753	748	748	754	759	760	764	762	758	756	754	756	754	750
13 Q	754	755	755	753	752	750	749	748	751	750	749	747	745	745	749	753	753	749	748	748	753	747	746	739	749
14 Q	746	748	750	749	749	747	747	748	748	747	744	740	738	742	746	747	749	748	747	746	744	745	745	744	746
15	730	681	694	694	694	703	710	722	730	734	737	748	752	753	748	750	751	749	745	743	740	739	741	741	730
16	742	744	745	746	745	744	742	742	741	735	735	736	738	738	746	755	754	753	759	761	773	763	739	696	745
17	668	677	722	738	743	742	744	741	740	736	737	735	734	735	738	750	753	751	750	748	744	743	736	728	735
18	705	705	722	734	741	742	741	744	742	741	741	736	739	742	744	753	775	774	780	780	780	774	715	698	744
19 Q	726	735	736	745	746	746	746	745	746	746	742	739	735	731	737	742	745	747	747	747	747	746	745	741	742
20 Q	734	728	724	727	730	731	736	739	741	744	742	739	738	745	754	757	756	755	754	754	753	752	749	744	743
21	736	731	739	741	744	745	747	745	744	742	742	739	737	739	745	747	749	749	751	750	748	747	746	748	744
22	742	744	745	739	715	684	709	726	738	742	743	743	744	748	752	772	777	773	790	801	803	789	648	646	742
23	693	717	735	741	743	740	747	754	756	757	756	756	752	751	754	754	752	756	789	767	768	739	672	722	744
24	739	746	746	746	745	744	747	752	751	751	747	743	743	747	750	755	758	754	751	750	765	769	761	676	747
25 D	538	506	581	693	734	741	750	754	758	760	766	756	761	758	772	787	817	807	798	799	777	732	731	740	734
26	736	717	737	747	748	749	750	753	753	752	747	746	745	747	750	753	754	756	758	763	759	754	745	716	747
27	730	736	737	737	740	742	746	746	748	749	750	749	747	746	749	753	755	770	780	778	753	721	727	740	747
28	750	752	753	752	751	749	749	747	745	742	740	743	745	743	744	752	751	748	747	745	779	742	712	637	742
29	593	636	691	721	711	690	715	729	732	731	738	745	748	749	749	762	782	771	758	753	751	750	748	727	728
30	721	725	724	734	737	737	734	739	743	744	742	742	744	744	745	749	750	749	746	755	750	734	716	674	737
31 D	659	686	723	743	741	742	735	735	733	717	731	735	752	788	779	776	783	766	772	757	758	699	706	718	739
Mean	710	713	723	729	730	732	737	741	743	743	744	744	745	747	752	757	762	762	765	762	759	744	722	717	741

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

16. LERWICK.

MARCH, 1934.

Day.	Terrestrial Magnetic Elements.																		HR _H +VR _V 10,000 γ ²	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +			
	Horizontal Force.						Declination						Vertical Force.											
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +			Minimum 46,000 γ +				Range		
	h.	m.	γ	h.	m.	γ		h.	m.	γ	h.	m.	γ		h.	m.	γ	h.					m.	γ
1	20	31	496	454	11	44	42	13	25	31.3	17.8	19	43	13.5	19	40	752	725	20	35	27	187	0	76.0
2	15	27	494	418	11	30	76	16	45	37.3	8.1	20	54	29.2	20	54	783	685	24	0	98	567	1	76.0
3	0	34	497	438	13	55	59	13	10	32.6	16.0	0	0	16.6	19	20	751	620	0	35	131	696	1	76.5
4 D	21	30	608	282	21	5	328	17	5	39.4	-0.6	21	23	40.0	18	53	887	620	22	0	267	1717	2	76.5
5 D	21	2	518	338	8	16	180	8	44	42.7	8.5	22	41	34.2	17	45	793	613	24	0	180	1100	2	76.7
6	18	58	509	378	2	24	131	2	27	32.6	14.7	19	24	17.9	16	24	783	610	0	4	173	996	1	76.8
7 D	15	24	494	313	22	23	181	22	37	42.6	-1.9	20	19	44.5	14	55	800	621	22	35	279	1562	2	76.5
8	22	14	483	433	2	40	50	13	45	31.7	15.9	0	10	15.8	18	59	783	666	0	0	97	525	1	76.2
9	21	23	509	450	12	32	59	13	41	33.5	12.7	18	15	20.8	18	20	787	734	2	46	53	333	1	76.2
10	18	24	487	441	5	26	46	13	30	35.8	4.9	19	51	30.9	19	58	795	709	3	19	86	468	1	76.1
11	18	44	491	405	3	39	86	3	51	33.5	-1.1	20	2	34.6	20	15	783	674	4	45	109	633	1	75.8
12 Q	14	55	480	445	11	2	35	13	0	33.0	19.8	1	36	13.2	17	35	766	726	2	35	40	237	0	75.8
13 Q	21	4	491	452	11	46	39	13	43	31.6	15.9	21	0	15.7	2	7	758	737	23	32	21	155	0	76.0
14 Q	20	15	480	449	11	53	31	13	24	33.2	22.8	8	15	10.4	2	32	751	737	12	46	14	110	0	76.0
15	6	27	486	437	13	23	49	13	15	37.2	14.1	2	36	23.1	13	11	755	675	1	22	80	555	1	76.0
16	23	34	498	445	9	44	53	13	58	33.1	17.8	23	5	15.3	20	49	775	672	23	51	103	557	1	75.8
17	24	0	503	443	11	12	60	12	58	34.7	19.0	1	23	15.7	16	13	754	647	1	3	107	586	1	75.8
18	0	2	504	437	10	50	67	15	6	34.2	19.3	0	32	14.9	16	46	788	676	22	54	112	619	1	75.9
19 Q	23	24	483	443	11	27	40	14	17	32.9	21.7	0	0	11.2	6	48	749	720	0	0	29	193	0	76.1
20 Q	22	50	486	451	11	33	35	13	23	32.7	20.2	4	24	12.5	15	14	758	718	1	57	40	237	0	76.5
21	19	5	495	458	11	45	37	14	10	31.6	21.8	0	24	10.0	18	32	753	727	1	15	26	175	0	76.6
22	5	22	524	357	22	17	167	22	15	54.4	13.0	23	3	41.4	20	35	817	579	22	28	238	1351	1	77.0
23	21	44	522	441	0	49	81	14	9	32.1	7.0	19	25	25.1	16	45	797	639	22	7	156	863	1	77.3
24	19	38	492	349	24	0	143	23	42	35.7	17.0	21	1	16.7	21	32	776	565	24	0	211	1190	1	77.7
25 D	17	13	514	312	2	6	202	0	5	36.1	-2.2	2	3	46.0	16	57	827	478	1	30	349	1919	2	77.9
26	22	53	500	441	11	44	59	0	57	32.2	7.3	19	47	24.9	19	45	771	707	23	23	64	384	1	76.0
27	20	26	500	450	11	3	50	13	50	31.9	19.2	3	25	12.7	18	33	783	704	21	45	79	441	1	76.3
28	19	40	489	366	23	54	123	12	30	32.3	0.1	21	33	32.2	20	40	802	602	23	46	200	1110	1	76.4
29	23	28	495	353	0	50	142	11	48	31.6	1.3	0	7	30.5	16	35	786	575	0	29	211	1189	1	79.0
30	21	2	515	398	23	26	117	12	15	30.6	15.1	21	43	15.5	20	32	766	660	23	31	106	664	1	79.1
31 D	21	34	517	393	8	35	124	13	3	39.6	10.7	20	57	26.9	13	23	794	650	0	37	144	851	1	76.9
Mean	—	—	502	409	—	—	93	—	—	35.0	11.9	—	—	23.1	—	—	781	657	—	—	124	711	0.90	76.8
No. of Days Used	—	—	31	31	—	—	31	—	—	31	31	—	—	31	—	—	31	31	—	—	31	31	31	31

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

17. LERWICK. (H.)

14,000 γ ($\cdot 14$ C.G.S. unit) +

APRIL, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	465	471	463	452	464	464	460	459	458	442	418	421	435	460	464	477	480	475	491	483	498	474	465	442	462
2	411	455	471	459	469	470	468	463	458	452	443	438	448	464	475	481	480	480	481	482	474	476	474	465	464
3	468	464	464	465	464	473	472	469	463	452	442	436	435	448	469	476	481	476	479	491	470	463	464	471	465
4 D	455	474	471	470	471	469	467	459	456	443	435	433	437	453	464	475	470	479	506	471	474	464	432	425	461
5 D	446	471	474	474	469	457	460	470	460	466	458	458	454	470	479	530	489	488	481	467	465	466	466	466	470
6 D	455	452	469	468	464	452	450	454	433	415	442	445	453	460	470	485	488	477	480	479	475	484	470	458	460
7	481	433	465	472	473	476	473	454	452	448	444	443	449	461	464	471	470	479	480	480	475	476	475	475	465
8	474	474	475	474	474	475	476	471	458	449	443	443	454	469	480	490	487	485	481	482	485	480	485	477	473
9	471	470	469	462	459	474	475	470	463	458	454	452	454	459	467	474	479	482	482	482	479	476	476	476	469
10	479	476	474	475	471	465	471	468	458	450	447	449	455	464	474	479	483	486	485	482	480	480	478	476	471
11	481	479	475	475	476	476	472	463	452	444	443	448	454	461	472	481	486	486	488	487	486	485	484	483	472
12	486	480	477	477	476	479	477	471	460	454	448	444	447	453	465	474	474	480	486	484	481	481	481	476	471
13 Q	476	475	476	476	477	480	475	466	454	444	437	448	458	468	481	480	476	480	479	481	480	478	477	476	471
14	477	472	474	476	481	480	475	464	460	450	437	431	439	449	458	468	480	485	492	490	491	484	490	487	470
15	479	475	476	478	478	482	481	478	466	451	442	441	450	469	478	485	491	492	491	489	494	485	488	474	475
16 D	471	486	495	495	488	476	483	482	468	446	435	422	429	439	449	454	483	495	493	489	486	475	472	472	470
17 Q	472	472	470	481	463	470	470	461	447	442	433	434	443	452	462	474	474	484	486	484	481	480	480	480	466
18 Q	478	476	476	475	476	476	475	467	457	445	435	440	446	454	463	466	475	479	483	484	483	480	480	478	469
19	476	478	475	475	473	472	464	463	458	448	442	437	440	449	463	470	480	481	495	483	478	483	475	478	468
20	478	476	470	449	461	470	472	472	464	452	445	441	443	458	468	479	465	489	489	483	481	481	483	484	470
21	481	477	472	471	470	472	470	466	458	448	452	455	456	460	456	466	471	482	488	489	481	481	481	481	470
22	479	472	473	477	480	481	483	477	469	457	444	445	453	453	471	478	498	488	486	486	486	485	488	483	475
23 Q	476	474	473	473	470	467	464	464	461	452	445	450	462	465	467	474	483	489	493	489	483	488	486	483	472
24	479	481	478	462	460	469	473	465	458	450	444	440	462	466	466	470	475	482	486	484	482	480	478	474	469
25	474	473	472	467	467	462	467	464	454	442	445	448	452	457	462	469	473	480	482	486	486	470	473	482	467
26	471	469	470	467	470	469	468	466	459	454	452	450	454	460	469	477	486	490	494	491	481	483	477	468	471
27	465	464	465	465	469	471	467	461	451	441	442	448	454	463	470	476	485	492	495	488	479	476	473	479	468
28	484	472	467	466	474	481	480	473	462	449	441	444	452	463	470	475	482	488	486	484	482	480	479	479	471
29 Q	477	477	476	476	475	475	472	467	460	454	449	447	458	461	472	478	482	489	491	494	491	481	481	480	473
30	478	478	480	480	482	484	478	468	460	453	448	453	460	464	464	474	486	491	495	492	491	489	485	476	476
Mean	471	471	473	470	471	472	471	466	458	448	443	443	450	459	468	476	480	484	487	485	482	479	477	474	469

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

18. LERWICK. (D.)

13° +

APRIL, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day																									
1 D	28.3	28.0	21.0	24.9	24.4	23.1	25.6	22.0	24.3	26.0	28.8	30.2	32.7	34.3	30.2	28.3	28.5	17.1	26.1	20.4	18.1	17.7	22.0	25.4	25.1
2	27.7	27.3	21.9	23.0	23.4	22.0	21.3	20.6	20.7	22.7	25.8	30.5	34.4	34.7	30.3	28.7	28.6	25.6	21.5	20.6	21.3	21.7	21.9	24.9	25.0
3	26.4	26.6	27.1	26.8	25.5	24.6	21.9	20.2	20.0	20.0	23.2	27.6	31.9	33.6	32.9	30.3	29.6	26.5	25.5	19.9	20.2	19.0	19.2	22.3	25.0
4 D	28.3	25.6	24.7	24.4	24.1	22.6	21.5	20.5	19.9	20.7	22.9	26.7	30.0	30.9	31.1	31.3	30.9	27.2	13.1	18.5	19.7	13.5	0.6	-0.5	22.0
5 D	11.0	19.0	25.2	23.8	21.8	20.9	22.9	18.3	19.4	21.2	25.1	28.0	29.3	33.0	37.3	30.5	30.5	30.9	18.3	14.8	21.0	23.1	25.5	27.1	24.1
6 D	27.5	25.5	25.3	20.9	21.9	24.5	30.1	26.1	25.6	31.1	29.6	29.3	30.7	28.9	30.9	29.0	26.3	24.6	19.9	19.7	23.1	25.3	22.2	22.0	25.8
7	21.9	26.8	24.9	20.8	23.1	21.6	21.7	21.4	20.9	22.1	24.5	27.2	28.5	29.4	28.0	27.6	26.7	25.7	24.4	21.2	24.1	24.4	24.7	24.6	24.4
8	25.5	25.8	24.1	22.9	22.5	22.6	21.3	20.7	21.4	23.2	26.3	28.6	29.2	29.6	29.6	29.4	29.3	26.8	26.0	25.5	24.2	24.3	21.6	23.1	25.1
9	23.9	23.3	23.6	21.9	24.5	23.1	21.3	20.7	21.3	22.6	24.4	26.7	29.3	29.3	27.8	26.6	25.8	24.8	22.1	22.7	23.1	23.8	24.0	24.0	24.2
10	23.9	23.6	23.8	23.3	23.4	24.5	23.4	21.0	20.5	21.7	24.6	26.8	28.5	28.3	27.2	26.1	25.1	24.3	24.2	24.3	24.5	22.9	22.3	24.0	24.3
11	22.9	22.8	21.8	21.8	21.9	21.2	20.4	19.4	20.7	22.8	25.5	28.4	30.3	30.9	29.8	28.5	27.5	26.1	25.8	25.5	25.1	24.6	24.3	24.0	24.7
12	23.6	23.1	24.0	22.4	22.9	22.1	20.7	19.8	20.2	22.1	24.3	27.6	30.5	31.1	30.1	28.2	26.1	25.3	24.4	23.7	24.3	24.6	24.5	24.0	24.6
13 Q	24.8	23.8	24.2	22.8	21.5	20.9	20.3	20.9	23.0	26.1	28.7	30.5	30.2	28.8	26.4	24.6	24.2	24.4	25.0	24.8	24.9	24.5	23.9	24.6	24.6
14	24.2	23.1	23.4	23.1	21.9	22.5	21.9	22.1	21.4	25.4	28.9	32.9	33.9	31.8	28.9	26.2	24.7	24.2	24.2	24.2	23.0	20.9	22.3	22.6	24.9
15	23.1	23.3	20.0	21.0	21.8	21.6	20.7	20.1	20.2	22.3	26.0	30.0	32.5	33.3	31.3	28.3	25.6	24.8	24.7	25.2	25.5	25.0	23.1	16.5	24.4
16 D	18.5	23.8	22.7	21.5	22.8	24.5	22.9	21.6	21.6	22.3	25.7	30.0	32.1	34.8	34.4	31.4	26.2	23.3	25.4	23.1	20.7	20.3	23.3	24.6	24.9
17 Q	24.8	24.6	23.2	23.3	22.5	21.2	19.6	19.6	21.3	23.6	25.5	28.0	30.0	30.4	29.2	27.4	26.2	25.5	25.2	25.4	25.3	25.1	24.4	24.8	24.8
18 Q	23.8	23.8	23.3	22.9	22.6	22.2	21.3	20.3	20.7	23.1	26.1	28.2	30.3	30.8	30.3	29.2	27.9	27.2	26.4	25.8	25.5	24.4	23.9	24.2	25.2
19	24.0	23.2	22.9	22.8	22.0	21.5	20.7	21.1	20.7	21.7	24.7	27.5	30.4	31.3	31.5	30.4	30.0	27.7	20.3	21.6	26.1	23.5	23.1	23.1	24.7
20																									

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

19. LERWICK. (V.)

46,000 γ (+46 C.G.S. unit) +

APRIL, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	723	722	724	731	733	739	740	744	744	748	755	755	751	757	760	764	780	799	768	763	719	710	701	682	742
2	628	659	709	734	737	742	750	751	752	750	750	744	741	746	756	759	759	761	769	765	756	748	742	734	739
3	725	733	736	739	737	742	751	754	751	749	745	745	746	744	751	765	776	792	792	771	767	759	753	748	753
4 D	734	700	722	742	750	750	753	753	745	745	743	740	743	747	753	762	776	781	765	769	775	705	665	585	738
5 D	633	698	718	732	744	746	735	735	735	729	733	735	737	740	757	835	833	796	805	784	756	753	730	729	747
6 D	713	681	697	718	735	736	720	723	748	749	736	740	747	749	747	754	752	757	769	772	765	741	711	718	737
7	689	679	675	710	731	736	743	750	753	752	748	747	748	749	750	750	752	752	756	757	756	754	752	750	739
8	744	739	738	742	745	747	749	750	753	753	753	751	747	744	744	749	758	767	766	764	761	762	755	735	751
9	744	749	748	742	736	725	743	740	745	748	750	751	747	746	749	750	752	756	760	756	753	752	753	753	748
10	752	752	752	747	746	743	740	743	745	745	743	742	744	745	745	750	751	749	749	749	750	750	749	750	747
11	734	737	746	748	748	747	748	750	745	742	740	739	740	742	743	744	745	745	744	744	745	746	747	749	744
12	749	751	749	741	735	736	42	744	745	743	743	741	739	739	742	746	753	753	750	749	751	741	739	736	744
13 Q	735	728	726	725	729	726	729	733	733	741	735	726	728	731	738	748	753	751	750	747	749	748	747	745	738
14	740	742	741	743	742	741	741	734	731	734	735	729	724	732	742	750	752	752	750	751	747	741	733	733	740
15	733	731	731	740	747	746	748	749	748	745	740	733	732	737	750	756	760	759	753	750	746	752	743	723	744
16 D	723	723	733	750	751	738	722	725	731	738	740	742	744	759	761	771	775	772	760	759	725	715	731	738	743
17 Q	742	742	745	748	748	747	750	749	746	740	736	735	734	735	739	748	749	749	749	749	748	746	743	741	744
18 Q	740	743	744	746	749	749	750	749	748	745	740	735	731	734	737	741	743	745	746	747	747	748	743	741	743
19	741	742	744	745	747	748	749	745	742	739	738	735	734	736	740	747	749	761	765	759	753	744	744	742	745
20	744	746	748	735	704	714	729	738	742	742	745	744	743	743	746	749	760	771	772	767	762	758	752	740	746
21	741	748	752	753	754	753	753	754	754	754	749	746	746	752	757	756	759	762	762	761	759	756	754	749	753
22	741	732	722	730	733	735	737	738	738	739	744	748	749	756	765	761	756	762	757	757	756	755	751	751	746
23 Q	753	753	753	753	752	751	747	746	747	749	748	745	741	745	748	748	749	755	756	757	757	750	731	735	749
24	742	745	747	745	723	714	718	731	739	745	744	743	737	743	745	746	747	748	749	750	751	752	750	753	742
25	754	753	752	747	738	735	727	736	742	747	745	742	740	742	746	751	754	754	755	754	756	762	757	740	747
26	737	744	750	753	751	751	750	752	751	750	748	745	746	753	762	767	768	767	765	766	765	757	746	737	753
27	729	732	733	738	740	741	739	737	740	743	743	742	745	749	757	762	768	771	772	774	771	764	758	749	750
28	736	743	738	738	735	737	740	741	743	742	736	734	734	737	745	752	754	751	750	750	750	749	749	751	743
29 Q	751	753	755	756	754	751	751	750	747	745	742	738	734	741	744	749	750	750	753	755	758	753	749	744	749
30	744	744	749	753	753	752	752	748	743	736	730	730	730	735	743	752	756	758	757	757	753	747	744	742	746
Mean	730	731	736	741	741	741	741	743	744	744	743	741	740	744	749	756	760	761	761	758	754	747	741	734	745

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

20. LERWICK.

APRIL, 1934.

Day.	Terrestrial Magnetics Elements.															HR _H +VR _V 10,000 γ §	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 + °A						
	Horizontal Force.						Declination.			Vertical Force.														
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +		Minimum 13° +		Range	Maximum 46,000 γ +		Minimum 46,000 γ +				Range					
	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ						
1 D	20	54	513	403	11	12	110	13	24	38.9	6.0	17	25	32.9	17	25	815	655	23	48	160	905	1	78.5
2	19	39	496	380	0	14	116	12	45	37.2	11.8	18	49	25.4	18	55	777	608	0	35	169	956	1	78.3
3	19	29	516	429	12	40	87	14	18	34.9	9.4	19	17	25.5	18	46	797	724	0	33	73	466	1	78.4
4 D	18	13	531	392	21	47	139	0	37	32.8	-11.7	23	27	44.5	17	36	784	561	23	56	223	1241	2	78.0
5 D	15	25	551	402	0	0	149	15	2	42.5	7.5	0	30	35.0	15	47	912	568	0	0	344	1819	2	77.9
6 D	21	47	489	400	9	14	89	9	52	34.2	16.0	18	56	18.2	18	57	775	669	1	33	106	623	1	77.3
7	19	25	487	425	1	42	82	13	45	29.8	18.4	19	12	11.4	19	15	759	659	2	2	100	556	1	77.1
8	16	3	499	441	11	24	58	14	16	30.3	18.6	22	33	11.7	18	4	771	728	23	14	43	284	0	76.8
9	17	51	489	450	4	8	39	12	36	30.3	19.1	18	14	11.2	18	30	763	724	5	34	39	239	0	76.3
10	21	54	491	446	10	57	45	13	3	29.0	19.7	21	50	9.3	1	47	763	738	24	0	15	135	0	76.2
11	16	11	494	442	9	49	52	13	22	31.5	17.4	7	30	14.1	7	35	751	730	0	18	21	173	0	76.5
12	19	12	491	440	12	15	51	13	44	31.9	19.5	7	42	12.4	18	35	755	734	4	34	21	172	0	76.9
13 Q	14	47	492	435	10	26	57	12	46	31.1	20.0	7	5	11.1	16	28	754	722	1	7	32	232	0	77.3
14	20	32	502	426	11	10	76	13	10	35.0	19.0	21	24	16.0	19	28	754	722	12	40	32	259	0	77.9
15	20	23	497	437	10	55	60	13	20	33.4	8.9	23	43	24.5	17	16	761	711	23	36	50	320	1	78.9
16 D	20	17	510	407	11	48	103	13	10	36.0	11.1	21	0	24.9	16	30	779	701	21	10	78	512	1	79.5
17 Q	18	17	492	432	12	4	60	13	3	30.6	19.1	6	33	11.5	6	35	751	732	12	15	19	176	0	79.9
18 Q	20	45	487	434	9	40	53	13	26	31.1	19.2	7	48	11.9	6	25	751	730	12	30	21	175	0	79.6
19	18	44	502	431	11	49	71	15	11	32.0	17.3	18	56	14.7	18	9	769	732	12	23	37	275	0	80.4
20	16	31	495	436	12	36	59	14	1	29.8	17.1	8	5	12.7	18	25	774	701	4	32	73	424	1	80.0
21	18	37	496	445	9	34	51	13	8	31.4	19.4	19	36	12.0	18	13	764	736	0	0	28	201	0	79.7
22	16	29	511	438	11	19	73	13	30	35.7	20.0	8	43	15.7	14	56	768	720	2	24	48	333	0	80.0
23 Q	21	55	498	442	10	34	56	13	18	31.0	19.5	23	35	11.5	20	10	759	727	22	42	32	230	0	80.2
24	21	59	490	422	11	13	68	13	15	28.7	19.4	7	44	9.3	21	49	755	712	5	10	43	296	0	80.0
25	20	11	494	440	9	18	54	13	14	29.1	17.5	4	31	11.6	21	23	765	725	6	22	40	269	0	79.8
26	19	31	497	448	10	56	49	13	53	31.2	17.7	23	40	13.5	19	49	769	733	0	0	36	238	0	79.4
27	17	50	500	437	9	56	63	17	4	29.3	16.0	4	50	13.3	19	57	776	724	0	50	52	335	0	79.5
28	17	35	489	438	10	19	51	13	16	31.1	15.1	3	13	16.0	16	30	755	732	0	29	23	178	0	79.5
29 Q	19	7	497	446	10	34	51	12	36	32.7	19.4	20	1	13.3	20	20	760	732	12	41	28	201	0	79.5
30	19	0	500	446	10	11	54	13	29	31.4	20.4	5	42	11.0	17	55	760	728	12	07	32	227	0	79.7
Mean	--	--	500	430	--	--	70	--	--	32.5	15.6	--	--	16.9	--	--	771	704	--	--	67	415	0.40	78.6
No. of Days Used	--	--	30	30	--	--	30	--	--	30	30	--	--	30	--	--	30	30	--	--	30	30	30	30

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

21. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

MAY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day 1	488	476	468	474	476	468	467	459	452	447	443	443	447	445	454	463	474	482	489	490	487	485	482	482	468
2 D	477	470	472	474	473	474	468	461	461	452	446	449	453	461	466	474	484	506	524	491	490	461	464	388	468
3 D	289	376	447	463	469	460	448	453	439	427	425	435	452	454	468	466	479	486	491	491	492	492	479	487	453
4	465	468	470	468	467	465	463	453	444	433	424	433	441	445	464	470	476	485	490	486	482	479	461	490	464
5	481	477	477	476	477	476	472	467	458	445	431	425	425	445	455	465	472	488	484	486	484	484	488	485	468
6	484	477	474	474	474	464	464	467	459	446	433	434	441	451	462	470	486	490	499	494	483	483	488	466	469
7	471	467	473	474	474	473	471	463	451	444	447	453	456	461	466	473	478	488	502	509	496	479	478	477	472
8	470	475	474	474	474	472	467	458	456	449	446	446	453	463	468	469	481	488	494	499	494	488	484	480	472
9	480	478	475	475	478	473	464	459	457	459	463	474	467	463	477	479	486	492	498	498	498	486	480	480	475
10	472	479	473	484	471	470	463	456	453	452	450	454	457	465	465	468	474	489	496	488	495	499	473	469	471
11 D	472	477	467	462	473	459	466	464	462	455	454	456	447	452	465	482	482	491	493	484	493	487	392	285	459
12 D	477	479	462	441	461	458	432	433	453	449	446	443	446	447	447	454	466	499	507	494	487	475	471	473	462
13	458	472	477	476	473	466	461	451	437	438	438	438	443	440	461	468	477	490	487	489	484	480	479	475	465
14 Q	476	476	471	473	474	467	459	455	447	437	435	441	447	455	463	467	476	482	487	485	488	479	477	477	466
15 Q	476	476	475	475	475	472	465	459	454	445	440	443	451	465	471	479	480	487	490	491	491	488	484	480	471
16 Q	481	480	478	472	476	472	466	459	448	440	432	440	455	469	480	484	484	495	500	504	493	489	486	484	474
17	484	483	481	479	479	476	472	465	457	449	446	448	456	470	477	481	490	499	505	500	500	494	490	487	478
18 D	486	488	491	492	501	499	494	481	456	455	456	470	475	509	536	636	702	781	597	521	486	451	440	415	513
19	379	370	458	470	467	460	453	443	436	441	446	460	459	469	492	474	484	490	489	495	493	485	480	477	461
20	476	479	477	473	472	465	460	454	451	447	445	444	450	452	463	471	490	516	525	510	486	479	479	481	473
21	479	479	477	475	472	470	473	469	459	447	440	440	439	451	468	472	485	511	528	504	491	484	480	472	474
22	477	477	476	475	472	464	453	457	459	454	440	438	438	453	472	470	487	509	514	505	490	479	470	471	471
23	469	471	469	473	470	462	447	443	454	465	461	460	460	464	466	471	484	507	512	509	486	469	463	463	471
24	467	467	468	469	468	462	460	454	449	447	448	459	466	472	477	477	487	505	502	510	502	494	481	474	474
25	484	484	481	466	472	468	465	463	457	449	447	451	459	461	472	480	494	496	495	489	506	503	483	477	475
26	478	470	469	476	473	471	464	459	457	456	451	466	486	483	487	489	487	487	490	494	485	482	477	480	476
27 Q	480	479	478	476	471	468	464	461	462	464	467	466	469	475	478	478	487	488	491	493	489	487	485	485	477
28 Q	482	481	479	479	480	480	479	477	470	460	454	455	466	475	478	479	483	492	496	497	495	492	489	489	479
29	485	484	485	484	483	479	476	469	462	456	453	450	463	467	474	478	483	493	497	504	505	494	489	485	479
30	479	477	475	473	478	478	474	468	459	450	451	455	464	459	475	476	479	485	498	512	501	486	486	478	476
31	478	478	476	477	476	471	471	464	454	444	435	433	440	450	470	477	484	481	498	496	486	481	478	476	470
Mean	468	470	473	473	474	470	465	459	454	449	445	448	454	461	471	479	489	502	502	497	491	484	476	467	472

MAGNETIC DECLINATION (WEST).

Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

22. LERWICK. (D.)

13° +

MAY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day 1	23.4	22.9	26.5	23.8	21.5	21.2	21.6	20.0	21.7	23.2	26.0	28.3	30.5	31.0	30.7	28.9	27.0	25.9	25.6	25.3	24.8	24.3	23.2	22.6	25.0
2 D	23.0	25.2	27.2	21.7	19.2	20.6	20.3	21.1	21.9	22.9	26.5	29.9	31.1	31.4	31.8	31.9	31.1	31.9	23.1	25.5	24.4	21.7	21.7	23.7	25.4
3 D	9.9	5.6	8.6	14.2	22.4	28.9	28.3	24.8	21.9	22.9	25.6	28.8	30.0	31.4	30.6	29.8	29.8	29.1	27.6	27.2	25.4	25.8	20.2	22.2	23.9
4	21.3	23.3	23.5	22.2	21.6	21.3	20.3	20.5	21.0	23.4	26.9	29.3	30.7	30.3	25.9	26.2	25.9	26.1	26.1	25.7	25.3	24.9	24.6	24.9	24.6
5	23.3	23.2	22.0	21.2	20.9	19.8	20.3	20.5	21.3	24.0	26.7	30.6	32.1	31.0	29.2	27.1	26.3	25.8	25.8	25.4	24.8	24.1	21.4	21.7	24.5
6	22.1	24.4	22.1	21.9	20.2	21.7	21.9	21.2	20.6	21.9	23.5	25.6	27.6	29.2	28.4	27.3	26.8	23.5	21.8	24.4	25.5	25.3	22.6	21.0	23.8
7	20.1	20.1	21.6	21.0	20.7	20.2	20.0	20.4	22.0	23.4	25.6	27.8	29.4	29.0	28.2	27.3	26.6	26.7	26.7	26.2	22.8	23.9	24.6	23.7	24.1
8	27.4	23.5	21.3	20.7	20.4	19.9	20.6	20.9	20.5	21.3	22.6	24.1	25.9	26.3	26.4	26.5	26.3	26.5	26.1	26.2	25.7	25.0	23.9	23.6	23.9
9	23.1	22.6	21.9	21.6	20.4	20.7	20.6	20.6	21.1	23.0	25.2	26.8	28.5	28.1	26.8	26.2	26.1	26.0	26.2	26.2	25.7	24.3	21.1	22.7	24.0
10	25.5	23.1	19.5	20.2	19.6	17.8	18.7	19.4	20.4	22.0	25.7	28.9	29.4	28.8	28.5	27.4	26.5	26.0	24.8	23.3	24.5	18.0	15.0	17.7	22.9
11 D	21.5	21.3	21.1	21.5	19.0	20.3	21.6	21.1	21.1	23.1	27.4	31.3	31.8	31.0	28.8	27.3	24.6	23.6	23.3	22.6	24.4	24.6	26.1	4.9	23.5
12 D	10.7	17.2	23.3	23.3	20.4	20.6	26.0	25.1	22.7	22.1	23.3	24.7	26.2	27.0	26.8	25.2	24.5	24.3	23.2	23.8	23.5	23.1	22.5	27.4	23.2
13	24.8	19.4	17.5	18.9	17.9	18.5	17.0	16.1	18.8	20.8	23.4	24.7	27.5	29.1	29.2	27.6	26.0	25.4	24.5	23.4	21.7	23.4	23.6	23.3	22.6
14 Q	23.3	24.5	24.4	22.7	20.5	20.5	19.8	18.7	19.3	21.7	24.0	27.1	28.6	29.5	28.0	26.5	25.7	25.5	24.7	24.2	24.2	24.9	24.5	24.1	24.0
15 Q	23.7	22.5	21.9	21.1	20.2	18.8	18.5	18.9	19.7	21.3	25.3	28.8	30.2	29.2	27.1	25.9	24.7	24.0	24.1	23.8	22.8	22.8	21.2	20.1	23.2
16 Q	22.4	23.1	23.2	21.6	18.9	17.7	17.6	18.6	19.9	22.4	26.7	28.4	28.8	27.5	26.2	25.2	23.6	23.0	23.8	24.5	24.5	23.6	24.0	23.7	23.3
17	24.1	24.3	24.5	23.7	20.7	18.1	17.0	17.3	18.6	20.8	23.9	28.9	31.0	30.0	27.9	26.3	24.7	24.4	24.5	24.6	25.3	25.4	24.6	23.9	23.9
18 D	23.3	22.8	22.7	22.4	21.1	19.6	18.6	18.8	23.2	29.2	29.3	30.2	30.2	32.4	32.1	39.1	39.2	43.7	31.9	26.6	27.7	25.5	23.7	18.3	27.1
19	11.0	16.4	16.9	18.8	18.8	17.4	16.0	16.9	17.9	20.5	24.5	28.3	28.4	28.8	27.9	26.9	26.7	25.8	25.1	24.6	24.2	24.0	18.4	18.8	21.9
20	21.7	22.5	22.2	21.2	20.4	19.5	18.6	18.6	19.6	21.8	24.7	28.6	30.												

23. LERWICK. (V.)

46,000 γ ($\cdot 46$ C.G.S. unit) +

MAY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	729	734	734	730	738	741	736	737	733	731	732	734	735	738	742	744	745	745	744	744	744	742	742	738	738
2 D	739	742	726	734	740	741	742	742	738	738	736	733	736	739	750	754	764	766	777	771	768	699	725	625	739
3 D	532	544	573	614	625	626	637	666	700	718	724	727	733	739	740	743	742	741	747	745	748	745	751	692	690
4	716	737	744	747	748	749	751	754	750	749	745	740	742	749	757	756	752	752	752	753	753	752	749	735	747
5	732	741	746	748	749	749	749	747	745	740	738	734	730	729	735	741	742	743	753	756	755	753	748	743	744
6	743	741	742	743	746	746	744	746	747	745	746	737	734	740	748	752	752	760	765	764	762	756	744	738	746
7	725	732	741	746	749	751	751	751	750	750	748	744	744	742	744	746	747	747	746	750	761	763	757	752	747
8	743	729	742	747	747	746	746	748	745	743	739	738	740	746	749	753	751	748	747	748	750	752	753	753	746
9	748	749	750	748	745	747	749	746	740	737	736	737	741	752	758	757	762	759	753	749	749	752	753	748	749
10	741	719	732	744	736	738	742	743	741	738	737	736	736	736	744	748	750	752	754	758	753	741	701	718	739
11 D	731	737	747	747	740	738	724	724	723	726	726	731	738	740	746	747	753	752	751	751	744	745	711	636	734
12 D	677	714	720	670	697	724	732	725	731	735	741	747	752	757	761	764	761	756	760	759	757	755	745	704	735
13	692	691	714	731	735	744	748	746	747	743	736	734	740	745	745	760	752	753	757	755	756	749	746	747	740
14 Q	747	744	740	739	745	747	750	751	747	740	740	741	743	745	746	750	751	752	752	753	751	749	746	744	746
15 Q	745	748	751	753	753	755	753	746	743	741	739	737	738	739	745	746	748	748	750	750	748	745	734	734	745
16 Q	738	743	746	746	747	751	751	749	742	735	731	726	726	727	733	742	751	753	752	751	750	748	745	745	743
17	745	745	744	743	747	749	750	751	749	742	734	732	730	732	741	746	749	754	754	752	749	747	745	745	745
18 D	745	744	745	745	744	747	750	749	749	735	736	739	756	792	839	912	940	935	914	849	810	765	720	680	784
19	638	636	688	733	754	761	760	761	763	757	751	742	747	753	770	771	747	741	744	746	749	750	739	740	739
20	742	744	747	750	755	758	758	756	751	747	745	742	743	743	746	751	751	756	780	794	778	767	760	758	755
21	757	742	735	741	750	755	759	760	757	753	748	744	748	748	747	756	762	766	766	775	771	766	763	760	755
22	752	750	752	754	754	755	749	738	737	737	740	747	750	754	757	764	771	772	771	772	769	764	758	745	755
23	740	722	725	739	746	753	754	747	744	741	741	740	741	744	749	753	754	755	766	766	768	763	751	752	748
24	751	751	752	752	753	754	753	753	752	749	747	745	746	745	748	752	747	744	747	757	768	760	762	755	752
25	750	749	747	748	750	751	749	746	746	743	737	729	730	738	742	747	753	756	756	755	748	748	744	743	746
26	743	739	714	710	714	721	733	741	742	742	743	739	742	747	749	751	750	751	748	749	753	753	753	750	741
27 Q	752	753	752	752	752	750	748	746	741	733	733	735	736	737	743	746	744	744	743	744	747	748	748	746	745
28 Q	750	751	752	752	750	748	745	743	744	746	746	745	742	740	743	746	747	750	749	747	746	746	747	748	747
29	750	751	751	751	752	751	750	749	743	737	735	736	733	736	738	744	755	757	758	752	748	748	747	747	747
30	748	748	749	750	745	742	745	744	740	731	723	725	726	735	741	746	749	750	750	748	754	755	746	742	743
31	740	743	748	749	749	748	745	744	741	738	737	731	731	731	738	747	751	756	756	757	755	750	746	744	745
Mean	728	729	734	737	741	743	744	743	743	740	738	737	739	743	749	756	758	759	760	759	757	751	745	732	744

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

24. LERWICK.

MAY, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ^2	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +						
	Horizontal Force.						Declination.						Vertical Force.											
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +				Minimum 46,000 γ +			Range		
	h.	m.	Y	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	Y	h.	m.	Y	Y	h.	m.	Y			
1	18	28	492	442	10	0	50	12	42	31.5	19.5	7	36	12.0	15	15	747	722	0	54	25	191	0	80.0
2 D	18	40	547	178	23	50	369	23	53	33.8	11.1	21	44	22.7	18	25	800	437	23	50	383	2220	2	80.5
3 D	22	59	500	185	0	1	315	13	16	33.2	-1.4	1	48	34.6	22	45	756	482	0	18	274	1742	2	80.8
4	23	36	496	420	10	43	76	12	55	31.8	17.8	0	0	14.0	15	3	758	691	0	0	87	421	1	81.0
5	17	43	502	417	11	40	85	11	56	32.3	19.0	8	5	13.3	19	57	758	725	0	0	33	273	0	81.1
6	18	2	501	428	11	30	73	13	35	29.8	19.2	23	19	10.6	18	16	767	729	24	0	38	280	0	81.2
7	19	31	513	439	9	43	74	12	57	29.8	19.4	0	52	10.4	21	13	765	723	0	20	42	303	0	81.1
8	19	51	500	442	10	55	58	0	45	30.5	19.2	5	15	11.3	15	56	754	724	1	11	30	226	0	81.2
9	19	44	504	455	7	49	49	2	41	28.8	18.5	22	34	10.3	16	19	764	735	10	30	29	210	0	81.1
10	21	42	524	450	9	3	74	12	12	29.8	11.4	21	37	18.4	19	13	760	694	22	36	66	408	1	81.3
11 D	20	15	515	206	23	5	721	22	59	60.8	5.9	23	38	66.7	23	10	759	605	23	31	154	1752	2	82.0
12 D	18	14	514	420	7	2	94	23	25	33.4	2.2	0	0	31.2	15	40	766	621	0	0	145	811	1	82.0
13	17	38	500	434	9	12	66	14	2	29.6	15.4	7	38	14.2	18	11	759	676	0	57	83	487	1	82.0
14 Q	18	37	494	432	10	13	62	13	32	29.8	17.8	7	34	12.0	19	34	755	736	2	17	19	179	0	81.3
15 Q	22	2	498	437	10	12	61	12	27	30.6	18.0	6	20	12.6	5	31	756	732	23	3	24	199	0	80.8
16 Q	19	39	505	432	10	46	73	12	3	29.2	16.9	6	12	12.3	18	42	754	723	12	5	31	250	0	80.1
17	19	0	507	442	10	16	65	12	38	31.5	16.5	6	2	15.0	17	45	755	729	12	47	26	217	0	79.5
18 D	17	34	856	393	23	48	463	17	39	52.5	12.1	23	50	40.4	16	2	978	633	23	33	345	2305	2	79.7
19	14	45	504	320	1	1	184	13	17	29.7	7.0	0	41	22.7	15	7	781	608	0	31	173	1081	1	80.0
20	18	37	533	444	9	50	89	12	28	30.5	17.9	7	22	12.6	19	10	805	740	11	30	65	434	1	80.3
21	18	7	556	427	12	6	129	13	24	29.4	17.8	7	23	11.6	19	4	777	733	2	24	44	389	1	80.5
22	18	29	519	427	10	59	92	12	5	33.0	17.9	5	44	15.1	16	29	776	733	9	30	43	329	0	80.9
23	18	9	526	436	7	2	90	18	30	27.7	15.0	5	47	12.7	20	50	770	716	1	40	54	387	0	81.0
24	19	14	520	445	8	23	75	12	28	28.8	18.4	6	45	10.4	20	14	772	738	16	59	34	270	0	81.0
25	16	45	525	445	10	45	80	13	5	29.8	19.2	7	7	10.6	19	18	758	726	12	4	32	268	0	81.0
26	19	16	498	446	10	31	52	12	44	30.1	13.4	4	5	16.7	20	42	754	707	3	30	47	293	0	80.6
27 Q	18	59	497	459	7	59	38	16	15	26.9	19.1	7	45	7.8	1	0	754	731	10	0	23	166	0	80.1
28 Q	19	2	498	452	10	23	46	14	10	28.5	18.4	23	55	10.1	2	56	753	739	13	4	14	135	0	80.4
29	20	5	512	447	11	39	65	14	49	31.0	17.5	7	14	13.5	18	2	759	733	12	16	26	214	0	81.1
30	19	34	516	448	9	43	67	14	17	29.9	16.5	7	44	13.4	20	40	757	722	10	29	35	266	0	81.9
31	18	54	502	431	10	35	71	13	13	33.5	16.9	7	54	16.6	18	5	759	729	13	2	30	243	0	82.6
Mean	--	--	522	396	--	--	126	--	--	32.2	14.9	--	--	17.3	--	--	771	693	--	--	78	547	0.48	80.9
No. of Days Used	--	--	31	31	--	--	31	--	--	31	31	--	--	31	--	--	31	31	--	--	31	31	31	31

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

25. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

JUNE, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	473	469	469	471	469	468	463	458	453	448	439	441	440	449	464	476	484	488	493	496	486	478	477	473	468
2 Q	471	470	473	474	472	472	464	454	446	438	435	436	451	461	465	475	485	498	502	498	490	484	475	473	469
3 Q	474	473	473	473	473	469	463	455	445	439	437	445	455	461	467	474	483	487	491	494	492	488	489	482	470
4	478	481	481	480	479	475	464	454	445	445	447	453	466	462	465	472	487	493	499	500	515	498	491	479	475
5 D	471	466	465	438	421	444	446	443	439	428	414	413	433	471	468	480	506	517	517	499	482	467	393	433	457
6 D	343	438	440	460	466	441	448	437	432	438	447	448	456	459	468	496	509	511	505	497	490	485	485	486	462
7	461	479	479	477	477	474	467	467	472	463	452	459	465	466	463	459	466	480	486	489	488	482	480	479	473
8	474	472	469	469	468	466	467	463	455	445	443	452	463	472	477	477	494	501	501	512	501	481	480	463	473
9	470	472	464	445	465	476	463	443	442	442	438	446	450	482	473	480	497	498	502	501	490	479	477	484	469
10	471	469	468	466	465	461	459	452	449	441	438	444	461	468	466	473	475	481	486	486	488	483	478	474	467
11 D	475	472	469	466	465	466	465	461	461	458	460	463	474	489	488	477	471	488	518	520	502	490	476	459	476
12 D	398	472	482	416	435	461	469	464	462	456	456	460	466	473	474	485	501	504	483	480	477	476	475	475	467
13	464	467	465	466	465	462	457	455	445	435	435	440	449	458	462	469	480	483	485	485	483	479	475	473	464
14	470	470	469	468	468	467	472	467	451	437	429	432	439	444	450	471	494	505	518	508	502	487	460	450	468
15	460	464	444	467	474	474	457	441	456	454	446	450	463	471	472	479	491	502	505	497	490	485	483	481	471
16	481	483	476	475	475	471	468	462	454	455	447	455	456	467	478	488	502	518	513	507	497	483	474	473	477
17	474	474	472	460	466	467	462	450	445	441	441	443	447	463	472	481	491	492	509	514	502	492	479	481	472
18 D	479	479	480	478	470	467	466	465	460	452	452	445	448	449	471	477	522	505	519	515	502	488	472	462	478
19	463	469	469	469	469	466	464	454	446	441	436	439	437	449	455	466	479	488	496	492	486	478	475	474	465
20	472	471	470	469	464	459	465	467	458	451	450	452	455	466	474	478	503	510	521	509	495	485	480	469	475
21 Q	470	472	470	471	469	467	463	459	455	451	448	450	458	468	477	476	478	479	483	491	490	487	485	483	471
22 Q	480	480	477	474	474	472	473	470	459	449	441	447	459	467	467	476	476	479	486	492	495	491	489	486	473
23	486	486	484	485	487	482	473	471	468	463	456	454	462	474	477	483	497	505	512	511	504	492	488	489	483
24	489	494	490	487	482	476	472	464	463	462	462	466	471	484	486	487	493	499	501	500	497	488	487	483	483
25	483	481	481	479	478	473	466	458	453	444	441	443	456	469	478	490	501	504	498	489	486	484	482	482	475
26 Q	483	482	482	483	480	476	470	464	452	438	439	454	462	471	481	485	493	498	498	493	489	486	484	481	476
27	481	482	481	480	476	476	470	462	451	440	439	453	473	482	497	497	504	535	530	518	496	492	488	491	483
28	488	484	482	481	482	481	477	472	467	463	455	454	455	468	478	493	496	500	501	507	503	492	481	489	482
29	482	475	468	470	474	470	463	460	454	448	444	440	447	466	471	489	504	508	507	501	496	495	494	494	478
30	488	482	483	486	487	482	477	471	464	454	448	443	450	454	474	483	494	506	510	509	506	502	499	498	481
Mean	469	474	472	469	470	469	465	459	453	447	444	447	455	465	473	480	492	499	503	500	494	486	478	477	473

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

26. LERWICK. (D.)

13° +

JUNE, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	23.1	22.8	22.4	20.9	19.5	17.7	17.5	18.2	19.9	22.1	26.4	30.2	32.3	32.9	31.4	28.9	27.2	26.2	25.3	25.2	22.9	23.5	22.0	22.8	24.2
2 Q	22.1	20.9	19.7	18.9	18.6	18.4	17.9	17.9	18.9	20.9	23.7	26.9	28.8	28.4	27.8	26.7	25.7	25.8	25.9	25.8	25.4	24.7	24.0	22.9	23.2
3 Q	22.6	22.0	20.7	19.4	18.9	18.5	17.9	16.9	17.5	19.2	22.5	27.5	30.5	29.4	28.2	27.7	26.9	26.1	26.1	25.9	25.4	25.0	22.5	20.5	23.2
4	21.1	21.6	19.9	19.7	18.7	17.6	16.7	16.0	16.5	18.9	22.2	24.9	26.6	28.4	29.5	28.7	28.0	27.5	26.9	26.0	26.9	24.1	24.0	24.8	23.1
5 D	26.3	14.6	9.9	6.4	6.9	8.8	16.1	15.7	16.0	20.0	26.4	31.8	31.4	29.0	31.7	31.7	26.1	28.5	27.3	26.4	23.9	23.3	27.6	18.4	21.8
6 D	25.8	12.8	9.8	13.9	14.3	18.0	21.4	18.5	20.9	22.0	24.1	26.7	28.1	28.1	27.5	28.5	27.2	19.7	24.4	25.9	26.3	25.9	26.6	25.2	22.6
7	23.7	24.1	22.7	20.0	17.7	17.6	18.8	20.2	21.1	21.9	25.0	28.6	28.3	28.4	26.4	26.0	24.4	23.4	23.7	24.0	24.5	24.2	23.5	24.1	23.4
8	22.2	21.5	20.6	19.8	18.9	18.0	17.0	17.0	18.1	21.6	24.0	26.5	26.6	27.5	27.5	25.4	27.2	26.7	26.6	26.7	23.0	21.2	18.9	16.8	22.5
9	17.4	18.4	21.6	27.2	21.9	17.9	17.7	16.7	18.7	19.3	23.0	25.9	27.9	27.1	27.1	26.1	25.2	25.5	24.2	21.6	22.2	22.7	23.4	21.9	22.4
10	22.5	21.0	20.2	20.5	19.7	18.6	17.9	17.4	17.7	20.4	24.5	27.3	27.5	26.8	27.7	27.1	25.9	24.5	23.5	23.4	22.4	21.7	23.0	23.3	22.7
11 D	23.6	22.8	21.8	20.3	18.8	17.5	16.0	15.6	15.8	17.9	21.8	26.0	28.4	28.1	28.7	28.0	26.7	27.4	26.7	18.5	23.5	22.3	23.0	23.9	22.6
12 D	22.8	15.1	12.4	13.7	18.8	15.5	13.7	12.8	15.5	18.6	22.5	25.1	29.8	32.6	33.0	33.2	32.5	31.3	25.0	23.8	23.1	22.2	22.5	22.3	22.4
13	21.0	21.2	20.1	20.2	19.2	18.1	17.5	16.6	17.4	20.5	24.1	26.7	27.6	28.0	28.1	27.2	25.3	23.4	22.2	22.0	22.3	22.7	22.6	22.5	22.4
14	22.8	23.2	22.6	20.9	19.5	18.5	17.5	16.6	17.2	18.4	21.9	25.2	28.4	30.3	29.8	29.3	27.9	26.0	25.4	26.0	23.0	21.7	25.5	17.1	23.1
15	10.5	9.2	21.6	21.0	14.1	17.5	16.9	20.9	19.6	21.0	23.4	26.4	28.2	27.8	27.2	27.9	28.4	27.5	26.0	24.2	22.9	22.7	23.5	23.8	22.2
16	23.4	22.4	19.9	18.5	18.5	17.4	18.0	18.4	18.5	18.2	21.1	24.5	27.8	29.6	29.8	29.3	29.6	26.9	27.0	26.9	25.3	24.8	24.6	22.1	23.4
17	21.7	21.4	21.2	22.1	20.2	18.8	15.8	16.6	16.9	18.3	21.5	23.5	25.7	26.7	26.8	26.2	25.5	24.7	25.9	26.2	23.8	23.0	23.6	21.1	22.3
18 D	22.3	21.9	20.1	18.9	18.0	17.7	18.5	18.4	16.9	20.7	24.4	28.6	31.2	30.6	30.5	31.4	32.2	30.0	27.4	26.1	22.3	17.5	15.9	19.4	23.4
19	21.5	22.6	21.1	20.2	20.0	19.1	17.7	16.9	18.8	17.9	20.8	23.8	26.1	26.3	26.6	26.5	25.9	24.5	23.9	23.9	23.5	23.0	22.5</		

27. LERWICK (V.)

46,000 γ (.46 C.G.S. unit) +

JUNE, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	746	747	747	747	752	753	753	751	747	740	735	733	735	735	737	745	759	760	757	753	757	753	745	743	747
2 Q	743	744	746	748	747	745	750	749	744	741	740	732	725	727	733	737	744	748	753	758	756	752	751	748	744
3 Q	745	743	745	747	748	749	751	753	753	751	748	744	738	735	739	740	743	749	752	751	750	749	742	735	746
4	731	734	741	744	745	745	747	748	745	741	737	737	736	737	736	737	734	741	743	745	741	752	749	748	741
5 D	712	672	654	666	649	690	716	738	744	744	751	746	740	738	757	795	815	799	799	800	775	752	668	665	733
6 D	580	649	674	702	715	721	710	726	733	735	741	746	744	749	752	755	781	813	799	775	763	755	748	745	734
7	748	750	750	752	752	750	748	745	742	747	750	746	746	750	749	751	751	751	751	752	754	757	756	754	750
8	750	749	752	753	752	749	746	745	747	748	745	740	734	738	737	751	756	761	768	760	753	763	733	715	748
9	729	741	740	714	689	716	730	739	737	739	741	744	749	749	753	754	757	763	768	772	764	759	752	733	743
10	730	736	746	749	750	749	749	750	747	747	747	744	742	744	748	749	750	750	753	753	752	752	750	749	747
11 D	745	744	747	750	751	750	747	742	736	737	735	734	734	741	745	758	764	754	754	766	760	754	742	708	746
12 D	656	714	724	718	680	675	706	721	721	721	722	728	734	731	732	732	733	742	757	752	747	748	746	741	723
13	738	738	746	749	748	748	747	751	751	745	740	741	739	742	747	744	746	748	748	748	748	745	745	745	745
14	746	745	747	750	749	745	742	749	753	751	748	742	736	735	734	737	745	756	763	766	736	747	720	662	742
15	692	672	663	616	644	679	711	727	730	736	742	742	741	745	753	759	780	756	754	759	761	758	752	748	725
16	746	743	748	753	754	754	754	748	741	741	740	741	738	737	745	752	769	778	772	769	758	743	743	743	751
17	750	750	750	747	741	746	754	756	749	744	737	736	737	736	741	747	748	749	745	750	762	764	744	723	746
18 D	736	739	743	746	749	747	746	745	747	744	736	732	734	738	737	753	763	790	782	772	763	755	733	728	748
19	727	720	731	742	745	747	751	755	752	747	744	741	739	739	742	744	743	743	745	750	751	750	749	747	743
20	747	747	747	746	743	747	743	747	743	740	740	738	734	738	744	750	751	761	761	762	760	755	747	747	747
21 Q	748	746	746	746	747	749	751	751	749	748	746	743	735	731	732	738	741	744	745	747	751	751	748	749	745
22 Q	748	746	744	746	746	749	750	751	752	751	748	746	742	741	744	743	746	746	742	745	748	751	751	750	747
23	748	746	746	747	747	749	750	748	747	751	755	750	740	740	745	744	747	748	751	757	760	760	759	754	749
24	751	749	751	752	751	750	747	744	743	744	739	737	740	741	742	746	750	751	753	756	756	756	754	755	748
25	755	755	753	754	753	751	750	745	735	735	739	741	741	742	744	744	748	750	752	751	748	748	748	748	747
26 Q	748	749	750	749	747	747	748	747	746	740	731	725	735	738	740	743	747	745	743	744	744	743	744	745	743
27	747	748	749	750	751	749	748	748	746	739	730	727	729	733	735	747	748	748	766	782	768	754	750	743	747
28	729	742	750	755	755	752	749	745	743	737	737	739	740	741	745	752	756	754	752	752	752	750	742	739	746
29	727	715	716	723	730	741	744	741	738	738	735	737	737	735	737	740	745	746	747	748	746	743	741	738	737
30	737	742	744	746	747	748	750	747	743	738	735	733	733	733	735	739	743	746	745	745	744	740	739	736	741
Mean	731	734	736	737	735	740	743	745	744	742	741	739	738	739	742	747	752	756	757	758	755	753	743	736	743

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

28. LERWICK.

JUNE, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ ²	Magnetic Character of Day. (0-2)	Temperature in Magnet House 200 + ^{°A}								
	Horizontal Force.						Declination.				Vertical Force.															
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +		Minimum 13° +		Range	Maximum 46,000 γ +		Minimum 46,000 γ +				Range							
	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ										
1	19	10	498	437	10	39	61	12	56	33-1	17-0	5	47	16-1	17	24	782	732	11	18	30	227	0	83-0		
2 Q	17	50	505	432	11	2	73	12	34	28-9	17-5	7	45	11-4	19	43	759	723	12	35	36	275	0	83-4		
3 Q	19	37	495	434	10	41	61	12	45	30-9	16-5	7	45	14-4	7	55	754	731	24	0	23	198	0	83-6		
4	20	7	536	442	8	45	94	14	49	29-8	15-5	7	52	14-3	21	40	754	730	16	39	24	257	0	83-8		
5 D	17	45	536	352	22	29	184	15	12	34-7	1-6	3	5	33-1	16	16	824	628	22	26	196	1178	1	83-9		
6 D	17	57	531	293	0	33	238	0	25	39-3	9-1	2	23	30-2	17	34	834	545	0	37	289	1683	2	83-8		
7	20	24	492	450	10	19	42	13	2	29-3	16-0	4	58	13-3	21	31	758	740	8	30	18	145	0	83-8		
8	19	42	522	438	9	26	84	19	42	28-4	14-0	22	56	14-4	18	24	769	704	23	7	65	431	1	84-0		
9	19	46	510	429	10	35	81	3	32	28-8	14-6	8	51	14-2	19	31	775	683	4	22	92	545	1	84-2		
10	19	49	497	435	9	54	62	14	48	28-0	16-9	7	13	11-1	20	50	755	728	0	36	27	217	0	84-8		
11 D	19	33	539	437	24	0	102	15	25	29-5	10-7	19	13	18-8	19	9	784	697	23	26	87	547	1	85-1		
12 F	16	57	524	335	0	30	189	17	8	34-2	6-7	2	51	27-5	18	32	762	604	0	40	158	1014	1	85-3		
13	20	17	486	433	9	43	53	13	35	28-6	16-3	6	54	12-3	8	1	754	736	1	22	18	162	0	85-7		
14	18	29	525	413	23	2	112	22	45	34-4	11-5	24	0	22-9	19	5	769	627	23	6	142	827	1	85-6		
15	18	5	510	427	2	43	83	2	50	32-8	7-0	1	53	25-8	20	37	764	610	3	11	154	835	1	85-3		
16	17	35	528	443	10	49	85	16	21	30-5	17-0	5	3	13-5	18	39	780	736	22	50	44	333	0	85-0		
17	19	4	518	439	10	5	79	14	7	27-3	14-9	7	6	12-4	20	58	771	719	23	14	52	362	0	85-1		
18 D	16	53	564	431	13	24	133	16	8	34-5	15-3	22	58	19-2	17	18	801	726	23	41	75	543	1	85-4		
19	18	16	498	433	10	46	65	14	35	26-9	15-7	7	33	11-2	7	55	758	716	1	20	42	293	0	85-6		
20	18	44	536	447	10	55	89	16	21	30-1	15-2	5	32	14-9	18	6	770	732	12	18	38	308	0	85-2		
21 Q	19	41	493	448	10	24	45	15	27	27-2	15-8	8	25	11-4	21	26	753	729	13	16	24	182	0	84-6		
22 Q	20	40	496	438	10	48	58	14	0	27-5	14-5	8	32	13-0	22	2	753	740	13	13	13	148	0	83-9		
23	18	17	516	451	11	1	65	15	26	28-6	17-3	8	58	11-3	20	30	764	737	13	10	27	223	0	83-7		
24	18	20	505	459	9	38	46	14	3	29-0	13-9	5	57	15-2	20	5	758	736	10	53	22	174	0	83-7		
25	17	34	509	440	10	32	69	14	27	30-6	15-1	6	2	15-5	0	0	756	732	9	2	24	216	0	84-0		
26 Q	18	27	500	435	10	5	65	13	36	27-4	14-8	5	41	12-6	2	7	751	724	12	35	27	222	0	84-3		
27	18	0	544	437	10	11	107	12	40	31-3	16-6	7	33	14-7	19	15	792	726	11	0	66	467	1	84-7		
28	17	20	514	448	10	44	66	13	56	28-9	16-6	5	16	12-3	16	53	757	724	0	18	33	253	0	85-0		
29	17	29	510	436	11	51	74	14	8	29-3	15-7	2	36	13-6	19	25	749	712	2	11	37	281	0	85-3		
30	18	8	512	439	11	5	73	14	6	30-5	13-9	6	30	16-6	6	31	751	732	12	34	19	196	0	85-8		
Mean	--	--	515	427	--	--	88	--	--	30-3	14-1	--	--	16-2	--	--	768	705	--	--	63	425		0-37	84-6	
No. of Days Used	--	--	30	30	--	--	30	--	--	30	30	--	--	30	--	--	30	30	--	--	30	30		30		30

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
 Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

29. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

JULY, 1934

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	498	491	485	470	464	485	478	468	461	456	453	459	466	467	476	478	495	507	509	509	501	487	485	484	480
2	476	475	479	475	475	475	470	454	450	450	449	450	448	463	468	478	490	499	499	493	488	484	482	481	473
3 D	479	477	470	475	475	470	466	460	452	440	441	446	462	451	491	502	505	529	512	509	495	489	478	475	477
4 D	474	454	449	466	466	471	473	466	460	454	444	444	447	468	473	471	495	495	500	494	484	484	482	487	471
5	484	466	471	470	457	474	470	446	451	449	442	441	447	460	472	480	484	501	490	499	494	485	484	483	471
6	479	473	471	476	464	455	467	463	451	439	437	444	456	466	468	474	480	496	498	495	487	481	479	477	470
7	478	480	479	469	482	483	474	467	462	451	440	442	447	461	474	476	480	498	490	493	495	486	481	478	474
8	476	477	477	479	479	471	470	463	458	452	447	447	451	468	482	496	499	502	495	492	491	487	492	489	477
9	489	479	480	472	478	489	478	482	462	461	453	456	466	469	478	484	487	492	499	501	502	499	492	486	480
10 Q	480	469	473	476	475	473	470	468	461	453	453	453	455	459	466	471	482	487	496	496	491	486	480	477	473
11	474	472	475	476	475	474	469	463	460	454	449	448	451	461	479	493	508	510	517	509	489	491	489	491	478
12	484	482	484	483	479	481	477	463	460	453	448	449	465	458	465	477	484	495	502	497	493	483	478	476	476
13	477	478	478	477	478	475	472	466	458	439	427	429	441	449	460	477	488	502	502	496	484	480	479	477	470
14	475	475	472	469	470	469	467	457	446	438	438	443	456	465	473	489	484	492	495	515	494	498	495	491	474
15	474	445	440	457	470	471	470	461	457	446	437	437	453	465	481	481	490	493	491	492	490	485	483	482	469
16	477	471	475	473	469	455	466	472	467	449	436	441	451	457	464	473	487	503	514	510	484	480	478	475	472
17	473	473	473	473	474	471	463	455	446	440	438	434	447	451	456	471	482	495	503	508	501	487	475	473	469
18 Q	471	474	480	477	477	477	469	460	451	444	439	441	450	465	468	478	481	488	494	493	491	484	478	478	471
19 Q	475	475	474	473	470	471	467	464	458	449	441	447	459	466	467	468	472	476	484	489	486	481	478	474	469
20	473	468	469	474	476	471	484	458	450	441	438	440	455	473	492	489	478	481	491	481	479	474	471	471	469
21	473	469	469	467	466	463	460	453	446	436	431	431	438	450	463	473	479	482	490	487	488	485	481	478	465
22 Q	479	476	473	475	476	473	467	460	448	440	435	438	447	462	467	469	476	480	487	491	485	480	474	474	468
23 Q	470	469	471	471	471	469	464	457	448	436	430	430	438	446	462	471	478	481	486	486	481	481	478	476	465
24	474	474	474	474	474	468	462	456	451	449	440	444	459	473	482	486	493	494	493	496	497	487	482	483	474
25	481	481	481	483	484	482	474	467	456	437	432	441	456	471	479	477	479	484	488	491	493	492	491	481	474
26	480	474	464	464	468	467	465	455	445	438	436	440	454	464	468	468	476	488	491	484	486	481	477	479	467
27	477	476	474	469	470	465	460	457	456	449	442	435	445	456	463	465	472	475	476	480	481	480	476	474	466
28	471	472	470	470	469	467	462	455	447	441	438	440	452	465	471	475	475	480	484	486	489	485	484	483	468
29 D	478	475	469	478	472	474	466	456	445	435	431	433	458	474	473	465	467	482	491	485	489	476	471	468	467
30 D	466	468	468	483	475	449	453	454	393	385	408	417	458	525	515	506	467	444	446	455	461	456	453	467	457
31 D	468	451	451	447	442	437	435	432	426	424	424	419	428	433	448	488	476	475	469	472	469	462	462	462	450
Mean	477	472	471	472	472	470	467	459	451	443	439	441	452	463	472	479	483	491	493	493	488	483	480	478	471

MAGNETIC DECLINATION (WEST).
 Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

30. LERWICK. (D.)

13° +

JULY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	27.6	21.8	20.6	20.4	23.3	17.3	15.3	14.8	16.5	20.2	23.7	26.3	27.8	28.5	29.1	28.4	27.4	26.5	25.9	24.5	22.8	24.2	24.1	23.4	23.3
2	21.9	22.0	18.7	15.2	15.2	15.3	16.5	17.5	18.7	19.7	22.4	26.1	26.7	26.8	27.7	27.3	26.0	23.8	23.5	23.4	23.1	22.8	22.4	22.0	21.8
3 D	21.6	21.5	20.6	19.6	18.4	17.0	17.0	17.3	18.7	20.2	21.5	25.5	29.8	37.2	35.1	35.2	32.1	32.0	26.1	27.6	25.6	24.7	20.8	22.0	24.5
4 D	23.5	20.9	26.1	20.3	17.2	17.5	18.1	18.1	16.7	18.2	18.3	22.7	24.6	26.4	28.1	27.7	24.2	24.1	24.2	24.3	24.1	24.1	23.1	22.6	22.3
5	20.5	21.1	19.5	20.6	23.4	22.6	22.8	24.1	22.1	18.3	20.1	23.7	26.0	26.5	27.4	27.5	26.4	24.7	24.1	24.1	25.0	23.9	23.6	22.9	23.4
6	22.9	25.2	21.0	17.7	18.2	19.9	18.6	17.2	17.1	17.9	20.9	24.8	27.7	28.5	25.2	25.5	25.7	24.1	22.0	23.9	24.0	23.6	22.9	21.8	22.3
7	22.3	21.5	22.4	25.0	20.2	17.4	15.4	16.2	18.5	19.7	22.2	25.0	27.1	27.4	25.8	25.2	25.3	24.0	23.6	24.1	24.0	24.2	24.2	23.0	22.7
8	22.9	22.6	23.0	20.5	18.2	18.1	19.5	18.5	18.5	19.3	21.4	25.3	27.3	27.5	26.9	24.9	23.1	22.3	22.4	22.8	24.1	24.2	24.1	24.7	22.6
9	25.5	20.0	19.1	21.9	20.2	15.5	14.6	16.3	18.0	18.7	24.7	26.0	28.8	30.6	30.1	27.9	27.3	25.5	23.8	23.1	23.3	22.6	22.3	20.2	22.7
10 Q	20.2	20.8	19.5	17.5	16.2	15.1	15.1	15.6	16.6	19.4	21.8	24.7	28.1	29.2	26.8	24.4	22.9	22.3	22.7	22.2	22.7	22.6	22.8	22.7	21.3
11	22.4	21.1	21.0	19.7	18.0	16.1	15.1	15.7	17.1	19.1	22.0	25.4	27.9	28.9	28.9	28.0	27.6	25.6	25.4	25.1	24.0	22.9	23.0	22.0	22.6
12	24.3	22.9	20.4	19.7	20.4	17.1	15.9	15.6	16.1	18.3	21.3	24.8	28.5	28.9	28.9	27.5	25.5	25.2	24.8	24.0	23.2	22.3	21.5	21.4	22.4
13	21.2	20.9	20.1	18.9	18.3	17.5	18.9	16.9	18.1	19.6	21.2	22.9	25.7	28.0	28.6	29.1	28.5	24.9	24.4	23.4	23.6	23.8	23.5	23.0	22.5
14	22.5	21.9	21.7	17.6	17.1	16.2	16.9	17.9	18.3	19.6	21.3	24.6	28.1	29.4	30.0	29.4	25.9	24.4	24.2	25.4	24.2	23.3	23.3	23.0	22.8
15	22.8	16.8	16.5	14.0	12.6	13.3	12.5	11.2	13.6	17.5	22.0	24.9	28.9	31.3	31.8	31.2	29.7	27.1	24.7	23.7	22.8	21.9	21.2	20.2	21.3
16	21.8	24.1	18.6	14.3	14.0	15.5	17.9	16.0	14.4	16.8	19.5	21.8	25.4	29.7	30.4	28.4	26.6	25.6	24.6	21.0	21.4	22.4	22.1	21.2	21.4
17	20.3	20.1	20.1	19.6	18.5	17.4	15.6	14.9	14.6	17.1	21.0	26.4	30.1	29.5	28.4	27.2	25.4	23.0	22.1	21.1	18.5	17.5	20.5	20.3	21.2
18 Q	20.2	21.1	19.9	17.5	16.9	16.9	15.5	14.9	15.2	17.1	20.6	24.0	26.9	28.2	29.4	28.8	25.9	23.5	22.9	22.7	23.1	23.3	22.6	21.6	21.6</

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

69

31. LERWICK. (V.)

46,000 γ ($\cdot 46$ C.G.S. unit) +

JULY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	714	715	728	732	708	696	718	727	730	729	727	721	724	729	728	733	734	739	743	748	748	745	741	739	729
2	739	732	714	725	732	735	740	747	743	739	737	732	731	729	733	738	737	740	745	746	744	743	742	740	737
3 D	739	739	739	737	739	744	745	747	744	739	732	717	713	733	741	771	794	795	812	786	776	767	758	746	752
4 D	743	732	703	706	728	740	740	740	748	743	738	738	736	738	746	750	757	761	760	761	757	750	749	738	742
5	731	715	712	710	714	708	722	736	736	743	749	746	747	746	750	756	755	754	761	756	755	754	753	749	740
6	746	732	737	729	734	733	736	745	747	746	743	737	728	732	738	744	746	745	755	750	750	750	749	747	742
7	745	740	739	735	729	732	738	743	742	741	745	740	734	732	737	743	745	746	751	748	750	751	748	746	742
8	746	744	741	742	742	743	739	740	740	739	740	743	741	744	749	753	758	756	753	750	749	750	745	741	745
9	721	723	733	735	717	714	724	732	731	733	734	732	736	741	749	757	759	751	747	744	742	742	743	742	737
10 Q	738	736	733	743	747	746	744	741	741	742	742	743	741	738	739	746	749	749	748	749	746	746	745	744	743
11	744	745	746	745	746	742	742	740	738	740	739	733	730	725	725	732	741	751	755	763	763	754	747	741	743
12	739	735	738	743	745	743	741	739	735	737	733	729	729	733	731	740	750	750	746	747	746	746	745	744	740
13	743	742	744	746	746	743	740	741	742	741	736	732	727	728	735	739	743	745	757	758	752	747	743	742	742
14	742	743	744	747	749	749	747	747	743	742	736	726	724	723	728	734	746	751	753	748	756	751	745	742	742
15	736	708	648	660	681	700	711	725	732	741	737	728	720	720	726	732	737	741	745	745	743	743	741	736	722
16	739	718	696	708	729	736	726	732	739	747	745	734	732	735	734	735	741	749	758	777	775	761	751	748	735
17	745	744	744	747	749	751	752	754	750	748	746	740	733	733	736	742	745	748	752	749	751	749	742	741	745
18 Q	741	738	736	742	743	741	745	748	747	747	744	736	732	734	741	741	744	749	750	749	749	748	747	744	743
19 Q	742	743	742	742	743	744	749	748	748	748	744	735	731	730	735	739	742	742	744	745	745	745	745	743	742
20	741	741	742	743	743	743	743	745	745	744	741	739	735	727	723	739	749	751	750	751	747	747	745	743	742
21	737	735	735	736	736	739	741	740	739	738	740	739	736	730	725	727	735	740	741	743	742	744	741	739	737
22 Q	741	741	743	742	742	743	743	745	746	741	740	742	741	738	738	742	747	750	749	748	751	749	747	745	744
23 Q	746	746	745	745	744	743	743	737	737	741	743	739	732	732	730	735	739	741	742	743	743	743	744	745	741
24	745	746	746	745	745	743	742	743	743	736	735	736	736	738	745	751	756	766	764	759	753	752	745	737	746
25	736	737	742	744	744	743	740	737	738	741	737	732	727	729	738	743	745	749	745	741	739	738	738	741	739
26	739	735	738	738	736	739	740	738	736	735	734	732	732	736	739	747	751	755	759	757	748	745	743	739	741
27	739	735	733	741	741	745	743	737	732	730	731	726	719	721	731	740	745	749	744	741	739	737	737	737	736
28	737	733	736	737	739	738	741	741	738	736	730	731	727	725	726	732	741	742	742	742	739	738	733	731	736
29 D	732	736	739	727	733	733	736	738	735	735	736	734	736	739	750	766	760	753	755	759	742	732	731	735	741
30 D	737	740	742	738	739	730	667	655	690	714	732	732	779	852	838	819	810	790	759	750	749	753	749	746	750
31 D	725	730	742	746	751	757	757	753	753	753	751	747	743	743	748	755	797	782	763	755	762	761	751	743	753
Mean	738	735	732	734	736	737	737	738	739	740	739	735	733	737	740	746	752	753	753	752	750	748	745	742	741

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

32. LERWICK.

JULY, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +							
	Horizontal Force.						Declination.						Vertical Force.												
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +				Minimum 46,000 γ +			Range			
	h.	m.	Y	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y						
1	18	53	511	445	4	0	66	0	20	33.2	14.3	7	1	18.9	20	23	754	683	4	56	71	431	1	86.0	
2	18	0	502	446	9	44	56	14	32	28.2	14.3	5	6	13.9	7	47	750	710	2	19	40	272	1	85.9	
3 D	17	35	560	416	10	39	144	13	40	39.2	16.0	5	30	23.2	18	5	835	693	12	9	142	881	1	85.2	
4 D	18	43	506	419	1	57	87	2	15	29.4	14.7	8	34	14.7	16	46	764	691	2	30	73	466	1	85.1	
5	17	45	507	434	7	30	73	15	59	28.0	16.8	1	57	11.2	18	30	765	701	4	55	64	405	1	85.0	
6	17	46	517	434	9	57	83	1	9	29.4	16.4	7	30	13.0	18	27	757	726	6	33	31	266	1	85.3	
7	17	26	505	434	10	45	71	12	28	27.8	15.0	6	41	12.8	18	29	753	726	3	57	27	225	0	85.7	
8	15	30	502	439	11	6	63	13	48	27.8	17.1	5	5	10.7	16	34	759	733	24	0	26	219	0	85.9	
9	19	18	512	450	10	50	62	13	51	31.6	14.0	6	15	17.6	18	30	761	709	4	49	52	805	1	86.3	
10 Q	19	6	501	451	9	41	50	13	12	29.7	14.6	6	39	15.1	16	46	751	729	2	16	22	177	0	86.9	
11	18	30	533	447	10	40	86	14	12	29.3	14.7	6	38	14.6	19	47	768	722	14	4	46	338	1	87.6	
12	18	56	513	446	10	3	67	14	12	29.5	14.7	7	21	14.8	17	43	752	728	14	21	24	213	0	87.7	
13	18	23	511	421	11	59	90	16	1	30.1	16.5	7	12	13.6	18	49	761	724	12	12	37	301	1	87.4	
14	19	46	543	434	10	6	109	15	21	31.0	15.9	5	22	15.1	20	32	760	722	13	18	38	341	1	87.7	
15	16	1	497	428	2	19	69	15	5	32.3	9.9	7	36	22.4	19	3	747	641	2	22	106	607	1	87.5	
16	18	45	524	432	10	51	92	14	10	30.9	12.4	8	27	18.5	19	36	782	679	2	11	103	618	1	87.6	
17	19	32	513	429	11	35	84	12	56	31.1	14.1	7	37	17.0	7	46	755	729	13	0	26	237	0	88.0	
18 Q	18	27	497	431	11	1	66	14	49	30.1	14.8	7	30	15.3	18	4	752	730	12	58	22	200	0	88.4	
19 Q	19	55	492	435	10	33	57	14	10	27.2	14.2	8	35	13.0	6	54	751	729	13	12	22	189	0	88.1	
20	14	41	500	434	10	26	66	14	27	29.7	14.9	6	26	14.8	19	12	753	720	14	36	33	258	1	88.0	
21	18	21	494	429	10	38	65	13	43	27.9	15.5	8	32	12.4	21	29	746	724	14	46	22	200	0	87.2	
22 Q	19	13	494	433	10	35	61	13	13	29.4	15.3	6	27	14.1	20	20	751	736	13	22	15	157	0	87.1	
23 Q	18	19	489	426	10	16	63	14	29	27.4	14.2	8	45	13.2	1	13	747	729	14	35	18	177	0	87.0	
24	17	7	509	437	10	23	72	13	42	29.6	14.9	5	20	14.7	17	33	769	733	12	36	36	278	1	87.5	
25	22	55	494	429	10	5	65	13	5	29.3	14.1	7	46	15.2	17	27	750	724	12	56	26	220	0	87.9	
26	18	21	497	435	9	48	62	13	18	27.8	12.9	6	9	14.9	18	54	763	730	12	5	33	250	0	87.7	
27	20	29	485	434	11	20	51	13	24	29.3	13.9	6	12	15.4	17	21	750	718	12	26	32	222	0	87.1	
28	20	6	494	431	11	12	63	13	57	30.5	14.3	6	14	16.2	17	2	744	724	13	51	20	186	0	86.6	
29 D	20	34	503	427	10	21	76	14	0	34.0	13.9	4	1	20.1	15	26	771	722	3	28	49	343	1	86.2	
30 D	13	18	576	348	8	54	228	13	33	52.0	4.2	4	59	47.8	13	41	887	649	7	15	238	1460	2	86.0	
31 D	15	55	514	411	11	20	103	15	39	28.4	9.5	1	25	18.9	16	29	816	716	0	15	100	615	1	86.0	
Mean	--	--	509	430	--	--	79	--	--	30.7	14.1	--	--	16.6	--	--	76.5	714	--	--	51	373	--	55	86.8
No. of Days Used	--	--	31	31	--	--	31	--	--	31	31	--	--	31	--	--	31	31	--	--	31	31	--	31	31

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

53. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

AUGUST, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	480	434	433	461	445	440	447	427	422	420	401	422	420	455	457	464	487	469	468	475	465	466	466	465	448
2	461	463	457	457	458	457	450	444	436	440	437	424	432	458	453	465	468	466	469	482	477	472	464	465	456
3 D	459	460	465	465	426	438	458	448	441	437	445	419	423	438	461	468	470	514	531	486	476	471	474	481	460
4 D	447	450	463	460	456	450	441	446	452	443	438	437	441	441	462	478	501	503	502	487	493	472	433	358	456
5	378	378	437	439	453	464	452	446	442	436	436	452	470	471	478	476	473	476	485	487	484	481	480	472	456
6	459	449	445	455	470	470	468	454	419	438	447	444	441	451	469	478	477	486	487	484	480	477	477	471	462
7	464	463	466	470	470	464	465	458	446	430	428	445	451	468	489	495	490	488	489	480	480	478	477	472	468
8	473	473	472	474	473	467	460	457	451	433	435	440	445	469	465	473	471	484	491	493	493	496	482	475	469
9 Q	471	471	471	476	474	470	469	466	459	449	443	445	450	464	474	477	481	485	488	493	485	481	481	479	471
10 Q	480	478	480	477	463	462	470	465	465	458	450	452	463	472	477	481	483	489	493	491	487	487	487	482	475
11	481	479	482	471	485	485	467	467	457	436	433	442	448	454	463	472	479	480	479	482	482	480	478	477	468
12	480	475	476	476	472	467	464	460	452	444	440	445	457	472	478	485	483	499	512	505	496	490	422	404	469
13	438	459	464	467	469	465	459	448	442	434	431	431	441	462	477	468	488	485	483	482	486	472	471	465	462
14	464	466	464	464	466	464	463	458	446	437	427	425	440	480	473	469	476	481	477	481	482	477	459	467	462
15	464	465	466	467	466	459	441	440	438	441	437	436	450	457	467	472	475	482	488	487	479	475	471	476	463
16	462	455	455	459	465	462	457	449	440	429	425	429	429	441	458	462	475	471	468	471	476	470	468	467	456
17	473	453	457	453	463	463	455	451	442	431	425	435	437	451	461	472	461	473	483	482	478	474	497	482	460
18	479	472	470	459	465	464	465	456	444	430	428	435	443	459	472	476	479	479	489	488	488	485	489	488	467
19	472	470	470	463	457	451	465	460	455	456	454	447	455	476	498	507	459	470	479	472	471	472	463	462	467
20 Q	459	461	461	482	460	458	455	452	446	442	441	437	445	452	464	471	470	470	480	481	478	475	473	473	461
21	469	470	470	469	465	466	467	470	457	439	434	437	447	456	461	471	468	470	471	480	474	473	474	471	464
22	459	470	467	462	458	465	457	445	444	435	430	431	432	465	486	492	478	470	478	479	473	469	470	470	462
23	465	464	469	467	466	463	459	456	449	444	440	442	451	460	466	475	479	476	479	470	477	479	482	468	464
24 Q	466	461	460	459	463	464	458	450	442	439	436	439	444	450	454	457	462	467	473	475	475	472	465	462	458
25 Q	462	462	464	465	461	460	455	449	440	436	437	443	448	454	459	461	458	464	468	479	472	466	469	470	458
26	463	461	461	462	462	459	461	458	450	445	442	440	445	455	477	471	462	479	484	483	492	479	467	451	463
27 D	448	410	410	444	413	454	456	451	437	431	428	431	433	452	468	461	483	488	493	481	456	398	397	433	444
28 D	452	456	448	448	469	460	439	438	424	403	413	410	430	440	464	473	496	481	479	475	474	466	474	457	453
29 D	462	462	452	456	470	447	451	433	392	389	402	430	433	437	459	465	455	461	468	467	481	442	448	445	447
30	456	455	447	444	454	459	447	438	408	402	422	421	428	438	466	477	475	478	486	468	458	458	459	450	450
31	454	454	447	459	462	461	454	445	433	424	411	425	433	449	453	455	470	465	473	475	469	467	463	415	451
Mean	461*	458	459	462	461	461	457	451	441	434	432	435	442	456	468	473	475	479	484	482	479	472	467	463	460

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

34. LERWICK. (D.)

13° +

AUGUST, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day																									
1	20.8	29.9	26.5	17.4	16.2	17.6	17.7	17.8	17.6	19.7	22.1	26.4	28.8	27.4	26.8	25.5	24.5	23.4	22.4	21.7	19.7	19.5	21.4	21.4	22.1
2	21.3	22.4	21.3	20.1	18.4	15.4	14.5	14.2	16.2	15.2	19.7	23.3	25.8	27.1	26.0	23.5	23.1	21.8	19.2	22.4	22.6	21.7	21.4	19.7	20.7
3 D	21.8	24.5	20.7	19.6	23.8	28.1	18.2	15.3	15.6	18.0	22.6	25.3	27.4	30.7	29.3	29.1	28.8	22.9	11.6	20.2	18.7	19.0	22.1	20.4	22.2
4 D	23.8	22.8	20.0	17.6	18.6	20.6	22.5	19.1	16.4	18.7	19.6	22.2	24.0	25.1	23.0	22.5	22.7	22.4	14.8	20.4	19.6	8.8	13.4	13.0	19.7
5	13.2	22.0	18.6	14.6	18.5	15.4	14.4	14.4	16.4	19.2	21.4	23.3	26.1	27.2	24.5	22.7	22.1	22.4	23.3	22.9	21.6	20.5	19.2	13.2	19.9
6	17.7	21.3	22.8	19.5	17.5	16.4	16.2	15.6	21.3	20.9	19.3	21.7	24.0	24.8	24.3	23.4	21.7	20.7	21.2	21.2	21.5	21.4	19.8	15.2	20.4
7	18.1	18.3	18.3	17.7	16.1	15.7	15.2	15.2	17.3	20.5	24.2	25.2	27.0	26.7	25.4	24.1	23.0	22.2	22.2	21.5	20.0	21.1	20.7	20.0	20.7
8	19.4	19.1	18.6	18.6	18.1	18.2	18.1	17.0	17.0	19.2	22.0	24.3	26.6	26.2	26.3	25.6	24.2	23.3	22.5	22.0	22.0	19.3	18.3	18.1	20.9
9 Q	19.3	19.6	20.8	18.5	15.7	17.2	16.6	15.3	15.4	17.1	18.5	20.4	22.7	24.5	24.9	23.7	21.6	21.4	21.5	19.2	20.8	21.0	21.4	20.6	19.9
10 Q	21.1	19.8	17.1	16.8	18.0	15.4	18.4	17.2	17.1	17.8	20.2	22.9	24.9	25.8	25.5	25.3	24.0	22.4	22.0	21.7	21.5	21.2	20.2	20.2	20.7
11	18.5	18.3	20.3	14.4	12.5	12.3	13.6	13.2	13.8	17.9	21.0	23.9	25.7	25.7	25.5	24.8	23.3	20.9	20.4	21.3	21.4	19.8	19.6	20.1	19.5
12	19.6	18.2	18.3	17.1	17.0	16.9	15.8	16.7	18.5	18.5	23.1	27.4	30.3	31.2	30.2	27.8	26.2	26.1	24.3	14.4	18.4	20.2	11.9	0.3	20.2
13	4.9	9.7	16.8	15.9	15.1	13.9	14.1	13.9	12.9	15.7	20.1	24.9	27.8	30.2	30.7	26.9	23.8	23.3	22.7	22.8	21.5	15.3	19.0	19.8	19.2
14	19.5	19.0	17.5	16.1	15.3	14.7	14.0	13.7	15.1	18.1	21.0	24.5	27.7	29.9	28.9	26.1	23.9	22.5	21.1	21.4	20.7	14.1	15.9	19.3	20.0
15	19.5	18.8	17.8	17.2	16.2	13.8	17.5	19.5	19.6	20.4	22.8	26.1	29.3	28.8	25.9	24.0	22.4	21.6	21.7	19.6	20.5	20.4	20.5	17.2	20.9
16	17.3	17.4	17.5	17.3	15.7	14.5	13.7	13.9	15.3	17.4	21.1	25.1	27.2	28.5	27.8	25.3	24.0	22.0	20.1	20.0	20.5	19.6	19.9	21.2	20.1
17	15.1	12.0	15.4	13.6	10.8	12.4	14.6	17.3	17.6	20.1	22.2	22.6	25.0	25.7	25.1	25.6	23.0	22.4	22.2	21.5	18.3	20.1	21.5	20.2	19.3
18	19.8	19.4	21.3	21.3	18.6	16.5	15.1	15.3	17.2	19.9	21.4	24.2	27.4	29.1	27.9	25.4	23.2	22.3	23.0	24.1	23.6	21.4	23.0	19.1	21.6
19	17.7	19.4	20.2	23.8	20.0	17.1	15.4	14.8	15.2	17.2</															

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

71

35. LERWICK. (V.)

46,000 γ (·46 C.G.S.unit) +

AUGUST, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	729	695	646	683	715	722	731	738	744	749	760	755	751	749	747	749	750	748	752	754	759	756	751	749	737
2	745	729	725	719	728	744	749	748	750	751	751	754	744	740	743	745	755	763	769	761	763	758	754	740	747
3 D	726	726	719	733	712	683	714	738	742	738	731	746	771	745	744	749	758	773	791	775	764	747	721	720	740
4 D	685	706	727	734	739	732	725	735	749	749	749	750	749	750	748	749	755	766	781	766	751	726	696	611	735
5	577	596	608	653	679	723	739	745	745	744	739	734	739	749	751	748	745	746	743	746	747	747	742	728	717
6	728	718	706	711	734	738	742	744	748	736	739	738	739	739	739	743	748	747	746	746	745	742	739	738	737
7	738	740	743	744	744	744	740	745	740	740	739	743	741	739	739	743	744	743	745	749	750	744	743	743	743
8	743	743	743	743	743	744	741	739	740	743	738	732	733	740	746	748	749	745	746	745	740	727	721	728	740
9 Q	735	738	740	739	744	744	740	739	738	737	735	734	735	738	749	754	756	755	750	744	742	740	739	739	742
10 Q	734	731	727	724	723	717	716	724	727	731	731	731	730	731	734	738	741	742	741	740	738	734	734	735	731
11	735	735	715	705	710	721	729	734	739	737	729	728	724	731	736	738	744	750	749	740	738	736	735	734	732
12	728	731	737	740	742	739	739	741	740	737	732	728	724	728	738	739	744	740	745	767	757	745	688	603	731
13	634	673	716	734	743	746	747	745	745	743	739	733	728	726	735	750	755	750	745	740	739	750	738	735	733
14	732	736	741	743	744	746	749	750	746	746	750	750	739	740	748	756	751	749	746	740	741	737	728	729	743
15	733	737	739	743	744	744	746	743	739	737	735	735	735	737	735	739	743	744	745	755	753	746	743	723	741
16	694	710	720	731	738	743	742	741	741	742	739	733	732	733	738	742	744	749	747	745	741	741	739	735	736
17	705	711	706	707	711	711	718	721	727	725	722	723	727	732	736	741	748	744	742	748	750	749	732	734	728
18	732	734	729	724	724	731	732	737	736	735	735	729	724	724	728	733	739	743	741	749	746	744	728	705	733
19	732	737	735	729	719	723	723	733	735	732	731	732	727	728	743	763	792	778	763	760	755	739	735	738	741
20 Q	740	741	740	740	742	743	744	741	735	735	737	739	738	738	738	743	750	746	741	740	741	742	740	729	740
21	735	736	738	738	737	729	721	712	711	721	726	733	738	750	755	755	760	757	757	754	746	743	740	735	739
22	732	722	737	742	744	735	732	731	725	724	724	732	738	749	772	806	785	765	744	745	747	747	742	741	744
23	743	744	742	744	744	743	743	740	737	737	739	737	738	739	744	745	743	742	739	740	734	734	724	727	739
24 Q	734	740	742	744	739	736	737	736	733	730	731	731	729	733	735	738	741	740	738	735	735	735	737	737	736
25 Q	738	741	741	741	744	744	744	741	739	737	733	729	730	734	739	741	744	748	746	740	739	739	736	732	739
26	729	729	738	739	743	741	737	738	737	735	727	722	722	725	740	773	763	747	740	737	729	734	725	701	735
27 D	654	623	623	652	647	615	674	707	726	736	743	740	740	742	750	774	779	767	781	786	773	721	689	657	712
28 D	687	657	657	660	690	710	724	724	728	745	746	771	787	768	782	790	799	790	779	773	763	751	721	722	739
29 D	733	735	727	712	718	733	739	739	750	752	769	761	752	754	767	767	772	782	757	750	725	713	680	690	739
30	713	727	726	717	716	712	732	739	746	741	744	751	756	758	767	773	787	776	772	763	757	730	686	689	741
31	723	726	725	735	740	743	748	747	745	745	742	739	739	745	747	742	746	746	744	746	754	746	719	655	737
Mean	717	718	718	723	727	728	733	737	738	738	738	738	739	740	745	752	756	754	752	751	747	740	727	715	736

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

36. LERWICK.

AUGUST, 1934.

Day.	Terrestrial Magnetic Force.															HR _H +VR _V 10,000 γ ²	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +							
	Horizontal Force.						Declination.						Vertical Force.												
	Maximum 14,000 +			Minimum 14,000 +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 +				Minimum 46,000 +			Range			
	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	γ	h.	m.	γ	γ	h.	m.	γ	γ	h.	m.	γ			
1	17	25	478	390	10	25	88	1	46	36.2	14.1	4	38	22.1	10	45	762	632	2	3	130	734	1	86.1	
2	19	27	486	415	11	30	71	13	50	28.3	13.0	7	5	15.3	18	4	773	715	3	15	58	371	1	86.8	
3 D	17	43	558	390	4	56	166	13	8	33.1	-3.5	18	1	36.6	18	0	807	678	5	30	129	863	1	87.1	
4 D	17	22	521	324	23	14	197	0	26	26.6	-2.9	21	3	29.5	18	24	793	586	24	0	207	1262	1	87.3	
5	19	27	491	332	0	46	159	13	25	27.7	7.7	0	6	20.0	14	55	754	546	0	16	208	1207	1	88.0	
6	18	25	492	414	8	12	78	13	28	25.5	12.7	23	29	12.8	8	13	756	699	3	15	57	383	1	88.5	
7	14	32	513	417	9	53	96	12	40	27.2	13.9	6	50	13.3	20	7	751	730	14	33	21	239	0	88.6	
8	21	35	506	426	9	46	80	14	24	26.9	12.8	21	54	14.1	16	19	753	716	22	3	37	288	1	88.9	
9 Q	19	28	499	441	10	3	58	14	53	25.2	14.8	7	51	10.4	16	23	758	731	0	5	27	212	0	88.8	
10 Q	17	57	500	448	10	55	52	13	32	25.9	14.1	5	17	11.8	17	0	744	709	6	38	35	240	0	88.9	
11	20	4	485	426	9	57	59	12	44	26.3	11.1	5	15	15.2	17	35	753	698	3	8	55	346	1	88.2	
12	19	1	533	363	22	51	170	13	22	31.4	-8.7	23	5	40.1	19	42	792	588	23	17	204	1219	1	87.9	
13	16	33	506	411	0	8	95	14	0	32.8	2.3	0	4	30.5	16	28	759	801	0	5	158	893	1	87.6	
14	21	27	520	424	11	32	98	13	8	30.8	8.2	21	23	22.6	21	15	769	714	21	36	55	389	1	87.2	
15	19	7	499	436	6	33	63	12	45	30.6	13.0	5	17	17.6	19	50	761	712	23	44	49	322	1	86.8	
16	23	57	484	424	10	24	60	13	59	29.3	12.8	6	0	16.5	17	15	751	679	0	33	72	426	1	86.3	
17	22	6	503	421	10	35	82	15	23	26.5	9.1	0	58	17.4	20	50	758	698	0	27	60	413	1	86.0	
18	18	41	516	421	10	5	95	13	24	29.3	13.4	7	5	15.9	19	27	752	694	23	19	58	411	1	85.5	
19	14	44	523	443	5	21	80	13	55	30.9	8.3	20	57	22.6	16	20	796	717	6	3	79	494	1	85.6	
20 Q	18	25	486	435	11	28	51	12	30	25.9	16.0	8	39	9.9	16	49	752	725	23	16	27	197	0	85.9	
21	19	7	484	429	10	44	55	11	14	28.7	12.9	18	57	15.8	16	52	764	706	8	20	58	340	1	86.0	
22	14	55	526	421	12	37	105	11	47	30.8	15.2	5	30	15.6	15	16	817	720	1	16	97	603	1	86.0	
23	22	25	499	436	10	44	63	13	24	26.8	15.3	22	45	11.5	15	34	746	714	22	38	32	240	0	86.0	
24 Q	21	5	476	432	10	45	44	12	47	26.6	14.0	6	39	12.6	3	45	744	725	0	0	19	153	0	85.7	
25 Q	19	48	487	434	9	20	53	13	28	26.6	15.1	7	47	11.5	17	50	750	728	11	15	22	131	0	85.1	
26	14	11	511	431	11	4	80	14	7	32.3	-6.6	22	28	38.9	15	30	781	673	24	0	108	625	1	85.1	
27 D	18	32	502	352	21	55	150	4	46	37.5	-6.1	21	58	43.6	19	48	789	590	4	56	199	1168	2	85.5	
28 D	16	24	513	388	11	26	125	12	51	31.3	1.0	22	15	30.3	15	54	808	640	1	30	168	964	1	85.7	
29 D	20	26	516	376	9	0	140	13	1	29.3	-1.2	20	21	30.5	10	35	779	656	22	35	123	766	1	86.0	
30	18	25	503	395	8	51	108	13	25	28.1	8.4	18	15	19.7	16	21	793	665	22	49	126	748	1	86.0	
31	19	33	478	394	23	26	84	12	56	26.7	6.8	23	27	19.9	20	42	760	629	23	50	131	743	1	86.0	
Mean	--	--	503	409	--	--	94	--	--	29.1	8.3	--	--	20.8	--	--	769	678	--	--	91	561	--	86.7	
No. of Days Used	--	--	31	31	--	--	31	--	--	31	31	--	--	31	--	--	31	31	--	--	31	31	31	31	

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

37. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

SEPTEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	453	468	464	463	463	465	454	437	435	428	428	433	440	432	457	477	473	457	470	474	472	464	428	441	453
2 D	459	460	449	462	442	413	443	454	436	439	440	444	448	452	481	490	540	498	488	461	454	456	452	456	459
3	421	374	447	453	455	459	447	428	439	415	403	410	431	456	462	452	458	475	472	481	469	475	449	465	446
4	452	441	447	455	460	461	457	448	441	433	423	411	425	443	459	464	465	468	480	470	474	470	471	459	453
5	459	457	458	455	457	458	457	452	444	433	425	432	441	456	464	467	468	470	469	469	465	468	465	470	457
6	462	460	458	458	458	457	453	444	437	426	425	431	444	457	459	461	458	464	470	477	472	459	440	431	453
7	414	420	425	441	458	464	459	454	443	436	423	428	439	450	457	461	462	460	470	476	471	468	465	466	450
8	458	456	461	457	462	464	461	454	442	436	436	444	448	454	460	473	473	469	473	481	476	473	466	466	460
9 Q	466	466	462	458	457	459	458	452	442	435	433	440	450	454	455	461	465	469	477	478	475	473	472	472	460
10 Q	471	470	467	465	458	454	457	450	440	431	432	435	440	454	457	457	461	467	471	472	474	474	468	466	458
11	459	463	463	462	463	464	459	461	443	434	434	441	454	457	457	459	464	469	473	489	477	477	481	472	461
12	465	474	462	446	463	445	450	437	435	430	422	444	451	455	458	461	462	469	473	474	469	471	466	466	456
13 Q	463	463	462	461	457	458	454	447	440	434	438	446	455	460	459	454	459	463	466	469	471	470	472	471	458
14 Q	470	463	461	461	462	461	457	452	448	445	435	433	446	451	455	461	461	471	475	475	470	468	468	467	459
15	465	463	462	463	462	462	459	454	445	437	436	446	451	457	461	464	468	476	487	478	482	477	480	475	463
16	474	478	471	470	469	470	477	467	459	447	439	433	431	446	458	463	474	471	465	469	459	461	470	467	462
17	464	431	443	461	460	463	461	460	446	426	408	395	417	446	440	441	455	450	454	465	461	462	464	460	447
18	459	459	456	462	452	457	456	454	452	445	432	437	443	452	449	448	450	456	461	464	464	460	453	456	453
19	456	454	457	456	457	457	454	451	443	442	437	440	442	452	452	470	463	456	453	459	462	465	484	440	454
20	451	458	456	458	460	461	456	436	429	440	443	448	446	446	451	467	447	459	466	467	463	464	463	466	454
21	461	460	461	460	459	460	456	448	438	432	432	437	442	444	452	452	453	461	467	467	473	454	427	434	451
22	407	358	429	449	460	461	451	445	437	431	433	438	440	446	449	454	460	461	456	462	464	461	458	461	444
23 Q	456	452	453	458	460	455	454	450	438	428	428	436	445	452	457	449	457	459	466	466	465	461	463	462	453
24 D	462	463	465	458	455	452	449	427	403	426	421	430	454	436	450	453	440	449	459	479	451	452	396	399	443
25 D	428	413	395	428	379	430	429	396	395	410	420	415	421	456	516	512	538	598	434	331	422	430	450	459	438
26	457	442	448	449	449	453	455	453	446	433	427	423	424	439	444	449	447	457	467	456	455	426	414	452	444
27 D	435	428	444	455	446	436	460	437	419	423	416	415	422	445	445	469	469	476	454	450	446	449	459	451	444
28	449	445	448	451	454	456	457	446	440	432	434	421	414	436	444	445	447	454	461	454	459	460	456	456	447
29	453	453	450	452	451	453	451	446	437	421	422	429	443	444	452	454	462	456	462	460	466	449	442	443	448
30 D	436	430	449	456	460	462	451	447	454	444	437	440	435	442	444	448	457	463	481	449	433	455	462	456	450
Mean	453	447	452	456	455	456	455	446	438	432	429	432	439	449	457	461	465	469	467	464	464	462	457	457	453

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

38. LERWICK (D.)

13° +

SEPTEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	12.1	15.6	14.2	14.7	15.4	14.3	13.2	14.0	16.1	17.7	20.9	24.3	28.7	28.4	23.2	22.5	22.4	21.1	20.7	21.4	20.3	12.9	2.1	13.1	17.8
2 D	18.6	19.5	22.1	19.3	16.2	24.9	24.4	17.7	17.1	17.4	19.7	21.9	24.6	26.1	23.5	21.5	18.2	17.4	17.1	18.7	17.6	19.6	18.3	14.5	19.8
3	12.9	5.9	12.8	16.4	16.3	16.5	17.5	20.3	19.4	22.1	23.9	28.1	26.0	24.2	23.2	22.1	20.3	19.2	16.3	16.7	20.3	19.8	14.5	17.3	18.8
4	14.2	15.6	16.7	17.1	17.2	16.5	16.3	15.5	16.7	18.5	21.9	25.1	27.6	25.8	24.2	22.7	21.1	15.6	17.3	18.4	16.4	18.4	18.4	18.3	19.0
5	18.6	18.6	18.4	18.6	18.7	18.1	17.4	16.5	16.3	17.6	19.9	22.5	24.6	25.2	23.5	21.9	20.6	20.5	20.4	19.7	19.4	19.6	18.6	18.5	19.7
6	21.2	17.6	17.4	17.4	17.5	16.9	15.4	14.9	15.1	18.4	22.0	25.1	26.7	26.6	25.5	25.6	24.5	23.1	21.7	20.5	17.6	12.0	11.0	9.8	19.3
7	12.3	17.5	11.0	17.1	16.2	17.0	15.3	14.8	15.8	18.6	21.2	22.8	25.1	26.3	25.1	23.1	20.6	19.5	19.2	18.3	19.8	19.0	18.4	19.4	18.9
8	21.9	22.4	16.4	15.3	15.6	15.6	15.3	15.3	17.5	21.3	22.0	27.2	27.2	26.0	24.0	20.5	18.7	20.5	21.2	20.3	19.0	18.4	19.0	19.0	20.0
9 Q	18.7	18.2	17.3	17.7	17.1	16.6	16.0	16.4	17.8	19.8	21.6	23.1	24.0	24.0	22.9	21.1	20.4	20.4	20.8	21.3	20.2	19.2	18.6	18.3	19.6
10 Q	18.7	18.3	17.7	17.3	16.8	17.5	16.7	16.4	18.6	20.8	24.1	25.0	24.6	24.6	22.9	21.1	20.2	20.2	20.2	20.3	20.3	18.5	14.3	13.6	19.2
11	15.1	16.2	16.8	16.3	14.8	13.5	14.2	14.5	16.2	19.7	22.6	25.2	27.2	25.5	23.1	20.9	19.6	20.0	20.3	21.7	19.6	19.6	16.4	14.7	18.9
12	17.5	18.6	14.3	15.2	9.2	10.4	15.1	16.3	17.2	19.9	22.6	25.1	26.4	24.3	22.1	20.7	19.7	19.9	20.5	20.4	17.4	15.8	17.9	18.4	18.5
13 Q	18.3	18.1	17.5	16.9	17.0	16.7	16.2	16.5	17.7	20.0	22.8	24.4	25.7	25.4	22.9	20.4	19.3	19.5	20.0	19.7	19.4	19.7	19.2	17.5	19.6
14 Q	18.2	18.0	17.8	17.4	17.3	16.8	16.8	16.0	16.9	18.9	22.5	24.1	25.5	24.1	22.6	21.3	18.3	18.4	19.5	20.2	20.6	19.5	19.3	19.0	19.5
15	18.5	17.8	18.3	17.1	16.6	16.1	15.9	16.1	16.7	18.5	20.5	22.1	22.7	22.4	21.4	20.9	20.8	21.1	21.8	22.1	21.1	19.3	20.1	18.0	19.4
16	17.2	17.9	17.3	16.3	16.5	22.1	15.1	14.6	16.1	18.3	21.7	25.1	27.1	26.1	26.5	26.7	18.2	20.0	20.9	17.2	14.2	12.8	18.0	18.9	19.4
17	14.7	7.3	4.4	11.2	13.6	14.2	13.8	14.4	16.5	20.7	24.1	29.7	30.0	28.2	26.8	22.3	21.9	20.4	18.9	18.8	16.0	16.5	18.2	18.9	18.4
18	18.1	17.9	18.8	18.0	16.8	18.5	17.0	15.6	16.1	18.0	20.8	23.5	22.5	22.1	20.6	19.3	18.6	18.1	18.3	18.9	19.8	19.6	17.5	19.9	18.9
19	19.1	19.0	17.3	15.6	16.0	16.1	16.6	16.5	16.7	18.5	20.6	21.6	22.2	21.8	20.5	20.5	18.0	15.7	19.9	19.9	19.8	18.5	6.0		

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

73

39. LERWICK. (V.)

46,000 γ (·46 C.G.S.unit) +

SEPTEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	675	711	723	730	732	733	740	747	745	742	740	738	738	743	742	738	758	762	755	750	751	745	712	713	736
2 D	724	732	718	680	700	688	687	710	728	730	734	734	736	749	789	819	864	824	783	770	765	748	730	694	743
3	600	548	643	695	721	729	737	742	745	754	763	753	749	749	752	757	753	756	760	748	745	739	723	690	723
4	707	722	733	739	739	744	746	746	744	747	752	756	750	748	748	755	763	766	777	773	766	719	730	737	747
5	743	746	745	744	744	744	744	746	747	748	748	746	742	743	746	747	747	747	746	747	748	742	742	735	745
6	730	737	742	743	744	745	747	745	743	742	742	740	738	739	746	753	761	756	751	746	754	751	729	690	742
7	623	625	659	689	715	733	743	744	747	744	744	740	738	739	740	743	749	751	749	745	742	742	743	739	728
8	732	718	735	743	743	742	743	743	742	739	736	736	734	734	742	747	755	754	745	738	741	742	743	742	740
9 Q	742	743	744	746	743	741	742	742	738	733	734	735	735	739	742	742	743	741	740	739	740	741	740	740	740
10 Q	739	740	742	743	743	742	739	738	737	736	736	734	732	731	737	742	742	740	740	740	738	737	738	733	738
11	732	735	742	743	744	743	742	739	740	735	728	727	729	734	740	742	743	740	738	735	748	744	734	735	738
12	729	710	703	715	709	717	713	722	730	732	733	732	733	736	741	744	744	745	746	748	752	740	738	737	731
13 Q	739	740	742	744	745	747	747	743	739	738	736	733	732	735	742	743	744	742	742	743	742	741	737	731	740
14 Q	731	736	739	742	743	744	746	745	743	739	732	729	725	728	736	739	749	748	747	746	746	745	742	741	740
15	740	740	740	739	742	744	746	746	743	740	737	733	731	731	733	732	733	737	739	743	743	745	728	715	737
16	728	729	731	727	728	719	719	729	729	733	733	733	733	737	755	773	796	779	778	771	764	746	735	735	743
17	695	658	681	709	725	733	736	735	736	742	747	754	749	759	777	779	762	749	748	748	756	753	747	745	738
18	744	744	739	735	731	728	734	736	737	741	747	744	743	741	741	744	744	743	744	744	745	747	750	745	741
19	740	741	735	738	739	740	741	740	740	739	740	740	740	739	741	744	761	784	774	762	753	744	697	706	742
20	695	691	720	734	736	736	736	738	735	731	733	739	744	745	752	765	790	779	763	750	749	745	744	728	741
21	729	740	744	745	743	740	743	744	743	740	736	736	739	743	747	750	754	750	744	744	740	722	688	641	735
22	596	542	605	651	684	709	726	734	736	734	734	734	742	749	758	757	765	770	757	749	743	742	742	741	717
23 Q	743	743	743	745	744	744	745	744	744	742	740	741	744	751	755	759	754	750	745	743	743	743	741	742	745
24 D	743	743	742	741	734	723	717	721	731	729	741	751	807	768	759	778	780	778	776	755	734	725	588	583	735
25 D	650	658	651	621	636	636	661	692	724	724	737	762	785	800	847	848	877	858	696	692	726	747	743	761	731
26	762	763	749	757	755	756	755	750	748	750	752	753	758	752	753	762	757	755	767	766	770	702	610	691	747
27 D	719	707	723	730	729	717	713	735	748	741	750	752	760	774	786	825	848	808	796	777	707	721	729	718	751
28	733	734	727	741	747	750	751	755	759	758	754	759	773	788	788	774	774	785	772	759	764	753	752	747	756
29	746	745	748	748	749	751	753	754	755	756	753	748	746	752	758	774	771	769	766	769	750	749	730	718	752
30 D	706	676	660	675	700	721	731	738	740	746	747	747	753	765	763	759	759	759	768	732	747	742	715	732	733
Mean	714	710	718	724	730	731	734	738	741	740	741	742	745	747	755	761	768	765	755	750	747	740	724	720	739

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

40. LERWICK.

SEPTEMBER, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ +	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +							
	Horizontal Force.						Declination.						Vertical Force.												
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +				Minimum 46,000 γ +			Range			
	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	γ	h.	m.	γ	γ	h.	m.	γ				
1	15	43	498	405	22	39	93	12	51	31-2	-2-0	22	46	33-2	16	53	768	640	0	1	128	751	1	85-8	
2 D	16	8	548	410	5	9	138	6	5	30-9	-3-5	18	4	34-4	16	41	898	647	24	0	251	1376	2	85-8	
3	19	0	496	329	1	6	167	11	47	29-3	2-9	1	10	26-4	10	25	766	520	1	22	246	1397	1	85-5	
4	21	3	492	405	11	23	87	12	17	28-4	5-2	20	7	23-2	17	47	798	695	0	0	103	599	1	85-5	
5	17	19	477	422	10	11	55	13	2	25-4	15-4	6	38	10-0	9	53	749	732	23	40	17	160	0	85-6	
6	19	35	482	414	23	54	68	13	9	27-8	6-7	23	37	21-1	16	35	762	664	24	0	98	564	1	85-6	
7	19	51	482	353	0	57	129	13	29	26-6	7-2	2	30	19-4	17	10	753	591	0	57	162	951	1	85-7	
8	19	48	489	433	9	54	56	13	18	29-5	14-0	2	53	15-5	16	55	761	712	1	20	49	311	1	85-5	
9 Q	18	56	485	430	9	50	55	13	5	24-3	15-5	6	50	8-8	3	39	747	732	9	33	15	150	0	85-6	
10 Q	21	58	482	429	9	54	53	12	26	25-3	11-5	23	57	13-8	4	12	746	730	13	20	16	149	0	85-4	
11	20	1	503	428	10	3	75	12	32	28-7	12-0	0	0	16-7	20	51	766	725	10	45	41	300	1	85-4	
12	1	13	482	415	10	17	67	11	52	27-2	7-8	4	32	19-4	20	30	755	701	2	0	54	348	1	85-5	
13 Q	22	14	478	432	9	38	46	12	55	27-0	15-8	6	26	11-2	5	55	748	728	23	14	20	158	0	85-7	
14 Q	18	43	477	430	11	9	47	12	47	26-3	15-4	7	24	10-9	16	48	751	721	13	15	30	205	0	85-6	
15	18	24	494	435	10	23	59	11	45	22-8	15-6	6	15	7-2	21	27	748	710	23	1	38	264	0	85-7	
16	16	35	494	418	11	56	76	14	58	29-0	10-3	21	16	18-7	16	25	807	709	5	49	98	558	1	85-6	
17	0	13	473	383	11	16	90	12	3	32-1	0-0	2	19	32-1	15	39	782	651	1	14	131	733	1	85-5	
18	20	40	466	423	10	45	43	11	29	24-8	14-7	7	47	10-1	22	25	752	728	5	21	24	173	0	85-5	
19	22	27	506	430	23	46	76	12	59	23-3	2-9	22	34	20-4	17	11	789	685	22	41	104	586	1	85-4	
20	23	25	478	424	7	27	54	0	45	26-5	13-3	18	6	13-2	16	32	795	688	1	37	107	579	1	85-2	
21	20	36	482	398	22	40	84	12	23	24-1	2-8	20	21	21-3	16	55	757	633	24	0	124	447	1	84-3	
22	20	7	472	305	1	35	167	1	26	30-5	-3-0	2	28	33-5	17	4	776	507	1	41	269	1493	1	83-8	
23 Q	19	33	469	420	10	4	49	13	35	25-4	15-8	7	25	9-6	15	30	760	737	10	55	23	178	0	83-1	
24 D	19	32	501	338	22	22	163	11	26	29-8	-7-9	24	0	37-7	12	32	820	512	22	47	308	1660	2	83-0	
25 D	17	53	898	273	19	17	625	18	12	57-6	-25-8	17	57	83-4	17	13	927	613	3	13	314	2361	2	82-5	
26	18	24	482	346	21	59	136	21	46	28-5	9-3	20	7	19-2	19	5	797	568	22	5	229	1284	1	82-4	
27 D	17	42	512	408	11	17	104	20	8	32-8	-1-0	18	5	33-8	16	14	864	694	20	8	170	930	1	82-5	
28	18	26	478	404	12	45	74	2	5	25-5	3-2	18	20	22-3	17	53	792	722	2	30	70	422	1	83-0	
29	20	19	490	418	10	4	72	13	48	26-9	9-2	22	49	17-7	15	30	783	710	23	56	73	443	1	83-1	
30 D	19	3	501	320	1	19	181	13	50	25-4	-18-5	18	45	43-9	18	40	780	650	2	36	130	710	1	83-9	
Mean	--	--	502	396	--	--	106	--	--	28-4	5-5	--	--	22-9	--	--	783	668	--	--	115	674		.83	84-8
No. of Days Used	--	--	30	30	--	--	30	--	--	30	30	--	--	30	--	--	30	30	--	--	30	30		30	30

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

41. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

OCTOBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	458	457	452	456	457	456	454	455	456	450	444	443	433	446	453	456	458	461	465	468	469	463	454	441	454
2	453	455	457	453	480	487	459	456	452	446	438	439	441	442	448	448	453	462	462	463	464	463	464	460	454
3	459	458	459	460	462	461	459	456	452	446	435	429	434	444	438	446	458	465	464	463	465	466	465	466	455
4	465	465	466	467	468	466	465	463	458	449	443	442	443	450	454	453	451	457	461	466	468	464	462	471	460
5	470	465	466	468	470	471	466	461	452	447	441	443	440	439	446	453	461	452	462	466	470	468	469	467	459
6	467	465	464	464	464	465	464	463	457	440	437	438	443	447	453	458	462	466	469	478	480	476	485	469	461
7	464	462	461	464	466	469	474	473	463	452	448	451	451	460	466	469	478	459	460	468	462	462	462	461	463
8 Q	463	463	463	462	463	463	464	460	452	443	438	435	434	446	455	458	460	462	465	467	468	468	465	466	458
9 Q	463	460	460	461	462	464	462	456	447	442	438	436	439	445	454	461	464	466	467	467	465	464	463	463	457
10 Q	462	462	461	461	462	462	459	458	453	446	440	436	440	449	458	463	464	465	467	469	469	464	464	464	458
11	462	461	461	462	463	463	464	463	457	447	435	430	436	443	452	459	463	465	469	470	471	470	466	466	458
12	467	464	468	468	462	468	468	466	456	437	428	433	444	451	455	459	461	464	455	451	441	439	452	457	455
13	439	450	459	451	459	476	470	465	446	447	447	442	446	451	456	456	456	459	449	447	455	462	452	454	454
14	456	459	455	457	462	458	456	465	454	437	434	442	447	448	452	452	453	451	454	459	460	456	460	457	453
15 D	458	458	458	457	463	469	461	456	448	445	440	436	444	446	458	478	467	458	455	449	430	410	445	457	452
16	456	454	453	453	454	467	458	456	452	441	435	428	426	431	441	447	444	448	449	446	450	453	457	455	448
17	453	454	449	456	458	460	457	458	452	437	429	433	443	449	453	455	460	460	461	464	453	434	433	447	450
18	450	447	452	459	460	459	459	455	451	440	433	434	440	445	451	453	456	455	455	457	460	461	461	461	452
19 Q	459	458	458	458	461	462	461	458	452	442	436	436	442	449	453	455	452	454	457	458	459	460	459	459	454
20 D	459	459	458	459	460	461	462	460	455	446	438	440	445	449	452	455	457	467	458	452	443	434	442	452	453
21	454	452	456	455	462	466	462	461	462	451	441	435	436	442	449	456	459	464	460	448	452	454	453	456	454
22	455	453	443	454	466	458	460	464	452	439	437	434	437	441	452	448	452	453	448	451	457	458	460	461	451
23	457	458	458	456	456	458	459	454	450	440	435	437	440	446	453	457	458	461	464	466	467	466	463	448	454
24 D	431	460	455	453	452	469	476	451	445	401	406	417	432	441	444	452	430	432	432	439	436	440	442	443	441
25 D	442	436	445	450	450	445	456	456	440	430	434	439	439	439	433	448	447	492	443	440	446	459	460	455	447
26 D	444	430	445	460	460	460	459	458	452	443	419	416	426	432	452	441	461	449	442	464	451	453	457	454	447
27	445	441	449	454	459	464	458	455	449	441	428	437	434	429	434	449	449	444	451	454	455	462	463	452	448
28	447	451	451	440	449	468	461	455	451	444	436	433	436	448	447	436	446	453	455	455	455	454	455	456	449
29 Q	454	451	450	452	456	461	459	451	453	448	443	438	435	439	447	452	455	455	455	457	460	459	459	457	452
30	458	456	454	457	459	462	463	459	457	445	440	437	437	442	443	442	445	455	459	462	462	458	458	457	453
31	458	457	457	455	459	462	463	462	453	441	437	433	442	446	452	455	455	452	457	461	461	460	462	460	454
Mean	456	455	456	457	460	463	462	459	453	442	436	435	439	444	450	454	456	458	457	459	458	457	459	458	453

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time

42. LERWICK. (D.)

13° +

OCTOBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day																									
1	17.6	17.4	18.1	16.5	16.3	16.8	17.5	19.7	19.3	20.6	20.2	22.9	22.5	23.0	22.9	21.7	20.2	19.1	19.4	18.8	16.4	11.1	10.1	13.1	18.4
2	18.1	18.2	16.3	18.2	17.4	17.3	17.2	16.5	17.3	17.8	18.6	21.2	22.9	22.7	22.4	22.2	20.0	18.7	18.4	15.2	17.4	18.2	17.3	18.2	18.7
3	18.1	18.0	17.2	17.3	17.1	17.4	17.1	16.2	16.1	16.9	18.2	19.5	19.8	20.8	19.9	20.0	19.5	18.7	18.8	18.8	18.6	18.2	18.1	18.0	18.3
4	17.8	17.8	17.8	17.7	18.4	17.9	17.7	16.5	16.4	16.7	17.8	19.6	21.5	24.4	26.1	26.8	24.4	21.1	19.8	18.8	18.9	17.8	16.4	14.5	19.3
5	16.9	16.2	16.7	17.2	17.3	16.9	17.2	17.9	18.1	18.8	19.2	21.9	23.7	23.5	22.1	21.6	21.0	18.2	16.4	16.7	18.7	17.8	17.6	17.6	18.8
6	17.3	16.9	17.8	17.3	18.3	17.7	17.0	16.0	15.9	16.6	18.6	21.9	24.4	25.4	24.7	23.1	21.2	19.5	19.6	19.2	18.8	17.9	15.4	15.4	19.0
7	14.7	15.3	16.9	16.8	16.6	16.8	16.8	16.8	16.9	17.5	19.0	20.9	22.2	24.1	23.9	23.1	23.8	23.3	21.0	20.6	18.2	15.2	17.0	17.5	19.0
8 Q	17.5	17.3	17.1	17.2	17.2	16.8	16.6	16.5	15.3	16.1	18.9	22.4	23.2	23.2	22.0	20.4	19.3	18.7	18.4	18.0	17.9	18.0	17.8	18.3	18.4
9 Q	16.5	16.9	17.5	17.6	17.6	17.3	16.5	15.2	14.8	15.5	17.6	20.0	21.9	22.3	21.6	20.1	18.8	18.7	19.1	19.0	18.7	18.3	18.0	18.0	18.2
10 Q	17.8	17.7	17.7	17.6	17.7	17.2	16.7	15.7	15.0	15.8	17.4	20.2	23.1	24.3	23.1	21.2	20.0	19.7	19.8	18.9	18.9	17.8	17.4	18.2	18.7
11	18.1	17.7	17.5	17.3	17.4	17.0	16.3	15.9	15.2	15.4	16.8	19.9	23.1	24.0	22.9	21.0	19.7	19.5	19.2	18.8	18.7	17.5	17.1	17.7	18.5
12	17.5	16.5	22.2	10.8	14.3	15.7	16.7	15.9	16.1	18.1	21.3	22.9	24.4	23.1	22.0	20.4	18.9	17.6	16.8	13.8	9.0	9.2	11.0	12.6	16.9
13	13.0	20.1	16.5	17.5	22.5	16.3	17.5	17.3	16.9	17.5	20.4	20.5	22.1	23.5	24.1	20.9	21.1	19.1	9.5	13.0	16.3	15.8	15.3	22.6	18.3
14	18.7	17.4	17.9	17.5	17.2	18.6	20.7	19.3	19.0	19.8	20.1	19.3	20.4	21.0	21.0	19.8	18.1	17.5	17.1	16.8	15.8	14.1	15.3	16.2	18.3
15 D	16.9	17.4	17.3	19.0	17.8	16.8	16.1	16.3	17.5	18.4	19.1	20.5	22.4	24.2	25.4	21.3	24.4	23.9	19.5	18.5	10.8	7.0	10.9	17.1	18.3
16	17.6	17.4	17.4	17.3	17.3	17.1	16.8	16.3	15.7	16.8	18.9	21.2	22.9	22.8	21.8	21.4	20.0	18.7	17.5	17.8	17.3	16.3	17.2	17.5	18.4
17	20.8	21.6	18.1	16.8	16.1	16.4	17.3	16.3	15.8	17.0	18.4	21.0	22.0	22.1	20.7	19.4	18.7	18.7	18.7	15.5	13.0	6.8	12.2	15.5	17.5
18	16.6	19.2	20.1	14.4	16.1	16.8	16.3	15.2	14.7	15.2	18.2	20.7	21.9	21.7	20.6	19.2	18.5	18.2	15.7	17.1	18.3	17.8	17.8	17.7	17.8
19 Q	17.7	17.7	17.9	18.0	17.9	17.7	17.3	16.5	15.9	16.															

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

75

43. LERWICK. (V.)

46,000 γ (~ 46 C.G.S. unit) +

OCTOBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	740	740	738	741	743	745	744	739	736	741	742	744	749	743	741	741	744	747	746	747	751	752	726	717	742
2	719	734	738	741	741	741	745	745	746	746	751	752	753	758	764	763	755	752	752	752	749	748	747	748	747
3	749	749	749	748	746	746	746	748	748	748	745	748	748	749	756	754	750	751	752	751	749	749	749	749	749
4	750	749	748	746	746	744	741	742	742	742	741	740	742	743	750	760	769	771	765	755	751	752	733	725	748
5	733	741	743	744	742	741	742	738	740	739	740	741	741	746	754	754	755	765	762	755	750	749	748	748	746
6	746	748	747	745	745	744	744	743	744	746	744	739	734	736	742	745	748	749	749	744	742	745	727	730	743
7	740	746	748	748	745	743	740	739	742	742	741	740	739	741	745	750	759	774	761	754	756	757	750	750	748
8 Q	750	750	750	750	749	746	745	744	746	748	746	744	743	741	745	749	750	748	745	744	742	742	743	741	746
9 Q	742	746	748	748	747	746	746	747	746	744	742	741	740	741	742	744	746	746	745	745	744	744	744	745	745
10 Q	746	748	749	749	749	749	749	746	745	744	744	741	737	740	743	746	748	748	746	745	745	746	746	745	746
11	746	748	749	749	748	747	745	745	745	744	742	740	738	739	743	746	748	747	746	745	744	744	745	744	745
12	743	742	711	707	729	735	739	741	744	748	745	741	741	742	743	747	750	752	759	761	760	744	725	709	740
13	716	709	719	731	707	715	730	735	741	740	739	740	740	743	749	759	765	769	785	778	764	749	742	717	741
14	709	731	740	740	742	743	741	740	745	749	748	746	746	747	752	756	763	764	763	760	759	754	747	744	747
15 D	743	742	743	739	734	734	740	744	748	749	749	748	745	744	749	790	843	849	875	849	786	711	735	753	764
16	757	755	753	751	750	750	750	751	753	757	758	758	759	756	755	760	761	761	762	762	780	756	753	751	756
17	742	722	731	733	736	739	743	748	753	755	755	751	746	747	749	750	750	750	751	748	749	739	732	736	744
18	735	732	699	719	733	738	741	746	750	753	751	750	746	745	749	751	750	750	753	751	749	749	750	751	743
19 Q	752	752	751	750	748	746	745	748	751	750	750	750	749	751	754	756	754	751	750	750	751	749	750	751	750
20 D	751	751	751	750	747	746	745	746	747	749	750	749	750	751	756	755	752	751	764	769	750	767	737	726	747
21	719	730	730	735	734	736	741	743	741	743	742	744	748	751	754	754	751	749	750	761	750	743	742	740	743
22	741	742	743	718	718	732	736	737	741	743	741	745	750	751	754	758	759	763	771	771	760	752	746	745	747
23	745	741	740	745	747	746	745	748	748	747	746	744	741	742	745	747	747	746	745	742	741	741	742	739	744
24 D	727	717	733	738	686	642	646	698	715	738	747	752	751	769	814	862	817	797	788	771	780	752	738	736	746
25 D	729	721	718	731	735	738	734	739	747	752	749	750	746	750	769	784	829	840	835	799	780	743	717	713	756
26 D	716	723	709	714	727	733	738	743	750	752	759	764	766	781	782	787	781	771	771	745	742	749	746	742	750
27	735	725	721	736	742	742	750	751	755	755	759	755	761	771	767	765	770	770	762	760	757	749	742	731	751
28	736	740	741	730	709	718	731	740	748	749	749	749	749	754	765	773	766	760	757	757	756	756	753	750	747
29 Q	749	749	746	745	746	747	748	751	750	749	749	750	751	755	754	752	753	754	755	753	754	752	751	747	750
30	737	737	742	744	745	746	747	749	751	752	751	751	750	751	755	757	755	752	751	750	750	751	749	747	749
31	745	745	745	745	744	745	745	747	749	750	749	752	753	754	753	752	752	755	754	750	750	748	747	749	749
Mean	738	739	738	739	737	737	739	743	745	747	747	747	747	749	755	760	763	763	763	759	753	745	742	739	747

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

44. LERWICK.

OCTOBER, 1934.

Day	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000 γ ²	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 + $^{\circ}$ A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Horizontal Force.						Declination.						Vertical Force.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13 $^{\circ}$ +			Minimum 13 $^{\circ}$ +			Range	Maximum 46,000 γ +				Minimum 46,000 γ +			Range																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1	h. m.	γ	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.	γ	h. m.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

45. LERWICK. (H.)

14,000 γ (-14 C.G.S. unit) +

NOVEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	458	455	457	458	461	463	463	462	457	445	441	438	441	448	455	459	462	462	462	463	458	460	458	457	456
2	453	458	456	456	457	460	460	461	458	450	448	448	452	454	457	459	462	466	465	463	456	456	457	458	457
3	458	458	458	458	458	463	460	462	457	449	445	441	441	445	454	458	459	457	458	457	459	451	458	459	455
4	457	454	455	455	459	457	459	457	452	445	444	447	451	455	461	463	459	462	462	462	461	461	464	458	457
5	457	456	458	461	461	463	464	463	461	460	458	458	466	460	463	463	462	456	448	459	461	457	467	458	460
6	468	455	457	456	460	463	463	462	457	451	446	448	452	455	456	456	456	461	461	462	462	459	458	462	458
7 D	457	458	461	456	470	471	472	474	469	460	451	420	427	448	449	450	454	438	440	459	422	438	434	407	449
8 D	445	443	446	448	435	448	448	448	439	412	418	399	427	443	450	439	441	435	445	448	451	455	465	443	440
9	449	444	449	453	444	453	452	450	441	438	438	438	435	445	449	452	454	457	456	454	454	446	450	451	448
10	444	443	446	446	452	455	450	455	452	444	442	442	442	446	442	446	452	453	454	455	454	455	459	453	449
11	453	450	451	453	458	460	457	457	457	449	438	434	440	441	444	446	446	449	444	443	443	450	448	453	449
12	450	451	450	452	457	460	463	460	456	448	444	438	437	440	446	451	454	458	456	453	451	447	451	457	451
13	456	456	454	455	454	456	455	455	451	445	438	434	434	437	435	438	441	438	439	437	432	428	430	444	443
14	448	444	444	453	450	452	462	463	461	455	452	447	441	443	447	448	456	453	453	453	449	445	451	452	451
15	453	456	454	456	455	457	457	456	453	451	448	447	444	443	447	447	449	444	447	451	455	454	451	450	451
16	451	447	450	452	454	457	460	459	455	452	452	452	448	450	454	456	453	452	455	457	457	456	455	455	454
17	456	455	457	458	460	461	453	454	454	452	450	452	456	458	456	452	457	457	458	458	457	458	458	471	457
18	465	455	455	455	458	465	471	466	464	457	455	454	456	458	461	462	462	462	465	462	454	459	455	452	459
19	457	454	446	445	452	461	460	458	457	453	454	454	460	461	459	455	459	462	463	462	461	460	462	461	457
20 Q	458	458	458	459	459	460	462	459	455	449	445	445	452	456	458	458	459	459	460	455	457	456	457	459	456
21 Q	454	454	453	455	455	456	457	457	453	447	446	446	453	455	459	458	458	455	461	463	462	461	461	460	456
22 Q	459	460	460	460	461	460	459	457	452	450	451	453	458	459	461	461	460	459	458	461	461	459	460	457	458
23	456	456	456	459	462	462	461	461	457	453	450	450	452	456	459	460	460	461	463	462	463	458	459	460	458
24 D	459	460	461	461	462	465	468	468	464	460	458	456	459	460	464	468	470	460	446	447	449	444	438	443	458
25 D	439	451	450	459	462	465	461	464	452	445	441	428	438	445	449	441	444	445	456	461	462	461	461	458	452
26	453	459	459	459	461	462	461	459	457	452	452	453	457	459	458	456	458	459	459	459	460	460	458	459	458
27	455	452	454	458	461	464	464	460	458	457	455	458	460	463	462	461	460	461	465	467	466	465	463	460	460
28 D	461	452	454	462	466	464	464	472	466	460	457	460	467	469	466	466	468	468	466	465	460	456	448	453	463
29	455	454	455	454	455	455	458	461	460	458	456	454	457	461	462	462	460	451	451	457	464	459	459	460	457
30 Q	455	452	450	454	455	457	457	455	453	451	452	453	456	460	462	462	461	460	462	461	461	457	457	459	457
Mean	455	453	454	455	457	460	460	456	450	447	445	449	452	455	455	457	455	456	457	456	454	455	454	454	455

MAGNETIC DECLINATION (WEST).
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

46. LERWICK. (D.)

13° +

NOVEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	17.3	17.5	17.6	17.7	17.9	17.7	17.5	16.9	16.2	16.3	18.0	19.6	20.7	20.9	20.4	19.4	18.8	18.8	18.8	17.9	17.3	17.2	16.8	16.7	18.1
2	15.9	17.3	15.6	16.9	16.9	16.8	16.8	16.8	16.6	17.7	20.1	21.4	22.0	21.1	20.2	19.6	19.7	19.6	19.2	18.6	18.0	17.4	17.3	17.6	18.3
3	17.9	17.8	17.9	17.3	17.9	17.6	17.3	16.4	15.9	16.8	19.0	20.9	22.1	20.9	20.8	21.7	21.6	21.9	20.6	17.3	7.7	14.4	16.8	17.4	18.2
4	17.2	17.0	16.7	17.1	16.4	16.1	16.1	16.3	16.5	17.8	19.7	21.4	20.9	19.8	19.6	18.9	19.0	19.1	18.7	18.5	17.7	17.9	14.6	16.8	17.9
5	16.6	17.4	17.0	16.5	17.3	17.0	16.8	16.5	16.1	17.8	19.8	20.6	22.4	21.6	19.5	18.7	19.3	19.7	15.3	17.6	17.0	16.3	12.3	11.7	17.5
6	16.4	14.8	16.2	17.4	17.2	16.6	16.3	16.4	16.4	17.4	19.3	20.3	20.5	19.7	18.7	18.6	18.2	18.5	17.8	17.9	17.5	17.2	16.6	16.9	17.6
7 D	16.9	17.4	16.8	20.3	17.5	16.8	16.4	15.5	16.5	18.6	20.5	29.6	30.5	25.8	22.4	22.7	14.5	9.2	15.6	5.4	2.1	10.6	13.3	16.7	17.1
8 D	17.4	15.3	16.3	18.7	19.4	19.8	18.0	16.3	17.3	17.1	18.4	18.2	19.5	20.3	18.6	12.7	4.5	14.1	16.8	16.3	16.6	14.7	10.9	12.1	16.2
9	16.4	18.7	22.6	19.6	24.0	22.5	18.5	20.7	17.6	18.9	16.1	18.4	19.8	20.0	20.1	19.0	18.1	17.8	17.6	18.7	11.1	13.5	12.7	13.7	18.1
10	14.0	16.5	17.7	17.6	17.1	16.5	16.7	17.3	16.2	16.2	17.5	18.8	19.7	20.1	19.3	18.7	18.3	16.4	15.5	16.4	16.0	16.3	15.0	15.9	17.1
11	16.5	17.4	17.3	17.3	17.0	17.1	18.3	16.8	16.4	17.0	18.6	19.8	21.4	21.1	22.0	21.6	20.1	19.4	17.6	16.6	11.8	11.4	13.1	14.4	17.5
12	14.9	17.1	16.5	16.8	16.6	16.6	17.0	16.8	16.4	16.5	18.4	19.9	20.6	22.0	21.2	19.7	17.3	18.2	18.0	17.5	10.9	12.6	14.0	16.1	17.2
13	17.1	17.3	17.3	17.3	17.3	17.0	16.9	16.8	16.8	17.5	19.2	20.9	22.4	23.9	24.4	23.0	22.9	20.1	16.8	14.5	13.4	7.6	10.9	13.9	17.7
14	16.5	18.3	18.3	15.1	16.5	19.2	18.1	17.5	18.6	18.9	19.6	20.7	21.2	21.5	21.0	19.4	18.4	17.6	17.0	17.1	17.1	16.8	16.4	16.5	18.2
15	16.7	16.8	17.4	17.2	16.8	16.7	16.4	16.4	16.5	17.6	19.1	20.9	21.6	20.2	20.4	19.3	20.6	21.1	18.7	17.3	17.3	16.5	13.6	15.6	17.9
16	16.3	17.1	18.4	17.5	16.2	16.4	16.5	17.4	17.8	19.2	20.0	20.6	20.3	20.3	19.8	19.6	18.7	18.3	17.5	16.8	16.8	16.2	16.7	16.7	18.6
17	16.9	17.8	17.2	17.0	15.5	16.0	15.8	16.3	16.1	17.3	19.4	20.4	20.8	20.2	19.0	18.6	18.8	17.8	17.4	17.1	17.0	16.5	16.5	18.6	17.7
18	18.5	16.8	16.4	18.8	18.5	18.1	16.1	15.9	16.6	17.7	18.8	20.1	20.6	19.9	18.7	18.2	17.9	17.8	17.7	18.1	17.8	17.1	16.3	16.4	17.9
19	17.0	19.0	17.9	17.4	17.4	17.7	16.2	16.1	16.8	17.8	19.8	21.0	22.3	22.5	20.6	21.0	19.3	18.9	17.6	17.2	16.5	16.8	16.9	16.9	18.4
20 Q	17.0	17.4	17.2																						

47. LERWICK. (V.)

46,000 γ (.46 C.G.S. unit) +

NOVEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	747	747	746	745	744	744	744	747	749	751	751	748	747	746	746	746	747	748	747	747	751	751	752	751	747
2	749	738	736	742	743	743	745	746	747	747	746	746	748	749	749	748	746	745	746	748	754	754	752	751	747
3	750	749	748	747	745	743	744	743	746	748	751	752	752	750	751	753	753	756	757	762	754	752	749	749	750
4	751	752	750	748	737	742	743	744	748	751	752	752	753	753	753	751	750	748	748	747	748	749	747	749	749
5	751	753	752	750	748	745	744	744	743	740	742	744	745	749	751	752	752	754	754	751	750	749	740	733	748
6	717	731	740	743	744	743	743	744	746	744	744	745	746	748	750	750	752	749	748	747	747	748	748	747	744
7 D	749	749	749	744	729	731	731	729	730	733	740	748	747	752	760	778	880	856	818	817	743	735	698	630	753
8 D	647	704	726	741	742	736	743	749	752	760	765	782	777	767	777	782	788	783	770	762	759	750	727	738	751
9	739	743	717	713	704	698	722	733	746	749	751	750	752	752	753	754	753	754	753	754	753	752	747	739	741
10	736	738	738	744	747	749	751	748	750	752	752	750	748	750	757	760	759	759	758	758	754	750	746	746	750
11	742	742	745	747	747	748	746	747	747	747	747	747	744	749	754	758	765	764	772	779	774	759	754	740	753
12	739	738	742	745	747	747	747	747	748	748	748	748	749	750	750	752	754	753	754	758	760	755	750	745	749
13	745	745	746	747	747	748	748	749	750	752	752	752	752	754	762	772	774	780	781	776	765	755	755	739	758
14	731	728	720	712	723	722	728	735	740	744	747	749	750	750	748	753	752	752	751	752	753	754	748	748	741
15	747	745	744	743	744	745	746	747	748	749	748	747	747	748	748	750	756	761	762	758	756	755	755	750	750
16	743	741	739	740	741	741	741	745	745	745	747	747	747	749	748	749	752	752	750	750	751	752	752	751	746
17	750	750	747	747	745	744	745	746	749	749	750	747	749	750	752	753	750	749	749	749	752	750	747	727	748
18	723	741	744	744	736	734	735	738	739	742	744	746	749	751	750	747	745	744	743	744	751	749	752	751	743
19	745	749	746	743	741	742	744	745	745	745	744	747	748	750	752	752	751	749	747	747	748	748	747	748	747
20 Q	750	750	750	749	747	745	744	745	746	746	748	749	750	752	753	753	751	749	748	749	749	748	747	745	748
21 Q	747	749	750	749	749	747	746	745	745	745	744	743	744	747	750	750	751	751	746	745	744	743	743	745	747
22 Q	745	746	746	747	747	748	745	744	744	742	740	738	740	744	748	748	749	748	748	745	744	743	743	742	745
23	741	741	742	741	743	744	743	743	743	745	745	745	746	747	749	749	748	747	746	744	744	743	741	744	744
24 D	741	743	744	744	745	744	742	741	743	744	744	743	744	745	745	745	746	764	797	827	795	778	763	746	755
25 D	731	718	727	727	735	739	741	741	746	748	748	754	756	756	761	772	779	780	770	760	754	750	746	746	749
26	745	726	728	740	743	745	746	747	748	748	747	746	745	746	748	749	750	749	750	750	749	748	746	741	745
27	736	735	737	740	743	744	745	746	747	748	745	744	745	746	746	747	750	752	751	751	751	750	749	749	746
28 D	744	746	746	741	742	743	743	740	743	743	745	746	745	744	744	745	746	747	749	753	731	738	756	751	745
29	749	748	746	746	744	744	742	741	744	743	743	744	744	748	749	747	753	765	768	761	756	755	751	749	749
30 Q	748	745	745	745	744	744	744	745	745	745	745	745	745	745	745	745	745	745	745	746	748	749	748	746	745
Mean	739	741	741	742	741	741	742	743	745	746	747	748	748	749	751	754	758	758	758	758	753	750	747	741	748

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE

48. LERWICK.

NOVEMBER, 1934.

Day	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000γ ²	Magnetic Character of Day. (0-2)	Temperature in Magnet House 200 +						
	Horizontal Force.						Declination.						Vertical Force.											
	Maximum 14,000 γ +			Minimum 14,000 γ +			Range	Maximum 13° +			Minimum 13° +			Range	Maximum 46,000 γ +			Minimum 46,000 γ +			Range			
	h.	m.	Y	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	h.	m.	Y	Y	h.	m.	Y	
1 Q	19	50	467	438	11	10	29	13	27	21.3	15.7	19	52	5.6	22	50	752	743	5	25	9	83	0	76.9
2	17	55	468	449	9	22	19	12	30	22.5	14.9	2	19	7.6	20	36	757	730	2	0	27	156	0	76.3
3	20	15	483	438	21	0	45	12	16	23.3	4.3	20	31	19.0	19	43	766	742	5	43	24	176	1	75.9
4	22	12	473	443	10	24	30	11	57	22.2	12.3	22	22	9.9	12	36	754	734	4	16	20	132	0	75.8
5	22	58	479	439	18	14	40	12	17	23.2	8.7	23	6	14.5	18	23	769	725	23	5	44	260	1	76.4
6	0	27	475	441	10	44	34	12	5	20.7	13.0	0	56	7.7	16	25	753	711	0	30	42	242	1	76.1
7 D	19	44	510	371	23	31	139	12	12	35.7	11.0	19	53	46.1	16	54	924	804	23	50	320	1678	2	76.0
8 D	22	11	576	380	11	14	96	13	20	21.9	1.7	16	37	23.6	16	8	796	608	0	0	188	1012	1	76.2
9	20	43	472	429	12	22	43	4	53	31.0	2.7	20	37	28.3	19	54	758	691	5	16	67	363	1	76.0
10	22	1	463	437	14	52	26	12	47	20.5	11.4	16	1	9.1	17	58	763	735	1	10	28	166	1	76.2
11	6	49	461	431	11	12	30	15	18	22.6	9.2	20	30	13.4	19	14	781	737	23	45	44	248	1	76.5
12	6	48	465	435	12	27	30	13	27	22.2	4.4	20	35	17.8	20	24	764	736	1	34	28	171	1	76.6
13	1	9	456	415	21	12	41	14	56	25.3	4.1	21	20	21.2	18	0	788	735	23	44	53	314	1	76.5
14	6	49	466	434	4	55	32	13	48	21.9	12.8	3	35	9.1	15	45	767	705	3	25	52	187	1	76.6
15	21	57	460	444	23	19	16	17	5	22.7	11.7	22	20	11.0	18	14	764	742	3	25	22	126	0	76.9
16	7	22	463	445	1	21	18	13	10	21.0	15.4	21	35	5.6	21	52	753	738	2	37	15	98	0	77.0
17	23	56	487	451	6	46	36	24	0	21.3	14.8	23	8	6.5	14	57	755	714	24	0	41	248	0	77.2
18	0	0	485	450	23	11	35	0	4	21.5	13.5	23	12	8.0	22	50	757	713	0	3	44	263	1	77.4
19	13	8	466	440	2	34	26	13	6	24.0	15.0	7	46	9.0	14	10	753	738	4	16	15	115	0	77.4
20 Q	6	15	462	444	11	8	18	13	13	20.3	14.7	23	0	5.6	15	4	754	742	23	40	12	81	0	78.0
21 Q	19	11	465	444	11	16	21	13	4	20.4	14.7	0	0	5.7	17	19	753	742	10	52	11	80	0	78.4
22 Q	14	0	462	448	9	4	14	12	26	20.2	15.1	23	7	5.1	16	42	749	738	11	15	11	73	0	78.7
23	20	24	467	450	10	1	17	2	40	20.6	14.9	20	25	5.7	16	54	750	738	3	0	12	79	0	78.6
24 D	16	6	463	428	18	32	55	17	14	21.5	.9	17	54	20.6	19	3	843	738	0	6	105	576	1	78.3
25 D	6	57	468	419	11	33	49	14	54	28.8	10.7	1	16	18.1	17	45	784	712	1	11	72	401	1	78.9
26	1	45	464	450	9	27	14	1	25	23.5	14.8	0	37	8.7	19	20	751	715	1	50	36	191	0	79.7
27	19	1	472	447	0	50	25	12	17	21.2	11.9	0	23	9.3	17	16	753	729	0	10	24	150	0	80.1
28 D	20	16	492	434	21	55	58	12	4	22.1	7.4	22	5	14.6	22	20	759	718	20	50	41	281	1	80.5
29	20	23	471	442	18	4	29	14	14	21.2	13.5	21	23	7.7	18	10	776	740	7	22	36	209	0	80.2
30 Q	15	25	464	449	1	15	15	12	10	19.5	14.9	6	56	4.6	21	26	750	743	1	48	7	56	0	79.1
Mean	--	--	472	436	--	--	36	--	--	22.8	10.2	--	--	12.6	--	--	769	721	--	--	48	277	53	77.5
No. of Days Used	--	--	30	30	--	--	30	--	--	30	30	--	--	30	--	--	30	30	--	--	30			30

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
 Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

49. LERWICK. (H.)

14,000 γ (·14 C.G.S. unit) +

DECEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	457	457	456	456	457	467	474	472	468	442	452	455	460	461	460	433	447	445	454	445	441	446	442	452	454
2	453	454	453	455	450	465	460	459	462	458	456	458	460	459	460	458	459	459	459	458	455	454	454	455	456
3 D	457	464	462	460	448	450	462	458	448	450	450	449	448	444	453	449	449	453	454	455	458	458	438	452	453
4 D	347	206	322	411	417	377	374	428	435	437	430	434	437	423	435	439	442	438	439	441	443	448	445	442	412
5	438	432	421	430	443	454	450	447	443	439	433	431	436	446	449	450	448	430	411	430	441	443	444	443	439
6	441	439	438	438	442	447	448	448	438	443	443	442	442	448	448	440	448	447	443	445	448	447	450	448	444
7	449	447	449	454	458	450	457	453	446	447	438	438	442	446	447	448	449	446	454	458	457	448	453	453	449
8	447	448	452	452	453	462	465	460	455	452	453	449	452	453	454	445	451	452	452	451	453	450	454	456	453
9 Q	452	448	448	450	452	455	459	456	456	449	445	445	444	452	458	455	450	455	459	455	457	456	457	464	453
10	454	451	453	454	457	457	461	461	458	456	453	452	452	452	452	453	453	450	448	453	456	462	451	450	454
11	452	451	449	451	456	458	461	462	561	456	456	463	465	462	454	449	455	453	455	454	454	455	455	455	456
12	455	456	456	458	461	461	461	460	459	458	457	459	461	465	463	456	460	464	464	463	462	461	461	460	460
13	458	456	454	458	463	465	466	465	463	461	462	463	462	460	462	462	461	462	462	469	458	453	455	457	460
14	458	457	459	460	460	462	461	462	461	458	456	454	457	459	459	463	465	467	465	459	460	446	449	451	459
15	457	457	451	454	457	463	459	467	462	463	458	458	456	457	455	455	456	453	456	461	456	456	454	454	457
16 Q	454	452	454	456	460	462	461	458	459	458	457	456	457	458	458	459	459	459	459	459	458	457	457	457	458
17 Q	457	456	458	458	460	461	463	461	461	461	460	461	460	461	459	459	460	462	462	463	461	457	460	461	460
18	457	456	457	458	460	465	465	463	459	459	457	458	459	462	462	462	460	464	463	463	460	465	449	456	460
19	453	471	462	461	463	480	460	475	469	463	459	458	458	457	455	458	459	460	458	460	465	468	466	464	463
20	466	462	459	452	455	460	465	467	464	462	461	461	464	467	467	465	467	466	469	468	467	467	467	466	464
21	466	460	456	465	464	467	468	472	469	457	452	454	453	445	460	462	450	454	458	454	457	459	456	454	459
22	457	458	459	462	455	457	458	462	455	462	460	458	461	463	462	458	461	462	462	463	463	462	475	457	460
23 Q	454	463	456	457	459	461	460	461	460	458	456	458	461	465	464	461	462	462	461	462	462	461	460	460	460
24 D	456	457	459	460	460	463	458	460	463	460	459	455	466	465	461	469	450	458	460	460	459	458	459	447	458
25	443	441	456	455	455	460	463	457	459	456	444	457	459	454	443	451	452	453	455	456	471	444	447	445	454
26	452	455	448	443	459	451	455	458	454	454	448	440	442	446	455	454	455	456	457	458	458	453	451	452	452
27 Q	452	452	452	451	453	455	455	456	453	454	453	453	454	458	461	454	449	450	452	457	459	457	454	453	454
28	449	447	447	451	449	454	467	459	457	455	451	452	455	458	461	460	460	454	456	459	459	459	458	455	455
29 D	457	456	456	458	461	458	463	464	458	441	441	442	439	455	444	447	448	538	607	397	429	439	406	398	454
30 D	417	413	422	415	419	455	446	444	443	440	433	429	433	420	431	430	437	447	447	440	456	441	446	441	435
31	440	438	431	408	431	447	452	450	447	444	441	436	439	445	449	451	451	446	449	444	436	445	445	448	442
Mean	449	444	447	449	453	456	458	459	456	453	451	451	453	454	455	454	454	457	459	453	455	454	452	452	453

MAGNETIC DECLINATION (WEST).
 Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

50. LERWICK. (D.)

13° +

DECEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1	15.9	16.1	16.4	16.6	16.5	16.3	16.4	16.3	16.2	16.1	18.5	20.2	19.2	19.6	20.3	23.1	20.8	19.6	12.6	14.7	12.2	7.1	12.5	15.3	16.6
2	16.6	16.0	14.0	22.8	18.7	14.6	15.6	16.3	17.4	17.4	17.8	18.7	20.3	18.4	18.3	17.4	17.2	16.9	16.8	16.8	15.9	14.9	15.5	15.4	17.1
3 D	17.2	16.3	16.5	14.5	17.1	20.3	20.3	18.7	18.2	15.3	17.3	17.5	20.3	19.6	18.7	18.9	18.3	18.6	18.3	17.0	17.3	17.0	5.8	1.7	16.7
4 D	10.7	23.3	6.4	9.3	15.5	21.8	20.6	19.5	21.3	18.8	19.1	20.1	22.2	21.2	19.9	22.9	15.9	17.1	17.8	16.8	14.9	17.1	13.3	12.7	14.1
5	14.6	17.1	19.7	23.4	19.8	17.4	20.3	20.6	20.4	19.8	19.0	18.3	18.4	19.6	19.3	18.3	18.4	17.4	7.9	16.8	15.5	15.9	16.4	17.3	16.0
6	17.8	16.8	17.0	17.8	17.7	17.0	17.4	17.9	17.6	17.2	18.0	18.9	18.7	18.8	18.4	16.1	16.3	16.6	14.6	14.5	14.7	13.4	13.5	15.2	16.7
7	16.2	16.5	16.9	16.2	16.6	19.0	20.4	19.5	16.8	17.9	18.1	19.4	19.5	20.3	19.1	20.2	19.6	18.8	9.5	8.9	12.1	15.3	15.7	16.5	17.0
8	16.4	16.8	17.0	17.3	18.0	17.6	16.8	16.8	17.1	16.7	18.4	18.7	19.1	18.7	17.8	16.9	16.9	17.0	16.4	15.8	13.9	14.3	14.5	13.6	16.8
9 Q	15.4	15.4	15.8	15.6	16.0	16.2	15.5	16.7	16.3	16.3	16.7	17.8	18.0	17.5	17.7	17.9	17.3	16.8	16.6	15.3	14.5	14.7	13.3	13.1	16.1
10	15.3	16.3	16.1	16.1	15.9	15.9	15.7	15.9	16.5	16.6	16.4	17.1	18.3	18.7	18.7	17.1	16.9	16.4	17.1	15.4	13.9	10.8	13.5	14.7	16.1
11	15.7	16.1	15.5	15.5	15.9	15.7	15.7	16.1	16.3	16.8	17.8	19.4	20.7	21.3	20.8	21.0	19.8	19.7	19.3	16.3	14.8	15.7	15.7	15.9	17.4
12	16.0	16.0	16.0	16.0	16.2	16.1	16.0	16.0	16.1	16.8	17.4	17.6	17.7	18.5	19.2	21.8	18.9	16.8	16.3	16.7	16.1	16.4	15.5	16.3	16.9
13	16.2	16.0	15.5	16.0	16.2	16.7	16.2	16.5	17.0	17.3	17.4	18.0	18.3	17.8	17.5	17.2	16.9	16.5	16.3	15.9	16.0	12.2	14.6	15.6	16.4
14	16.2	16.2	16.3	16.5	16.6	16.4	16.4	16.2	16.4	16.4	17.2	17.7	18.0	17.7	17.2	17.0	17.6	17.7	17.3	17.4	8.5	13.4	14.0	14.4	16.2
15	11.5	14.4	15.2	16.5	16.3	15.9	15.3	16.0	16.8	16.8	18.3	18.7	19.3	19.5	20.9	19.0	19.7	17.9	18.4	15.4	13.0	14.7	15.1	15.0	16.7
16 Q	15.7	15.5	16.9	16.5	16.2	16.0	16.0	15.9	16.0	16.8	17.2	17.5	17.7	17.9	17.2	16.5	16.4	16.2	16.1	16.0	16.0	15.9	16.0	16.0	16.4
17 Q	16.2	16.3	16.4	16.1	16.1	16.5	16.4	16.0	16.3	16.6	16.9	17.6	17.8	17.7	17.2	16.5	16.7	16.6	16.5	15.9	16.1	15.7	14.9	14.5	16.4
18	15.9	16.5	16.4	15.7	15.6	16.0	16.0	15.8	15.6	16.3	16.9	17.3	17.3	17.8	17.7	17.3	17.6	17.3	16.9	16.7	16.6	5.1	13.3	14.0	15.9
19	14.6	13.9																							

TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

79

51. LERWICK. (V.)

46,000 γ (·46 C.G.S. unit) +

DECEMBER, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	746	74	744	743	742	737	736	736	738	748	740	742	740	744	750	770	768	769	771	767	764	755	747	742	749
2	745	745	742	727	695	719	733	736	737	740	741	741	740	743	743	744	743	744	744	744	746	749	748	746	739
3 D	740	726	731	735	736	724	722	729	738	743	745	746	746	752	755	759	760	754	750	748	745	743	733	644	738
4 D	553	410	478	622	618	639	643	726	734	747	754	760	782	812	815	784	788	777	767	762	754	738	718	729	705
5	732	732	728	709	692	708	718	727	731	738	745	752	756	753	756	755	754	767	802	773	757	751	748	749	743
6	749	750	749	749	748	746	745	744	747	749	750	752	756	759	760	766	762	760	763	760	756	756	754	754	753
7	753	759	757	754	753	750	739	743	749	780	753	759	759	760	760	765	763	768	774	756	755	751	747	749	755
8	751	752	752	753	752	745	744	745	742	743	745	746	748	749	754	759	754	751	750	749	744	745	741	736	748
9 Q	737	742	745	745	746	746	746	745	744	742	741	742	743	743	746	750	754	751	749	749	746	742	741	737	745
10	738	740	742	745	746	746	742	741	741	741	743	742	744	746	747	750	754	758	762	757	754	745	744	744	746
11	743	744	746	749	748	747	747	747	747	748	745	742	740	740	744	751	767	765	768	766	763	755	750	748	750
12	746	746	746	746	746	747	748	749	748	747	747	745	742	743	745	755	755	755	755	755	756	756	753	750	749
13	750	748	748	746	744	745	746	746	746	745	746	745	745	746	744	745	747	748	750	752	752	752	751	747	747
14	747	745	745	744	744	745	747	747	748	748	748	748	745	745	744	743	742	743	746	752	755	757	751	734	746
15	731	737	740	735	735	731	738	737	741	741	747	746	748	747	748	749	750	757	761	762	762	756	754	753	746
16 Q	750	748	744	744	743	743	743	744	744	745	747	748	748	749	749	748	746	745	745	745	745	747	748	748	746
17 Q	749	749	747	746	745	744	742	744	745	746	746	749	749	750	750	748	747	747	747	746	746	749	750	749	747
18	746	748	749	748	746	744	743	745	746	745	749	750	750	749	749	748	747	746	746	747	748	753	753	742	747
19	744	723	724	729	729	722	725	730	734	740	745	744	743	747	750	749	749	748	749	750	746	743	743	745	740
20	744	741	728	733	740	742	741	743	745	745	744	745	743	747	749	750	749	749	747	746	746	743	744	744	743
21	745	748	745	737	745	745	744	741	741	742	743	744	749	759	759	762	776	780	781	767	757	751	753	754	753
22	751	742	740	746	744	744	746	746	748	748	746	747	747	750	753	754	755	754	751	750	749	746	722	733	746
23 Q	742	739	743	746	746	746	746	745	745	746	745	745	746	747	749	751	750	749	748	748	747	745	746	745	746
24 D	748	748	747	744	744	741	744	745	747	745	746	741	743	746	750	752	787	810	783	765	763	766	743	747	754
25	758	715	736	741	745	746	743	747	747	746	748	746	749	755	760	760	760	766	774	768	764	762	757	753	752
26	744	739	740	744	724	737	745	746	747	745	747	749	747	751	751	752	753	752	753	753	752	755	756	754	747
27 Q	751	749	748	747	747	747	748	747	747	746	746	747	746	746	745	748	752	757	757	756	753	750	749	748	749
28	732	735	743	746	748	746	748	746	745	745	747	748	746	745	745	746	745	745	750	750	750	749	748	748	746
29 D	746	744	745	743	742	743	740	742	743	748	747	749	754	756	776	770	796	908	826	711	776	782	709	808	754
30 D	808	651	702	724	713	720	740	750	753	754	760	771	774	810	794	789	791	783	774	763	764	760	754	747	748
31	739	732	720	671	694	723	735	742	748	751	754	754	754	751	752	752	753	759	756	762	780	774	767	760	745
Mean	734	728	732	735	733	736	738	742	744	745	747	748	749	753	755	756	759	763	761	754	755	753	746	738	746

DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS:
MAGNETIC CHARACTER FIGURES: TEMPERATURE IN MAGNET HOUSE.

52. LERWICK.

DECEMBER, 1934.

Day.	Terrestrial Magnetic Elements.															HR _H +VR _V 10,000γ [§]	Magnetic Character of Day. (0-2)	Temperature in Magnet House. 200 +											
	Horizontal Force.						Declination.						Vertical Force.																
	Maximum 14,000γ +			Minimum 14,000γ +			Range			Maximum 13° +			Minimum 13° +						Range			Maximum 46,000γ +			Minimum 46,000γ +			Range	
	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ	γ	h.	m.	γ	h.	m.	γ	h.	m.	γ			
1	6	42	479	428	9	45	51	15	41	25.4	3.3	20	58	22.1	15	41	778	735	7	2	43				274	1	78.8		
2	5	55	473	424	3	56	49	3	41	29.3	12.5	5	51	16.8	21	26	751	686	4	17	65				361	1	79.1		
3D	23	15	491	393	23	55	98	6	4	21.7	-8.3	24	0	30.0	16	43	763	609	24	0	154				866	1	79.5		
4D	21	44	465	-13	1	48	478	6	0	26.0	-50.2	1	34	78.2	14	12	854	305	1	48	549				3283	2	78.9		
5	6	22	457	402	18	16	55	3	45	26.3	3.0	18	15	23.3	18	23	811	691	4	35	120				655	1	77.7		
6	7	36	450	434	15	13	16	11	5	19.3	12.6	21	35	6.7	15	27	769	743	7	32	26				151	0	77.1		
7	18	59	488	438	19	34	50	6	3	23.0	-0.9	18	45	23.9	18	46	784	734	6	23	50				272	1	77.6		
8	23	8	473	439	15	24	34	12	15	19.5	10.3	20	47	9.2	15	40	761	729	23	16	32				190	1	78.0		
9Q	23	15	481	443	12	16	38	15	40	18.3	12.1	23	14	6.2	16	25	755	730	23	20	25				163	1	78.9		
10	21	26	479	444	18	8	35	14	16	19.3	8.8	21	25	10.5	18	15	763	737	0	6	26				183	1	79.4		
11	13	10	469	443	15	59	26	13	20	22.3	13.8	20	15	8.5	16	48	770	738	12	38	32				188	1	79.8		
12	14	15	467	451	15	10	16	15	43	23.5	15.1	22	10	8.4	15	37	758	740	12	19	18				97	0	79.9		
13	7	20	467	451	21	36	116	12	33	18.9	8.5	21	40	10.4	21	40	758	743	4	47	15				99	0	80.0		
14	18	0	469	445	21	15	24	23	32	20.8	2.4	30	37	18.4	21	5	762	722	23	55	40				225	1	79.9		
15	19	46	474	449	2	13	25	14	31	21.9	7.1	0	0	14.8	19	33	767	724	0	0	43				235	1	79.9		
16Q	5	4	464	449	1	48	15	13	0	18.3	15.0	1	46	3.3	0	33	752	741	5	5	11				73	0	79.6		
17Q	22	58	472	456	22	41	16	13	5	18.3	13.2	23	32	5.1	13	5	752	741	6	24	11				74	0	79.9		
18	21	41	485	440	22	9	45	22	46	18.6	-4.8	21	35	23.4	22	12	763	738	23	6	25				171	1	80.0		
19	6	42	482	449	0	46	333	12	44	19.7	9.7	2	7	10.0	19	4	753	714	1	42	39				231	1	79.9		
20	14	35	473	449	3	30	24	12	34	19.7	13.5	3	14	6.2	15	12	752	720	2	53	32				187	0	80.1		
21	14	49	477	430	13	6	47	17	34	23.9	2.9	18	35	21.0	18	35	794	738	2	46	56				329	1	80.2		
22	22	10	502	449	5	54	53	22	17	20.5	11.1	3	5	9.4	16	26	757	718	22	22	39				254	1	80.1		
23Q	1	44	470	452	0	4	18	11	46	18.6	12.0	2	6	6.6	16	5	752	735	1	48	17				105	0	80.1		
24D	22	1	481	431	17	16	50	16	45	26.5	3.6	17	33	22.9	17	27	835	737	12	15	98				530	1	79.7		
25	20	14	493	423	1	30	70	1	6	29.4	-9.0	20	7	36.4	20	5	794	699	1	26	95				562	1	79.4		
26	4	10	470	435	11	50	35	3	56	17.4	8.0	3	4	9.4	21	53	757	720	4	21	37				233	1	78.7		
27Q	20	11	463	439	16	54	24	18	5	18.6	12.7	23	45	5.9	18	53	759	744	9	30	15				110	0	77.5		
28	20	12	462	444	0	23	18	0	20	20.3	12.3	4	1	8.0	17	46	756	723	0	49	33				194	1	77.6		
29D	18	33	1095	324	19	10	771	18	42	42.7	-32.0	16	47	74.7	17	42	954	527	23	35	427				3108	2	78.1		
30D	0	17	492	338	0	41	154	12	55	20.9	-13.4	18	3	34.3	13	23	823	588	0	31	235				1318	1	78.3		
31	16	34	455	391	3	32	64	3	15	26.0	-6.7	20	49	32.7	21	2	783	665	3	54	118				643	1	78.4		
Mean	--	--	494	415	--	--	79	--	--	22.5	3.2	--	--	19.3	--	--	779	697	--	--	496				81	81	79.1		
No. of Days Used	--	--	31	31	--	--	31	--	--	31	31	--	--	31	--	--	31	31	--	--	31				31	31	31		

Departure from mean of the day adjusted for non-cyclic change.†

MONTH and SEASON.	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
53. LERWICK. HORIZONTAL FORCE. (ALL DAYS). 1934.																								
Jan. ...	-3.2	-3.2	-2.3	-2.1	-0.2	+3.8	+6.1	+4.9	+1.4	-1.2	-3.3	-3.9	-1.5	+3.0	+4.1	+3.7	+1.4	+1.1	+4.9	-1.7	-1.4	-3.3	-3.1	-3.1
Feb. ...	-2.4	-3.9	-3.7	-3.5	-0.8	+2.5	+4.8	+3.4	+1.0	-2.5	-6.6	-8.0	-7.7	-3.5	+0.2	+3.0	+5.0	+8.5	+5.8	+3.3	+8.3	+0.6	-0.9	-2.9
Mar. ...	-4.4	-4.3	-5.6	-2.2	+0.4	+4.8	+6.6	+1.4	-6.5	-9.9	-15.2	-13.7	-11.2	-4.1	+3.1	+7.3	+8.0	+10.9	+11.5	+12.9	+4.7	+5.8	-1.0	+0.9
Apr. ...	+1.9	+2.6	+3.8	+1.5	+2.6	+3.2	+2.3	-2.6	-11.2	-20.6	-26.3	-26.3	-19.5	-10.0	-1.6	+7.0	+11.2	+15.1	+17.9	+15.2	+12.5	+8.5	+7.4	+4.5
May ...	-4.3	-1.9	+1.4	+1.1	+2.4	-2.1	-7.4	-12.3	-17.8	-23.3	-26.9	-23.6	-17.7	-10.6	-0.6	+6.9	+17.2	+30.7	+30.3	+25.8	+19.9	+12.3	+4.7	-4.2
June ...	-3.0	+2.1	0.0	-2.8	-2.5	-3.6	-7.2	-13.5	-19.0	-25.1	-28.6	-25.2	-17.3	-7.2	0.0	+7.1	+19.2	+26.0	+29.8	+27.6	+21.2	+13.1	+5.2	+3.7
July ...	+5.9	+1.3	+0.6	+1.5	+0.8	-0.5	-4.1	-11.3	-19.6	-27.7	-31.9	-29.7	-18.6	-7.0	+2.1	+8.8	+13.3	+20.4	+22.9	+23.0	+18.5	+13.2	+9.7	+8.6
Aug. ...	-0.2	-2.8	-1.9	+0.9	+0.4	0.0	-3.3	-9.5	-19.6	-26.6	-28.4	-25.2	-18.3	-4.6	+7.6	+12.8	+14.4	+18.8	+23.4	+21.9	+18.5	+11.6	+7.1	+3.0
Sept. ...	+0.6	-4.8	+0.1	+3.5	+2.5	+3.4	+2.3	-6.5	-14.3	-20.0	-23.8	-20.8	-13.2	-3.6	+4.4	+8.5	+12.4	+16.0	+14.5	+11.3	+10.9	+8.9	+3.9	+3.8
Oct. ...	+2.2	+2.0	+2.7	+4.0	+6.6	+9.4	+8.4	+5.5	-1.0	-11.5	-17.6	-18.1	-14.6	-9.1	-3.4	+0.4	+2.5	+4.8	+3.6	+5.3	+4.7	+3.3	+5.6	+4.3
Nov. ...	+0.1	-1.2	-0.7	+1.0	+2.6	+5.4	+5.5	+5.2	+1.4	-4.6	-7.0	-9.6	-5.9	-2.1	+0.3	+0.6	+2.0	+0.9	+1.4	+2.7	+1.6	-0.1	+0.6	-0.2
Dec. ...	-4.8	-9.3	-6.4	-4.2	-0.5	+3.1	+4.4	+5.6	+3.0	+0.1	-2.3	-2.5	-0.6	+0.6	+2.0	+0.5	+0.7	+3.6	+6.1	+0.1	+2.0	+1.0	-0.9	-1.3
Year ...	-1.0	-2.0	-1.0	-0.1	+1.2	+2.5	+1.5	-2.5	-8.5	-14.4	-18.1	-17.2	-12.2	-4.9	+1.5	+5.5	+8.9	+13.1	+14.3	+12.3	+10.1	+6.3	+3.2	+1.4
Winter...	+2.6	-4.6	-3.3	-2.2	+0.3	+3.7	+5.2	+4.8	+1.7	-2.1	-4.8	-6.0	-3.9	-0.5	+1.7	+1.9	+2.3	+3.5	+4.5	+1.1	+2.6	-0.5	-1.1	-1.9
Equinox..	+0.1	-1.1	+0.3	+1.7	+3.0	+5.2	+4.9	-0.5	-8.3	-15.5	-20.7	-19.7	-14.6	-6.7	+0.6	+5.8	+8.5	+11.7	+11.9	+11.1	+8.2	+6.9	+4.0	+3.4
Summer...	-0.4	-0.3	0.0	+0.2	+0.3	-1.5	-5.5	-11.7	-19.0	-25.7	-28.9	-25.9	-18.0	-7.3	+2.3	+8.9	+16.0	+24.0	+26.6	+24.6	+19.5	+12.5	+6.7	+2.8
54. LERWICK. DECLINATION. (ALL DAYS). 1934.																								
Jan. ...	-1.77	-0.66	-0.35	-0.66	-0.34	-0.15	-0.46	-0.55	-0.59	+0.04	+1.15	+2.19	+3.09	+3.38	+2.10	+1.51	+1.45	+0.87	+0.61	-0.71	-2.09	-2.38	-3.13	-2.55
Feb. ...	-2.47	-1.36	-1.45	-0.72	-1.15	-1.27	-1.03	-0.65	-0.81	-0.50	+0.71	+2.56	+3.87	+4.37	+4.36	+3.16	+2.58	+1.05	+0.01	-0.52	-1.54	-3.17	-3.08	-2.95
Mar. ...	-2.35	-2.93	-2.05	-1.90	-2.20	-2.01	-1.68	-1.61	-0.97	-0.23	+1.33	+3.59	+5.34	+6.26	+5.18	+3.90	+2.28	+1.48	-0.22	-1.08	-2.53	-3.49	-1.82	-2.19
Apr. ...	-1.14	-0.90	-1.57	-1.91	-2.11	-2.50	-2.79	-3.83	-3.48	-1.74	+0.96	+3.72	+6.04	+6.66	+5.60	+3.83	+2.55	+0.96	-0.69	-1.31	-1.08	-1.34	-1.96	-1.97
May ...	-2.07	-1.95	-2.33	-3.03	-3.82	-3.98	-3.92	-3.94	-3.26	-1.49	+1.25	+3.89	+5.37	+5.38	+4.45	+3.78	+2.84	+2.43	+1.35	+0.98	+0.59	+0.15	-1.06	-1.61
June ...	-0.70	-2.10	-2.76	-3.33	-4.51	-5.40	-5.42	-5.44	-4.89	-3.07	+0.08	+3.25	+5.18	+5.72	+5.78	+5.11	+4.13	+3.11	+2.43	+1.62	+1.21	+0.43	+0.27	-0.68
July ...	-0.53	-1.45	-2.17	-3.40	-4.92	-5.57	-5.52	-5.78	-5.40	-3.31	-0.38	+2.83	+5.48	+6.99	+6.74	+5.56	+3.90	+2.56	+1.67	+1.41	+1.06	+0.45	+0.13	-0.35
Aug. ...	-2.29	-1.59	-1.21	-2.89	-3.03	-3.33	-3.90	-3.68	-2.91	-1.01	+1.35	+3.91	+6.25	+6.98	+5.92	+4.04	+2.38	+1.46	+0.52	+0.16	-0.25	-1.92	-2.60	-2.56
Sept. ...	-1.57	-1.54	-2.43	-2.77	-2.55	-1.36	-1.79	-1.94	-1.29	+0.75	+2.92	+5.17	+6.04	+5.62	+4.08	+3.00	+1.23	+0.02	-0.53	-1.02	-1.50	-1.94	-3.49	-3.11
Oct. ...	-1.37	-0.41	-0.57	-1.10	-0.71	-0.60	-0.73	-1.48	-1.53	-0.93	+0.71	+2.84	+4.24	+4.78	+4.16	+2.83	+1.58	+0.25	-0.62	-1.13	-1.88	-3.11	-2.97	-2.03
Nov. ...	-1.15	-0.59	-0.27	-0.43	-0.44	-0.48	-0.88	-0.93	-0.90	-0.05	+1.29	+2.85	+3.51	+3.18	+2.43	+1.77	+0.93	+0.35	-0.26	-0.94	-2.33	-2.25	-2.55	-1.76
Dec. ...	-1.70	-1.69	-1.33	-0.32	-0.32	-0.02	+0.39	+0.38	+0.49	+0.66	+1.42	+2.03	+2.77	+2.67	+2.18	+2.11	+1.85	+0.46	-0.64	-1.26	-3.20	-2.59	-2.26	-2.08
Year ...	-1.59	-1.43	-1.54	-1.85	-2.17	-2.22	-2.31	-2.45	-2.13	-0.91	+1.07	+3.22	+4.77	+5.16	+4.41	+3.38	+2.30	+1.25	+0.30	-0.32	-1.14	-1.76	-2.04	-1.99
Winter...	-1.77	-1.07	-0.85	-0.53	-0.56	-0.48	-0.49	-0.44	-0.45	-0.04	+1.14	+2.41	+3.31	+3.40	+2.77	+2.14	+1.87	+0.88	-0.07	-0.86	-2.29	-2.60	-2.75	-2.33
Equinox..	-1.61	-1.45	-1.65	-1.92	-1.89	-1.82	-1.75	-2.21	-1.82	-0.54	+1.48	+3.78	+5.41	+5.83	+4.75	+3.39	+1.91	+0.68	-0.51	-1.13	-1.77	-2.47	-2.56	-2.33
Summer...	-1.40	-1.77	-2.12	-3.11	-4.07	-4.57	-4.69	-4.71	-4.11	-2.22	+0.57	+3.47	+5.57	+6.27	+5.72	+4.62	+3.31	+2.39	+1.49	+1.04	+0.65	-0.22	-0.81	-1.30
55. LERWICK. VERTICAL FORCE. (ALL DAYS). 1934.																								
Jan. ...	-7.0	-7.0	-6.2	-4.8	-4.8	-5.4	-5.1	-4.3	-3.3	-3.8	-3.9	-2.6	-2.4	-1.7	+0.8	+2.3	+3.8	+10.4	+14.5	+13.0	+9.9	+8.5	+4.0	-4.7
Feb. ...	-8.5	-12.6	-13.7	-13.3	-12.6	-9.9	-8.5	-7.6	-5.6	-5.8	-5.4	-4.5	-2.9	-1.0	+4.4	+10.7	+17.6	+22.0	+20.5	+16.8	+14.1	+10.3	-0.2	-4.3
Mar. ...	-31.1	-28.6	-18.3	-12.1	-10.9	-9.5	-4.1	0.0	+2.4	+1.5	+3.1	+3.4	+4.3	+6.3	+11.1	+16.6	+21.3	+21.4	+23.7	+21.3	+18.0	+2.8	-18.5	-24.1
Apr. ...	-15.0	-13.3	-8.9	-4.0	-3.9	-4.3	-3.4	-1.8	-0.7	-0.7	-2.4	-4.2	-4.9	-1.4	+3.6	+11.0	+14.5	+16.3	+15.4	+13.2	+8.4	+2.1	-4.5	-11.1
May ...	-15.8	-14.6	-10.3	-7.0	-3.7	-1.1	-0.7	-0.7	-1.6	-4.4	-6.0	-7.3	-5.3	-1.1	+5.2	+11.1	+13.4	+14.1	+15.6	+14.3	+12.4	+8.2	0.0	-12.7
June ...	-12.6	-9.9	-7.4	-6.7	-8.4	-3.9	-0.7	+1.7	+0.2	-1.5	-2.9	-4.8	-5.7	-4.7	-1.6	+4.0	+8.9	+12.9	+14.3	+14.9	+11.4	+9.4	-0.1	-7.0
July ...	-2.6	-6.1	-9.1	-6.9	-5.1	-4.4	-4.4	-2.9	-2.1	-1.5	-2.5	-6.6	-7.8	-4.6	-1.3	+4.6	+10.3	+11.4	+12.0	+10.7	+8.7	+6.5	+3.3	+0.4
Aug. ...	-20.5	-19.7	-19.3	-14.4	-10.0	-8.5	-3.4	-0.2	+1.5	+1.9	+1.7	+2.1	+2.2	+3.6	+9.1	+16.1	+17.8	+16.6	+15.3	+11.6	+4.7	+8.1	-19.8	-19.8
Sept. ...	-24.3	-28.2	-20.0	-13.9	-8.8	-7.2	-4.3	-0.6	+1.6	+1.3	+2.2	+2.9	+6.0	+8.1	+15.0	+21.6	+28.3	+25.1	+15.2	+9.8	+6.6	0.0	-16.3	-20.1
Oct. ...	-8.8	-8.3	-9.4	-8.2	-9.9	-9.8	-7.7	-4.7	-1.9	-0.2	-0.1	-0.2	-0.6	+2.1	+7.2	+12.7	+15.2	+15.5	+16.0	+11.4	+8.8	-2.3	-5.5	-8.3
Nov. ...	-8.4	-6.7	-6.5	-5.9	-6.5	-6.7	-5.3	-4.4	-2.3	-1.3	-0.6	+0.5	+0.5	+1.8	+3.8	+8.0	+10.6	+10.7	+10.2	+5.2	+2.7	-1.0	-6.6	-6.6
Dec. ...	-11.6	-17.7	-13.7	-10.6	-12.4	-10.2	-8.2	-4.0	-2.2	-0.6	+0.9	+1.9	+3.2	+6.9	+8.6	+9.7	+12.5	+17.4	+15.3	+8.1	+8.7	+6.4	-0.4	-8.0
Year ...	-13.9	-14.4	-11.9	-9.0	-8.1	-6.7	-4.7	-2.5	-1.2	-1.3	-1.3	-1.6	-1.1	+1.2	+5.5	+10.5	+14.7	+16.3	+15.8	+13.3	+10.1	+4.8	-3.9	-10.5
Winter...	-8.9	-11.0	-10.0	-8.7	-9.1	-8.1	-6.8	-5.1	-3.3	-2.9	-2.3	-1.2	-0.4	+1.5	+4.3	+7.2	+11.1	+15.1	+15.1	+12.0	+9.5	+7.0	+0.6	-5.9
Equinox..	-19.8	-19.6	-14.1	-9.5	-8.4	-7.7	-4.9	-1.8	+0.3	+0.5	+0.7	+0.5	+1.2	+3.8	+9.2	+15.5	+19.8	+19.6	+17.6	+13.9	+9.7	+0.7	-11.2	-15.9
Summer...	-12.9	-12.6	-11.5	-8.7	-6.8	-4.5	-2.3	-0.5	-0.5	-1.4	-2.4	-4.1	-4.1	-1.7	+2.9	+8.9	+13.1	+14.1	+14.6	+13.8	+11.0	+6.7	-1.2	-9.8

Departures from the mean of the day adjusted for non-cyclic change.†

MONTH AND SEASON	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
56. LERWICK. HORIZONTAL FORCE (QUIET DAYS) 1934.																								
January	-3.9	-4.8	-4.1	-2.7	-0.9	+1.8	+4.1	+2.9	+2.0	+1.0	-0.9	-3.0	-0.3	+3.6	+3.5	+2.5	+0.9	+0.6	-0.3	-0.5	+1.6	+0.2	-1.5	-1.8
February	-0.1	+0.4	-0.6	+0.9	+2.9	+4.7	+4.9	+3.5	+1.8	-1.9	-4.3	-7.0	-8.6	-7.4	-2.0	+0.6	+0.5	+2.2	+3.4	+3.5	+2.5	-0.1	+0.5	-0.3
March	+3.1	-1.0	+0.9	+0.8	+3.8	+5.0	+4.9	+2.3	-3.1	-10.3	-16.2	-16.3	-12.0	-3.6	+1.8	+2.2	+3.1	+2.6	+4.9	+5.4	+5.7	+4.6	+4.4	+7.0
April	+6.5	+5.3	+4.7	+2.7	+2.6	+3.8	+1.5	-4.8	-14.1	-22.6	-30.2	-26.3	-16.3	-10.3	-1.3	+4.1	+7.6	+13.4	+15.9	+15.8	+12.9	+10.6	+10.0	+8.5
May	+6.9	+6.2	+3.9	+2.6	+2.6	-0.9	-6.2	-10.7	-16.9	-24.0	-27.7	-24.4	-16.0	-5.9	+0.2	+3.5	+7.9	+14.6	+18.5	+19.6	+16.6	+12.3	+8.4	+7.9
June	+5.9	+5.5	+4.9	+4.7	+3.1	+0.6	-4.2	-10.6	-19.8	-28.4	-31.6	-25.4	-15.0	-6.6	-1.0	+4.7	+10.2	+15.2	+18.9	+20.3	+17.7	+13.5	+10.5	+6.9
July	+4.9	+2.6	+4.2	+4.5	+4.0	+2.9	-2.2	-7.8	-16.3	-25.0	-29.7	-27.4	-19.4	-9.5	-3.0	+2.5	+9.0	+13.6	+20.7	+22.4	+18.3	+14.0	+9.2	+7.5
August	+4.7	+3.6	+4.0	+4.5	+0.8	-0.9	-2.4	-7.5	-13.8	-19.4	-23.1	-21.3	-14.8	-6.4	+0.5	+4.3	+5.9	+9.5	+14.8	+18.0	+13.4	+10.1	+8.7	+6.8
September	+7.8	+5.4	+3.6	+3.2	+1.4	0.0	-1.4	-7.2	-15.9	-22.9	-24.3	-19.5	-10.3	-3.3	-0.9	-1.1	+3.0	+6.2	+13.4	+14.8	+11.6	+11.0	+10.0	
October	+4.6	+3.2	+2.9	+3.2	+5.2	+6.7	+5.3	+0.9	-4.2	-11.5	-16.8	-19.6	-17.8	-10.2	-2.4	+1.9	+3.1	+4.5	+6.3	+7.6	+8.2	+7.0	+6.0	+5.8
November	-0.4	-1.4	-1.5	+0.1	+1.2	+2.1	+2.7	+1.2	-2.8	-8.3	-9.7	-9.6	-4.6	-0.9	+2.5	+3.2	+3.6	+2.6	+4.4	+4.4	+3.7	+2.5	+2.6	+2.4
December	-2.1	-1.9	-2.6	-1.8	+0.4	+2.3	+3.1	+1.7	+1.0	-0.8	-2.0	-2.5	-1.8	+1.6	+2.7	+0.3	-1.5	0.0	+1.0	+1.4	+1.5	-0.3	-0.5	+0.8
Year	+3.2	+1.9	+1.7	+1.9	+2.3	+2.3	+0.8	-3.0	-8.5	-14.5	-18.0	-16.9	-11.4	-4.9	+0.1	+2.4	+4.4	+7.3	+10.2	+11.1	+9.6	+7.2	+5.9	+5.1
Winter	-1.6	-1.9	-2.2	-0.9	+0.9	+2.7	+3.7	+2.3	+0.5	-2.5	-4.2	-5.5	-3.8	-0.8	+1.7	+1.7	+0.9	+1.3	+2.1	+2.2	+2.3	+0.6	+0.3	+0.3
Equinox	+5.5	+3.2	+3.0	+2.5	+3.3	+3.9	+2.6	-2.2	-9.3	-16.8	-21.2	-20.4	-14.1	-6.9	-0.7	+1.8	+4.2	+7.2	+10.1	+10.9	+10.1	+8.5	+7.9	+7.8
Summer	+5.6	+4.5	+4.3	+4.1	+2.6	+0.4	-3.7	-9.1	-16.7	-24.2	-28.0	-24.6	-16.3	-7.1	-0.8	+3.7	+8.3	+13.2	+18.2	+20.1	+16.5	+12.5	+9.5	+7.3
57. LERWICK. DECLINATION (QUIET DAYS) 1934.																								
January	-0.54	+0.06	+0.23	+0.08	+0.10	+0.02	-0.95	-0.93	-0.98	-0.29	+0.95	+1.35	+1.87	+1.87	+1.04	+0.77	+0.65	-0.20	-0.64	-0.65	-1.72	-1.70	-1.40	
February	-0.81	-0.35	+0.59	-0.15	-0.37	-0.84	-1.00	-0.90	-1.22	-1.20	+0.20	+1.76	+2.92	+3.16	+2.84	+1.78	+0.76	+0.61	+0.49	-0.15	-0.73	-2.15	-2.61	-2.63
March	-1.43	-0.88	-1.00	-0.92	-1.69	-2.00	-2.11	-2.16	-2.64	-1.94	+0.49	+3.10	+5.08	+5.51	+4.69	+2.67	+1.48	+0.51	-0.10	-0.41	-1.27	-1.67	-1.76	-1.55
April	-1.06	-1.30	-1.70	-2.18	-2.71	-3.07	-3.76	-4.51	-3.88	-1.79	+1.15	+3.72	+5.20	+5.82	+4.50	+2.78	+1.47	+0.83	+0.58	+0.31	-0.06	+0.15	-0.11	-1.08
May	-0.53	-0.53	-0.81	-1.79	-3.16	-3.78	-4.18	-4.32	-3.82	-2.04	+0.90	+3.66	+4.77	+4.63	+3.45	+2.55	+1.69	+1.23	+1.09	+0.87	+0.56	+0.26	-0.18	-0.54
June	-0.64	-1.04	-1.83	-2.95	-3.80	-4.91	-5.45	-5.81	-5.38	-3.32	-0.32	+2.69	+4.74	+4.98	+4.67	+3.89	+2.87	+2.30	+2.38	+2.52	+2.26	+1.72	+0.80	-0.39
July	-0.44	-0.64	-1.65	-2.85	-4.16	-5.05	-5.44	-5.27	-5.57	-3.34	+0.12	+3.21	+5.77	+6.38	+5.94	+4.69	+3.13	+1.63	+1.14	+0.72	+0.89	+0.95	+0.48	-0.04
August	-0.66	-1.10	-1.43	-2.24	-2.93	-3.91	-3.65	-4.19	-3.76	-2.08	+0.22	+2.23	+4.93	+5.51	+4.97	+3.48	+1.99	+1.20	+1.12	+0.19	+0.16	-0.10	-0.03	-0.52
September	-1.36	-1.12	-1.88	-2.55	-2.75	-2.78	-3.28	-3.46	-2.47	-0.35	+2.11	+4.26	+5.44	+5.13	+3.53	+1.49	+0.28	+0.32	+0.74	+0.99	+0.75	-0.06	-1.24	-1.74
October	-0.96	-0.79	-0.63	-0.72	-0.81	-1.12	-1.48	-2.29	-2.58	-1.98	-0.07	+2.39	+3.92	+4.28	+3.11	+1.57	+0.65	+0.43	+0.35	-0.15	-0.43	-0.48	-0.99	-1.25
November	-0.98	-0.36	-0.55	-0.65	-0.62	-0.73	-0.93	-1.19	-1.29	-0.69	+0.56	+1.78	+2.61	+2.27	+1.38	+1.08	+0.93	+0.58	+0.32	-0.12	-0.58	-0.76	-0.95	-1.21
December	-0.34	-0.56	-0.44	-0.53	-0.35	-0.21	-0.34	-0.47	-0.20	+0.23	+0.65	+1.36	+1.58	+1.52	+1.16	+0.94	+0.81	+0.41	+0.52	-0.53	-0.82	-1.03	-1.43	-1.88
Year	-0.81	-0.72	-0.93	-1.45	-1.94	-2.37	-2.71	-3.01	-2.81	-1.57	+0.58	+2.68	+4.13	+4.25	+3.44	+2.31	+1.42	+0.89	+0.70	+0.30	+0.01	-0.41	-0.81	-1.19
Winter	-0.67	-0.30	-0.04	-0.30	-0.31	-0.44	-0.81	-0.87	-0.92	-0.49	+0.59	+1.56	+2.25	+2.21	+1.61	+1.14	+0.87	+0.56	+0.28	-0.36	-0.69	-1.41	-1.67	-1.78
Equinox	-1.20	-1.02	-1.30	-1.59	-1.99	-2.24	-2.66	-3.11	-2.39	-1.51	+0.92	+3.37	+5.09	+5.19	+3.96	+2.13	+0.97	+0.52	+0.39	+0.19	-0.25	-0.51	-1.02	-1.41
Summer	-0.57	-0.83	-1.43	-2.46	-3.51	-4.41	-4.68	-5.05	-4.63	-2.69	+0.23	+3.10	+5.05	+5.37	+4.76	+3.65	+2.42	+1.59	+1.43	+1.07	+0.97	+0.71	+0.27	-0.37
58. LERWICK. VERTICAL FORCE (QUIET DAYS) 1934.																								
January	-0.1	-0.4	-0.7	+0.3	-0.3	-0.4	-1.0	-1.0	-1.4	-2.3	-2.8	-1.2	-0.2	-0.3	-1.0	-0.2	0.0	+0.3	+1.5	+3.1	+2.7	+2.6	+2.5	+0.3
February	-5.5	-3.4	-1.7	-1.8	-1.1	-1.7	-1.5	-2.0	-1.7	-2.2	-2.7	-2.6	-1.2	-0.1	+1.4	+4.1	+6.0	+5.9	+3.8	+2.3	+1.8	+2.9	+0.6	-0.7
March	-3.6	-4.1	-5.0	-2.3	-2.7	-1.8	-0.5	+0.8	+2.1	+2.4	+0.6	-2.3	-5.4	-4.1	+1.5	+5.0	+5.7	+5.6	+4.3	+3.2	+3.0	+1.1	+0.2	-3.7
April	-1.5	-1.8	-1.0	+0.2	+1.1	-0.4	+0.3	+0.4	-2.0	-0.8	-4.5	-8.8	-10.8	-7.1	-3.1	+2.7	+4.9	+6.1	+7.0	+7.3	+8.1	+5.5	-0.8	-2.1
May	+0.8	+2.3	+2.6	+2.9	+4.0	+4.8	+4.0	+1.6	-0.8	-6.3	-7.5	-8.4	-8.2	-7.5	-3.2	+0.9	+3.2	+4.4	+4.2	+4.0	+3.4	+2.3	-0.9	-1.4
June	0.0	-0.2	+0.3	+1.5	+1.4	+2.2	+4.6	+4.8	+3.4	+1.0	-2.6	-7.0	-10.1	-10.5	-7.3	-4.5	-0.4	+1.7	+2.5	+4.6	+5.4	+5.0	+2.9	+1.3
July	-0.1	-0.9	-2.1	+0.9	+1.7	+1.3	+2.6	+1.8	+1.4	+1.4	0.0	-3.6	-7.3	-8.3	-6.3	-2.3	+1.1	+3.1	+3.4	+3.6	+3.4	+2.8	+2.0	+0.6
August	-1.8	0.0	-0.1	+0.3	+0.5	-1.1	-1.7	-1.6	-3.5	-3.8	-4.3	-4.9	-5.3	-2.9	+1.3	+5.2	+6.8	+6.7	+5.7	+2.3	+1.4	+0.8	-0.2	-3.0
September	-2.7	-1.0	+0.7	+2.6	+2.4	+2.4	+2.6	+1.4	-0.8	-3.4	-5.3	-6.4	-7.3	-3.9	+1.7	+4.3	+5.9	+3.7	+2.3	+1.8	+1.5	+1.0	-0.6	-2.8
October	-0.8	+0.6	+0.2	+0.2	-0.4	-1.2	-1.4	-0.6	-0.2	-0.6	-1.4	-2.2	-3.3	-1.5	+0.5	+2.5	+3.3	+2.7	+1.5	+0.9	+0.7	+0.3	+0.5	-0.3
November	+0.1	+0.1	+0.3	-0.1	-0.8	-1.9	-2.3	-1.6	-0.9	-1.0	-1.0	-1.9	-1.3	+0.3	+1.7	+2.1	+2.4	+1.6	+0.7	+0.4	+1.3	+0.8	+0.8	+0.1
December	-1.7	-1.9	-2.0	-1.6	-1.7	-2.0	-2.0	-1.9	-1.9	-1.8	-1.4	-0.4	-0.3	+0.5	+1.3	+3.0	+3.7	+3.5	+3.1	+3.1	+1.9	+0.9	+0.8	-1.2
Year	-1.4	-0.9	-0.7	+0.2	+0.3	+0.1	+0.3	+0.2	-0.5	-1.5	-2.7	-4.1	-5.1	-3.9	-1.0	+1.9	+3.7	+3.9	+3.3	+3.1	+2.9	+2.1	+0.7	-1.1
Winter	-1.8	-1.4	-1.0	-0.9	-1.0	-1.2	-1.7	-1.6	-1.5	-1.9	-2.0	-1.5	-0.7	+0.1	+0.9	+2.3	+3.0	+2.8	+2.3	+2.2	+1.9	+1.8	+1.2	-0.4
Equinox	-2.1	-1.6	-1.3	+0.2	+0.1	-0.3	+0.3	+0.5	+0.1	-0.6	-2.7	-4.9	-6.7	-4.1	+0.1	+3.6	+4.9	+4.5	+3.8	+3.3	+3.3	+2.0	-0.2	-2.2
Summer	-0.3	+0.3	+0.2	+1.3	+1.9	+1.8	+2.4	+1.6	-0.2	-1.9	-3.6	-6.0	-7.7	-7.3	-3.9	-0.8	+3.2	+4.5	+3.9	+3.6	+3.4	+2.7	+0.9	-0.6

Departures from mean of the day adjusted for non-cyclic change.†

MONTH AND SEASON.	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
59. LERWICK. HORIZONTAL FORCE (DISTURBED DAYS) 1934.																								
January	-6.2	-5.8	-1.8	-0.9	-4.0	+2.0	+8.0	+9.1	+3.2	-2.4	-4.2	-4.3	-2.5	+3.3	+1.1	+2.4	+0.7	+6.9	+32.1	-4.8	-3.7	-11.1	-9.9	-7.4
February	-11.9	-18.6	-17.2	-13.8	-7.7	-2.3	+1.6	-2.7	-5.5	-9.3	-9.8	-6.2	-6.1	-0.2	-0.6	-1.4	+19.9	+35.7	+23.8	+10.1	+44.1	-0.5	-11.4	-12.0
March	-17.5	-14.2	-10.1	-2.1	+4.3	+13.8	+15.1	+0.7	-20.7	-11.4	-18.9	-7.0	-8.3	+1.4	+10.3	+16.4	+14.5	+19.4	+20.5	+20.7	-6.8	-2.8	-16.7	-2.8
April	-10.6	+2.1	+6.1	+4.0	+3.7	-3.5	-2.6	-1.5	-10.9	-23.0	-27.9	-28.9	-22.6	-7.5	+1.7	+17.2	+15.3	+20.5	+28.4	+16.3	+18.5	+11.8	+0.7	-7.3
May	-40.4	-21.8	-11.2	-11.7	-1.9	-6.6	-14.1	-16.5	-19.9	-25.6	-27.0	-21.0	-16.2	-5.4	+7.2	+34.1	+55.1	+85.3	+56.5	+31.1	+25.3	+9.8	-13.4	-52.2
June	-35.6	-3.4	-3.4	-17.3	-17.0	-12.6	-9.3	-14.0	-17.1	-21.5	-21.9	-21.8	-12.0	+0.8	+10.6	+15.9	+24.8	+38.0	+41.7	+35.6	+24.1	+14.7	-6.1	-3.2
July	+7.2	-0.6	-4.2	+4.4	+0.7	-5.1	-6.4	-11.3	-29.7	-37.1	-35.1	-32.7	-13.6	+6.0	+15.8	+22.4	+18.1	+21.1	+20.0	+19.5	+16.1	+10.1	+5.9	+6.7
August	-7.3	-12.5	-12.1	-4.0	-11.0	-7.2	-7.3	-12.3	-25.4	-33.3	-28.0	-27.0	-19.6	-9.2	+12.8	+19.7	+32.5	+41.7	+47.6	+37.0	+30.7	+5.2	+1.3	-12.3
September	-1.9	-7.1	-5.6	+5.7	-9.8	-7.5	+0.1	-14.2	-25.1	-18.0	-19.8	-17.9	-10.7	-0.5	+22.3	+27.5	+41.8	+49.8	+16.0	-13.2	-8.1	+1.1	-3.6	-3.3
October	-0.8	+1.1	+4.6	+8.1	+9.4	+13.2	+15.0	+8.5	+0.3	-14.8	-20.4	-18.2	-10.7	-6.4	-0.1	+6.8	+4.6	+11.7	-2.1	+0.8	-6.8	-8.9	+1.1	+4.1
November	-2.6	-1.7	+0.1	+3.0	+5.1	+8.9	+9.0	+11.9	+4.9	-5.6	-7.7	-19.8	-8.8	+0.9	+3.7	+1.0	+3.9	-2.5	-0.6	+5.1	+2.1	+0.2	-1.1	-9.3
December	-20.0	-47.1	-21.8	-4.9	-4.3	-4.2	-3.9	+6.6	+5.6	+2.3	-2.5	-1.1	+2.3	-0.4	+3.2	+5.6	+4.4	+24.8	+38.9	-1.1	+9.8	+9.8	+0.2	-2.2
Year	-12.3	-10.6	-6.4	-2.5	-2.7	-0.9	+0.4	-3.0	-11.7	-16.6	-18.6	-17.2	-10.6	-1.4	+7.3	+14.0	+20.5	+29.4	+26.9	+13.1	+12.3	+3.3	-4.4	-8.3
Winter	-10.2	-17.7	-10.2	-4.1	-2.7	+1.1	+3.7	+6.2	+2.1	-3.7	-6.1	-7.9	-3.8	+0.9	+1.9	+1.9	+7.2	+16.2	+23.5	+2.3	+13.1	-0.4	-5.5	-7.7
Equinox	-7.7	-4.5	-1.3	+3.9	+1.9	+4.0	+6.9	-1.6	-14.1	-16.8	-21.7	-18.0	-12.6	-3.3	+8.5	+17.0	+19.0	+25.3	+15.7	+6.1	-0.3	+0.3	-4.6	-2.3
Summer	-19.0	-9.6	-7.7	-7.1	-7.3	-7.9	-9.3	-13.5	-23.0	-29.4	-28.0	-25.6	-15.4	-1.9	+11.6	+23.0	+35.1	+46.7	+41.5	+30.8	+24.1	+9.9	-3.1	-14.7
60. LERWICK. DECLINATION (DISTURBED DAYS) 1934.																								
January	-1.78	-0.29	-0.40	-1.07	-0.07	+0.41	+0.12	-0.24	-0.13	+0.70	+1.93	+2.92	+3.30	+3.72	+1.89	+1.05	+2.76	-0.78	+0.84	-0.55	-3.53	-3.63	-4.32	-2.88
February	-4.41	-3.31	-5.64	-1.96	-1.92	-2.12	-0.43	+1.19	+0.89	+1.20	+1.22	+3.03	+4.85	+5.40	+6.69	+5.06	+5.07	+1.52	-1.93	-2.00	-0.29	-3.97	-4.45	-3.69
March	-3.11	-7.36	-3.47	-1.86	-3.00	-2.36	-1.58	+0.38	+4.12	+4.20	+3.27	+4.48	+6.11	+6.93	+6.13	+4.95	+3.80	+0.33	-2.31	-1.80	-5.39	-5.68	-3.48	-3.32
April	-1.15	+0.07	-0.19	-0.90	-1.05	-0.97	+0.48	-2.08	-0.02	+2.10	+4.47	+6.55	+7.92	+8.27	+5.55	+3.49	-0.02	-4.13	-5.43	-4.27	-4.84	-6.15	-5.19	-4.95
May	-7.25	-6.48	-4.29	-4.22	-4.39	-2.78	-1.79	-2.58	-2.55	-0.62	+1.79	+4.36	+5.28	+6.09	+5.46	+6.17	+5.34	+6.09	+1.42	+0.77	+0.74	-0.17	-1.44	-4.95
June	+1.19	-5.48	-8.09	-8.22	-7.46	-7.28	-5.62	-6.52	-5.68	-2.82	+1.23	+5.06	+7.23	+7.17	+7.81	+8.11	+6.54	+5.01	+3.81	+1.84	+1.55	0.00	+0.92	-0.32
July	-2.64	-3.65	-1.95	-3.66	-7.55	-5.78	-4.24	-5.77	-6.40	-2.64	-0.17	+3.33	+5.22	+9.80	+9.59	+8.27	+4.55	+3.77	+2.07	+1.87	+0.51	-0.70	-1.62	-2.11
August	-2.42	-1.90	-0.13	-2.80	-0.22	+1.94	-1.09	-0.86	-1.68	+0.62	+2.21	+3.74	+6.48	+7.62	+6.27	+3.86	+2.02	+0.78	-2.77	-1.16	-2.48	-6.98	-7.75	-3.30
September	-4.41	-1.70	-0.42	-4.32	-1.95	+4.32	+3.59	+1.36	+1.44	+3.02	+3.75	+5.32	+5.20	+5.75	+2.87	+4.35	+1.16	-1.87	-3.80	-7.15	-4.61	-3.73	-3.94	-4.03
October	-3.37	-0.41	-0.78	-1.28	+0.89	+2.42	+0.97	-1.22	-0.18	+0.05	+1.41	+2.56	+5.30	+6.23	+6.27	+3.60	+2.00	-1.50	-2.37	-2.05	-4.42	-6.62	-4.71	-2.59
November	-0.81	-1.93	-0.12	0.00	-0.36	-0.22	-0.50	-0.75	+0.04	+0.97	+2.28	+4.96	+5.28	+4.90	+3.94	+2.81	-1.33	-2.18	-1.20	-3.02	-3.77	-3.11	-3.95	-1.93
December	-7.04	-8.89	-4.71	-1.16	+0.41	+2.53	+2.98	+2.67	+2.85	+2.18	+3.77	+3.89	+5.34	+4.99	+3.93	+4.36	+4.03	-1.51	-0.48	-3.47	-6.07	-0.52	-5.15	-4.93
Year	-3.10	-3.44	-2.52	-2.62	-2.24	-0.82	-0.59	-1.24	-0.78	+0.58	+2.07	+4.01	+5.51	+6.38	+5.74	+4.85	+3.29	+0.81	-0.90	-1.86	-2.37	-3.34	-3.84	-3.26
Winter	-3.51	-3.81	-2.72	-1.05	-0.49	+0.15	+0.54	+0.72	+0.91	+1.26	+2.30	+3.70	+4.69	+4.75	+4.11	+3.32	+2.63	-0.73	-0.69	-2.26	-3.41	-2.83	-4.47	-3.33
Equinox	-3.01	-2.35	-1.21	-2.09	-1.33	+0.85	+0.86	-0.49	+0.83	+1.81	+2.63	+4.21	+5.79	+6.71	+5.83	+4.61	+2.61	-0.77	-3.15	-4.11	-4.67	-5.21	-4.57	-3.78
Summer	-2.78	-4.38	-3.61	-4.73	-4.91	-3.47	-3.19	-3.93	-4.07	-1.34	+1.27	+4.12	+6.05	+7.87	+7.28	+6.60	+4.61	+3.91	+1.13	+0.78	+0.08	-1.96	-2.47	-2.67
61. LERWICK. VERTICAL FORCE (DISTURBED DAYS) 1934.																								
January	-7.9	-8.3	-9.1	-8.6	-10.9	-16.6	-15.9	-14.9	-13.5	-12.7	-12.1	-8.5	-7.6	-6.6	+1.4	+3.4	+3.9	+34.4	+50.9	+32.3	+16.9	+14.6	+4.0	-8.8
February	-9.1	-37.4	-43.9	-40.2	-42.0	-32.9	-28.5	-26.9	-19.4	-18.1	-14.8	-13.1	-10.0	-1.1	+18.4	+38.5	+59.1	+79.0	+62.8	+42.4	+28.9	+14.8	-3.1	-3.4
March	-60.7	-64.0	-40.3	-26.3	-19.1	-9.0	-0.8	+0.5	+2.2	-3.0	+6.4	+9.3	+14.3	+22.4	+32.9	+40.3	+49.7	+51.8	+56.8	+46.9	+24.8	-25.4	-68.0	-43.7
April	-44.2	-44.0	-29.2	-12.7	-4.0	-4.2	-11.1	-8.4	-3.1	-1.3	-0.9	+0.8	+3.6	+10.2	+16.2	+38.5	+45.2	+43.6	+36.9	+33.6	+12.9	-9.7	-26.1	-42.6
May	-66.5	-53.7	-46.5	-45.3	-36.8	-29.6	-28.4	-20.9	-12.7	-9.1	-5.7	-1.5	+7.4	+19.2	+34.2	+52.4	+61.7	+60.9	+62.1	+48.6	+40.2	+18.0	+7.8	-57.8
June	-50.3	-32.5	-27.6	-19.9	-31.6	-19.7	-11.5	-2.1	-0.4	+0.3	+0.4	+0.4	+2.6	+7.7	+21.6	+34.1	+42.6	+41.0	+35.8	+24.3	+15.5	-10.0	-20.1	
July	-12.4	-12.1	-14.6	-16.7	-9.5	-6.8	-18.5	-20.9	-13.6	-10.7	-9.8	-13.9	-6.2	+13.5	+17.0	+24.7	+36.1	+28.6	+22.3	+14.7	+9.6	+5.1	0.0	-5.9
August	-47.0	-53.7	-51.7	-42.9	-39.0	-44.6	-23.1	-8.7	+2.5	+8.6	+13.2	+20.1	+27.3	+20.2	+25.5	+36.2	+43.5	+43.9	+51.0	+44.2	+30.2	+7.8	-21.5	-42.0
September	-30.8	-35.9	-40.2	-49.6	-39.1	-41.9	-37.0	-19.5	-4.4	-4.6	+3.3	+10.8	+29.8	+32.9	+50.6	+67.6	+87.5	+67.3	+25.8	+7.3	-2.0	-1.2	-36.7	-40.0
October	-20.5	-22.7	-18.9	-27.4	-34.3	-32.4	-18.9	-11.5	-4.7	-1.9	+0.1	-1.0	+6.6	+21.8	+43.4	+52.3	+49.5	+54.7	+34.8	+11.8	-23.2	-17.0	-17.4	
November	-28.2	-18.7	-12.2	-11.3	-12.1	-12.0	-10.7	-10.7	-7.7	-5.0	-2.1	+4.0	+2.3	+2.2	+6.9	+13.9	+37.3	+35.6	+30.3	+33.3	+6.0	-0.3	-12.4	-28.3
December	-61.6	-84.8	-59.9	-26.7	-29.8	-26.9	-22.3	-1.7	+3.0	+7.6	+10.6	+13.7	+20.2	+35.6	+38.5	+21.5	+45.1	+66.8	+41.0	+10.8	+21.4	+19.0	-7.4	-43.7
Year	-36.6	-39.0	-33.2	-26.6	-25.1	-23.2	-19.9	-12.7	-6.5	-4.5	-1.0	+1.9	+6.7	+13.1	+22.6	+34.3	+46.3	+50.3	+44.6	+32.1	+18.7	+2.9	-15.9	-29.5
Winter	-26.7	-37.2	-31.3	-21.7	-23.7	-22.1	-19.3	-13.5	-9.4	-7.1	-4.6	-1.0	+1.2	+7.5	+16.3	+21.8	+36.3	+53.9	+46.3	+29.7	+18.3	+12.0	-4.7	-21.1
Equinox	-39.1	-41.7	-33.1	-26.9	-22.4	-22.4	-20.3	-11.6	-4.2	-3.4	+2.2	+5.3	+11.7	+18.0	+30.3	+47.5	+58.7	+53.1	+43.5	+30.7	+11.9	-14.9	-36.9	-35.9
Summer	-44.1	-38.0	-35.1	-31.2	-29.2	-25.2	-19.9	-13.1	-6.1	-2.9	-0.5	+1.3	+7.2	+13.9	+21.1	+33.7	+43.9	+44.0	+44.1	+35.8	+26.1	+11.6	-5.9	-31.5

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE
MONTHS, YEAR AND SEASONS OF 1934.

NOTE.- The ranges are those shown in Tables 53 to 61 in the preparation
of which the non-cyclic change has been eliminated.

62. LERWICK.

1934.

	All Days.			Quiet Days.			Disturbed Days.		
	H.	D.	V.	H.	D.	V.	H.	D.	V.
January	8.8	6.51	21.5	8.9	3.59	5.9	43.2	8.04	67.5
February	16.5	7.54	35.7	13.5	5.79	11.5	61.3	12.33	122.9
March	27.8	9.75	54.8	23.3	8.15	11.1	41.4	14.29	124.8
April	44.2	10.49	31.3	46.1	10.41	18.9	57.3	14.42	89.4
May	57.6	9.36	31.4	47.3	9.09	13.2	138.0	13.42	128.6
June	58.4	11.20	27.5	51.9	10.79	15.9	77.3	16.33	92.9
July	54.9	12.77	21.1	52.1	12.25	11.9	59.5	17.35	57.0
August	51.8	10.88	40.2	41.1	9.70	14.1	80.9	15.37	104.7
September	39.8	9.53	56.5	39.1	8.90	13.1	69.6	12.90	137.1
October	27.5	7.87	25.9	27.9	6.86	6.6	35.4	12.89	89.3
November	15.1	6.06	19.1	14.1	3.90	4.7	31.8	9.23	65.6
December	15.4	5.96	35.1	5.7	3.46	5.7	86.0	14.23	151.6
Year	32.4	7.61	30.7	29.1	7.26	9.0	48.0	10.22	89.3
Winter	11.2	6.15	26.1	9.2	4.03	5.0	41.2	9.22	91.2
Equinox	32.6	8.39	39.6	32.8	8.08	11.6	47.0	11.92	94.8
Summer	55.5	10.98	27.5	48.1	10.42	12.2	76.1	12.58	88.2

AVERAGE DEPARTURE.

63. LERWICK.

1934.

	All Days.			Quiet Days.			Disturbed Days.		
	H.	D.	V.	H.	D.	V.	H.	D.	V.
January	2.8	1.37	5.6	2.1	0.83	1.1	5.7	1.64	13.5
February	3.9	1.89	9.7	2.7	1.26	2.4	11.3	3.01	28.7
March	6.5	2.45	13.1	5.2	1.96	3.0	11.4	3.73	30.0
April	9.8	2.53	7.0	10.5	2.27	3.6	12.2	3.24	20.1
May	12.7	2.71	7.7	11.1	2.14	3.8	25.4	3.63	34.4
June	12.9	3.19	6.5	11.9	2.99	3.5	18.0	4.79	18.9
July	12.5	3.23	5.7	11.7	2.92	2.6	14.7	4.07	14.3
August	11.7	2.75	10.3	9.1	2.22	2.9	19.0	2.96	31.2
September	8.9	2.40	12.0	8.9	2.09	2.9	13.7	3.49	31.9
October	6.3	1.76	7.2	6.9	1.39	1.2	7.4	2.63	22.9
November	2.6	1.35	5.2	3.3	0.96	1.1	5.0	2.10	14.3
December	2.7	1.45	8.3	1.5	0.77	1.8	9.5	3.66	30.4
Year	6.8	2.15	7.7	6.4	1.73	1.9	10.6	2.85	22.8
Winter	2.8	1.46	7.0	2.0	0.92	1.5	6.7	2.42	20.3
Equinox	7.3	2.27	9.4	7.7	1.89	2.2	9.1	3.06	26.1
Summer	12.0	2.92	7.1	10.9	2.55	2.6	18.6	3.63	23.5

NON-CYCLIC CHANGE†.

64. LERWICK.

1934.

	All Days.			Quiet Days.			Disturbed Days.		
	H.	D.	V.	H.	D.	V.	H.	D.	V.
January	0.0	-0.06	+0.1	-0.4	+0.05	+5.0	-7.1	-1.35	+2.9
February	+0.1	-0.03	-0.4	+6.3	+1.42	+2.3	-0.4	+1.35	-0.2
March	-0.2	-0.02	-0.6	+3.7	+1.67	+4.3	+10.0	-1.57	-3.6
April	+0.5	-0.05	+0.5	+1.6	-0.08	-2.5	-9.5	+1.09	-17.2
May	-0.4	0.00	+0.4	+3.0	+0.21	-0.8	-19.6	-0.70	-31.4
June	+0.8	+0.10	-0.7	+4.6	+0.21	-1.9	-2.8	-0.83	+1.4
July	-1.2	-0.15	+0.4	-1.9	+0.59	+2.0	-2.8	+0.35	-0.1
August	-0.9	-0.32	-2.3	+3.7	-0.19	-0.7	-18.6	-0.60	-23.0
September	+0.8	+0.16	+2.4	+0.3	-0.87	-1.3	+1.7	+0.49	-1.6
October	+0.1	+0.01	+0.4	+0.5	-0.13	-2.5	+0.6	-0.37	-2.3
November	0.0	-0.03	0.0	-1.3	-0.34	-1.6	-4.8	-0.55	-0.3
December	-0.3	-0.03	+0.4	+2.3	+0.16	-1.7	-8.9	-0.48	-2.1
Year 1934	--	--	--	--	--	--	--	--	--

MEAN VALUES OF $HR_H + VR_V$ *
(Unit 10,000 γ^2)

65. LERWICK.

1934.

HR_H	VR_V	Sum	Mean Character Figure
62	246	308	0.26
94	323	417	0.54
135	576	711	0.90
102	313	415	0.40
184	363	547	0.48
129	296	425	0.37
118	255	373	0.58
139	422	561	0.81
148	526	674	0.83
78	294	371	0.74
52	225	277	0.53
115	380	496	0.81
113	352	465	0.60

*See page 39.

†See page 21.

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS.

66. LERWICK. For all (a), quiet (q) and disturbed (d) days for H, D and V and for
all days for N, W, I and T.

1934.

	Horizontal Force			Declination (West)			Vertical Force			North Component	West Component	Inclination (North)		Total Force
	a	q	d	a	q	d	a	q	d	All days.	All days.	All days.		All days.
	14,000γ+			13° +			46,000 γ +							
January	473	475	472	27.0	27.2	27.5	750	750	756	Y	Y	°		Y
February	466	467	465	26.3	26.6	26.3	747	747	751	14076	3366	72	47.9	48939
March	465	469	456	25.6	26.3	25.0	741	746	737	14070	3362	72	48.3	48934
April	469	470	464	24.4	24.7	24.4	745	745	741	14070	3359	72	48.9	48928
May	472	473	471	23.8	23.5	24.6	744	745	736	14075	3355	72	48.1	48933
June	473	472	468	22.7	22.5	22.6	744	745	737	14078	3353	72	47.8	48933
July	470	469	464	22.1	21.5	22.7	743	745	737	14080	3349	72	47.8	48932
August	460	465	452	20.4	20.1	20.2	741	743	748	14078	3346	72	47.9	48930
September	453	457	447	18.9	19.5	19.2	736	738	733	14070	3336	72	48.5	48922
October	454	456	448	18.3	18.3	18.1	739	741	738	14064	3329	72	49.0	48923
November	454	457	452	17.5	17.4	16.9	747	747	753	14066	3326	72	49.1	48931
December	453	457	442	16.0	16.0	14.5	748	747	751	14067	3323	72	49.1	48932
							746	747	740	14067	3317	72	49.2	48939
Year 1934	463	466	459	21.9	22.0	21.8	744	745	743	14071	3343	72	48.4	48930

In the interests of brevity there have been omitted from the table above all dates on which the sky throughout the evening remained completely overcast and on which, therefore, no opportunity arose of determining whether or not aurora occurred. The nights on which aurora was actually seen are indicated by the symbol \mathcal{M} . The nights on which aurora was not seen despite at least an occasional interval of more or less clear sky, are indicated by the symbol \dots ; in the latter case also, remarks on the weather are added to assist the reader in judging how far the fact of no observation of aurora may be taken as indicating that there was not actual aurora. The letters a, b, c, have the following significance.

- a = Aurora absent.
- b = Bright aurora absent: faint one might have been missed (high cloud amount and/or moonlight).
- c = Aurora absent when sky was clear, but observation impossible for considerable part of evening owing to cloud.
- c,b = Observation impossible for considerable part of evening; faint aurora might have been missed even during the remainder.

A full description is available of the auroral phenomena observed.

68. OTHER SCOTTISH STATIONS.

1934.

Date	Month	Date	Month	Date	Month	Date	Month
	JANUARY		APRIL (Contd.)		SEPTEMBER		DECEMBER (Contd.)
2	G.C.	15	Auskerry, 22-30	1	Duntulm.	29	Holburn Head, brilliant display,
14	Cape Wrath, 19-30-02-00 on 15th;	16	Wick, 00-30	6	B.		18-00-1900; Kinnsrd Head,
	Tiumpenhead, 21-00-02-30 on	17	G.C.	16	Duntulm		Brilliant display, 17 00-20-00;
	15th.	21	G.C.	26	Wick, 22-15.		Todhead, 17-00-20-00; Barnsness,
15	G.C.; A. arch, low elevation,	28	G.C.	27	B., 20-00.		bright display, 18-00-24-00;
	white-green; Arbroath, NE,			29	Wick, 22-15.		Wick, 22-00; Stornoway, 17-50-
	21-00.			30	Kirkwall, faint. 19-30; Wick,		22-30; G.C. very bright;
21	G.C.				22-00.		Aberlour, brilliant; A;
22	Wick.						Kettins; Arbroath, 21-00;
							Crieff, 19-00-20-00; Edinburgh,
							arch, no streamers; Eskdalemuir
							glow.
						31	G.C.
	FEBRUARY		MAY				
3	G.C.	5	Auskerry, 22-00-24-00.				
4	B.	16	Stornoway, 02-00.				
5	G.C.						
12	Auskerry, 21-00.						
16	Pentland Skerries, Auskerry,						
	19-05; D.; Kirkwall, after						
	19-00; Wick, 20-30; G.C.; A;						
	Eskdalemuir, glow and streamers						
19	G.C.						
20	G.C.						
	MARCH		JUNE				
			Nil.				
4	Tiumpenhead, 19-30-20-00; G.C.						
	very bright; Craigston, (Barra),						
	23-20; Tiree, 21-00; Leuchars,						
	20-30-21-30; Edinburgh, 20-30						
	-23-00, arch and streamers very						
	good between 20-30 and 20-50.						
5	Tiumpenhead, 19-00-20-00; G.C.						
6	D.						
7	Wick, 22-15; G.C.; Eskdalemuir,						
	streamers.						
9	Duntulm.						
12	Glencoe, slight display.						
16	D.						
18	Wick, 21-30.						
22	D., brilliant; Kirkwall, bright;						
	Wick, 22-00; G.C.						
25	Wick; G.C.						
	APRIL		AUGUST				
6	G.C.	27	B	4	Duntulm.		
12	Edinburgh.			29	Tiumpenhead, 17-30-23-30; Cape		
					Wrath, 17-30-18-15		

Note.- For brevity, stations which figure frequently in the above Table are represented by their initials, viz. D- Deerness, B- Baltasound, A- Aberdeen, G.C.- Gordon Castle.

M.O. 380
(Aberdeen)

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

ABERDEEN

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON
HIS MAJESTY'S STATIONERY OFFICE
1936

ABERDEEN OBSERVATORY

Latitude	..	..	..	..	..	57° 10' N.
Longitude	..	..	..	..	..	2° 6' W.
G.M.T. of Local Mean Noon	..	..	..	..	..	12h. 8m.

Heights in metres above Sea-Level.

Barometer	..	..	..	..	..	26.0*
Rain-gauge	..	..	..	..	..	24.1
Robinson Cup Anemograph	..	..	..	..	..	36*
Dines Pressure Tube Anemometer	..	..	..	..	..	37

Heights in metres above ground.

Thermometer Bulbs, North Wall Screen	..	..	..	..	..	12.5
Sunshine Recorder	..	..	..	..	..	20.7
Robinson Cup Anemograph	..	..	..	..	..	23
Dines Pressure Tube Anemometer	..	..	..	..	..	13
Beckley Rain-gauge Rim	..	..	..	..	..	0.6

INTRODUCTION

SITE

The Observatory, which was established in 1868 is housed in the top floor of the Cromwell Tower of King's College in Old Aberdeen. The College lies on a plain gradually rising from the sea from which it is distant about 1 mile (1.6 km.). There are no serious irregularities of surface in the vicinity excepting the two river valleys of the Don and the Dee. To the north at a distance of about 1 km. the Don flows eastwards to the sea; the Dee flows into the sea at a distance of about 3 km. to the south-east of the College. Between the College and the sea is a golf course covered for the most part with grass, but during the last three years the town has been gradually expanding to the north-eastward of the Observatory; this growth has been very rapid during 1933 and 1934 with the result that there now exists an inhabited area stretching almost half a mile (1 km.) between the Observatory and the sea in the north-east quadrant. Westwards is the High Street of the Old Town and beyond this is another street. Further west grass pasture extends for about 1 km. To the southward and south-westward lies the main area of the City of Aberdeen.

Because of the aforementioned developments and of their possible further extension under new town-planning schemes, it became necessary in 1933 to seek another site for the Dines Pressure Tube Anemometer situated at Ladymill, east of the Observatory. This instrument was therefore dismantled, and a new pressure tube instrument, with one-inch pipes, was erected at a new site on the Glebe situated to the north-west of the Observatory, and at a distance of about 350 metres therefrom. To this site were also removed the Stevenson screen, rain-gauges, etc; from the Athletic Ground site north-east of the Observatory, because the surroundings of this latter site were likewise becoming unsatisfactory. All the outdoor instruments are therefore now grouped together. The change of site was made on 31st March 1933.

*These values differ slightly from those given in former years. See note on p.89.

On account of these changes of site, the plans and photographs given in the volume for 1926 do no longer apply as from 31st March 1933; new plans and photographs will appear in the volume for 1935.

Change of value adopted for height of Station above Mean Sea Level.- The numerous changes of late years call for some remarks upon the adopted values for the heights of station and instruments above M.S.L. Prior to 1st January, 1925, the value for the station level was 14.0 m., and that for the height of the barometer cistern was 26.8 m. As from 1st January 1925, however, following a careful redetermination of these heights the values were altered to 13.4 m. for the Station level and 26.0 m. for the height of the barometer cistern. The change of site of the rain-gauge enclosure in June 1928 altered the value for the station level to 11.4 m. at which figure it remained until 31st March 1933, when the recent removal of instruments to the Glebe site again altered it to 24.1 m. as from 1st April 1933. The actual heights of the barometer cistern, of the north-wall screen thermometer bulbs, and of the Robinson Cup Anemograph and the Campbell-Stokes Sunshine recorder have remained unaltered throughout.

METEOROLOGY

The elements dealt with in the following tables are:- Atmospheric pressure, air temperature, humidity, rainfall, sunshine, wind speed and direction, earth temperature and minimum temperature on the grass, together with a diary of cloud and weather.

The instruments from which values of the above elements have been obtained and the methods of tabulating the records are described in the General Introduction to this volume. The following additional information refers especially to Aberdeen.

Pressure and Temperature.- The photo-barograph, standard Fortin barometer and thermograph are housed in the Observatory room. The pressure scale value of the photo-barogram is 1 mb. = 1.18 mm. on the paper, when the paper is at normal atmospheric humidity. In similar circumstances the time scale is 1 hour = 9.3 mm. The records of the photo-barograph are standardized by means of control readings taken from the standard barometer. Up to the end of 1928 this instrument was Fortin Standard Barometer M.O. 273, but from the 1st January, 1929, it was replaced by Fortin Standard Barometer M.O. 1149. The N.P. L. certificate of this latter barometer shows a standard temperature varying from 286° A at 1,050 mb. to 287° A at 910 mb; corresponding corrections have been applied to the control readings.

The recording thermometers are placed in the North-wall screen already referred to. The scale value of the wet bulb thermograph record is 1° absolute = 3.20 millimetres on the paper; for the dry bulb thermograph the scale value varies slightly with the temperature, but is approximately 1° absolute = 3.4 millimetres. The time scale is 1 hour = 9.23 millimetres. Reading of the photo-thermograms is done by means of glass measuring scales, the records being standardized by control readings from Standard Thermometers M. O. 1698 (dry bulb) and M.O. 1697 (wet bulb). These thermometers have corrections, varying at different parts of the scale, of between -0.1° A and +0.2° A; these corrections have been applied to the control readings. The heights of the barometer cisterns and of the bulbs of the thermometers are given at the top of the appropriate tables.

It may be here emphasized that the bulbs of the thermometers in the North-wall screen are at the considerable height of 12.5 metres above the ground, and that readings from these thermometers are exclusively used for this publication (except as noted below under Humidity) and for the corresponding summaries printed in the Monthly Weather Report.*

Rainfall.- The recording instrument in use is Beckley Rain-gauge No. 2 with an area of 101.1 square inches (653 cm.²). The procedure adopted in tabulating the records is similar to that described in the General Introduction and calls for no comment. Control was by check gauge M.O.266 during the year 1934.

Humidity.- On those occasions when the temperature of the wet bulb has been 273°A or under, the relative humidity has been obtained from the records of a hair hygograph. This instrument is accommodated inside the new large Stevenson screen at the new site. Until 31st March 1933, at the Athletic Ground site, the hygograph was 13.2 m. below the level of the thermometer-bulbs in the North-wall screen, but from 1st April 1933, at the Glebe site this instrument has been only 0.5 m. below that level. In using its records an appropriate adjustment is made. On 16th September 1934 another hair hygograph was obtained and was placed in the North-wall screen beside the bulbs of the photo-thermograph, and since that date the records obtained by the new instrument have been used for the purpose before mentioned.

Sunshine.- The sunshine recorder (Campbell-Stokes type) is exposed on the small circular tower on the Observatory roof on which the Robinson Cup Anemograph is erected. It is rigidly held by lead flaps soldered to the lead roof. The actual diameter of the sunshine sphere is 4.02 inches, and the focal length 2.97 inches, these figures being slightly in excess of the standard values (diameter 4.00 \pm 0.05 inches, focal length 2.95 \pm 0.01 inches). The exposure is excellent; the only obstruction is a flagpole to the east, of angular diameter about 1°, which may obstruct 0.1 hr. record about 7h. between April and September. This loss has been allowed for, whenever practicable, in tabulating records. In computing the percentage duration of sunshine the actual possible values for each day of the year 1934 have been employed, a procedure similar to that adopted from 1926 onwards.

Wind Speed and Direction.- Continuing the practice adopted in July 1930, the values of wind speed for 1933 are those recorded by the Robinson Cup Anemograph, and are corrected for the effect of exposure in accordance with the factors given in the Table on p.12 of the General Introduction. It has been found that the exposure of the Dines Pressure Tube Anemometer at the new Glebe site, though better than that at the Ladymill site after the latter became affected by the north-eastward extension of the town, is not entirely satisfactory, particularly in the north-east quadrant. The Cup Anemograph is mounted upon the roof of the Observatory building, its cups being at a height of 23 m. above the ground, and about 7 m. above the roof of the main tower of the building.

On the few occasions when the records of the Cup Anemograph have been defective, the required values have been taken from the records of the Pressure Tube instrument, and to these values appropriate exposure-factors have

*The temperatures for Aberdeen published in the "Daily Weather Report" and summaries from them given in the "Weekly Weather Report," are from different thermometers, viz., those in the Stevenson Screen, with their bulbs only 1.3 metres above the ground.

been applied. Values thus obtained are entered in brackets, as are also the mean hourly values for the days in question.

In the tables showing "Highest instantaneous wind speed recorded each day by the Dines Pressure Tube Anemometer" (Table 151) and "Distribution of wind speed: extreme velocities as recorded by the Dines Pressure Tube Anemometer" (Table 152), the values entered for the "Gusts" are those actually recorded by that instrument, but it must be remembered that these values are defective in that they are values recorded on sites whose exposures have not been entirely satisfactory.

In Table 152 the values of distribution of wind speed for each month, and those of highest hourly wind are taken from the records of the Robinson cup-anemograph, corrected for the effect of exposure as explained above.

Earth Temperature.- Readings have been made at 9h. G.M.T. of earth temperature at nominal depths of one foot and four feet below the surface of the grass.

The thermometers and the method of exposure are of the standard type described in the "Meteorological Observer's Handbook". The depths of the thermometer bulbs below the grass-covered surface of the ground are 30 and 122 cm.

The data published in the "Observatories' Year Book" 1922-1930 were the readings of an instrument with its bulb at a depth of 124 cm. This instrument, a description of which is given in the Year Book for 1930, p.86, was of unorthodox type, and was situated in the College Gardens until the end of June 1928. It was then removed to the anemometer enclosure, Ladymill. From 1st. January, 1930, the published data refer to new instruments of standard type which were in the anemometer enclosure at Ladymill until 8th. June, 1932. They were then removed to the Athletic Ground site, where they were installed near the screen and rain-gauges. The results of a comparison between the new and old instruments at a nominal depth of 122 cm. at the Ladymill site will be found in the Year Book for 1931, pp. 86-87.

For the period 18th June, 1932, to 25th March, 1933, comparative readings are available from the new 122 cm. thermometer at the Athletic Ground and the old instrument at Ladymill. The results indicate that at 122 cm. depth the Athletic Ground is about 1.5°A to 2°A warmer than Ladymill during June, July and August, and about 1°A colder in November, December, January and February. Similar comparative observations are not available for the College Gardens site, but some idea of the differences between that site and Ladymill can be obtained by comparing the readings at Ladymill during the four years, June 1928 to May 1932, with those obtained for many years prior to June 1928, at the College Gardens. These indicate that Ladymill is warmer than the College Gardens from September to April and colder from May to August, the maximum differences being approximately $+2^{\circ}\text{A}$ and -1°A . The continuity of the earth temperature readings has thus been seriously affected by the changes of site, and it is necessary to mention in this connexion that the thermometers were transferred at the end of March 1933 to the Glebe site, thus introducing another discontinuity.

Minimum Temperature on the Grass.- The grass minimum thermometer is exposed in the enclosure on two wooden pegs about 4 cm. above the grass. It is set at 18h and read at 7h, the reading being entered to the day of observation. The thermometer in use is M.O.17944/27, and its readings require no correction.

Cloud.- From the 1st. January, 1931, the recording of cloud-forms at Aberdeen has been in conformity with the definitions laid down in "Instructions for Meteorological Telegraphy" M.O. 191/1 (1930).

Visibility.- In the subjoined table there is given a list of the objects used for the determination of the degree of visibility, together with their distances and bearings from the observation-point, which may be taken as the roof of the Observatory tower, the N.E. corner thereof being used for the nearer objects.

The range of visibility from the Observatory is somewhat limited by the high ground surrounding the city. From S.E. through S. to N. the distance of the visible horizon is between 2 and 4 miles (4 to 7 km.), but in the N.W. a higher hill, at a distance of 5 miles (8.5 km.), rises above the nearer ridges. To the N.N.E. however there is a clear view of the coastline as far as Cruden Scaurs, where the coast consists of cliffs over 100 feet high, and is nearly 19 miles (30 km.) distant. From N.N.E. to S.E. there is only the sea-line as horizon, which from the height of the Observatory tower is about 10 miles (16 km.) distant.

Definite objects exist at standard distances from A to H, but from I to M there are no definite objects, though there are adequate identification marks for K and L. Owing, however, to these marks being on the sea-coast, and to the generally clearer visibility to the seaward side of the Observatory, it has been deemed advisable to employ small letter entries for all visibility distances that are not definitely landward estimates. The distances I and J are based upon estimates between other available distances. The 21h observations of weather and visibility are made as a rule not actually at the Observatory, but in the neighbourhood within a radius of one or two miles. Apart from that it has to be remarked that, during darkness when the usual fixed objects cannot be seen, the estimates depend upon personal judgment, and upon the degree of obscuration, and alteration in the colour, of the surrounding lights of the town.

VISIBILITY OBJECTS AT ABERDEEN

OBJECT	DESCRIPTION	DISTANCE	BEARING
A	Steam pipe on Boiler house	26 yards,	N.E.
B	Top of finial at East end of University Library	55 "	E.S.E.
C	Gate in North Wall of Athletics ground	110 "	E.N.E.
D	East wall of Athletics ground and trees along it	218 "	E.
E	Ventilator tops on Sunnybank School	550 "	S.W.
F	Gasometer	1,100 "	S.E.
G	(i) Turret of Salvation Army Citadel	1 $\frac{1}{2}$ miles	S.S.E.
	(ii) Coastguard watch-tower	1 $\frac{1}{2}$ "	N.E.
H	(i) Girdleness Lighthouse-top	2 "	S.E.
	(ii) Springhill House	2 $\frac{1}{2}$ "	W.
I (i)	No object. Estimate between Strathie Hill (3 $\frac{1}{2}$ miles) and Brimmond Hill (5 $\frac{1}{4}$ miles).	(3 $\frac{1}{2}$ ")	N.N.E.
		(5 $\frac{1}{4}$ ")	N.W.
J (j)	No object. Estimate between Brimmond Hill (5 $\frac{1}{4}$ miles) and Sea horizon (10 miles).	(5 $\frac{1}{4}$ ")	N.W.
		(10 ")	E.
K (k)	Sand-patch, mouth of Ythan River	12 $\frac{1}{2}$ "	N.N.E.
L (l)	Cruden Scaurs	18 $\frac{2}{3}$ "	N.N.E.
M (m)	Cannot see so far. Used when "L" object shows clear detail and colour-differences.		

IDENTIFICATION NUMBERS OF INSTRUMENTS USED IN 1934.

The following were the instruments actually in use during the year 1934:-

Standard Fortin Barometer	..	..	M.O. 1149
" Dry Bulb Thermometer	..	..	M.O. 1698
" Wet " "	..	..	M.O. 1697
Recording Beckley Rain-gauge	..	..	2
Jardi Rate of Rainfall Recorder	..	..	M.O. 4
Hellman Fuess Snow-gauge	..	..	100532
Control Rain-gauge	..	..	.. M.O. 266
Glass for "	..	..	.. M.O. 1578 and 1705/33
Hair Hygograph	..	..	.. M.O. 154/27 and 51/33
Campbell-Stokes Sunshine Recorder	..	..	M.O. 32
Robinson Cup, Anemograph	..	..	M.O. 50
Dines Pressure Tube Anemometer	..	..	M.O. 1040
Earth Thermometers	..	..	.. M.O. 6, M.O. 11
Grass Minimum Thermometer	..	..	M.O. 17944/27

REVIEW OF METEOROLOGICAL RESULTS

Pressure.- The mean pressure for the year 1934 was 1.3mb. below the normal value. In only 4 months was an excess of pressure recorded, but two of these excesses were noteworthy; that of February, which amounted to 14.1 mb., and that of November which was 6.0 mb. On the other hand defects of 8.3 mb. and 6.8 mb. were shown by December and March respectively, while April, August, September and October were each below the normal by between 4 and 6 mb. The extremes of pressure recorded at Station level were 1040.7 mb. on February 15th, and 961.2 mb. on March 17th, a total range of 79.5 mb. within 30 days. The highest monthly mean value - 1021.48 mb. - was shown by February, the lowest - 995.43 -, by December, a difference of 26.05 mb.

The mean diurnal inequalities for the months, seasons and year have been analysed harmonically, with the results set out in the accompanying Table. The unit employed for the individual months, is, as before, .01 mb, that for the seasons and the year is .001 mb., and the phase-angles are reduced to Local Mean Time. The average values of the various Coefficients for the period 1871-1926, computed by Dr. A. Crichton Mitchell* are given for comparison.

* Diurnal Variation of Pressure and Temperature at Aberdeen, 1871-1926, by A. Crichton Mitchell D. Sc., Q.J.R. Met. Soc. 1929, p. 197

HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE
ABERDEEN, LONGITUDE 2° 6'W.

Values of c_n , α_n , in the series $\sum c_n \sin(15nt^\circ + \alpha_n)$, t being Local Mean Time reckoned in hours from midnight.

Month and Season	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926
January	mb. .29	mb. .094	° 173	° 171	mb. .29	mb. .227	° 160	° 151	mb. .14	mb. .130	° 15	° 355	mb. .07	mb. .054	° 181	° 221
February	.12	.156	234	176	.33	.270	145	149	.12	.104	355	355	.02	.026	105	96
March	.48	.164	127	158	.25	.295	156	151	.03	.052	357	336	.07	.031	12	35
April	.32	.153	244	155	.24	.284	155	151	.03	.019	203	186	.05	.044	351	359
May	.36	.098	86	135	.25	.237	152	143	.05	.059	113	163	.03	.022	253	329
June	.12	.057	166	104	.18	.219	136	141	.06	.065	157	155	.01	.008	213	331
July	.35	.089	111	137	.22	.208	125	144	.07	.068	141	159	.01	.013	172	345
August	.27	.112	91	162	.24	.232	152	145	.03	.041	168	167	.03	.029	313	336
September	.39	.119	95	146	.32	.287	135	148	.07	.027	320	342	.06	.053	350	339
October	.21	.155	219	183	.29	.274	169	149	.08	.075	15	349	.05	.027	20	20
November	.12	.132	165	197	.25	.229	161	152	.12	.103	21	354	.01	.014	63	172
December	.34	.164	92	169	.25	.211	141	146	.10	.122	12	356	.04	.051	177	204
Arithmetic Mean	.280				.259				.075				.037			
Year	.178	.116	129	163	.254	.247	149	149	.040	.030	21	0	.009	.009	352	340
Winter	.144		149		.279		151		.119		11		.028		165	
Equinox	.181		151		.266		153		.036		345		.055		4	
Summer	.255		103		.221		142		.048		144		.015		261	

NOTE.-"Winter" comprises the four months January, February, November, December, "Equinox" the months, March, April, September, October; and "Summer" May to August.

This year there is not so wide a difference as of late between the monthly values of the amplitude of the 24-hour term. The lowest values are shown in February, June and November, the months whose pressure is in excess of normal. The phase-angles, though irregular, are less so than usual, and there is a marked tendency for the maximum to occur between 18h. and 24h.

In the case of the 12-hour term the spring and autumn maxima are strongly defined, the former occurring in February, a month earlier than usual. The Summer minimum is likewise very definite.

The 8-hour term shows on the whole a close approach to its average seasonal variation in amplitude. The seasonal reversal in the phase-angle is also well defined.

In the 6-hour term the equinoctial maxima are strongly developed while the winter maximum and summer minimum are in fair accordance with the normal. The phase-angles show that in Summer the maximum occurs rather later than usual, but that there is fair agreement with the normal during the remainder of the year.

Temperature.- The mean temperature for the year exceeded the normal by about 1 °A. and no month showed a value definitely below the normal. On the other hand, several months had considerable excesses. January and September were over 1 °A. above normal, February and July over 2 °A. above it, while December exceeded the normal by over 3 °A. March was the coldest month and July the warmest while December was 1.2 °A. warmer than April. The highest temperature recorded during the year was 296.7 °A. on July 6th, the lowest was 270.0 °A. on November 3rd.

Relative Humidity.- Over the year the relative humidity was 0.2% above normal. The various months showed considerable departures from their average values. February, March, May and November were below normal by 5.0, 3.7, 4.5 and 4.0 per cent respectively, while April, September and December exceeded the normal by 3.2, 3.1 and 5.8 per cent respectively.

Rainfall.- During the year the total rainfall was 848mm. which is 100mm. above the average. The monthly incidence of rainfall departed very considerably from the usual. In April over 155 mm. were recorded, which is 108mm. above the normal fall for that month. August showed an excess of 41mm. and May one of 29mm. Deficits of 35mm., 33mm., and 27mm., were recorded in February, March and July respectively. One point of interest was the absolute rainlessness of the evening period, 20h. to 24h. during July. The heaviest day's rainfall was 57mm. on 12th April.

Sunshine.- The year on the whole was a very bright one, the annual mean value of recorded sunshine being 33 per cent of the possible, whereas the normal value is 30 per cent. The year's excess of 3 per cent was distributed over the whole year, and only two months, April and December, had values below the average. April, with 30 per cent of the possible sunshine, was 5 per cent below normal, and December, with 7 per cent of the possible, was 11 per cent below normal. Excesses of 9 per cent and 7 per cent were shown by February and August respectively, while six other months had excesses of between 4 and 6 per cent. Days of uninterrupted sunshine were however not numerous, only two days, the 8th and 9th July exceeding 15 hours. In the whole year only 18 days had 80 per cent or over of the possible sunshine, the highest value being 89 per cent on the 9th July.

Wind.- The average velocity of the wind for the year was 4.6 m/s. The months of highest average wind speed were December, with 5.8 m/s., April, with 5.5 m/s., January, with 5.4 m/s., and March with 5.2 m/s. The months of least wind were July and June, with 3.4 m/s. and 3.6 m/s. respectively. Gales were recorded on three days, February 8th, May 6th and December 26th; the highest hourly velocity recorded being 19 m/s on February 8th.

Grass Minimum Temperature.- During the year there were 72 occasions when ground frost (less than 272.2°A) was registered. The months of greatest frequency were February, March and November, and ground frost occurred in all months except July and August. The lowest value recorded was 266.4°A on 3rd November.

Temperature in the Ground.- As compared with a mean air temperature over the year of 282.06°A , the mean temperature in the ground at a depth of 1 foot was 281.8°A , and at a depth of 4 feet was 281.7°A . The lowest mean monthly value at a depth of 1 foot was 276.7°A in January and the highest 288.6°A in July. The lowest individual value was 275.8°A on several dates in the latter part of January, and the highest was 289.6°A on 13th July. At a depth of 4 feet the corresponding mean monthly values were 277.6°A in March, and 286.9°A in August, with extremes of 277.3°A on several dates in mid-March, and 287.1°A on 15th August.

Cloud and Weather.- The mean cloud amount for the year at the standard hours of observation was 6.5. The greatest mean cloud amount, 8.0, was recorded in December, while the least, 5.4, was recorded in February.

Aurora.- Aurora was observed on only four occasions, three in the earlier

half of the year and one in the later half. Dates of occurrence will be found in the General Auroral Table.

General Remarks.- 1934 was warmer than normal, particularly in the winter months, and had an excess of sunshine, but its rainfall was well above the average. The individual months had the following characteristics:- January was warm, dry, bright and windy. February was very warm, very dry, bright, and had very low relative humidity. March was normal in temperature, dry, very bright, with low relative humidity, and windy. April was extremely wet, dull and windy, with high relative humidity and normal temperature. May was wet but bright, with low relative humidity and temperature slightly above normal. June was also rather warmer than usual, and was dry, bright, and quiet, but its relative humidity was somewhat high. July was very warm, quiet, bright and dry, but had rather high relative humidity. August was warm, quiet, and bright, but very wet and had high relative humidity. September was warm and wet, with high relative humidity, but was nevertheless bright. October was bright and rather wet, but had low relative humidity and a temperature slightly above normal. November was dry and slightly warm, with high relative humidity but was otherwise normal. December was extremely warm, very dull, wet and windy with high relative humidity.

PRESSURE.
Readings in millibars at exact hours, Greenwich Mean Time.

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69. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

JANUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	016.6	015.5	015.3	014.3	013.0	012.8	012.8	012.4	012.5	012.4	012.3	012.6	012.5	012.5	012.7	012.6	012.7	012.3	012.2	011.7	011.1	010.4	010.2	009.8	012.8
2	009.7	009.8	009.7	009.2	010.3	010.8	011.4	012.1	012.4	012.9	012.8	012.4	012.1	011.2	010.4	010.4	010.2	009.7	009.0	008.5	008.2	008.1	007.6	006.6	010.3
3	006.4	006.6	006.5	006.7	006.7	007.2	007.2	007.4	007.6	007.0	006.3	005.3	004.7	003.1	002.4	001.8	000.9	000.8	000.8	000.2	000.3	000.2	000.3	000.3	003.5
4	005.5	004.7	003.5	002.7	001.5	001.6	001.2	001.3	001.1	000.8	000.0	000.3	000.8	000.6	000.2	000.1	000.1	000.1	000.1	000.1	000.1	000.1	000.1	000.1	000.1
5	004.2	005.0	006.3	007.0	008.2	009.6	010.8	011.8	012.6	013.1	013.7	014.0	014.6	015.1	015.6	016.1	016.6	017.1	017.6	018.1	018.6	019.1	019.6	020.1	020.6
6	010.9	006.4	007.1	005.2	003.9	002.8	001.6	001.9	000.6	000.7	000.3	000.8	000.2	000.4	001.0	002.2	003.2	004.1	004.7	005.4	005.8	006.0	006.3	006.3	003.8
7	006.1	005.7	005.2	003.7	002.5	001.4	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9
8	008.8	008.7	008.9	009.2	009.7	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9	009.9
9	013.5	014.3	014.1	014.1	014.2	014.2	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3	014.3
10	003.7	003.1	002.8	003.6	002.0	002.8	003.5	004.1	005.1	006.9	006.4	006.3	005.8	005.8	005.4	005.2	004.6	004.3	003.7	003.5	003.2	002.1	001.4	000.6	004.0
11	000.1	008.7	008.0	007.1	005.5	005.3	004.4	003.7	002.2	001.1	000.8	000.2	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8	000.8
12	007.2	006.2	005.8	005.8	005.7	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6	005.6
13	000.2	000.4	000.8	001.7	002.6	003.4	004.1	004.6	005.1	005.6	006.1	006.6	007.1	007.6	008.1	008.6	009.1	009.6	010.1	010.6	011.1	011.6	012.1	012.6	013.1
14	005.1	004.5	003.9	002.8	001.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9	000.9
15	007.3	007.6	007.8	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4	007.4
16	006.3	007.3	008.2	008.9	009.8	010.1	009.2	008.2	007.1	005.9	004.7	003.3	001.9	000.4	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
17	003.0	001.4	000.9	000.1	000.5	001.1	001.8	002.5	003.2	003.9	004.6	005.3	006.0	006.7	007.4	008.1	008.8	009.5	010.2	010.9	011.6	012.3	013.0	013.7	014.4
18	006.8	007.1	007.1	007.6	007.9	008.8	009.3	009.8	010.1	010.6	011.1	011.6	012.1	012.6	013.1	013.6	014.1	014.6	015.1	015.6	016.1	016.6	017.1	017.6	018.1
19	008.4	009.0	009.1	009.2	009.4	009.6	009.8	009.9	010.1	010.4	010.7	011.0	011.3	011.6	011.9	012.2	012.5	012.8	013.1	013.4	013.7	014.0	014.3	014.6	014.9
20	005.0	005.8	006.8	007.5	007.6	008.0	008.8	009.2	009.9	010.7	011.0	011.3	011.6	011.9	012.2	012.5	012.8	013.1	013.4	013.7	014.0	014.3	014.6	014.9	015.2
21	002.9	003.0	003.4	002.7	003.0	003.8	004.9	006.4	008.0	009.0	009.2	009.5	009.4	009.3	009.5	009.7	009.9	010.1	010.3	010.5	010.7	010.9	011.1	011.3	011.5
22	006.3	006.0	005.1	004.4	003.4	002.6	001.8	001.2	000.6	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
23	000.4	000.9	001.6	002.1	002.8	003.6	004.5	005.1	005.6	006.1	006.6	007.1	007.6	008.1	008.6	009.1	009.6	010.1	010.6	011.1	011.6	012.1	012.6	013.1	013.6
24	003.2	002.7	002.4	002.1	002.0	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1	002.1
25	019.7	019.0	018.3	017.6	017.0	016.1	015.5	015.2	014.4	013.8	012.9	012.4	011.6	010.8	010.3	009.3	008.9	008.8	008.6	008.4	007.8	007.7	007.3	006.8	012.7
26	006.0	005.3	004.7	003.7	003.2	002.5	002.9	002.7	002.6	003.1	003.4	003.1	002.9	002.6	002.7	002.8	002.9	003.0	003.6	004.0	004.1	004.1	004.3	004.3	003.5
27	004.2	004.5	005.1	006.2	007.6	008.7	010.4	012.1	012.8	015.2	016.3	017.8	018.4	018.8	019.9	020.7	021.9	023.0	023.6	024.0	024.8	025.2	025.8	026.1	016.0
28	006.5	006.6	007.0	007.1	007.6	007.9	008.2	008.7	009.2	009.5	009.8	010.2	010.6	010.9	011.3	011.7	012.1	012.5	012.9	013.3	013.7	014.1	014.5	014.9	015.3
29	009.8	009.4	009.2	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8	008.8
30	006.4	006.1	005.5	005.3	005.3	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4	005.4
31	006.0	006.2	006.2	006.3	006.4	006.2	006.1	005.9	005.7	005.1	004.6	004.2	003.2	002.5	002.2	002.0	002.2	002.3	002.4	002.4	002.7	002.9	003.4	004.2	004.2
Mean (Station Level)	1005 -88	1005 -89	1005 -61	1005 -44	1005 -33	1006 -49	1006 -63	1006 -32	1006 -12	1006 -41	1006 -38	1006 -19	1006 -01	1005 -86	1005 -97	1006 -27	1006 -46	1006 -59	1006 -59	1006 -64	1006 -76	1006 -75	1006 -70	1006 -56	1006 -12
Mean (Sea Level)	1009 -11	1008 -92	1008 -83	1008 -66	1008 -55	1008 -71	1008 -85	1009 -14	1009 -34	1009 -63	1009 -59	1009 -40	1009 -22	1009 -07	1009 -17	1009 -49	1009 -68	1009 -81	1009 -81	1009 -86	1009 -99	1009 -98	1009 -92	1009 -79	1009 -34

70. ABERDEEN: H_b = 26.0 metres.

FEBRUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	035.0	035.6	036.1	036.4	037.0	037.0	037.6	038.3	038.7	038.7	039.1	039.4	039.3	039.4	039.2	039.2	038.9	039.3	039.4	038.7	038.7	038.0	038.0	038.1	038.1
2	037.2	036.5	035.9	035.2	034.8	034.4	034.2	033.9	034.1	033.6	032.8	032.5	031.6	031.7	031.2	031.1	031.1	031.2	031.1	031.0	030.7	030.9	030.7	030.7	033.0
3	030.7	030.3	030.2	030.2	030.2	030.2	030.2	030.4	030.7	030.8	031.0	030.9	030.8	030.7	030.7	030.8	031.1	031.2	031.2	031.2	031.2	031.2	031.2	031.2	031.1
4	032.8	032.3	032.2	032.0	031.8	031.9	031.9	032.0	032.1	031.7	031.3	031.2	030.3	030.5	029.3	029.3	029.2	029.2	029.0	028.9	028.6	028.4	028.5	027.8	030.6
5	027.2	026.8	026.4	025.8	025.4	024.6	024.1	024.4	024.3	024.2	023.4	022.7	022.0	021.7	020.9	020.5	020.5	020.3	020.1	020.1	020.0	019.7	018.8	018.8	022.8
6	018.7	018.3	018.3	018.2	017.9	017.6	017.6	017.7	018.0	018.5	019.2	019.0	018.6	018.4	018.1	017.9	017.4	017.2	017.1	016.6	015.6	015.5	015.1	014.4	017.6
7	013.9	013.3	012.5	012.0	012.0	012.0	012.6	012.6	012.2	012.1	011.6	010.7	009.6	008.4	007.1	006.3	005.6	004.9	004.2	003.6	003.0	002.5	002.0	001.6	006.9
8	009.9	009.1	008.6	008.3	008.9	009.7	009.4	009.1	008.1	007.1	006.5	006.0	005.0	004.0	003.2	002.4	001.6	001.0	000.3	000.0	000.0	000.0	000.0	000.0	006.7
9	018.3	017.3	016.2	014.9	013.4	012.0	011.0	010.6	011.0	011.2	011.0	010.3	010.0	009.3	008.7	008.8	008.4	007.5	007.3	007.0	006.2	006.4	007.2	010.8	011.8
10	008.0	008.6	009.1	009.7	010.3	010.9	011.7	012.5	012.6	013.2	01														

71. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

MARCH, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	004.0	004.0	003.0	002.5	001.8	000.9	000.5	000.5	999.9	999.6	999.2	998.2	998.1	998.0	997.6	997.5	997.7	998.1	998.1	998.1	998.1	998.0	997.9	997.6	999.7
2	997.0	996.6	994.7	993.3	992.0	991.7	990.8	990.8	991.7	992.1	993.5	994.6	996.0	996.7	997.4	998.2	998.8	000.0	000.7	001.1	001.1	001.3	001.4	001.6	996.3
3	001.6	001.5	001.7	001.9	001.9	002.8	003.8	004.7	005.7	006.3	006.4	007.2	007.1	007.4	008.1	008.3	009.9	010.5	010.9	011.3	011.8	012.0	012.2	012.6	006.6
4	012.4	012.5	012.0	011.6	011.4	010.8	010.5	010.1	009.7	009.7	009.4	008.9	007.9	007.0	006.2	005.6	005.0	004.6	004.5	003.6	002.8	002.1	000.9	999.6	007.7
5	998.4	997.2	996.2	994.5	993.8	993.2	992.6	991.7	991.3	990.5	990.0	989.1	987.7	987.2	986.6	984.9	984.5	984.0	984.0	983.5	983.0	983.1	983.3	983.7	989.2
6	983.5	983.9	984.5	984.1	984.4	984.7	985.1	985.4	985.5	986.0	985.9	986.1	985.5	986.2	986.2	985.8	986.2	987.4	987.5	988.0	987.9	988.3	988.6	988.7	986.0
7	989.1	989.5	989.7	990.0	990.4	990.9	991.4	991.9	992.5	992.8	993.2	993.5	993.6	993.9	994.4	995.0	995.6	996.5	997.2	997.6	998.1	998.4	999.0	999.2	993.7
8	999.6	000.2	000.4	000.8	001.5	001.5	001.5	001.5	002.1	002.1	002.4	002.6	003.1	003.0	003.1	003.3	003.7	004.2	004.7	005.0	005.2	005.5	005.6	005.8	002.7
9	006.0	005.9	005.7	005.6	005.7	005.7	005.6	005.7	006.1	006.1	006.0	005.9	005.6	005.4	005.1	004.8	004.9	005.1	005.3	005.3	004.8	004.5	004.3	004.2	005.4
10	003.5	003.1	002.8	002.4	002.2	002.0	002.0	001.8	001.6	001.6	001.4	000.9	000.8	000.2	999.7	999.3	999.2	999.1	998.9	998.3	998.2	998.1	997.7	997.3	000.7
11	996.9	996.3	995.4	994.9	994.3	993.9	993.4	993.0	992.5	992.2	991.5	991.1	990.3	989.4	988.8	988.5	988.4	988.6	988.7	988.6	988.5	988.4	988.4	988.2	991.4
12	988.0	987.6	987.5	987.4	987.8	988.5	989.4	990.2	990.9	991.4	991.8	992.1	992.7	992.6	992.5	992.4	992.4	992.8	993.1	993.2	993.4	993.5	993.7	993.7	991.1
13	993.6	993.5	993.3	993.5	993.6	993.9	994.1	994.1	994.2	994.6	994.6	994.5	994.4	994.4	993.8	993.8	994.0	993.9	993.9	993.8	993.5	993.1	992.4	992.1	993.8
14	991.3	990.9	990.0	989.1	988.4	988.0	987.5	986.8	986.3	985.6	984.4	983.6	982.8	981.9	980.8	979.5	978.6	977.8	977.0	976.1	974.9	973.9	972.8	972.0	982.9
15	971.0	969.7	968.5	967.6	966.9	966.2	965.5	964.6	963.9	963.5	962.8	963.3	964.6	965.7	966.7	967.7	968.7	969.7	970.6	971.4	972.0	972.6	972.9	973.3	967.9
16	973.8	974.1	974.2	974.4	974.7	975.2	975.6	975.9	976.3	976.6	976.2	976.0	975.9	975.2	974.7	973.7	973.1	972.6	971.7	970.8	969.8	968.5	967.2	965.5	973.6
17	964.5	963.3	962.6	962.0	961.4	961.4	961.5	961.7	962.0	962.3	962.6	962.8	963.0	963.1	963.3	963.5	964.1	964.7	965.4	965.8	966.4	967.0	967.5	968.1	963.7
18	968.5	969.1	969.5	969.7	970.3	970.9	971.3	971.4	971.9	972.4	972.9	973.7	974.5	975.2	975.9	976.8	977.8	978.9	979.9	980.6	981.4	981.9	982.7	983.3	974.7
19	983.5	983.9	984.1	984.6	984.6	985.3	985.9	986.3	986.7	987.1	987.4	987.8	988.0	988.1	988.5	988.9	989.3	990.1	990.9	991.6	991.9	992.2	992.8	993.2	987.8
20	993.7	994.1	994.3	994.9	995.4	996.1	997.0	997.8	998.4	999.2	999.6	000.1	000.3	001.0	001.8	002.8	003.8	004.9	006.3	007.0	007.9	008.6	009.1	009.6	000.6
21	010.0	010.2	010.6	010.6	011.2	011.9	011.9	012.2	012.3	012.2	012.2	012.1	011.8	011.4	011.0	010.7	010.3	009.9	009.5	009.4	009.4	008.9	008.5	008.5	010.7
22	006.4	006.2	006.2	006.2	006.3	006.6	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	006.9	011.8
23	016.8	016.7	016.5	016.3	016.2	016.1	016.3	016.5	016.6	016.4	016.5	016.5	014.3	013.8	013.7	013.6	013.5	013.5	013.1	013.1	012.8	012.4	012.0	011.5	014.6
24	011.0	010.5	010.0	009.6	009.6	009.5	009.3	009.1	008.9	008.9	008.8	008.9	010.2	011.1	012.1	014.2	015.9	017.2	018.8	020.2	021.1	022.0	022.4	022.7	013.2
25	023.2	023.3	023.4	023.2	023.3	022.9	022.6	022.5	022.0	021.0	020.5	019.9	019.5	018.9	018.7	018.4	017.9	017.5	017.2	016.9	016.1	015.6	015.1	014.5	019.9
26	014.0	013.3	012.2	011.7	011.1	010.4	010.1	009.9	009.6	009.4	009.1	009.9	010.8	011.3	012.1	012.8	013.7	014.6	015.6	016.4	017.1	017.7	018.2	018.4	012.6
27	016.7	019.1	019.5	019.7	019.9	020.3	020.9	021.3	021.8	021.4	021.4	021.2	020.9	020.7	020.4	020.2	019.7	019.4	019.7	019.7	019.4	019.1	018.8	018.8	020.1
28	018.5	018.0	017.5	017.2	017.1	017.1	017.2	017.3	017.4	017.4	017.3	017.2	017.1	016.8	016.8	016.8	016.6	016.8	017.0	017.3	017.4	017.7	017.9	017.9	017.3
29	016.1	016.1	017.8	017.7	017.7	017.7	017.7	017.7	017.3	017.0	016.7	016.5	016.1	015.6	015.1	014.7	014.3	014.4	014.2	014.0	013.7	013.3	013.4	013.2	016.0
30	012.9	012.7	012.3	011.8	011.7	011.8	012.0	012.0	012.2	012.1	012.1	012.2	012.3	012.2	012.0	011.8	011.7	011.9	012.1	012.4	012.6	012.7	012.6	012.6	012.2
31	012.5	012.4	012.5	012.5	012.7	013.0	013.6	014.3	014.6	015.0	015.1	015.3	015.5	015.6	015.7	015.9	015.9	016.4	016.9	017.5	017.9	018.3	018.4	018.6	015.1
Mean (Station Level)	999 -49	999 -34	999 -05	998 -82	998 -76	998 -82	998 -91	998 -96	999 -06	999 -08	999 -02	999 -05	999 -09	999 -08	999 -07	999 -13	999 -32	999 -65	999 -97	1000 -11	1000 -14	1000 -18	1000 -14	1000 -06	999 -34
Mean (Sea Level)	1002 -71	1002 -56	1002 -28	1002 -04	1001 -98	1002 -04	1002 -13	1002 -18	1002 -27	1002 -27	1002 -21	1002 -23	1002 -27	1002 -26	1002 -25	1002 -32	1002 -51	1002 -85	1003 -17	1003 -32	1003 -35	1003 -40	1003 -36	1003 -30	1002 -54

72. ABERDEEN: H_b = 26.0 metres.

APRIL, 1934.

Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	018.7	018.9	018.9	019.1	019.1	019.4	020.0	020.5	020.8	021.3	021.8	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.3	021.0
2	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.7	023.9
3	022.1	021.6	021.2	020.8	020.7	020.6	020.5	020.3	020.1	020.0	019.9	019.6	019.3	018.8	018.4	018.0	017.7	017.5	017.3	017.1	016.7	016.4	016.5	016.5	019.1
4	014.9	014.4	013.6	012.8	012.4	012.2	012.1	011.7	011.2	010.7	010.6	010.2	010.5	010.6	010.7	010.8	010.8	010.8	010.8	010.8	010.8	010.8	010.8	010.8	011.9
5	012.9	012.8	012.7	012.9	013.0	013.2	013.2	013.4	013.6	013.7	013.8	013.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	012.9	011.8
6	006.5	005.2	004.6	003.8	003.6	003.0	002.7	002.7	002.7	002.9	003.0	003.1	003.2	003.1	003.2	003.3	003.3	003.4	003.4	003.4	003.2	003.1	002.2	001.8	003.5
7	001.2	000.2	999.1	998.0	997.4	996.8	996.7	996.3	996.0	995.8	995.4	994.9	994.6	994.5	994.3	994.1	993.9	993.8	993.8	993.8	994.1	993.5	992.9	995.8	995.8
8	992.5	992.1	991.9	991.6	991.7	991.7	992.0	992.0	992.3	992.7	993.6	994.3	994.9	995.7	996.3	997.1	997.9	998.8	999.9	000.7	001.2	001.9	002.3	002.5	995.5
9	002.7	003.7	004.1	004.0	004.6	005.3	006.1	006.5	007.3	007.7	008.1	008.5	008.6	008.7	008.8	009.0	009.5	009.6	009.8	009.7	009.6	009.6	009.5	009.5	007.3
10	009.3	009.2	009.1	008.8	008.6	008.8	009.0	009.3	009.7	010.1	010.2	010.4	010.3	009.8	009.5	009.4	008.9	008.9	008.6	008.6	008.6	008.6	008.6	008.6	009.2
11	007.3	007.1	006.7	006.5	006																				

PRESSURE
Readings in millibars at exact hours, Greenwich Mean Time.

99

73. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

MAY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	010.8	009.8	009.0	008.8	008.4	007.7	007.1	006.7	006.1	004.8	004.4	004.0	003.4	003.2	003.0	002.7	002.1	001.8	001.4	001.6	001.8	001.3	001.6	002.3	004.9
2	002.4	002.7	003.3	004.2	004.9	005.4	006.1	006.8	007.3	007.5	007.6	008.1	008.6	009.0	009.5	009.7	010.4	011.1	011.7	012.3	012.9	013.0	013.5	013.9	008.2
3	013.8	013.7	013.7	013.7	014.2	014.5	014.6	014.8	015.0	014.7	014.5	014.4	014.3	014.2	013.7	013.5	013.3	013.1	012.9	012.7	012.5	012.3	012.1	011.7	013.7
4	011.1	010.6	009.8	009.0	008.5	008.4	007.9	007.1	006.5	005.8	005.2	004.6	003.9	003.3	002.6	001.8	001.3	000.6	000.9	000.7	000.2	000.1	000.2	000.5	004.4
5	004.6	003.7	002.6	001.8	001.1	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
6	005.3	006.0	006.4	006.6	006.8	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5	006.5
7	008.5	008.4	008.5	008.5	008.2	008.0	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9	007.9
8	018.5	018.4	017.9	017.4	017.0	017.0	017.1	016.9	016.6	016.5	016.5	016.0	015.7	015.7	015.4	015.4	015.6	015.8	015.9	016.2	016.2	016.5	017.1	017.5	016.6
9	017.5	017.4	017.3	017.2	017.0	017.5	017.7	017.8	017.8	018.5	018.5	018.3	018.8	018.4	018.4	018.1	018.9	019.6	019.6	020.3	020.5	020.2	020.5	020.5	018.5
10	020.2	020.3	020.3	020.8	020.9	021.3	021.8	022.1	022.6	022.9	023.2	023.3	023.5	023.5	024.2	024.9	026.1	026.6	027.4	028.1	028.6	029.1	029.2	029.4	024.2
11	029.0	028.7	028.6	028.3	028.0	027.9	027.7	027.3	026.7	026.0	025.1	024.0	023.1	021.7	021.2	020.5	020.0	019.5	019.1	019.2	019.2	019.1	019.0	018.9	023.9
12	018.8	018.5	018.6	018.8	019.8	020.3	021.1	021.3	021.4	021.6	021.6	021.5	021.5	021.1	021.1	020.8	020.1	019.8	019.3	018.8	018.5	018.0	017.5	016.9	019.9
13	015.8	014.8	014.2	013.2	012.1	011.1	010.0	008.7	007.2	005.6	003.4	001.2	000.4	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
14	007.9	008.9	001.3	002.0	002.2	002.7	003.2	003.5	004.4	004.3	004.4	004.1	003.2	002.8	003.0	002.9	003.4	005.2	005.4	006.7	007.9	008.1	008.2	008.6	003.7
15	008.4	008.2	007.7	007.4	007.2	006.8	006.0	005.8	005.0	004.2	003.2	002.6	001.5	000.8	000.5	000.3	000.4	000.8	001.3	001.8	002.4	003.0	003.6	004.3	000.6
16	006.2	005.9	005.5	005.3	006.1	006.4	006.9	007.5	008.1	008.5	008.9	009.7	009.3	009.0	009.9	010.3	011.2	011.9	012.8	013.6	014.2	014.8	015.1	015.4	009.4
17	002.5	002.0	002.0	001.7	001.5	001.4	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8
18	005.7	006.0	006.5	007.0	007.9	008.2	009.1	009.7	010.0	010.4	010.3	010.1	009.9	009.0	008.2	007.4	006.6	005.9	005.2	004.5	003.8	003.1	002.4	001.7	001.0
19	007.3	007.2	007.1	006.9	006.2	005.9	005.1	004.9	003.9	003.2	002.7	002.1	001.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
20	002.6	002.5	002.6	002.6	002.6	002.6	002.7	002.8	002.9	003.2	003.6	003.7	004.4	005.3	006.1	006.3	006.5	006.8	007.0	007.6	007.9	008.3	008.7	009.0	004.7
21	005.1	004.1	003.0	001.9	000.7	000.9	000.9	000.9	000.9	000.9	000.9	000.2	001.3	002.0	003.7	004.4	005.2	006.2	007.3	008.5	009.5	010.6	011.3	012.0	003.6
22	011.5	011.6	011.5	011.5	011.8	012.0	012.3	012.7	013.1	013.4	013.4	013.4	013.8	014.1	014.5	015.3	016.8	018.2	019.1	019.8	020.7	021.3	021.7	022.0	015.0
23	022.5	022.8	022.7	022.4	022.5	022.6	022.1	022.3	021.8	021.6	021.5	021.4	020.7	020.3	020.1	020.2	020.6	020.5	020.9	021.3	021.4	021.3	021.3	021.3	021.5
24	021.4	021.2	021.2	020.8	020.5	020.8	021.1	021.4	021.2	021.2	021.2	021.1	021.2	020.8	020.4	020.1	019.4	019.3	019.2	018.8	018.4	018.2	017.7	017.2	020.2
25	016.7	016.5	016.3	016.1	016.3	016.4	016.6	016.6	016.9	017.2	017.7	018.2	018.8	019.6	020.1	020.7	021.3	022.0	022.1	022.4	022.8	023.1	023.5	023.7	019.1
26	023.8	023.6	023.6	023.8	023.9	024.1	023.9	023.7	023.4	023.2	022.4	021.9	021.5	021.3	021.1	021.2	021.4	020.9	020.5	020.1	019.8	019.6	019.1	018.8	022.0
27	018.3	017.5	016.8	016.5	016.3	015.7	015.7	015.6	015.4	015.2	015.3	015.8	015.6	015.7	016.1	016.3	016.4	016.2	016.3	016.1	016.0	015.9	015.7	015.7	016.2
28	015.4	015.2	015.1	014.9	015.0	015.1	015.5	016.0	016.4	016.4	016.3	016.3	016.5	016.7	016.9	017.0	017.4	017.6	017.9	018.1	018.7	018.9	018.8	018.7	016.6
29	018.6	018.6	018.4	018.4	018.4	018.4	018.5	018.8	018.8	018.9	019.0	019.1	019.1	019.1	018.8	018.9	018.9	018.8	018.9	019.1	019.3	019.6	019.7	019.6	018.9
30	019.5	019.3	019.2	019.2	019.2	019.3	019.2	019.4	019.1	019.0	018.8	018.7	018.4	018.4	017.9	017.7	017.5	017.1	017.2	017.5	017.6	017.6	017.4	017.2	018.4
31	016.9	016.9	016.9	017.0	017.1	017.1	017.3	017.3	017.4	017.4	017.5	017.6	017.8	017.9	017.6	017.6	016.8	016.9	017.0	017.0	017.1	017.2	017.3	017.3	017.2
Mean (Station Level)	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1011	1011	1011	1011	1010
Mean (Sea Level)	1014	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1014	1014	1014	1014	1013	1013

74. ABERDEEN: H_b = 26.0 metres.

JUNE, 1934.

Station Level	Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	
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PRESSURE
Readings in millibars at exact hours, Greenwich Mean Time.

75. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

JULY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	023.2	022.9	022.8	022.7	022.6	022.4	021.8	021.4	020.9	020.2	019.8	019.5	018.9	018.4	017.7	018.1	018.8	018.7	018.5	018.5	018.6	018.7	018.6	018.4	020.2
2	018.0	018.0	018.0	018.1	017.8	017.9	018.2	018.3	018.5	018.5	020.0	020.0	020.0	020.1	020.0	020.3	020.5	020.5	020.9	021.5	021.8	022.1	022.5	022.5	019.7
3	022.4	022.4	022.6	022.7	022.8	023.0	023.1	023.5	023.4	023.7	023.8	023.9	023.8	023.8	023.4	023.3	023.3	022.9	022.9	022.9	022.9	022.8	022.6	022.5	023.1
4	022.1	021.9	021.5	021.3	020.9	020.7	020.5	020.5	020.4	020.4	020.2	019.7	019.4	019.4	019.3	019.1	019.0	018.8	018.5	018.5	018.4	018.5	018.4	018.1	019.9
5	018.1	017.6	017.1	017.0	017.1	017.2	017.2	017.0	016.9	016.9	017.0	017.1	017.2	017.1	017.2	017.0	016.9	016.6	016.9	017.0	017.1	017.3	017.4	017.5	017.2
6	017.6	017.6	017.4	017.5	017.6	017.8	017.9	017.9	017.9	018.0	018.1	018.3	018.1	018.2	018.1	018.3	018.6	018.7	019.0	019.2	019.5	019.5	019.5	019.6	018.2
7	019.5	019.5	019.4	019.5	019.6	019.9	020.1	020.2	020.5	020.9	021.2	022.0	022.3	022.6	023.0	023.8	024.2	024.8	025.4	025.8	026.2	026.6	026.6	026.5	022.2
8	026.5	026.7	026.6	026.6	026.6	026.6	026.6	026.7	026.6	026.7	026.6	026.4	026.2	025.9	025.6	025.2	024.7	024.3	024.3	024.2	024.2	024.1	023.9	023.5	025.7
9	023.2	022.9	022.3	021.8	021.7	021.5	021.2	021.2	021.2	021.3	021.4	021.2	020.9	021.0	021.1	020.9	020.7	020.9	020.6	020.5	020.4	020.8	020.9	020.6	021.3
10	020.5	020.1	019.9	019.5	019.3	019.2	019.2	019.1	018.7	018.5	018.3	017.9	017.8	017.5	017.2	016.8	016.5	016.4	016.2	016.0	015.8	015.7	015.6	015.6	017.9
11	015.2	015.1	014.9	014.8	014.7	014.2	014.0	013.8	013.2	013.1	013.2	013.1	012.9	012.4	012.3	012.2	011.8	011.3	011.1	011.2	011.2	011.2	011.0	011.0	012.9
12	010.6	010.2	009.8	009.4	009.0	008.9	008.7	008.5	008.8	008.0	007.8	007.7	007.3	006.8	006.1	006.0	005.7	005.2	005.2	005.4	005.2	005.3	004.9	004.6	007.4
13	004.3	003.9	003.3	003.4	003.6	004.1	003.8	003.9	004.2	004.3	004.2	004.2	004.1	004.4	004.6	004.5	004.2	004.3	004.2	004.5	004.9	005.0	005.0	005.0	004.2
14	005.0	005.1	005.1	005.5	005.6	006.2	006.5	007.0	007.4	007.6	008.1	008.4	008.6	008.2	009.4	009.7	010.0	010.2	010.4	010.8	011.3	011.7	011.9	011.8	008.3
15	011.8	011.6	011.3	011.4	011.3	011.3	011.2	011.0	011.1	011.2	011.1	010.4	010.1	010.3	010.1	009.8	009.8	009.3	009.9	010.1	010.5	010.7	011.3	011.5	010.8
16	011.8	011.7	011.7	011.8	011.8	011.5	011.3	011.5	011.7	011.3	011.3	011.1	011.0	010.9	011.1	010.8	010.8	011.0	011.0	011.2	011.7	011.6	011.6	011.9	011.4
17	011.5	011.6	011.5	012.1	012.5	012.6	012.3	012.5	012.3	012.3	012.1	012.0	011.9	011.9	012.0	012.0	012.0	011.9	011.9	011.9	012.0	012.0	011.9	011.9	012.0
18	011.4	010.9	010.4	010.1	009.7	009.1	008.9	008.4	008.1	007.6	007.2	006.9	006.7	006.1	005.9	005.7	005.4	004.8	004.5	004.5	004.7	004.2	003.9	003.8	007.2
19	003.8	003.6	003.0	003.0	003.2	003.8	004.4	004.4	004.5	004.5	004.6	004.8	005.2	005.4	005.6	005.6	005.8	006.3	006.5	006.3	007.2	007.2	007.3	007.4	005.1
20	007.3	007.3	007.3	007.4	007.4	007.4	007.3	007.4	007.5	007.6	007.8	007.6	007.6	007.6	007.6	007.6	007.6	007.7	007.9	008.2	008.6	008.7	008.8	008.7	007.7
21	008.8	009.0	009.0	009.0	008.8	008.6	008.7	008.9	008.9	008.7	008.7	008.7	008.6	008.6	008.3	008.3	008.2	008.2	008.3	008.3	008.5	008.5	008.5	008.2	008.6
22	008.0	008.0	008.1	007.8	007.3	007.3	007.4	007.4	007.4	007.5	007.4	007.3	007.3	007.2	007.1	006.8	006.4	006.4	006.8	007.2	008.1	008.3	008.5	008.3	007.5
23	008.3	008.3	008.4	008.4	008.4	008.5	009.0	009.2	009.0	008.9	008.7	008.5	008.5	008.6	008.7	008.7	008.3	008.1	008.3	008.4	008.5	008.8	009.2	009.2	008.6
24	009.4	009.4	009.5	009.5	009.6	010.1	010.0	010.1	010.1	010.5	010.8	010.7	010.6	010.8	010.9	010.9	010.9	010.6	010.4	010.3	010.1	009.8	009.2	010.2	008.2
25	008.2	007.4	006.2	006.3	006.4	006.0	006.5	006.9	007.4	007.4	007.8	008.1	008.4	008.5	008.7	009.0	009.3	009.5	009.7	009.8	010.3	010.1	009.9	009.1	008.2
26	008.6	007.7	006.7	005.9	005.0	004.3	003.6	003.2	002.4	002.1	002.0	002.1	002.0	002.4	002.6	002.9	003.7	004.1	004.6	005.3	005.4	005.4	005.2	005.0	004.3
27	004.6	004.4	003.7	003.3	003.0	003.0	002.8	002.9	003.0	003.2	003.3	003.3	003.3	003.7	003.6	003.5	003.5	003.5	003.8	003.9	004.1	004.1	004.0	003.5	003.5
28	003.3	002.3	001.6	000.3	999.8	999.2	998.9	998.4	998.1	998.2	998.3	998.3	998.5	998.6	998.9	999.2	999.8	000.1	000.5	000.7	001.1	001.1	000.8	001.2	999.9
29	001.0	000.7	000.3	000.4	000.4	000.4	000.2	000.2	000.2	000.2	000.2	000.1	000.1	000.2	000.3	000.2	000.0	000.1	000.2	000.4	000.9	001.7	001.0	002.0	000.5
30	001.9	001.8	001.7	001.4	001.2	001.0	000.8	000.5	000.1	999.8	999.6		999.4	999.3	999.3	999.1	999.2	999.3	999.2	999.2	999.3	999.4	999.9	999.1	000.1
31	999.0	997.6	996.7	995.9	996.3	996.4	996.1	996.2	996.1	996.2	996.2	996.3	996.0	995.7	995.5	995.4	995.5	995.9	996.6	997.1	997.6	998.0	998.3	998.7	996.6
Mean (Station Level)	1011 -77	1011 -52	1011 -23	1011 -08	1010 -99	1010 -95	1010 -93	1010 -90	1010 -86	1010 -86	1010 -86	1010 -80	1010 -74	1010 -73	1010 -68	1010 -65	1010 -66	1010 -63	1010 -75	1010 -91	1011 -17	1011 -25	1011 -25	1011 -16	1010 -99
Mean (Sea Level)	1014 -91	1014 -67	1014 -38	1014 -23	1014 -13	1014 -09	1014 -06	1013 -02	1013 -98	1013 -97	1013 -97	1013 -90	1013 -83	1013 -83	1013 -78	1013 -75	1013 -76	1013 -73	1013 -86	1014 -02	1014 -29	1014 -39	1014 -39	1014 -30	1014 -11

76. ABERDEEN: H_b = 26.0 metres.

AUGUST, 1934.

Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	999.2	999.6	999.9	000.6	001.4	001.9	002.5	002.9	003.4	004.0	003.7	003.8	004.2	004.2	004.3	004.5	004.4	004.2	004.2	004.0	003.6	003.2	002.3	002.9	002.9
2	001.4	000.4	000.0	999.6	998.9	998.5	998.3	998.1	997.7	997.4	997.2	996.5	995.5	994.5	994.8	994.1	993.3	992.8	992.8	992.8	992.5	991.6	991.6	996.2	996.2
3	991.1	990.7	990.3	989.3	988.9	988.5	988.2	987.9	987.4	987.0	986.8	986.1	985.2	984.3	984.8	984.3	983.8	983.7	983.0	982.2	981.5	980.8	980.8	993.2	993.2
4	001.1	001.0	001.0	001.5	002.2	002.4	002.5	002.5	002.6	002.9	003.2	003.2	003.4	003.6	003.8	003.6	003.8	004.1	004.6	005.0	005.1	005.2	005.1	003.1	003.1
5	005.1	005.1	005.1	005.0	005.1	005.2	005.4	005.6	005.6	005.5	005.7	006.2	006.2	006.9	006.1	006.6	007.0	007.1	007.9	008.3	008.3	008.4	008.6	008.3	008.3
6	008.7	008.9	008.9	009.2	009.5	009.8	010.2	010.8	011.2	011.3	011.4	011.5	011.9	011.9	012.0	012.2	012.4	012.6	012.9	013.2	013.6	013.8	014.0	014.1	011.4
7	014.2	014.1	014.1	014.0	014.1	014.4	014.7	015.3	015.6	015.7	015.7	015.8	016.1	016.1	016.4	016.5	016.5	016.6	016.6	016.8	016.7	016.7	016.5	015.6	015.6
8	016.5	016.2	015.4	015.0	014.3	014.1	013.6	013.2	012.3	011.6	011.2	010.6	010.0	009.5	008.5	007.9	007.0	006.0	005.4	004.6	004.1	003.8	003.0	002.3	010.1
9	001.3	001.2	000.3	999.6	998.4	997.9	997.2	996.8	996.6	996.6	996.6	995.8	995.9	995.9	996.1	996.9	997.1	997.4	997.9	998.1	998.2	998.3	998.1	997.9	997.9
10	998.0	997.8	997.6	997.1	996.7	996.5	996.6	996.5	996.0	996.0	995.7	995.5	995.3	995.0	995.2	994.8	994.6	994.6	994.7	994.8	995.1	995.3	995.1	995.0	995.9

77. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

SEPTEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	003.2	003.0	003.0	002.9	002.7	002.7	002.8	002.9	002.9	002.9	002.8	002.8	002.6	002.6	002.6	002.5	002.5	002.8	002.8	002.9	002.8	002.8	002.6	002.6	002.8
2	002.3	001.9	001.4	001.5	001.4	001.2	000.9	000.8	000.8	000.9	000.7	000.4	000.3	000.2	000.2	000.2	000.2	000.7	000.5	000.9	000.4	000.4	000.6	000.6	000.2
3	995.3	993.9	992.1	991.6	990.5	990.0	990.3	990.6	990.6	991.7	992.4	993.1	994.1	994.5	995.1	995.8	996.8	997.5	998.4	999.2	000.0	000.4	001.6	002.7	994.8
4	002.9	003.1	003.4	003.7	004.2	004.5	004.9	005.1	005.3	005.4	005.5	005.2	005.1	005.2	005.6	006.8	007.5	007.9	008.7	009.4	009.9	010.2	010.6	011.0	008.4
5	011.7	012.1	012.6	013.1	013.8	014.8	016.0	016.7	017.1	018.3	018.8	019.5	020.0	020.4	020.6	021.3	021.9	022.3	023.0	023.7	023.9	024.0	024.1	024.1	018.6
6	024.2	024.2	024.0	023.7	023.7	023.8	023.8	024.0	024.0	024.1	023.9	023.7	023.3	023.0	022.3	021.8	021.4	021.1	020.5	020.5	019.8	019.6	019.3	018.2	022.5
7	017.4	016.7	015.5	014.8	014.2	014.1	013.2	013.0	012.5	011.7	010.6	009.0	008.0	007.3	007.0	006.9	006.5	006.6	007.0	007.2	007.1	006.8	006.5	006.2	010.5
8	005.4	004.1	002.2	000.1	998.7	998.0	996.6	996.3	996.7	997.1	997.1	997.6	997.9	997.9	998.3	999.6	000.5	001.3	002.2	002.7	002.8	003.0	002.8	002.5	000.1
9	002.0	001.6	000.9	000.3	000.0	999.8	999.7	999.8	999.7	999.7	000.0	000.1	000.5	001.6	002.2	002.8	003.5	004.6	005.7	006.7	007.8	008.4	008.9	009.8	002.6
10	010.3	010.4	010.7	011.3	011.6	011.8	012.0	012.4	012.5	012.6	012.7	012.6	012.8	012.3	012.0	011.5	011.5	011.8	011.8	011.0	011.1	011.3	011.8	011.8	011.7
11	012.4	012.9	013.5	013.6	014.2	014.5	015.0	015.1	015.1	015.4	015.3	015.4	015.5	015.3	015.3	015.8	016.0	016.7	017.4	018.1	019.0	019.3	019.7	020.6	015.7
12	021.3	021.7	022.0	022.8	022.9	023.5	024.3	024.6	025.0	025.4	025.4	025.4	025.8	025.3	024.6	024.1	023.7	023.3	023.7	024.0	024.0	024.0	024.2	024.1	025.1
13	026.4	026.3	025.9	025.8	025.5	025.8	025.7	025.8	025.7	025.8	025.8	025.7	025.8	025.3	024.6	024.1	023.7	023.3	023.7	024.0	024.0	024.0	024.2	024.1	025.1
14	023.9	024.0	023.7	023.6	023.2	023.4	023.5	023.6	023.6	023.3	023.3	023.1	022.9	022.5	022.0	021.5	021.3	021.1	021.0	021.2	020.9	020.5	020.4	019.7	022.5
15	019.2	018.6	018.1	017.2	016.7	016.3	015.7	015.7	015.5	014.9	014.9	013.8	013.2	012.4	011.4	010.9	010.1	009.8	009.6	009.5	009.1	008.5	008.3	007.7	013.5
16	007.1	006.6	006.2	005.8	005.7	005.8	005.6	005.6	005.6	005.7	005.9	006.1	006.4	006.8	007.1	007.3	007.5	008.5	008.7	008.7	008.9	009.1	009.4	009.0	007.0
17	008.8	008.6	008.3	008.0	007.0	006.3	005.9	005.4	004.2	003.8	003.1	002.2	001.5	001.4	001.4	001.2	001.1	001.4	002.1	002.7	003.4	004.0	004.4	004.6	004.3
18	004.8	005.0	005.0	004.9	005.0	005.2	005.4	005.6	006.1	006.1	006.1	005.9	005.6	005.6	004.5	003.8	003.7	003.7	003.8	003.4	002.8	001.9	001.2	001.6	004.6
19	000.6	000.7	000.8	000.8	000.7	000.6	000.5	000.4	000.3	000.2	000.1	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
20	997.8	997.8	997.9	998.0	998.2	998.6	998.9	999.1	999.4	999.5	999.3	999.3	999.4	999.2	999.0	998.8	998.9	998.9	999.0	999.3	999.3	999.4	999.6	000.1	998.9
21	000.2	000.2	000.5	000.9	001.3	001.8	002.5	002.9	003.2	004.0	004.7	004.9	005.0	005.3	005.7	006.4	006.8	007.3	007.8	008.1	008.6	008.9	009.2	009.1	004.6
22	008.9	008.6	008.1	007.6	007.0	005.9	004.6	003.9	002.4	001.3	000.9	997.0	994.9	992.5	989.9	987.7	986.8	986.4	986.2	986.1	986.3	986.1	986.1	986.6	996.7
23	987.5	986.3	989.2	989.7	990.0	990.8	991.4	992.6	993.1	995.0	996.2	997.2	998.2	998.6	999.0	999.4	000.3	000.6	000.9	000.9	000.6	000.3	000.0	999.4	999.5
24	999.0	998.7	997.7	997.1	996.2	995.1	993.9	994.3	994.2	994.0	993.7	993.5	993.3	993.3	993.1	992.8	993.0	993.3	993.8	994.5	995.0	995.7	996.7	997.3	995.0
25	998.1	998.6	999.0	999.7	000.5	001.2	002.2	003.3	003.7	004.0	004.4	004.9	004.5	004.5	004.4	004.3	004.0	003.7	003.4	003.1	002.9	002.4	001.6	999.5	002.4
26	999.3	998.7	998.6	997.6	997.3	995.1	994.3	993.3	993.1	992.0	991.1	990.2	989.9	989.4	988.5	986.9	987.6	988.9	991.0	991.5	992.4	993.3	993.9	996.3	993.0
27	997.8	998.2	000.2	000.7	001.3	002.5	004.2	005.6	006.0	007.1	008.2	009.1	009.6	009.4	010.7	010.9	011.4	011.7	012.4	012.8	012.7	012.9	012.5	012.1	007.2
28	011.2	009.8	008.7	007.7	006.7	005.2	004.9	005.2	005.5	005.5	005.5	005.6	005.8	006.4	006.3	006.3	006.5	006.4	006.8	006.9	007.0	006.9	006.9	006.6	006.8
29	006.4	006.2	005.9	005.4	005.1	005.1	005.3	005.5	006.2	006.8	007.1	007.5	008.3	008.3	008.1	008.3	008.4	008.3	008.4	008.2	007.8	007.8	007.5	007.6	007.0
30	007.9	007.8	007.6	007.3	007.4	007.1	007.1	007.1	007.2	006.9	006.0	005.3	004.0	003.7	003.2	002.8	002.8	002.5	002.6	002.3	001.8	001.1	001.0	001.2	004.9
Mean (Station Level)	1007 -11	1006 -94	1006 -69	1006 -48	1006 -32	1006 -23	1006 -27	1006 -42	1006 -45	1006 -57	1006 -49	1006 -38	1006 -29	1006 -21	1006 -01	1005 -95	1006 -07	1006 -32	1006 -69	1006 -91	1007 -02	1007 -05	1007 -10	1007 -09	1006 -55
Mean (Sea Level)	1010 -27	1010 -10	1009 -85	1009 -64	1009 -48	1009 -39	1009 -42	1009 -57	1009 -59	1009 -70	1009 -62	1009 -50	1009 -40	1009 -32	1009 -13	1009 -07	1009 -19	1009 -45	1009 -82	1010 -05	1010 -17	1010 -20	1010 -25	1010 -25	1009 -69

78. ABERDEEN: H_b = 26.0 metres.

OCTOBER, 1934.

Station Level	Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
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PRESSURE
Readings in millibars at exact hours, Greenwich Mean Time.

79. ABERDEEN: H_b (height of barometer cistern above M.S.L.) = 26.0 metres.

NOVEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	006.8	006.8	006.3	006.1	005.9	005.8	005.5	005.4	005.2	004.9	004.9	004.9	005.1	005.3	005.1	005.6	005.6	006.1	006.1	006.1	005.9	005.6	005.9	005.6	005.7
2	005.4	005.1	005.0	004.7	005.2	005.2	005.7	006.4	006.7	007.3	007.6	007.4	007.3	007.4	008.1	008.7	009.0	009.9	009.9	010.0	010.1	010.3	010.5	010.7	007.5
3	010.6	010.3	010.1	009.9	009.8	009.7	009.7	010.0	009.9	009.6	009.6	009.4	008.9	008.1	007.5	007.6	007.7	008.5	008.6	008.8	009.5	009.9	010.3	010.8	009.4
4	010.9	010.9	011.0	011.0	011.6	012.0	013.0	013.4	013.4	013.3	013.3	013.0	012.4	012.2	012.2	012.0	011.9	011.4	011.2	010.7	010.1	009.7	009.3	009.1	011.7
5	008.5	008.1	007.5	007.4	007.4	007.5	007.6	007.7	007.5	007.2	007.1	007.0	006.9	006.6	005.8	005.6	005.6	006.1	005.5	005.4	005.6	005.6	005.4	005.2	006.7
6	005.1	005.0	004.7	004.5	004.4	004.2	004.4	004.5	004.5	004.6	004.7	004.7	004.4	004.2	004.4	004.7	004.9	005.5	005.7	005.8	005.6	005.6	005.8	005.8	004.9
7	005.8	005.8	005.7	005.6	005.7	005.9	006.1	006.2	006.5	006.6	006.7	006.4	006.1	006.2	006.2	006.5	006.5	006.2	006.0	005.4	004.9	004.6	004.4	004.4	005.9
8	004.2	003.6	002.8	002.3	001.9	001.3	001.1	000.9	000.3	000.1	000.7	000.8	000.4	000.7	001.5	002.3	003.0	003.7	004.2	004.5	004.9	005.0	005.1	005.1	006.9
9	006.8	006.4	006.3	006.3	006.3	006.4	006.7	006.8	006.8	006.7	006.6	006.3	006.1	005.8	005.5	005.4	005.4	005.7	005.6	005.4	005.3	005.1	004.9	004.7	006.0
10	005.4	005.6	005.7	005.9	006.2	006.5	007.1	007.6	008.2	008.7	009.4	009.7	000.1	000.6	000.9	001.7	002.3	003.2	003.5	003.8	004.2	004.4	004.6	004.6	009.8
11	004.7	004.7	004.3	004.4	004.2	004.2	004.4	004.4	004.4	005.0	004.7	004.4	004.1	003.8	003.9	003.9	004.0	004.1	004.2	004.2	004.1	003.9	003.7	003.7	004.2
12	003.5	003.3	002.6	002.3	001.8	001.7	001.5	001.3	000.9	000.7	000.0	000.3	000.4	000.7	001.3	001.8	002.3	002.8	003.2	003.4	003.4	003.3	003.3	003.3	004.0
13	003.4	002.9	002.5	002.3	002.3	002.4	002.5	002.6	002.7	002.8	002.9	003.0	003.1	003.2	003.3	003.4	003.5	003.6	003.7	003.8	003.9	004.0	004.1	004.2	004.3
14	003.0	002.8	002.6	002.5	002.4	002.3	002.2	002.1	002.0	001.9	001.8	001.7	001.6	001.5	001.4	001.3	001.2	001.1	001.0	000.9	000.8	000.7	000.6	000.5	000.4
15	010.7	010.9	011.1	011.7	012.2	012.4	012.8	013.7	014.4	014.9	015.4	015.5	015.8	015.7	015.9	016.8	017.2	017.9	018.6	018.9	019.2	019.5	019.6	019.6	015.2
16	019.4	019.6	019.5	019.7	019.8	020.0	020.1	020.5	020.3	020.0	019.8	019.3	018.6	018.1	017.6	017.5	017.4	017.1	017.0	016.8	016.4	016.6	016.4	016.2	018.6
17	016.1	015.9	015.8	015.8	015.8	015.9	016.2	017.0	017.0	017.0	016.7	016.7	016.7	016.5	017.0	017.3	017.7	018.4	018.8	019.2	019.6	019.8	020.0	020.4	017.3
18	020.6	020.6	020.9	020.9	021.0	021.0	021.6	022.0	022.2	022.0	021.9	021.4	021.0	020.9	020.6	020.5	020.5	020.3	020.3	020.3	020.1	019.6	019.2	018.4	020.7
19	017.6	017.4	017.0	016.7	016.5	016.3	016.7	016.5	016.3	016.7	016.6	016.5	016.2	016.0	015.8	016.4	016.7	016.8	017.2	017.4	017.6	017.2	016.9	016.5	016.8
20	016.3	015.6	015.0	013.8	012.7	013.1	012.9	013.6	014.4	015.0	016.1	017.6	018.3	018.8	019.8	020.6	021.0	021.6	022.1	022.4	022.4	022.8	022.8	023.0	017.8
21	022.9	022.8	022.6	022.5	022.4	022.3	022.4	022.3	022.3	022.3	021.6	021.1	019.9	019.7	019.6	019.4	019.3	019.1	019.6	019.5	019.5	019.5	019.5	019.1	020.8
22	018.7	018.2	018.0	017.5	017.2	016.7	017.4	016.8	016.8	016.4	016.3	015.9	016.0	015.8	015.9	015.9	015.3	015.2	016.7	016.8	017.5	018.0	018.8	019.2	017.0
23	019.8	020.0	020.5	020.9	021.0	021.2	021.7	022.4	022.7	022.9	023.0	023.0	022.9	022.8	023.0	022.9	022.8	023.0	023.0	023.0	023.1	023.3	023.6	023.6	022.2
24	023.5	023.8	023.6	023.8	023.8	024.1	024.4	025.0	025.2	025.2	025.4	025.2	025.1	025.1	025.1	025.4	025.5	025.4	025.4	025.5	025.7	025.4	025.6	025.4	024.9
25	025.4	025.0	025.0	024.7	024.7	024.5	024.5	024.2	023.9	023.5	023.3	022.6	022.3	022.0	021.7	021.0	020.5	020.0	019.1	018.6	017.7	017.4	017.2	016.2	022.1
26	015.5	015.2	015.0	014.6	014.6	014.7	015.0	015.1	015.1	015.4	015.5	015.3	015.6	016.5	016.7	017.0	017.0	018.1	018.2	018.5	019.1	019.7	020.3	020.6	016.5
27	021.1	021.7	021.9	021.5	021.4	021.6	021.7	021.9	022.2	022.3	022.0	021.9	021.7	021.6	021.7	021.8	022.2	022.3	022.6	022.7	022.8	023.1	023.2	023.8	022.0
28	023.9	023.8	023.6	023.7	023.6	023.6	023.6	024.3	024.7	024.6	024.4	024.2	024.3	024.3	024.1	024.7	024.8	025.2	025.5	025.8	026.0	026.1	026.3	026.4	024.6
29	026.5	026.4	026.2	026.5	026.7	026.7	027.0	027.4	027.7	027.8	027.8	027.7	027.5	027.6	027.6	027.6	027.6	027.6	027.7	027.6	027.5	027.3	027.1	026.9	027.2
30	026.9	026.8	026.4	025.9	025.6	025.6	025.2	025.4	025.4	025.1	024.4	024.4	024.0	023.5	023.1	022.7	021.9	021.6	020.7	020.0	019.5	018.6	018.2	017.2	023.5
Mean (Station Level)	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012
Mean (Sea Level)	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1016	1016	1016	1016	1016	1016	1016	1015

80. ABERDEEN: H_b = 26.0 metres.

DECEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	017.1	016.7	015.7	015.0	014.2	013.1	012.4	012.5	012.1	011.7	011.0	010.3	009.6	008.8	007.8	006.3	005.9	005.1	004.2	003.5	003.3	002.5	001.8	009.8	
2	000.8	000.0	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3
3	000.9	000.6	000.4	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3
4	000.9	000.6	000.4	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3	000.3
5	001.8	001.6	001.3	001.1	000.9	000.9	000.9	001.0	001.0	000.9	000.9	000.9	000.6	000.6	000.9	001.0	001.3	001.8	001.9	002.1	002.4	002.5	002.9	003.1	001.4
6	003.2	003.0	002.8	002.7	002.8	002.8	002.8	003.3	003.3	003.3	003.5	003.3	002.8	002.9	002.3	002.1	002.0	001.5	001.2	000.5	000.0	000.9	000.7	000.2	002.3
7	009.1	008.4	008.0	007.1	006.6	006.0	005.6	005.6	005.6	005.6	005.6	005.6	006.6	006.9	006.9	007.7	007.6	007.7	007.9	008.0	007.9	007.8	007.7	007.7	007.1
8	007.6	007.0	006.6	006.5	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4	006.4
9	001.3	000.3	000.4	000.8	001.2	001.6	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8	001.8
10	004.1	004.8	005.0	004.9	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6	004.6
11	003.0	002.9	002.6	002.5	002.4	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3	002.3
12	005.8	005.5	005.3	005.1	004.9	004.6	00																		

PRESSURE AT STATION LEVEL AND AT SEA LEVEL.
ANNUAL MEANS FROM HOURLY VALUES
From readings in millibars at exact hours, Greenwich Mean Time.

103

81. ABERDEEN: $H_0 = 26.0$ metres.

1934.

Hour G. M. T.	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
Station Level.	mb. 007.47	mb. 007.32	mb. 007.14	mb. 006.99	mb. 006.86	mb. 007.00	mb. 007.11	mb. 007.28	mb. 007.34	mb. 007.40	mb. 007.38	mb. 007.27	mb. 007.17	mb. 007.08	mb. 007.03	mb. 007.07	mb. 007.14	mb. 007.29	mb. 007.43	mb. 007.84	mb. 007.64	mb. 007.67	mb. 007.65	mb. 007.56	mb. 007.29
Sea Level.	010.67	010.51	010.34	010.19	010.16	010.20	010.30	010.45	010.52	010.57	010.54	010.43	010.33	010.24	010.19	010.23	010.31	010.46	010.60	010.72	010.83	010.88	010.84	010.76	010.47

PRESSURE AT STATION LEVEL; MONTHLY MEANS AND DIURNAL INEQUALITIES.
The departures from the mean of the day are adjusted for non-cyclic change.†

82. ABERDEEN: $H_0 = 26.0$ metres.

1934.

Month	Mean	Hour 1	G.M.T. 2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
Jan.	1006.12	mb. +0.01	mb. -0.20	mb. -0.31	mb. -0.50	mb. -0.63	mb. -0.50	mb. -0.38	mb. -0.12	mb. +0.08	mb. +0.33	mb. +0.28	mb. +0.07	mb. -0.13	mb. -0.31	mb. -0.23	mb. +0.06	mb. +0.23	mb. +0.33	mb. +0.30	mb. +0.33	mb. +0.43	mb. +0.40	mb. +0.32	mb. +0.18
Feb.	1021.48	+0.01	-0.14	-0.33	-0.41	-0.43	-0.41	-0.21	+0.07	+0.36	+0.46	+0.42	+0.33	+0.14	-0.12	-0.23	-0.31	-0.12	+0.04	+0.11	+0.12	+0.14	+0.20	+0.13	+0.13
Mar.	999.34	+0.36	+0.19	-0.11	-0.37	-0.45	-0.40	-0.33	-0.30	-0.22	-0.22	-0.29	-0.29	-0.27	-0.30	-0.33	-0.28	-0.11	+0.20	+0.50	+0.62	+0.63	+0.68	+0.59	+0.51
Apr.	1004.59	-0.35	-0.41	-0.49	-0.57	-0.44	-0.25	0.00	+0.14	+0.30	+0.37	+0.37	+0.39	+0.38	+0.29	+0.10	+0.03	-0.06	-0.03	+0.11	+0.19	+0.12	+0.05	-0.03	-0.20
May	1010.58	+0.37	+0.18	+0.07	-0.06	-0.12	-0.11	-0.07	+0.04	+0.03	-0.05	-0.16	-0.29	-0.39	-0.43	-0.43	-0.39	-0.33	-0.16	-0.09	+0.23	+0.50	+0.55	+0.58	+0.55
June	1014.90	+0.03	-0.11	-0.24	-0.27	-0.29	-0.21	-0.09	-0.08	-0.01	+0.04	+0.08	+0.09	+0.03	+0.04	0.00	-0.04	-0.07	0.00	+0.13	+0.25	+0.33	+0.32	+0.32	+0.17
July	1010.99	+0.41	+0.20	-0.06	-0.18	-0.24	-0.24	-0.23	-0.22	-0.23	-0.20	-0.16	-0.19	-0.22	-0.19	-0.21	-0.21	-0.15	-0.16	-0.01	+0.19	+0.48	+0.60	+0.63	+0.57
Aug.	1004.47	+0.26	+0.17	+0.01	-0.14	-0.18	-0.12	-0.04	+0.04	0.00	-0.05	-0.05	-0.20	-0.23	-0.31	-0.35	-0.36	-0.32	-0.20	+0.03	+0.28	+0.41	+0.52	+0.48	+0.34
Sept.	1006.55	+0.53	+0.37	+0.12	-0.09	-0.25	-0.33	-0.29	-0.14	-0.10	+0.02	-0.05	-0.17	-0.25	-0.33	-0.52	-0.59	-0.46	-0.21	+0.16	+0.39	+0.50	+0.53	+0.58	+0.68
Oct.	1002.16	-0.07	-0.25	-0.50	-0.58	-0.47	-0.32	-0.07	+0.22	+0.24	+0.30	+0.37	+0.21	+0.03	-0.04	-0.12	-0.07	-0.02	+0.20	+0.29	+0.27	+0.30	+0.15	-0.03	-0.05
Nov.	1012.54	+0.08	-0.07	-0.24	-0.36	-0.39	-0.35	-0.14	+0.09	+0.22	+0.25	+0.23	+0.02	-0.13	-0.23	-0.25	-0.12	-0.06	+0.18	+0.23	+0.22	+0.22	+0.20	+0.22	+0.17
Dec.	995.43	+0.42	+0.27	+0.17	-0.12	-0.17	-0.23	-0.28	-0.12	+0.02	+0.06	+0.01	-0.19	-0.37	-0.47	-0.51	-0.36	-0.25	-0.05	+0.08	+0.17	+0.35	+0.44	+0.59	+0.52
Year	1007.29	+0.17	+0.02	-0.16	-0.30	-0.34	-0.29	-0.18	-0.03	+0.06	+0.11	+0.09	-0.02	-0.12	-0.20	-0.26	-0.22	-0.14	0.00	+0.14	+0.26	+0.36	+0.39	+0.37	+0.29

ABSOLUTE EXTREMES OF PRESSURE AT STATION LEVEL FOR EACH DAY.
Maximum and Minimum for the interval 0h. to 24., Greenwich Mean Time.

83. ABERDEEN: $H_0 = 26.0$ metres.

1934.

Day	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	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	mb. 017.1	009.8	mb. 039.8	034.2	mb. 004.4	997.4	mb. 023.7	018.6	mb. 011.2	001.2	mb. 025.5	017.2	mb. 023.8	017.6	mb. 004.6	998.7	mb. 003.3	002.4	mb. 006.9	001.1	mb. 007.2	004.7	mb. 017.2	001.8
2	013.0	006.6	038.1	030.6	001.6	990.6	024.7	022.6	013.9	002.3	028.5	025.4	022.7	017.5	002.3	991.6	002.6	996.4	006.6	998.5	011.2	004.5	001.8	992.6
3	007.6	996.3	032.9	029.8	012.2	001.2	022.6	015.5	015.0	011.7	028.3	023.9	024.1	022.3	001.0	998.4	002.7	999.8	998.5	979.9	010.8	007.2	000.5	994.4
4	996.3	988.1	032.9	027.7	012.6	999.6	015.5	010.1	011.7	995.7	023.9	019.7	022.5	018.1	005.3	000.6	011.4	002.6	980.6	971.4	013.6	009.1	005.0	000.5
5	014.3	993.7	027.8	018.7	999.6	982.8	013.7	007.1	004.1	990.9	020.2	017.1	018.3	016.5	008.6	004.9	024.2	011.4	003.4	973.0	009.1	005.2	003.1	000.5
6	011.6	999.4	019.3	014.4	988.7	983.3	007.4	001.8	006.9	995.6	019.3	014.5	019.6	017.3	014.1	008.6	024.3	018.2	011.6	003.4	006.1	004.0	003.6	999.7
7	006.5	991.6	014.4	993.8	999.2	988.7	001.8	992.9	018.6	998.2	019.5	015.1	026.6	019.4	016.8	013.9	018.2	006.2	014.9	003.1	006.7	004.4	999.7	995.4
8	012.8	998.7	018.9	991.3	005.8	999.2	002.5	991.3	018.6	015.3	022.0	019.3	028.8	023.5	016.7	002.3	006.2	996.3	018.9	010.8	004.4	996.9	997.8	991.4
9	014.3	004.1	018.6	006.1	006.3	004.2	009.8	002.4	020.7	018.9	023.7	021.6	023.5	020.3	002.3	995.7	009.8	999.6	018.6	010.5	996.9	994.9	992.3	977.2
10	006.5	000.6	015.0	007.2	004.2	997.3	010.5	907.7	029.4	020.1	021.6	017.7	020.5	015.6	998.1	994.5	012.8	009.6	016.2	010.1	004.7	995.3	993.2	983.7
11	000.6	978.1	027.1	014.9	997.3	988.2	007.7	005.4	029.4	018.9	019.3	016.8	015.6	010.9	996.6	994.7	020.6	011.7	017.7	013.4	005.1	003.6	993.1	985.9
12	979.7	975.4	034.4	027.1	993.8	987.3	007.2	998.4	021.7	016.9	019.0	013.7	011.0	004.6	003.1	995.2	026.9	020.6	020.9	009.3	003.7	993.7	986.1	977.2
13	988.3	979.1	033.1	031.1	994.8	992.1	010.1	998.4	016.9	995.5	013.7	008.1	005.1	003.2	013.9	003.1	026.7	023.2	022.0	002.1	997.7	992.2	984.5	980.9
14	986.6	972.3	040.0	031.4	992.1	972.0	007.4	999.3	006.6	997.7	020.1	011.6	011.9	004.9	014.9	011.9	024.1	019.7	002.1	992.8	010.6	997.7	983.9	974.2
15	985.4	973.4	040.7	038.4	973.3	962.7	006.3	995.7	006.7	986.7	019.7	016.0	011.9	009.2	011.9	006.7	019.7	007.7	018.5	993.0	019.8	010.6	977.1	970.5
16	999.9	985.4	040.2	037.7	976.7	965.5	007.5	995.9	992.9	985.5	016.0	012.2	012.0	010.7	013.3	007.8	009.4	005.4	022.0	012.8	020.6	016.2	985.9	977.1
17	994.5	986.3	039.3	036.2	968.1	961.2	004.8	996.3	995.6	991.3	014.4	010.6	012.7	011.3	016.5	013.0	009.0	000.9	012.8	005.3	020.4	015.7	990.9	986.4
18	987.5	976.7	037.5	024.1	983.3	968.1	996.6	991.0	007.3	995.4	014.3	003.3	011.9	003.8	016.0	005.4	006.4	001.2	006.1	998.1	022.2	018.0	986.4	974.9
19	024.1	987.5	025.8	021.6	993.2	983.3	004.9	992.7	007.4	998.0	003.3	993.1	007.4	002.9	006.3	004.2	001.2	993.4	007.4	002.6	018.0	015.6	989.8	978.2
20	031.1	023.6	023.3	018.6	009.6	993.2	007.1	996.9	007.9	002.3	007.7	993.6	008.2	007.2	005.3	999.2	000.1	997.6	003.3	997.5	023.0	012.6	006.8	989.8
21	030.2	022.6	020.4	016.2	012.4	008.5	997.1	994.0	011.3	996.6	007.2	997.8	009.1	008.1	998.7	990.4	009.3	000.1	001.8	999.3	023.0	019.0	011.8	006.8
22	027.1	017.4	016.3	014.0	016.9	008.1	001.5	994.7	022.0	011.2	012.6	996.2	008.5	006.3	997.5	992.5	009.1	995.2	019.2	015.0	011.8	008.3	006.3	006.3
23	025.9	019.5	015.6	007.8	017.0	011.4	001.5	978.9	023.0	020.0	018.5	012.6	009.2	008.0	006.2	996.1	000.9	996.6	003.2	994.7	023.6	019.2	008.3	005.1
24	023.4	020.0	007.8	997.3	022.9	006.5	999.0	979.6	021.6	017.2	019.1	011.1	009.1	015.7	006.2	999.4	992.8	007.6	003.2	025.7	023.4	017.6	007.9	007.9
25	020.1	006.8	015.8	998.5	023.4	014.5	996.9	987.9	023.7	016.0	016.7	009.6	010.3	005.8	018.8	015.5	004.7	997.3	007.4	978.3	025.5	016.2	017.3	009.2
26	006.8	002.1	016.6	015.1	018.4	008.9	001.9	990.9	024.1	018.8	009.5	005.4	009.1	001.9	019.6	018.0	999.9	986.5	997.1	980.2	020.6	014.0	009.2	996.6
27	026.2	004.1	015.6	005.2	021.8	018.4	017.1	001.9	018.8	015.1	006.3	004.4	005.0	002.7	018.0	007.0	013.1	996.2	991.8	984.1	023.8	020.6	998.3	995.0
28	030.5	026.1	005.2	002.3	018.8	016.6	021.8	017.1	019.0	014.8	019.6	006.2	003.5	997.9	007.0	994.8	012.1	004.8	996.2	026.4	023.4	019.6	009.4	993.5
29	029.9	026.5	-	-	018.3																			

TEMPERATURE
Readings in degrees absolute at exact hours, Greenwich Mean Time.

84. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

JANUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	77.8	78.0	78.2	78.5	78.1	77.9	78.0	78.6	79.0	79.2	79.4	79.5	79.9	80.0	80.0	79.7	79.6	79.8	80.0	80.3	80.0	79.8	79.8	79.8	79.2
2	79.5	79.0	79.0	78.8	78.6	78.1	77.8	78.0	77.0	77.5	78.1	78.2	78.4	78.8	78.6	78.3	78.1	78.3	78.0	77.7	77.4	77.1	77.3	77.9	78.2
3	78.6	78.9	79.0	79.0	79.1	78.9	78.3	77.6	77.7	77.7	78.8	79.3	80.0	80.0	80.4	80.2	80.3	80.8	80.8	81.0	81.2	81.5	81.7	81.5	79.6
4	81.6	81.8	82.4	82.5	83.9	84.1	84.0	83.9	83.8	83.9	83.4	82.7	83.5	82.8	82.2	81.2	79.8	78.4	78.0	77.6	77.4	77.0	76.9	76.8	81.3
5	76.7	76.9	77.2	77.3	78.0	78.3	78.6	78.3	78.0	77.4	78.0	78.4	78.7	78.8	78.6	77.9	77.3	76.6	76.6	77.0	77.4	77.6	77.4	78.9	77.7
6	77.6	77.9	78.6	78.8	79.0	79.0	79.8	80.1	81.2	82.3	83.6	84.0	84.6	85.1	84.5	83.4	82.2	81.9	81.2	80.2	79.8	79.1	79.7	79.3	80.9
7	79.4	79.3	79.1	79.4	79.4	79.5	79.5	79.4	81.8	81.8	83.2	84.0	84.3	81.9	81.5	80.9	80.7	79.9	79.3	78.9	78.8	77.8	76.9	76.4	80.2
8	76.5	76.6	76.2	76.1	76.0	76.2	76.3	76.5	76.5	76.9	77.5	78.4	78.2	78.2	77.7	78.1	77.1	77.5	77.7	77.6	76.8	76.3	76.8	76.6	77.0
9	76.2	76.0	76.1	76.4	76.6	76.5	76.4	78.0	77.6	77.3	78.2	78.5	78.9	79.2	79.7	79.8	79.5	79.5	79.2	79.4	79.4	78.7	78.9	79.0	78.1
10	79.0	79.1	79.2	79.6	80.0	80.3	80.6	81.0	81.2	81.4	81.5	81.5	81.8	81.4	81.6	81.6	81.4	81.4	81.4	81.6	81.5	81.4	81.3	81.1	80.9
11	80.9	80.8	80.5	80.5	80.4	80.5	80.7	80.9	80.8	80.4	80.3	80.2	80.0	79.6	79.6	79.5	79.5	79.6	79.7	80.2	80.5	80.7	78.3	80.1	80.2
12	80.4	80.5	78.0	77.5	77.0	76.4	76.0	76.2	76.4	77.0	77.5	78.4	78.8	79.0	79.0	78.9	78.9	79.0	78.7	79.1	79.0	79.5	79.6	79.3	78.4
13	78.9	78.6	78.6	78.5	78.6	78.9	78.1	77.5	78.0	78.1	78.4	78.4	78.2	78.5	79.2	78.2	77.5	77.3	77.2	77.2	76.7	76.6	76.4	76.2	78.0
14	76.4	76.7	76.6	75.8	75.9	75.6	75.3	76.2	77.1	78.7	79.5	78.8	78.5	78.4	78.4	78.2	77.9	78.1	78.1	78.0	77.9	77.8	76.8	76.4	77.4
15	76.6	77.1	77.4	77.4	77.6	77.9	77.7	77.7	77.7	78.0	78.2	78.7	78.9	78.9	78.6	77.9	77.4	77.2	77.1	77.0	77.0	76.7	76.8	76.9	77.6
16	76.7	76.8	77.1	77.3	77.0	77.0	76.6	76.7	76.7	77.4	77.9	78.8	78.7	78.9	78.9	77.5	76.8	76.2	75.5	75.8	76.1	76.2	76.7	76.9	77.1
17	76.9	77.2	77.5	77.9	78.2	78.3	79.4	80.1	81.0	80.8	81.1	81.5	83.0	82.6	82.9	81.8	80.7	80.5	80.6	80.1	79.0	78.5	79.9	80.4	79.9
18	80.5	80.6	80.4	80.1	80.0	79.7	79.0	78.6	78.8	78.3	79.0	79.4	79.6	79.5	79.4	79.0	78.3	77.8	77.2	77.7	77.6	77.7	77.2	77.2	79.0
19	76.8	76.4	76.5	76.4	76.4	75.3	75.3	74.9	75.6	76.9	77.3	77.3	77.8	76.8	75.6	75.2	76.0	76.3	76.1	75.9	76.1	76.9	76.6	75.9	76.3
20	75.8	74.9	74.5	74.1	73.7	73.7	73.4	74.5	75.0	75.8	76.0	76.8	77.3	77.8	76.9	75.8	75.5	75.4	75.4	75.4	75.5	75.5	75.7	76.0	75.4
21	76.2	76.9	77.1	77.9	77.9	78.0	77.4	76.3	76.6	76.9	79.2	79.5	79.0	79.3	79.1	78.5	78.0	77.4	77.1	77.2	76.8	77.9	78.4	78.9	77.8
22	79.0	79.2	79.4	79.3	79.0	79.2	79.0	79.2	79.0	79.2	79.4	79.5	79.2	79.2	79.0	79.1	78.8	79.0	79.2	78.9	79.0	79.5	80.0	79.8	79.2
23	79.3	79.1	78.9	78.5	77.9	77.1	77.8	77.8	78.0	78.1	78.7	78.8	79.0	79.0	79.4	79.7	79.9	80.0	80.1	80.3	80.4	80.6	80.8	81.3	79.2
24	81.4	82.1	81.9	81.9	81.7	81.4	81.2	81.3	81.5	81.4	81.4	81.4	81.4	81.2	81.0	80.0	79.1	78.2	77.9	77.1	77.0	77.2	76.4	76.1	80.2
25	76.1	76.5	76.3	76.3	76.5	76.6	77.4	77.2	77.8	77.9	78.0	78.1	78.1	77.9	77.5	76.9	76.8	77.1	77.1	77.0	77.4	77.4	77.0	77.4	77.2
26	77.6	77.7	78.4	78.8	79.0	79.0	79.1	79.0	79.0	79.2	79.9	81.0	80.5	80.8	80.9	80.7	80.0	79.5	78.9	78.2	78.1	77.2	77.3	77.1	79.0
27	77.2	76.9	76.8	76.4	76.9	75.8	75.9	75.9	75.6	75.4	76.7	77.3	78.0	77.9	78.1	77.9	77.0	77.1	77.0	76.9	75.9	76.2	76.0	75.7	76.7
28	75.0	75.4	75.0	75.7	76.0	76.2	76.0	75.1	75.5	76.8	77.7	79.2	79.6	79.5	79.4	78.9	77.3	76.0	76.0	74.9	75.3	74.9	73.9	73.9	76.7
29	73.2	72.9	72.6	73.5	73.8	72.8	72.8	71.9	72.1	74.8	77.3	77.6	77.9	78.0	78.2	78.0	77.7	77.0	76.6	76.6	76.4	76.9	76.6	76.0	75.4
30	75.8	78.2	77.8	78.3	78.0	80.0	81.4	79.9	79.0	79.3	79.9	80.2	80.3	80.6	80.2	79.5	78.3	77.2	76.0	75.1	75.6	75.8	75.8	75.6	78.3
31	75.9	75.9	75.8	75.4	75.4	75.7	76.4	76.8	76.9	77.5	78.5	78.5	78.8	78.9	78.9	79.0	78.9	79.0	78.9	79.2	79.5	79.3	79.8	78.9	77.8
Mean	77.7	77.9	77.8	77.9	77.9	77.9	77.9	77.9	78.1	78.5	79.1	79.5	79.7	79.7	79.5	79.1	78.7	78.4	78.2	78.1	77.9	77.9	77.9	77.8	78.4

85. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

FEBRUARY, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	78.0	78.0	77.9	77.9	77.8	77.0	76.7	76.6	75.4	76.3	77.1	78.5	78.9	79.0	79.0	79.0	78.4	77.3	76.7	77.1	76.0	76.6	75.7	74.9	77.4
2	74.7	75.0	74.6	74.5	74.3	73.2	73.3	74.0	74.7	75.6	78.9	80.0	81.2	80.8	81.8	82.0	81.7	81.8	82.0	82.0	82.1	82.3	82.1	82.1	78.4
3	81.6	81.9	81.8	81.6	81.5	81.6	81.2	81.3	81.4	81.5	81.8	82.2	82.2	82.3	82.5	82.0	81.5	81.0	80.4	80.2	79.9	80.0	79.6	80.1	81.3
4	79.9	79.8	79.1	79.0	78.9	79.1	79.1	78.7	79.0	79.6	80.5	80.8	80.9	81.0	80.9	80.7	80.2	80.0	79.9	79.6	79.5	79.0	78.9	78.0	79.7
5	76.7	75.3	74.4	74.0	74.0	74.6	74.3	74.5	75.1	77.0	77.7	79.3	81.0	81.8	82.5	83.2	82.4	82.0	81.2	81.4	82.0	82.6	81.4	82.2	78.7
6	82.4	82.1	81.7	81.6	82.0	82.6	82.5	82.3	82.7	82.9	83.0	83.1	83.4	83.2	83.2	82.6	82.7	82.0	82.2	81.4	81.4	81.1	80.3	81.5	82.3
7	80.6	80.8	83.3	83.5	83.4	83.3	83.3	83.0	82.5	82.6	83.9	83.9	84.0	83.6	83.7	83.9	83.2	82.2	82.2	82.8	83.2	81.0	79.0	77.8	82.6
8	77.2	78.2	78.9	77.6	78.4	78.9	78.7	78.4	79.1	78.1	78.9	79.4	79.9	78.2	78.2	77.6	77.1	76.6	76.8	76.7	76.9	76.0	76.3	76.3	77.9
9	76.6	77.0	77.4	77.7	77.5	77.5	80.9	81.0	82.1	83.0	83.6	84.1	84.5	84.5	84.6	84.5	83.9	83.2	83.1	82.6	83.0	83.2	83.2	82.0	81.6
10	81.1	80.1	79.4	79.0	78.9	76.7	78.1	77.7	78.3	78.7	80.0	80.2	80.8	81.9	81.9	81.6	80.6	80.7	81.4	81.4	81.1	81.0	79.9	78.7	80.9
11	80.8	80.7	80.7	80.4	80.0	79.1	79.1	78.9	79.0	80.4	84.1	85.5	85.7	86.0	86.0	85.3	84.7	84.0	83.7	83.2	82.4	82.7	82.1	82.0	82.3
12	82.0	81.8	81.9	80.7	80.7	79.8	79.0	78.8	78.4	80.0	80.8	82.1	80.8	81.2	80.0	79.8	79.0	77.5	77.3	78.2	79.0	79.6	79.0	78.5	79.9
13	78.0	76.1	76.3	77.2	76.9	76.5	75.8	75.4	76.3	77.4	78.0	80.9	81.9	81.9	81.3	81.1	80.9	80.3	80.3	80.4	80.1	79.0	78.8	77.6	78.7
14	76.3	74.9	75.0	75.9	76.0	75.5	74.9	75.0	75.4	76.8	79.0	81.0	80.9	82.0	83.0	83.3	82.3	80.6	80.3	80.2	80.1	79.0	78.1	77.3	78.5
15	76.8	76.4	75.8	75.1	75.3	75.4	75.0	74.9	75.1	77.5	78.9	80.5	80.6	81.4	82.4	82.4	82.1	81.0	80.0	81.1	81.5	80.6	80.4	80.1	78.7
16	79.4	78.3	76.9	76.4	76.3	75.0	73.9	75.0	77.1	78.1	79.9	81.3	82.0	82.1	81.1	80.3	79.9	78.9	77.5	77.4	77.0	75.9	75.0	75.9	78.0
17	75.6	76.9	77.0	77.3	77.5	77.9	77.8	78.9	79.0	79.9	80.9	81.4	82.6	82.9	83.1	82.8	82.0	81.3	80.2	79.2	78.4	78.2	77.9	79.4	
18	77.8	77.8	77.3	77.5	77.0	76.9	76.5	76.3	77.2	78.6	79.8	81.6	82.3	82.4	82.3	82.4	82.0	81.2	80.9	81.2	81.4	79.4	79.1	78.1	79.5
19	78.0	77.4	77.9	76.9	78.7	78.7	78.8	78.7	78.9	79.9	80.5	80.7	80.6	81.0	80.5	79.9	79.1	78.9	78.7	78.1	78.0	78.3	78.2	78.3	78.9
20	78.1	78.0	78.2	78.3	78.1	78.3	78.2	78.0	78.3	79.0	79.4	80.4	80.7	81.9	82.3	81.7	81.3	81.1	81.5	81.2	81.1	81.4	81.2	81.1	79.9
21	81.1	81.5	81.6	81.8	81.9	81.9	81.8	81.9	82.0	82.2	82.4	82.9	83.0	83.4	83.9	83.6	83.1	82.2	81.4	80.9	81.4	80.6	80.1	80.5	82.0
22	81.0	81.1	80.9	80.9	81.9	81.7	82.3	82.6	83.6	83.9	84.5	85.8	86.7	86.9	86.7	85.9	85.1	84.1	84.2	83.0	83.1	82.9	82.9	82.2	83.5
23	82.1	81.9	80.9	80.0	79.8	79.2	79.4	79.8	80.2	81.8	83.4	84.4	84.9	85.0	84.8	83.9	82.1	81.4	80.8	80.0	79.9	79.3	78.6	78.3	81.4
24	78.3	78.4	78.1	78.2	78.2	78.1	78.4	78.6	78.7	79.0	78.5	80.3	81.0	81.0	81.1	81.0	81.0	80.4	79.5	78.2	77.0	76.0	76.0	75.8	78.9
25	74.9	75.1	74.7	74.4	74.5	74.9	76.7	76.2	76.1	77.9	79.3	79.0	79.0	78.9	76.9	77.3	76.4	75.3	74.8	74.4	74.0	72.8	72.9	71.9	75.8
26	71.2	70.2	70.4	70.8	70.3	70.9	70.8	70.9	71.4	71.9	71.2	73.1	73.7	74.0	72.0	71.5	71.6	71.9	72.5	73.2	74.7	75.3	75.7	75.7	72.2
27	75.2	75.6	75.2	74.9	75.4	75.0	75.5	74.9	75.3	75.0	75.2	75.0	75.5	76.6	75.9	75.8	75.0	74.7	75.2	74.9	74.9	74.9	75.0	74.4	75.2
28	73.9	74.0	73.9	74.0	74.1	74.2	74.2	74.4	75.1	75.9	74.8	76.2	75.1	76.4	75.5	75.9	75.7	75.0	75.0	74.8	74.4	73.9	73.7	73.2	74.7
Mean	78.2	78.0	77.3	77.8	77.8	77.7	77.7	77.8	78.1	79.0	79.9	80.8	81.2	81.5	81.3	81.1	80.5	79.9	79.6	79.5	79.4	79.0	78.6	78.4	79.2
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean

86. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

MARCH, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	72.8	73.1	72.9	73.2	73.6	73.5	73.0	73.1	73.9	75.0	75.6	76.8	77.0	78.0	78.0	78.4	78.6	78.6	78.8	78.9	79.0	78.9	79.0	79.2	76.1
2	79.2	79.2	79.3	79.2	79.6	79.9	79.9	79.9	80.1	81.8	83.5	83.0	83.2	82.9	82.6	81.9	80.4	79.8	78.4	78.0	77.2	76.7	76.4	76.0	80.0
3	76.2	75.3	75.1	75.4	75.4	75.9	76.3	75.7	76.5	77.8	79.2	79.9	80.3	80.5	80.7	80.2	79.8	78.7	78.0	77.2	76.1	76.1	75.8	75.8	77.4
4	75.4	74.9	75.9	76.4	76.4	77.0	77.4	77.8	78.3	78.9	79.5	79.9	80.6	81.5	82.0	81.8	81.2	80.8	79.9	78.9	78.3	78.1	77.9	77.8	78.5
5	78.0	78.0	78.3	78.4	78.4	78.3	77.7	77.9	78.6	79.0	79.4	80.0	80.3	79.0	78.4	77.9	78.3	77.3	76.2	76.9	76.4	76.0	76.0	76.1	78.0
6	76.2	77.0	76.1	75.9	76.0	76.8	76.4	76.0	75.0	78.9	79.8	79.5	80.2	79.4	79.1	78.7	77.9	76.9	76.0	75.4	74.9	74.8	74.1	73.2	77.0
7	73.4	73.8	73.8	73.7	74.2	74.0	73.8	75.0	75.9	76.7	77.2	77.3	78.2	77.9	78.3	78.1	77.2	76.1	75.9	75.4	75.4	75.5	75.9	75.8	75.7
8	75.7	75.8	75.9	74.8	74.9	75.2	74.9	75.3	76.9	78.2	78.8	79.4	79.9	80.1	80.0	79.6	79.0	77.1	76.4	74.9	73.9	74.4	74.9	74.2	76.7
9	73.8	74.0	73.0	73.4	73.0	72.7	72.3	72.3	73.3	76.3	76.3	78.7	78.9	78.9	79.1	78.9	78.5	78.0	77.9	78.0	77.8	77.7	77.8	77.9	76.2
10	77.9	77.9	78.0	77.9	78.0	78.0	77.5	77.1	77.3	77.9	78.0	79.0	77.5	78.7	78.0	77.4	76.6	77.3	77.2	77.4	77.8	77.0	76.9	76.9	77.7
11	76.3	76.1	76.5	76.5	76.8	76.7	76.5	76.7	76.1	76.2	77.3	76.9	77.0	77.1	77.0	77.2	77.3	77.0	77.1	77.2	77.3	77.1	77.0	77.3	77.0
12	77.4	77.0	76.9	77.1	77.9	78.0	78.2	78.3	78.1	78.0	78.1	77.0	76.8	75.9	77.2	77.2	77.3	77.0	77.1	77.2	77.3	77.1	77.0	77.3	77.3
13	77.0	76.7	76.0	75.9	75.5	74.9	74.8	75.3	75.9	77.2	77.9	78.3	76.0	75.9	77.3	77.1	75.8	75.9	74.0	73.9	73.4	73.3	73.7	73.0	75.7
14	72.9	72.3	72.8	72.8	71.9	71.8	71.9	73.7	74.9	75.9	76.1	77.2	77.6	76.9	76.8	76.7	76.0	76.0	76.0	74.9	76.5	76.9	77.0	76.8	75.0
15	76.9	76.7	76.8	76.8	77.1	76.9	76.9	77.0	77.1	77.4	77.5	77.6	77.9	78.1	78.9	78.8	78.8	78.3	77.8	76.9	76.0	74.9	74.9	75.1	77.2
16	75.0	75.2	75.1	75.4	75.8	75.0	75.2	75.3	76.0	76.8	77.3	77.8	78.4	78.8	78.9	78.7	77.9	77.1	77.2	77.4	77.7	77.2	76.4	76.8	76.7
17	77.0	77.2	77.3	77.1	78.0	75.4	75.0	75.4	75.7	77.0	77.3	78.1	77.9	78.9	78.8	78.4	78.4	78.0	77.5	77.0	75.9	75.6	75.8	75.3	76.9
18	75.4	74.9	75.5	75.4	75.7	75.2	74.4	75.6	76.6	78.6	79.8	78.2	78.9	79.0	79.2	79.5	78.9	78.0	77.1	77.0	76.8	77.3	77.2	77.1	77.1
19	76.5	75.5	75.5	75.0	74.3	73.8	74.3	75.1	77.0	78.8	79.8	80.9	80.6	79.9	79.8	79.4	79.1	78.5	78.2	78.0	77.2	76.2	75.2	75.1	77.3
20	75.1	74.6	74.7	74.8	74.3	74.9	75.4	75.7	77.0	78.6	79.6	80.4	80.9	80.8	80.6	80.5	79.6	78.9	78.3	77.9	77.4	77.0	76.2	76.0	77.4
21	75.7	75.9	75.6	75.2	74.9	75.3	75.4	76.2	77.5	78.9	79.7	79.9	79.9	80.2	80.1	79.3	78.9	78.9	78.5	78.1	77.7	77.7	76.8	76.9	77.6
22	77.2	77.2	76.9	76.1	75.7	74.3	73.8	74.2	75.9	78.4	80.0	80.6	80.8	79.4	79.3	79.2	79.4	79.5	78.6	77.3	76.4	75.7	74.9	75.2	77.4
23	75.0	74.7	74.0	73.8	73.8	73.9	73.9	75.9	77.2	79.0	79.9	80.2	80.3	80.0	80.8	80.0	79.8	79.2	78.9	78.9	79.0	79.1	79.0	78.9	77.6
24	78.9	78.9	78.8	78.6	78.8	78.9	79.1	79.9	81.2	83.3	85.8	87.5	86.9	85.5	84.5	83.4	82.8	81.6	80.9	79.5	78.8	78.1	77.8	77.4	81.1
25	76.9	76.0	75.5	75.0	74.9	76.7	77.3	79.4	80.4	82.4	85.2	84.4	85.6	85.3	84.9	84.7	82.2	83.2	82.1	81.2	80.5	81.0	81.7	81.8	80.5
26	81.3	81.3	80.9	80.4	80.1	80.0	80.3	80.9	81.2	82.8	83.0	81.5	81.6	82.1	81.7	81.9	81.3	80.6	79.6	78.5	77.9	76.9	76.5	76.0	80.5
27	75.9	74.9	75.0	75.4	75.4	75.0	76.3	76.9	78.6	79.9	80.8	81.8	81.9	82.2	81.6	81.5	81.1	80.8	80.1	79.9	78.9	78.7	77.9	77.4	78.5
28	76.0	75.6	75.6	75.6	74.9	74.9	75.9	77.7	79.0	80.5	81.9	82.2	81.6	81.5	81.1	80.8	80.1	79.9	79.1	78.9	78.7	78.4	77.9	77.4	78.2
29	77.0	77.7	77.8	77.8	77.8	77.9	78.9	79.3	79.3	79.1	78.8	78.6	78.7	78.3	78.5	78.6	78.5	78.2	78.0	77.5	77.9	77.7	77.9	77.4	78.2
30	77.0	77.1	77.3	77.5	77.4	77.1	76.0	77.4	76.9	77.4	78.3	78.7	78.0	77.1	77.7	77.6	77.8	77.1	77.6	76.9	77.6	77.5	77.5	77.4	77.4
31	77.4	77.6	77.7	78.0	78.1	78.0	78.0	78.4	79.3	78.9	78.1	78.9	79.0	79.4	79.3	79.3	79.3	78.9	78.3	77.4	76.9	76.9	76.5	75.8	78.2
Mean	76.3	76.2	76.1	76.1	76.0	76.0	76.0	76.6	77.4	78.6	79.3	79.7	79.8	79.7	79.7	79.4	79.0	78.5	78.0	77.5	77.1	76.9	76.8	76.6	77.6

87. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

APRIL, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	75.6	75.0	75.2	75.8	75.9	76.2	76.6	77.1	78.8	79.5	79.9	79.9	79.9	80.0	79.9	79.8	79.5	79.2	79.1	79.0	78.8	78.8	78.7	78.1	78.1
2	78.7	78.5	77.5	78.2	78.4	78.3	78.3	78.5	79.1	79.6	79.8	79.9	79.6	79.2	79.0	79.2	79.5	79.0	78.2	77.6	77.3	77.7	77.5	77.8	78.6
3	77.9	76.9	77.4	76.8	76.4	76.7	77.2	78.2	79.6	79.9	79.4	79.8	79.7	80.7	80.5	80.4	79.9	77.6	76.9	76.8	76.5	76.0	75.8	74.9	78.1
4	74.3	74.8	75.2	75.6	76.1	76.6	77.0	77.1	77.4	78.2	78.8	79.7	78.9	79.0	78.9	78.9	78.7	77.7	77.1	77.8	78.6	78.2	77.3	77.5	77.5
5	77.2	77.0	76.3	76.1	75.3	75.4	75.2	75.4	76.3	75.2	77.4	76.5	77.4	75.4	77.9	77.3	75.4	76.3	75.4	73.5	73.9	73.9	73.9	73.9	75.8
6	73.7	73.8	74.9	74.9	75.3	73.9	74.2	74.8	75.5	77.0	77.7	76.9	77.2	77.8	77.8	77.9	77.9	77.8	77.4	77.4	76.4	74.7	74.3	74.1	76.0
7	73.7	73.7	73.7	73.7	73.6	73.8	73.7	74.5	75.4	76.7	77.6	78.1	78.2	77.9	77.0	77.1	77.0	77.2	77.1	77.2	77.5	75.5	76.5	76.9	75.9
8	78.1	75.0	74.1	73.4	74.1	74.5	74.0	74.3	75.3	77.1	77.8	78.2	77.5	77.4	76.9	75.4	76.0	76.5	75.9	75.3	74.2	75.5	75.1	75.4	75.7
9	75.6	73.8	73.4	75.4	76.5	76.9	77.0	77.2	78.8	76.9	77.7	77.6	77.6	77.4	77.2	77.4	76.9	76.5	76.2	76.2	76.2	76.2	76.2	76.2	76.4
10	76.8	76.9	77.0	77.3	77.4	78.0	77.1	78.0	77.9	76.9	76.6	75.8	75.3	75.4	74.3	74.7	74.6	75.2	75.7	75.9	76.2	76.4	76.7	77.0	76.4
11	77.3	77.4	77.5	77.6	77.5	77.5	77.9	77.8	78.0	78.3	79.1	79.5	79.3	79.4	79.1	79.1	79.1	78.5	77.9	77.5	77.1	77.1	77.0	76.9	78.1
12	76.7	76.8	77.0	77.2	77.1	77.5	77.2	77.2	77.4	77.4	77.7	77.9	78.1	78.2	78.1	77.9	77.9	77.9	78.3	78.8	79.0	79.2	79.1	79.0	77.8
13	78.7	77.6	77.8	78.6	78.7	78.9	79.3	79.8	80.9	81.8	82.0	82.5	82.2	82.2	82.4	82.0	81.4	81.0	80.7	80.6	80.4	80.4	80.7	80.5	80.4
14	80.4	80.3	80.4	80.4	80.1	80.1	80.4	80.7	80.8	80.9	81.0	81.0	81.1	81.2	81.3	81.1	81.5	81.9	81.8	81.9	82.4	82.0	81.5	81.3	81.0
15	81.0	81.1	81.0	80.8	80.9	80.8	80.9	81.4	81.8	82.0	81.9	81.4	81.3	82.0	81.8	82.4	82.9	83.4	83.7	83.4	83.2	84.2	83.6	82.5	82.0
16	83.1	82.8	82.4	82.3	82.2	82.4	83.6	84.4	85.5	86.3	87.3	87.6	88.3	88.0	88.0	88.4	85.3	84.3	83.7	83.1	82.5	82.8	81.9	81.1	84.5
17	81.8	82.4	82.7	80.4	80.9	81.9	83.0	83.4																	

TEMPERATURE

Readings in degrees absolute at exact hours, Greenwich Mean Time.

88. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

MAY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	83.4	82.6	82.5	82.3	82.0	81.7	81.8	82.0	82.3	82.6	82.9	83.1	83.7	84.0	85.2	85.2	85.6	84.6	84.9	85.0	84.2	85.1	84.7	84.3	83.5
2	83.9	82.9	81.7	80.1	79.4	81.0	82.7	83.6	84.1	85.0	85.8	86.0	86.0	85.3	85.7	84.9	83.1	83.2	83.1	82.9	83.4	82.8	82.0	81.8	83.4
3	80.9	80.1	78.9	78.9	78.6	79.8	82.1	83.9	84.8	84.5	85.5	85.9	85.0	85.1	84.8	84.8	83.9	83.0	82.4	81.9	81.5	81.4	81.4	81.9	82.5
4	80.2	79.4	78.8	78.0	78.5	78.4	79.6	82.3	82.8	82.7	83.2	84.5	84.6	83.6	83.0	83.2	83.7	83.8	82.9	81.9	81.3	80.4	80.3	80.4	81.6
5	80.2	80.5	80.7	81.0	81.0	81.3	84.1	84.7	85.0	84.9	84.7	83.7	83.2	83.0	83.2	84.2	83.9	84.4	82.9	81.9	81.8	80.9	80.2	79.9	82.6
6	79.4	78.9	78.3	78.0	78.9	80.8	81.0	81.0	81.5	80.7	80.4	81.0	81.6	82.4	82.8	82.9	82.1	82.7	82.9	82.4	80.6	79.9	79.6	79.5	80.8
7	80.0	79.9	80.0	80.3	80.4	80.7	81.4	82.7	84.1	85.2	86.0	86.8	87.2	87.8	88.4	87.9	86.8	85.5	84.0	83.9	83.4	81.7	81.1	80.1	83.5
8	78.9	79.4	80.8	80.9	81.1	82.0	82.4	82.6	82.7	83.0	83.3	84.3	84.5	84.9	86.0	85.8	84.3	84.1	83.1	82.9	83.7	83.9	83.6	83.8	82.9
9	82.9	82.6	82.4	82.6	82.9	83.0	83.5	84.0	84.9	86.7	86.9	88.2	87.0	86.4	86.4	91.5	93.4	92.2	91.6	89.0	87.4	87.1	86.6	85.5	86.6
10	85.8	85.8	86.1	85.8	85.0	86.7	86.0	91.4	91.0	89.9	92.9	93.0	92.9	86.0	86.4	85.7	84.9	83.9	83.4	83.2	83.3	83.4	83.6	83.8	86.9
11	84.0	84.0	84.0	83.0	83.4	83.5	83.8	84.0	84.8	85.2	85.2	88.4	89.2	89.5	92.3	91.2	90.8	90.7	92.1	91.0	89.7	89.2	88.7	88.4	87.2
12	87.9	87.4	87.0	84.4	83.2	82.0	80.9	81.0	81.1	81.5	82.4	83.0	83.4	84.1	83.0	82.3	82.2	81.9	81.8	81.4	81.2	80.8	80.1	78.8	82.8
13	78.8	78.8	78.2	77.9	78.5	80.0	80.0	82.6	82.8	82.1	83.9	85.8	86.9	84.1	84.4	82.0	83.6	83.0	81.8	81.5	81.0	80.9	79.7	79.5	81.6
14	78.9	78.1	77.5	77.0	77.4	77.4	78.0	78.4	79.0	79.9	78.0	79.0	80.2	79.7	79.3	79.7	79.6	79.7	79.3	78.9	78.4	78.4	78.4	78.1	78.7
15	77.2	77.1	76.8	76.7	76.9	77.5	78.1	78.9	79.5	79.1	80.3	80.1	80.0	79.9	78.5	78.3	78.0	76.1	78.4	78.8	78.9	79.0	79.1	78.4	78.5
16	77.8	77.6	77.2	77.1	76.1	76.1	76.8	76.5	77.1	78.0	78.9	78.7	78.1	79.9	79.7	79.9	80.2	78.5	77.5	77.5	75.9	75.1	75.2	75.1	77.6
17	75.0	75.1	75.2	74.9	74.9	76.1	77.0	77.3	77.8	79.1	80.0	81.4	82.4	83.4	83.9	84.2	84.1	83.3	82.5	81.3	79.9	78.9	78.1	77.5	79.3
18	77.4	77.7	77.7	77.8	78.0	79.5	81.7	82.8	83.4	84.1	84.5	85.2	82.5	81.0	80.5	80.5	80.8	81.1	82.0	81.4	80.2	79.1	78.3	77.0	80.6
19	78.5	75.8	75.8	75.9	76.2	78.2	80.1	80.5	80.5	80.6	81.0	81.3	81.7	82.1	83.6	84.0	85.7	85.6	86.5	81.6	80.7	80.5	80.5	80.5	80.5
20	79.9	79.2	78.4	78.8	79.4	80.4	81.1	83.1	84.4	85.1	86.0	87.2	86.9	85.4	87.0	87.6	87.9	88.0	87.8	86.0	84.1	83.1	83.3	83.3	83.8
21	82.8	82.3	82.3	82.5	83.9	83.7	87.5	88.1	87.9	88.8	88.8	89.5	89.5	89.7	89.0	88.4	88.0	87.9	86.2	85.7	85.3	84.2	83.8	83.2	86.2
22	82.7	82.7	82.5	82.5	83.0	83.4	85.2	84.7	85.4	86.3	88.1	88.1	89.0	89.0	89.0	88.2	85.6	83.9	83.4	82.8	82.2	81.8	81.7	81.2	84.7
23	80.9	80.8	80.5	80.0	79.9	81.1	81.8	82.3	83.3	83.3	82.3	82.3	82.9	84.2	82.3	82.0	81.4	83.0	82.8	82.4	81.2	80.8	80.7	80.1	81.8
24	79.4	79.4	79.2	78.6	80.7	82.0	82.5	83.4	84.0	84.8	84.7	82.4	81.4	81.4	81.4	81.4	81.3	80.9	80.8	80.3	80.3	80.5	80.7	80.6	81.3
25	80.2	79.2	79.0	78.0	78.9	80.7	81.4	81.5	82.5	81.2	82.2	82.5	82.4	81.4	81.9	81.4	81.1	79.5	80.4	79.0	78.0	77.2	76.9	76.9	80.2
26	76.9	76.2	75.7	75.1	76.8	78.2	79.6	79.9	81.2	81.9	83.0	83.9	84.8	85.0	83.8	81.9	81.5	81.5	82.2	82.1	82.0	82.0	82.0	82.0	80.7
27	82.0	82.0	82.3	82.6	83.0	83.2	84.0	85.0	86.0	86.3	86.7	86.8	87.9	87.2	86.9	87.0	86.9	86.2	85.8	85.5	85.0	84.7	84.8	84.7	85.1
28	84.8	84.8	84.7	84.8	84.8	84.8	84.7	84.8	84.4	84.7	85.4	86.4	86.9	86.6	86.3	86.0	86.1	85.4	84.1	83.9	83.3	82.7	82.3	82.3	84.9
29	82.2	82.5	82.7	82.9	83.3	84.1	84.3	85.3	86.4	87.2	88.8	86.4	87.4	87.9	87.7	87.9	87.4	86.4	85.8	85.3	85.1	84.5	83.8	82.9	85.3
30	82.5	81.8	80.6	80.8	82.0	84.2	85.4	85.6	86.2	86.7	85.9	86.4	87.6	86.7	87.5	86.5	86.9	86.1	85.7	84.6	84.0	83.4	83.0	82.6	84.7
31	82.5	82.5	82.6	82.7	83.2	84.0	85.0	85.3	86.0	86.1	86.3	86.5	85.6	85.2	84.6	84.6	85.2	85.0	85.0	83.8	83.1	82.5	81.7	81.4	84.2
Mean	80.8	80.6	80.3	80.0	80.4	81.1	82.1	82.8	83.4	83.7	84.3	84.8	84.9	84.7	84.7	84.6	84.4	84.0	83.5	82.9	82.3	81.8	81.5	81.1	82.7

89. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

JUNE, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	81.5	81.5	81.5	81.4	81.3	81.7	82.3	83.5	85.6	85.3	85.4	85.2	84.4	83.0	83.0	85.3	84.8	86.8	85.0	84.2	83.7	83.5	82.9	82.2	83.5
2	81.8	82.1	82.2	81.4	81.5	82.1	82.8	83.5	83.9	83.7	83.5	83.8	83.7	83.4	83.5	83.3	83.7	83.9	84.0	83.2	82.2	81.2	80.0	79.7	82.7
3	79.2	79.0	78.3	78.3	79.3	81.6	83.7	84.0	85.0	85.5	84.5	84.6	84.0	84.0	84.8	84.8	86.0	85.3	84.7	84.1	83.8	83.4	83.2	83.1	83.0
4	83.1	82.2	82.6	82.7	82.8	83.2	83.4	83.9	84.0	85.0	86.2	86.5	85.4	85.3	85.0	84.3	83.9	83.7	83.2	82.8	82.5	82.0	81.8	81.5	83.7
5	81.6	81.6	81.6	81.4	81.4	81.8	82.1	82.4	82.9	83.0	83.4	83.9	84.0	84.3	84.0	83.6	83.0	82.8	82.6	82.4	82.2	82.2	82.2	82.0	82.6
6	81.7	80.9	79.0	78.9	80.7	82.1	83.3	84.6	86.0	87.0	87.2	87.5	86.3	86.4	86.5	87.9	87.4	84.3	83.1	82.7	82.6	82.4	82.1	82.1	84.1
7	82.1	81.9	82.0	82.4	82.6	82.7	84.1	84.2	84.0	84.7	84.3	85.0	85.2	85.8	84.9	84.4	83.8	83.2	83.4	83.7	83.7	83.2	82.8	82.9	83.6
8	82.5	82.0	82.0	82.0	82.1	82.1	82.4	82.4	82.5	82.3	82.8	82.8	83.2	83.6	83.8	83.7	83.4	83.7	83.4	83.4	83.1	83.1	82.9	82.7	82.8
9	82.7	82.4	82.0	82.0	82.0	82.8	83.6	84.1	83.7	83.8	83.8	84.1	83.7	84.5	83.5	83.5	83.3	83.0	84.0	83.9	81.4	81.6	81.0	80.2	83.0
10	79.9	80.2	78.9	79.0	79.9	81.7	84.5	85.4	87.4	89.2	90.6	91.5	91.8	91.0	82.6	87.1	85.4	83.4	82.5	82.5	82.7	82.1	81.8	82.4	84.7
11	82.7	81.6	81.3	81.9	83.0	84.0	85.2	85.5	85.9	85.9	85.4	85.5	85.5	85.4	85.7	85.6	85.9	84.8	84.5	83.1	82.7	82.2	82.2	82.1	84.1
12	82.1	82.0	81.9	81.9	82.2	82.4	83.0	84.6	84.2	84.5	84.9	85.0	84.8	84.6	84.3	84.6	85.6	86.1	86.8	85.2	84.6	83.6	82.8	82.6	83.9
13	82.1	81.5	80.9	80.8	82.3	84.0	85.8	87.8	88.7	91.3	93.0	92.5	92.3	92.6	92.1	91.1	88.5	89.9	89.3	88.9	88.3	85.5	85.0	84.1	87.4
14	83.9	83.6	83.6	83.3	83.2	83.2	83.5	83.7	83.5	84.1	84.5	85.0	85.1	84.9	85.0	84.6	84.5	84.0	83.9	83.8	83.8	83.8	83.9	83.8	84.0
15	83.6	83.5	83.3	83.5	83.6	83.7	83.9	84.0	84.2	84.4	84.5	85.0	85.2	86.3	86.6	86.1	86.3	86.0	89.0	89.1	89.1	89.0	88.1	89.1	85.9
16	88.8	88.8	88.3	88.1	89.4	90.0	91.8	92.1	93.0	93.2	94.1	94.8	95.0	94.9	94.3	95.6	95.8	94.1	92.9	92.9	92.6	92.1	91.1	90.0	92.2
17	89.4	89.4	88.6	88.8	89.1	89.8	90.1	90.9	92.1	93.5	94.5														

90. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

JULY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	86.6	86.6	86.5	86.4	86.1	86.2	86.8	87.4	89.3	90.5	92.2	92.6	93.0	92.6	91.0	88.4	88.0	88.8	89.0	88.5	88.3	87.7	87.3	85.8	88.6
2	85.4	84.8	84.6	85.1	86.2	86.6	86.7	86.6	86.6	86.8	87.3	87.8	89.0	90.3	90.6	91.0	91.2	90.8	89.9	87.9	86.9	86.4	86.3	86.4	87.5
3	85.9	85.9	85.9	85.4	85.8	86.5	86.6	87.4	88.5	88.3	89.3	90.0	89.2	88.3	86.7	86.8	86.4	85.7	85.6	85.9	86.0	85.8	86.0	85.3	86.8
4	85.5	85.5	85.8	85.7	86.0	87.1	87.2	88.0	89.0	88.6	90.0	92.0	93.0	92.7	92.0	91.1	90.8	89.8	88.4	89.2	88.7	88.0	88.7	88.9	88.7
5	87.0	86.4	86.1	85.4	86.2	88.1	89.0	91.0	91.2	90.5	89.5	89.8	89.4	89.4	89.3	90.0	89.1	89.5	88.9	87.9	87.2	86.7	86.6	86.5	88.4
6	87.0	86.6	86.8	86.5	86.2	86.8	87.0	88.2	88.4	88.1	88.5	88.8	89.8	92.0	94.3	96.6	95.9	91.1	90.8	89.9	89.3	88.6	88.4	88.1	89.3
7	87.6	87.2	87.0	87.3	87.1	88.4	90.2	92.5	91.8	92.0	94.0	91.9	92.6	88.7	90.9	90.2	90.0	90.3	89.1	87.7	87.6	87.3	86.6	89.4	
8	86.0	85.4	84.5	84.4	84.6	86.2	88.4	87.9	88.2	88.3	88.5	90.1	90.3	90.6	90.2	89.8	90.4	90.5	90.1	89.2	88.3	87.7	87.1	86.9	88.1
9	87.0	86.9	87.0	87.0	88.0	88.8	90.2	92.4	90.9	91.0	92.8	93.1	93.1	91.1	90.5	91.0	91.3	91.1	89.4	87.1	86.2	85.7	85.8	85.7	89.3
10	85.5	85.3	85.3	85.3	85.4	85.9	86.0	86.2	86.6	87.5	88.0	88.8	88.5	89.5	89.9	89.4	89.4	88.9	88.8	88.7	88.5	88.4	88.4	88.4	87.5
11	88.3	88.1	88.0	88.1	88.6	88.1	88.4	89.0	90.4	90.9	91.1	91.9	92.0	92.2	92.1	91.4	91.0	91.1	90.4	89.5	89.2	89.1	88.8	88.7	89.8
12	88.4	88.3	87.9	88.0	88.1	88.4	88.9	89.2	88.9	90.7	91.5	90.8	90.2	91.5	92.0	90.9	89.9	89.1	88.8	88.5	88.2	88.0	87.7	88.0	89.1
13	87.7	87.6	87.5	87.4	87.1	87.8	88.0	89.1	89.8	89.4	90.0	90.9	90.8	90.3	90.0	90.6	90.2	90.3	89.8	89.4	89.4	89.2	88.9	89.1	89.2
14	88.8	87.6	87.1	87.0	86.7	86.8	86.2	86.9	87.0	87.1	87.8	87.8	87.9	87.8	87.6	88.5	88.0	87.5	87.5	87.8	87.2	86.7	86.7	85.9	87.4
15	86.3	86.1	86.1	86.2	86.9	87.4	88.0	89.8	88.8	88.7	90.8	91.0	90.1	89.8	90.5	91.4	90.5	91.9	91.4	90.1	90.0	89.3	88.3	87.0	89.0
16	86.2	85.8	84.4	85.5	86.7	88.5	90.7	90.9	91.1	91.9	91.8	93.1	93.3	93.2	91.6	92.3	92.5	91.3	92.0	90.4	89.5	89.7	89.6	88.6	90.0
17	86.2	87.2	87.4	87.6	87.8	89.2	89.0	90.7	91.6	92.0	93.2	94.0	94.8	95.5	93.9	94.1	94.6	93.2	92.2	91.9	91.4	89.9	89.3	88.9	91.2
18	88.9	88.5	88.0	88.1	88.1	88.2	88.3	88.0	88.8	91.0	91.6	92.2	90.5	91.0	90.7	90.8	90.6	90.5	90.8	90.5	88.7	88.7	88.2	88.2	89.5
19	87.5	86.7	86.6	86.5	86.5	86.5	86.7	87.0	87.1	87.0	88.0	88.6	89.0	89.4	89.6	89.8	90.0	90.6	89.0	88.3	86.7	84.6	84.8	83.3	87.6
20	83.6	82.8	82.3	82.1	83.2	85.1	86.5	86.4	87.0	86.8	87.2	87.9	87.3	87.9	87.9	88.1	89.6	90.3	90.1	89.0	89.0	88.8	88.6	88.5	86.8
21	88.5	88.5	88.2	87.8	87.9	88.0	89.0	90.5	91.0	91.6	91.5	91.2	91.4	91.4	90.5	90.2	90.2	90.2	89.9	89.6	89.4	89.2	89.0	87.6	89.7
22	87.5	87.4	87.5	87.3	87.0	87.0	87.1	87.7	87.7	87.8	87.5	88.4	88.2	88.3	88.1	87.5	88.0	88.3	88.6	88.6	85.8	85.5	85.5	84.9	87.3
23	84.4	84.6	84.4	84.1	83.8	85.0	86.1	87.2	87.3	88.4	88.9	90.6	89.7	89.2	89.1	88.0	89.0	88.7	88.6	87.2	85.7	85.5	84.2	83.2	86.9
24	82.9	82.7	82.9	83.1	83.9	85.1	85.7	87.0	88.6	89.6	90.0	91.0	91.2	90.9	90.1	89.6	90.1	89.7	89.8	88.6	88.0	87.5	87.1	86.9	87.5
25	86.6	86.6	86.7	87.2	86.5	87.2	88.9	89.4	90.8	92.0	92.4	92.8	92.2	93.8	93.6	93.6	93.2	93.5	91.4	90.4	90.0	89.3	89.0	88.7	90.2
26	88.3	87.3	87.1	86.7	86.9	86.9	87.5	88.3	89.6	88.8	88.6	90.3	90.7	89.1	88.8	89.0	88.7	89.3	88.4	86.0	86.2	86.0	85.7	85.6	88.0
27	86.0	86.0	85.6	85.9	85.9	86.5	87.2	87.4	88.5	89.2	89.7	90.2	90.4	89.4	90.0	90.8	90.3	89.1	88.9	88.6	87.4	87.2	87.2	87.1	88.1
28	87.2	86.9	86.8	86.4	85.8	86.2	85.0	85.9	87.1	87.8	88.1	87.8	88.8	89.0	89.6	88.8	87.9	88.0	87.4	86.9	86.2	85.6	85.6	85.2	87.1
29	85.0	85.4	84.7	84.2	84.4	85.9	86.2	88.0	88.7	87.7	88.8	90.8	89.9	88.4	88.3	87.4	89.0	87.4	86.8	86.7	86.5	86.1	85.3	84.9	86.9
30	83.9	83.4	83.8	83.8	84.9	86.1	86.4	86.6	87.1	87.2	89.5	90.6	92.2	91.8	91.0	91.8	91.9	91.3	91.1	90.0	89.0	88.5	88.0	88.0	88.2
31	87.7	87.1	88.2	87.4	87.5	87.4	88.2	88.5	88.4	89.7	90.6	89.5	90.8	90.8	91.8	92.4	93.0	92.9	91.9	90.5	89.4	88.5	88.0	87.6	89.5
Mean	86.6	86.3	86.1	86.1	86.3	87.0	87.6	88.4	88.9	89.3	90.0	90.5	90.6	90.5	90.4	90.3	90.3	90.0	89.4	88.7	88.1	87.6	87.3	86.9	88.5

91. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

AUGUST, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	88.0	87.8	87.2	86.9	86.8	87.9	89.6	90.2	91.5	92.0	93.0	92.5	90.8	91.9	91.5	91.0	90.1	89.8	89.4	88.5	88.4	88.0	87.5	87.4	89.5
2	87.5	87.5	87.4	87.4	87.4	87.4	87.5	87.1	87.3	87.3	87.5	87.4	87.5	88.0	88.0	88.0	87.7	87.5	87.5	87.3	87.2	87.1	87.2	87.1	87.5
3	87.0	87.1	87.1	87.0	87.0	87.4	87.6	88.5	89.7	90.0	89.4	88.8	90.0	89.5	90.0	91.1	91.8	91.2	90.4	89.4	87.8	87.4	86.6	86.6	88.7
4	85.9	85.9	85.7	85.6	85.8	87.0	88.0	88.7	89.5	90.0	89.9	89.9	90.1	90.1	90.0	90.2	90.5	90.3	89.3	88.4	87.4	87.1	87.3	87.3	88.3
5	86.8	86.4	86.4	85.8	85.4	87.9	88.2	89.6	90.4	91.4	92.9	92.7	93.2	93.2	91.1	90.7	91.4	90.7	90.4	88.3	87.2	86.4	85.4	84.5	89.1
6	84.1	83.4	83.0	82.5	82.0	83.2	86.0	87.2	87.0	88.2	88.7	88.4	88.6	89.7	89.5	89.5	89.0	88.6	88.2	88.0	87.9	87.2	87.4	87.0	86.8
7	86.9	86.7	86.6	86.5	86.5	86.4	86.7	87.2	87.8	88.5	88.2	89.2	89.2	89.7	89.4	89.6	89.7	89.0	88.6	88.3	87.7	86.9	86.0	86.6	87.9
8	86.9	86.6	86.0	85.6	85.9	86.1	87.9	88.9	89.5	89.3	89.4	88.9	88.8	88.6	89.3	88.6	89.2	88.5	88.3	88.4	88.9	89.2	89.0	88.2	88.1
9	87.7	87.0	86.6	85.9	85.6	86.2	86.7	87.8	90.0	90.2	88.9	91.2	92.3	91.5	92.5	91.8	87.7	87.5	89.2	88.3	87.7	87.0	86.4	86.3	88.5
10	86.5	86.2	85.6	85.8	86.0	86.3	87.5	88.2	89.2	89.7	90.1	90.8	90.3	90.5	87.4	88.7	88.2	88.8	88.6	87.2	86.7	87.2	86.5	86.0	87.8
11	85.6	86.1	85.5	85.2	85.3	87.0	88.1	89.3	90.0	90.6	90.7	88.2	88.3	90.7	89.9	90.8	88.3	88.0	88.2	88.4	87.9	87.6	87.4	87.3	88.1
12	87.0	86.8	87.1	86.1	85.9	85.9	86.5	87.2	88.5	88.9	88.7	87.2	87.5	88.5	86.8	88.1	87.4	86.5	86.4	86.3	85.8	86.0	86.2	85.9	87.0
13	85.9	85.5	85.3	85.3	85.1	85.1	85.0	85.2	85.6	86.3	86.6	87.2	87.8	87.4	86.9	87.0	86.6	86.0	85.4	85.8	85.4	85.2	85.0	84.9	85.9
14	84.6	84.6	84.2	83.4	83.2	84.2	84.9	85.6	85.6	86.1	86.5	87.0	87.6	87.9	88.4	87.3	87.3	87.0	86.5	85.6	85.3	84.8	84.9	84.9	85.7
15	84.8	85.2	85.4	85.1	85.1	85.0	85.3	85.7	86.9	89.2	89.9	89.1	88.2	88.9	90.1	90.8	91.0	91.5	89.6	87.7	86.1	85.4	85.9	86.3	87.4
16	84.2	83.0	83.8	82.8	82.3	83.5	85.1	86.6	88.0	89.3	88.8	90.0	90.2	90.2	90.1	89.7	89.2	88.2	87.7	86.9	86.4	86.3	85.6	85.2	86.8
17	84.9	84.4	83.4	82.4	83.0	82.8	85.9</																		

TEMPERATURE

Readings in degrees absolute at exact hours, Greenwich Mean Time.

92. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

SEPTEMBER, 1935.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	82.4	81.4	81.1	80.4	79.8	79.3	80.5	81.6	84.5	86.1	87.0	87.8	87.4	87.5	87.4	86.8	86.5	86.1	85.4	85.2	84.6	82.5	80.7	80.1	83.9
2	79.6	79.3	78.5	79.2	80.0	79.8	80.4	82.1	83.9	85.3	86.8	87.6	87.6	87.7	87.5	87.0	86.5	85.9	85.6	85.3	85.9	86.1	86.3	85.9	84.1
3	85.0	84.8	85.5	85.6	85.7	85.8	86.3	87.3	88.0	87.9	89.1	89.4	89.4	89.6	89.2	87.3	86.9	87.8	87.3	86.9	86.8	86.4	85.9	85.4	87.1
4	85.6	85.6	85.6	85.5	85.5	85.9	86.8	86.9	87.1	87.2	87.7	88.5	90.5	90.5	89.5	89.1	88.9	88.7	87.6	87.0	86.7	86.2	85.9	84.9	87.3
5	85.1	84.4	84.6	84.3	84.0	84.0	84.6	86.0	87.0	88.0	89.0	87.9	88.8	89.6	89.0	88.4	87.3	87.0	86.3	86.2	85.8	85.7	84.3	83.3	86.3
6	82.0	81.1	80.7	80.2	80.3	80.4	81.8	84.0	86.6	86.4	86.8	87.1	87.0	86.9	86.6	86.3	86.3	85.8	85.4	85.5	85.4	85.4	85.5	85.5	84.5
7	85.6	85.7	85.7	85.7	85.8	85.9	86.0	86.1	86.0	85.9	86.2	86.5	86.8	87.0	87.3	87.2	87.1	87.1	87.0	87.0	86.7	86.9	86.8	86.7	86.4
8	86.8	86.2	86.1	86.5	86.7	86.9	86.8	87.2	89.0	90.2	89.8	89.8	90.4	91.0	91.0	90.8	89.9	89.7	88.4	87.2	86.6	85.5	85.2	85.5	86.1
9	85.2	84.6	84.6	83.5	84.8	84.0	85.8	87.2	87.0	88.2	88.9	90.2	90.1	88.7	88.8	87.4	87.4	87.2	86.5	85.0	85.6	84.6	82.9	82.1	86.3
10	80.6	80.6	80.0	78.9	79.1	78.6	80.0	83.2	86.5	86.6	87.0	87.3	87.4	87.2	87.1	87.7	87.3	87.1	86.9	87.2	87.8	87.6	87.7	87.0	84.7
11	86.8	85.7	85.3	85.2	85.5	85.3	85.8	86.8	87.0	88.1	89.2	89.1	89.8	89.7	89.6	89.9	90.1	89.4	88.0	87.4	87.6	87.2	86.9	86.5	87.6
12	86.4	86.2	85.9	85.1	85.3	85.1	85.6	87.1	88.8	89.5	90.1	90.7	90.6	91.2	90.4	89.4	89.1	88.5	87.6	87.0	86.5	86.3	86.1	85.5	87.7
13	84.3	83.7	83.9	84.5	85.5	85.6	85.5	85.6	86.3	86.8	86.0	87.3	86.8	87.0	87.2	87.0	87.1	87.0	86.5	86.4	86.5	86.4	86.2	86.2	86.1
14	86.5	86.3	86.0	86.1	86.2	86.4	86.7	86.8	86.9	86.9	87.0	87.9	88.6	88.0	87.9	88.4	88.1	87.9	87.6	87.5	86.9	86.2	86.1	86.3	87.1
15	86.4	86.4	86.6	86.6	86.6	86.4	86.1	86.5	86.5	86.9	87.1	87.6	87.4	87.2	87.1	87.0	87.1	87.0	87.0	87.1	87.0	87.0	86.9	86.8	86.8
16	86.6	86.7	86.9	86.8	86.4	86.5	86.6	86.8	87.0	87.9	89.0	90.5	91.0	90.3	89.3	89.2	88.9	88.6	87.7	87.4	86.9	86.5	85.4	85.4	87.7
17	84.9	85.6	86.0	85.6	86.4	86.5	86.7	87.1	87.6	88.0	87.9	88.2	88.4	86.7	86.0	85.4	86.1	85.9	85.8	85.7	85.3	84.6	83.9	83.8	86.2
18	84.1	83.9	83.0	82.6	82.7	82.7	83.8	85.0	86.3	86.3	86.8	87.3	88.1	88.3	87.7	87.2	87.8	86.8	85.9	85.9	86.1	85.9	86.0	85.8	85.6
19	85.6	85.4	85.2	84.8	84.9	84.8	85.4	85.6	85.4	85.0	85.5	85.5	85.7	85.9	86.3	87.0	84.0	84.4	84.2	84.1	83.6	82.3	81.3	81.4	84.8
20	80.6	81.6	81.9	81.3	81.2	80.4	81.7	82.6	83.8	84.7	85.3	85.8	86.4	85.6	85.8	86.2	83.8	83.6	82.6	82.9	82.1	81.2	80.7	79.7	83.0
21	79.2	79.1	78.4	79.2	78.3	78.7	79.6	80.6	83.2	84.5	84.7	84.6	85.9	86.2	86.7	85.2	84.6	84.1	83.4	82.9	81.3	80.2	80.0	79.9	82.1
22	78.4	77.8	77.6	77.3	78.2	78.8	79.8	81.3	82.6	82.7	83.1	83.0	82.7	83.1	83.6	83.6	83.4	82.9	82.7	82.7	82.4	82.1	81.6	81.4	81.4
23	82.1	82.3	82.3	82.4	82.4	82.6	83.0	83.5	84.5	85.0	85.5	86.2	86.2	86.7	86.8	86.2	86.0	84.8	84.6	83.5	83.0	83.0	82.4	82.3	84.0
24	82.5	82.4	82.6	82.7	83.1	83.4	83.6	84.0	84.2	84.4	84.4	84.5	85.0	85.3	85.8	86.5	86.0	84.4	83.0	82.0	81.4	80.5	79.8	79.5	83.4
25	81.3	81.5	81.7	81.4	81.3	80.8	81.3	82.7	83.6	85.0	85.8	86.5	87.4	87.0	86.3	85.8	85.6	85.0	85.0	84.8	84.8	85.0	85.0	84.9	84.0
26	84.9	84.6	84.5	84.5	84.5	84.7	84.0	83.9	84.0	84.2	84.6	85.2	87.0	87.5	87.2	86.9	84.5	84.5	83.2	82.9	82.7	83.4	83.5	84.2	84.6
27	82.7	82.5	83.0	83.8	83.8	83.4	83.5	84.3	84.9	86.5	87.0	87.6	88.0	88.0	88.2	87.6	87.0	86.0	85.5	85.2	84.9	84.8	84.2	84.7	85.3
28	85.0	85.0	85.2	85.3	84.6	84.9	85.2	85.8	86.2	86.5	87.1	87.5	87.6	87.3	87.8	87.7	87.6	86.9	86.8	86.6	87.0	86.8	86.9	86.9	86.4
29	86.3	86.1	86.1	86.1	86.2	86.3	86.7	87.0	87.7	87.9	88.1	88.5	85.9	86.2	86.0	84.9	84.6	84.0	83.9	83.9	84.0	84.2	83.9	83.6	85.7
30	83.0	82.3	82.4	83.8	84.4	84.4	84.6	84.9	85.8	86.4	86.7	86.9	86.9	86.4	86.9	86.7	86.4	86.1	85.8	85.9	85.8	85.5	85.2	84.4	85.3
Mean	83.9	83.6	83.6	83.5	83.6	83.6	84.1	84.9	85.9	86.5	87.0	87.3	87.7	87.6	87.6	87.2	86.7	86.4	85.8	85.5	85.3	84.9	84.5	84.2	85.5

93. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

OCTOBER, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	83.6	83.0	82.1	81.8	81.7	81.4	81.7	82.6	84.3	86.2	87.1	87.9	88.2	87.8	88.3	88.2	87.4	86.6	85.6	84.3	84.3	83.8	83.3	83.3	84.8
2	83.3	83.2	83.0	83.0	83.2	83.0	83.2	83.8	84.6	84.9	85.6	86.0	85.1	85.1	84.4	84.1	83.8	83.7	83.6	83.2	82.4	82.4	82.3	82.2	83.7
3	82.4	82.7	82.5	81.8	81.7	81.7	82.6	83.3	84.6	84.6	85.1	85.1	84.9	84.4	85.1	84.5	84.6	85.1	83.7	83.1	82.4	82.2	81.7	80.5	83.4
4	79.2	78.1	78.2	77.1	76.4	76.7	77.6	80.3	83.9	84.1	84.5	84.9	84.7	84.1	84.3	84.2	84.0	84.0	84.0	83.4	82.2	82.4	82.5	82.0	81.7
5	81.9	81.6	81.6	81.4	81.8	81.8	81.0	81.7	83.1	84.2	85.0	85.6	85.7	85.9	85.9	84.5	83.8	83.3	83.2	82.8	82.2	82.1	81.9	81.6	83.1
6	80.5	79.6	79.4	78.8	78.8	79.2	78.6	78.9	82.9	83.8	84.7	84.0	84.5	84.8	84.0	83.9	84.1	83.1	83.4	83.9	84.2	84.4	84.6	85.1	82.4
7	85.1	85.6	85.5	87.0	87.0	88.5	87.9	87.7	88.4	90.1	89.3	90.2	90.2	89.4	88.7	88.2	87.1	86.3	85.5	85.0	84.8	84.0	83.9	83.4	87.1
8	82.7	82.2	82.0	81.1	80.7	80.8	80.8	81.9	82.6	83.8	84.2	84.8	84.2	84.4	84.7	84.4	84.1	83.4	82.8	82.2	81.5	81.7	82.4	82.5	82.3
9	81.6	80.9	80.1	79.6	78.8	78.4	78.9	79.8	81.9	82.6	83.9	83.8	83.6	83.9	83.9	83.1	82.0	82.4	81.6	80.7	79.9	79.8	80.4	80.3	81.4
10	80.5	81.2	82.0	83.8	83.3	83.4	83.8	86.2	86.4	87.1	87.1	87.6	87.9	87.9	87.9	87.0	85.8	84.7	83.8	83.3	84.1	82.9	82.0	81.8	84.6
11	80.4	80.9	80.9	79.9	79.0	78.4	78.0	79.4	81.2	83.2	84.5	85.9	89.9	90.0	90.4	90.1	90.2	89.9	89.3	87.9	87.5	87.4	88.6	87.5	84.9
12	86.7	86.6	86.6	87.8	88.1	87.6	86.5	88.1	88.2	88.2	90.5	90.4	90.0	89.5	88.9	85.4	84.9	84.1	83.4	82.5	82.1	82.0	82.8	82.2	86.5
13	81.6	81.2	81.2	82.3	82.4	82.0	82.2	82.5	83.6	83.8	84.5	85.8	86.2	85.8	85.7	85.1	84.6	83.8	83.2	82.9	82.8	82.6	82.8	82.9	83.4
14	83.2	83.3	83.9	83.8	83.2	82.0	81.4	81.2	81.3	81.5	82.1	82.4	82.3	80.3	80.6	79.2	78.2	77.7	77.4	77.7	77.3	76.8	76.5	76.5	80.5
15	76.3	76.0	75.8	76.0	77.0	77.0	76.3	76.4	79.0	80.5	81.6	81.6	81.0	81.5	81.4	81.9	81.0	81.9	81.8	81.5	80.9	81.4	81.1	80.5	79.6
16	79.9	79.5	79.4	78.5	78.5	78.0	78.0	78.1	78.4	80.2	81.1	81.0	81.6	81.4	81.2	81.1	81.1	80.6	80.9	80.6	80.6	80.4	80.2	79.8	80.0
17	79.7	79.6	79.4	79.4	79.0	78.8	78.6	78.6	79.0	79.4	80.1	80.4	80.4	80.4	80.5	79.9	79.9	80.0	80.1	80.6	81.2	81.8	81.4	81.4	79.9
18	80.6	83.2	83.4	82.2	83.7	84.7	84.2	85.5	84.9	86.3	8														

94. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulb above ground) = 12.5 metres.

NOVEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	73.4	73.3	73.1	73.1	73.1	73.0	73.1	73.1	73.7	74.3	75.1	75.4	76.4	75.7	74.8	74.7	74.4	74.2	73.7	73.8	73.5	73.4	73.0	73.2	73.9
2	73.5	73.4	74.0	74.3	74.4	74.4	74.5	74.3	74.8	75.7	76.4	76.5	76.9	76.9	76.5	75.9	75.2	75.0	73.9	73.9	73.4	73.3	72.4	71.6	74.7
3	71.0	70.8	70.3	70.3	70.2	70.6	73.5	78.1	78.5	79.2	79.1	78.8	79.2	79.9	80.5	80.4	80.1	79.9	79.9	80.2	80.0	79.8	79.9	80.1	76.9
4	80.6	80.6	79.8	80.3	80.0	79.9	80.0	79.9	80.4	80.7	81.0	81.6	82.4	82.3	80.9	80.5	80.1	79.9	79.9	79.5	79.2	79.0	78.6	78.4	80.3
5	78.5	78.4	78.0	78.0	77.8	77.8	77.4	76.9	76.8	76.5	77.2	76.6	74.7	75.5	75.8	75.3	74.5	74.4	74.1	74.6	75.1	74.7	75.5	74.4	76.3
6	74.8	74.6	75.5	75.0	75.0	75.7	76.1	75.7	76.1	76.4	78.2	78.0	79.0	79.5	79.2	77.5	76.9	76.6	76.3	77.1	75.8	76.1	76.6	76.5	76.5
7	76.5	76.2	76.6	76.6	76.9	77.0	77.0	77.0	77.2	77.3	77.7	77.5	77.4	77.0	77.1	77.4	77.1	77.0	76.7	76.6	76.5	76.4	76.5	76.3	76.9
8	75.7	74.9	74.5	74.5	73.8	73.7	73.6	73.2	73.1	74.5	75.8	77.5	78.7	79.1	78.6	78.2	77.6	76.0	75.4	75.0	75.4	75.3	75.4	75.4	75.6
9	75.9	77.7	77.4	77.8	78.0	77.7	77.7	77.8	78.3	79.0	79.2	80.1	80.2	80.3	80.3	80.0	79.9	80.0	80.4	80.5	80.3	80.4	80.7	81.3	79.1
10	81.2	81.5	82.1	82.0	81.9	81.8	81.4	82.1	82.4	82.1	82.2	81.9	82.1	81.7	81.6	81.4	81.6	81.3	81.3	81.9	81.9	82.0	81.9	81.8	81.8
11	81.1	81.0	80.8	80.6	80.4	80.3	80.3	80.1	79.6	79.8	79.9	80.4	80.7	80.5	80.1	79.6	79.2	78.4	78.6	78.6	78.7	78.4	78.2	77.8	79.8
12	77.8	77.4	76.6	76.6	75.9	75.4	76.0	76.9	76.9	78.0	78.5	79.0	79.4	79.6	79.4	79.4	79.0	78.8	78.5	78.2	78.4	78.3	78.4	78.0	77.9
13	77.8	77.8	78.1	78.3	78.3	78.2	78.5	78.4	78.2	78.2	78.7	79.6	79.4	79.5	80.0	79.7	79.0	78.9	78.0	77.4	78.3	75.4	75.5	74.6	78.1
14	74.2	73.7	74.1	74.3	74.2	74.2	74.9	74.5	75.0	75.9	77.1	77.5	78.3	78.9	79.0	78.5	77.7	77.2	76.4	75.5	75.1	74.6	74.8	74.3	75.8
15	74.2	74.0	73.7	74.3	74.9	75.1	75.1	75.7	76.2	76.8	77.7	78.8	79.7	80.2	80.0	78.7	77.6	77.2	77.0	77.0	76.7	76.7	77.0	77.5	76.7
16	77.3	76.9	77.1	77.7	78.0	78.2	78.3	78.4	79.6	81.2	81.6	81.6	81.5	81.2	81.2	81.1	80.9	80.6	81.2	80.9	80.0	79.5	79.3	79.2	79.7
17	79.0	78.9	78.6	78.5	78.2	77.5	77.2	77.8	78.1	78.7	79.5	80.3	80.8	80.9	80.9	80.5	80.3	80.0	79.6	79.0	78.5	77.9	77.2	76.6	79.0
18	76.6	76.2	75.6	75.1	75.3	75.3	75.4	75.4	75.5	76.2	77.0	77.8	78.4	78.4	78.3	78.0	76.9	75.7	76.3	75.0	76.9	76.4	76.9	77.6	76.5
19	77.6	77.3	77.6	78.5	77.8	76.2	76.5	76.8	78.4	80.4	81.6	81.9	82.1	82.6	82.0	81.7	81.4	80.4	80.8	79.7	79.2	78.5	78.8	77.9	79.4
20	79.8	80.7	80.8	81.3	81.4	81.7	81.9	81.9	81.9	82.6	83.2	81.6	82.0	82.0	81.4	80.4	78.5	78.0	79.5	78.4	78.8	78.2	77.6	77.2	80.5
21	76.4	75.9	75.0	75.9	75.9	76.0	76.4	76.5	77.6	78.1	78.4	79.1	79.6	80.6	80.5	80.6	80.7	81.0	81.1	81.4	82.0	82.2	82.2	82.3	78.9
22	82.6	82.6	82.4	82.6	82.2	83.3	83.9	83.6	83.6	83.6	84.5	85.1	85.1	85.0	84.6	84.1	83.5	84.3	81.0	80.9	81.0	80.8	80.7	80.3	83.0
23	79.5	79.2	79.0	78.2	78.1	77.2	77.4	77.4	77.0	77.6	80.1	80.3	80.1	80.2	79.4	78.9	78.9	79.1	79.1	79.4	79.3	79.2	78.3	77.6	78.8
24	76.5	75.4	75.9	75.3	74.0	74.9	74.9	74.3	74.3	77.6	78.5	80.6	81.4	81.7	81.6	80.7	79.6	79.3	78.9	78.3	78.4	78.4	78.2	77.7	77.7
25	78.0	78.4	78.7	78.5	78.9	79.4	79.4	79.4	79.8	80.4	80.5	80.8	81.2	81.0	81.2	82.9	82.5	82.9	81.7	81.2	81.2	81.9	81.9	82.7	80.5
26	82.5	82.5	82.7	82.2	82.0	81.8	82.4	82.6	83.2	84.8	85.2	85.0	86.0	85.8	85.9	85.0	84.2	84.2	83.6	83.5	83.8	83.5	84.0	84.0	83.7
27	83.4	82.0	81.7	81.3	81.0	81.8	82.8	82.6	83.3	84.4	85.7	85.6	84.9	84.6	85.4	85.4	85.2	84.5	83.3	82.4	80.8	81.8	83.3	83.0	83.4
28	83.0	82.4	82.3	82.6	81.3	81.5	82.0	82.0	82.0	82.0	82.6	83.4	83.7	83.2	82.5	81.5	81.5	80.6	79.3	79.1	79.6	79.0	79.3	79.8	81.6
29	79.5	79.6	79.1	79.3	78.6	76.8	77.5	77.9	78.9	79.8	81.6	81.5	81.8	81.6	81.4	80.9	80.8	80.5	80.2	79.9	79.6	79.3	79.0	78.5	79.8
30	78.4	78.5	78.2	79.0	79.6	79.4	79.4	79.4	79.5	79.9	80.2	80.5	80.1	80.0	80.3	80.4	80.5	80.8	81.1	81.1	81.0	80.9	80.9	80.8	79.9
Mean	77.9	77.7	77.6	77.8	77.7	77.5	77.8	78.0	78.3	79.0	79.8	80.1	80.4	80.5	80.3	80.0	79.5	79.2	78.9	78.7	78.5	78.4	78.4	78.2	78.8

95. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

DECEMBER, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	80.6	80.4	80.1	80.0	79.9	79.8	79.6	79.8	80.0	80.2	80.8	81.1	81.2	81.4	81.7	81.5	81.7	82.0	82.0	81.8	81.9	82.1	82.1	82.0	81.0
2	82.2	82.5	82.6	82.7	82.9	83.2	83.5	83.4	83.3	83.0	83.0	82.9	82.9	82.9	82.8	82.4	81.9	81.9	81.8	82.0	82.0	81.7	81.6	81.6	82.6
3	81.4	81.3	81.1	81.0	80.9	80.8	80.8	80.8	80.7	81.0	81.0	81.1	81.0	80.6	80.3	80.0	79.7	79.7	79.4	79.0	79.0	78.8	78.8	78.8	80.4
4	78.8	78.8	78.8	79.3	78.9	78.6	78.2	77.9	77.6	77.9	78.8	79.0	79.0	79.2	79.0	79.1	79.2	79.2	78.8	78.8	78.6	78.8	78.8	78.9	78.7
5	78.8	78.8	78.7	78.8	78.2	78.8	78.9	77.7	78.3	77.9	78.0	77.8	78.2	78.0	78.2	78.4	78.5	78.7	78.8	78.8	78.9	79.0	78.9	78.8	78.5
6	78.3	77.8	77.7	76.5	75.9	76.1	75.6	75.5	75.0	74.9	75.6	76.0	77.5	77.8	77.3	76.9	77.0	77.1	77.5	77.6	77.5	80.2	80.5	80.5	77.0
7	80.6	80.8	80.9	80.8	80.8	79.0	79.4	79.6	79.6	79.8	80.2	80.8	80.9	81.0	80.5	80.9	80.6	80.6	80.5	80.7	80.4	80.3	80.8	81.5	80.4
8	81.8	81.5	81.5	81.6	81.6	81.8	81.9	82.1	82.2	82.2	82.4	82.5	82.9	82.7	82.9	83.1	83.2	83.0	82.8	82.5	82.3	82.0	82.3	82.4	82.3
9	82.9	82.6	83.0	83.0	83.3	83.3	83.4	83.1	83.4	83.3	83.4	83.3	83.1	83.1	83.1	82.9	82.9	82.9	83.2	82.2	80.9	80.8	81.0	81.1	82.2
10	80.9	80.8	80.9	81.0	80.8	80.7	81.1	81.2	81.3	81.2	81.7	82.0	81.9	82.1	82.3	81.8	81.7	81.6	81.1	80.9	80.5	80.3	80.1	81.1	81.2
11	81.5	81.4	81.4	81.1	81.0	81.1	80.8	80.7	80.9	80.8	81.1	81.4	81.5	81.3	81.1	81.1	81.1	81.2	81.5	81.6	81.7	81.5	81.6	81.6	81.2
12	81.5	81.4	81.6	81.6	81.6	81.7	81.5	81.6	81.4	81.6	81.6	81.6	81.5	81.2	81.4	81.0	81.3	81.6	81.7	81.7	81.7	81.7	81.6	81.6	81.4
13	80.6	80.8	80.8	80.9	80.9	81.0	80.9	81.0	80.9	80.9	81.2	80.9	80.7	80.8	80.9	80.9	80.9	81.1	81.0	80.2	80.6	80.8	80.9	80.6	80.8
14	80.6	80.5	80.7	80.6	80.5	80.2	80.1	80.2	80.6	80.8	80.7	80.6	80.9	80.2	80.8	81.3	81.5	81.6	81.6	81.7	81.6	81.0	80.9	81.0	80.8
15	81.0	81.1	81.1	81.3	81.1	81.4	81.4	81.6	81.5	81.3	81.5	81.4	81.3	81.6	81.7	81.7	81.7	81.8	81.9	81.9	81.9	81.8	81.9	81.9	81.5
16	82.0	82.0	81.9	81.8	81.7	81.9	82.0	82.0	82.0	82.0	82.1	82.3	82.1	82.0	81.6	81.6	81.2	81.2	81.2	81.1	80.9	81.1	80.9	80.9	81.7
17	80.6	80.4	80.2	80.0	79.0	78.2	77.5	77.1	76.0	77.2	78.2	79.5	80.1	79.8	79.6	79.7	79.7	79.5	79.4	79.4	79.1	80.3	80.7	80.9	79.3
18	81.0	80.9	80.3	79.4	80.4	80.6</																			

TEMPERATURE: ANNUAL MEANS OF HOURLY VALUES.
From Readings in degrees absolute at exact hours, Greenwich Mean Time.

96. ABERDEEN: North Wall Screen on Tower H_t 12.5 metres.

1934.

Hour	G.M.T.	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	2																							
80.78	80.62	80.50	80.42	80.51	80.72	81.14	81.62	82.22	82.79	83.38	83.74	83.86	83.83	83.72	83.51	83.18	82.84	82.45	82.06	81.74	81.48	81.25	81.02	82.06

TEMPERATURE: MONTHLY MEANS AND DIURNAL INEQUALITIES.
The departures from the mean of the day are adjusted for non-cyclic change.†

97. ABERDEEN: North Wall Screen on Tower H_t 12.5 metres.

1934.

Month	Mean	Hour 1	G.M.T. 2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
Jan.	278.37	-0.62	-0.48	-0.55	-0.49	-0.44	-0.48	-0.43	-0.45	-0.23	+0.16	+0.78	+1.10	+1.34	+1.29	+1.14	+0.71	+0.28	+0.03	-0.21	-0.32	-0.44	-0.47	-0.51	-0.61
Feb.	279.20	-1.10	-1.27	-1.37	-1.62	-1.43	-1.55	-1.52	-1.48	-1.11	-0.26	+0.68	+1.64	+2.02	+2.29	+2.16	+1.94	+1.38	+0.74	+0.49	+0.32	+0.28	-0.13	-0.53	-0.72
Mar.	277.63	-1.25	-1.40	-1.45	-1.52	-1.59	-1.61	-1.59	-1.03	-0.24	+0.95	+1.68	+2.05	+2.12	+2.01	+2.04	+1.78	+1.32	+0.85	+0.32	-0.18	-0.52	-0.71	-0.91	-1.12
Apr.	279.11	-1.12	-1.46	-1.57	-1.64	-1.54	-1.25	-0.73	-0.21	+0.58	+1.07	+1.53	+1.68	+1.58	+1.42	+1.41	+1.29	+1.06	+0.67	+0.24	-0.13	-0.42	-0.59	-0.83	-0.99
May	282.71	-1.94	-2.19	-2.40	-2.69	-2.37	-1.57	-0.61	+0.13	+0.71	+1.03	+1.55	+2.14	+2.24	+2.01	+2.03	+1.86	+1.69	+1.27	+0.86	+0.24	-0.40	-0.85	-1.19	-1.53
June	285.13	-1.98	-2.23	-2.48	-2.55	-1.95	-1.14	-0.10	+0.52	+1.16	+1.51	+2.04	+2.12	+1.83	+1.77	+1.73	+1.47	+1.22	+0.91	+0.55	+0.08	-0.46	-0.89	-1.40	-1.71
July	288.47	-1.81	-2.12	-2.30	-2.34	-2.13	-1.47	-0.83	-0.04	+0.47	+0.79	+1.49	+2.06	+2.15	+2.03	+1.91	+1.85	+1.84	+1.50	+0.95	+0.17	-0.43	-0.90	-1.16	-1.58
Aug.	287.16	-1.73	-1.93	-2.18	-2.51	-2.64	-2.11	-1.12	-0.18	+0.78	+1.47	+1.85	+1.93	+2.00	+2.15	+1.91	+2.04	+1.67	+1.32	+0.78	+0.17	-0.36	-0.72	-1.12	-1.43
Sept.	285.46	-1.60	-1.82	-1.89	-1.95	-1.81	-1.84	-1.32	-0.51	+0.47	+1.04	+1.68	+1.89	+2.23	+2.18	+2.11	+1.73	+1.28	+0.89	+0.32	+0.03	-0.21	-0.60	-0.98	-1.28
Oct.	282.06	-1.18	-1.20	-1.23	-1.36	-1.33	-1.48	-1.54	-0.94	-0.02	+0.90	+1.61	+1.95	+2.04	+2.01	+1.68	+1.30	+0.81	+0.47	+0.15	-0.20	-0.42	-0.54	-0.60	-0.85
Nov.	278.76	-0.77	-0.93	-1.03	-0.93	-1.03	-1.21	-0.91	-0.78	-0.40	+0.24	+1.05	+1.38	+1.67	+1.74	+1.56	+1.18	+0.71	+0.40	+0.06	-0.17	-0.30	-0.48	-0.47	-0.67
Dec.	280.35	-0.12	-0.21	-0.18	-0.19	-0.27	-0.32	-0.30	-0.36	-0.23	-0.21	+0.03	+0.27	+0.40	+0.39	+0.37	+0.28	+0.29	+0.34	+0.18	+0.05	-0.05	-0.06	-0.03	+0.01
Year	282.06	-1.27	-1.44	-1.55	-1.64	-1.54	-1.34	-0.92	-0.44	+0.16	+0.72	+1.32	+1.68	+1.80	+1.77	+1.67	+1.45	+1.13	+0.78	+0.39	0.00	-0.31	-0.58	-0.81	-1.04

ABSOLUTE EXTREMES OF TEMPERATURE FOR EACH DAY.
Maximum and Minimum for the interval 0h. to 24h., Greenwich Mean Time.

98. ABERDEEN: North Wall Screen on Tower: H_t 12.5 metres.

1934.

Month.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Day.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	80.5	77.4	79.1	74.8	79.2	72.4	80.2	74.8	85.7	81.6	87.0	81.2
2	79.8	76.9	82.4	72.9	83.7	76.0	80.6	77.2	87.0	79.2	84.4	79.7
3	81.8	77.3	82.6	79.6	80.8	75.0	81.0	77.4	86.4	78.5	86.6	78.0
4	84.2	76.7	81.2	78.0	82.1	74.3	80.2	74.2	85.1	77.8	87.0	82.1
5	78.9	76.2	83.4	73.3	80.9	75.8	78.2	73.4	85.5	79.8	84.7	81.3
6	85.2	76.9	83.6	80.2	80.3	73.2	78.5	73.6	83.1	77.9	88.8	78.4
7	84.3	76.3	84.2	77.4	78.7	73.1	78.4	73.5	86.9	79.8	86.6	81.8
8	78.5	75.9	80.2	76.0	80.4	73.5	78.6	73.8	86.1	78.8	84.1	81.9
9	79.9	75.4	84.8	76.3	79.2	72.1	78.2	73.3	83.5	82.3	84.8	79.9
10	82.0	76.8	82.0	77.4	79.0	76.1	78.1	74.2	83.4	83.0	83.2	78.6
11	81.1	78.1	86.2	78.4	78.0	75.5	79.7	76.8	93.0	83.0	86.4	81.0
12	80.6	75.8	82.3	76.1	78.4	75.6	79.3	76.4	86.5	78.8	86.8	81.8
13	79.3	76.1	82.2	75.0	78.5	72.9	82.8	77.4	86.9	77.8	93.5	80.7
14	79.6	75.6	83.4	73.7	77.7	71.6	82.5	80.0	80.8	76.0	85.5	83.1
15	78.9	76.4	82.6	73.8	79.2	74.8	84.6	80.5	80.8	76.5	89.3	83.3
16	79.1	75.4	82.1	73.6	79.2	74.9	88.8	81.0	80.4	74.9	98.0	87.9
17	83.2	76.7	83.2	75.2	79.0	74.9	86.1	80.3	84.3	74.8	96.0	85.4
18	80.7	77.1	82.5	76.1	80.7	74.3	85.8	79.8	85.2	77.0	92.7	84.9
19	78.0	74.8	81.1	76.7	81.1	73.6	81.1	76.3	86.1	74.9	91.4	85.6
20	77.9	73.3	82.4	77.7	81.0	74.2	83.7	74.9	88.2	78.3	86.0	80.0
21	79.9	75.9	84.0	80.0	80.3	74.8	84.5	79.2	89.8	82.0	85.4	80.2
22	80.1	78.7	87.2	80.4	81.2	73.6	83.9	78.3	89.2	80.9	84.0	77.8
23	81.3	77.0	85.0	78.2	80.8	73.7	82.0	76.6	84.6	79.5	84.8	77.2
24	82.2	76.0	81.2	75.3	87.6	77.4	80.2	75.7	84.8	78.6	85.6	77.2
25	78.2	75.9	79.8	71.7	85.8	74.4	81.5	74.8	83.1	76.8	86.2	81.0
26	81.1	75.7	75.8	69.2	83.8	76.0	81.8	73.9	85.2	74.9	93.7	82.0
27	78.4	75.1	76.9	74.4	82.6	74.2	81.2	77.6	87.9	81.9	92.1	85.2
28	79.9	73.8	76.5	73.1	82.3	74.7	81.2	76.9	87.3	82.3	90.4	82.6
29	78.5	71.8	--	--	79.4	76.9	82.2	78.3	86.5	82.1	90.7	81.6
30	81.9	75.0	--	--	78.8	75.9	86.3	75.5	88.0	80.3	92.6	85.8
31	79.9	75.0	--	--	79.5	75.7	--	--	86.5	81.4	--	--
Mean	80.5	76.0	82.1	75.9	80.6	74.6	81.7	76.5	86.6	79.1	88.5	81.6

Note. - The initial 2 or 3 of the readings is omitted, i.e., 275.0 degrees is printed 75.0. † See page 21.

RELATIVE HUMIDITY
Percentages at exact hours, Greenwich Mean Time.

111

99. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

JANUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	81	78	80	76	83	82	86	88	87	90	91	91	90	90	91	93	93	96	96	94	93	98	96	94	88.9	8.4
2	93	88	78	81	77	80	81	81	85	82	82	87	87	82	83	83	85	80	83	82	84	87	85	86	83.6	7.4
3	83	82	85	85	84	87	87	90	90	94	88	86	84	84	80	83	85	83	85	85	88	92	92	93	86.3	8.2
4	92	93	93	94	85	84	84	84	84	81	82	89	80	79	68	70	67	66	61	59	63	64	65	70	77.9	8.5
5	69	62	68	66	64	60	60	62	66	73	69	68	66	67	68	67	70	73	69	70	68	74	77	82	68.0	5.8
6	74	76	74	76	79	90	87	87	83	83	79	77	77	75	80	70	66	70	69	76	76	83	76	79	77.6	8.3
7	81	88	90	86	88	94	96	99	93	89	82	76	77	78	74	69	68	73	74	65	58	59	67	71	79.1	8.0
8	72	70	68	73	74	70	73	77	75	72	71	63	66	69	70	64	72	66	64	70	73	69	72	69.9	5.7	
9	70	76	73	73	75	78	83	76	78	78	75	76	75	76	76	80	78	75	79	76	76	82	79	81	76.6	6.7
10	82	87	86	87	88	91	89	86	87	87	91	91	89	89	92	91	91	89	89	88	89	88	87	88	88.3	9.4
11	88	86	86	86	86	86	88	86	86	88	86	86	85	90	87	88	88	88	90	89	88	85	87	90	87.3	8.9
12	89	90	86	82	77	78	78	78	80	84	81	75	73	74	74	78	74	75	79	81	87	84	83	84	80.3	7.2
13	84	82	82	82	79	77	86	86	81	82	77	75	78	77	71	80	81	82	80	76	82	83	83	87	80.5	7.0
14	87	87	87	89	88	91	93	95	95	97	94	97	94	94	94	95	94	94	92	94	92	92	93	95	92.5	7.7
15	92	85	82	80	78	76	76	76	78	75	77	73	72	71	70	71	76	77	77	75	75	75	75	75	77.0	6.5
16	77	73	77	76	75	75	77	78	78	76	76	75	74	72	69	78	77	81	85	84	88	90	87	92	78.4	6.4
17	93	93	94	96	96	100	98	96	94	98	98	96	84	76	63	64	61	56	50	54	62	67	48	55	79.7	7.9
18	64	64	70	73	72	74	72	73	72	71	69	66	65	67	71	72	70	78	74	80	73	74	71	74	70.8	6.6
19	72	76	77	78	82	91	89	95	89	77	77	76	71	70	87	79	81	78	73	74	74	56	65	68	77.4	6.0
20	70	73	74	79	77	78	81	72	71	67	64	58	63	61	67	70	75	80	82	82	80	80	82	83	73.4	5.3
21	88	80	82	76	82	84	82	90	88	85	72	70	72	70	86	79	81	85	85	89	87	86	92	88	82.4	7.1
22	94	91	91	91	85	82	82	79	79	81	78	77	79	79	76	81	87	84	81	86	84	81	82	86	83.2	7.9
23	88	90	87	83	82	85	84	84	83	86	86	87	87	88	90	90	91	91	90	91	91	91	90	91	87.6	8.3
24	93	83	84	80	80	81	79	82	79	78	79	79	78	79	73	77	71	72	67	74	72	66	73	78	77.6	7.9
25	83	78	78	83	82	87	80	79	79	75	75	75	80	76	79	75	70	61	63	73	76	79	82	79	76.9	6.3
26	82	86	85	87	82	79	83	84	84	82	76	65	70	68	67	65	70	72	72	71	68	71	70	71	75.6	7.1
27	74	75	72	75	75	89	85	80	84	81	85	80	72	71	64	67	69	80	80	77	80	80	83	84	77.7	6.2
28	87	89	89	85	87	85	85	87	80	85	81	79	77	74	77	78	79	85	90	83	86	82	82	84	83.2	6.6
29	87	86	86	82	75	86	82	89	84	82	76	76	76	74	74	74	74	75	78	82	83	82	83	88	80.5	5.9
30	88	81	86	85	92	91	78	88	93	93	86	83	80	76	72	75	82	84	90	93	87	84	86	89	85.1	7.6
31	86	85	84	85	82	75	75	69	73	74	68	71	73	75	79	78	84	84	87	86	84	81	76	86	79.2	6.8
Mean	82.7	81.7	81.7	81.6	81.1	82.8	82.5	83.1	82.5	82.5	79.8	78.2	77.2	76.5	76.5	76.9	77.7	78.5	78.6	79.1	79.5	79.6	79.5	82.0	80.1	7.2†
Vapour Pressure*	mb. 7.1	mb. 7.1	mb. 7.0	mb. 7.1	mb. 7.0	mb. 7.2	mb. 7.2	mb. 7.2	mb. 7.3	mb. 7.5	mb. 7.5	mb. 7.6	mb. 7.6	mb. 7.5	mb. 7.4	mb. 7.2	mb. 7.1	mb. 7.0	mb. 6.9	mb. 6.9	mb. 6.9	mb. 6.9	mb. 6.9	mb. 7.1	mb. 7.2†	

100. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

FEBRUARY, 1934.

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	90	87	84	76	76	84	80	77	89	88	84	79	71	78	82	84	87	92	90	88	90	87	85	90	84.0	7.0	
2	90	85	89	89	92	95	93	98	90	89	86	84	81	88	83	84	87	84	84	86	84	83	86	86	87.4	7.8	
3	92	88	88	89	92	91	96	94	96	96	88	89	89	91	82	83	79	83	83	87	87	90	81	88.7	9.7		
4	83	80	84	84	86	84	83	83	84	80	76	73	72	69	68	67	72	71	70	73	68	69	66	72	75.9	7.5	
5	75	84	89	89	89	85	85	85	80	88	73	66	67	62	59	58	57	61	66	66	67	66	73	68	73.3	6.7	
6	69	70	69	69	71	64	66	67	65	63	62	61	60	62	61	64	61	68	68	69	70	71	79	71	66.6	7.8	
7	74	76	71	69	70	72	73	75	80	80	71	63	59	58	57	59	60	62	61	60	60	69	69	74	67.5	8.1	
8	74	57	57	78	71	65	64	68	57	75	66	62	60	80	78	74	79	82	83	75	69	71	68	66	70.1	6.1	
9	65	69	74	74	81	84	67	71	70	69	65	63	62	62	62	59	60	62	60	62	62	61	67	70	66.6	7.4	
10	61	64	62	62	59	60	66	68	62	57	52	55	53	50	50	50	50	61	60	56	55	56	69	76	59.5	6.0	
11	58	61	62	64	70	76	74	75	76	74	62	62	65	62	57	60	64	62	65	67	70	65	70	71	66.1	7.7	
12	71	73	66	72	73	74	81	78	82	75	73	68	83	75	85	88	94	96	96	86	81	72	78	71	78.8	7.8	
13	68	83	82	70	67	73	70	75	71	63	74	60	85	67	70	71	71	77	77	77	78	85	79	78	72.8	6.7	
14	85	84	91	82	83	79	84	78	85	83	84	73	75	72	68	67	71	79	82	83	78	79	80	84	79.4	7.2	
15	85	85	86	85	87	82	84	84	84	79	79	72	76	66	67	69	70	75	84	75	74	73	77	74	78.2	7.2	
16	76	78	78	80	82	82	92	91	79	74	74	71	71	75	82	81	87	87	87	84	85	85	86	80.5	7.0		
17	89	84	84	82	82	79	78	78	72	72	69	66	64	62	61	63	66	66	66	72	75	77	74	75	73.6	7.1	
18	73	73	77	76	78	82	82	83	79	75	73	61	58	59	57	56	62	67	65	69	77	79	69	68	70.9	6.9	
19	60	65	62	67	58	58	58	60	62	60	58	56	58	56	61	62	66	66	63	68	69	65	65	66	62.1	5.8	
20	68	72	68	68	68	68	71	76	78	79	74	76	68	68	69	68	70	71	69	73	74	73	75	74	71.8	7.1	
21	77	73	70	68	67	67	69	70	70	70	67	63	63	63	58	61	59	58	66	69	61	67	70	65	66.9	7.6	
22	65	66	63	67	62	64	67	65	62	63	63	60	58	59	59	60	63	70	67	72	72	73	71	74	65.0	8.3	
23	72	74	78	82	77	81	78	74	77	68	58	57	55	55	56	62	68	69	73	77	74	78	79	80	70.8	7.8	
24	82	82	83	83	83	85	82	80	79	81	78	79	71	75	72	75	76	80	83	78	82	83	78	75	79.5	7.4	
25	86	80	78	82	85	84	85	87	93	86	75	79	78	79	85	78	73	77	67	76	50	71	67	75	78.1	5.8	
26	75	80	80	68	74	69	81	75	69	69	77	68	61	54	79	95	93	91	90	85	75	57	54	54	74.3	4.3	
27	62	62	61	73	72	82	74	84	77	82	87	89	89	80	85	84	91	88	79	82	80	78	71	83	78.4	5.6	
28	92	94	94	94	94	92	91	91	87	82	82	93	89	89	90	91	87	94	96	90	93	87	84	89	90.5	6.3	
Mean	75.6	76.0	76.1	76.5	76.7	77.2	77.6	78.2	76.9	76.7	73.4	69.4	68.9	68.3	69.1	70.4	72.4	74.9	75.1	75.3	73.6	74.3	74.5	74.2	74.2	7.1†	
Vapour Pressure*	mb. 6.6	mb. 6.6	mb. 6.6	mb. 6.6	mb. 6.6	mb. 6.6	mb. 6.6	mb. 6.7	mb. 6.8	mb. 7.1	mb. 7.3	mb. 7.4	mb. 7.5	mb. 7.6	mb. 7.6	mb. 7.6	mb. 7.4	mb. 7.3	mb. 7.3	mb. 7.1	mb. 6.9	mb. 6.8	mb. 6.6	mb. 7.0‡			
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean		

RELATIVE HUMIDITY
Percentages at exact hours, Greenwich Mean Time.

101. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

MARCH, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21..	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	86	79	79	79	76	78	79	81	81	75	75	73	84	81	84	82	83	88	87	87	85	86	87	87	81.8	6.2
2	88	88	93	93	90	87	86	88	91	88	57	49	47	43	44	48	60	53	62	66	70	70	73	74	71.4	7.1
3	70	77	82	82	84	78	66	69	70	57	50	46	44	49	47	51	53	58	63	68	76	79	79	75	65.5	5.5
4	79	82	74	75	75	73	79	78	75	72	71	74	77	70	63	63	65	67	73	78	83	84	86	87	74.9	6.8
5	86	86	78	75	78	78	79	81	77	72	66	63	64	72	69	73	63	62	71	59	68	76	73	68	72.8	6.3
6	68	58	66	66	64	57	68	66	63	57	54	44	45	48	46	47	56	61	64	72	65	66	70	74	60.1	4.9
7	70	75	78	78	77	77	77	71	66	57	55	54	50	52	51	52	63	68	68	72	72	67	62	60	55.8	4.9
8	63	66	66	67	67	68	69	66	56	51	44	51	49	48	48	50	56	66	66	71	75	76	84	80	62.2	5.0
9	84	83	88	89	88	84	90	91	91	80	75	74	75	74	69	71	74	76	75	74	74	73	70	69	79.0	6.1
10	69	59	57	56	61	60	76	82	77	56	71	67	73	68	69	74	75	74	74	70	56	75	75	73	68.5	5.9
11	82	81	75	73	69	77	73	78	85	83	76	84	84	87	84	87	73	74	71	71	80	73	78	84	78.2	6.4
12	84	87	88	88	78	75	69	72	83	75	72	82	83	94	70	74	68	69	66	63	60	66	63	64	75.0	6.2
13	63	58	66	66	61	61	61	57	40	51	53	53	81	82	65	65	67	68	81	84	91	93	86	88	67.9	5.0
14	84	90	86	80	83	83	81	77	75	69	73	65	60	61	62	62	73	66	68	84	65	67	69	75	73.5	5.2
15	75	85	88	85	85	88	90	90	92	90	94	90	86	82	77	73	75	80	86	84	85	90	91	94	85.2	7.0
16	93	91	94	91	89	94	93	91	85	73	68	68	57	57	57	61	62	66	68	76	78	79	87	85	77.8	6.2
17	90	93	90	93	93	93	93	89	85	82	77	71	75	72	67	75	75	78	78	82	79	84	84	87	82.7	6.7
18	84	86	82	82	75	70	74	70	67	61	57	78	74	69	67	65	71	78	84	84	83	80	82	82	75.3	6.2
19	85	87	87	87	91	92	91	87	84	73	63	61	65	72	74	76	79	82	84	86	87	90	94	94	81.9	6.8
20	94	89	91	90	94	91	91	87	88	85	78	69	64	72	70	76	83	86	89	81	76	77	76	78	82.6	6.9
21	85	85	87	89	91	91	91	87	86	84	74	73	74	72	73	87	91	90	91	94	89	92	92	92	85.5	7.3
22	93	92	92	93	89	92	89	91	85	63	51	50	58	76	74	72	76	74	70	79	82	82	82	79	78.8	6.5
23	78	78	81	84	84	82	81	68	70	63	65	69	66	70	68	77	76	82	86	83	75	75	79	83	75.9	6.4
24	86	87	88	91	91	91	93	90	87	78	68	63	57	59	53	45	51	54	58	70	70	74	73	76	73.2	7.9
25	77	79	82	84	82	70	70	62	62	62	70	61	60	62	62	62	76	65	65	69	74	73	72	72	70.0	7.3
26	79	82	86	90	94	91	93	90	91	87	86	77	65	66	61	61	59	64	68	72	70	75	80	79	77.6	8.0
27	74	80	80	74	74	75	68	67	84	62	55	51	49	47	55	63	65	70	71	72	70	69	71	76	68.8	8.0
28	78	77	75	75	82	80	73	74	67	59	58	59	56	61	65	70	69	81	83	82	86	89	92	92	73.5	6.6
29	92	79	71	74	73	76	77	75	72	72	81	82	80	87	82	80	80	81	84	89	84	84	75	77	79.8	7.1
30	84	80	79	79	77	82	85	77	77	84	71	71	80	84	79	87	84	88	84	85	81	84	84	85	81.1	6.8
31	89	87	89	87	85	83	83	80	78	77	83	79	82	84	84	84	86	84	87	92	92	92	92	91	85.5	7.6
Mean	81.0	80.8	81.2	81.1	80.6	80.0	80.5	78.4	76.7	71.2	67.5	66.1	66.7	68.3	65.6	68.0	70.5	72.3	74.9	77.4	76.7	78.6	79.3	80.0	75.1	6.4†
Vapour Pressure*	mb. 6.3	mb. 6.2	mb. 6.2	mb. 6.2	mb. 6.1	mb. 6.1	mb. 6.1	mb. 6.2	mb. 6.4	mb. 6.5	mb. 6.4	mb. 6.5	mb. 6.6	mb. 6.7	mb. 6.4	mb. 6.5	mb. 6.6	mb. 6.5	mb. 6.5	mb. 6.5	mb. 6.3	mb. 6.4	mb. 6.4	mb. 6.3	mb. 6.4†	

102. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

APRIL, 1934.

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.	
1	91	94	94	91	91	95	90	93	88	83	79	84	80	81	83	83	87	90	90	85	87	88	84	83	87.4	7.7	
2	83	83	90	87	80	82	82	83	83	77	73	73	77	82	82	79	83	81	80	87	86	86	86	84	82.0	7.5	
3	81	84	80	85	85	85	82	78	73	73	76	67	66	60	52	55	56	76	84	85	87	87	88	95	76.4	6.7	
4	96	93	94	93	93	90	90	90	89	80	82	80	86	81	78	75	78	73	73	80	90	86	81	90	85.1	7.2	
5	82	80	76	81	77	70	77	74	76	79	60	80	73	79	53	57	75	66	75	92	87	85	85	84	76.1	5.7	
6	87	85	67	69	68	94	96	90	85	82	78	80	82	74	81	73	71	70	71	68	63	90	92	94	79.4	6.0	
7	96	98	96	96	98	96	98	94	84	75	74	69	66	70	70	74	70	73	65	65	62	85	75	77	80.5	6.1	
8	88	87	98	98	96	94	98	98	96	84	71	72	82	82	84	94	96	90	90	93	98	91	96	96	90.1	6.7	
9	93	90	98	98	83	73	69	70	77	75	60	59	59	60	68	59	62	67	61	59	63	63	70	75	71.7	5.6	
10	73	73	73	77	74	80	93	80	71	82	82	89	93	93	90	96	96	96	94	93	95	93	97	98	86.2	6.7	
11	96	93	94	94	97	97	92	94	95	96	97	90	91	87	86	86	86	89	87	87	90	88	87	87	91.3	8.0	
12	88	90	88	87	90	89	90	93	92	97	94	98	95	95	94	94	96	96	96	97	99	99	91	91	93.2	8.0	
13	91	89	84	77	86	88	87	86	81	83	83	79	83	83	79	78	84	83	88	89	90	88	85	86	84.7	8.7	
14	88	85	82	80	84	87	88	88	88	88	86	88	91	91	92	93	92	89	89	88	89	93	92	92	88.3	8.9	
15	89	83	82	81	78	82	83	81	80	81	86	91	89	87	88	88	88	88	90	91	90	78	79	83	85.0	9.8	
16	73	74	71	70	71	71	65	60	59	54	51	52	46	50	50	49	67	70	68	69	74	75	80	85	64.7	8.8	
17	86	82	77	91	86	78	78	80	72	71	70	70	68	73	68	67	69	74	79	86	91	92	93	93	78.7	9.7	
18	96	96	94	98	98	98	94	96	82	73	67	73	71	72	72	76	73	81	84	83	86	85	85	85	84.2	9.8	
19	82	88	88	89	89	90	89	94	91	90	86	83	79	81	76	82	76	79	80	89	88	85	85	85	85.4	8.3	
20	85	80	82	82	75	70	70	65	59	62	46	50	55	59	63	67	63	66	66	69	76	76	81	82	68.8	6.9	
21	86	87	86	72	78	84	77	72	65	64	60	53	51	54	53	54	54	58	61	63	72	73	78	78	68.1	7.6	
22	78	79	80	83	82	78	81	79	74	72	71	67	68	74	76	78	82	85	82	82	88	87	90	90	79.2	8.3	
23	84	86	85	84	82	81	76	76	73	69	62	62	61	88	80	83	82	89	88	90	89	87	87	87	81.4	7.4	
24	88	92	90	92	90	92	97	92	86	87	87	84	87	84	84	88	83	79	82	85	86	89	93	91	87.7	7.7	
25	91	91	96	93	94	93	87	84	74	68	66	71	78	77	72	77	76	77	70	78	85	88	93	93	82.1	7.3	
26	93	94	96	96	94	94	89	86	77	73	82	85	86	89	88	85	75	75	81	88	87	86	85	87	86.4	7.8	
27	85	83	83	78	71	74	74	83	86	84	84	77	73	77	72	76	76	79	79	84	86	88	90	91	82.5	8.0	
28	90	90	83	87	89	90	84	79	71	72	73	73	75	76	76	76	78	79	79	84	86	88	84	82	86	84.1	8.5
29	90	89	92	91	91	90	91	86	79	75	75	86	82	81	83	76	74	77	88	83	85	84	82	86	75.9	8.5	
30	88	90	93	93	93	92	79	70	65	62	57	56	61	58	64	71	69	76	77	81	82	86	81	70			
Mean	87.2	86.9	86.7	86.4	85.4	85.9	84.9	83.1	79.0	77.0	74.1	74.8	75.9	76.4	75.4	76.3	77.3	78.7	79.9	82.1	84.5	85.8	85.9	86.8	81.5	7.7†	
Vapour Pressure*	mb. 7.5	mb. 7.4	mb. 7.3	mb. 7.2	mb. 7.2	mb. 7.4	mb. 7.6	mb. 7.7	mb. 7.7	mb. 7.8	mb. 7.7	mb. 7.9	mb. 8.0	mb. 7.9	mb. 7.8	mb. 7.9	mb. 7.9	mb. 7.8	mb. 7.7	mb. 7.7	mb. 7.8	mb. 7.8	mb. 7.7	mb. 7.7	mb. 7.7†		
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean		

103. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

MAY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	69	75	72	75	74	80	78	78	79	78	75	74	74	75	70	73	72	77	75	76	83	82	83	84	76.0	9.7
2	89	92	92	84	79	76	63	56	54	59	61	57	59	65	67	74	83	82	86	86	73	75	74	74	73.5	9.3
3	78	81	86	86	85	84	80	62	57	65	59	57	62	62	60	58	56	64	71	74	78	79	78	71	70.6	8.4
4	87	91	88	89	89	87	88	61	63	69	71	59	59	65	62	60	57	62	68	83	92	94	94	90	75.8	8.5
5	89	89	88	72	72	74	64	60	66	66	70	79	86	89	78	80	72	57	62	68	69	71	74	73	74.0	8.9
6	78	78	82	84	86	75	81	78	73	79	86	83	81	82	78	80	88	84	86	91	86	86	86	88	82.1	8.7
7	84	86	84	82	82	82	84	70	64	52	48	47	47	44	46	44	53	63	71	65	69	74	74	77	66.6	8.5
8	84	79	72	75	79	77	80	82	84	83	83	82	83	79	76	77	83	86	89	88	89	87	91	89	82.1	10.0
9	88	89	91	92	92	89	87	81	72	63	70	68	73	70	71	87	60	62	65	75	84	86	87	91	78.0	12.2
10	91	91	89	93	94	88	88	61	69	77	66	65	67	76	83	85	86	89	89	89	90	89	89	85	83.0	13.2
11	80	79	81	92	88	87	85	83	86	84	87	76	73	73	65	68	72	73	66	70	76	69	68	68	77.4	12.5
12	70	74	78	86	84	87	88	93	91	87	71	64	58	59	68	75	78	76	77	79	83	88	84	84	78.1	9.5
13	85	87	83	84	80	74	79	70	66	76	71	68	62	84	64	73	56	57	69	71	73	73	87	81	73.9	8.3
14	74	74	74	72	63	68	71	65	60	52	69	63	58	67	83	87	88	90	90	87	92	89	82	82	75.0	6.9
15	84	82	82	82	82	78	75	71	67	72	66	71	70	76	85	86	92	94	97	99	96	97	99	100	83.1	7.5
16	100	92	96	93	96	96	92	95	90	83	75	67	68	45	43	41	50	68	76	71	79	82	80	78	77.8	6.6
17	78	71	80	84	84	78	67	68	67	60	55	51	45	46	39	38	31	42	51	56	62	69	72	74	61.3	5.9
18	74	74	78	81	81	78	70	60	58	54	54	62	74	88	93	90	89	85	83	86	91	91	96	100	78.2	8.2
19	97	96	96	100	98	98	96	91	91	96	98	96	92	89	90	80	60	56	57	59	63	65	67	73	84.1	8.7
20	79	82	86	81	86	82	85	69	56	55	51	44	47	61	48	42	40	41	45	53	58	65	72	73	62.5	8.1
21	84	93	95	94	90	92	77	48	50	49	50	48	50	41	46	46	49	50	53	56	56	61	62	67	62.9	9.5
22	77	68	67	74	74	75	66	69	71	65	50	56	40	37	40	47	68	70	66	63	63	66	69	69	62.9	8.6
23	73	73	77	82	81	74	74	71	76	73	86	91	80	73	79	87	88	80	86	87	85	89	86	86	80.4	9.1
24	86	83	82	83	67	68	71	67	59	55	56	53	84	87	81	81	81	81	85	86	88	89	88	89	77.0	8.4
25	90	94	90	90	90	76	76	73	61	88	70	66	59	67	54	54	58	68	60	67	69	73	77	72	72.9	7.4
26	70	75	75	82	70	66	62	59	56	52	45	52	50	52	63	77	81	81	71	72	73	73	73	73	66.8	7.0
27	72	72	70	71	73	74	75	73	69	65	68	68	64	65	68	67	80	64	66	64	66	69	68	69	68.4	9.7
28	69	71	73	74	74	75	79	72	69	68	65	62	58	58	56	55	60	64	72	76	75	72	77	83	68.7	9.6
29	84	80	83	83	79	79	77	78	71	64	63	63	63	60	60	59	56	67	69	70	72	74	77	82	71.4	10.2
30	82	87	88	83	84	83	80	74	73	73	83	85	71	74	69	77	72	73	70	76	76	81	84	88	78.5	10.8
31	88	89	89	89	86	87	79	72	70	74	74	72	77	76	80	78	74	76	78	83	86	88	89	89	80.9	10.8
Mean	81.7	82.2	82.8	83.6	82.0	80.2	78.0	71.3	69.0	68.9	67.6	66.1	65.6	67.3	66.6	67.9	68.2	70.4	72.7	75.0	77.3	78.9	80.2	80.7	74.3	9.1†
Vapour Pressure*	mb. 8.7	mb. 8.6	mb. 8.5	mb. 8.4	mb. 8.4	mb. 8.7	mb. 8.9	mb. 8.7	mb. 8.7	mb. 8.9	mb. 9.0	mb. 9.2	mb. 9.2	mb. 9.3	mb. 9.2	mb. 9.3	mb. 9.2	mb. 9.2	mb. 9.2	mb. 9.2	mb. 9.0	mb. 9.0	mb. 8.9	mb. 8.7	mb. 9.0†	

104. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

JUNE, 1934.

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	91	93	93	94	94	92	93	90	82	96	86	87	88	95	96	87	90	78	86	89	91	91	89	88	88	90.0	11.4
2	89	88	86	92	92	92	88	82	82	91	80	72	77	73	81	82	79	79	73	81	84	87	87	88	83.5	10.1	
3	88	85	89	89	88	79	77	73	66	68	70	76	77	75	76	78	82	75	79	81	84	85	86	87	79.7	9.8	
4	86	92	89	89	88	89	88	84	87	79	73	71	76	78	79	80	82	80	83	83	86	87	89	93	83.7	10.8	
5	92	92	92	91	92	88	88	86	83	86	84	79	80	78	76	79	84	82	86	87	88	84	86	86	85.5	9.4	
6	84	86	90	91	88	84	78	76	65	62	60	62	56	51	49	62	66	82	84	88	86	88	89	91	75.6	10.0	
7	93	96	95	100	99	99	92	94	90	89	88	88	88	86	86	88	80	93	92	92	92	97	99	93	92.4	11.8	
8	92	93	95	96	96	99	95	95	94	96	89	89	90	90	85	83	88	89	88	87	86	83	82	84	90.4	11.0	
9	86	87	87	87	88	86	83	81	89	85	87	86	91	86	91	90	90	92	87	85	96	93	94	96	88.3	10.8	
10	100	98	97	97	96	91	86	83	77	67	68	66	63	67	58	80	87	95	99	96	98	99	99	89	85.9	11.8	
11	79	84	84	86	78	62	60	63	63	70	72	71	70	72	67	67	66	67	68	71	70	74	72	72	71.5	9.4	
12	72	73	73	74	71	70	69	68	73	71	71	72	74	73	74	71	69	68	63	72	70	75	76	78	71.5	9.3	
13	80	81	85	83	82	76	72	68	68	61	49	57	57	59	63	66	84	88	94	93	96	93	90	94	76.3	12.5	
14	90	93	95	94	94	94	92	91	94	86	87	83	87	85	80	80	76	77	77	81	79	83	82	84	86.2	11.3	
15	87	88	90	92	92	92	93	93	94	93	92	95	97	96	94	89	91	90	91	92	94	92	98	95	92.3	13.7	
16	93	93	94	96	88	89	83	82	80	75	68	63	62	66	63	57	57	63	65	65	61	64	70	75	74.3	16.5	
17	75	74	81	80	78	76	76	76	72	63	58	60	70	77	80	81	78	76	80	79	83	86	88	93	78.3	14.7	
18	85	72	76	70	74	64	57	54	60	70	52	56	54	57	63	66	68	73	68	69	73	71	80	81	67.5	12.4	
19	80	79	88	89	93	93	95	91	80	76	70	80	70	56	54	55	57	56	58	61	67	68	70	81	73.6	12.7	
20	86	89	84	87	84	87	84	81	75	73	70	62	53	49	51	55	53	59	56	58	67	73	77	77	70.5	9.3	
21	79	78	79	86	83	84	88	89	78	81	69	75	89	87	89	87	87	87	87	88	87	84	84	86	83.6	10.3	
22	84	83	82	80	76	75	78	76	72	70	65	62	64	56	58	64	62	61	61	71	73	81	85	86	71.9	8.5	
23	85	87	86	71	77	73	63	61	61	59	69	61	65	65	62	62	62	59	65	67	69	74	70	81	69.0	8.0	
24	85	90	88	95	87	82	71	63	65	65	64	67	65	70	68	68	72	74	76	74	81	85	91	87	76.3	9.1	
25	89	92	93	91	78	91	87	82	84	84	81	75	77	79	83	83	86	85	85	87	85	83	76	73	84.0	11.0	
26	78	79	80	86	83	85	72	70	71	70	54	57	57	55	59	69	73	69	87	87	91	90	92	90	74.8	13.0	
27	91	91	92	91	83	73	72	65	61	64	62	65	73	78	71	69	65	70	84	93	97	95	95	90	78.7	13.4	
28	94	93	95	95	93	91	90	88	89	94	91	94	88	82	77	64	80	69	77	90	93	95	96	96	88.0	13.3	
29	96	95	93	95	93	81	74	69	62	61	66	66	64	65	63	64	59	60	65	66	69	67	69	72.6	11.7		
30	76	88		93	91	84	78	80	75	75	71	81	88	93			90	88	85	81	83	85	85	90	83.9	14.1	
Mean	86.2	87.1	87.9	88.7	86.6	84.0	80.7	78.5	76.4	76.0	72.2	72.6	73.7	73.3	72.9	73.6	75.8	76.1	78.3	80.5	82.6	83.7	84.8	85.8	79.9	11.4†	
Vapour Pressure*	mb. 10.6	mb. 10.6	mb. 10.5	mb. 10.6	mb. 10.7	mb. 11.0	mb. 11.3	mb. 11.5	mb. 11.7	mb. 11.9	mb. 11.7	mb. 11.8	mb. 11.8	mb. 11.6	mb. 11.6	mb. 11.6	mb. 11.5	mb. 11.6	mb. 11.5	mb. 11.5	mb. 11.4	mb. 11.2	mb. 11.0	mb. 10.9	mb. 11.3†		
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean		

RELATIVE HUMIDITY
Percentages at exact hours, Greenwich Mean Time.

105. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

JULY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	85	86	83	87	90	91	93	91	85	81	74	74	73	76	79	97	96	90	89	89	92	75	63	70	84.1	14.9
2	71	78	79	76	64	63	66	67	65	66	64	62	57	50	49	51	52	55	56	66	69	71	73	70	64.2	10.6
3	72	69	68	76	75	73	71	66	63	63	59	61	64	73	80	80	82	82	83	78	81	81	78	86	73.2	11.6
4	85	87	87	87	85	81	83	81	79	83	75	64	64	65	66	67	67	75	83	78	79	85	75	70	77.5	13.8
5	88	90	89	91	88	84	81	75	72	75	85	80	84	85	86	85	87	84	87	91	94	96	95	96	85.6	15.0
6	97	98	97	95	98	98	99	97	94	91	89	87	83	78	69	49	45	79	81	85	88	91	89	89	86.2	16.0
7	92	94	88	87	88	85	82	76	75	71	65	75	76	87	72	73	66	59	68	83	80	76	77	81	78.3	14.4
8	85	86	88	89	88	83	73	76	75	78	79	65	64	66	64	69	68	68	69	70	69	68	68	67	74.3	12.7
9	66	65	64	73	71	78	72	61	76	69	63	63	62	75	78	70	67	60	77	93	97	97	96	95	73.9	13.7
10	94	96	97	95	95	93	89	91	95	91	89	84	86	83	81	84	85	88	89	91	93	94	96	96	90.6	15.0
11	97	98	99	98	94	99	97	92	85	81	83	80	79	76	78	81	84	80	86	92	93	91	91	93	88.7	17.0
12	91	92	93	93	93	91	89	88	89	81	76	82	87	69	57	87	91	91	90	93	96	94	97	93	87.6	16.0
13	97	96	96	96	97	93	91	87	81	80	78	72	72	80	82	81	84	78	76	77	76	81	81	81	84.1	15.5
14	83	91	94	95	95	95	96	93	92	91	82	88	88	87	89	82	87	94	93	86	91	93	92	94	90.2	14.8
15	94	94	94	95	93	90	88	78	82	85	71	65	72	68	71	70	79	73	75	82	74	67	78	80	80.2	14.6
16	77	73	83	86	83	79	74	79	79	76	85	78	75	73	77	74	70	74	71	75	78	78	81	84	77.5	15.0
17	88	87	92	89	90	86	85	75	74	72	67	64	59	53	52	55	53	57	62	63	66	74	78	78	71.7	14.4
18	78	81	85	91	96	97	97	99	93	84	81	76	83	85	83	83	83	84	78	78	86	88	89	91	85.9	16.1
19	88	88	90	89	87	85	83	81	78	81	75	69	65	62	63	63	60	64	67	73	84	78	83	78	76.0	12.6
20	83	84	84	84	82	76	74	76	68	68	74	71	81	77	82	81	75	76	74	80	80	80	82	82	78.1	12.3
21	83	83	83	84	84	84	78	74	66	60	67	74	70	79	85	90	89	87	89	90	88	88	89	98	81.4	15.5
22	96	96	96	96	96	98	98	94	94	97	96	79	87	89	88	93	93	92	86	84	85	86	83	83	91.4	14.9
23	83	82	81	79	84	78	73	71	69	64	65	65	63	65	68	81	75	78	77	83	88	88	89	93	78.6	12.2
24	94	94	92	91	92	90	89	82	75	67	64	57	64	71	76	74	67	65	65	75	75	75	80	79	76.9	12.7
25	79	81	81	77	97	94	89	87	75	72	60	66	67	52	51	51	51	51	55	58	63	62	62	64	68.9	13.5
26	67	79	84	91	91	93	93	90	84	90	93	85	76	88	84	79	75	69	73	88	76	73	75	76	81.9	14.0
27	74	74	77	74	75	72	69	71	62	59	60	57	57	64	61	55	57	59	62	61	71	72	69	67	66.0	11.3
28	65	69	69	73	82	90	94	89	78	75	68	71	68	65	64	71	69	64	74	70	75	78	76	74	73.6	11.8
29	79	74	81	84	84	74	76	69	64	73	71	56	59	78	80	92	79	88	92	93	93	90	94	93	79.4	12.6
30	95	95	95	97	96	94	93	94	96	100	94	83	80	77	75	73	73	72	71	75	80	84	86	86	86.1	15.0
31	89	93	87	95	94	95	91	89	87	84	84	86	84	84	79	70	64	60	65	73	78	84	87	88	82.9	15.6
Mean	84.4	85.6	86.3	87.5	88.0	86.5	84.7	81.9	79.0	77.7	75.4	72.2	72.5	73.5	73.2	74.5	73.4	73.9	76.1	79.6	81.5	82.1	82.2	83.2	79.8	14.0†
Vapour Pressure*	mb. 13.2	mb. 13.1	mb. 13.0	mb. 13.2	mb. 13.5	mb. 13.8	mb. 14.1	mb. 14.4	mb. 14.3	mb. 14.4	mb. 14.6	mb. 14.5	mb. 14.7	mb. 14.7	mb. 14.5	mb. 14.8	mb. 14.5	mb. 14.3	mb. 14.2	mb. 14.2	mb. 14.0	mb. 13.6	mb. 13.4	mb. 13.2	mb. 14.0†	

106. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

AUGUST, 1934.

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	85	84	87	88	90	85	75	70	64	62	59	61	70	59	66	71	77	78	81	88	87	89	94	95	77.6	14.6
2	94	94	95	95	95	95	94	98	97	97	96	96	93	90	90	91	94	97	97	95	96	95	97	97	94.9	15.7
3	97	97	97	98	98	97	96	92	88	82	81	93	89	87	89	78	73	67	61	69	75	74	80	82	85.7	15.3
4	89	86	83	86	87	84	78	77	75	73	70	70	70	71	71	74	71	70	76	83	85	84	82	82	78.2	13.6
5	82	83	81	85	88	76	75	72	67	59	64	61	62	54	70	71	69	73	78	86	90	90	91	92	75.6	13.8
6	93	93	92	94	95	96	89	87	91	89	88	90	90	83	85	84	88	90	93	94	96	91	87	94	90.5	14.3
7	96	95	96	95	95	96	96	95	92	89	90	91	91	90	92	90	89	91	93	92	94	95	96	97	93.1	15.8
8	97	97	97	96	96	97	88	82	80	82	81	83	83	82	82	86	76	86	91	89	86	86	87	89	87.6	15.0
9	91	93	88	86	83	87	81	81	68	70	82	62	51	58	53	53	80	87	66	70	70	75	73	73	74.5	13.2
10	72	73	80	81	82	82	74	72	67	65	65	61	76	73	92	84	86	73	73	87	83	76	77	77	76.2	12.4
11	81	77	81	80	85	74	72	70	63	62	60	76	84	62	71	62	82	85	83	75	74	71	71	72	74.0	12.7
12	75	77	77	78	80	77	73	72	65	64	65	85	80	87	85	77	81	83	90	90	94	89	91	93	79.1	12.6
13	87	94	95	90	97	94	95	93	90	77	75	68	68	72	73	77	83	89	99	94	94	91	89	87	86.4	12.9
14	88	89	85	92	91	86	81	71	67	65	64	62	57	62	61	68	66	69	74	80	82	86	85	85	75.7	11.1
15	86	87	90	91	91	94	94	90	87	78	76	84	89	89	86	90	81	77	73	86	93	93	90	87	86.7	14.1
16	75	80	74	76	82	74	67	60	55	49	49	48	46	46	51	50	53	64	62	66	64	65	69	70	62.6	9.9
17	68	71	76	82	75	80	72	62	58	56	54	54	56	53	57	61	68	70	83	87	88	91	87	90	70.3	11.3
18	90	91	91	89	92	93	90	87	77	72	67	64	60	69	64	67	75	73	75	77	80	83	86	78.5	13.8	
19	87	86	82	83	88	89	71	67	58	52	52	57	84	50	51	49	50	56	59	65	69	70	73	78	64.6	11.5
20	78	73	75	87	89	94	86	84	89	84	84	86	86	96	98	97	96	95	96	97	95	86	85	84	88.2	13.4
21	89	92	89	89	93	84	90	91	96	97	88	85	90	91	84	74	72	74	82	81	80	82	85	85	85.9	13.2
22	85	71	73	75	80	82	81	77	69	65	56	56	58	65	67	69	72	76	74	72	72	73	78	81	72.1	11.4
23	79	85	88	89	86	83	73	63	65	63	66	63	66	71	90	74	66	72	65	71	77	75	77	76	74.4	11.1
24	75	72	74	70	71	72	73	64	64	60	59	55	51	50	50	49	50	53	68	73	77	79	84	85	65.6	10.0
25	87	89	86	85	87	85	86	72	63	66	58	72	70	69	65	69	72	75	86	87	95	95	95	94	79.3	12.2
26	93	91	92	88	92	87	86	77	72	72	70	67	65	60	60	65	67	65	75	79	82	85	88	90	77.9	12.4
27	92	91	89	90	91	90	88	86	87	91	85	88	88	90	86	88	89	89	91	90	90	91	91	92	89.3	14.2
28	93	92	90	90	91	93	93	92	88	86	86	87	88	90	89	96	96	96	98	98	99	98	98	99	92.5	15.3
29	98	98	99	98	99	99	96	96	96	98	93	96	96	94	89	91	95	91	94	96	94	92	91	89	95.1	13.8
30	91	93	89	86	87	85	81	80	77	75	73	70	69	67	70	71	73	74	82	85	88	85	86	86	80.2	11.8
31	88	90	88	91	92	94	89	84	73	76	71	68	72	71	74	75	77	79	85	87	90	91	91	83	82.5	11.8
Mean	86.5	86.6	86.4	86.5	88.0	86.6	83.3	79.5	75.7	73.4	72.2	72.9	73.5	71.9	74.7	74.1	76.1	78.0	80.7	83.5	85.0	84.6	85.5	86.1	80.5	13.04
Vapour Pressure*	mb. 12.5	mb. 12.4	mb. 12.1	mb. 11.9	mb. 12.0	mb. 12.2	mb. 12.5	mb. 12.7	mb. 12.9	mb. 13.0	mb. 13.1	mb. 13.3	mb. 13.5	mb. 13.3	mb. 13.6	mb. 13.6	mb. 13.7	mb. 13.7	mb. 13.6	mb. 13.4	mb. 13.0	mb. 12.8	mb. 12.6	mb. 13.04		
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	

RELATIVE HUMIDITY
at exact hours, Greenwich Mean Time.

115

107. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

SEPTEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	88	94	89	93	94	96	93	91	87	85	78	60	69	66	67	69	66	82	93	93	92	94	99	99	84.5	11.0
2	99	99	100	100	100	100	99	98	87	78	74	72	67	72	71	76	79	85	87	85	86	88	85	85	86.6	11.4
3	89	93	88	93	94	96	93	88	81	74	60	57	66	68	67	86	82	76	75	79	80	78	80	86	80.4	12.9
4	85	88	88	89	86	87	80	81	81	84	82	80	65	69	69	70	70	72	76	78	78	81	83	87	79.5	13.0
5	85	83	80	79	80	83	82	77	71	68	60	72	66	62	60	63	82	80	76	81	86	85	87	89	76.5	11.7
6	91	91	91	90	91	93	93	94	85	87	90	85	86	88	86	86	86	87	90	90	88	88	89	90	88.9	12.1
7	90	91	92	94	93	93	94	94	96	98	97	96	96	96	96	97	97	98	98	97	98	98	98	97	95.4	14.7
8	97	98	99	99	100	100	100	100	88	63	69	63	56	52	52	49	60	55	61	69	72	83	88	87	77.7	13.3
9	87	92	91	94	88	89	91	93	83	73	66	72	76	75	82	76	80	86	93	78	80	86	88	83.8	12.8	
10	91	88	90	94	90	93	91	83	71	76	82	79	83	83	83	83	84	84	84	80	77	82	82	91	84.3	11.6
11	90	90	89	95	90	93	90	87	87	82	75	75	70	70	71	70	59	60	68	72	72	76	78	81	79.0	13.1
12	82	83	85	88	87	89	88	84	78	77	76	73	74	72	75	74	73	75	75	78	85	85	87	91	80.4	13.4
13	94	93	94	97	97	97	98	96	94	92	88	87	87	86	87	88	90	90	96	99	99	99	99	99	93.4	14.1
14	99	100	100	100	100	100	100	100	100	100	100	97	91	93	93	92	94	96	98	98	98	98	98	98	97.7	15.7
15	100	100	100	99	99	98	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.7	15.7
16	100	100	100	100	100	100	100	100	100	87	93	84	75	77	81	83	85	83	88	90	88	88	85	87	90.9	15.2
17	86	88	87	90	85	88	92	86	87	88	89	87	85	81	91	91	88	90	89	88	88	84	84	85	87.4	13.3
18	84	85	87	87	88	89	84	79	77	78	77	76	67	62	68	76	61	71	86	82	80	82	81	81	78.7	11.5
19	83	85	86	87	89	86	87	85	87	96	94	89	92	95	93	88	94	89	89	87	73	76	81	78	87.1	12.1
20	83	77	74	82	83	90	86	78	68	54	54	51	51	66	65	56	79	80	82	76	77	75	76	81	72.6	8.9
21	81	81	87	79	83	83	83	77	71	64	60	64	57	59	58	74	77	79	82	83	81	83	85	81	75.5	8.7
22	87	87	89	87	86	87	87	82	86	79	89	88	91	91	95	98	95	94	91	89	83	82	80	88	87.8	9.7
23	79	82	86	79	72	71	70	73	70	65	64	61	62	58	59	65	63	66	63	72	67	73	80	82	70.2	9.2
24	83	83	83	84	84	80	80	76	78	78	84	81	72	65	68	63	58	67	70	72	74	80	83	83	76.2	9.6
25	70	70	65	67	69	71	74	69	67	64	64	64	62	63	64	70	70	72	72	73	75	82	79	83	70.0	9.2
26	80	86	89	93	92	88	94	95	95	97	96	95	90	87	90	93	88	81	83	75	75	75	74	63	86.8	11.9
27	74	79	75	67	68	71	74	74	76	63	59	56	54	58	58	63	66	68	68	70	76	78	84	87	68.9	9.9
28	82	85	86	87	95	96	94	91	93	94	92	90	89	92	89	90	90	92	93	95	92	94	92	91	90.9	14.0
29	93	94	96	96	97	96	95	95	91	89	89	82	82	78	80	87	88	92	90	93	90	89	89	89	90.1	13.2
30	88	89	91	87	81	81	80	80	82	80	79	81	80	86	88	89	89	89	93	95	96	96	93	89	86.7	12.4
Mean	87.3	88.5	88.6	89.2	88.7	89.5	89.0	86.9	84.2	80.8	79.6	77.0	75.2	75.7	76.6	79.0	79.6	81.1	83.4	84.4	83.5	85.1	86.2	87.2	83.6	12.2†
Vapour Pressure*	mb. 11.3	mb. 11.3	mb. 11.3	mb. 11.3	mb. 11.4	mb. 11.5	mb. 11.8	mb. 12.1	mb. 12.6	mb. 12.5	mb. 12.8	mb. 12.5	mb. 12.6	mb. 12.6	mb. 12.7	mb. 12.8	mb. 12.5	mb. 12.4	mb. 12.3	mb. 12.1	mb. 11.9	mb. 11.8	mb. 11.7	mb. 11.6	mb. 12.1‡	

108. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

OCTOBER, 1934.

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.	
1	80	79	86	83	84	86	84	84	79	69	65	61	65	69	68	69	72	71	75	82	78	84	83	82	76.7	10.6	
2	82	83	87	87	81	82	78	76	70	69	67	64	72	72	81	80	87	89	89	90	89	91	91	95	81.1	10.4	
3	93	94	91	93	95	95	89	89	80	80	76	75	77	84	84	93	95	89	82	80	84	80	84	86	86.4	10.9	
4	90	90	87	87	92	83	90	89	78	74	76	75	74	85	84	80	81	84	87	88	89	82	89	88	84.1	9.5	
5	91	93	88	82	81	74	78	74	78	73	67	69	69	67	64	70	76	78	76	79	81	81	77	77	77.0	9.5	
6	82	86	86	88	84	79	83	86	69	65	61	74	78	73	83	89	90	92	93	92	93	96	94	83.4	9.8		
7	95	95	96	96	96	90	91	93	91	82	77	70	63	62	52	53	58	68	75	74	73	79	65	64	78.0	12.5	
8	65	69	71	75	75	73	72	67	70	69	68	68	72	72	73	69	72	74	76	81	79	78	80	82	72.5	8.8	
9	91	85	74	74	79	80	72	68	62	59	55	61	63	67	70	74	80	75	76	76	73	70	82	72.6	8.0		
10	91	93	93	90	93	95	95	62	62	56	54	55	51	53	51	54	60	64	67	70	60	67	70	74	70.2	9.6	
11	83	79	81	81	85	85	84	86	79	71	71	80	64	68	68	71	69	70	72	80	83	83	73	81	76.8	10.7	
12	86	88	87	76	76	80	86	77	77	82	67	66	67	69	87	83	76	76	80	82	79	76	66	68	76.0	11.8	
13	74	77	75	70	70	73	71	72	68	70	65	54	55	65	67	78	80	82	83	83	84	89	91	89	73.9	9.3	
14	90	90	95	84	73	73	67	63	60	61	58	55	65	77	70	78	84	81	82	76	76	75	73	75	74.5	7.7	
15	76	79	86	81	78	80	87	87	94	90	88	86	88	79	81	76	79	77	74	81	86	81	75	74	81.8	8.0	
16	76	77	73	79	74	83	83	83	83	76	64	75	68	71	79	82	81	85	81	85	74	76	77	80	77.6	7.8	
17	74	77	79	81	88	90	93	94	88	86	81	79	79	80	85	96	96	96	98	94	96	96	99	92	88.0	8.8	
18	91	84	84	86	82	75	80	72	79	73	68	64	68	59	71	70	76	78	75	74	72	72	76	76	75.5	10.2	
19	69	71	67	68	71	77	74	72	74	63	64	62	68	75	78	77	83	82	81	83	85	87	89	94	75.2	9.9	
20	88	90	89	86	82	91	95	89	81	74	70	66	65	76	83	80	77	87	88	89	91	90	91	93	83.8	13.2	
21	93	95	94	90	88	90	86	82	77	74	78	77	82	85	78	83	87	75	77	82	85	88	88	90	84.4	12.6	
22	89	90	89	93	86	76	75	75	69	61	58	58	59	57	70	65	60	71	71	69	71	76	77	73	72.8	9.2	
23	74	75	71	68	80	74	75	74	73	68	66	67	61	61	61	73	78	77	80	78	80	78	78	83	72.8	7.3	
24	78	78	78	82	82	82	89	85	78	72	60	61	64	63	66	68	73	82	81	84	84	88	88	91	77.2	6.6	
25	91	91	93	91	80	82	83	88	91	95	95	98	98	99	97	95	95	96	96	96	96	94	90	93	78	92.1	10.6
26	66	69	72	67	63	63	69	72	72	65	73	67	71	72	74	71	78	79	79	83	85	83	79	78	72.9	7.6	
27	76	81	81	88	83	82	69	68	73	64	66	61	83	67	64	62	61	66	61	62	62	65	65	71	70.2	7.0	
28	74	70	66	65	65	68	68	72	73	67	61	61	58	59	66	62	68	74	77	76	75	74	75	70	68.5	6.6	
29	69	68	67	66	80	80	82	83	71	74	75	89	84	83	81	85	87	90	93	92	86	89	82	92	80.7	7.7	
30	92	79	78	84	90	88	87	68	85	79	82	84	82	78	88	95	93	94	82	89	87	91	91	91	86.7	6.7	
31	89	92	89	89	89	91	87	85	79	73	69	65	73	80	90	89	87	87	81	79	78	77	74	74	82.3	5.4	
Mean	82.5	82.2	81.7	81.6	81.5	81.3	81.4	79.2	76.2	72.1	69.2	69.3	70.5	71.8	74.6	76.5	78.7	80.3	80.6	81.4	81.2	81.5	80.8	81.8	78.3	9.2†	
Vapour Pressure*	mb. 8.9	mb. 8.8	mb. 8.7	mb. 8.7	mb. 8.6	mb. 8.5	mb. 8.5	mb. 8.6	mb. 8.8	mb. 8.8	mb. 8.9	mb. 9.1	mb. 9.3	mb. 9.5	mb. 9.6	mb. 9.6	mb. 9.5	mb. 9.5	mb. 9.3	mb. 9.2	mb. 9.0	mb. 9.0	mb. 8.8	mb. 8.8	mb. 9.0†		
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean		

RELATIVE HUMIDITY
Percentages at exact hours, Greenwich Mean Time.

109. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

NOVEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	Vapour* Pressure
Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.
1	74	74	77	77	75	77	77	75	74	74	66	66	68	80	88	84	76	72	73	73	74	73	73	72	74.7	4.9
2	74	74	75	74	74	71	69	67	66	65	68	67	67	72	74	79	78	84	84	87	87	88	88	91	74.8	5.2
3	92	94	96	96	95	96	84	60	65	60	72	82	86	87	93	89	93	94	96	93	94	94	94	94	87.4	7.1
4	91	90	96	91	94	96	96	98	94	91	89	91	84	89	93	90	94	93	90	91	94	91	88	85	91.8	9.4
5	85	85	86	84	86	84	89	92	87	92	87	88	98	96	86	89	91	93	98	94	91	93	85	91	89.5	6.9
6	93	93	91	96	96	91	85	87	90	92	74	84	74	70	71	76	84	85	88	77	86	87	90	90	85.4	6.7
7	92	93	88	90	90	90	90	90	89	96	94	94	90	95	92	92	93	93	92	90	85	76	77	76	89.7	7.2
8	74	78	80	80	80	86	85	85	87	83	75	73	67	63	55	58	64	73	75	82	77	79	77	87	75.7	5.8
9	86	78	80	78	78	84	82	87	86	84	87	83	80	76	82	86	87	88	88	88	90	93	96	94	84.7	8.0
10	93	92	86	86	87	91	98	96	92	96	96	100	95	93	95	93	87	91	86	74	73	71	72	73	88.6	10.0
11	79	81	83	86	86	88	90	91	94	96	94	93	89	89	90	90	93	94	93	91	91	91	87	89	89.2	8.8
12	87	89	90	90	90	93	90	85	85	80	77	79	79	83	87	86	90	90	93	92	96	96	94	95	88.0	7.6
13	97	96	94	94	94	95	97	94	95	97	96	90	90	87	85	87	91	88	94	92	97	100	93	93	93.2	8.2
14	92	94	92	92	94	92	91	89	89	88	87	86	85	86	84	88	92	92	93	96	96	98	96	96	91.1	6.8
15	98	98	98	98	96	98	96	94	93	92	94	91	90	86	86	93	94	96	95	93	93	93	95	92	93.9	7.5
16	92	92	95	94	95	94	94	94	90	75	73	76	78	87	88	91	94	98	94	96	96	96	96	96	90.5	8.9
17	97	94	93	91	94	92	90	89	89	86	78	74	72	73	73	79	82	88	93	93	89	94	93	92	87.1	8.1
18	90	90	91	91	91	89	89	89	91	90	85	82	85	85	87	87	92	94	90	96	85	90	88	89	89.1	7.0
19	89	90	96	91	92	97	97	95	94	89	87	87	87	83	88	88	89	91	89	96	96	99	97	98	91.7	8.8
20	90	90	96	96	94	91	89	91	89	86	83	89	86	70	73	68	89	84	64	71	70	78	81	85	83.7	8.7
21	88	90	87	85	85	88	85	87	79	82	80	79	78	70	73	77	77	75	75	76	73	76	83	84	80.5	7.5
22	83	84	86	86	91	81	81	83	90	91	85	83	84	85	85	86	90	77	94	93	93	93	80	74	86.0	10.6
23	75	78	81	81	80	84	79	77	82	81	69	61	68	65	72	77	77	74	79	78	83	86	87	90	77.3	7.1
24	92	96	94	94	94	100	95	96	94	93	86	80	78	81	81	79	83	84	87	89	86	85	84	89	88.4	7.6
25	84	83	82	83	86	81	83	84	84	82	86	83	81	85	82	65	70	67	77	85	89	86	86	82	81.6	8.5
26	83	86	86	91	92	95	93	92	87	78	78	80	70	69	63	65	66	65	68	71	70	70	67	68	77.5	10.0
27	71	77	77	82	82	78	74	79	72	73	71	74	80	85	78	69	67	68	73	78	82	78	67	69	75.1	9.5
28	66	69	70	66	64	74	74	71	72	71	69	69	67	67	71	79	74	82	83	84	83	85	86	83	73.6	8.3
29	84	86	88	87	88	93	92	90	87	88	83	79	78	83	81	83	85	85	90	91	90	91	91	89	86.6	8.6
30	87	89	92	88	77	79	79	75	73	72	73	78	84	83	82	83	86	86	86	83	82	82	82	83	81.7	8.1
Mean	85.9	86.8	87.5	87.3	87.3	88.3	87.1	86.2	85.4	84.1	81.4	81.3	80.5	80.8	81.0	81.5	84.2	84.6	86.0	86.3	86.4	87.0	85.8	86.3	84.9	7.9†
Vapour Pressure*	mb. 7.4	mb. 7.4	mb. 7.5	mb. 7.5	mb. 7.4	mb. 7.4	mb. 7.5	mb. 7.5	mb. 7.6	mb. 7.9	mb. 8.0	mb. 8.2	mb. 8.3	mb. 8.3	mb. 8.3	mb. 8.2	mb. 8.2	mb. 8.0	mb. 8.0	mb. 7.9	mb. 7.8	mb. 7.8	mb. 7.7	mb. 7.6	mb. 7.8‡	

110. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

DECEMBER, 1934

Day	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	mb.	
1	85	85	83	79	81	81	86	86	87	91	90	91	92	92	91	93	91	88	89	91	93	92	93	93	88.3	9.5
2	95	94	94	95	94	93	93	93	94	96	95	95	94	94	94	96	98	98	96	96	99	97	98	98	95.3	11.4
3	98	96	98	99	99	99	99	98	99	98	98	98	98	98	98	94	93	88	88	91	91	88	90	90	95.5	9.8
4	90	94	93	88	84	85	83	84	89	82	70	74	74	74	75	75	67	69	69	68	65	60	64	66	77.1	7.1
5	63	64	71	73	74	67	75	78	69	75	74	79	74	81	80	75	77	74	75	76	72	70	72	73	73.2	6.6
6	78	82	81	88	88	88	89	89	89	91	89	87	88	86	85	87	90	88	92	89	87	89	83	80	86.6	7.0
7	80	85	86	92	92	97	94	96	96	98	93	93	90	88	90	91	96	96	94	90	93	94	94	91	91.8	9.5
8	89	94	96	96	98	98	99	98	98	99	99	99	96	95	89	83	83	86	86	89	89	92	92	92	93.1	10.9
9	91	96	95	95	94	95	93	95	93	94	92	92	91	89	89	91	91	94	87	83	75	85	86	86	90.6	11.0
10	88	89	88	86	86	88	88	89	88	91	83	86	84	83	80	80	78	76	82	85	85	85	87	94	85.2	9.3
11	89	89	89	85	86	85	83	85	85	86	86	86	87	89	89	88	91	91	89	89	89	91	91	91	87.9	9.6
12	91	92	89	91	89	88	91	88	91	91	91	89	92	94	93	86	91	92	92	88	86	82	85	86	89.6	9.9
13	82	83	86	85	86	86	88	86	88	88	88	88	88	86	83	85	85	83	85	91	90	86	89	91	86.4	9.1
14	90	91	90	91	91	89	91	93	90	89	89	86	85	86	88	86	89	87	83	83	79	85	89	86	87.9	9.3
15	86	88	89	88	93	93	93	92	91	93	93	94	96	98	99	93	95	98	96	96	96	98	96	96	93.5	10.3
16	96	96	98	98	99	99	95	93	95	95	93	93	92	93	96	95	93	93	94	94	92	94	94	94	94.8	10.7
17	94	94	94	93	94	94	96	92	91	87	86	84	84	88	91	90	90	93	91	90	90	88	86	88	90.2	8.6
18	86	83	83	84	93	93	92	92	94	96	98	99	95	96	93	95	93	93	95	93	93	92	92	91	92.2	10.1
19	92	93	89	92	91	92	92	92	93	93	92	91	91	95	93	95	94	94	99	96	96	93	94	96	93.1	10.2
20	97	95	96	96	96	94	94	94	96	94	94	91	90	90	90	89	90	92	97	97	94	96	96	98	94.0	8.0
21	93	96	98	96	96	98	95	98	97	96	98	88	91	91	94	94	89	86	85	88	86	89	93	93	92.9	8.2
22	93	93	90	92	83	91	91	91	89	91	88	91	92	91	91	87	84	78	92	86	85	88	87	86	88.9	9.7
23	86	85	85	86	85	85	85	88	83	86	88	83	86	82	79	76	77	79	90	87	91	90	88	90	84.9	8.9
24	86	86	91	88	83	82	82	82	82	79	77	77	76	74	69	65	66	65	63	61	72	69	59	58	75.3	7.6
25	65	77	68	74	67	72	75	75	80	77	84	85	85	80	87	84	71	78	82	80	66	67	63	61	75.1	6.5
26	64	73	76	72	85	84	82	87	90	88	90	90	90	92	94	99	96	98	96	96	94	94	95	94	87.6	8.1
27	96	96	92	94	96	94	94	93	89	92	84	77	81	86	86	86	85	86	76	87	91	89	93	91	89.0	9.6
28	91	90	87	88	88	90	88	89	90	89	87	87	80	81	91	91	89	88	93	94	92	92	92	94	89.1	9.5
29	96	98	99	98	98	100	99	99	98	94	87	80	81	82	85	79	85	81	83	83	87	84	90	90	89.9	8.5
30	90	93	89	85	84	82	86	92	91	93	96	96	98	98	98	98	89	84	78	81	82	79	88	84	89.0	8.9
31	95	80	82	82	79	77	74	74	71	67	71	69	66	67	68	76	81	77	79	79	74	77	77	82	76.0	8.1
Mean	87.6	88.7	88.5	88.6	88.8	89.0	89.2	89.7	89.5	89.6	88.5	87.7	87.3	87.7	88.0	87.2	86.7	86.2	87.0	86.9	86.3	86.2	87.0	87.2	87.9	9.1†
Vapour Pressurs*	mb. 8.9	mb. 9.0	mb. 9.0	mb. 9.0	mb. 9.0	mb. 8.9	mb. 9.0	mb. 9.0	mb. 9.0	mb. 9.1	mb. 9.1	mb. 9.2	mb. 9.2	mb. 9.2	mb. 9.1	mb. 9.1	mb. 9.1	mb. 9.0	mb. 8.9	mb. 8.8	mb. 8.8	mb. 8.9	mb. 8.9	mb. 8.9	mb. 9.0‡	
Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	

RELATIVE HUMIDITY AND VAPOUR PRESSURE: ANNUAL MEANS FROM HOURLY VALUES.
For exact hours, Greenwich Mean Time.

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111. ABERDEEN: North Wall Screen on Tower: h_t (height of thermometer bulbs above the ground) = 12.5 metres.

1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Relative Humidity.	% 84.1	% 84.5	% 84.7	% 84.9	% 84.6	% 84.3	% 83.3	% 81.3	% 79.2	% 77.4	% 75.0	% 74.0	% 74.0	% 74.3	% 74.6	% 75.5	% 76.7	% 77.9	% 79.4	% 81.0	% 81.5	% 82.3	% 82.7	% 83.5	% 80.0
Vapour Pressure in millibars*.	mb. 8.9	mb. 8.8	mb. 8.8	mb. 8.8	mb. 8.8	mb. 8.8	mb. 8.9	mb. 9.1	mb. 9.2	mb. 9.4	mb. 9.5	mb. 9.5	mb. 9.6	mb. 9.6	mb. 9.6	mb. 9.6	mb. 9.5	mb. 9.5	mb. 9.5	mb. 9.3	mb. 9.2	mb. 9.1	mb. 9.0	mb. 9.0	mb. 9.2

* Computed from the mean temperature and mean relative humidity.

RELATIVE HUMIDITY: MONTHLY MEANS AND DIURNAL INEQUALITIES.
The departures from the mean of the day are adjusted for non-cyclic change.†

112. ABERDEEN: North Wall Screen on Tower: h_t = 12.5 metres.

1934.

Month	Mean	Hour 1.	Hour 2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.
Jan.	80.1	+2.7	+1.7	+1.7	+1.6	+1.1	+2.7	+2.5	+3.0	+2.5	+2.4	-0.3	-1.9	-2.9	-3.6	-3.6	-3.2	-2.4	-1.6	-1.5	-1.0	-0.7	-0.5	-0.6	+1.9
Feb.	74.2	+1.5	+1.9	+1.9	+2.4	+2.6	+3.0	+3.5	+4.1	+2.7	+1.5	-0.8	-4.8	-5.3	-5.9	-5.1	-3.8	-1.8	+0.7	+0.9	+1.1	-0.6	+0.1	+0.2	0.0
Mar.	75.1	+5.9	+5.7	+6.1	+6.0	+5.5	+4.8	+5.3	+3.3	+1.5	-4.0	-7.7	-9.0	-8.5	-6.9	-9.5	-7.2	-4.6	-2.9	-0.2	+2.3	+1.5	+3.4	+4.1	+4.8
Apr.	81.5	+5.4	+5.1	+4.9	+4.6	+3.6	+4.2	+3.2	+1.5	-2.6	-4.6	-7.5	-6.7	-5.6	-5.1	-6.0	-5.1	-4.1	-2.7	-1.5	+0.8	+3.2	+4.4	+4.7	+5.6
May	74.3	+7.7	+8.1	+8.7	+9.5	+7.9	+6.1	+3.8	-2.9	-5.3	-5.4	-6.7	-8.2	-8.7	-7.1	-7.8	-6.5	-6.3	-4.1	-1.7	+0.5	+2.7	+4.3	+5.6	+6.1
June	79.9	+6.3	+7.2	+8.0	+8.8	+6.7	+4.1	+0.8	-1.4	-3.5	-3.9	-7.7	-7.3	-6.3	-6.6	-7.1	-6.2	-4.2	-3.8	-1.6	+0.5	+2.7	+3.8	+4.9	+5.9
July	79.8	+4.5	+5.8	+6.5	+7.7	+8.2	+6.7	+4.9	+2.1	-0.8	-2.1	-4.4	-7.6	-7.2	-6.2	-6.6	-5.2	-6.4	-5.8	-3.7	-0.2	+1.7	+2.3	+2.4	+3.5
Aug.	80.5	+5.9	+6.0	+5.9	+6.0	+7.5	+6.1	+2.8	-1.0	-4.7	-7.1	-8.3	-7.6	-7.0	-8.6	-5.7	-6.3	-4.4	-2.4	+0.3	+3.0	+4.6	+4.2	+5.1	+5.7
Sept.	83.6	+3.8	+5.0	+5.1	+5.7	+5.2	+5.9	+5.5	+3.3	+0.7	-2.8	-4.0	-6.6	-8.4	-7.9	-7.0	-4.6	-4.0	-2.5	-0.3	+0.7	-0.2	+1.4	+2.5	+3.5
Oct.	78.3	+4.1	+3.7	+3.3	+3.2	+3.1	+2.9	+3.0	+0.9	-2.1	-6.2	-9.1	-9.0	-7.7	-6.4	-3.5	-1.7	+0.5	+2.2	+2.5	+3.3	+3.1	+3.5	+2.8	+3.8
Nov.	84.9	+1.1	+1.9	+2.7	+2.4	+2.5	+3.4	+2.2	+1.3	+0.5	-0.8	-3.6	-3.7	-4.5	-4.2	-4.0	-3.5	-0.8	-0.5	+1.0	+1.3	+1.3	+1.9	+0.7	+1.2
Dec.	87.9	-0.3	+0.8	+0.7	+0.7	+0.9	+1.1	+1.3	+1.6	+1.7	+1.8	+0.6	-0.2	-0.6	-0.2	+0.1	-0.7	-1.2	-1.6	-0.9	-0.9	-1.5	-1.6	-0.9	-0.7
Year	80.0	+4.0	+4.4	+4.6	+4.9	+4.6	+4.3	+3.2	+1.3	-0.8	-2.6	-5.0	-6.1	-6.0	-5.8	-5.5	-4.5	-3.3	-2.1	-0.6	+0.9	+1.5	+2.3	+2.6	+3.4

† See page 21

RAINFALL: ANNUAL TOTALS OF HOURLY VALUES.

Amounts, in millimetres; durations, in hours, for periods of sixty minutes between the exact hours, Greenwich Mean Time.

113. ABERDEEN: H_r = 24.1 metres + 0.6 metres.

1934.

Hour G. M. T.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to Noon	Noon to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	24 to 25
Amount.	mm. 24.0	mm. 21.6	mm. 29.6	mm. 32.3	mm. 34.9	mm. 33.4	mm. 28.1	mm. 23.3	mm. 25.5	mm. 49.0	mm. 45.5	mm. 38.9	mm. 47.8	mm. 52.7	mm. 56.6	mm. 53.6	mm. 56.0	mm. 35.5	mm. 32.1	mm. 30.4	mm. 25.9	mm. 23.4	mm. 21.2	mm. 26.7	mm. 848.0
Duration.	hr. 24.1	hr. 25.4	hr. 26.0	hr. 23.9	hr. 25.9	hr. 31.4	hr. 31.6	hr. 24.1	hr. 26.3	hr. 28.5	hr. 26.6	hr. 28.0	hr. 34.8	hr. 32.0	hr. 30.7	hr. 31.5	hr. 35.6	hr. 33.1	hr. 23.9	hr. 27.5	hr. 26.3	hr. 27.5	hr. 25.2	hr. 25.0	hr. 674.7

NOTES ON RAINFALL.

114. ABERDEEN.

1934.

Notable Falls of the Year.

The outstanding fall of the year was one of 60 mm. on April 11th.-12th.; 57 mm. of this amount fell on the latter day. It was the culminating fall of the wet period referred to below. On the 12th. April 5 mm. of rain fell in 33 min., 10 mm. in 1 hr. 24 min., and 25 mm. in 3½ hrs. Other heavy falls were 27 mm. on April 8th. and 40 mm. in 29 hours on August 28th.-29th. The shortest durations of falls of 5 mm. were 6 mins. on August 10th., during minor line-squall; 8 mins. on September 9th.; and 12 mins. on July 7th. There was no record of 10 mm. falling in less than 1 hr.

Dry Periods.

(Periods of 7 days or over with no rainfall or with trifling amounts.)

Jan. 20 - 26 No rain for 7 days.

Feb. 9 - 17 " " " 9 "

Mar. 1 - 9 " " " 9 "

May 27 - June 6. " " " 11 "

A "partial drought" existed from Jan. 18 - Feb. 24. In these 36 days only 6.6 mm. of rain fell.

Wet Periods.

April 8 - 12 In these five days 118.2 mm. of rain fell.

May 15 - 18 In these four days 49.6 " " " "

Rate of Rainfall.
(Jardi Recorder.)

The highest instantaneous rate of rainfall was 113 mm./hr. at 14h. 20m. on August 10th. The maximum rate exceeded 50 mm./hr. on January 11th., June 28th., July 7th., August 3rd., 10th., September 9th., 26th and October 4th.

115. ABERDEEN: H_T (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_T (height of receiving surface above ground) = 24.1 metres + 0.6 metres.

[illegible]

116. ABERDEEN: $H_r = 24.1$ metres + 0.6 metres.

FEBRUARY, 1934.

Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1	6	1																									1-2		
2															2	(...)	(...)	1	1	(...)	(...)	(...)	(...)				0-7	1-2	
3				(...)	(...)	(...)	1	(...)	(...)	(...)	(...)	(...)															0-4	1-9	
4																											0-1		
5																													
6																													
7																													
8	(...)			2										3	6†		1		1						4†	3	0-7	0-5	
9																											1-3	0-9	
10																													
11																													
12																													
13																													
14																													
15																													
16																													
17																													
18																													
19																													
20						(...)		(...)	1	(...)	(...)	(...)	(...)	(...)	(...)	(...)	(...)										0-1	0-1	
21																													
22																													
23																													
24																													
25								(...)	2				(...)	(...)	5†		(*)	(*)	(*)		1	(*)	(*)				0-8	1-1	
26	(*)	(*)	1	(*)	(*)	...	(*)	(*)	(*)	(*)	1	1	2	1	2	1	2	1	2	1	2	(*)					1-4	4-4	
27											7	2	1	1	4†	(*)	9		(*)	(*)							2-4	2-4	
28			3	2	6	4	2	2	(*)		1-8	2-1†	1-3	4	6	6											8-7	8-5	
Sum	0-6	0-1	0-4	0-4	0-6	0-4	0-3	0-2	0-3	...	2-6	2-4	1-9	1-4	1-7	0-8	1-2	0-3	0										

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.)

MARCH, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

APRIL: 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more)

MAY, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.)

JUNE, 1934.

† Hour of occurrence of the maximum rate of fall (5mm/hr. or more.)

JULY, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.)

AUGUST, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

Amounts in millimetres, for periods of sixty minutes, between the exact hours, Greenwich Mean Time.

123. ABERDEEN: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 24.1 metres + 0.6 metres.

SEPTEMBER, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

124. ABERDEEN: $H_r = 24.1 \text{ metres} + 0.6 \text{ metres.}$

OCTOBER, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

NOVEMBER, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

DECEMBER, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

JANUARY, 1934.

FEBRUARY, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	--	--	--	--	...	...	.3	-.5	-.1	-.5	-.4	-.3	...	...	--	--	--	--	2-1	25
2	--	--	--	--	...	...	...	...	...	...	...	...	...	...	--	--	--	--	...	...
3	--	--	--	--	...	...	...	...	...	...	...	...	...	...	--	--	--	--	...	...
4	--	--	--	--	...	...	-.4	-.1	...	...	...	...	...	...	--	--	--	--	0-5	6
5	--	--	--	--	...	.3	1-0	-.8	1-0	1-0	1-0	1-0	-.6	...	--	--	--	--	6-7	78
6	--	--	--	--	...	...	-.1	...	...	-.1	...	...	...	...	--	--	--	--	0-2	2
7	--	--	--	--	...	...	...	...	...	...	-.1	-.3	...	...	--	--	--	--	0-4	5
8	--	--	--	--	...	...	-.1	-.8	-.8	-.8	-.6	-.8	...	...	--	--	--	--	3-9	44
9	--	--	--	--	...	...	-.2	...	...	...	...	...	...	...	--	--	--	--	0-2	2
10	--	--	--	--	...	...	-.1	-.5	-.1	...	-.8	1-0	1-0	...	--	--	--	--	3-5	39
11	--	--	--	--	...	...	-.5	-.6	-.1	-.3	-.9	1-0	-.6	...	--	--	--	--	4-0	44
12	--	--	--	--	...	.3	-.6	-.8	1-0	1-0	1-0	1-0	-.6	...	--	--	--	--	6-3	68
13	--	--	--	--	...	-.7	-.9	1-0	1-0	1-0	1-0	1-0	-.5	...	--	--	--	--	7-1	77	
14	--	--	--	--	...	...	-.4	-.1	...	...	...	-.5	1-0	...	--	--	--	--	2-0	22
15	--	--	--	--	...	.1	...	...	...	...	...	...	...	...	--	--	--	--	0-1	1
16	--	--	--	--	...	.5	1-0	1-0	1-0	1-0	1-0	1-0	-.5	...	--	--	--	--	7-0	74
17	--	--	--	--	...	...	...	-.1	-.1	-.7	-.3	-.8	-.3	...	--	--	--	--	2-3	24
18	--	--	--	--	...	-.1	-.9	1-0	1-0	-.9	-.4	-.4	-.2	...	--	--	--	--	4-8	50	
19	--	--	--	--	.1	1-0	1-0	1-0	-.9	...	1-0	1-0	-.8	-.2	--	--	--	--	7-8	80	
20	--	--	--	--	...	...	...	...	...	...	...	-.2	...	...	--	--	--	--	0-2	2
21	--	--	--	--	...	-.1	-.4	...	...	...	...	-.1	-.4	-.5	--	--	--	--	1-5	15
22	--	--	--	--	...	...	...	...	-.6	-.2	-.7	-.6	...	...	--	--	--	--	2-1	21
23	--	--	--	--	...	.3	-.4	1-0	1-0	1-0	1-0	1-0	-.7	...	--	--	--	--	6-4	64
24	--	--	--	--	...	...	...	...	...	...	...	...	...	...	--	--	--	--	...	...
25	--	--	--	...	.1	...	1-0	-.5	-.7	-.2	-.3	-.2	-.5	-.2	...	--	--	--	3-7	36
26	--	--	--	...	...	-.2	-.6	-.5	-.1	-.2	-.6	-.5	-.6	...	...	--	--	--	3-3	32
27	--	--	--	...	...	-.2	-.8	-.1	-.4	...	-.1	-.6	...	...	--	--	--	--	2-4	23
28	--	--	--	...	-.2	1-0	-.8	-.1	...	-.2	-.6	..	-.8	-.3	...	--	--	--	4-0	38	
Sum.	--	--	--	...	0-4	4-8	11-5	10-5	9-9	10-0	11-7	13-1	9-4	1-2	...	--	--	--	82-5	--	
Mean.	--	--	--	...	.01	.17	.41	.37	.35	.36	.42	.47	.34	.04	...	--	--	--	2-95	31
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

125

129. ABERDEEN: h_s (height of recorder above ground) = 20.7 metres.

MARCH, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	0.1	1
2	---	---	---	---	---	---	1.0	.6	1.0	1.0	1.0	1.0	.6	1.0	---	---	---	---	7.1	67
3	---	---	---	---	---	9	1.0	1.0	1.0	1.0	1.0	1.0	.9	---	---	---	---	---	8.8	82
4	---	---	---	---	---	---	---	---	---	---	1	1	---	1	---	---	---	---	0.3	3
5	---	---	---	---	.5	.8	.3	.3	.2	.6	.1	.5	---	.1	---	---	---	---	3.4	31
6	---	---	---	---	.3	1.0	.9	.8	.2	.6	---	.1	---	---	---	---	---	---	3.9	36
7	---	---	---	---	.4	.2	.1	---	---	.4	.2	1.0	.6	.8	---	---	---	---	3.7	34
8	---	---	---	---	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.9	.5	---	---	---	---	9.4	85
9	---	---	---	---	.2	.7	1.0	1.0	1.0	1.0	.6	.1	.5	---	---	---	---	---	6.1	54
10	---	---	---	---	---	---	---	---	.1	.1	.5	.4	.1	---	---	---	---	---	1.2	11
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	.5	.9	1.0	.7	.1	.7	.8	.7	.3	---	---	---	---	5.7	50
14	---	---	---	---	.9	1.0	1.0	.9	1.0	1.0	.8	.5	.1	---	---	---	---	---	7.2	62
15	---	---	---	---	---	---	---	---	---	---	.1	.4	.2	---	---	---	---	---	0.7	6
16	---	---	---	---	---	.6	.4	.9	1.0	1.0	.9	.7	.3	---	---	---	---	---	5.8	50
17	---	---	---	---	.6	.8	1.0	.7	.6	---	.6	.8	.8	.1	---	---	---	---	5.8	49
18	---	---	---	---	.2	1.0	.9	1.0	.4	.2	.1	.2	.1	.2	.8	.2	---	---	5.3	45
19	---	---	---	---	.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.8	---	---	---	---	9.9	83
20	---	---	---	---	---	---	---	---	---	---	.2	.1	.2	.2	---	---	---	---	0.7	6
21	---	---	---	.3	.4	.9	.9	.4	.2	---	.1	---	---	---	---	---	---	---	3.2	26
22	---	---	---	---	.1	.3	.9	1.0	.5	.9	.3	.8	1.0	.2	.1	---	---	---	6.1	50
23	---	---	---	---	---	---	.6	.3	.2	1.0	1.0	1.0	1.0	1.0	---	---	---	---	6.1	50
24	---	---	---	---	---	.1	.7	1.0	1.0	.9	.8	1.0	1.0	1.0	.6	---	---	---	7.9	64
25	---	---	---	.2	1.0	1.0	1.0	1.0	1.0	1.0	.3	.1	---	.1	---	---	---	---	6.7	54
26	---	---	---	---	---	.1	---	.8	---	---	.5	.5	.8	.7	.3	---	---	---	3.5	28
27	---	---	---	.5	1.0	1.0	1.0	1.0	.9	.7	.6	.6	.2	.9	.2	---	---	---	8.6	68
28	---	---	---	.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.4	---	---	---	<u>10.8</u>	<u>85</u>
29	---	---	---	.4	.9	.3	---	---	---	---	---	---	---	---	---	---	---	---	1.6	13
30	---	---	---	---	---	---	---	---	---	.1	---	---	---	---	---	---	---	---	0.1	1
31	---	---	---	---	---	.6	.9	.7	.1	---	.2	---	.2	---	---	---	---	---	2.7	21
Sum.	---	---	---	2.1	10.3	14.7	<u>17.6</u>	16.6	14.0	14.5	13.6	14.6	12.1	10.5	1.8	---	---	---	142.4	---
Mean.	---	---	---	.07	.33	.47	<u>.57</u>	.54	.45	.47	.44	.47	.39	.34	.06	---	---	---	4.59	39

130. ABERDEEN: h_s = 20.7 metres.

APRIL, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	
1	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6.6	51
2	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.8	37
3	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.4	56
4	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.4	26
5	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.3	54
6	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.2	54
7	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.8	58
8	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.6	4
9	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.8	6
10	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.1	22
14	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11.3	79
18	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11.4	80
19	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.4	31
20	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5.8	40
22	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.8	88
23	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.7	32
24	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.0	20
25	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.5	3
26	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.4	29
27	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.8	32
28	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.5	10
29	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.9	19
30	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.2	14
	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9.6	63
Sum.	--	...	4.4	7.3	9.0	12.4	11.8	12.6	12.5	11.7	11.7	9.7	9.7	8.7	5.0	1.8	...	--	128.3	--	--
Mean.	--	...	.15	.24	.30	.41	.39	.42	.42	.39	.39	.32	.32	.29	.17	.06	...	--	4.28	30	30
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

131. ABERDEEN: h_s (height of recorder above ground) = 20.7 metres.

MAY, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	.5	1.0	1.0	1.0	.7	.4	.7	.8	.6	.3	.2	---	---	---	---	---	7.2	46
3	---	---	.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.4	.8	.6	.2	---	---	---	---	9.5	61
4	---	---	---	---	.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.1	---	---	10.6	68
5	---	---	---	.9	1.0	1.0	.8	.1	---	---	---	---	.3	1.0	1.0	1.0	.2	---	7.3	46
6	---	---	.6	1.0	.5	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	13
7	---	---	---	.1	.5	1.0	.9	1.0	1.0	.9	.9	1.0	.7	.9	.9	1.0	.2	---	11.0	69
8	---	---	.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1
9	---	---	---	.1	---	---	.3	.3	.2	---	.2	.1	.4	1.0	.9	.9	.4	---	4.8	30
10	---	---	---	.4	1.0	1.0	.8	1.0	.9	.9	.8	.4	---	---	---	---	---	---	7.2	45
11	---	---	---	---	---	.1	.5	.7	.9	1.0	1.0	1.0	1.0	.2	---	.7	.3	---	7.4	46
12	---	---	---	---	---	---	---	---	---	---	.4	.1	---	---	---	---	---	---	0.5	3
13	---	---	.5	.2	.3	---	---	.3	.6	1.0	.4	.5	.2	.8	.7	---	---	---	5.5	34
14	---	---	.3	.5	.7	1.0	.9	.7	.8	1.0	1.0	.6	.1	---	---	---	---	---	7.6	47
15	---	---	---	---	---	.5	.4	.1	.4	---	---	---	---	---	---	---	---	---	1.4	9
16	---	---	---	---	---	---	.4	.2	.2	---	.9	1.0	1.0	1.0	.5	.5	.1	---	5.8	35
17	---	---	.1	---	---	---	---	---	.3	1.0	1.0	1.0	1.0	1.0	.9	1.0	.8	---	8.1	49
18	---	---	.6	1.0	1.0	.9	.7	.3	.3	.1	---	---	---	---	.3	.4	---	---	5.6	34
19	---	---	---	---	---	---	---	---	---	---	---	.1	.6	.9	1.0	.9	.6	---	4.1	25
20	---	---	.2	.4	1.0	1.0	1.0	.9	1.0	.5	.5	1.0	.9	.9	.7	.9	.4	---	11.3	68
21	---	---	.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.8	.6	.4	---	---	11.9	71
22	---	---	---	.1	---	.1	.1	.4	.4	1.0	1.0	1.0	.3	1.0	.8	.7	---	---	6.7	40
23	---	---	---	---	---	.6	.2	---	---	---	---	.1	---	---	.3	.2	---	---	1.4	8
24	---	.8	1.0	.5	.8	.9	.9	.9	.1	.2	---	---	---	---	---	---	---	---	6.1	36
25	---	.2	.5	.7	1.0	1.0	.6	.9	.7	.5	.1	.7	.6	.2	.1	.8	.1	---	8.7	51
26	---	.5	.8	.8	.9	1.0	.9	1.0	.8	.8	.1	---	---	---	---	---	---	---	7.6	44
27	---	---	---	---	---	---	---	---	---	.2	---	---	.2	.1	---	---	---	---	0.5	3
28	---	---	---	.3	.5	---	---	---	---	---	---	---	---	.2	.9	.3	---	---	2.2	13
29	---	---	---	---	---	---	---	---	---	---	---	.2	---	.6	.1	.1	---	---	1.0	6
30	---	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.9	.6	---	---	---	---	12.2	71
31	---	---	---	.4	.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.5	---	<u>12.5</u>	<u>72</u>
Sun.	---	2.2	6.8	11.4	14.3	<u>16.1</u>	15.1	14.2	14.3	14.9	13.3	13.9	12.0	13.4	11.5	10.9	3.6	---	187.9	--
Mean.	---	.07	.22	.37	.46	<u>.52</u>	.49	.46	.46	.48	.43	.45	.39	.43	.37	.35	.12	---	6.06	37

132. ABERDEEN: h_s = 20.7 metres.

JUNE, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	---	---	7	1.0	1.0	1.0	1.0	1.0	3	---	6	1.0	1.0	1.0	1.0	1.0	8.6	49
2	---	---	---	2	7	---	4	2	9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.5	60
3	---	3	1.0	1.0	1.0	9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	6	---	---	---	12.8	74
4	---	---	---	---	---	5	---	9	---	---	---	---	---	---	---	---	---	---	2.4	14
5	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1
6	---	6	1.0	1.0	1.0	1.0	1.0	8	1.0	1.0	1.0	1.0	1.0	1.0	4	1	---	---	12.9	73
7	---	---	---	6	8	---	5	2	1	5	1.0	7	---	---	---	---	---	---	5.1	29
8	---	---	---	---	---	---	---	---	---	---	1	1.0	2	---	2	---	---	---	1.5	8
9	---	2	9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8	1	1.0	6	---	13.6	7
10	---	2	1.0	1.0	1.0	9	1.0	1.0	1.0	1.0	1.0	1.0	9	8	6	---	---	---	12.4	71
11	1	1.0	1.0	1.0	1.0	1.0	1.0	7	8	9	1.0	1.0	1.0	1.0	1.0	8	2	---	14.5	82
12	---	---	1	---	8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2	13.1	74
13	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8	1	---	---	---	---	---	---	10.0	56
14	---	---	---	---	---	---	---	---	---	---	2	1	---	---	---	---	---	---	0.3	2
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	5	4	1	---	---	2	---	3	1.0	1.0	1.0	1.0	9	5	4	---	7.3	41
17	---	---	---	1	2	5	9	1.0	1.0	8	6	7	1.0	1.0	9	1	---	---	8.6	48
18	---	4	1.0	1.0	8	1.0	3	8	9	8	6	2	---	1	---	---	---	---	7.9	44
19	---	---	---	---	---	---	---	---	---	4	4	7	---	1	3	5	---	---	2.4	13
20	---	---	1	1	---	---	2	2	3	6	1.0	1.0	1.0	1.0	8	9	7	---	7.9	44
21	---	---	---	---	1	1	---	6	4	2	5	2	3	3	---	---	---	---	2.7	15
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	5	1.0	1.0	7	1	2	1	4	1.0	1.0	9	1.0	1.0	1.0	9	4	---	11.2	63
24	---	1	4	---	---	1	1	---	2	1.0	4	2	4	1	---	2	8	---	4.0	22
25	---	---	---	1	8	6	8	1	3	8	3	---	---	---	---	---	---	---	3.8	21
26	---	---	4	1.0	1.0	1.0	1.0	1.0	1.0	8	1.0	1.0	---	---	---	---	---	---	9.2	52
27	3	8	4	---	1	7	1.0	1.0	4	---	---	2	6	9	6	---	---	---	7.0	39
28	---	---	1	1	2	---	---	1	1	---	2	---	8	9	---	8	2	---	4.6	26
29	---	1	6	6	1	---	---	3	4	9	1.0	1.0	1.0	1.0	1.0	4	1	---	8.6	48
30	---	---	1	2	1	---	---	---	---	---	---	1	---	---	---	2	7	---	1.4	8
Sum.	0.5	5.2	10.6	11.4	13.3	12.5	14.3	14.2	14.2	16.8	17.4	16.4	15.5	15.0	12.3	8.4	6.1	0.3	204.4	--
Mean.	.02	.17	.35	.38	.44	.42	.48	.47	.47	.56	.58	.55	.52	.50	.41	.28	.20	.01	6.81	38
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

127

133. ABERDEEN: h_g (height of recorder above ground) = 20.7 metres.

JULY, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	5.5	31
2	3.2	18
3	2.4	14
4	2.6	15
5	14.8	84
6	7.3	41
7	4.0	23
8	15.2	87
9	15.6	89
10	2.9	17
11	10.8	62
12	3.9	22
13	6.2	38
14	0.2	1
15	8.3	48
16	4.7	27
17	10.2	60
18	3.3	19
19	9.0	53
20	3.4	20
21	0.3	2
22	0.1	1
23	5.2	31
24	10.8	65
25	7.0	42
26	3.5	21
27	8.1	49
28	1.3	8
29	3.6	22
30	4.4	27
31	8.0	49
Sum.	...	3.4	5.8	6.7	10.4	11.9	12.8	14.5	16.4	15.5	14.0	12.9	14.0	15.0	14.8	11.6	5.7	0.4	185.8	—
Mean.11	.19	.22	.34	.38	.41	.47	.53	.80	.45	.42	.45	.48	.48	.37	.18	.01	5.99	35

134. ABERDEEN: h_g = 20.7 metres.

AUGUST, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	...	...	5	1-0	1-0	8	7	1-0	1-0	8	7	8	6	5	9	1	...	...	10-4	64
2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	0-1	1
3	...	...	...	...	...	1	...	...	...	1	4	4	3	7	6	...	...	...	2-6	18
4	---	3	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	8	---	---	14-1	88
5	---	...	7	1-0	1-0	1-0	1-0	8	1-0	1-0	5	2	...	3	9	9	2	---	10-5	66
6	---	...	...	7	1-0	1-0	9	2	...	...	1	1	...	...	...	...	---	---	4-0	25
7	---	...	...	...	...	...	...	...	4	6	7	...	7	1-0	6	1	...	---	4-1	26
8	---	...	...	4	1	1	1	...	...	...	1	1	...	...	...	...	---	---	0-9	6
9	---	2	5	...	2	5	5	1	3	8	2	5	7	...	5	4	...	---	5-4	33
10	---	...	1	3	6	6	1	1	...	...	...	...	...	2	1	2	...	---	2-3	15
11	---	...	2	9	1-0	8	3	1	...	1	4	9	4	...	...	...	---	---	5-1	33
12	---	...	...	...	5	1-0	9	9	7	3	5	4	4	4	2	...	---	---	6-2	40
13	---	...	...	...	...	...	1	...	3	8	1-0	7	7	1	...	...	---	---	3-7	24
14	---	...	1-0	1-0	6	2	...	...	1	1	8	7	6	6	9	8	---	---	7-4	48
15	---	...	...	...	...	...	6	...	...	...	...	1	2	3	5	3	1	---	2-1	14
16	---	...	9	1-0	1-0	1-0	1-0	4	8	9	6	8	3	1	...	...	---	---	8-8	58
17	---	...	2	8	7	9	6	5	5	7	1-0	1	6	3	...	...	---	---	6-9	46
18	---	...	...	...	...	...	2	5	...	...	4	4	2	...	...	...	---	---	1-7	11
19	---	...	5	1-0	1-0	1-0	9	8	...	3	2	5	9	2	...	...	---	---	7-3	49
20	---	...	...	1	...	...	4	...	...	...	...	...	...	...	...	...	---	---	0-6	4
21	---	...	...	...	...	...	...	...	...	...	...	...	6	1-0	1-0	3	---	---	2-9	20
22	---	...	5	...	1	9	1-0	1-0	1-0	9	9	1-0	1-0	1-0	1-0	1	---	---	10-4	71
23	---	...	8	1-0	6	3	1	...	5	1	2	5	7	5	...	...	---	---	5-3	35
24	---	...	...	1	1-0	8	1-0	5	7	1	1	8	9	8	8	...	---	---	7-4	51
25	---	...	...	3	1-0	1-0	1-0	8	4	2	5	5	9	1	...	...	---	---	6-7	46
26	---	...	5	7	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	7	...	---	---	11-9	83
27	---	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	---	---	0-4	3
28	---	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	---	---	0-1	1
29	---	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	...	...
30	---	...	...	9	1-0	1-0	1-0	1-0	1-0	1-0	1-0	9	1-0	9	6	...	---	---	11-3	80
31	---	---	3	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	7	...	---	---	12-0	86
Sum.	...	0-5	7-7	13-3	15-4	15-9	15-4	12-0	11-8	11-8	13-3	13-5	14-7	12-0	11-0	4-0	0-3	...	172-6	---
Mean.	...	.02	.25	.43	.50	.51	.50	.39	.38	.38	.43	.44	.47	.39	.35	.13	.01	...	5-57	37
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

135. ABERDEEN: h_s (height of recorder above ground) = 20.7 metres.

SEPTEMBER, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	...	.1	.2	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.5	...	---	---	9.5	68
2	---	---	...	.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.6	...	---	---	---	10.2	73
3	---	---	...	...	.8	1.0	.7	.9	.9	.7	.6	.8	.7	.1	.3	...	---	---	7.5	54
4	---	---	...	.4	1.0	.6	.7	.4	.5	1.0	1.0	1.0	.5	.3	.7	...	---	---	8.1	59
5	---	---	...	...	...	.6	1.0	.7	.5	.4	1.0	.5	.1	.7	.6	...	---	---	6.1	45
6	---	---	...	.2	1.0	.9	.6	.9	.9	.9	.8	.9	.5	...	...	---	---	---	7.6	56
7	---	---	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	---	...	...
8	---	---	...	...	...	.5	1.0	1.0	1.0	.9	1.0	1.0	1.0	.8	.6	...	---	---	8.8	66
9	---	---	...	...	...	.5	.9	1.0	1.0	.9	...	.5	.3	.9	.3	...	---	---	6.3	47
10	---	---	...	.6	1.0	.9	.9	1.0	.5	.5	.1	...	.2	.1	...	---	---	---	5.8	44
11	---	---	...	...	...	...	.1	.4	.6	1.0	1.0	1.0	.9	.3	...	---	---	---	5.3	40
12	---	---	...	.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.3	.3	...	---	---	10.5	81
13	---	---	...	...	...	.2	1.0	1.0	1.0	1.0	.1	.2	.1	...	...	---	---	---	4.6	35
14	---	---	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	---	...	...
15	---	---	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	---	...	...
16	---	---	...	...	...	...	.3	.8	.7	.9	1.0	.1	.9	1.0	.2	...	---	---	5.9	46
17	---	---	...	...	...	.6	...	...	...	.2	...	...	...	.2	.2	...	---	---	1.2	9
18	---	---	...	.4	1.0	.8	...	.4	.9	.9	.9	1.0	1.0	1.0	.6	...	---	---	8.9	71
19	---	---	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	---	...	...
20	---	---	...	...	.6	1.0	1.0	1.0	1.0	.9	.2	.2	...	...	...	---	---	---	5.9	48
21	---	---	...	.4	.9	1.0	.8	.4	.3	.7	.5	.6	.1	...	...	---	---	---	5.6	46
22	---	---	...	...	...	...	...	...	...	...	...	...	...	...	...	---	---	---	...	...
23	---	---	...	.1	.1	.4	.3	.6	1.0	1.0	1.0	1.0	1.0	.9	...	---	---	---	7.4	61
24	---	---	...	...	...	...	...	...	...	...	.2	1.0	.8	1.0	.4	---	---	---	3.4	28
25	---	---	---	.1	.1	.7	1.0	1.0	1.0	.7	.2	...	...	...	...	---	---	---	4.8	40
26	---	---	---	...	...	...	...	...	...	.5	.4	.5	...	...	...	---	---	---	1.4	12
27	---	---	---	...	...	.8	.9	.5	.8	.9	.4	.6	...	.8	...	---	---	---	5.7	48
28	---	---	---	...	...	...	...	...	...	.1	...	.1	...	...	...	---	---	---	0.2	2
29	---	---	---	...	...	.1	...	...	...	...	...	...	...	...	...	---	---	---	0.1	1
30	---	---	---	...	...	.8	.8	...	.1	.7	.2	...	...	...	...	---	---	---	2.6	22
Sum.	---	---	...	3.1	8.6	14.1	15.0	15.0	15.7	17.8	13.6	14.0	11.1	10.7	4.7	...	---	---	143.4	---
Mean.	---	---	...	.10	.29	.47	.50	.50	.52	.59	.45	.47	.37	.36	.16	...	---	---	4.78	37

136. ABERDEEN: h_s = 20.7 metres.

OCTOBER, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	
1	---	---	---1	.8	1.0	1.0	.7	.5	.8	.6	---	---	---	5.5	48
2	---	---	---	...	...	...	...	...	.3	.3	...	...	...	...	...	---	---	---	0.6	5
3	---	---	---	...	...	.2	.3	.5	.1	...	...	...	...	...	...	---	---	---	1.1	10
4	---	---	---	...	...	.5	.4	...	...	...	.1	...	...	...	---	---	---	1.0	9	
5	---	---	---	...	.6	1.0	1.0	1.0	.6	.5	.2	...	.3	.1	...	---	---	---	5.3	47
6	---	---	---	...	.5	1.0	1.0	1.0	.2	...	...	...	...	...	...	---	---	---	3.7	32
7	---	---	---	...	...	.2	.9	.2	.9	.7	.6	.4	.2	.4	...	---	---	---	4.5	45
8	---	---	---	...	1.0	1.0	1.0	1.0	1.0	.9	.1	.1	...	...	---	---	---	---	6.1	55
9	---	---	---	...	.1	.7	.1	.2	.7	.7	1.0	1.0	.6	.9	...	---	---	---	6.0	55
10	---	---	---	...	.6	.9	.4	1.0	1.0	1.0	1.0	1.0	1.0	.7	...	---	---	---	8.6	80
11	---	---	---	...	.4	...	...	.1	...	...	...	...	...	...	...	---	---	---	0.5	5
12	---	---	---	...	...	...	...	...	.1	.8	.2	...	...	...	...	---	---	---	1.1	10
13	---	---	---	...	...	...	.1	...	.8	1.0	.4	...	...	...	---	---	---	---	2.3	22
14	---	---	---	...	.7	1.0	1.0	1.0	1.0	.5	.1	...	...	...	---	---	---	---	6.3	60
15	---	---	---	...	.3	...	.1	.5	.2	.3	.4	.1	.1	...	...	---	---	---	2.0	19
16	---	---	---	...	...	.2	.8	.9	1.0	.7	...	...	...	...	...	---	---	---	3.6	35
17	---	---	---	...	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
18	---	---	---	...	...	...	...	...	...	...	.2	.6	.1	...	...	---	---	---	0.9	9
19	---	---	---	...	...	...	.2	.9	1.0	1.0	.7	.1	...	...	---	---	---	---	3.9	39
20	---	---	---	...	...	...	.8	1.0	1.0	.9	.7	.1	.2	...	---	---	---	---	4.7	47
21	---	---	---	...	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
22	---	---	---	...	.4	1.0	1.0	1.0	.4	.5	.5	.7	.7	...	---	---	---	---	6.2	63
23	---	---	---	...	.3	1.0	1.0	.8	.6	1.0	1.0	.9	.6	...	---	---	---	---	7.2	73
24	---	---	---	...	.2	1.0	1.0	1.0	.7	...	...	...	...	...	---	---	---	---	3.9	40
25	---	---	---	...	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
26	---	---	---	...	.3	1.0	.9	1.0	1.0	.5	...	...	.4	.3	---	---	---	---	5.4	57
27	---	---	---	...	...	.9	.4	...	.3	.7	.7	1.0	1.0	.3	---	---	---	---	5.3	56
28	---	---	---	...	...	.2	.8	.9	.2	1.0	.9	.8	.9	.2	---	---	---	---	5.9	63
29	---	---	---	...	.1	.9	1.0	.5	.3	.1	.1	.1	.3	...	---	---	---	---	3.4	37
30	---	---	---	...	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
31	---	---	---	...	...	.9	1.0	1.0	1.0	1.0	1.0	.8	...	...	---	---	---	---	6.7	74
Sum.	---	---	---	...	5.6	14.2	16.1	16.3	15.5	15.2	11.0	8.5	6.4	2.9	...	---	---	---	111.7	---	
Mean.	---	---	---	...	.18	.46	.52	.53	.50	.49	.35	.27	.21	.09	...	---	---	---	3.60	35
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

129

137. ABERDEEN: h_s (height of record above ground) = 20.7 metres.

NOVEMBER, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	---	---	1	1.0	1.0	1.0	1.0	1.0	.9	.4	.3	...	---	---	---	---	6.7	74
2	---	---	---	---	...	.2	1.0	1.0	1.0	1.0	1.0	1.0	.5	.1	---	---	---	---	6.8	75
3	---	---	---	---	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
4	---	---	---	---	...	...	...	.9	.8	.3	...	...	...	...	---	---	---	---	2.0	23
5	---	---	---	---	...	...	.2	.9	.2	...	...	...	...	...	---	---	---	---	1.3	15
6	---	---	---	---	...	.3	.5	1.0	.7	.7	.9	.8	.3	...	---	---	---	---	5.2	60
7	---	---	---	---	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
8	---	---	---	---	...	.1	1.0	1.0	1.0	.9	1.0	1.0	.5	...	---	---	---	---	6.5	76
9	---	---	---	---	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
10	---	---	---	---	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
11	---	---	---	---	...	...	...	...	...	...	...	...	...	...	---	---	---	---	...	...
12	---	---	---	---	...	...	.3	.3	...	...	...	...	...	...	---	---	---	---	0.6	7
13	---	---	---	---	...	...	...	.2	.6	.9	.1	.5	.3	...	---	---	---	---	2.6	32
14	---	---	---	---	...	...	...	.1	...	...	...	...	...	...	---	---	---	---	0.1	1
15	---	---	---	---	---	.5	.4	...	...	.3	1.0	1.0	.3	---	---	---	---	---	3.5	44
16	---	---	---	---	---	...	.9	1.0	.1	...	...	...	...	---	---	---	---	---	2.0	25
17	---	---	---	---	---	...	...	.2	.8	1.0	1.0	.9	...	---	---	---	---	---	3.9	49
18	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
19	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
20	---	---	---	---	---	.2	1.0	.8	...	.6	1.0	1.0	.1	---	---	---	---	---	4.7	61
21	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
22	---	---	---	---	---	...	...	...	.2	.5	.4	.3	...	---	---	---	---	---	1.4	18
23	---	---	---	---	---	...	.9	1.0	1.0	1.0	.9	...	...	---	---	---	---	---	4.8	64
24	---	---	---	---	---	...	.1	.7	1.0	1.0	1.0	.3	...	---	---	---	---	---	4.1	55
25	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
26	---	---	---	---	---	...	.1	...	...	...	...	...	...	---	---	---	---	---	0.1	1
27	---	---	---	---	---	...	1.0	1.0	1.0	.2	.6	.4	...	---	---	---	---	---	4.2	58
28	---	---	---	---	---	...	.3	1.0	1.0	1.0	.6	.7	.2	---	---	---	---	---	4.8	66
29	---	---	---	---	---	...	...	.4	...	...	...	...	...	---	---	---	---	---	0.4	6
30	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
Sum.	---	---	---	---	0.1	2.3	8.7	12.5	10.4	10.4	10.4	8.3	2.5	0.1	---	---	---	---	65.7	---
Mean.	---	---	---	---	.00	.08	.29	.42	.35	.35	.35	.28	.08	.00	---	---	---	---	2.19	27

138. ABERDEEN: h_s = 20.7 metres.

DECEMBER, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
2	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
3	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
4	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
5	---	---	---	---	---	...	.2	.6	.2	.5	.2	...	...	---	---	---	---	---	1.7	25
6	---	---	---	---	---	...	.1	.6	.8	.6	...	...	...	---	---	---	---	---	2.1	30
7	---	---	---	---	---	...	...	...	.1	.1	...	...	...	---	---	---	---	---	0.3	4
8	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
9	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
10	---	---	---	---	---	...	...	.7	.9	.5	...	...	...	---	---	---	---	---	2.1	31
11	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
12	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
13	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
14	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
15	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
16	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
17	---	---	---	---	---	...	.2	.6	.9	1.0	.5	.1	...	---	---	---	---	---	3.3	50
18	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
19	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
20	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
21	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
22	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
23	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
24	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
25	---	---	---	---	---	...	...	...	...	...	.1	...	...	---	---	---	---	---	0.1	1
26	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
27	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
28	---	---	---	---	---	...	...	...	...	.2	.6	...	...	---	---	---	---	---	0.8	12
29	---	---	---	---	---	...	...	.6	1.0	1.0	1.0	.8	...	---	---	---	---	---	4.4	67
30	---	---	---	---	---	...	...	...	...	...	...	...	...	---	---	---	---	---	...	...
31	---	---	---	---	---	...	...	...	...	...	...	.6	...	---	---	---	---	---	0.6	9
Sum.	---	---	---	---	---	...	0.5	3.1	3.9	3.9	2.5	1.5	...	---	---	---	---	---	15.4	---
Mean	---	---	---	---	---	...	.02	.10	.13	.13	.08	.05	...	---	---	---	---	---	0.50	7
Annual Totals	0.5	11.3	35.3	55.3	87.4	119.7	146.5	162.7	148.5	151.0	141.7	133.7	107.6	89.5	61.1	36.7	15.7	0.7	1494.9	---
Annual Mean	.00	.03	.10	.15	.24	.33	.40	.42	.41	.41	.39	.37	.29	.25	.17	.10	.04	.00	4.10	33
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible

WIND: DIRECTION AND SPEED
Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

139. ABERDEEN: Robinson anemograph from July 1930.*

 h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	170	5.2	170	7.5	170	7.9	170	6.5	170	7.5	170	7.9	170	6.9	180	6.1	170	6.5	180	8.3	180	8.3	180	4.4
2	200	2.6	230	1.4	200	3.0	210	2.9	210	1.3	180	2.2	170	2.7	210	4.1	200	3.0	220	2.9	200	3.0	190	5.0
3	200	6.8	220	7.3	210	7.0	210	5.4	220	3.6	220	3.6	210	3.3	200	2.1	200	3.4	200	3.9	200	2.6	200	5.1
4	180	7.5	170	5.2	180	6.9	180	7.9	190	7.3	210	7.7	200	6.4	230	2.5	180	3.2	210	4.5	210	6.5	200	7.3
5	230	6.5	240	6.5	250	7.3	250	5.4	260	5.4	260	6.2	270	9.0	260	6.2	270	8.1	270	6.4	270	7.7	270	6.4
6	210	7.7	190	9.2	200	10.3	190	9.2	200	12.4	190	12.5	180	10.9	190	9.2	180	6.5	190	11.1	200	6.8	220	9.0
7	200	2.1	200	1.7	200	2.1	210	4.1	190	5.0	190	4.6	180	2.2	170	3.1	180	6.9	190	8.3	190	8.7	200	12.4
8	220	6.2	220	7.9	220	6.8	230	6.8	230	6.8	230	5.1	230	5.1	240	8.7	230	7.3	230	7.6	230	7.6	230	8.7
9	220	3.3	250	2.9	260	2.2	230	2.2	210	2.9	180	1.7	190	1.8	200	3.4	210	5.7	210	6.1	200	7.3	190	4.6
10	180	10.9	170	11.3	170	10.5	200	6.8	170	10.0	190	8.3	200	5.6	200	2.1	210	3.7	210	4.5	190	4.2	210	3.7
11	180	8.7	180	10.5	180	10.1	180	11.1	180	8.3	180	11.5	150	9.0	160	11.1	150	10.7	150	13.7	160	12.9	160	12.5
12	180	6.9	180	8.7	210	6.5	210	7.4	220	6.5	220	4.7	200	7.7	200	6.4	200	7.3	200	6.4	200	4.7	180	6.9
13	170	3.1	170	4.4	200	5.6	190	3.2	190	3.6	120	2.8	200	5.6	200	7.3	190	3.6	210	4.9	210	4.9	210	6.5
14	200	3.9	210	3.3	200	2.1	210	1.3	220	1.1	310	2.3	320	3.6	320	2.5	320	2.5	330	2.2	30	3.0	20	3.0
15	300	9.5	300	9.8	300	9.2	300	10.5	300	9.8	300	11.5	300	9.8	290	10.8	300	11.1	290	8.7	290	12.7	290	11.9
16	260	4.7	270	6.0	290	4.7	290	9.0	280	8.2	280	6.5	280	7.7	280	7.0	270	4.9	270	3.4	280	6.1	270	4.7
17	180	7.3	170	6.9	170	5.2	180	5.5	180	6.1	170	4.8	170	4.4	160	4.2	180	4.6	180	8.3	180	11.1	170	5.2
18	240	11.9	240	12.6	240	11.2	250	11.9	250	10.8	240	10.1	250	7.3	250	6.8	250	7.9	240	4.3	220	2.2	250	4.0
19	300	6.6	310	7.5	290	6.2	300	7.2	310	7.5	310	7.9	310	6.2	310	7.5	310	6.6	310	6.9	310	4.9	310	6.6
20	300	1.6	270	1.7	290	2.2	280	2.0	270	2.6	300	2.3	230	1.8	230	1.8	230	2.5	220	1.8	220	1.8	220	2.9
21	180	4.8	190	6.9	170	3.5	180	3.2	190	4.6	200	5.1	190	1.4	150	1.3	220	1.1	250	1.4	230	1.8	230	2.2
22	180	4.0	180	4.4	180	4.0	170	5.2	180	6.4	170	8.8	180	6.1	180	5.7	170	8.8	180	11.5	170	9.2	180	8.3
23	210	7.0	220	5.4	210	4.5	220	4.0	220	2.5	220	3.6	210	3.7	210	2.9	220	3.6	230	2.9	190	3.6	190	4.2
24	180	3.1	200	6.4	200	8.1	200	8.1	210	6.5	220	5.7	210	9.0	210	6.1	220	4.3	210	7.7	210	4.9	200	5.1
25	200	3.4	180	3.5	180	4.4	180	4.0	180	3.1	180	3.1	180	5.2	190	4.2	180	4.8	170	4.8	170	6.5	180	8.3
26	190	3.8	190	3.8	170	4.8	170	5.2	210	4.5	190	6.0	200	3.9	200	5.6	210	6.1	210	4.5	200	3.9	210	4.1
27	260	4.7	280	8.6	280	9.0	280	5.7	300	9.5	310	5.2	300	4.9	310	5.6	310	4.6	310	6.2	310	3.6	300	4.6
28	280	1.6	280	1.6	300	2.6	310	3.3	300	3.6	290	2.9	290	2.9	310	3.0	290	3.3	300	3.6	300	3.6	290	2.9
29	300	1.3	280	1.4	280	1.4	230	1.8	240	1.4	290	1.8	290	1.4	300	1.3	280	1.6	280	2.5	230	2.2	250	1.8
30	150	1.3	210	3.3	190	2.8	220	2.9	210	2.0	240	2.9	280	3.7	320	3.3	330	2.9	330	2.2	330	2.9	320	3.6
31	310	3.0	310	3.3	300	2.6	310	3.6	290	2.5	280	2.5	300	3.3	290	4.0	300	4.9	300	7.5	300	8.5	290	8.7
Mean	--	5.2	--	5.8	--	5.6	--	5.6	--	5.6	--	5.5	--	5.2	--	5.0	--	5.2	--	5.8	--	5.7	--	6.0

140. ABERDEEN: $h_a = 13$ metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	340	7.9	340	4.3	330	4.3	330	3.6	330	3.6	320	3.3	320	2.5	330	2.5	310	3.0	310	2.6	310	2.6	310	1.3
2	230	1.4	230	3.3	230	1.4	210	1.6	230	1.4	230	1.1	250	1.4	280	1.3	220	0.3	220	1.1	230	1.8	250	1.8
3	310	5.6	310	3.9	320	5.1	320	(5.4)	310	(3.9)	310	(3.9)	310	(3.6)	300	(3.6)	300	(3.3)	300	4.6	300	4.3	310	5.2
4	300	3.0	310	3.3	300	3.0	300	3.3	300	3.0	300	2.3	300	2.3	300	2.0	300	1.3	290	2.2	270	2.6	280	2.9
5	230	1.8	290	1.1	270	1.3	250	1.1	280	1.4	240	1.8	210	2.0	210	1.3	220	1.4	210	2.0	210	1.3	200	3.0
6	240	5.1	280	7.6	260	4.7	250	4.3	230	3.6	270	6.0	270	10.3	270	5.6	280	11.1	280	9.4	260	5.7	250	3.6
7	220	1.8	240	0.8	270	3.9	270	8.1	260	5.4	260	4.3	260	6.2	260	5.4	200	1.3	160	0.4	210	4.5	250	5.7
8	250	10.4	280	10.8	270	14.0	280	18.5	280	13.5	290	12.7	290	11.9	300	11.1	300	11.5	280	13.1	290	10.8	300	11.1
9	220	3.3	190	3.6	190	3.6	200	4.7	190	4.2	180	4.0	220	7.3	230	6.2	230	6.8	230	7.6	240	8.2	250	10.8
10	300	7.9	290	7.9	280	8.6	270	7.7	270	7.3	270	7.3	260	4.3	230	4.0	240	4.0	240	6.5	250	5.4	250	5.1
11	280	9.9	300	8.5	290	9.0	290	9.0	270	4.3	250	2.2	200	1.7	190	1.8	190	2.2	150	2.6	240	4.3	280	6.2
12	270	2.6	270	3.9	270	4.7	280	3.3	260	2.9	240	2.2	240	1.8	230	0.8	190	1.8	200	0.9	210	1.3	170	1.7
13	180	4.4	180	4.0	200	5.1	200	6.4	200	7.7	220	4.7	210	4.9	210	2.5	190	5.0	190	5.5	190	5.0	200	3.0
14	280	1.3	320	1.0	260	1.4	270	2.6	220	1.8	200	0.9	260	1.1	260	0.3	240	0.3	250	0.3	260	0.3	270	0.9
15	290	2.2	280	0.8	250	1.1	260	1.8	260	1.1	260	1.4	290	1.8	310	1.3	290	1.4	290	1.8	280	0.8	220	1.8
16	250	1.1	210	1.6	240	0.8	300	1.6	300	1.6	300	1.0	310	1.3	310	1.3	210	2.0	260	1.4	310	2.0	260	1.1
17	310	1.3	310	0.7	310	0.3	310	1.0	310	0.7	310	1.6	240	1.4	280	2.5	300	3.3	310	4.3	290	5.1	280	4.9
18	230	6.6	230	2.2	210	2.0	230	2.2	240	2.6	240	1.4	230	1.4	230	1.1	230	1.8	220	0.8	210	1.3	220	2.2
19	260	3.3	240	4.3	240	3.6	230	2.5	260	6.5	260	6.2	270	7.3	270	8.6	270	6.8	270	8.6	270	10.7	270	10.7
20	270	7.7	280	6.3	280	6.5	280	6.1	280	6.5	280	9.4	290	8.2	290	6.5	290	6.2	290	5.4	290	4.7	290	5.4
21	290	7.6	290	9.0	290	9.0	280	9.4	280	8.6	290	7.9	290	7.6	270	8.1	270	6.8	280	6.5	270	9.4	280	5.1
22	240	4.0	240	6.8	240	4.7	220	3.6	250	4.3	250	4.0	250	4.3	240	5.4	250	6.2	240	6.8	230	5.4	240	6.2
23	190	3.2	190	2.8	190	3.2	200	2.1	210	2.5	200	3.4	220	3.3	230	2.5	230	1.1	210	2.5	220	4.0	230	5.1
24	220	3.6	210	4.5	210	4.5	200	5.1	200	5.1	180	4.8	190	6.4	190	7.3	190	5.5	190	5.0	200	6.4	190	4.6
25	210	2.0	210	2.5	220	1.8	220	1.1	230	0.3	230	0.8	320	2.5	300	7.2	310	5.6	300	3.9	300	5.6	300	8.2
26	340	6.7	340	6.7	330	9.0	320	6.5	320	9.8	320	7.9	320	6.5	320	7.6	310	6.9	320	8.7	320	9.0	330	7.9
27	330	7.3	330	8.2	320	8.2	320	9.0	320	9.0	320	10.1	320	9.0	320	9.0	330	6.2	340	9.5	330	7.9	340	8.6
28	310	5.6	310	5.9	310	4.9	310	4.3	310	4.3	310	5.2	310	4.9	310	4.9	310	6.2	310	6.2	320	5.4	310	4.6
Mean	--	4.5	--	4.6	--	4.6	--	4.9	--	4.5	--	4.3	--	4.5	--	4.3	--	4.3	--	4.7	--	4.9	--	5.0
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

Averages for periods of sixty minutes, ending at the exact hours Greenwich Mean Time.

M.S.L. + h_a (height of anemograph above ground) = 13 metres + 23 metres.

JANUARY, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
210	2.0	210	1.6	140	2.5	180	3.1	190	2.8	190	3.2	220	1.4	180	3.1	170	3.1	160	6.0	200	2.6	200	2.1	4.9	1
210	2.9	200	5.6	200	5.6	180	5.2	180	5.7	200	6.8	210	7.0	200	7.3	200	8.1	190	6.0	200	4.7	230	5.1	4.3	2
210	4.1	190	5.0	200	9.4	200	6.8	190	6.9	180	6.5	180	9.6	200	8.6	190	5.5	190	5.5	200	7.3	190	7.8	5.7	3
220	6.2	220	4.3	220	5.4	230	5.4	250	5.4	240	4.7	220	4.3	230	4.0	240	5.4	230	6.2	230	5.7	230	6.5	5.7	4
260	4.7	250	2.9	230	2.9	220	2.5	210	3.3	200	3.9	230	3.6	230	2.5	190	3.6	230	3.6	190	5.0	190	6.9	5.3	5
230	7.3	230	6.2	230	2.9	260	4.7	240	5.4	220	3.3	220	2.5	240	1.1	210	1.6	110	0.4	200	3.4	200	2.1	6.5	6
220	9.4	240	6.5	260	4.7	240	4.3	240	4.7	260	4.0	250	2.5	250	3.3	230	4.7	230	5.1	220	4.0	220	4.7	5.0	7
230	8.2	240	9.0	230	6.2	240	7.3	240	5.7	250	5.4	260	5.4	260	4.7	240	4.0	220	1.8	240	2.2	250	2.9	6.1	8
210	4.5	190	6.9	190	5.5	190	7.8	180	6.4	180	7.9	170	9.2	170	10.0	180	9.2	160	8.3	180	8.7	170	10.5	5.8	9
190	5.0	180	4.4	170	4.0	170	4.8	160	5.7	160	7.3	180	6.9	180	7.8	160	7.3	160	6.9	160	6.0	160	7.8	6.5	10
160	12.5	180	11.9	180	11.9	180	11.9	160	10.5	160	11.1	150	8.6	150	9.8	180	13.7	150	12.0	170	9.6	170	5.7	10.8	11
170	8.3	170	8.3	180	7.5	170	6.1	170	6.5	180	6.9	180	6.1	190	7.3	180	5.2	180	5.7	190	7.8	180	6.5	6.8	12
210	6.1	210	5.4	210	3.7	210	5.4	210	4.9	200	3.4	210	5.4	210	4.1	220	2.5	200	6.0	200	3.9	180	3.4	4.6	13
340	4.0	330	4.0	330	4.0	330	5.4	340	4.3	330	5.1	330	6.8	330	7.6	320	7.6	320	8.2	310	8.5	300	8.9	4.9	14
290	11.5	280	11.5	280	9.4	270	8.6	280	5.1	270	5.6	260	5.1	260	5.7	260	4.7	270	5.6	280	4.1	270	6.0	8.7	15
280	6.5	270	3.4	280	2.9	230	1.4	210	2.0	210	0.9	200	1.7	190	1.4	200	4.3	170	3.1	170	3.5	160	6.4	4.6	16
200	6.4	210	11.1	240	10.8	260	9.4	250	7.3	250	8.2	240	10.1	230	9.0	230	8.7	230	7.9	230	6.8	240	11.2	7.5	17
250	2.9	250	3.6	250	2.9	260	1.8	280	2.0	290	4.0	300	2.6	300	3.0	300	2.3	290	5.4	300	5.9	300	6.6	6.0	18
300	6.9	310	5.9	310	5.9	310	6.6	300	5.9	300	4.6	300	5.6	300	3.9	310	4.3	320	7.2	300	3.3	310	3.3	6.0	19
210	2.9	220	1.4	200	3.9	210	4.1	190	4.2	200	5.1	200	6.0	200	6.8	190	9.2	190	9.2	200	6.8	190	8.3	3.9	20
230	0.8	200	2.1	180	2.7	180	3.1	190	4.2	210	4.1	190	4.2	190	5.5	190	5.0	190	4.2	180	4.4	180	3.1	3.4	21
180	9.2	180	9.2	190	6.0	180	4.4	180	7.9	180	7.9	180	6.1	180	6.9	220	3.3	200	3.9	200	8.1	210	7.7	6.8	22
190	2.8	190	3.6	190	6.0	180	2.7	190	3.6	190	5.5	180	5.2	180	5.7	180	5.2	190	4.6	190	3.6	170	3.1	4.1	23
200	5.1	190	6.9	180	5.7	200	6.0	190	6.4	190	6.4	210	4.1	190	6.4	200	7.3	200	7.7	190	6.4	200	4.7	6.2	24
160	6.4	160	6.4	160	6.0	160	5.5	190	3.6	190	4.6	190	4.2	170	3.6	180	4.8	170	5.7	170	4.0	190	4.6	4.8	25
210	6.1	200	6.4	220	5.7	220	5.7	220	6.5	230	6.5	240	3.6	240	4.3	250	4.7	240	3.6	240	5.1	240	5.1	5.0	26
300	4.6	300	4.9	320	5.7	320	4.7	310	3.3	320	3.6	310	3.3	300	3.9	320	2.9	300	1.6	310	0.7	310	1.3	4.7	27
300	3.3	310	3.9	310	2.0	310	0.7	310	0.3	310	0.7	310	1.3	240	1.8	230	1.8	230	1.8	240	0.8	260	1.4	2.3	28
200	1.7	200	1.7	190	2.8	200	3.4	220	4.0	220	4.7	220	3.3	220	3.3	210	2.0	210	3.3	210	3.3	190	2.2	2.3	29
330	3.3	340	4.3	340	4.3	340	4.0	320	3.3	320	3.3	320	3.3	320	3.6	310	3.6	310	3.6	310	4.3	310	3.6	3.3	30
300	8.2	300	7.9	300	7.9	310	7.5	320	8.7	320	7.3	320	8.2	320	8.2	310	7.2	320	6.5	320	6.2	320	5.1	6.0	31
--	5.6	--	5.7	--	5.4	--	5.2	--	5.0	--	5.2	--	5.1	--	5.3	--	5.3	--	5.4	--	5.1	--	5.3	5.4	

FEBRUARY, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	
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141. ABERDEEN: Robinson anemograph from July 1930.*

 h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	230	1.4	230	2.2	230	1.4	210	2.5	200	3.4	190	2.2	190	5.0	190	3.6	190	6.0	180	6.1	190	6.0	190	8.3
2	190	4.2	170	4.8	180	5.2	180	6.5	180	11.1	170	9.2	180	7.6	180	8.8	180	7.9	190	4.6	230	5.4	250	7.9
3	200	3.4	170	3.5	190	3.2	180	2.2	170	0.9	190	1.0	290	1.1	240	1.1	200	1.3	210	2.9	240	4.3	250	6.5
4	200	3.0	200	0.9	210	2.9	220	3.6	220	5.1	220	3.3	230	6.5	230	4.7	230	5.4	230	5.1	230	6.5	220	4.3
5	170	4.4	190	5.5	200	6.4	210	6.1	210	7.0	210	6.1	210	6.1	230	5.7	230	7.7	210	7.4	210	7.4	220	4.7
6	240	6.8	250	5.7	240	6.5	230	4.0	220	4.0	220	5.1	230	6.8	230	6.5	230	6.5	230	4.3	260	4.7	260	6.2
7	260	2.5	280	3.3	280	3.3	290	6.5	290	5.1	280	4.9	250	3.3	220	2.5	270	4.7	280	8.3	280	7.7	280	10.6
8	260	5.4	280	4.3	250	4.7	260	5.4	230	3.3	280	3.6	270	6.0	300	4.6	280	6.1	290	7.3	300	6.6	310	7.5
9	310	2.3	310	1.6	300	1.3	300	1.3	300	1.3	280	0.9	290	1.8	300	1.6	300	1.6	280	1.6	110	1.2	100	2.9
10	130	3.6	140	4.9	120	4.7	130	4.0	120	4.7	130	5.9	140	6.1	140	4.9	140	7.4	130	7.4	140	5.7	120	5.2
11	100	9.4	90	10.1	90	10.1	90	10.1	90	9.8	90	9.8	90	10.4	90	10.4	90	12.6	90	11.6	90	11.6	90	11.6
12	80	12.2	80	11.6	80	13.3	80	13.8	90	18.3	90	15.8	90	14.4	90	14.2	90	10.8	80	13.9	80	11.6	70	11.8
13	40	9.5	40	8.8	360	6.5	380	7.5	360	7.5	350	6.9	350	6.4	350	6.0	380	4.8	30	5.1	40	6.7	50	7.3
14	290	3.3	310	2.6	290	2.5	280	2.0	310	3.3	300	2.6	240	1.4	240	1.4	280	1.3	290	0.8	180	1.7	130	2.8
15	80	11.9	80	11.6	80	9.4	70	12.2	70	11.8	60	11.9	50	11.2	60	11.6	50	10.8	50	7.6	360	6.1	360	5.2
16	310	4.6	310	5.6	310	4.6	300	3.9	300	4.6	310	5.2	310	4.9	310	5.2	300	4.9	300	5.9	290	7.3	300	6.2
17	120	9.5	120	7.1	120	5.9	120	5.9	120	1.9	140	1.6	140	2.0	210	3.7	190	4.2	190	5.5	180	5.7	190	6.4
18	310	8.2	310	8.2	300	5.9	280	6.5	300	4.6	250	3.3	230	1.8	230	2.9	190	2.2	220	1.8	230	3.3	280	5.7
19	270	3.9	300	3.3	290	3.6	290	3.3	300	2.6	300	1.3	250	1.1	240	1.4	290	0.8	280	0.9	210	0.9	160	2.8
20	320	3.3	320	3.3	310	3.3	320	3.3	310	3.0	320	3.6	320	3.6	320	4.0	320	4.3	330	4.0	350	4.6	360	5.2
21	320	4.7	310	5.6	320	5.1	310	5.9	310	5.2	310	5.2	310	5.2	310	5.6	310	5.9	310	5.9	330	4.0	320	4.0
22	320	1.1	320	1.1	320	0.8	320	0.8	250	0.8	250	0.3	280	2.0	280	1.3	300	1.0	310	1.3	320	1.8	360	2.7
23	300	2.0	300	3.0	300	2.6	300	0.7	260	1.4	290	1.1	290	1.1	230	1.1	190	1.8	200	3.0	180	4.8	170	4.4
24	200	5.6	200	4.7	190	5.0	200	5.1	200	3.9	190	3.2	190	3.2	200	3.4	190	2.8	200	3.0	220	4.0	250	5.4
25	300	2.6	270	2.6	250	1.8	250	1.4	250	1.4	200	2.1	190	6.0	190	6.0	190	7.3	180	4.8	180	6.1	170	5.2
26	200	1.3	190	3.6	190	4.2	170	5.2	180	4.0	190	4.2	180	6.1	160	4.2	170	3.1	170	2.7	180	4.4	190	5.5
27	260	2.2	250	1.1	220	1.1	240	1.4	270	2.1	250	0.3	240	1.4	230	2.5	230	2.5	250	2.9	270	2.1	300	1.0
28	220	1.4	200	1.7	200	2.1	190	3.2	200	2.6	200	0.9	200	1.7	200	1.7	170	2.7	170	4.0	170	3.5	150	4.7
29	190	1.4	170	2.7	160	3.2	160	3.2	150	3.4	150	3.9	140	4.1	130	4.3	130	5.2	130	5.2	130	6.7	130	6.2
30	120	7.4	110	7.1	120	6.7	120	5.9	110	6.2	110	7.4	100	6.6	110	6.7	100	9.0	120	6.7	120	5.5	110	5.2
31	80	4.0	70	4.3	80	4.7	90	5.4	100	6.6	90	6.8	80	5.1	90	4.3	80	4.7	70	5.5	70	5.5	70	4.7
Mean	--	4.7	--	4.7	--	4.6	--	4.8	--	4.9	--	4.5	--	4.9	--	4.7	--	5.1	--	5.1	--	5.3	--	5.7

142. ABERDEEN: $h_a = 13$ metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	310	2.3	320	3.3	310	3.3	310	2.3	320	2.9	320	2.9	310	2.3	310	2.0	320	1.4	360	2.1	20	3.0	80	3.6
2	80	5.1	80	5.4	70	6.7	80	3.3	70	5.9	60	5.7	10	4.3	10	3.9	20	5.6	60	6.5	70	8.3	70	6.7
3	340	4.3	340	4.0	330	3.3	330	3.3	330	3.3	330	3.3	330	2.5	330	3.3	360	5.7	360	6.9	360	5.2	360	6.5
4	310	3.0	300	3.6	300	3.0	310	4.6	300	5.2	310	4.6	310	4.3	310	4.9	300	4.9	300	6.6	290	5.1	310	2.0
5	20	7.7	10	7.3	10	7.3	10	7.3	360	8.8	360	8.8	360	7.9	360	7.5	20	10.7	30	9.8	20	8.1	20	9.4
6	320	5.4	310	5.6	310	4.6	320	5.7	320	5.1	330	5.1	330	5.4	330	4.3	10	5.1	30	7.3	30	7.3	30	9.4
7	10	2.6	330	1.1	300	2.0	280	1.6	270	0.9	280	0.4	280	0.4	280	0.4	200	1.7	140	3.3	180	3.2	150	3.0
8	70	11.0	70	10.7	60	11.4	70	7.1	50	4.7	10	5.6	350	6.0	350	5.5	350	4.6	60	6.2	90	6.8	90	6.2
9	360	6.1	360	6.5	50	5.4	50	9.8	40	11.8	30	13.3	40	11.8	40	10.2	20	8.1	30	8.6	40	9.8	40	9.0
10	360	7.9	360	6.1	10	4.7	10	5.6	20	5.5	30	10.3	60	8.7	60	7.9	80	10.1	80	11.2	80	10.8	80	11.5
11	90	12.2	90	12.2	90	11.2	90	10.8	90	9.4	90	8.7	80	7.4	80	7.4	70	5.9	70	8.3	80	5.1	110	5.2
12	90	12.7	90	13.0	80	13.3	90	12.7	90	13.6	80	13.3	90	13.6	90	13.0	80	11.9	80	11.2	90	11.9	90	11.5
13	140	5.7	170	5.7	200	8.1	210	8.6	200	6.0	190	4.2	190	3.6	200	3.0	180	4.8	170	4.8	170	4.4	180	6.9
14	140	5.4	140	7.4	140	7.7	140	8.3	140	7.7	140	7.4	140	9.0	140	7.7	140	6.1	150	8.1	150	7.3	150	8.1
15	200	3.4	200	4.3	200	3.0	170	4.8	190	6.0	200	3.9	190	3.2	200	4.3	210	3.3	210	4.1	170	4.4	160	5.0
16	210	11.1	200	11.6	210	10.6	210	9.9	220	10.1	220	8.7	220	8.2	220	7.9	240	5.4	230	7.6	230	7.6	220	9.0
17	200	3.0	190	2.8	180	5.0	180	3.1	210	2.5	180	2.7	190	3.6	180	6.1	170	6.1	150	7.7	150	7.3	180	6.9
18	130	3.6	160	1.8	--	0.0	150	0.4	100	0.9	120	1.6	190	1.4	130	1.2	190	1.4	240	2.5	230	1.8	140	4.9
19	290	2.5	300	1.6	280	2.5	290	2.9	280	2.9	300	3.9	300	3.9	310	3.0	320	3.3	320	4.3	320	4.7	320	7.9
20	300	4.9	300	3.3	280	3.3	280	2.0	270	2.1	260	2.9	250	1.4	240	2.2	240	2.9	250	2.9	210	2.9	220	3.6
21	180	6.1	180	4.8	200	5.1	220	3.3	220	1.8	200	2.1	170	3.5	190	5.5	200	7.3	200	9.0	200	10.3	210	10.6
22	180	6.9	190	7.3	200	5.6	130	1.6	190	2.8	200	4.3	200	4.7	190	5.0	190	5.0	170	5.7	180	6.0	180	6.9
23	320	5.1	310	4.3	310	3.3	310	3.0	300	3.0	280	2.0	300	4.3	310	4.6	310	3.9	310	4.3	310	3.3	300	3.0
24	--	0.0	340	0.4	330	0.8	300	2.0	320	2.2	330	2.2	320	3.3	320	2.5	50	5.1	50	7.6	50	5.1	50	4.7
25	290	2.5	290	2.9	290	2.9	290	2.9	290	2.9	300	2.6	300	3.3	310	3.9	300	3.3	310	2.0	320	1.4	90	2.5
26	310	2.0	310	2.3	310	3.0	310	2.6	300	3.6	300	3.0	300	3.3	300	3.3	320	2.2	320	3.6	30	3.9	80	3.6
27	340	5.9	340	5.9	340	5.9	340	5.2	340	6.2	340	7.1	330	5.4	330	7.3	330	7.3	330	5.7	350	9.7	350	10.1
28	320	5.1	310	3.9	310	4.9	310	4.9	310	4.3	310	3.9	330	2.9	330	5.1	350	6.4	360	6.9	360	6.1	360	6.9
29	330	1.4	330	2.2	320	2.9	320	2.5	320	2.5	320	2.5	320	2.2	320	2.2	320	1.8	310	2.0	310	1.0	310	1.6
30	200	2.1	200	0.4	200	0.4	200	0.9	210	0.9	200	0.4	200	0.4	190	1.4	190	3.6	160	4.6	160	5.0	150	6.0
Mean	--	5.2	--	5.1	--	5.0	--	4.8	--	4.9	--	4.9	--	4.7	--	4.9	--	5.2	--	6.0	--	5.9	--	6.4
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

$M.S.L. + h_a$ (height of anemograph above ground) = 13 metres + 23 metres.

MARCH, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	m/s	
200	6.8	200	7.3	180	6.9	190	6.0	180	5.2	200	5.6	210	7.4	210	7.0	210	6.1	220	6.2	210	3.7	220	3.6	5.0	1
250	7.3	280	7.8	250	5.1	240	5.4	240	3.3	230	2.5	200	3.0	210	4.1	220	4.0	220	4.3	210	4.1	210	5.7	5.8	2
250	7.9	250	7.9	250	7.9	240	6.8	240	6.5	240	4.7	230	4.3	230	4.7	220	3.6	200	2.6	200	3.4	190	3.8	4.0	3
220	5.1	210	7.0	220	5.4	220	5.7	220	4.0	220	5.1	220	3.6	210	3.7	210	4.1	180	3.1	190	3.2	190	3.2	4.4	4
210	6.1	210	7.4	210	7.7	210	6.5	220	5.1	220	6.5	230	6.5	230	4.3	230	7.9	230	9.0	240	6.5	240	7.3	6.5	5
270	7.3	270	8.6	280	5.7	280	5.7	290	6.5	290	6.5	290	6.2	280	2.9	250	2.9	260	3.3	260	2.9	250	3.3	5.4	6
290	10.1	300	9.8	300	8.2	300	8.5	290	9.0	280	8.6	270	5.6	260	4.3	250	4.7	240	4.7	250	5.1	250	5.1	6.1	7
310	5.9	310	5.6	310	5.9	310	3.3	310	4.6	320	2.2	320	1.4	310	2.3	310	2.3	310	3.0	300	2.3	300	3.0	4.4	8
100	2.9	110	2.8	130	3.1	140	3.7	150	3.0	140	2.5	140	2.0	150	3.0	130	1.9	130	2.8	120	4.0	120	4.7	2.3	9
110	9.0	110	6.7	100	11.1	100	11.5	90	8.7	100	6.1	120	7.1	100	9.9	100	12.3	120	8.3	120	7.4	120	7.4	7.1	10
90	12.6	90	11.9	90	14.4	90	14.1	100	16.7	90	14.4	90	13.8	90	13.0	90	11.9	80	13.6	80	12.6	80	13.8	12.1	11
70	12.2	70	15.4	70	12.6	60	13.8	60	14.4	60	14.1	60	13.3	70	14.5	70	13.8	70	12.2	50	12.2	40	11.8	13.3	12
20	6.4	20	6.0	30	4.7	10	6.0	360	4.4	340	5.2	320	2.9	300	3.0	300	3.3	300	3.0	300	3.0	300	2.6	5.6	13
140	2.9	130	4.7	120	4.3	120	4.7	120	5.2	120	6.2	110	6.7	120	6.2	110	8.3	110	9.5	110	9.0	90	12.6	4.4	14
140	6.1	140	6.1	130	6.7	120	5.2	90	4.0	70	4.3	30	2.6	340	2.8	320	3.3	320	3.3	310	3.6	310	4.9	7.3	15
290	6.2	310	3.9	260	1.8	280	2.5	150	5.1	150	3.4	140	3.7	140	4.9	130	5.2	130	7.4	120	7.1	110	9.0	5.1	16
170	5.7	170	5.2	170	4.8	170	5.2	170	3.5	170	3.1	200	2.1	230	1.4	250	3.3	270	4.3	280	4.1	300	7.5	4.6	17
250	3.6	280	5.7	300	5.6	300	4.6	310	4.6	310	3.9	290	3.3	290	4.7	280	2.9	290	5.1	290	3.6	270	3.4	4.4	18
150	4.3	130	3.6	130	4.0	140	4.1	140	3.3	150	3.4	130	1.2	130	0.8	130	0.8	40	1.2	320	2.5	320	2.5	2.4	19
360	6.9	360	6.9	360	6.9	360	7.5	360	8.3	360	9.2	340	8.3	340	6.7	330	4.7	330	6.5	320	6.5	320	6.5	5.4	20
320	4.3	320	4.0	320	2.9	10	2.1	70	2.4	70	1.2	70	1.2	--	0.0	--	0.0	70	0.8	30	1.3	320	1.4	3.5	21
20	3.9	340	7.1	330	6.8	330	7.3	320	5.4	320	4.0	320	4.7	310	2.3	310	3.3	310	2.8	310	2.3	300	2.3	2.8	22
160	6.9	160	7.3	160	7.3	160	7.3	160	6.9	160	6.0	180	5.0	170	4.8	190	3.6	190	5.0	190	4.2	200	6.0	4.1	23
290	9.8	290	10.1	300	11.5	310	14.1	310	8.5	310	8.2	300	5.2	300	3.6	370	2.1	280	2.0	280	2.5	270	3.0	5.4	24
200	6.4	180	4.4	180	5.7	180	4.4	170	4.0	190	6.0	210	4.5	200	6.0	210	5.4	210	2.5	200	1.3	240	1.1	4.1	25
300	6.9	300	7.2	310	7.2	310	5.6	300	5.9	310	4.3	290	2.2	280	1.3	290	2.9	280	2.0	270	1.3	290	0.8	4.0	26
140	3.7	170	4.8	180	5.0	170	4.8	180	3.6	180	4.0	190	2.2	210	1.3	210	1.6	230	2.5	240	2.2	240	1.4	2.4	27
150	6.0	140	6.1	140	6.1	150	6.4	180	4.6	180	4.6	180	3.2	170	3.1	170	3.1	170	2.7	170	2.1	190	1.8	3.3	28
130	5.2	130	5.5	130	7.4	130	5.9	120	6.2	110	6.7	120	6.2	110	7.1	120	6.2	120	7.1	120	8.3	120	7.9	5.4	29
110	7.4	100	8.6	90	4.7	110	3.6	100	6.1	100	7.4	100	7.4	100	7.0	90	4.7	90	4.7	90	4.0	80	4.7	6.4	30
70	5.2	70	4.0	80	4.0	70	3.1	60	2.2	70	2.8	70	1.9	70	1.2	330	1.8	330	2.2	320	2.2	320	2.9	4.0	31
--	6.5	--	6.7	--	6.5	--	6.3	--	5.8	--	5.6	--	4.8	--	4.6	--	4.6	--	4.8	--	4.5	--	5.0	5.3	

APRIL, 1934.

[illegible]

WIND: DIRECTION AND SPEED
Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

143. ABERDEEN: Robinson anemograph from July 1930.*

h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	190	4.6	190	4.6	200	4.3	200	2.6	190	2.8	190	4.2	180	4.0	170	4.8	160	1.8	170	4.0	180	6.9	170	5.7
2	190	2.2	210	1.3	300	0.7	310	1.0	290	2.5	280	1.4	250	2.5	250	1.8	250	2.5	240	1.8	140	4.1	170	4.8
3	320	0.3	320	1.1	320	2.9	320	2.5	320	1.4	320	1.1	320	0.8	—	0.0	140	3.3	140	4.5	140	4.9	150	6.0
4	160	0.4	160	0.4	170	0.4	220	1.1	310	2.0	320	1.1	320	1.4	320	0.3	30	1.7	80	2.9	80	2.5	110	3.1
5	300	0.3	—	0.0	10	0.4	40	0.4	—	0.0	210	0.9	210	2.0	200	5.6	190	5.5	160	6.9	160	7.3	170	6.9
6	200	4.7	180	4.4	190	4.2	190	3.6	180	2.2	150	4.7	150	9.4	140	9.4	130	10.2	140	12.7	140	13.5	140	14.7
7	140	9.4	140	11.9	140	10.6	150	10.7	150	11.0	150	10.3	160	9.7	190	6.0	220	5.4	260	4.3	290	5.1	290	7.3
8	270	0.9	250	0.3	210	0.9	180	2.1	180	2.8	180	4.0	170	4.4	170	5.2	160	7.3	110	1.6	170	6.9	180	6.9
9	220	1.1	220	1.4	220	1.8	200	3.0	190	3.6	200	4.3	180	4.8	190	5.0	200	5.1	200	4.7	180	5.7	190	5.0
10	190	3.2	170	3.5	200	3.9	220	1.8	230	0.8	220	0.8	—	0.0	270	0.9	290	2.5	100	2.0	110	2.8	110	2.4
11	60	0.3	60	0.3	60	0.0	100	0.4	120	0.8	120	1.2	150	2.1	150	4.3	160	5.0	160	5.0	170	6.5	160	5.0
12	260	1.4	290	1.8	290	1.4	330	2.9	330	6.5	330	6.8	330	3.6	320	2.5	320	2.9	330	2.5	330	4.3	330	3.3
13	280	1.8	220	1.4	220	1.4	220	2.2	220	1.1	190	3.2	170	2.1	180	2.1	220	4.0	200	6.0	180	5.7	200	7.3
14	300	11.8	300	14.1	320	9.4	300	9.5	310	7.9	310	8.9	310	11.1	310	10.2	330	10.4	330	10.1	310	10.8	300	9.8
15	310	6.2	290	5.1	300	3.9	300	3.9	270	3.4	270	2.6	280	2.5	280	4.9	290	3.3	300	1.6	130	4.7	180	5.0
16	60	12.7	60	10.1	40	9.8	20	9.0	360	11.3	350	10.5	340	9.0	340	9.0	340	10.2	340	9.0	340	5.9	330	8.2
17	230	2.9	230	2.9	250	4.3	240	2.5	280	2.5	270	3.9	270	5.1	270	7.3	270	6.0	260	6.2	270	7.7	260	7.3
18	210	5.7	200	5.1	200	2.1	190	3.6	200	2.6	200	2.1	190	2.8	220	2.9	230	4.7	240	4.3	230	4.0	210	3.7
19	300	1.6	300	1.3	300	1.0	300	1.6	300	0.3	300	3.0	140	2.5	140	4.9	140	6.1	140	5.7	160	9.4	150	8.6
20	220	6.5	210	4.9	190	5.0	200	4.3	190	2.8	200	4.7	200	4.7	210	4.5	220	4.3	240	7.3	240	5.7	240	5.4
21	180	3.5	170	4.0	170	5.2	150	4.3	180	4.0	180	6.5	200	5.1	220	7.3	230	11.9	250	12.2	240	10.8	250	11.2
22	250	0.8	220	1.8	200	1.7	200	2.1	170	2.1	180	1.3	190	1.8	210	3.7	200	3.0	270	3.4	270	4.3	280	6.1
23	310	1.6	280	2.0	300	0.3	—	0.0	—	0.0	300	0.3	150	1.3	180	3.2	150	3.9	140	3.7	160	2.2	170	1.7
24	280	0.9	290	1.4	280	1.6	270	2.1	280	4.5	290	5.1	300	4.9	310	4.9	310	4.6	320	5.4	340	4.0	340	3.1
25	—	0.0	140	1.3	300	1.0	270	1.3	270	0.9	300	4.3	310	4.9	310	5.6	320	6.8	320	5.4	330	5.7	330	5.7
26	320	4.7	300	3.3	280	4.1	280	3.3	290	2.9	270	2.6	280	2.9	290	4.3	290	5.1	290	5.4	290	4.3	300	4.6
27	250	2.9	280	3.3	250	3.3	250	4.3	250	3.6	250	3.6	250	4.7	260	6.2	280	5.7	290	8.2	290	8.2	290	6.8
28	280	5.1	260	4.0	260	3.6	270	3.4	270	3.0	290	6.8	310	5.9	320	7.9	320	7.9	310	5.2	310	5.2	310	5.6
29	200	5.1	200	4.3	200	3.4	200	2.1	200	0.9	200	0.9	210	0.9	220	0.3	220	0.8	240	0.8	120	2.4	140	4.1
30	180	0.9	180	0.4	180	0.9	180	0.4	180	0.4	150	1.7	140	2.5	130	3.1	120	1.9	120	3.1	110	3.6	120	4.0
31	150	1.7	160	2.2	160	1.8	180	1.7	190	1.0	190	1.8	180	3.5	180	6.1	170	5.2	170	5.7	160	7.8	160	6.9
Mean	—	3.4	—	3.4	—	3.1	—	3.0	—	3.0	—	3.7	—	4.0	—	4.7	—	5.1	—	5.2	—	5.9	—	6.0

144. ABERDEEN: h_a = 13 metres + 23 metres.

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	170	4.4	170	4.4	170	4.0	170	2.7	170	2.7	180	2.7	170	2.1	170	2.1	160	1.8	100	2.0	80	2.2	80	2.2
2	320	3.3	320	2.5	330	1.4	330	1.4	340	1.9	330	2.2	330	2.2	330	2.2	30	3.0	80	3.3	80	3.6	90	3.6
3	310	3.0	310	3.0	310	3.0	310	2.3	310	3.3	300	3.3	310	3.3	340	4.0	350	4.2	350	4.2	70	4.7	70	5.2
4	300	2.6	300	2.6	310	3.0	320	2.2	310	3.6	310	2.3	310	3.9	320	5.4	320	5.7	310	4.9	320	5.4	350	6.9
5	340	4.7	330	4.3	330	4.7	340	5.5	340	5.2	330	4.3	330	5.4	330	6.5	330	6.5	320	6.2	320	6.2	320	7.3
6	330	1.4	320	2.2	320	1.8	310	2.6	300	3.6	290	7.3	290	8.7	290	8.7	300	7.5	320	7.6	320	6.5	330	7.6
7	340	3.1	340	1.9	340	3.1	10	4.3	50	5.4	60	5.1	70	3.6	40	4.7	40	5.5	50	4.3	60	5.4	60	5.1
8	80	3.6	80	4.0	60	1.8	70	2.8	70	2.8	50	2.5	40	2.4	50	2.5	70	4.3	80	3.3	80	3.6	90	3.3
9	160	1.8	180	1.7	180	0.9	200	1.3	250	0.8	250	0.8	210	0.4	220	1.1	110	2.8	120	4.3	120	4.0	120	3.6
10	—	0.0	180	0.4	280	2.0	290	0.3	—	0.0	290	0.8	300	0.7	50	1.1	100	1.3	110	1.9	130	1.9	140	2.9
11	310	2.6	310	3.0	300	2.3	300	2.6	300	3.0	300	3.9	320	4.7	330	4.7	340	5.9	340	5.9	340	5.9	340	5.9
12	340	2.8	330	1.8	340	1.9	330	1.8	320	2.2	340	1.9	340	2.8	350	2.8	80	2.9	100	4.1	110	3.6	110	4.7
13	170	1.3	160	1.0	170	0.9	200	1.3	190	1.0	190	1.8	180	1.7	180	1.8	150	2.6	150	1.3	140	2.5	130	2.8
14	340	3.6	320	1.8	330	2.2	350	2.2	360	2.7	20	3.0	50	1.8	50	1.8	60	2.2	60	2.2	60	3.6	70	4.0
15	150	3.4	160	4.6	160	3.6	170	4.0	160	4.2	160	6.0	160	5.0	160	5.0	160	4.6	160	5.5	160	6.0	170	4.8
16	220	1.1	210	1.6	160	1.0	220	1.8	220	2.2	200	0.9	240	1.4	210	2.5	210	2.5	190	3.2	200	5.1	200	4.7
17	210	1.6	220	1.8	210	1.6	210	1.3	190	2.8	190	3.6	190	3.1	200	3.4	200	3.0	220	4.0	220	4.7	210	4.5
18	290	1.1	230	2.5	290	1.1	250	2.2	240	2.9	280	2.9	240	2.5	250	2.5	270	2.1	160	4.6	180	1.3	180	4.4
19	170	0.9	210	2.5	190	2.8	180	3.1	180	4.4	180	4.8	190	5.0	210	4.1	230	1.8	290	4.0	300	3.3	310	5.9
20	310	7.2	300	6.6	320	7.9	330	9.0	330	9.4	320	8.7	320	8.7	330	7.3	330	7.9	320	6.8	330	7.6	330	6.8
21	270	0.9	200	1.3	180	1.3	170	1.3	180	1.8	140	2.0	130	1.9	110	1.9	110	1.2	310	1.6	360	1.7	100	3.7
22	70	7.4	80	7.9	60	8.2	60	9.8	60	10.8	60	10.1	50	11.6	60	10.4	40	(8.6)	40	(7.1)	30	(7.7)	30	(7.3)
23	300	(2.0)	300	(2.0)	290	(2.2)	300	(2.0)	300	(1.6)	300	(1.6)	310	(2.0)	340	(2.8)	320	(2.5)	30	(2.1)	80	(3.6)	90	3.6
24	310	2.3	310	2.3	310	2.6	310	3.0	310	2.0	310	1.3	320	0.8	120	4.3	110	5.9	110	5.9	110	5.5	120	5.2
25	320	0.8	310	1.6	320	0.3	310	1.3	320	1.8	350	2.2	70	2.8	80	3.3	90	4.3	100	4.1	100	4.1	90	4.0
26	—	0.3	320	0.3	300	1.3	300	0.7	250	0.8	300	1.0	200	0.4	200	2.1	110	1.9	120	3.6	130	4.7	150	6.8
27	190	3.2	180	3.1	190	2.2	230	1.4	300	0.7	220	2.9	220	2.5	220	2.5	200	2.1	160	3.2	150	5.1	150	5.6
28	290	2.5	290	4.0	290	5.1	300	4.6	290	6.2	290	6.8	300	5.9	300	6.6	310	3.9	320	3.6	30	3.4	40	4.7
29	300	2.3	300	3.0	290	1.8	300	1.6	310	2.3	300	2.0	300	2.0	300	1.6	320	3.6	320	2.9	330	1.8	120	2.8
30	190	0.4	230	0.3	280	1.6	290	1.4	300	0.3	—	0.0	40	0.8	60	1.4	310	2.6	310	3.3	310	3.3	120	3.6
Mean	—	2.5	—	2.7	—	2.6	—	2.7	—	3.1	—	3.3	—	3.3	—	3.7	—	3.8	—	4.0	—	4.3	—	4.8
Hour G. M. T.	0 - 1	1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12		

145. ABERDEEN: Robinson anemograph from July, 1930.*

 h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	110	0.8	140	2.5	160	2.8	170	3.1	170	3.5	170	3.1	170	3.1	170	3.5	180	4.4	170	4.0	170	4.0	160	4.2
2	240	4.3	230	1.8	230	2.9	190	2.2	220	2.5	270	7.7	280	9.4	280	7.7	290	8.2	290	7.9	280	6.5	300	6.6
3	270	3.0	270	2.1	280	3.3	300	3.6	290	4.7	300	4.9	310	4.3	310	4.6	320	5.4	300	4.6	320	5.1	320	2.9
4	140	1.6	170	1.7	170	1.7	180	1.3	180	1.7	170	1.7	170	1.7	170	2.7	160	1.8	130	2.4	120	3.1	120	2.8
5	170	0.9	170	0.4	170	0.9	170	0.4	170	2.7	170	0.9	170	0.9	160	1.0	100	2.5	110	2.8	100	4.1	100	3.7
6	110	0.8	120	0.8	120	0.4	120	0.4	120	1.2	120	0.4	120	0.8	120	0.4	110	1.6	110	1.9	100	2.5	90	2.2
7	340	0.4	340	0.8	280	1.6	310	2.0	300	0.3	320	0.8	310	0.3	—	0.0	310	1.0	60	1.8	70	2.4	70	3.1
8	40	1.9	30	3.0	310	2.3	310	2.0	310	2.0	310	1.6	310	0.7	90	2.2	90	2.5	120	3.6	120	4.7	140	4.9
9	90	2.2	200	2.1	200	2.1	200	2.6	200	1.3	200	1.3	190	1.8	190	1.0	100	1.6	100	2.5	110	2.8	110	3.1
10	60	0.8	50	1.1	50	0.8	50	1.1	60	1.8	70	1.2	80	1.8	80	1.4	110	2.4	120	2.4	120	2.8	130	3.6
11	160	3.6	160	1.8	180	2.7	180	3.5	170	3.1	150	3.4	150	3.0	150	3.4	140	3.3	150	4.7	140	5.4	150	5.1
12	160	4.2	160	3.6	170	1.7	170	1.3	170	1.3	170	1.7	170	2.1	130	2.8	110	3.1	130	1.9	120	3.6	100	4.1
13	100	1.3	100	0.9	100	0.4	100	0.4	80	1.8	50	1.1	110	3.1	120	2.8	120	4.3	120	4.3	130	4.3	130	5.2
14	180	0.9	300	2.3	310	2.3	320	1.4	320	2.5	320	2.5	310	1.3	320	3.3	310	3.3	310	3.3	310	3.3	300	3.6
15	150	1.3	150	0.9	150	0.4	—	0.0	170	0.9	170	2.1	170	1.7	170	4.4	160	5.5	160	6.0	160	5.0	160	6.4
16	210	2.0	210	1.6	210	0.9	210	0.4	210	0.4	210	2.9	190	4.2	180	4.8	160	5.5	150	4.7	160	4.2	160	4.6
17	150	3.0	140	5.4	140	3.7	170	4.0	170	3.1	180	3.5	150	4.3	190	6.0	170	4.4	160	6.4	160	6.0	170	6.5
18	200	2.6	210	0.9	120	1.2	160	3.2	170	2.1	220	0.8	170	0.9	140	2.0	160	1.8	170	3.5	170	3.5	180	5.0
19	310	3.3	310	4.6	300	5.6	300	6.6	300	6.9	300	7.5	300	7.2	300	7.2	300	8.9	300	9.5	300	9.5	300	9.8
20	290	2.5	280	0.9	290	0.3	300	1.0	310	0.7	310	0.7	300	0.3	80	1.8	100	2.5	110	2.8	110	3.1	100	3.3
21	210	0.4	200	0.4	200	0.9	200	0.4	210	0.4	200	0.9	190	1.0	190	2.8	200	2.1	170	3.5	150	3.9	150	4.3
22	120	1.9	120	1.6	110	0.4	90	1.1	80	1.4	100	2.9	120	1.6	130	1.9	130	0.8	130	1.6	150	3.4	150	3.9
23	280	4.5	280	4.1	290	4.0	290	3.3	280	2.5	260	1.1	250	1.1	230	1.8	250	0.8	280	1.6	320	1.1	180	4.0
24	310	2.6	310	2.6	300	3.3	300	3.9	310	3.0	300	3.3	300	3.3	300	3.3	310	3.6	310	3.0	320	4.0	320	3.6
25	210	2.9	190	3.2	190	4.6	210	4.1	200	0.9	220	2.2	220	1.4	230	1.4	280	1.4	280	3.3	280	4.5	300	5.9
26	220	1.8	220	2.5	200	3.0	210	3.3	210	2.0	210	3.3	200	2.1	220	1.8	240	0.3	90	1.4	90	2.2	300	2.6
27	240	2.9	240	2.9	250	3.3	240	3.3	220	2.5	240	3.6	260	4.3	270	7.3	270	8.6	290	7.6	280	10.6	280	10.6
28	240	4.0	250	2.9	240	2.5	230	2.2	220	1.8	230	1.4	220	0.3	240	1.4	280	3.3	300	3.3	290	4.0	300	4.9
29	260	2.9	280	3.7	310	1.3	310	0.7	290	1.1	270	1.7	250	1.4	240	1.4	260	3.3	250	3.3	260	2.9	240	1.4
30	310	0.7	280	0.3	210	0.8	200	1.3	190	0.4	140	1.6	150	3.9	170	4.0	170	4.0	160	5.0	170	3.5	170	3.5
31	200	2.1	130	1.2	350	1.4	150	3.4	160	3.2	190	2.2	170	3.5	170	3.5	150	5.1	160	4.6	170	6.5	150	5.1
Mean	—	2.2	—	2.1	—	2.0	—	2.2	—	2.1	—	2.4	—	2.5	—	3.0	—	3.5	—	3.8	—	4.3	—	4.5

146. ABERDEEN: $h_a = 13$ metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	210	4.5	200	6.4	210	4.1	220	2.5	220	2.5	200	1.3	200	1.3	190	1.4	210	2.9	190	3.6	190	4.2	170	5.2
2	100	3.3	110	5.5	120	4.7	110	3.1	100	5.9	100	7.0	100	7.0	100	7.7	90	7.4	90	5.7	70	6.7	80	6.5
3	60	2.9	50	2.9	60	3.6	50	3.3	360	3.5	340	3.1	280	3.7	250	2.9	230	2.9	210	3.3	160	3.6	160	3.6
4	170	3.1	180	3.1	190	3.2	190	3.2	180	3.5	170	3.1	190	2.8	170	3.5	160	4.2	170	4.0	150	6.8	150	5.8
5	200	4.3	200	3.9	210	3.7	220	2.9	210	1.6	220	0.3	190	1.8	200	2.1	210	1.6	220	1.1	280	1.6	120	4.0
6	310	1.3	310	1.0	310	1.0	310	1.0	320	1.8	310	1.3	320	1.1	320	1.1	80	1.4	90	1.4	100	2.5	90	2.2
7	--	0.0	130	0.8	--	0.0	320	1.4	320	1.8	310	1.6	330	1.4	380	1.3	20	1.7	50	1.4	60	3.6	60	3.6
8	120	0.8	120	0.8	120	0.4	100	0.9	200	1.7	190	1.8	200	2.1	170	2.1	180	2.7	170	4.0	180	3.5	170	4.4
9	180	3.5	200	2.6	200	2.1	200	3.0	220	1.4	170	2.7	200	3.4	210	3.7	220	4.0	200	5.1	220	5.4	220	4.3
10	240	4.3	240	4.0	230	2.5	190	1.8	210	0.9	220	1.4	220	4.0	230	4.7	230	3.6	220	2.5	220	2.5	220	2.9
11	250	2.9	260	2.5	250	2.5	240	2.5	230	1.8	220	1.8	220	2.9	230	2.9	240	3.3	240	3.6	240	4.7	240	5.1
12	240	5.4	240	4.3	250	4.7	270	6.0	220	1.8	240	3.6	270	7.7	280	7.7	290	6.5	290	9.0	290	8.2	290	8.2
13	320	7.6	320	8.7	320	7.9	320	7.6	320	6.5	330	7.6	330	9.0	320	8.7	330	6.5	330	7.9	330	10.1	330	10.1
14	330	3.3	330	3.6	310	3.6	310	3.0	310	2.3	310	2.3	310	3.3	300	4.6	320	6.2	310	3.9	310	3.3	320	2.9
15	180	2.1	170	3.1	160	1.3	190	1.8	200	3.0	190	2.2	190	1.4	190	3.2	200	3.0	210	2.9	200	5.1	210	4.9
16	270	3.4	270	2.1	240	2.5	230	2.5	240	1.8	290	0.8	230	3.3	210	3.7	230	3.3	250	4.7	270	7.7	280	6.1
17	280	4.1	250	2.9	200	1.7	220	1.1	280	1.6	290	0.8	270	0.4	240	2.5	270	3.4	270	5.6	270	4.3	300	3.0
18	300	1.6	310	1.3	310	2.3	310	1.6	310	2.3	300	2.0	290	1.8	310	1.0	300	1.0	220	0.8	200	0.9	160	3.2
19	210	3.7	220	4.0	280	4.1	280	3.7	290	1.8	250	2.5	220	1.8	220	1.8	260	3.6	240	3.6	240	4.0	240	1.8
20	210	2.5	210	3.3	200	3.0	190	2.8	160	2.8	150	3.4	150	3.9	140	4.1	130	3.1	120	5.5	120	7.1	100	6.5
21	200	2.6	230	0.8	190	1.0	200	1.3	200	0.9	190	1.8	180	3.5	160	5.0	150	4.3	160	5.5	170	6.1	170	6.5
22	230	1.4	230	2.9	210	2.0	200	4.7	210	4.1	190	3.6	200	5.1	200	5.6	210	4.5	220	5.1	220	6.2	200	7.7
23	200	3.0	220	1.8	210	2.5	200	0.4	190	1.4	190	1.0	210	3.3	220	4.0	240	4.0	250	3.6	270	4.3	270	4.7
24	280	2.0	250	3.3	270	5.1	260	4.0	250	3.6	240	2.5	240	2.8	240	2.9	260	3.6	280	6.1	270	6.0	270	5.1
25	310	1.0	110	0.4	210	1.3	230	1.1	300	1.0	280	0.9	250	0.8	230	0.3	220	1.1	120	3.1	130	4.0	140	4.1
26	310	0.7	290	1.1	290	0.8	290	1.1	290	1.1	310	1.0	280	0.9	180	1.3	190	2.2	170	3.5	170	4.8	170	4.4
27	180	3.5	180	3.1	170	3.5	160	4.6	180	3.1	170	6.9	160	8.3	160	7.8	160	6.9	160	7.8	150	8.6	140	9.9
28	140	8.3	150	9.0	150	8.6	150	9.0	160	7.8	160	7.8	150	8.6	160	9.0	140	9.4	140	8.6	140	11.1	140	9.9
29	140	9.0	150	6.8	160	4.7	170	1.7	180	1.7	180	1.3	170	0.9	160	1.8	--	0.0	20	1.3	300	1.3	310	2.0
30	180	3.1	190	3.2	190	4.2	180	6.1	180	4.8	200	4.7	200	5.6	180	6.1	190	6.0	190	6.0	180	5.7	170	6.9
31	290	0.8	290	1.4	290	1.4	300	1.6	300	1.3	300	1.0	300	1.0	360	0.4	130	0.8	150	1.7	130	3.6	140	5.7
Mean	--	3.2	--	3.2	--	3.0	--	2.9	--	2.6	--	2.7	--	3.4	--	3.7	--	3.7	--	4.3	--	5.1	--	5.2
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

Averages for periods of sixty minutes, ending at the exact hours, Greenwich Mean Time.

M.S.L. + h_a (height of anemograph above ground) = 13 metres + 23 metres.

JULY, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
170	4.0	170	4.4	170	4.4	10	3.9	10	3.4	340	1.6	110	0.8	230	1.1	220	1.1	250	1.4	280	5.4	260	2.2	3.0	1
300	6.6	280	6.5	300	8.9	300	7.5	300	6.8	310	5.9	320	4.0	310	5.6	300	3.0	300	4.3	300	3.3	290	2.9	5.5	2
130	3.1	120	4.7	120	4.3	120	3.6	110	3.1	90	2.5	90	1.8	100	1.6	110	1.6	130	1.9	140	1.3	140	2.0	3.3	3
140	3.7	140	3.7	150	4.3	150	3.9	150	2.6	150	2.6	140	2.1	140	1.7	140	1.7	160	1.4	160	1.0	160	1.8	2.3	4
90	3.6	80	4.0	90	4.0	110	4.0	100	3.3	90	2.9	100	2.9	100	2.5	100	1.6	100	1.3	100	0.9	100	0.9	2.2	5
90	2.2	100	2.9	120	2.8	170	3.5	180	2.7	50	1.1	50	1.1	40	0.8	30	0.9	10	0.4	70	0.4	—	0.0	1.3	6
350	5.5	350	5.0	350	4.2	360	4.8	350	4.6	10	4.7	10	4.7	30	2.6	40	1.6	40	1.6	40	1.2	40	1.2	2.3	7
140	5.7	160	5.0	150	6.0	160	6.4	180	6.4	160	5.5	170	5.2	170	4.4	170	4.4	180	3.1	190	3.2	190	2.8	3.7	8
90	2.5	90	2.9	90	2.9	100	2.0	80	2.5	70	3.1	70	2.8	80	1.8	70	1.9	70	1.6	70	1.2	60	1.1	2.1	9
130	4.3	140	4.9	140	4.9	120	4.7	120	3.6	130	3.6	130	3.1	140	3.7	150	3.4	150	3.4	150	2.1	160	3.2	2.8	10
140	5.7	150	5.1	150	5.6	150	6.4	150	6.0	160	5.0	160	5.0	150	3.9	160	4.6	150	4.7	150	3.9	160	4.6	4.3	11
110	3.6	110	4.3	130	3.1	120	3.6	110	3.6	100	4.1	110	2.4	100	2.0	100	2.0	100	1.3	100	1.3	100	1.3	2.7	12
130	5.5	120	4.7	120	4.7	120	4.7	130	4.3	140	3.3	170	3.1	170	3.1	170	2.1	170	2.7	170	2.1	180	1.7	3.0	13
320	4.7	310	3.6	320	3.3	320	1.4	330	1.8	80	1.8	90	1.1	110	1.6	120	0.8	120	0.8	150	1.3	150	1.3	2.2	14
160	7.3	170	7.9	170	5.2	160	6.4	160	6.4	180	5.2	180	4.8	180	3.5	200	3.4	220	2.2	220	1.1	230	1.4	3.7	15
160	5.5	160	6.0	150	4.3	160	5.5	170	4.8	180	3.2	170	5.7	150	4.3	160	5.5	160	5.0	160	3.2	120	4.8	3.9	16
170	6.5	170	6.5	170	6.1	170	9.2	180	7.9	180	6.9	180	4.8	190	5.0	200	3.9	200	1.3	180	0.9	180	2.1	4.9	17
160	4.6	160	3.6	150	4.7	160	6.9	170	4.0	180	5.7	190	5.5	210	4.9	220	1.1	140	1.3	60	0.3	180	1.3	3.0	18
310	8.2	300	8.9	300	6.6	300	6.9	320	6.2	310	4.9	320	4.3	310	2.6	300	2.3	300	1.6	290	3.3	280	3.7	6.1	19
100	3.3	110	2.4	90	2.5	90	2.2	140	3.3	180	4.0	180	3.5	170	2.1	140	1.3	170	2.1	180	2.1	190	2.8	2.1	20
150	4.3	140	4.1	130	4.0	130	2.4	140	3.3	150	4.3	150	3.9	160	4.2	170	2.7	190	2.2	200	0.9	170	0.9	2.4	21
160	4.2	160	2.8	150	2.6	110	3.1	120	2.4	160	3.6	290	4.3	290	2.2	300	2.3	280	3.7	290	4.0	290	4.3	2.6	22
170	4.8	150	6.0	160	4.6	150	4.3	150	3.9	150	3.4	170	0.9	280	2.6	300	1.6	300	1.3	290	0.8	310	1.6	2.7	23
330	2.5	120	3.6	130	4.0	130	4.0	140	4.9	140	4.5	160	4.6	170	3.1	180	3.1	180	3.1	190	4.2	200	3.9	3.5	24
290	6.2	290	7.3	280	8.6	280	7.7	280	7.7	280	5.4	270	5.6	270	6.0	240	2.2	240	2.5	240	4.3	230	2.2	4.2	25
320	4.0	300	4.9	300	5.2	300	4.9	300	7.5	290	6.5	290	7.6	290	5.1	280	4.1	260	3.6	240	4.0	230	2.9	3.6	26
280	10.6	280	9.0	280	9.0	280	8.6	280	7.7	280	11.5	280	5.7	280	5.7	280	7.0	270	5.1	270	1.7	250	2.9	6.3	27
300	6.2	300	6.6	300	5.6	300	6.9	290	6.8	280	5.4	280	6.1	290	5.4	280	4.9	290	3.6	280	5.7	260	3.3	4.1	28
250	3.6	240	4.3	310	1.6	110	1.9	130	2.8	170	2.1	60	2.5	70	0.8	310	1.0	220	0.8	320	2.2	300	1.3	2.1	29
170	4.8	160	4.6	170	6.5	160	3.6	150	3.4	160	5.0	170	4.4	170	4.8	170	5.2	160	4.6	160	3.2	180	3.1	3.4	30
160	7.3	170	6.5	160	6.0	170	4.8	170	6.5	180	6.5	180	6.1	180	5.2	180	4.0	180	3.5	190	5.0	190	4.2	4.5	31
--	5.0	--	5.1	--	4.9	--	4.8	--	4.6	--	4.4	--	3.9	--	3.3	--	2.8	--	2.5	--	2.4	--	2.4	3.4	

AUGUST, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
160	6.4	160	6.0	160	6.9	150	5.1	150	5.6	140	2.9	120	1.6	150	3.9	140	4.5	130	3.6	110	2.4	100	1.9	3.8	1
80	8.2	70	6.2	90	10.1	80	5.7	80	9.8	90	9.0	90	7.9	90	10.1	60	7.6	80	6.5	70	4.7	70	3.6	6.7	2
210	2.5	320	1.1	80	1.4	80	1.1	210	3.3	240	4.3	230	4.0	210	4.1	210	2.9	210	4.1	190	3.2	180	3.1	3.1	3
160	8.3	160	6.0	160	8.3	150	6.4	160	5.0	170	6.1	170	4.8	170	2.1	170	2.1	180	2.7	200	3.4	200	4.3	4.4	4
140	4.5	200	2.1	150	3.4	190	3.2	180	1.7	60	2.2	30	1.3	340	1.2	310	2.0	320	0.3	250	1.1	310	0.7	2.2	5
90	1.8	80	1.8	80	2.5	80	2.9	80	2.9	80	1.8	60	2.2	80	2.2	80	1.3	130	0.8	130	0.4	130	0.4	1.6	6
70	4.0	70	4.0	80	2.6	90	2.5	90	2.5	100	2.5	100	1.6	120	1.2	120	1.2	120	0.4	120	0.8	120	0.8	1.8	7
160	6.0	180	5.7	160	4.6	170	4.0	180	4.0	180	3.2	180	3.1	180	3.1	190	3.2	210	3.3	200	2.6	180	2.1	2.9	8
280	4.3	260	5.1	260	3.6	290	5.7	300	4.9	280	3.7	270	6.0	240	2.5	250	3.3	250	4.0	230	3.3	230	3.6	3.8	9
210	3.3	170	4.0	230	2.9	240	1.4	130	0.8	90	1.4	90	0.3	80	0.3	320	1.1	280	2.5	260	1.4	270	1.7	2.3	10
270	5.1	270	5.6	280	7.0	310	3.9	270	6.8	280	2.9	240	3.3	240	3.3	230	3.6	240	5.1	240	5.4	240	4.7	3.9	11
290	7.9	290	7.6	290	8.2	290	5.7	300	5.9	300	5.2	310	5.6	300	4.6	310	6.6	310	6.2	320	6.8	320	7.6	6.3	12
330	10.1	330	10.1	330	10.4	330	10.4	330	9.4	330	9.0	320	6.8	320	5.1	330	5.7	330	4.0	330	4.3	320	4.0	7.8	13
310	3.3	320	2.5	330	2.2	130	3.6	150	3.4	160	4.6	170	3.1	180	3.1	190	2.8	190	3.2	180	2.7	180	3.5	3.3	14
200	3.0	210	4.1	210	2.9	190	4.6	200	3.9	210	4.1	210	2.5	40	1.9	50	0.3	50	0.8	40	1.6	270	4.7	2.9	15
280	8.6	280	8.6	280	6.5	280	10.3	280	8.6	300	4.9	290	4.7	290	4.0	260	2.9	240	2.9	260	2.5	250	2.9	4.6	16
290	4.7	160	3.6	170	6.5	170	4.0	180	3.1	180	0.9	160	1.0	140	0.4	130	1.2	310	1.0	310	2.3	300	1.0	2.5	17
160	4.6	140	4.1	150	5.1	170	4.4	190	4.6	190	3.2	210	2.9	210	5.4	210	4.1	200	3.0	190	3.6	180	2.7	2.8	18
70	2.8	90	1.4	260	4.3	260	5.1	260	3.6	250	4.7	250	4.7	260	2.5	220	2.2	210	2.0	210	3.7	210	2.0	3.1	19
80	6.5	90	7.9	80	5.1	360	5.2	340	4.7	320	4.0	300	4.9	300	4.3	300	4.6	270	4.3	260	3.3	260	2.2	4.4	20
160	7.3	160	8.3	170	6.1	170	8.3	170	9.6	170	9.6	170	6.1	170	5.										

WIND: DIRECTION AND SPEED
Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

147. ABERDEEN: Robinson anemograph from July, 1930.*

 h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		2 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	210	1.3	220	1.4	220	0.3	280	1.1	280	1.3	290	2.2	300	2.3	300	1.2	310	0.8	110	2.4	110	3.6	150	3.9
2	310	2.6	300	3.6	290	3.3	290	3.3	280	2.9	270	2.6	280	2.0	290	2.5	310	1.3	310	1.6	320	1.1	140	4.1
3	150	7.3	140	9.9	140	11.9	140	11.1	150	9.4	160	11.9	180	9.7	180	7.9	180	5.7	170	7.9	180	6.5	180	8.3
4	180	6.1	180	6.1	180	4.4	180	5.2	170	6.1	170	5.2	180	6.4	180	6.4	180	7.3	180	6.9	180	7.3	180	9.7
5	210	1.3	220	1.1	230	1.4	240	1.8	280	1.1	280	0.3	—	0.0	280	2.0	290	3.6	310	3.0	320	2.6	110	2.4
6	290	2.2	290	0.8	290	1.8	290	1.4	290	1.4	290	2.2	300	2.0	300	0.7	140	1.3	110	2.4	120	4.0	120	4.3
7	110	5.5	120	5.9	120	6.7	120	6.2	120	6.7	120	6.7	120	6.2	120	7.9	110	8.3	120	6.2	110	8.3	120	12.2
8	140	0.9	110	1.2	80	1.4	80	2.5	120	3.1	150	4.3	160	2.2	190	3.6	180	5.7	200	7.7	180	8.3	170	10.0
9	190	2.2	190	1.4	190	1.8	180	2.1	180	1.7	130	0.8	180	1.7	180	2.7	150	2.6	160	4.2	190	4.2	200	4.7
10	290	1.1	280	1.6	280	1.3	280	1.3	250	1.8	290	1.1	290	1.1	180	0.3	170	2.7	150	3.9	150	5.6	150	7.3
11	190	4.2	200	2.6	200	3.9	180	4.4	200	3.0	210	2.0	190	2.8	180	2.1	170	2.7	170	4.4	170	5.2	170	7.5
12	220	3.6	220	3.6	220	3.6	220	2.5	230	3.3	210	2.5	150	0.9	210	2.9	200	8.1	190	3.6	180	4.2	180	6.0
13	180	0.9	180	0.4	180	0.9	180	1.3	170	2.1	180	3.5	200	2.1	170	2.1	170	2.7	170	4.0	170	4.0	150	4.7
14	160	3.2	150	2.1	130	1.2	130	0.4	130	0.8	130	1.2	130	1.2	140	1.3	130	1.6	120	1.6	120	3.1	120	1.9
15	140	4.1	140	2.9	150	3.9	150	2.6	140	2.5	130	3.6	140	3.3	140	2.0	110	0.8	100	1.3	100	1.3	110	3.1
16	130	2.8	130	1.6	140	2.9	160	1.8	140	2.5	130	2.4	130	1.9	170	2.1	180	2.2	170	3.5	180	3.5	180	4.0
17	110	1.6	150	2.1	160	3.2	150	0.9	140	4.1	130	5.9	130	5.9	130	6.7	130	8.3	140	8.3	140	10.6	140	8.6
18	190	4.6	200	3.9	210	1.6	190	2.2	200	2.1	190	2.8	190	4.6	190	4.6	180	3.5	170	5.7	170	6.9	170	9.2
19	170	7.9	180	5.7	180	6.1	180	6.5	180	6.9	180	5.2	180	4.4	200	5.6	200	5.6	190	5.5	180	4.4	170	5.7
20	240	1.4	230	2.2	230	2.9	250	2.5	290	2.2	290	2.9	290	2.9	280	4.1	280	4.1	290	4.3	290	5.7	290	4.7
21	270	1.7	280	2.5	280	1.1	250	3.3	240	2.2	230	2.9	220	1.4	200	1.7	230	2.2	280	2.9	270	4.7	280	6.1
22	230	1.4	240	0.8	250	1.4	290	0.8	280	1.1	230	2.5	170	0.9	190	1.8	170	1.3	150	4.3	140	6.5	150	7.3
23	320	10.4	290	8.7	300	7.9	300	8.5	300	7.5	300	11.4	300	10.5	300	10.1	300	9.2	310	11.1	310	11.1	310	11.1
24	200	3.9	200	3.0	190	5.0	180	3.5	180	4.8	180	3.5	200	6.4	200	8.1	200	4.7	190	4.2	190	4.2	210	3.3
25	230	2.5	250	4.3	250	5.1	250	4.7	240	3.3	220	2.9	230	2.9	220	2.5	220	1.4	220	2.2	210	2.9	190	3.2
26	180	7.5	190	7.8	190	7.8	170	5.7	160	8.3	150	8.6	160	9.2	150	9.0	160	9.2	150	8.1	150	9.0	170	4.8
27	220	3.3	200	2.6	180	3.1	220	4.3	220	6.2	230	4.7	200	3.4	180	4.2	170	4.0	170	4.8	200	5.6	220	6.2
28	160	6.0	150	4.7	140	6.1	140	7.4	150	5.6	160	6.6	150	9.0	150	6.4	150	6.4	160	6.0	160	6.4	150	7.3
29	180	1.7	180	2.2	150	0.9	120	0.8	140	0.9	170	2.1	190	2.2	200	1.3	170	2.7	180	4.8	170	5.2	210	5.7
30	190	1.8	200	0.9	190	2.2	180	3.5	170	4.8	170	5.2	160	7.3	160	8.7	160	6.9	150	5.1	150	7.3	150	7.7
Mean	—	3.5	—	3.3	—	3.5	—	3.5	—	3.7	—	4.1	—	3.9	—	4.1	—	4.0	—	4.7	—	5.4	—	6.2

148. ABERDEEN: $h_a = 13$ metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	200	2.9	180	1.3	180	2.1	220	2.2	220	1.8	210	2.0	210	2.0	170	0.9	170	1.7	180	2.1	210	1.6	250	1.8
2	300	0.7	—	0.0	—	0.0	—	0.0	250	1.1	250	0.3	250	1.4	250	1.8	270	2.1	280	3.3	300	1.3	280	1.3
3	100	0.4	90	1.8	120	0.8	300	2.0	290	0.3	240	0.8	90	1.1	180	2.1	160	2.8	150	3.9	150	7.3	150	8.6
4	220	1.4	220	1.4	220	1.1	230	1.1	300	0.7	300	1.3	220	1.4	180	2.1	140	4.9	130	6.7	120	7.9	120	7.9
5	290	4.0	280	4.9	270	4.3	270	5.6	270	—	270	5.6	250	4.7	220	2.9	160	2.2	190	4.2	200	4.7	200	5.1
6	250	2.2	260	1.4	250	0.8	190	1.4	200	1.7	220	2.5	220	1.4	250	1.4	230	1.4	200	1.7	180	2.7	170	5.7
7	140	4.1	150	4.7	150	5.6	180	4.4	200	3.4	190	9.2	190	8.3	200	5.6	200	4.3	210	4.1	220	4.7	210	8.6
8	210	5.7	210	5.4	220	2.9	210	2.0	190	2.2	200	4.3	220	4.3	220	3.6	210	4.9	210	7.4	220	6.2	220	7.6
9	230	3.6	240	2.2	270	3.9	260	3.6	250	2.2	230	3.3	220	2.9	230	3.6	230	2.9	240	2.9	270	9.0	280	10.3
10	200	4.3	180	5.2	200	2.6	230	5.1	200	7.3	200	5.1	200	3.9	280	6.5	280	2.5	280	6.1	280	8.6	270	8.1
11	270	1.7	170	2.7	230	1.4	210	2.5	220	2.9	220	1.8	310	1.0	300	0.7	280	0.4	210	1.3	90	0.8	190	2.8
12	130	1.2	240	2.5	230	3.3	240	2.2	210	1.6	230	1.8	200	3.4	220	4.7	220	6.2	210	6.5	240	4.7	270	7.7
13	280	6.1	270	3.9	280	1.6	290	4.0	280	4.9	270	3.9	270	2.6	280	2.2	280	2.9	240	2.2	240	3.3	250	4.7
14	80	1.4	80	0.8	80	2.5	300	6.9	300	12.8	300	12.2	300	12.8	290	12.7	290	12.3	290	11.9	280	12.3	280	12.7
15	290	6.5	300	5.9	300	7.5	290	6.2	290	5.7	290	7.3	300	7.2	310	5.2	300	3.0	320	2.5	330	3.3	330	5.7
16	320	7.9	330	7.6	340	7.1	330	6.2	320	7.6	320	6.2	320	8.2	320	6.2	320	6.2	320	6.2	320	8.2	320	8.2
17	300	3.6	300	3.9	310	3.3	310	2.6	310	3.0	300	2.3	300	2.6	300	1.6	310	2.0	310	2.3	310	3.0	300	2.3
18	280	1.3	250	2.2	240	2.5	220	2.2	230	2.9	220	4.0	190	4.6	210	4.5	200	2.1	220	3.6	230	4.0	210	6.1
19	270	3.4	270	5.6	250	2.5	250	4.7	210	2.9	220	2.5	220	2.9	230	2.5	220	1.8	230	4.0	240	2.9	160	3.6
20	190	4.2	180	4.8	200	4.7	190	4.2	230	5.4	230	4.7	210	2.9	220	1.4	250	3.3	250	2.9	290	4.3	290	4.3
21	200	3.9	200	3.0	190	2.2	200	2.6	220	2.9	230	2.6	160	2.8	220	2.5	210	4.1	190	7.8	190	5.0	200	7.3
22	170	8.3	180	6.5	180	6.9	190	6.9	190	8.7	210	7.7	200	8.1	190	9.7	180	9.6	180	10.9	190	12.9	190	14.9
23	200	6.8	200	5.1	200	5.6	210	5.6	200	3.4	210	3.3	200	3.9	200	5.1	210	4.5	190	5.5	190	5.5	200	4.7
24	220	2.9	220	3.3	230	3.6	210	0.9	210	0.4	260	0.3	260	1.4	290	2.2	280	2.9	310	1.6	310	1.3	260	1.1
25	300	2.0	300	1.3	300	1.0	300	2.3	130	3.6	120	7.1	120	7.9	120	9.0	120	8.6	120	11.4	120	11.4	130	15.0
26	260	7.6	240	6.2	230	4.7	230	5.7	230	6.2	230	5.4	230	7.3	220	6.5	220	4.7	220	6.5	220	7.3	220	9.0
27	210	6.5	200	8.1	200	10.3	210	10.3	220	6.5	230	6.5	250	7.3	260	5.4	250	7.3	230	4.7	230	5.7	240	6.8
28	230	6.2	220	7.9	230	7.3	230	6.8	230	6.8	230	6.5	240	7.3	250	6.5	240	5.7	250	6.8	260	7.6	260	7.3
29	270	11.6	260	8.2	260	8.2	270	9.8	270	10.7	270	9.0	250	4.7	250	4.0	270	6.8	290	7.8	300	11.3	300	8.9
30	300	3.0	320	3.6	320	4.0	330	4.3	330	3.6	310	3.6	320	2.9	320	4.7	320	5.1	320	5.4	330	3.6	310	3.9
31	310	3.6	310	4.6	310	4.9	320	5.4	310	6.2	310	5.2	310	4.6	300	5.6	310	6.2	300	6.6	300	8.9	290	8.7
Mean	—	4.2	—	4.1	—	3.8	—	4.2	—	4.4	—	4.5	—	4.4	—	4.3	—	4.4	—	5.2	—	5.8	—	6.6
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

Averages for periods of sixty minutes, ending at the exact hours, Greenwich Mean Time.

M.S.L. + h_a (height of anemograph above ground) = 13 metres + 23 metres.

SEPTEMBER, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
140	4.5	140	4.1	130	3.8	130	4.3	120	2.8	130	3.6	130	2.4	130	1.9	130	1.6	300	1.6	310	2.3	310	3.3	2.4	1
150	5.6	150	5.6	160	5.5	170	6.9	180	5.0	180	5.5	150	4.7	150	5.1	140	6.1	150	7.7	140	7.7	150	6.8	4.3	2
170	9.6	170	8.8	170	8.3	180	8.8	200	5.6	190	6.4	170	8.3	170	6.9	180	7.9	170	7.5	170	6.5	180	4.0	8.2	3
170	8.8	170	6.1	160	7.3	150	5.1	160	5.0	170	4.4	170	3.1	190	1.8	200	2.1	200	1.3	200	2.1	200	1.3	5.2	4
130	3.1	140	2.5	130	4.3	130	3.1	120	3.1	120	2.8	120	2.8	130	1.6	130	0.4	140	1.3	160	1.4	160	1.0	2.0	5
120	4.0	110	4.0	100	3.7	110	4.3	110	4.7	110	4.3	100	5.7	110	5.9	110	6.2	110	5.9	110	6.2	110	5.9	3.6	6
130	11.0	130	9.0	140	9.4	150	7.7	150	4.7	170	4.0	150	2.6	160	2.8	170	2.1	180	2.1	170	1.3	140	1.3	6.0	7
200	9.8	190	1.1	190	12.9	190	10.1	190	8.3	190	6.0	200	5.1	190	1.8	180	1.7	170	1.7	160	1.8	160	1.4	5.1	8
190	5.0	180	4.8	310	2.0	30	2.1	80	1.8	90	0.8	320	1.1	320	1.1	320	1.8	290	1.8	290	1.4	290	0.8	2.3	9
150	7.3	150	6.8	150	7.3	150	7.3	170	6.1	180	6.9	140	4.5	150	4.3	170	8.8	170	6.9	170	5.2	170	4.8	4.4	10
170	7.9	170	6.1	170	7.9	180	4.0	190	5.0	190	5.0	170	3.1	180	2.1	110	2.4	190	4.2	200	5.1	220	2.9	4.2	11
170	5.7	150	5.1	180	4.4	180	5.0	180	4.8	180	4.4	190	4.6	190	3.6	190	4.8	190	8.2	190	3.2	190	1.8	3.7	12
160	7.8	160	6.0	160	4.6	150	4.7	160	4.2	160	5.5	160	5.5	160	4.6	170	4.0	180	3.1	160	3.6	150	2.6	3.5	13
130	3.6	120	3.1	120	3.1	130	1.6	140	2.5	140	3.7	150	3.4	140	4.1	140	6.1	140	6.5	140	6.1	150	4.3	2.8	14
120	3.6	130	4.0	130	4.7	120	4.3	130	4.0	120	4.0	130	4.0	130	4.0	140	2.9	140	4.1	140	3.3	140	2.5	3.2	15
180	6.9	170	4.8	170	5.2	170	4.4	170	3.5	180	4.0	180	3.1	190	3.2	190	3.6	200	3.9	200	0.9	170	1.7	3.2	16
140	9.9	150	7.3	210	4.9	140	5.4	150	6.0	150	6.0	170	6.9	190	4.6	190	4.2	200	2.6	210	2.9	190	3.6	5.4	17
160	7.3	170	7.9	190	10.1	160	7.8	170	6.9	170	5.2	160	5.0	170	4.4	170	4.8	170	5.2	170	6.5	180	6.4	5.4	18
170	6.5	170	6.9	180	6.1	190	4.6	290	5.4	300	1.6	300	1.6	300	1.3	260	2.5	270	3.0	260	0.8	240	2.5	4.7	19
270	3.0	170	4.0	130	4.0	170	3.1	290	2.2	290	0.8	280	0.9	270	2.1	280	1.6	280	1.3	260	3.3	250	1.1	2.8	20
260	5.1	280	2.5	290	2.2	10	1.3	150	0.9	220	1.4	280	2.0	300	1.6	300	1.6	280	1.6	270	1.7	230	1.4	2.3	21
140	7.4	140	7.4	140	8.3	150	4.3	220	1.4	290	3.6	290	3.3	260	3.3	270	5.1	280	7.4	280	8.3	300	8.9	4.1	22
300	12.8	300	8.9	290	9.4	300	7.5	280	4.5	290	4.7	260	1.4	220	1.1	220	2.2	190	2.8	210	3.3	220	2.9	7.5	23
230	3.3	230	1.8	200	3.4	190	2.8	230	4.3	230	4.7	230	2.5	230	3.6	240	3.3	220	1.8	220	1.8	210	1.3	3.7	24
150	5.6	220	4.0	200	6.0	190	4.2	180	4.0	190	4.6	200	3.0	190	6.0	170	4.4	170	4.4	170	7.9	170	8.3	4.2	25
170	6.1	180	4.0	160	5.5	150	3.4	250	5.4	240	4.3	220	4.0	220	4.7	210	6.1	210	6.5	220	6.8	240	6.2	6.6	26
210	7.4	220	5.4	180	5.7	210	6.1	210	4.9	210	3.7	220	5.4	210	3.3	210	3.7	180	4.0	190	2.8	180	3.1	4.5	27
150	8.1	140	7.0	150	6.4	180	5.0	150	6.8	150	4.3	160	5.1	150	4.3	160	2.8	170	2.1	160	3.6	180	2.7	5.8	28
210	4.9	220	3.6	220	1.4	200	2.6	200	2.6	200	1.7	190	2.2	190	1.4	190	1.8	200	1.7	200	3.4	210	2.9	2.5	29
150	7.7	140	9.4	160	6.7	170	5.2	180	6.5	180	6.1	180	5.2	190	4.6	180	5.7	190	4.2	180	2.7	190	1.8	5.4	30
--	6.6	--	5.4	--	5.9	--	4.9	--	4.4	--	4.1	--	3.7	--	3.4	--	3.7	--	3.7	--	3.8	--	3.3	4.3	

OCTOBER, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	Day
160	2.2	170	4.4	160	3.6	150	1.3	360	1.3	360	0.9	360	1.3	360	1.3	290	0.8	300	1.0	300	0.3	--	0.0	1.7	1
90	1.8	80	1.8	90	1.4	50	0.8	120	1.2	120	1.2	120	0.8	350	1.0	310	1.6	320	0.8	100	0.4	--	0.0	1.1	2
140	8.6	140	10.3	140	8.6	150	10.3	140	9.9	160	12.5	160	5.0	200	4.7	210	1.6	230	1.8	210	1.8	210	1.6	4.6	3
120	7.4	110	6.2	110	8.6	120	5.2	110	4.3	100	6.5	80	5.4	60	5.4	60	3.3	310	4.6	320	3.6	340	4.0	4.3	4
200	5.1	210	4.5	250	4.3	260	5.1	270	6.4	280	4.5	270	3.4	270	6.4	290	4.7	270	3.0	280	3.3	290	4.3	4.6	5
170	5.2	170	6.5	160	7.8	160	7.3	150	9.0	160	10.1	150	10.3	160	8.7	160	7.8	160	6.9	150	6.0	140	5.7	4.8	6
220	6.8	230	6.2	230	6.5	220	5.4	230	7.3	200	6.0	210	7.0	200	6.4	180	3.5	190	2.2	220	2.5	210	4.1	5.5	7
230	5.4	220	4.7	220	3.3	220	4.7	220	4.0	210	5.7	200	5.1	200	5.6	210	5.7	200	3.9	200	4.7	210	6.1	4.8	8
280	11.1	280	11.5	300	8.5	300	10.1	300	6.6	290	4.7	270	3.4	270	2.6	230	1.8	220	2.5	210	2.5	210	3.7	5.0	9
270	7.3	270	7.7	270	8.1	270	7.3	250	4.0	240	2.9	240	4.0	240	3.3	250	3.6	260	2.9	180	3.1	230	2.5	5.1	10
170	3.1	230	4.3	210	4.9	220	2.5	260	4.3	250	6.5	240	5.1	160	3.2	170	2.7	180	2.1	230	4.3	230	3.3	2.8	11
280	13.0	280	9.0	310	6.6	350	4.6	330	5.4	300	5.9	300	4.9	270	2.6	240	3.3	240	2.5	250	5.1	290	8.7	4.9	12
280	3.3	220	2.5	200	1.7	140	2.0	200	0.9	200	2.6	210	2.5	210	4.9	200	5.1	190	6.4	200	5.1	200	3.0	3.4	13
280	10.3	280	11.5	280	9.0	270	8.1	270	6.8	270	6.8	270	6.4	270	7.7	280	8.6	280	10.3	290	7.3	290	6.2	8.8	14
330	6.8	330	7.9	340	8.6	330	7.3	340	7.9	330	7.3	330	7.3	330	6.5	330	7.9	330	7.3	330	7.9	340	7.9	6.5	15
310	8.2	300	6.9	290	8.2	290	9.0	300	6.6	300	7.2	300	7.9	310	5.2	310	4.9	320	4.3	310	3.6	300	4.3	6.8	16
290	1.4	230	1.4	220	1.8	160	3.6	170	4.4	200	4.3	200	4.7	210	2.5	220	1.1	210	0.9	280	1.6	240	1.4	2.6	17
260	4.3	280	7.7	290	10.1	290	6.5	270	7.3	270	7.3	290	4.7	270	4.3	270	7.3	260	5.1	300	8.2	290	5.1	4.9	18
170	2.7	170	2.7	170	2.1	200	1.7	180	0.9	190	2.2	210	2.5	210	1.6	210	1.6	210	3.3	210	3.7	210	4.1	2.9	19
260	3.6	130	1.9	60	0.8	80	0.8	200	2.6	210	3.3	210	4.9	210	4.9	220	3.3	220	3.6	210	5.7	220	5.4	3.7	20
180	5.2	180	6.1	190	7.3	180	5.5	150	4.7	180	7.9	170	9.2	170	8.8	170	8.3	170	8.8	170	9.6	170	6.8	5.7	21
190	12.5	200	11.6	210	9.4	210	11.5	220	7.6	210	7.7	210	8.3	210	8.3	210	7.4	220	5.1	200	4.7	200	6.4	8.8	22
200	7.7	200	5.1	200	7.3	200	6.8	200	3.9	200	3.0	210	2.9	210	3.3	210	2.5	210	2.0	230	2.9	240	2.9	4.6	

Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

149. ABERDEEN: Robinson anemograph from July, 1930.*

 h_a (height of anemograph above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	270	5.6	290	7.3	290	8.2	270	5.6	280	8.3	280	7.0	280	4.0	280	5.1	250	5.1	280	6.2	270	8.1	280	10.3
2	280	8.3	270	7.3	280	7.4	290	7.9	300	7.2	300	8.5	290	8.7	290	7.3	280	9.0	290	9.0	280	8.6	300	9.5
3	300	1.3	300	1.6	300	2.0	300	1.6	300	2.3	300	1.6	170	2.7	180	6.0	180	6.0	140	6.1	150	6.8	150	7.3
4	210	4.1	200	5.6	210	4.1	170	3.5	180	4.0	190	2.8	200	2.1	220	0.8	200	1.7	170	4.4	190	3.6	200	3.4
5	340	5.9	340	5.9	340	5.2	330	4.0	330	5.4	320	5.4	320	5.1	330	4.7	330	5.7	310	5.6	310	5.6	320	6.5
6	320	4.3	310	4.6	320	5.7	310	4.9	310	3.3	310	4.6	320	4.3	340	5.5	320	5.4	320	5.1	320	5.1	330	5.4
7	310	3.9	300	5.6	310	5.2	300	5.2	310	5.6	310	4.6	320	4.3	310	4.3	310	5.9	330	2.9	310	4.6	320	5.7
8	290	6.5	300	3.9	290	5.1	300	3.6	300	3.3	290	3.3	290	1.4	290	1.4	230	2.2	230	1.1	300	1.3	310	0.7
9	310	3.3	310	3.3	340	4.3	350	5.5	350	6.4	350	5.0	340	4.0	340	5.5	340	4.7	350	6.4	340	4.7	350	7.3
10	20	5.1	20	5.1	60	9.4	50	8.2	40	7.4	40	9.5	60	11.1	50	8.2	60	10.1	60	10.8	50	8.7	60	10.1
11	60	6.2	350	4.2	350	3.2	350	2.8	320	1.8	320	2.2	310	2.3	350	2.9	320	2.5	290	2.5	310	1.3	320	2.9
12	300	3.3	290	4.0	300	3.9	290	3.3	290	4.0	290	4.3	290	4.0	290	2.5	290	3.6	300	3.9	300	3.6	300	3.0
13	300	2.6	300	2.3	300	2.6	300	2.6	300	2.0	310	2.6	320	1.8	320	1.4	310	2.6	300	3.0	300	3.3	300	3.6
14	310	0.7	310	1.6	310	2.3	290	2.2	300	2.0	300	2.0	280	2.9	290	1.4	290	3.3	290	2.2	310	1.6	290	2.2
15	300	3.3	300	2.6	300	3.6	300	3.0	300	3.6	300	4.3	290	3.6	290	3.6	290	4.0	300	5.6	310	4.3	310	4.3
16	310	3.9	310	3.9	310	3.9	310	3.0	320	3.3	310	2.3	310	2.3	310	2.6	320	1.1	90	4.3	90	5.4	90	6.2
17	300	3.6	300	3.9	300	3.3	300	3.3	300	3.9	290	3.3	300	2.6	300	3.0	290	3.6	300	3.3	300	3.3	300	3.3
18	290	4.0	290	4.3	300	3.0	300	2.3	300	2.6	290	2.2	290	1.1	300	1.6	300	1.6	300	1.3	300	2.0	300	1.3
19	220	2.5	220	0.8	230	0.8	230	2.2	220	1.4	220	0.8	210	0.9	200	1.7	190	1.0	210	1.6	220	2.5	220	3.3
20	210	4.1	230	3.3	170	3.1	170	3.5	190	3.6	180	3.1	200	3.0	210	4.5	200	4.7	190	5.0	200	4.7	270	6.0
21	200	1.3	210	1.3	230	1.8	210	3.7	210	2.9	220	2.9	200	3.4	210	3.3	210	2.9	210	4.5	210	4.9	200	5.1
22	220	5.4	220	6.2	220	5.1	220	4.7	200	6.0	200	2.1	230	4.3	210	6.5	200	6.8	200	3.9	210	6.1	220	6.5
23	300	3.9	300	2.3	300	5.2	280	1.8	280	2.0	240	1.8	250	2.5	240	1.8	280	2.5	250	2.5	250	1.8	270	4.7
24	360	0.4	—	0.9	310	1.8	280	2.0	310	1.0	310	1.3	310	1.3	310	1.3	310	1.0	300	1.3	200	2.1	190	2.8
25	220	2.2	230	2.9	220	2.9	210	4.1	210	3.7	210	3.7	210	4.1	200	3.4	200	4.3	210	3.3	210	4.1	190	3.2
26	220	7.6	200	7.3	210	6.1	200	7.7	210	5.4	190	4.2	160	3.6	190	3.6	190	4.6	210	4.1	220	2.5	240	2.9
27	240	4.7	200	2.1	200	2.6	230	5.1	230	3.6	230	3.3	230	2.9	250	5.7	260	6.2	280	5.4	240	6.2	230	7.9
28	280	4.0	240	3.6	230	2.9	240	4.7	230	4.3	210	3.7	220	3.6	220	3.3	250	3.3	240	4.3	230	2.9	220	1.8
29	290	1.3	290	0.9	180	0.9	190	1.4	210	0.9	210	1.3	220	1.4	260	1.1	230	0.8	310	0.9	220	1.4	230	1.1
30	230	1.4	220	1.8	190	1.8	200	1.7	210	3.7	220	2.5	220	3.3	220	2.9	210	4.1	210	2.9	210	3.7	210	2.9
Mean	—	3.8	—	3.7	—	3.9	—	3.8	—	3.8	—	3.5	—	3.4	—	3.6	—	4.0	—	4.1	—	4.2	—	4.7

150. ABERDEEN: $h_a = 13$ metres + 23 metres.

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	200	8.6	180	7.5	150	5.1	180	6.1	180	5.7	190	7.8	190	7.8	200	4.3	200	5.6	200	3.4	180	5.2	180	5.7
2	180	4.8	160	4.6	170	6.5	170	5.7	170	2.7	190	3.2	200	3.9	180	5.2	190	3.2	140	2.9	160	2.8	170	3.5
3	310	2.3	300	3.6	300	3.0	300	3.3	300	3.0	300	1.3	310	1.3	310	1.3	310	1.3	310	1.3	310	1.3	380	2.1
4	350	3.6	350	4.6	350	4.6	10	5.1	20	6.4	350	6.9	340	5.2	350	8.3	350	6.9	10	5.6	10	4.7	50	9.8
5	50	10.1	50	11.4	50	10.4	40	11.0	40	8.3	30	7.7	50	10.4	20	8.1	350	7.3	10	5.6	20	6.8	350	6.4
6	340	4.3	330	3.6	330	4.0	330	4.0	300	3.0	290	3.3	300	3.3	300	3.3	310	3.0	300	2.6	300	2.0	300	2.0
7	130	4.3	120	4.3	100	2.9	90	3.6	70	2.4	300	2.0	300	3.0	300	3.3	290	4.0	290	4.7	290	3.3	290	1.1
8	160	5.0	150	5.1	160	6.4	150	6.8	160	6.9	160	5.6	160	6.4	150	5.6	160	5.5	160	6.0	160	6.9	170	4.8
9	140	6.5	150	9.4	140	10.6	140	8.6	150	10.7	130	9.8	140	12.3	140	13.1	140	12.3	140	10.6	140	10.3	140	12.7
10	170	7.5	180	6.5	170	6.9	170	8.3	200	5.6	210	3.3	180	4.4	190	3.2	180	3.5	170	4.8	170	5.7	170	6.1
11	170	5.7	170	5.2	160	6.0	160	6.9	160	7.8	160	7.3	170	7.9	170	6.9	160	6.4	160	8.3	170	8.8	160	8.7
12	170	6.1	170	6.5	160	7.3	150	6.8	160	7.7	150	9.4	140	9.4	140	8.6	130	11.4	130	11.8	130	10.2	130	11.8
13	160	6.0	170	6.9	160	5.0	160	6.0	160	6.4	160	6.4	160	6.0	170	5.7	160	5.5	160	5.5	150	5.6	140	6.1
14	150	3.4	150	4.3	150	4.3	150	4.3	150	4.7	160	5.0	160	4.6	160	3.2	150	3.9	150	5.6	150	4.7	150	5.1
15	120	13.8	120	12.6	120	12.2	120	10.7	110	10.7	110	10.2	110	9.0	100	9.9	90	8.2	90	9.4	90	7.3	100	5.7
16	120	2.8	130	2.4	130	1.9	130	1.6	130	1.2	130	1.9	140	2.5	160	1.4	130	1.2	150	3.0	140	2.5	150	2.1
17	220	1.1	190	1.0	190	1.0	190	1.0	--	0.0	180	1.3	230	0.8	230	0.8	230	0.8	220	2.2	220	1.1	200	2.6
18	140	8.3	140	8.6	150	9.0	150	10.3	140	8.6	150	9.0	140	7.4	140	7.7	140	7.0	140	7.0	140	6.5	140	6.5
19	150	4.7	140	4.1	130	5.5	130	5.9	130	2.4	140	0.9	140	0.9	140	2.5	140	1.6	150	1.3	150	3.0	150	3.0
20	270	1.3	270	2.1	290	1.8	300	0.3	310	1.0	310	0.7	310	1.6	310	0.7	310	1.0	300	1.6	300	2.0	310	1.0
21	290	1.1	300	0.7	300	2.6	300	3.0	300	2.0	290	1.8	260	1.4	180	1.3	--	0.4	--	0.4	--	0.4	160	2.8
22	150	4.3	140	4.9	140	5.4	140	5.7	140	5.4	140	6.5	140	5.4	140	5.4	140	4.9	140	4.9	140	5.4	150	5.6
23	130	7.9	130	7.9	130	8.3	130	8.6	130	7.4	130	8.3	140	8.6	140	10.3	130	9.0	140	9.4	140	10.3	140	5.4
24	140	8.3	130	9.5	130	8.6	130	9.8	130	11.4	130	11.4	130	9.0	130	9.5	130	9.0	130	9.8	130	8.6	140	9.4
25	130	9.5	130	10.7	130	11.0	130	11.8	130	11.8	130	10.7	130	11.4	130	11.0	130	10.7	130	11.4	130	11.8	120	10.7
26	130	12.4	130	14.2	130	14.8	120	16.2	120	16.9	120	17.6	110	17.2	110	16.2	110	14.2	120	14.2	120	15.3	120	14.8
27	140	11.9	140	10.3	140	9.4	140	9.9	140	9.9	140	10.3	150	9.8	150	8.1	150	7.3	160	8.3	170	4.8	210	4.5
28	160	6.0	160	5.0	160	5.5	160	5.5	150	4.3	140	4.5	140	4.9	140	7.7	140	8.3	140	10.3	150	10.3	150	9.4
29	140	0.9	300	2.0	300	2.0	300	1.0	--	0.0	300	0.7	290	0.8	290	1.4	290	1.4	300	0.7	290	1.1	280	4.1
30	170	0.9	170	1.7	190	1.4	220	2.2	220	2.9	210	4.1	210	4.1	180	3.1	170	2.1	160	5.5	160	9.2	160	10.5
31	170	5.7	190	7.8	210	6.5	210	6.5	210	6.5	210	3.7	210	3.3	230	5.4	240	6.5	250	5.4	250	5.7	250	4.0
Mean	--	5.8	--	6.1	--	6.1	--	6.3	--	6.0	--	5.9	--	5.9	--	5.9	--	5.6	--	5.9	--	5.9	--	6.1
Annual Mean	--	4.0	--	4.1	--	4.0	--	4.1	--	4.0	--	4.1	--	4.2	--	4.3	--	4.5	--	4.9	--	5.2	--	5.6
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

Averages for periods of sixty minutes, ending at the exact hours, Greenwich Mean Time.

M.S.L. + h_a (height of anemograph above ground) = 13 metres + 23 metres.

NOVEMBER, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
280	10.3	300	8.9	290	6.8	290	6.2	280	4.7	290	6.8	280	3.3	280	6.5	280	9.9	280	8.3	280	5.4	280	7.7	6.9	1
300	7.9	290	8.2	300	6.8	280	6.5	290	4.3	280	2.9	290	3.3	290	3.6	290	3.6	280	1.6	280	1.3	290	1.4	6.2	2
140	9.9	140	9.0	140	9.4	160	4.6	190	4.2	180	4.4	180	4.4	180	4.4	190	4.2	200	4.7	200	4.7	210	3.7	4.7	3
190	2.2	190	0.4	360	2.1	330	2.9	320	3.3	320	3.3	320	4.0	320	3.6	320	5.1	330	3.6	330	4.0	330	4.3	3.3	4
330	6.2	320	4.7	320	5.1	320	5.4	320	5.7	310	4.6	310	4.6	310	3.9	310	3.9	320	4.7	310	3.6	310	3.9	5.1	5
330	6.2	330	5.4	320	5.1	330	5.7	330	5.1	320	3.6	330	2.9	310	3.6	320	5.4	310	4.3	320	4.3	310	5.2	4.8	6
310	7.9	330	6.8	310	5.9	310	7.2	320	6.2	320	4.3	300	5.2	310	4.6	300	5.9	300	5.9	310	5.6	300	5.9	5.4	7
160	1.8	160	3.2	150	3.0	150	2.1	160	1.8	160	1.0	290	1.4	310	2.0	300	3.0	300	3.0	300	3.6	310	3.6	2.6	8
350	7.8	360	7.5	360	8.8	350	8.3	350	8.3	340	7.1	350	7.8	350	8.7	360	8.3	360	9.2	360	8.8	360	7.9	6.6	9
60	7.3	60	5.7	60	8.7	60	13.4	60	12.5	60	11.4	60	9.4	60	11.1	60	11.1	60	10.1	60	8.7	60	7.9	9.2	10
320	2.5	320	4.0	310	3.9	300	3.3	300	2.6	300	3.0	290	2.9	290	3.3	290	3.6	290	3.6	300	3.3	300	3.3	3.1	11
300	2.0	310	2.0	320	1.8	310	1.3	310	1.6	300	2.3	310	2.0	310	2.3	300	2.0	300	1.6	300	2.6	300	2.3	2.8	12
290	4.0	290	4.3	290	3.3	290	2.2	290	1.4	290	1.1	290	2.2	300	1.0	300	1.0	290	1.4	270	1.3	310	1.6	2.3	13
290	1.8	290	1.8	300	2.3	300	2.6	300	3.0	290	2.9	290	3.3	290	3.6	300	3.0	300	3.9	300	3.3	300	3.0	2.5	14
310	2.6	310	3.0	320	2.9	320	2.5	310	3.3	300	3.0	300	3.6	300	3.9	300	3.6	310	4.3	310	3.6	310	3.9	3.6	15
90	5.4	100	5.4	110	4.3	100	4.9	90	4.0	60	1.8	80	1.8	110	3.1	310	1.3	300	2.3	300	3.3	300	3.3	3.5	16
290	3.3	290	2.5	290	1.4	300	1.3	300	3.0	300	2.6	290	3.6	280	3.3	280	3.3	290	2.9	290	3.6	300	3.3	3.1	17
300	0.7	300	0.3	300	0.7	300	0.7	300	0.7	300	0.7	300	1.0	300	1.3	210	2.9	210	1.3	220	1.4	210	2.0	1.7	18
220	3.6	230	5.4	230	4.0	240	3.6	240	4.0	280	2.0	290	3.3	290	3.3	290	1.4	210	1.6	230	1.4	220	1.4	2.3	19
290	2.5	270	2.6	270	2.6	270	3.9	310	1.0	310	1.3	250	2.5	230	3.3	240	2.9	220	2.9	250	1.8	190	2.2	3.2	20
200	3.9	200	2.1	190	4.2	200	4.7	190	5.5	190	5.0	200	3.9	200	2.6	210	5.4	210	5.4	210	7.7	200	7.7	4.0	21
220	9.0	220	7.3	210	6.5	210	8.3	210	7.7	210	5.4	320	5.4	300	3.6	310	2.6	310	2.0	310	3.3	300	4.9	5.4	22
260	3.3	240	1.8	220	1.3	210	1.3	200	1.7	200	2.1	220	1.1	220	1.1	230	1.1	230	0.3	300	1.3	270	1.7	2.1	23
200	3.4	200	4.7	200	2.6	210	2.0	180	1.7	210	3.3	200	3.4	210	2.9	210	3.3	210	3.7	210	3.3	220	2.5	2.3	24
210	3.3	200	1.7	190	1.8	240	4.0	190	2.8	230	2.5	210	4.9	200	4.7	190	4.6	190	5.0	180	4.4	190	6.0	3.7	25
240	4.0	230	2.2	270	3.9	280	1.6	240	3.6	260	4.7	250	5.7	250	4.3	200	3.4	220	4.0	240	5.7	260	7.9	4.6	26
200	4.7	210	5.4	220	2.9	260	3.3	250	2.5	250	5.4	220	2.2	230	1.1	270	1.7	170	1.3	270	4.3	250	3.6	3.6	27
240	2.2	220	2.2	260	3.6	300	1.6	250	2.5	250	2.2	240	1.1	230	2.2	170	1.7	210	1.3	250	0.9	240	1.8	2.7	28
220	1.8	220	1.1	300	0.4	280	1.3	280	0.9	240	0.8	310	0.7	--	0.4	--	0.9	--	0.9	190	0.9	200	2.1	1.1	29
180	3.1	180	4.0	190	4.2	200	2.6	200	3.4	200	3.9	170	7.5	190	6.4	180	5.2	190	6.0	190	7.8	200	6.4	3.9	30
--	4.5	--	4.1	--	4.0	--	4.0	--	3.8	--	3.5	--	3.6	--	3.7	--	3.8	--	3.7	--	3.8	--	4.1	3.9	

DECEMBER, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
190	4.2	210	4.5	190	5.0	180	5.7	170	4.4	190	5.5	190	5.0	180	4.4	180	5.2	180	3.5	200	5.1	200	4.3	5.4	1
170	4.0	180	4.8	190	4.2	200	3.9	210	1.6	280	1.6	290	2.5	300	2.6	300	2.0	300	4.9	300	3.9	310	3.3	3.7	2
360	2.1	360	3.1	360	4.0	360	4.0	350	5.5	340	3.1	340	3.1	340	3.6	340	4.3	330	2.9	320	3.6	330	3.3	2.8	3
50	7.6	50	10.4	50	10.8	60	11.8	60	12.1	50	11.1	50	10.4	40	9.8	40	9.0	50	9.8	50	10.4	50	10.1	8.1	4
350	6.4	350	7.3	350	6.4	350	5.5	350	6.9	350	6.9	350	6.4	350	5.0	350	6.4	340	4.7	340	4.0	330	3.3	7.3	5
300	1.6	300	1.6	300	2.3	300	1.6	310	2.0	310	1.3	310	0.7	310	0.7	310	1.0	310	1.3	130	2.8	140	4.1	2.5	6
230	1.8	190	2.2	180	3.1	170	2.1	190	3.2	190	3.2	200	2.1	220	3.6	200	6.0	190	4.6	150	1.7	180	4.6	3.2	7
160	4.6	170	6.1	170	4.4	160	6.0	160	7.3	170	5.7	200	6.4	180	4.0	170	6.5	170	4.8	170	4.4	150	4.7	5.7	8
140	11.5	130	11.8	130	11.8	140	11.9	140	11.9	130	12.6	140	15.1	150	13.5	200	9.4	170	8.8	170	7.5	170	6.1	10.8	9
160	8.3	160	9.7	170	9.2	200	6.8	210	6.1	190	6.0	210	4.5	180	4.8	190	5.5	180	4.6	180	4.4	180	4.4	5.8	10
170	8.8	170	7.5	160	8.7	160	7.3	160	7.8	160	10.1	160	8.3	160	6.9	170	4.8	170	6.5	170	5.7	170	6.1	7.3	11
130	11.9	130	10.7	140	10.3	140	10.3	140	8.3	140	7.0	160	7.8	160	7.8	180	5.2	200	5.1	200	3.9	190	4.2	8.3	12
160	5.0	160	5.5	140	6.1	140	6.1	140	6.5	140	5.4	140	6.5	150	5.1	150	6.0	150	4.7	150	3.9	160	3.8	5.6	13
150	5.1	140	6.5	140	5.7	140	7.0	130	8.3	130	10.2	130	9.8	130	11.4	130	11.4	120	11.8	120	12.6	120	11.4	6.8	14
90	6.2	80	5.1	100	4.1	120	4.3	130	6.2	110	3.6	110	4.3	110	3.6	110	4.0	110	4.0	110	4.0	110	2.8	7.2	15
150	2.6	150	2.6	180	3.2	180	2.7	180	3.1	160	3.2	170	2.1	160	1.8	190	2.8	220	2.2	180	2.7	160	2.2	2.3	16
190	3.2	200	3.9	200	3.9	200	4.3	200	3.9	210	3.3	180	3.1	180	4.0	190	2.8	180	3.2	150	5.1	140	7.7	2.6	17
150	5.6	160	5.0	160	4.6	150	5.6	160	4.2	160	5.5	160	4.6	170	4.4	170	4.4	170	3.1	180	2.7	160	3.6	6.2	18
160	3.6	160	2.2	160	2.8	160	2.8	160	1.4	230	0.3	230	0.3	230	0.8	230	0.3	230	0.3	230	0.3	230	0.3	2.3	19
310	1.3	300	2.3	300	1.6	310	1.6	300	2.0	310	2.3	300	2.3	300	2.6	310	1.6	300	2.6	300	2.6	300	2.3	1.7	20
170	2.1	190	1.8	190	1.8	180	1.7	160	2.8	160	2.8	150	3.4	150	4.7	150	4.3	150	3.9	150	3.4	150	3.9	2.3	21
140	6.1	140	6.1	140	6.5	130	6.2	130	6.7	130	7.4	130	7.1	130	7.4	140	6.1	130	5.9	130	6.7	130	5.9	5.9	22
140	7.0	130	6.2	140	7.7	140	8.3	140	7.0	140	7.0	130	9.5	140	5.7	140	8.3	140	7.7	140	7.7	140	7.7	8.0	23

151. ABERDEEN: Ha = 24 metres + 13 metres.

1934.

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.	Max. in a Gust.	Time of Gust.
1	m/s. 18	h. m. 9 20	m/s. 14	h. m. 0 20	m/s. 17	h. m. 13 45	m/s. 11	h. m. 22 15	m/s. 15	h. m. 10 10	m/s. 10	h. m. 0 40	m/s. 11	h. m. 22 55	m/s. 14	h. m. 1 0	m/s. 8	h. m. 11 45	m/s. 8	h. m. 13 30	m/s. 17	h. m. 12 45	m/s. 17	h. m. 17 5 40
2	17	21 45	9	15 10	21	3 55	13	2 30	11	11 10	8	15 25	17	14 15	16	14 25	15	24 0	4	8 10	17	11 50	13	2 35
3	19	19 30	12	0 20	18	13 25	13	17 45	12	12 50	10	15 10	10	10 5	11	18 40	21	2 55	17	16 55	16	12 55	10	15 35
4	19	11 10	8	12 55	14	6 25	15	23 50	5	14 25	13	11 40	7	13 40	13	14 45	17	11 55	12	13 50	10	3 55	17	20 50
5	17	4 45	10	17 35	18	21 15	18	11 40	18	18 35	17	16 25	6	10 50	9	13 10	7	9 30	12	16 25	13	10 45	17	2 45
6	22	4 35	17	9 5	15	1 45	15	6 55	27	19 40	15	13 20	7	18 25	6	15 55	9	23 40	17	18 25	16	7 20	9	0 50
7	27	11 15	31	23 15	17	13 45	15	23 45	19	3 50	9	5 55	10	13 35	6	12 50	17	12 40	19	5 50	19	14 15	11	21 15
8	17	16 0	30	3 10	14	10 35	16	1 55	14	8 15	7	0 30	10	13 30	11	12 15	23	14 15	15	11 20	8	0 25	15	16 0
9	24	20 5	21	12 5	8	23 30	20	4 5	12	12 5	6	14 45	5	13 25	12	13 45	11	13 5	20	12 20	15	22 0	23	19 10
10	23	0 35	25	18 35	14	20 20	21	15 15	11	17 20	7	16 0	7	16 20	12	14 25	17	20 55	17	12 30	16	5 15	18	13 20
11	24	12 15	19	12 20	20	23 30	19	17 30	13	10 45	13	10 15	10	17 25	13	16 35	16	13 0	13	12 55	11	0 10	17	12 20
12	19	2 30	12	23 10	22	2 25	21	6 20	12	4 40	7	13 5	8	0 10	18	11 40	11	14 40	19	13 15	7	7 50	18	12 40
13	13	7 20	12	2 20	18	0 35	18	4 5	25	23 40	9	23 10	8	13 0	19	16 5	11	13 25	11	22 15	6	12 25	14	3 45
14	15	23 40	7	16 40	15	23 10	17	13 55	27	1 45	8	15 30	8	13 30	17	8 20	12	21 40	24	5 55	4	23 5	20	23 15
15	19	5 15	7	13 15	18	5 15	19	21 15	13	23 50	13	9 45	14	12 55	9	10 50	8	14 30	19	14 10	8	9 55	19	0 15
16	14	3 45	5	14 30	13	21 50	21	4 5	13	9 55	12	21 30	12	15 25	14	14 50	12	14 10	22	0 0	8	11 5	8	21 40
17	23	14 40	9	15 10	14	23 40	16	10 0	16	13 5	10	11 25	15	16 0	9	9 40	15	13 10	10	17 15	6	17 50	12	23 30
18	24	4 35	17	16 0	14	1 5	9	13 25	11	8 40	14	13 5	11	18 5	10	16 10	17	11 25	18	14 0	4	0 40	20	3 50
19	17	5 0	24	14 15	8	12 20	14	13 25	16	13 30	17	16 20	18	8 40	11	14 50	14	2 40	11	3 0	10	13 20	10	4 20
20	19	21 20	20	15 0	18	17 5	17	21 15	14	9 35	17	2 50	8	17 50	11	11 50	11	9 55	12	4 40	13	4 55	6	1 35
21	16	1 5	19	4 5	12	3 35	21	14 20	27	15 55	11	20 5	8	18 15	20	16 5	9	11 0	24	23 20	11	23 40	8	20 20
22	21	17 20	18	13 40	13	15 20	15	0 30	20	10 50	15	6 10	10	18 20	16	12 45	18	23 30	24	10 20	15	12 30	14	23 55
23	13	18 55	12	12 15	14	15 0	13	17 0	8	14 55	7	18 50	10	12 30	18	14 20	22	10 15	15	12 20	11	0 30	17	22 30
24	20	9 15	14	8 0	26	14 45	11	13 30	11	9 20	9	13 55	8	16 15	11	2 45	17	7 45	7	2 5	7	13 15	18	3 55
25	15	11 10	21	19 5	14	8 55	7	9 0	15	13 20	7	9 0	13	14 20	8	10 45	18	23 20	20	19 0	13	15 25	21	23 40
26	8	16 40	21	14 0	14	14 25	13	21 45	16	15 40	15	14 55	22	15 55	12	14 40	21	6 10	17	11 45	15	0 10	28	4 30
27	18	1 25	21	5 20	9	14 55	19	16 25	17	13 30	14	12 0	18	17 5	18	12 30	14	11 55	21	12 50	14	11 15	23	19 55
28	7	13 35	13	12 25	10	13 10	14	10 55	15	8 10	12	8 0	13	16 10	18	10 35	17	5 35	20	17 45	11	0 25	21	12 25
29	7	17 25	--	--	14	23 10	8	18 25	8	0 0	9	18 50	10	10 35	13	0 35	11	11 0	23	1 40	3	10 50	7	11 0
30	10	13 35	--	--	15	0 10	16	14 0	17	18 55	9	10 30	12	14 15	13	12 15	17	12 35	14	21 50	17	24 0	19	11 20
31	19	18 50	--	--	10	4 35	--	--	14	10 0	--	--	16	17 55	10	15 30	--	--	17	12 30	--	--	13	1 40

DISTRIBUTION OF WIND SPEED: EXTREME VELOCITIES AS RECORDED BY THE DINES PRESSURE TUBE ANEMOMETER AND ROBINSON CUP ANEMOGRAPH.

152. ABERDEEN: Ha = {24 metres + 13 metres. Tube Anemometer.
13 metres + 23 metres. Cup Anemograph.

1934.

MONTH.	DISTRIBUTION OF WIND SPEED.								EXTREME VELOCITIES.				
	More than 17.1 m/s.		10.6 to 17.1 m/s.		5.5 to 10.7 m/s.	1.6 to 5.4 m/s.	less than 1.6 m/s.	No Record	Highest Hourly Wind.			Highest Gust.	
	Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Date.
Jan. ...	--	hr. C	8	37	299	377	31	0	0	150	14	27	7 11 15
Feb. ...	8	1	6	22	210	345	94	0	280	19	8 3 30	31	7 23 15
Mar. ...	--	0	7	55	239	361	69	0	100	17	11 16 30	26	24 14 45
Apr. ...	--	0	9	53	276	353	36	0	90	15	11 18 30	21	16 4 5
May ...	6	1	6	36	207	387	111	0	150	17	6 15 30	27	21 15 55
June ...	--	0	1	2	131	484	103	0	50	12	22 6 30	17	20 2 50
July ...	--	0	1	1	105	492	146	0	280	11	27 17 30	22	26 15 55
Aug. ...	--	0	1	4	176	442	122	0	130	11	28 20 30	20	21 16 5
Sept. ...	--	0	4	12	202	413	93	0	190	13	8 14 30	23	8 14 15
Oct. ...	--	0	8	29	279	350	86	0	130	15	25 11 30	24	21 23 20
Nov. ...	--	0	1	7	136	480	97	0	60	13	10 15 30	19	7 14 15
Dec. ...	26	2	11	63	302	312	65	0	120	18	26 5 30	28	26 4 30
Year ...	3 days.	4	63	323	2562	4816	1055	0	280	19	Feb. 8 3 30	31	Feb. 7 23 15

* See note in introduction page 90.

TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM. (1 Foot) AND 122 CM. (4 Feet.)
Readings, in degrees absolute, at 9 h Greenwich Mean Time.

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153. ABERDEEN.

1934.

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day.	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm	30cm	122cm
1	76.0	78.0	76.1	77.6	75.9	77.8	78.2	78.0	81.0	79.7	84.2	82.0	87.8	85.0	88.7	86.9	86.5	86.5	84.7	85.0	79.4	82.5	78.6	79.3
2	76.5	78.0	76.0	77.5	76.0	77.9	78.9	78.1	81.1	79.9	84.8	82.2	87.9	85.0	88.8	86.9	86.5	86.5	84.8	85.0	78.8	82.4	79.0	79.9
3	76.4	78.0	76.4	77.5	76.6	77.8	78.9	78.2	81.3	79.9	85.0	82.2	87.3	85.0	88.5	86.9	86.8	86.4	84.7	85.0	78.2	82.1	79.6	79.3
4	77.0	78.0	77.1	77.5	76.4	77.6	78.8	78.2	81.7	80.0	85.1	82.4	87.5	85.0	88.6	86.9	86.7	86.4	84.1	85.0	79.4	81.9	79.6	79.9
5	77.1	78.0	77.0	77.5	76.3	77.5	78.9	78.4	82.1	80.0	85.0	82.5	88.0	85.2	88.9	87.0	86.9	86.4	83.9	85.0	79.0	81.8	79.0	79.9
6	76.9	78.0	76.8	77.6	76.5	77.6	78.4	78.4	82.1	80.1	84.6	82.9	88.5	85.2	89.0	87.0	86.7	86.3	83.7	84.9	78.8	81.6	78.7	79.9
7	77.1	78.2	77.0	77.6	76.3	77.5	78.3	78.4	81.5	80.3	85.0	82.9	89.0	85.4	89.0	86.9	86.7	86.3	83.9	84.8	78.5	81.4	78.4	79.9
8	77.4	78.2	77.2	77.7	76.0	77.6	78.1	78.5	82.1	80.4	85.3	83.0	88.9	85.6	89.0	87.0	86.6	86.2	84.0	84.7	78.3	81.1	78.8	79.9
9	77.6	78.1	77.0	77.8	75.9	77.5	77.8	78.6	82.1	80.5	85.3	83.0	89.0	85.7	88.9	87.0	86.7	86.2	83.7	84.6	78.0	81.0	79.4	79.8
10	76.8	78.2	77.1	77.7	76.1	77.4	77.8	78.6	82.8	80.5	85.7	83.0	89.3	85.7	88.6	87.0	86.4	86.1	83.1	84.6	78.5	80.9	79.6	79.8
11	77.5	78.2	77.0	77.7	76.3	77.3	77.6	78.5	83.9	80.7	86.1	83.2	89.2	85.9	88.4	87.0	86.3	86.1	83.0	84.5	79.2	80.8	79.5	79.8
12	77.8	78.2	77.1	77.8	76.5	77.5	77.9	78.6	84.2	80.8	86.3	83.3	89.5	86.0	88.4	87.0	86.3	86.1	83.5	84.4	79.3	80.6	79.5	79.9
13	77.6	78.2	77.0	77.8	76.6	77.5	77.9	78.2	83.7	81.0	86.2	83.6	89.6	86.1	88.1	87.0	86.7	86.1	83.5	84.3	79.0	80.6	79.6	79.9
14	77.1	78.2	76.7	77.9	76.3	77.5	78.6	78.3	83.1	81.1	86.6	83.6	89.3	86.1	88.0	87.0	86.9	86.0	83.4	84.2	78.7	80.6	79.6	80.0
15	77.0	78.2	76.4	77.8	76.3	77.3	78.8	78.3	82.5	81.3	86.2	83.7	88.1	86.1	88.0	87.1	87.0	86.0	82.8	84.1	78.1	80.6	79.6	80.0
16	76.8	78.2	76.4	77.9	76.5	77.3	79.2	78.5	82.0	81.4	86.3	83.9	88.9	86.2	87.9	87.0	87.1	86.0	82.3	84.0	78.0	80.6	79.9	79.9
17	76.5	78.2	76.2	77.8	77.0	77.3	80.0	79.6	81.6	81.4	87.2	84.0	89.0	86.4	87.7	87.0	87.1	86.0	82.0	84.0	79.5	80.4	79.9	80.0
18	77.0	78.2	76.5	77.7	76.9	77.4	80.5	78.6	81.6	81.6	87.6	84.0	89.2	86.4	87.7	87.0	86.8	86.0	82.2	83.8	78.4	80.3	79.4	80.0
19	76.6	78.1	76.6	77.8	76.9	77.4	80.9	78.7	81.6	81.6	87.6	84.1	89.3	86.5	88.0	87.0	86.3	86.1	82.4	83.7	77.9	80.2	79.5	80.0
20	76.0	78.0	76.6	77.8	77.0	77.4	80.3	78.9	81.5	81.6	87.1	84.3	88.8	86.6	88.0	86.9	85.7	86.0	82.6	83.6	78.0	80.1	79.5	80.0
21	75.8	77.9	76.8	77.8	77.0	77.5	80.3	79.2	82.2	81.5	86.6	84.5	88.9	86.7	87.3	86.9	85.0	86.0	83.3	83.6	78.0	80.0	78.8	80.0
22	75.8	77.8	77.3	77.7	77.1	77.6	80.4	79.1	82.8	81.4	86.3	84.4	88.8	86.7	87.2	87.0	84.8	86.0	83.5	83.6	78.2	80.0	79.0	80.0
23	76.4	77.8	77.8	77.7	77.3	77.6	80.5	79.1	83.0	81.4	85.6	84.6	88.3	86.8	87.1	86.9	84.4	85.8	83.0	83.5	78.8	80.0	79.1	80.0
24	76.6	77.7	77.7	77.9	77.5	77.6	80.1	79.2	83.0	81.6	85.7	84.7	88.2	86.8	87.0	86.9	84.3	85.7	82.2	83.5	78.4	80.0	79.3	79.9
25	76.8	77.7	77.4	77.9	77.7	77.7	80.0	79.3	82.9	81.7	85.8	84.7	88.7	86.8	87.0	86.8	84.0	85.6	81.4	83.5	77.9	79.9	79.0	79.9
26	76.6	77.7	76.9	77.9	78.1	77.7	79.9	79.5	82.7	81.7	86.2	84.7	88.9	86.9	87.2	86.9	84.4	85.5	81.9	83.4	78.2	79.9	78.5	80.0
27	76.8	77.6	76.2	77.9	78.1	77.9	80.0	79.5	82.9	81.7	87.0	84.7	88.7	86.9	87.5	86.7	84.3	85.3	81.6	83.2	78.8	79.9	78.9	79.9
28	76.2	77.7	76.1	77.9	78.0	78.0	80.1	79.6	82.9	81.8	87.1	84.7	88.3	86.8	87.4	86.7	84.4	85.1	81.1	83.1	79.0	79.9	79.0	79.9
29	75.8	77.7	---	---	78.0	78.0	80.2	79.6	83.1	81.9	87.0	84.8	88.2	86.7	87.3	86.7	84.6	85.1	80.8	83.0	78.6	79.8	79.1	79.8
30	76.1	77.7	---	---	77.9	78.0	80.5	79.7	83.5	81.9	87.6	84.9	88.0	86.8	87.0	86.6	84.7	85.1	80.5	82.9	78.6	79.8	78.4	79.7
31	75.9	77.6	---	---	78.1	78.0	---	---	84.0	82.0	---	---	88.3	86.9	86.7	86.6	---	---	80.0	82.8	---	---	78.7	79.8
Mean	76.7	78.0	76.8	77.7	76.9	77.6	79.3	78.7	82.5	81.0	86.1	83.7	88.6	86.1	88.0	86.9	85.9	86.0	82.8	84.0	78.5	80.7	79.2	79.9
The initial 2 or 3 of the readings is omitted; i.e., 275.0 degrees absolute is written 75.0.																					Year		81.8	81.7

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. to 7h. G.M.T.
Readings, in degrees absolute.

154. ABERDEEN.

1934.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Day.	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	74.9	72.9	<u>67.1</u>	72.2	78.9	79.0	84.3	82.1	74.8	74.3	69.3	77.9
2	73.4	68.9	<u>77.8</u>	73.6	73.5	76.6	79.3	86.3	76.8	79.6	70.3	80.5
3	75.3	79.5	71.8	73.0	73.3	73.7	82.2	86.3	83.6	79.5	<u>66.4</u>	78.9
4	80.1	76.9	69.2	71.3	71.2	79.6	84.3	82.9	83.0	71.0	<u>78.6</u>	76.8
5	73.2	69.0	75.6	72.8	77.3	80.8	79.7	80.3	77.9	78.5	74.6	76.8
6	73.4	77.0	72.4	70.7	72.6	74.6	80.2	78.2	73.7	72.4	72.1	72.4
7	74.4	75.6	68.6	70.9	78.0	80.8	83.0	85.7	82.6	82.0	73.0	75.7
8	73.2	74.7	71.6	73.0	72.1	81.8	81.8	82.6	85.1	75.1	70.4	77.3
9	71.3	72.7	67.6	72.5	78.1	76.5	82.6	80.3	78.6	72.5	71.1	79.8
10	77.1	75.3	75.3	74.8	74.5	74.9	84.7	82.2	73.1	73.7	78.7	77.3
11	79.2	74.8	74.2	74.6	81.9	77.3	87.3	80.8	82.2	72.8	78.4	77.6
12	74.1	74.6	75.1	75.9	79.7	81.2	85.6	82.6	79.8	83.0	72.9	79.7
13	75.8	70.4	72.2	73.8	73.5	71.5	84.1	84.1	75.8	74.9	76.3	77.4
14	73.1	69.3	<u>67.1</u>	78.5	74.5	82.4	86.2	79.6	85.4	79.2	69.4	77.7
15	75.8	69.7	73.1	78.2	74.7	81.7	80.7	82.3	85.9	73.4	70.4	79.5
16	74.1	69.2	72.3	80.0	75.9	85.1	78.6	74.7	85.3	75.1	73.9	80.4
17	71.4	70.6	73.5	77.1	<u>69.1</u>	85.0	84.8	74.8	79.2	77.6	74.7	71.7
18	76.3	71.5	71.6	78.1	73.9	79.2	82.3	80.5	78.6	74.0	70.8	76.5
19	73.1	73.1	68.1	76.7	71.9	84.4	85.0	77.0	82.7	76.3	71.2	77.9
20	68.6	74.5	71.5	<u>68.6</u>	75.6	81.8	<u>75.4</u>	80.2	74.5	81.8	72.1	73.0
21	73.6	78.7	72.8	74.1	78.5	74.1	83.4	77.2	<u>71.3</u>	83.4	70.1	<u>70.1</u>
22	74.3	76.3	70.1	73.1	75.2	80.9	86.4	83.0	<u>72.2</u>	80.9	78.8	<u>78.0</u>
23	74.8	76.0	68.7	73.0	72.9	<u>71.3</u>	81.8	75.0	80.1	74.3	72.5	79.1
24	79.4	74.8	76.7	75.7	72.3	<u>73.5</u>	78.7	78.7	<u>77.5</u>	<u>67.9</u>	69.7	78.0
25	73.2	<u>67.5</u>	69.4	71.5	71.7	76.6	83.9	78.9	72.6	71.7	74.3	76.2
26	75.7	67.6	77.3	70.8	71.4	77.8	84.1	75.8	82.6	76.0	79.0	75.4
27	73.5	70.6	67.3	75.7	79.8	81.9	81.9	82.9	77.4	77.4	76.6	79.6
28	69.1	72.0	69.1	74.6	81.4	83.4	83.8	85.9	81.4	74.2	74.2	77.9
29	<u>68.2</u>	---	69.3	76.6	80.6	77.6	80.4	85.0	80.5	75.1	72.4	77.5
30	71.8	---	75.0	69.8	71.4	82.4	78.4	80.1	74.7	73.6	73.0	71.2
31	71.6	---	75.5	---	78.6	---	84.4	<u>74.3</u>	---	71.2	---	77.9
Mean	74.0	73.0	71.8	74.0	75.3	78.9	82.6	80.7	79.0	75.9	73.2	77.0

155. ABERDEEN.

JANUARY, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.					Remarks on the Weather of the Day.		
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h		18h	21h
1	Nb.	Nb: Ast: Acu.	Steu: Acu.	10	10	10	8	6	10	1	1	1	1	1	1	...	...	...	...	...	...	c ° c, a : c, bc, p : bc, c, n.
2	St: Frst.	Steu: Ci.	Steu: Ast.	1	2	3	2	4	5	1	F	J	H	H	1	...	...	...	...	...	...	o, b bc, a : bc, p : b, bc, n.
3	Cist.	Steu: Acu: Ast.	Nb: Ast.	3	3	7	10	10	10	1	G	H	1	H	1	...	...	...	...	...	...	b, bc a : bc, c ° p : c, o, n.
4	Steu.	Nb: Ast.	Acu.	10	10	9	6	1	1	1	J	J	J	J	J	...	...	...	...	...	...	cq a : bc p : bq, n.
5	Steu.	Cumb: Steu: Ci.	Acu: Ci: Cist.	1	1	1	4	4	9	1	k	k	k	k	J	...	...	...	...	...	...	bq a : b, bc, p : bc, c, n.
6	St.	Steu: Acu: Ast.	Steu: Cu: Acu: Ast.	10	9	9	8	8	9	1	J	k	k	J	J	...	...	...	...	...	...	cq a : c, bc, c, p : c, bc, n.
7	Nb: Ast.	Nb.	St: Ast.	10	10	10	9	9	1	1	k	k	k	k	J	...	...	...	...	...	...	c ° o, a : o °, c, p : c, bc, n.
8	Steu: Acu: Ast.	Acu: Ast: Ci.	Steu: Ci.	1	1	3	1	1	1	1	J	k	1	k	k	...	...	...	...	...	...	b, bc, a : bc, bq, p : b, n.
9	St.	Nb: Ast: Acu.	Nb: Ast: Acu.	10	9	10	10	10	10	1	1	1	J	J	J	...	...	...	...	...	...	bc, c, a : c, p : c, o ° o, n.
10	Nb: Ast.	Steu: Acu.	Nb: Acu: Ast.	10	3	2	9	9	10	1	H	H	H	H	H	...	...	...	...	...	...	c, bc, a : b, c ° o, p : c ° o, n.
11	Nb: Ast.	Nb.	Nb.	10	10	10	10	10	9	1	G	G	G	G	G	...	...	...	...	...	...	c ° q, a : cq ° o, p : cq ° o, ° Δ, n.
12	---	Steu.	Steu: Acu: Ast.	0	8	8	8	9	3	1	k	H	J	1	1	...	...	...	...	...	...	cp Δ °, bc, a : bc, c, p : c, bc, n.
13	Steu.	Steu: Acu.	Acu.	3	7	9	8	1	3	1	J	J	J	J	J	...	...	...	...	...	...	bc, c, a : c, b, p : b, bc, n.
14	Steu.	Nb.	Nb: Ast.	4	10	10	10	10	10	1	J	J	1	J	1	...	...	...	...	...	...	bc, o o, a : o o, p : o o, n.
15	Steu: Ast.	Cu: Steu: Ci.	---	4	5	4	3	0	1	1	J	k	J	J	J	...	...	...	...	...	...	°, bcq, a : bcq, b, p : b, n.
16	Steu.	Cu: Steu: Acu.	Steu.	4	5	6	3	4	10	1	k	J	H	G	G	...	...	...	...	...	...	bc, a : bc p : bc, c, o ° o, n.
17	St.	St: Steu.	Acu.	8	10	8	4	1	0	1	G	H	k	k	k	...	...	...	...	...	...	o ° q, a : c °, bcq, p : b, qy, n.
18	---	Acu: Ast: Cist.	Acu: Ast: Cist	0	3	10	10	10	8	k	J	J	J	J	J	...	...	...	...	...	...	bq, bc, a : c, p : c, bc, n.
19	Nb.	Cu: Cumb.	Nb: Cumb.	8	7	3	2	9	2	J	k	J	k	J	J	...	...	...	...	...	...	c, p °, bc, a : bc, p °, c, p : c, bc, b, n.
20	Acu: Ast.	Steu.	Ast.	1	9	7	2	10	2	J	1	1	1	1	1	...	...	...	...	...	...	b, bc, a : bc, c, p : c, bq, n.
21	Acu: Ast.	Acu: Ast.	---	5	4	2	1	0	9	1	F	G	H	H	1	...	...	...	...	...	...	bc, a : b, p : b, bc, c, n.
22	St: Ast.	Steu: Acu: Ast.	St.	10	9	9	9	10	9	J	J	1	1	1	J	...	...	...	...	...	...	c, bc, a : bc, c, p : c, bc, n.
23	Acu: Ast.	Steu: Acu: Ast.	St: Acu: Ast.	4	9	10	10	10	10	1	J	H	H	H	J	...	...	...	...	...	...	c, bc, a : c, p : c, c, n.
24	St: Steu.	Steu.	Steu: Ast.	9	9	9	8	1	0	J	J	1	J	J	J	...	...	...	...	...	...	cq, c, a : c, bc, b, p : b, n.
25	---	Steu: Acu: Ast.	St: Acu: Ast.	0	4	8	9	10	9	1	1	H	H	H	1	...	...	...	...	...	...	b, bc, c, a : c, bc, y, p : cyc, n.
26	Steu.	Frst: Acu: Ast.	Steu: Acu: Ast.	9	4	8	9	8	4	J	J	J	k	J	J	...	...	...	...	...	...	c, bc, a : bc, c, p : c, bc, n.
27	Steu: Cumb.	Steu.	Steu: Frst	4	2	9	7	8	1	J	k	J	k	J	J	...	...	...	...	...	...	bc, p °, c, a : cp °, bc, p : c, bc, b, n.
28	Steu: Acu.	Acu: Ast.	Acu.	1	1	4	9	3	0	k	J	k	1	H	G	...	...	...	...	...	...	b, bc, a : bc, c, p : bc, b, n.
29	Acu.	Steu.	Steu: Acu: Ast.	2	2	9	9	3	1	1	H	G	H	H	G	...	...	...	...	...	...	b, bc, a : c, bc, p : bc, b, n.
30	Nb.	Acu: Ast.	Frst: Acu: Ast	9	9	8	5	1	4	H	J	J	k	J	J	...	...	...	...	...	...	bc, c ° o, a : c ° o, bc, p : bc, n.
31	Acu:	Cu: Steu: Acu.	Nb.	9	9	10	9	9	9	J	J	J	k	J	J	...	...	...	...	...	...	bc, c, a : cp °, c °, p : c °, n.
Mean Cloud Am't.				5.6	6.2	7.2	6.8	6.1	5.5													

156. ABERDEEN.

FEBRUARY, 1934.

1	Steu.	Cu: Steu: Acu: Cieu.	Cu: Acu: Cist.	1	9	5	8	5	1	1	1	1	1	1	1	...	...	...	...	...	...	c, bc, a : bc, c, bc, p : bc, c, n.
2	Acu: Ast.	Nb: Acu: Ast.	Nb: Acu: Ast.	7	9	10	9	9	10	1	1	1	1	1	1	...	...	...	...	...	...	bef, c ° a : c ° p : co °, n.
3	Nb.	Nb: Ast.	Steu.	10	10	10	9	8	5	1	1	1	1	1	1	...	...	...	...	...	...	o ° a : c, p : c, bc, n.
4	Steu.	Steu.	Steu.	9	9	9	9	9	5	1	1	1	1	1	1	...	...	...	...	...	...	bc, c, a : c, p : c, bc, n.
5	Cist.	Steu: Ci.	Acu: Cieu.	2	2	2	3	5	7	1	1	1	1	1	1	...	...	...	...	...	...	bc, b, a : bc, p : bc, n.
6	Acu: Cist.	Cu: Steu: Ci: Cist.	Steu: Acu: Ast.	6	8	8	9	8	9	1	1	1	1	1	1	...	...	...	...	...	...	bc, c, a : c, p : c, n.
7	Acu: Ast.	Steu: Acu: Cist.	Cu: Acu: Cieu.	5	9	8	7	2	3	1	1	1	1	1	1	...	...	...	...	...	...	bc, c, a : c, bc, p : bc, op °, bq, n.
8	Cu: Steu: Ast.	Cumb: Ci.	Cumb: Steu: Ci.	2	5	6	2	4	8	1	1	1	1	1	1	...	...	...	...	...	...	bq, p °, a : bcq, p °, p : bc, c, b, n.
9	Steu: Acu.	Cu: Steu: Acu: Ast.	Cu: Steu: Cist.	6	7	9	9	8	8	1	1	1	1	1	1	...	...	...	...	...	...	bc, cq, a : cq, cy, p : cyc, n.
10	Acu: Ast.	Cu: Cieu.	Cu: Cist.	6	2	2	1	1	2	1	1	1	1	1	1	...	...	...	...	...	...	bc, by, a : b, p : bq, b, n.
11	Steu: Cist.	Cu: Acu: Ci.	Acu: Ast.	2	8	5	1	3	1	1	1	1	1	1	1	...	...	...	...	...	...	bc, a : bc, b, bc, p : bc, b, n.
12	Acu: Ast.	Ci.	Acu: Ci.	1	1	1	1	2	1	1	1	1	1	1	1	...	...	...	...	...	...	b, a : b, p : b, e, n.
13	Acu: Ast: Cieu.	Ci.	Ci.	2	1	1	1	1	0	1	1	1	1	1	1	...	...	...	...	...	...	b, y, a : b, p : b, n.
14	---	Steu.	Cu: Steu.	0	1	9	4	2	2	1	1	1	1	1	1	...	...	...	...	...	...	b, f, z, a : cz °, b, p : b, bc, b, n.
15	Ci.	Acu: Ast: Ci.	Acu: Ast: Cist.	2	5	9	8	7	9	1	1	1	1	1	1	...	...	...	...	...	...	b, cz, a : cf, bc, p : bc, cz, n.
16	Acu: Cist.	Ci.	Ci: Cieu.	4	5	1	2	1	0	1	1	1	1	1	1	...	...	...	...	...	...	c, bc, a : b, a : b, p : bz, m, n.
17	Steu.	Steu: Acu: Ci.	Steu.	9	8	6	4	5	1	1	1	1	1	1	1	...	...	...	...	...	...	b, bc, a : bc, a : b, bc, p : bc, n.
18	Acu: Ast: Ci.	Cu: Cieu: Cist.	Cu: Steu: Cieu: Ci.	1	5	4	7	3	8	1	1	1	1	1	1	...	...	...	...	...	...	b, bef, bc, a : bc, p : bc, b, n.
19	Cu: Steu.	Cu: Steu.	Cu: Steu: Cist.	2	1	5	0	1	0	1	1	1	1	1	1	...	...	...	...	...	...	beyq, a : bey, bq, p : bq, b, n.
20	Cumb: Steu.	Nb: Ast.	Nb: Acu: Cist.	4	8	10	9	7	8	1	1	1	1	1	1	...	...	...	...	...	...	b, bc, p ° c °, a : c ° p : c °, n.
21	Cu: Steu.	Cu: Acu: Cist.	Cu: Steu.	9	8	8	8	3	7	1	1	1	1	1	1	...	...	...	...	...	...	cq, c a : c, bey, p : bey, bc, n.
22	Acu: Cist.	Cu: Acu: Ci.	Cu: Steu: Acu.	9	8	8	7	5	5	1	1	1	1	1	1	...	...	...	...	...	...	bc, c a : bc, p : bc, c, n.
23	Cu: Steu: Acu.	Cu: Acu: Ci.	Cu: Ci: Cieu.	1	2	4	3	8	0	1	1	1	1	1	1	...	...	...	...	...	...	bc, by, a : by, bc, p : bc, c, n.
24	Cu: Steu: Cist.	St: Ast.	Cu: Steu: Acu: Cist	9	10	9	9	8	0	1	1	1	1	1	1	...	...	...	...	...	...	c, a : c, bc, c, p : b, n.
25	Steu.	Cumb: Steu: Ci.	Nb: Cumb.	8	8	8	5	6	6	1	1	1	1	1	1	...	...	...	...	...	...	bcq, p ° a : bcq p ° a : bcq p °, n.
26	Cumb: Nb.	Nb: Cumb.	Nb: Cumb.	9	9	8	9	9	9	1	1	1	1	1	1	...	...	...	...	...	...	bc p °, a : cp °, p : c °, cq, n.
27	Nb: Cumb.	Cumb: Steu.	Cumb: Steu.	9	5	8	9	4	7	1	1	1	1	1	1	...	...	...	...	...	...	cq, bc, cp ° a : c, p °, p : bcp °, n.
28	Cumb: Steu.	Nb.	Cumb: Steu.	5	1	9	7	3	2	1	1	1	1	1	1	...	...	...	...	...	...	c, p °, bc, c °, a : bcp °, p : bc, b, n.
Mean Cloud Am't.				5.0	5.9	6.4	5.7	4.7	4.7													
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						

MARCH, 1934.

158. ABERDEEN.															APRIL, 1934.														
1	Frmb: Acu.	Cu: Steu.	Cumb: Acu: Cieu.	10	10	2	1	3	9	1	1	1	1	1	...	...	...	...	...	c, bc, b a : b, bc, p : bc, c, n.				
2	Nb: Cumb.	Cu: Steu.	Cu: Nb: Acu.	9	5	4	7	6	9	1	1	1	1	1	...	...	...	...	...	c, p ⁰ , bc, a : bc, p ⁰ , p : bc, c ⁰ , n.				
3	Cumb: Acu.	Cumb: Nb: Ci.	Cumb: Nb.	9	8	7	6	5	4	1	1	1	1	1	...	...	...	...	...	c ⁰ , p ⁰ , a : bc, p : bc, p ⁰ , n.				
4	Nb.	Cumb: Acu.	Cu: Steu: Ci.	9	9	8	1	8	8	1	1	1	1	1	...	...	...	...	...	bc, c ⁰ , a : bc, b, p : c ⁰ , n.				
5	Cu: Nb: Acu.	Nb: Cumb: Ci.	Cumb: Ci.	8	5	4	5	3	5	1	1	1	1	1	...	...	...	...	...	c, p ⁰ , p ⁰ , a : bcp ⁰ , p : bcp ⁰ , n.				
6	Cumb: Nb.	Nb: Cumb.	Nb: Cumb: Ci.	6	6	6	4	6	6	1	1	1	1	1	...	...	...	...	...	bcp ⁰ , a : bcp ⁰ , p : bcp ⁰ , n.				
7	Nb: Cumb.	Cu: Acu.	Cu: Acu.	7	2	5	4	4	10	1	1	1	1	1	...	...	...	...	...	bcp ⁰ , a : bc p : bc, c ⁰ , o ⁰ , n.				
8	Nb.	Cu: Steu.	Nb: Cumb.	10	9	9	9	9	7	1	1	1	1	1	...	...	...	...	...	o ⁰ , p ⁰ , c ⁰ , a : cp ⁰ , p : c, bc, o ⁰ , n.				
9	Nb: Ast.	Nb: Cumb: Acu.	Nb: Cumb.	10	10	9	9	9	10	1	1	1	1	1	...	...	...	...	...	o ⁰ , p ⁰ , a : cp ⁰ , p : cp ⁰ , n.				
10	Nb: Ast.	Nb.	Nb.	10	10	10	10	10	10	1	1	1	1	1	...	...	...	...	...	cp ⁰ , i ⁰ , a : o ⁰ , p : o ⁰ , n.				
11	Nb.	Nb: Ast.	Nb: Ast.	10	10	10	10	10	10	1	1	1	1	1	...	...	...	...	...	o ⁰ , o ⁰ , a : cqi ⁰ , p : o ⁰ , q, n.				
12	Nb.	Nb.	Nb.	10	10	10	10	10	10	1	1	1	1	1	...	...	...	...	...	o ⁰ , q, a : o ⁰ , p : o ⁰ , n.				
13	St: Acu: Ast.	Cu: Acu: Ast.	St: Acu: Ast.	10	7	7	9	8	10	1	1	1	1	1	...	...	...	...	...	c, bc, a : bc, c, p : c, n.				
14	Nb: Ast: Acu.	Nb: Ast: Acu.	St: Acu: Cieu.	10	10	10	10	8	10	1	1	1	1	1	...	...	...	...	...	c ⁰ , a : c ⁰ , c, p : c ⁰ , bc, n.				
15	Acu: Ast.	Frmb: Ast.	Cu: Acu.	8	9	10	9	7	5	1	1	1	1	1	...	...	...	...	...	c ⁰ , a : c ⁰ , bc, p : bc ⁰ , n.				
16	Cu: Steu: Acu.	Cu.	Cu: Steu.	3	2	2	3	3	4	1	1	1	1	1	...	...	...	...	...	bcp, b, a : b, bcy, p : bc, n.				
17	Cu: Acu.	Cu: Steu: Acu: Ci.	Cu: Steu: Ci.	1	4	5	5	7	9	1	1	1	1	1	...	...	...	...	...	bc, bw, bc, a : bc, p : bc, cp ⁰ , n.				
18	Nb.	Cu: Acu.	Cu: Acu.	10	4	7	9	7	8	1	1	1	1	1	...	...	...	...	...	c ⁰ , bc, a : bc, cp ⁰ , p : bc, c, n.				
19	St: Acu: Ast.	Nb.	Cumb: Acu.	10	10	10	10	9	8	1	1	1	1	1	...	...	...	...	...	c ⁰ , a : c ⁰ , p : cp ⁰ , b, n.				
20	Cumb: Steu.	Cu: Steu: Acu.	Nb: Ast: Cist.	1	8	8	6	9	10	1	1	1	1	1	...	...	...	...	...	b ⁰ , bc, c, a : cy, bc, p : c, o ⁰ , q, n.				
21	Cumb: Steu: Ci.	Cu: Steu: Acu.	Cu: Steu: Acu.	3	3	2	2	2	3	1	1	1	1	1	...	...	...	...	...	bc, byq, a : byq, p : bc, c, n.				
22	Steu: Acu: Cist.	Cu: Acu.	Cu: Steu: Acu.	9	7	3	7	5	9	1	1	1	1	1	...	...	...	...	...	c, bc, a : bc, p : bc, c ⁰ , c, n.				
23	Cu: Steu: Acu.	Nbst: Ast.	Nbst.	4	7	10	10	10	10	1	1	1	1	1	...	...	...	...	...	bc, c ⁰ , a : c ⁰ , p : c ⁰ , n.				
24	Nb: Ast.	Nb: Ast.	Nb: Cumb: Acu.	10	9	10	9	9	7	1	1	1	1	1	...	...	...	...	...	c ⁰ , a : c ⁰ , p : c				

160. ABERDEEN.

JUNE, 1934.

JULY, 1934.

AUGUST, 1934.

[illegible]

[illegible]

OCTOBER, 1934.

[illegible]

165. ABERDEEN.

NOVEMBER, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						Remarks on the Weather of the Day.
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	
1	Cumb: Acu: Ci.	Cumb: Acu: Ci.	Cumb: Ci.	1	1	7	5	1	0	1	1	k	1	k	k	...	...	...	...	...	...	b, a : bc, cp ⁰ , b, p : b, n.
2	Cumb.	Cumb.	Cumb: Stcu.	1	1	1	1	1	0	m	1	1	1	k	k	...	...	...	...	...	...	b, a : b, p : b ¹ , n.
3	Cu: Stcu.	Frnb: Nbst.	Nbst.	9	10	10	10	10	10	H	H	H	H	G	G	...	...	...	...	...	...	b ¹ , c ⁰ , a : o ⁰ , p : oi ⁰ , n.
4	Stcu: Acu: Ast.	Stcu: Acu: Cicu.	Frnb: Ast.	9	9	8	9	10	7	1	G	H	H	1	J	...	...	...	...	...	...	c, a : ci ⁰ , p : cp ⁰ bc, n.
5	Cumb: Ast.	Cumb: Nb.	Cumb: Acu.	9	8	9	8	7	3	J	k	J	k	J	J	...	...	...	...	...	...	bcp ⁰ , ⁰ , a : cp ⁰ , p : bcp ⁰ ▲, n.
6	Cumb: Nb.	Cumb: Nb.	Cumb: Nb.	7	6	8	2	3	8	J	k	k	1	1	k	...	...	...	...	...	...	bcp ⁰ ▲, a : bcp ⁰ , b, p : bcp ⁰ , n.
7	Cumb: Frnb.	Cumb: Frnb.	Cumb: Frnb.	9	9	9	10	10	9	k	k	k	J	J	J	...	...	...	...	...	...	cp ⁰ , c ⁰ , a : c ⁰ , p : c ⁰ , bc, n.
8	Cumb: Ci.	Acu: Cist.	---	3	4	10	8	0	10	k	J	1	1	H	E	...	...	...	...	...	...	b ¹ , c, a : c ⁰ , bc, p : bc, of, p ⁰ , n.
9	Cumb.	Stcu: Acu.	Frnb: Ast.	9	5	9	9	10	10	1	1	1	k	k	H	...	...	...	...	...	...	cp ⁰ , a : c ⁰ , p : c ⁰ , ⁰ , n.
10	Nb.	Nb: Ast.	Cumb: Ast.	10	10	10	10	10	9	1	1	H	G	J	k	...	...	...	...	...	...	o ⁰ , c, a : c ⁰ , p : c ⁰ , c, n.
11	Stcu: Acu.	Cumb: Ast.	Stcu.	9	9	10	9	7	8	k	k	k	k	k	k	...	...	...	...	...	...	cp ⁰ , a : c, bc, p : bc, c, n.
12	Stcu.	St: Stcu.	St: Stcu.	8	8	9	9	9	9	J	1	k	J	J	J	...	...	...	...	...	...	b ¹ , c, a : c ⁰ , c, p : cp ⁰ , bc, n.
13	Cu: Stcu.	Cumb: Stcu.	Stcu.	9	9	2	6	9	0	k	J	k	J	1	1	...	...	...	...	...	...	cp ⁰ , bc, a : bc, c, p : c, b ¹ , n.
14	Acu.	Stcu.	Stcu.	9	9	9	9	9	4	H	H	1	1	1	G	...	...	...	...	...	...	c, a : c, p : c, bc, b ¹ , n.
15	---	Cu: Stcu.	Cu: Stcu: Acu.	0	5	5	1	2	8	k	k	k	k	k	k	...	...	...	...	...	...	b ¹ , bc, a : bc, b ¹ , p : b, cp ⁰ , n.
16	Cumb: Nb.	Frnb: Stcu.	Frnb.	9	5	10	10	10	10	J	F	J	J	1	J	...	...	...	...	...	...	cp ⁰ , bc, a : co, ⁰ , p : o ⁰ , c, n.
17	Stcu: Ast.	Acu: Cist.	Stcu.	9	9	1	6	9	2	J	H	k	H	1	1	...	...	...	...	...	...	c, b, a : b, bc, p : bc, n.
18	Acu.	Acu.	Acu: Cist.	9	9	9	9	9	6	k	J	E	G	E	F	...	...	...	...	...	...	b ¹ , c, f, a : cf, p : bc ⁰ , bc, n.
19	Acu: Ast.	Frnb: Acu.	Stcu: Cist.	5	8	9	10	10	4	F	D	J	J	J	J	...	...	...	...	...	...	bc, ff, a : c, p : c, bc, b, n.
20	Stcu.	Cu: Cumb.	Acu: Cist.	4	2	2	1	9	10	k	1	k	1	H	J	...	...	...	...	...	...	bc, cp ⁰ , a : by, c, p : c ⁰ , n.
21	Acu.	Ast.	Ast: Acu.	9	9	9	9	9	9	J	H	1	J	J	J	...	...	...	...	...	...	b ¹ , c, a : c, p : c, n.
22	Stcu: Acu: Cist.	Stcu: Acu: Ci.	Cu: Stcu.	5	10	8	9	4	10	k	J	J	J	k	J	...	...	...	...	...	...	bc, c, a : c, p : bc, c ⁰ , bc, n.
23	Stcu: Ci.	Stcu: Acu: Ci.	Acu.	2	5	2	6	9	9	J	1	1	H	1	1	...	...	...	...	...	...	b ¹ , b, a : bc, c, p : c, bc, n.
24	Acu: Ci.	Stcu: Ci.	Ci.	1	9	4	5	2	4	H	D	1	H	H	H	...	...	...	...	...	...	bc, cf, a : bc, b, p : bc, n.
25	Frnb: Ast.	Stcu: Ast: Ci.	Ast.	10	9	9	9	10	10	1	1	G	H	1	H	...	...	...	...	...	...	bc, c ⁰ , a : cq, p : o ⁰ , c, n.
26	Stcu: Acu.	Acu.	Acu.	7	9	9	9	6	5	k	H	J	J	J	J	...	...	...	...	...	...	bc, c, a : c, bc, p : bc, n.
27	---	Stcu: Acu.	Stcu: Acu.	0	0	4	6	1	0	k	k	1	J	J	J	...	...	...	...	...	...	b, bc, a : bc, b, p : b, n.
28	Cu: Stcu.	Cu: Stcu: Acu.	Acu: Cicu.	6	7	5	4	1	9	k	k	1	k	G	G	...	...	...	...	...	...	bcy, a : bc, b, p : b, c, n.
29	Stcu.	Stcu: Ci.	Stcu.	9	9	9	10	10	9	J	F	G	G	G	G	...	...	...	...	...	...	bc, cf, cp ⁰ , a : cg, p : cg, b, n.
30	Stcu.	St: Stcu.	Stcu.	10	10	10	10	10	9	J	1	G	G	G	H	...	...	...	...	...	...	b, bc, c, a : cg, p : c, n.
Mean Cloud Am't.				6.67	0.7	1.7	3.6	9.6	7													

166. ABERDEEN.

DECEMBER, 1934.

1	Acu: Ast: Cist.	Frnb: Ast.	Frnb: Ast.	10	10	10	10	10	9	j	H	H	G	H	H	...	...	...	...	...	...	c, co ⁰ , a: c ⁰ , p: c ⁰ , n.
2	St: Stcu.	Frst: Ast.	---	9	10	10	9	0	10	j	j	1	H	H	H	...	...	...	...	...	...	c, a: c ⁰ , b, p: b, n.
3	St.	Frst.	Frnb.	10	10	10	10	10	10	G	G	G	G	H	H	...	...	...	...	...	...	o ⁰ , a: o ⁰ , p: o ⁰ , n.
4	Frnb.	Frnb: Nbst.	St: Stcu.	10	10	10	10	9	9	1	j	k	k	k	k	...	...	...	...	...	...	o ⁰ , a: o ⁰ , cp ⁰ , p: c, n.
5	Stcu.	Cu: Cumb.	Cu: Cumb.	9	2	5	9	9	9	k	1	k	k	k	k	...	...	...	...	...	...	cy, bcp ⁰ , a: bcp ⁰ , p: c, n.
6	---	Stcu.	Stcu.	0	4	7	5	10	10	k	G	G	G	F	F	...	...	...	...	...	...	bcp ⁰ , a: bc, c, p: c, o, n.
7	St.	Cu: Stcu: Ci.	Stcu.	10	10	4	4	5	0	H	G	G	G	G	H	...	...	...	...	...	...	o ⁰ , bc, a: bc, p: bc, b, c, n.
8	Frnb: Ast.	Frst: Acu.	Stcu: Acu: Ci.	10	9	9	8	9	0	G	F	G	1	j	j	...	...	...	...	...	...	c ⁰ , a: c, bc, p: c, b, bc, n.
9	Cumb: Frnb.	Frnb: Nbst.	Frnb.	9	10	10	10	10	9	j	1	H	H	H	1	...	...	...	...	...	...	cp ⁰ , a: c ⁰ , p: o ⁰ , c, n.
10	Stcu.	St: Stcu: Ci.	Stcu.	5	4	3	5	1	1	1	H	1	1	1	1	...	...	...	...	...	...	bc, a: bc, b, p: b, n.
11	Stcu.	Frnb: Nbst.	Frnb.	6	8	10	10	9	7	1	1	H	H	H	G	...	...	...	...	...	...	bc, c ⁰ , a: co, p: ci ⁰ , bc, n.
12	Frnb: Nbst.	Frnb.	Frnb.	10	10	10	10	10	8	H	H	H	H	H	1	...	...	...	...	...	...	bc, ci ⁰ , a: o ⁰ , o, p: o, bc, n.
13	Stcu.	Frnb.	Frst.	9	9	10	9	9	10	1	G	H	G	H	H	...	...	...	...	...	...	c, o, a: o, c, p: cp ⁰ , n.
14	Stcu.	Frnb: Cist.	Frnb: Ast.	3	8	9	10	10	10	H	G	G	G	H	H	...	...	...	...	...	...	bc, c, a: ci ⁰ , p: c ⁰ , n.
15	Frnb.	Frnb.	Frnb.	10	10	10	10	9	10	H	H	H	G	H	H	...	...	...	...	...	...	o ⁰ , a: o ⁰ , c, p: ci ⁰ , n.
16	Frnb.	Stcu: St.	Stcu.	10	9	9	10	9	10	H	G	G	G	G	H	...	...	...	...	...	...	oi ⁰ , o, a: oc ⁰ , p: c, n.
17	Acu.	Stcu: Acu.	Stcu.	1	1	1	1	3	9	H	D	j	H	G	G	...	...	...	...	...	...	c, b, a: b, bc, p: bc, c, n.
18	Frnb.	Frnb.	Frnb.	10	10	10	9	9	7	H	G	G	G	H	j	...	...	...	...	...	...	c ⁰ , a: c ⁰ , p: c, bc, c, n.
19	Cumb: Stcu: Acu.	St: Stcu.	Frnb.	10	10	10	9	9	8	H	F	G	F	F	F	...	...	...	...	...	...	cp ⁰ , a: ci ⁰ , p: c, n.
20	Stcu.	St: Stcu.	Stcu.	9	8	9	8	6	0	1	F	G	F	F	F	...	...	...	...	...	...	c, a: c, bc, p: bc, b, n.
21	Cumb.	St: Stcu.	St: Stcu.	2	10	10	9	9	9	j	D	E	F	F	G	...	...	...	...	...	...	b, cf, a: cf, c, p: c, n.
22	St: Stcu.	St: Stcu: Ast.	Cumb: Stcu.	9	9	10	10	9	8	H	H	1	1	1	1	...	...	...	...	...	...	c, a: cp ⁰ , p: c, n.
23	Cu: Acu.	Cumb: Stcu: Acu.	St: Stcu.	9	9	9	9	9	10	j	j	j	j	j	j	...	...	...	...	...	...	cp ⁰ , a: c, p: cp ⁰ , q, n.
24	Nb: Cumb.	Cumb: Stcu.	St: Stcu.	10	10	10	10	10	9	j	1	j	j	j	j	...	...	...	...	...	...	cp ⁰ , a: cp ⁰ , cq, p: cp ⁰ q, n.
25	Cumb: Stcu: Acu.	Cumb: Nb.	Frnb: Cumb.	9	8	9	9	9	8	k	k	k	k	k	j	...	...	...	...	...	...	cqp ⁰ , a: cp ⁰ q, p: cqp ⁰ , n.
26	Nb: Cumb.	Frnb.	Frnb.	10	10	10	10	10	10	j	j	1	1	1	1	...	...	...	...	...	...	cp ⁰ , q ⁰ ▲, a: o ⁰ q, p: o ⁰ , n.
27	Frnb.	Frst: Ast.	St: Acu: Ast.	10	10	10	9	9	10	H	H	1	H	H	H	...	...	...	...	...	...	o ⁰ q, c, a: c, p: c ⁰ , n.
28	Stcu: Acu.	Cumb: Stcu: Acu.	Frst: Acu.	8	10	6	7	4	10	H	H	k	H	H	j	...	...	...	...	...	...	c ⁰ , o ⁰ q, a: bcq, p: bc, c ⁰ , c, n.
29	Nbst.	Acu: Cicu.	Stcu.	9	10	3	1	3	1	1	G	1	1	j	j	...	...	...	...	...	...	c ⁰ , bc, a: bc, b, p: bc, b, n.
30	Acu: Ast.	Frnb: Acu.	Frnb.	4	8	9	8	2	3	j	1	G	H	j	j	...	...	...	...	...	...	b, bc, c ⁰ q, a: c ⁰ , bc, p: bc, n.
31	Acu.	Stcu: Acu: Ci.	Stcu: Ci.	5	6	8	7	2	1	k	k	k	j	H	1	...	...	...	...	...	...	bc, c, a: c, bc, p: b, n.
Mean Cloud Am't.				7.9	8.5	6.4	5.6	2.7	5.7	3												
Mean Annual Cloud Am't.				6.4	6.5	6.6	5.6	2.6	5.6	4.6	0											
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.							Remarks on the Weather of the Day.

M.O. 380
(Eskdalemuir)

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

ESKDALEMUIR

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON
HIS MAJESTY'S STATIONERY OFFICE
1936

Latitude	..	..	..	..	55° 19' N.
Longitude	..	..	..	..	3° 12' W.
G.M.T. of local Mean Noon	..			..	12h. 13m.

Heights in metres above Sea-Level

Barometer	..	..	..	..	237.3
Rain-gauge	..	..	..	..	242.0
Dines Pressure Tube Anemometer	..			..	250

Heights in metres above ground

Thermometer Bulbs	..	..	..	..	0.9
Sunshine Recorder	..	..	..	..	1.5
Dines Pressure Tube Anemometer	..			..	15
Beckley Rain-gauge Rim	..	..	..	..	0.4

INTRODUCTION

HISTORICAL

Early in the twentieth century the increasing artificial magnetic disturbance at Kew Observatory, Richmond, due to the westward extension of the electric tramway system from London, made desirable the establishment of a magnetic observatory in a locality unlikely to be affected, at least for a number of years, by electric power or traction systems. A committee of the Royal Society of London selected a site in the parish of Eskdalemuir, Dumfries-shire, for the new observatory. The nearest towns or industrial centres are Langholm and Lockerbie, distant approximately 16 and 18 miles (26 and 29 km.) by road, and there is no point of railroad within 9 miles (14km.) of the Observatory. Installation of the instrumental apparatus commenced in the summer of 1908, the Observatory at that time forming a part of the then recently established National Physical Laboratory.

Although the Observatory was established primarily in the interests of the study of terrestrial magnetism the field of geophysical work undertaken has been considerably wider and has included, almost from the beginning, meteorology, atmospheric electricity (mainly atmospheric potential gradient), and seismology. In the earliest years Milne, Wiechert, Omori, and Galitzin seismographs were in operation at Eskdalemuir, but seismological observations ceased in October, 1925, when the three-component installation of Galitzin seismographs was transferred to Kew Observatory. In 1910, when the majority of the various initial difficulties had been overcome, Eskdalemuir passed from the control of the National Physical Laboratory to that of the Meteorological Office. In consequence of this change the meteorological work assumed increased importance, and from the beginning of 1914 the Observatory has served as a telegraphic reporting station of the Meteorological Office.

Summaries of the results of observations made in 1909-10 were published in the Report of the Observatory Department of the National Physical Laboratory.

tory, 1909-10. The results for subsequent years are included in the publications mentioned in the Preface to the present volume.

SITE

Eskdalemuir Observatory, some $3\frac{1}{2}$ miles ($5\frac{1}{2}$ kilometres) north-north-west of Eskdalemuir Parish Church in the county of Dumfries-shire, is situated on a rising shoulder of moorland which is bounded on the east by the road leading north to Ettrick and Selkirk, on the west by the small Davington Burn, and at the southern extremity by the small hamlet of Davington.

The hillside in the immediate vicinity of the Observatory slopes generally from the north-west to south-east. The mean height above sea level of the Observatory site is about 800 feet (244 metres). Cassock Hill, slightly more than a mile distant to the north-west is 1,205 feet (367 metres), while the bench mark at Davington School, $\frac{1}{4}$ mile (0.4 km.) to south-east, is 699 feet (213 metres) above M.S.L. To the east the ground slopes fairly rapidly to the valley bottom, the level of the Ettrick road at a point about $\frac{1}{4}$ mile (0.4 km.) east of the underground magnet house being 682 feet (208 metres). The River White Esk is rather less than $\frac{1}{2}$ mile (0.8 km.) to the east. Immediately beyond the river, and almost due east of the Observatory, Dumfedling Hill rises to a height of nearly 1,200 feet (366 metres) above M.S.L. Some 4 or 5 miles (8 km.) to the north is a high ridge, following approximately the boundary between Dumfries-shire and Selkirkshire, the highest point of which is Ettrick Pen (north-north-west) 2,269 feet (698 metres) above M.S.L.. Rather more than half a mile (0.8 km.) to the west, and beyond Davington Burn, the ground rises to 1,040 feet (317 m.), and reaches nearly 1,200 feet (366 m.) half a mile (0.8 km.) further on. To the south and south-south-east the Observatory commands a view of the White Esk Valley as far as Hart Manor, 4 miles ($6\frac{1}{2}$ km.) distant, and beyond that the upper slope of Cauldkine Hill, about 10 miles (16 km.) distant, is visible. The surrounding country is bare and wild and there are but few trees to relieve the monotony of the grass-covered hills and moorland.

Within the Observatory grounds the soil is peaty and in many places is more or less boggy at all seasons. Some two feet, or less, below the surface a clay-like substance containing soft rock is encountered. The local geological formation is described as "rock of the Tarannon Llandovery series traversed by igneous dykes."

Photographs, site plan, and a brief description of the Observatory will be found in the Introduction to "The Observatories' Year Book," 1928.

METEOROLOGY

The elements dealt with in the following tables are:- Atmospheric pressure, air temperature, humidity, rainfall, sunshine, solar radiation, wind speed and direction, earth temperature and minimum temperature on the grass. There is also a diary of cloud and weather.

Notes on Instruments

Brief description of the recording instruments and of the methods of tabulating the records, with notes on the information contained in the Tables, are given in the General Introduction to the Tables. The following particulars, which refer specially to Eskdalemuir, are to be regarded as ampli-

fying the information contained therein. References to full accounts of other instruments used at Eskdalemuir appear below.

Pressure.- The Fortin Barometer, which after repair was re-introduced as standard in January 1933 and superseded the standard Kew pattern barometer, was used throughout the year. The two barometers are close together in the north-west ground floor room, which has a small daily range of temperature.

The photographic mercurial barograph is situated in the east room of the underground magnet house. The daily range of temperature to which the instrument is subject is normally less than 0.05°C ., the annual range being about 4°C .. The scale value of the records is 1 millimetre on the paper = 0.85 millibar, and the time scale is 9.1 millimetres on the paper = 1 hour.

As in former years, records of pressure were also obtained from (a) a Dines float barograph¹, and (b) a Richard barograph, pen recording, the records of which are changed weekly.

Temperature.- The photographic thermograph and the standard mercurial thermometers, dry bulb and wet bulb, are situated in a wooden hut, provided with louvred sides and double roof, which is some 200 feet (60 m.) north-north-east of the main building. The installation is similar to that described on p.10, except that a special enclosure is provided inside the hut to accommodate the optical and photographic arrangements.

The scale values of the thermograph records are $1^{\circ}\text{A.} = 3.064\text{ mm.}$ and 2.438 mm. on the paper for the dry and wet bulb records respectively, while the time scale is 1 hour = 9.250 mm.

Auxiliary records of temperature are obtained from one or more instruments of the bimetallic type described in the "Meteorological Observers' Handbook". These instruments are situated in the hut which contains the photographic thermograph.

Humidity.- In addition to the dry and wet bulb thermograph described above there is a Richard hair hygograph which is situated in the louvred hut.

As is stated in the General Introduction, the records from this instrument are utilised when the wet bulb reading does not exceed 273°A. On the records obtained in 1934 a change of 10 per cent. in relative humidity is represented by about 0.8 centimetre, the time scale being 1 hour = 11.4 mm.

Rainfall.- The recording instrument is a Beckley self-registering rain-gauge, which is described on page 11. The time scale of the record is 1 hour = 9.24 millimetres on the paper and the rain scale has a magnification of 3.35. The instrument has been in use at Eskdalemuir since 1908 and was originally installed at Fort William in July, 1890.

The conical part of the gauge funnel is surrounded by a cylindrical copper casing lined with asbestos on the inner side and of diameter equal to that of the funnel, viz. 11.27 inches (28.6 cm.). Within the enclosure so formed is a gas jet, and a flame of suitable dimensions is maintained, as circumstances dictate, to melt snow which may be collected.

¹London, Quart. J. R. met. Soc., 55, 1929, pp. 37-53.

The gauge is surrounded by a circular turf wall or dyke, the top of which is on a level with the rim of the gauge; the external and internal diameters of the dyke being 11.5 feet (3.5 m.) and 7 feet (2 m.) respectively.

A standard 8-inch (20.3 cm.) rain-gauge is situated some 24.5 feet (7.5 m.) to the east of the Beckley gauge and is surrounded by a turf dyke of similar dimensions. Readings of amounts of rain received in the 8-inch gauge are made at 7h and 18h G.M.T. It is customary to adjust the indications of the recording gauge to agree with the readings of the standard check gauge.

Auxiliary autographic records of precipitation were obtained by means of a Hellman-Fuess snow-gauge which is situated in a pit 8 feet (2.4 m.) wide and almost due north of the 8-inch standard gauge, the pit being surrounded by a low wall of earth and turf, the top of the wall being approximately level with the rim of the gauge. The records so obtained are used only in the event of failure or uncertainty of the Beckley autographic record. Records of rate of rainfall are obtained by means of a "Jardi" rate of rainfall recorder situated in a pit similar to that containing the Hellman-Fuess snow gauge and situated to the eastwards of it; the rim of the gauge is approximately 2.5 feet (0.8 m.) above the surrounding low wall of earth and turf.

Sunshine.- The record of sunshine is obtained from a Campbell-Stokes recorder described on p.11.

The recorder is fixed on a stone pillar and has a reasonably free exposure, the chief obstacles being hills to east and west. The elevation of hills between 70° and 110° east of south varies from 2.5° to 5° , while between 50° and 135° west of south the high ground varies in elevation from 3° to 4.4° , being generally about 3.5° . As sunshine can be recorded when the sun is 3° above the horizon only in the most favourable circumstances, it appears that the loss of record occasioned by the neighbouring high ground is of relatively small extent and is confined mainly to a possible defect of record at the beginning of the day during a few weeks centred about the equinoxes.

Solar Radiation.- Measurements of the intensity of radiation received from the sun by a surface which is normal to the line drawn from the instrument to the sun are effected by means of an Ångström compensating pyrheliometer¹. The intensity of radiation is expressed in milliwatts per square centimetre (1mw per sq. cm. = 0.01435 gramme calorie per sq. cm. per minute). In addition, the value of $\sec Z$ is given where Z is the zenith distance of the sun. This affords an indication of the mass of atmosphere which the solar radiation has had to penetrate before reaching the earth. Entries in the column headed "Sky" are intended to show the presence or absence of haze, mist or cloud in the direct path of the solar radiation recorded.

Wind.- A Dines Pressure Tube Anemometer, furnished with direction recorder, is situated in the main building. The vane-head is 15 metres above a tangent plane to the slope of the hillside and approximately 7 metres above the general level of the roof of the building.

¹For descriptions see Astrophys. J., 9, 1899; "Actes de la société royale des Sciences d'Upsal", 1893; also London, Met. Off., Geophys. Mem., 3, No. 21, 1923.

Following some structural repairs to the observatory building, the pyrheliometer was re-erected in an embrasure of the tower in June 1930.

In August 1933, the anemometer was replaced by another of similar pattern, except that the suction and pressure effects are now transmitted to the speed recorder by means of copper pipes of 2.5 cm. internal diameter, instead of by "compo" tube of 1.3 cm. internal diameter.

Apart from the surrounding hills, the exposure of the vane-head is tolerably free in all directions save to the west where at a distance of some 130 feet (40 m.) is a rather large building, of which the height is somewhat greater than that of the main building. With winds from nearly due west the direction records show markedly greater turbulence than with other winds.

Earth Temperature.- Readings have been made at 9h G.M.T. of the earth temperature at nominal depths of one foot and four feet below the surface of the grass lawn a few yards south of the thermometer hut. The thermometers and the method of exposure are of the standard type described in the "Meteorological Observers' Handbook". The depths of the thermometer bulbs below the grass-covered surface of the ground are 30 cm. (1 foot) and 122 cm. (4 feet). In December, 1930, two more thermometers, graduated in degrees absolute, were installed at 1 foot and 4 feet respectively alongside the other two thermometers graduated in degrees Fahrenheit, the former being retained as spares. The Fahrenheit pair were replaced as standards by the absolute pair at the beginning of 1931.

Minimum Temperature on the Grass.- The thermometer used for readings of grass minimum temperature is of the spirit type with index, and when exposed, between 18h and 7h G.M.T., is supported at a height of one or two inches (4cm) above close-cropped grass a few metres from the louvred thermometer hut.

Visibility.- The descriptions of the selected visibility objects, together with the distances and bearings from the point of observations, are given in the subjoined table. Auxiliary objects and guide criteria are given in brackets. Certain of the nearer objects may be identified by reference to the photographs and site plan. Unless otherwise stated, the distances and bearings are with reference to certain of the windows on the upper floor of the main building.

The situation of the Observatory and the nature of the immediate surroundings allow of only a very limited choice of objects. The objects A to D are situated mainly to the north, while the more distant objects are towards south to south-east, i.e., down valley. Four miles or so to the north of the Observatory the hills rise in places to rather more than 2,000 feet above sea level and at times visibility in this direction is distinctly less than towards south. On other occasions the hills to the north are visible but nearer objects down the valley are invisible owing to valley mist. With the exception of the cottage at Finglandsheil, and Cauldkine Hill, the objects more distant than D are below the level of the Observatory. There are no objects at distances which approximate sufficiently closely to the standard distances for objects H, J and K. When it is estimated that the range of visibility is such that objects at these standard distances would be visible the corresponding small letter entries are made in the Diary of Cloud and Weather. The estimates of visibility in the dark depend largely on the judgment of the observer. There are no lights other than those in the Observatory buildings and in two cottages within a radius of one mile.

VISIBILITY OBJECTS AT ESKDALEMUIR

Object		Distance	Bearing
A	(i) Twigs on trees nearest the boundary wall in front of the main building	25 yards	S.
	(ii) Small thermometer screen viewed from steps facing the back entrance to the main building.. .. .	26 "	NNE.
B	(i) Theodolite pillar.. .. .	55 "	N.
	(ii) Chimney (or cowl) on the large thermometer screen.	60 "	NE.
C	Posts and shafts on underground magnetograph house	107 "	N.
D	Standardson Observatory reservoir	217 "	NNW.
E	(i) Church and Manse, Davington	550 "	SE.
	(ii) (Davington Farm House)	470 "	SSE.
F	(i) Chimneys at Burncleuch	1180 "	SSE.
	(ii) (Cottage at Finglandshiel	1550 "	NE.
G	Trees at Garwaldwaterfoot	2160 "	SSE.
H (h)	(Lower slope of Raeburn Hill)	2 miles	SSE.
I	Hart Manor	4 "	SSE.
J (j)	(Cauldkine Hill, 1,478 feet, near Westerkirk, not clearly visible).. .. .	10½ "	SSE.
K (k)	(Cauldkine Hill, 1,478 feet, near Westerkirk, plainly visible)		
L (l)	No objects available		
M (m)			

Note:- The description of auxiliary objects and guide criteria are given in brackets.

IDENTIFICATION NUMBERS OF INSTRUMENTS IN USE IN 1934.

Standard Fortin Barometer	M.O.	1716/27
Standard Dry Bulb Thermometer	M.O.	19123
Standard Wet Bulb Thermometer	M.O.	1695
Hair Hygograph	M.O.	59
Recording Beckley Rain-gauge	M.O.	4
Jardi Rate of Rainfall Recorder	M.O.	1
Control Rain-gauge	M.O.	336/30
Control Rain-gauge, glass for	M.O.	1568
Campbell-Stokes Sunshine Recorder	M.O.	99
Ångström compensating Pyrheliometer.. .. .		116
Dines Pressure Tube Anemometer		1019, 1081
Grass Minimum Thermometer	M.O.	23002
Earth Thermometer, 1 Ft.	M.O.	24009
" " 4 Ft.	M.O.	4

CORRECTIONS TO INSTRUMENTS IN USE IN 1934

The corrections to the instruments in use during 1934 are given below. In all cases the corrections are those given in the certificate of examination issued by the National Physical Laboratory. The corrections here given have been applied. The date on which each of the instruments mentioned was brought into use is given for purpose of reference

Fortin Barometer, M.O. 1716/27, Jan. 15, 1932.

at	880	910	940	970	1000	1030	1050	mb.
	-0.10	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	

Attached thermometer, No. 5592, Jan. 15, 1932.

at	273	278	283	288	293	298	303	°A.
	-0.1	-0.2	-0.2	-0.4	-0.3	-0.2	-0.2	

Dry Bulb Thermometer, M.O. 19123. January 27th, 1919.

at	263	268	273	278	283	288	293	298	303 °A
	+0.2	+0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1

Wet Bulb Thermometer, M.O. 1695. May 17th, 1930.

at	253	263	273	283	293	303	313 °A.
	0.0	0.0	-0.1	0.0	0.0	0.0	0.0

Grass Minimum Thermometer, M.O. 23002. May 8th, 1930.

at	253	263	273	283	293	303 °A.
	-0.1	-0.1	0.0	0.0	0.0	-0.1

Earth Thermometer 1 Ft. M.O. 24009 - No corrections.
4 Ft. M.O. 4, from 260 to 310°A., + 0.1.

NOTE ON THE REDUCTION OF BAROMETER READINGS

The Fortin barometer, M.O. 1716/27 by Casella, London, has been used as the standard since 1st January, 1929. Before this date a Kew pattern mercury barometer M.O. 1320 by J. Hicks, London, was the standard instrument from 16th December, 1913. The latter was re-introduced on July 14, 1931 when the Fortin barometer developed a leak and was sent away for repair and remained in use until January 14, 1933; the repaired Fortin barometer was then re-introduced.

1. Reduction to Pressure at Station Level.- The corrections for index error (including those for capacity and capillarity) as given in the N.P.L. certificates are reproduced above. The corrections for temperature for the barometer are those given in the "International Meteorological Tables" as appropriate to a Fortin barometer.

The corrections for the variation of gravity as obtained from the expression

$$g = 980.617 (1 - 0.00259 \cos 2\lambda) (1 - 5z/4E)$$

where λ = latitude

z = height of the station

E = earth's radius

are as follows:-

at reading of	900	920	940	960	980	1000	1020	1040	mb.
	+0.78	+0.80	+0.81	+0.83	+0.85	+0.87	+0.88	+0.90	mb.

2. Reduction to Mean Sea Level.- The correction to reduce pressure at station level to pressure at sea level is calculated according to the usage of the "International Meteorological Tables" with certain minor modifications which are set out in "The Observatories' Year Book", 1928. In the same volume is given a copy of the Table actually in use.

NOTES ON THE METEOROLOGICAL SUMMARIES

The number of years for which meteorological results are available is insufficient as yet to yield a completely representative set of normal values. Although certain meteorological data are available for 1909 and 1910 it is only since 1911 that the reductions have been made in accordance with an approximately uniform plan. In the following notes the normal or average values referred to are for the period 1911 to 1926, unless otherwise stated.

Pressure.- As was the case throughout most of the British Isles the mean pressure for the year was below normal, the deficiency being 0.3 mb. In the months March, April, August, September, October and December the mean pressure was sub-normal; in each of the other months it was above the average, the greatest excess being in February viz. 18.3 mb. The extreme instantaneous values recorded were 1018.0 mb. on February 15, and 938.8 mb. on March 17. The greatest and least mean daily values were 1017.0 mb. on February 15 and 940.7 mb. on March 17. It is of interest to note that in year 1933 the absolute minimum and the lowest mean daily value of pressure occurred on the same date as in the year 1934, viz. March 17. The synoptic situation over western Europe from 16th to 18th March 1934 was in fact closely similar to the situation on the same dates in 1933. The largest value of the range during a calendar day was 34.7 mb. on January 19. The mean value of the absolute daily range of pressure varied between 9.9 mb. in January, and 3.7 mb. in July. The annual mean value of the daily range was a little below normal.

Pressure.(Diurnal Variation):- In the mean diurnal inequality for each month there are two maxima, in the late forenoon and usually an hour or two before midnight, and two minima, in the the early morning and afternoon. In all months, except January, February and November, the night maximum of the representative inequalities for the year 1911-20 is the larger. In 1934 the principal maximum occurred in the late forenoon in February, May, October and November. The principal minimum in the representative inequalities is in the afternoon except in February, March, August and November, but in 1934 the principal minimum falls in the early morning in January, July and September. Compared with the mean diurnal inequality for 1911-20⁽¹⁾, in 1934

(1) "On the Diurnal Variation of Atmospheric Pressure at Eskdalemuir and Castle O'er, Dumfries-shire," by A. Crichton Mitchell, D.Sc., London, Quart. J.R. met. Soc., 50, No. 210, April, 1924.

the afternoon trough and night crest are enhanced, while the late forenoon crest is diminished.

The results of the harmonic analysis of the monthly and seasonal mean diurnal inequalities for 1934 are given in the accompanying table. For purposes of comparison the corresponding data ⁽¹⁾ derived from the mean inequalities for the period 1911-20 are also given. In computing the Fourier coefficients for 1934 the unit employed was .001 mb. Although for 1934, as for recent years, the phase angles are given to the nearest 1°, this course is scarcely justified, at least for the third and fourth components, by the character of the data from which the harmonic coefficients for the months and seasons of a single year are computed. The phase angles α_1 etc, given in the table below refer to Local Mean Time, whereas in the corresponding tables for 1922 and 1923 the phase angles refer to Greenwich Mean Time.

As is usually the case the amplitude and phase of the 24-hour term fluctuate irregularly from month to month. The ratio of the mean of the twelve monthly values of c_1 to the value of c_1 for the year as a whole slightly exceeds unity. c_1 is noticeably high for July, August, September and December, and low for February and November. The value of c_2 for the equinox and summer was below the corresponding normal, those for year and winter being higher. The variation in the 8-hour term from month to month is fairly normal, the amplitude being largest in winter months and least at the time of equinoctial phase transition.

HARMONIC COEFFICIENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

ESKDALEMUIR, LONGITUDE 3° 12' W.

Values of c_n, α_n in the series $c_n \sin (15nt + \alpha_n)$, t being Local Mean Time reckoned in hours from midnight.

Month and Season	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1934	1911-20	1934	1911-20	1934	1911-20	1934	1911-20	1934	1911-20	1934	1911-20	1934	1911-20	1934	1911-20
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
Jan.	.19	.094	148	346.4	.28	.235	152	151.6	.16	.125	1	345.3	.07	.046	224	213.9
Feb.	.03	.118	330	215.1	.33	.273	145	138.1	.12	.083	332	341.2	.04	.042	60	67.7
Mar.	.23	.128	67	185.3	.30	.304	152	145.3	.05	.053	360	335.0	.05	.051	33	24.5
Apr.	.23	.205	3	92.3	.37	.299	149	154.8	.04	.022	222	156.3	.06	.045	21	355.7
May	.28	.225	93	52.7	.27	.270	148	147.4	.06	.075	173	160.1	.02	.035	303	330.1
June	.12	.152	97	53.9	.25	.234	149	146.1	.10	.084	172	160.6	.01	.018	214	325.7
July	.34	.171	120	69.4	.24	.211	136	141.2	.11	.077	148	155.8	.01	.023	261	300.0
Aug.	.39	.114	98	114.6	.14	.239	172	147.7	.06	.057	147	157.2	.05	.047	311	330.8
Sept.	.47	.121	123	87.7	.31	.313	157	151.6	.01	.012	81	110.7	.06	.050	8	344.7
Oct.	.19	.110	24	76.0	.22	.315	166	159.5	.10	.060	28	8.2	.03	.041	339	32.9
Nov.	.06	.125	193	183.5	.30	.242	171	168.1	.13	.101	5	9.2	.01	.015	151	146.2
Dec.	.47	.137	122	87.1	.26	.213	169	146.9	.14	.124	357	4.2	.04	.067	198	212.8
Arithmetic Mean.	.25	.142	...	...	.27	.262	...	...	.09	.073	...	...	.04	.040	...	...
Year	.194	.085	102	90.8	.268	.260	155	150.1	.030	.020	16	41.7	.012	.016	343	341.9
Winter	.167	.038	134	165.4	.286	.236	159	150.9	.137	.106	355	355.5	.022	.023	195	189.1
Equinox	.183	.108	71	103.9	.300	.306	155	152.8	.030	.021	15	4.4	.046	.044	14	8.9
Summer	.282	.153	103	67.2	.221	.238	149	145.8	.080	.074	159	158.5	.019	.030	300	324.3

NOTE.- "Winter" comprises the four months January, February, November, December.

"Equinox" the months March, April, September, October.

"Summer" the months May to August.

(1) "On the Diurnal Variation of Atmospheric Pressure at Eskdalemuir and Castle O'er, Dumfries-shire," by A. Crichton Mitchell, D.Sc., London, Quart. J. R. met. Soc., 50, No. 210, April, 1924.

Temperature.- The mean temperature, 280.73°A . (45.9°F .), for the year 1934 is nearly 1°A above the normal value. The extreme temperatures recorded during the year were 301.6°A . (83.5°F .) on July 11 and 264.0°A . (15.8°F .) on March 1. February 26 with a mean daily temperature of 270.1°A . (26.8°F .) was the coldest day of the year and July 11 with 293.7°A . (69.3°F .) was the hottest. The mean monthly temperatures in March, April, May and August were sub-normal, the mean in each of the other months being above the average, the greatest excess occurring in July (2.4°A .) and December (3.1°A .). In addition the mean monthly temperature in July and December was in each case the highest since records commenced for months of the same name. The minimum temperature was 273.0°A . (32.0°F .), or less, on 71 days, 52 being in the first four months of the year. There were no "ice-days", i.e. days with maximum temperature below 273.0°A . (32.0°F .).

The values of the absolute range of temperature within a calendar month vary between 24.6°A . (44.3°F .) in July and 10.5°A . (18.9°F .) in December.

Humidity.- As is mentioned in the General Introduction, owing to a change in the hygrometric tables used, the results from 1926 onward are not strictly comparable with those of earlier years. Compared with the mean values for 1911-25 the chief departures of the values of mean relative humidity in 1934 are - 6 in February and + 4 in December. The mean relative humidity, 83.4 per cent. for the year, is slightly less than that for the years 1911-25, whilst the mean vapour pressure, 8.8 mb. is slightly greater than the mean for the years 1922-30. The extreme daily mean values of relative humidity and vapour pressure were 99.2 per cent. on December 2, 58.1 per cent. on February 26, 17.7 mb. on July 11, 2.9 mb. on February 26. The lowest hourly reading of relative humidity was 32 per cent. on March 21.

Precipitation.- 1934 was wetter than normal, the total amount of rainfall, 1676.7 mm. (66.0 in.), being 7.0 per cent. greater than the mean for the period 1911-30. The wettest months were January with 287.9 mm. (11.33 in.) October with 248.0 mm. (9.76 in.) and December with 219.7 mm. (8.65 in.). February with 10.5 mm. (0.41 in.) and November with 57.5 mm. (2.26 in.) were the driest months. The greatest amount recorded during a calendar day was 41.4 mm. (1.63 in.) on October 25. There were 127 days on which precipitation was nil or amounted to less than 0.2 mm. Precipitation amounting to 0.2 mm. or more was recorded on 238 days; to 1.0 mm. or more on 189 days; to 20.0 mm. or more on 19 days.

Snow or sleet fell on 44 days, but on no day from May 18 to October 14 inclusive. Observations of "snow lying" at 7h number 6, 3 of which were in March. There were no large falls of snow.

Sunshine.- The year's total duration of bright sunshine, 1168.3 hr. represents 26 per cent. of the theoretically "possible" duration; whereas the average percentage of "possible" for the years 1911-30 is 26.9. As regards the percentage of "possible" July was the sunniest and December the least sunny month of 1934. In all, there were 93 days without sunshine, 15 of these being in January, and 23 in December, and 69 days with 50 per cent. or more of the "possible" sunshine. The day with the most sunshine was July 3, with 15.1 hr. February 26 with 9.2 hr. and November 1 with 8.2 hr. (each with 89 per cent) represents the highest value of the percentage of "possible" sunshine.

Wind.- The mean wind speed for the year, 4.8 m/s. (10.7 mi/hr.), was 0.3 m/s. less than the normal value. The individual monthly values differed respectively little from the normal monthly values, the mean speeds for June and July exhibiting the greatest relative deficiency and that for October the greatest excess. There were 17 hours of gale force (mean speed greater than 17.1 m/s.), 11 of them occurring in January. The highest gust of the year, 34 m/s. (77 mi/hr.), occurred on February 8, the highest hourly speed, 20 m/s. (45 mi/hr.), on January 7, the highest mean daily speed, 12.5 m/s. (28 mi/hr.), on January 10 and the lowest mean daily speed, 0.3 m/s. (0.7 mi/hr.), on both January 28 and November 29.

The distribution of wind directions throughout the year differed little from normal. Winds from between south and west predominated in January, February, May, July, August, September, October and December, while in the remaining months the prevailing winds were from between north and east, the decrease in the frequency of southwesterly winds and the persistence of north-easterlies in April and June being very marked.

Grass Minimum Temperature.- There were 80 occasions of ground frost (i.e. grass minimum temperature not greater than 272.1°A. or 30.4°F.), but none of these occurred between June 4 and August 24; the number (80) for the year and that for December (1) being the lowest in each case since records commenced (1917). The lowest grass minimum temperature was 262.0°A. (12.2°F.) on March 1. The mean grass minimum temperature for each of the months January, February, March and November is less than 273.0°A. (32.0°F.).

Cloud and Weather.- (A) the mean amount of cloud observed at the six hours of observation is 7.7, which is a little above the normal. December with 9.1 has the largest mean amount, and February with 6.9 has the smallest. The largest mean amount for an observational hour is 9.4 at 7h in December; the least is 6.1 at 21h in September. There were no days, on which no cloud was seen at the normal hours of observation. On 35 days the amount 10 was recorded at every hour of observation.

(B) Thunder was heard on 12 days, while there were observations of solar halo on 9 days, and of lunar halo on 3 days, and of aurora or auroral glow on 4 days.

(C) The numbers of occasions on which the range of visibility was estimated to be (1) not greater than 500 metres (550 yards), corresponding with the entries X to E, and (2) at least 20 kilometres ($12\frac{1}{2}$ miles), corresponding with the entries k, l, m, are summarized below. The limitations to which the estimates of visibility are subject are mentioned on p. 154. It is to be noted that the group (1) above consists of the occasions which are held to merit the description "fog, moderate, thick, or dense", while the entries k, l, m, denote "very good or excellent visibility".

There were fewer occasions of fog and more of estimates k, l, and m than in 1933. Fog was most frequent in February and June, but entirely absent (at the standard hours of observation) in July. There were 40 estimates of m, visibility 50 km. (31 mi) or more, distributed among 32 days. 18 of the occasions were associated with increasing barometric pressure, and 32 with winds from west-south-west through north to north-east.

1934	NUMBER OF OCCASIONS OF-													
	VISIBILITY X to E							VISIBILITY, k, l, m.						
	7h	9h	13h	15h	18h	21h	Total	7h	9h	13h	15h	18h	21h	Total
Jan.	0	1	0	0	1	1	3	13	16	17	17	15	16	94
Feb.	1	2	0	1	1	1	6	18	16	20	21	20	19	114
Mar.	2	0	0	1	0	1	4	15	17	25	24	22	19	122
Apr.	2	0	0	0	0	1	3	15	20	26	24	26	20	131
May	1	0	0	0	0	1	2	17	19	26	25	27	21	135
June	0	0	1	1	1	3	6	16	19	25	24	23	17	124
July	0	0	0	0	0	0	0	19	24	28	29	29	23	152
Aug.	2	0	0	0	0	1	3	20	18	24	26	25	24	137
Sept.	2	0	0	0	0	0	2	18	21	22	24	25	21	131
Oct.	2	0	0	0	0	0	2	21	23	22	23	21	22	132
Nov.	1	1	1	1	0	1	5	16	21	22	20	17	18	114
Dec.	1	2	1	0	1	0	5	14	15	15	15	14	11	84
Year	14	6	3	4	4	10	41	202	229	272	272	264	231	1470

ATMOSPHERIC ELECTRICITY

Notes on the Instruments

Autographic records of atmospheric electrical potential gradient were obtained by means of an electrograph of the Kelvin water-dropper type, the potential at the water-jet being registered by a Dolezalek quadrant electrometer. On January 4th 1933, the double nozzle of the water jet was altered to a single nozzle; otherwise in all essential details the electrograph arrangements, the method of making scale tests and the method of reducing the autographic curve readings to potential gradient in the open were as described in "The Observatories' Year Book," 1928, pp. 160-161. Insulation tests were carried out each day, using an eye-reading method. The system was charged, and the fall in potential during a two minutes interval was measured by noting the change in position of the spot of light on a scale placed in front of the recording drum.

The scale value of the photographic record obtained by means of the Dolezalek electrometer used in conjunction with the water-dropper remained about 2.0 volts per mm. throughout the year. The number of determinations of the reduction factor (i.e., the ratio of the potential at one metre above the ground in the open to the potential at the water-jet) was about six per month, each determination being based on fifteen or more readings (at intervals of half a minute) of the potential in the open. The values of the monthly reduction factor finally adopted for 1934 were obtained by a smoothing process, the adopted value for a given month being $\frac{(a + 2b + c)}{4}$ where a, b, c, are the unsmoothed monthly mean factors for the three successive months centred in the given month.

All determinations of scale value and reduction factor were obtained with a particular Wulf quartz-thread electrometer. This instrument was calibrated

by means of a high tension battery, the potentials of which were measured by a potentiometer and standard cell. According to the scale value adopted for the Wulf electrometer in 1934, the instrument had about the same sensitivity as in 1933.

INDENTIFICATION NUMBER OF INSTRUMENT USED IN 1934

Wulf bifilar electrometer 3040

Notes on the Tables and Results

As far as possible an electrical character figure is assigned to each day and values of potential gradient are assigned for 2-3h, 8-9h, 14-15h, and 20-21h G.M.T. of all days, while values for all hours are assigned on days classified as 0a, 1a, or 2a. The character figures are given in Table 268, the significance of these symbols being as follows:-

- 0, denotes a day during which from midnight to midnight no negative potential was recorded.
- 1, denotes the existence of negative potential at one or more times during the same period, but with a total duration of less than three hours.
- 2, denotes negative potential extending in the aggregate over three hours or more during the same period.
- a, denotes that within the 24 periods of 60 minutes for which an estimate of the mean potential gradient has to be made in the process of tabulation there was in no case a range of potential gradient in the open exceeding 1,000 volts per metre.
- b, denotes that, during the same period, a range of 1,000 volts or more per metre was reached in one hour at least but in fewer than six hours.
- c, denotes that, during the same period, a range of 1,000 volts or more per metre was reached in at least six hours.

Table 265 contains the values of electrical potential gradient at 2-3h, 8-9h, 14-15h and 20-21h G.M.T.; the value for a given hour represents the mean for the period of 60 minutes between exact hours, instead of centering at the exact hour, as was done in years prior to 1932. Blanks indicate that the trace was in some way defective. If it is possible to assign an approximate value of the potential gradient on such days, this value is given in brackets. The reduction factors, used in converting the potential at the water-jet to potential gradient in volts per metre in the open, are also given.

In Table 266 are given, for 0a days, (1) the mean diurnal inequalities for the months, seasons and year, (2) particulars of the number of days and of the non-cyclic changes and (3) the corresponding mean values of potential gradient. The inequalities, or the mean values, for the year and seasons are the means of the inequalities or means respectively, for the appropriate months.

Corresponding data for 1a and 2a days combined appear in Table 267.

It should be noted, that in these tables, "Winter" denotes the four months January, February, November, December; "Equinox" the four months March, April, September, October; and "Summer" the four months May to August.

In addition to the electrical character for each day, Table 268 contains the daily, monthly and annual values of duration (in hours and tenths) of negative potential gradient. On 12 days of defective record when negative potential may have occurred dashes are entered; the sign of the gradient has been assumed positive during periods of defective record in which no precipitation was observed. If precipitation was recorded for less than an hour during such defective periods an approximate value of the duration of negative potential for that hour has been assigned, and the total for the day given in brackets. When, during highly oscillatory gradients, there was uncertainty as to the times of changes of sign, half of the total duration of doubtful sign was accounted negative. The total duration of negative potential gradient in each month and the average daily duration are entered in the lower part of the table. For the 353 days of assignable duration of negative potential gradient the total number of hours was 838.1 as compared with 572.8 in 1933; an average of 2.37 hours per day, as against 1.60 hours per day in 1933.

Following the practice adopted in 1923, the mean values of potential gradient given in Table 265 are of two kinds, viz., (a) the mean of all the positive values of potential in the column and (b) the algebraic mean derived from all days on which all four hours were represented. The mean values for the month, as derived from the (a) and (b) values respectively, are shown in the last line, and the means for the year are given at the foot of the December table. It is to be expected that the mean derived from the values at 2-3h, 8-9h, 14-15h, 20-21h, on a sufficiently large number of days, will approximate closely to the mean value derived from all hourly values of all the days.

The (a) mean exceeds or is equal to the (b) mean in every month excepting February and May and is exceeded by the mean value on 0a days, in all months excepting October. The general tendency is for 1934 values to be lower than those of 1933, this being the case in nine months for both the (a) mean and the (b) mean,

Annual mean values for recent years, derived by giving equal weight to the twelve monthly means, of the (a) and the (b) means and of the means for 0a days are as follows:-

					0a v/m.	(a) v/m.	(b) v/m.
1922	..	..	..	..	257	225	182
1923	..	..	..	..	278	235	159
1924	..	..	..	..	236	214	157
1925	..	..	..	..	284	243	209
1926	..	..	..	..	249	201	177
1927	..	..	..	..	259	223	193
1928	..	..	..	..	237	219	150
1929	..	..	..	..	276	240	216
1930	..	..	..	..	247	211	194
1931	..	..	..	..	243	205	197
1932	..	..	..	..	223	198	190
1933	..	..	..	..	237	218	218
1934	..	..	..	..	233	201	190

The highest values of the (a) and (b) means occur in January and November respectively. The mean value of 0a days is highest in January, being 332 volts per metre.

Noteworthy occasions of high potential gradient were as follows:-

- (1) January 19d 16h 50m to 20d 0h 17m. High potential gradient occurred with almost a cloudless sky. Potential gradient remained above 500 v/m throughout the period, exceeding the upper limit of registration (1100 v/m) at times.
- (2) January 29d 17h 40m to 30d 1h 6m. The sky was partially clouded during this period. Potential gradient remained above 600 v/m. and exceeded 1000 v/m. at times.
- (3) February 14d 16h 20m to 23h 55m. During this period of clear skies potential gradient was continuously above 500 v/m., the average for the entire period being about 750 v/m.
- (4) February 15d 16h 36m to 16d 7h 10m. Apart from a few minutes, potential gradient was continuously above 500 v/m., the average for the entire period being about 850 v/m. There was a varying amount of cloud, and fog developed towards the end of the period.
- (5) March 14d 18h 57m. to 21h 57m. During snow the potential gradient was continuously above 800 v/m., exceeding 1100 v/m frequently.

The following were the noteworthy occasions of continuous negative potential gradient:-

- (1) January 1d 17h 30m to 23h 21m. Continuous moderate rain fell during this period. The lower limit of registration (-1000v/m) was exceeded for an aggregate time of more than three hours.
- (2) January 10d 0h 51m to 8h 57m. During continuous rain potential gradient remained negative, the lower limit of registration (-1000 v/m) being exceeded at times.
- (3) April 11d 17h 29m to 22h 34m. The lower limit of registration (-1000 v/m) being exceeded for over three hours. Rain fell continuously throughout.
- (4) May 20d 3h 2m. to 9h 47m. During this period of rain, which was heavy at times, the lower limit of registration (-950 v/m) was exceeded frequently.
- (5) October 24d 16h 28m to 23h 34m. The lower limit of registration (-750 v/m) was exceeded for nearly two hours, during this period of rain.
- (6) December 4d 12h 44m to 23h 33m. During continuous rain, the lower limit of registration (-950 v/m) was exceeded for an aggregate of 6 hours.

On the following occasions long periods of negative potential gradient were broken by short excursions to the positive side:-

- (1) January 3d 23h 10m to 4d 14h 54m. Rain fell continuously during this period, and potential gradient was negative throughout, apart from three short excursions to the positive side, during one of which the gradient reached +105 v/m. For an aggregate time of nearly five hours potential gradient was less than -1000 v/m.
- (2) January 6d 11h 21m to 18h 32m. Apart from a momentary excursion to +15 v/m., potential gradient was negative and frequently exceeded the lower limit of registration (-1000 v/m). Rain fell continuously.
- (3) January 14d 0h 13m to 19h 31m. During this period of mainly light rain potential gradient was negative, and for over eleven hours was less than -950 v/m., the lower limit of registration. There were two excursions of 43 minutes and 3 minutes duration respectively to the positive side, and during the larger period potential gradient reached +90 v/m.
- (4) January 16d 22h 17m to 17d 10h 19m. The continuity of negative potential was broken by two short periods, during one of which the gradient reached +640 v/m. For an aggregate time of five hours the potential gradient was less than -900 v/m. Snow fell early in this period, changing to continuous rain.
- (5) May 15d 10h 56m. to 22h 57m. Rain fell continuously throughout. There were three excursions to +55 v/m., +330 v/m., and +200 v/m respectively but potential gradient was less than -950 v/m for nearly seven hours. After 15d 22h 57m, apart from several periods of relatively small potential gradient, negative potential gradient persisted until 16d 5h 6m.
- (6) November 10d 2h 0m to 15h 33m. This period of continuous negative potential was broken by several short excursions to the positive side, during one of which the gradient reached +200v/m. Continuous, but mainly light, rain fell throughout.

There are considerable irregularities in the mean diurnal inequalities of potential gradient on 0a days for individual months, although in most months the principal maximum occurs in the late evening. When compared with normal values for 1911-21 the mean inequalities for the seasons, summer and equinox, correspond fairly closely to normal, excepting that the secondary maximum about 6-7h is more prominent. In the mean diurnal inequality for the winter season, the chief difference is that the principal minimum occurs some hours late at 6-7h., and is almost equalled by the minimum occurring about noon.

TERRESTRIAL MAGNETISM

Notes on the Instruments

The standard magnetographs¹, which have been in regular use since 1909, are situated in the east chamber of the underground magnet house and until December 31, 1931 they were arranged to as to record changes of the three geographical components of terrestrial magnetic force, viz., the north component, N (or + X), west component, W (or - Y), and the vertically downward component V (or + Z). From January 1, 1932, the instruments recording changes in the

¹For a general description of magnetograph arrangements see "A Dictionary of Applied Physics," Vol. II, Macmillan, London.

north component, N, and the west component, W, were altered so as to record changes in the horizontal component, H, and the magnetic declination, D, respectively.

The instruments for the north and west components were of the Adie bifilar type, in which torsion of the bifilar suspension, of fine tungsten or steel wire, is utilised to bring the magnets into an azimuth approximately perpendicular to the directions of the components whose changes they respectively record. The alteration to the north component instrument consisted in turning the torsion head of the suspension until the magnet was in the azimuth perpendicular to the magnetic meridian. The alteration to the west component instrument consisted in replacing the bifilar tungsten wire suspension with a unifilar suspension of eight strands of unspun silk. In each of these instruments the magnet is about 13.8 cm. in length and is suspended within a copper shell, or frame, of suitable dimensions to ensure that the movements of the magnet are sufficiently damped. To the magnet is rigidly attached a semi-circular plane mirror, immediately beneath which is a fixed mirror of similar form and dimensions. Each magnet and mirror system is contained within a brass cylindrical case, cemented on to a pier and surmounted by a tall bell-jar of glass. Light from a brightly illuminated slit passes through a collimator, is incident upon the two mirrors and after reflection passes along a wooden channel and thence, through a horizontal hemi-cylindrical lens, to a photographic paper wound on a clock-driven cylinder. The hemi-cylindrical lens is set in the side of the case containing the recording drums, and matters are so arranged that the beams of light reflected from the two mirrors are brought to a focus by the lens which condenses the two vertical images to two sharply focussed dots on the paper. Hence the record obtained consists of two traces, the one straight and known as the base line, the other curved and representing the angular movements of the suspended magnet, and therefore the changes in the component of terrestrial magnetic force.

The standard instrument for the vertical component is a Watson multiple-magnet balance.¹ In this instrument the magnet system consists of eight magnetised steel rods, each 10 cm. long and 0.2 cm. in diameter, carried by an aluminium frame to the centre of which are attached the moving mirror and also the knife-edge, which bears upon an agate plane and about which the system balances. Copper damping plates and a temperature-compensating device are provided. The recording arrangements are similar to those described above, save that the hemi-cylindrical condensing lens and the recording drum are vertical.

One clock serves to operate the three drums and also makes the time marks at two-hourly intervals.

To the containing case of each instrument is fitted a drying tube containing calcium chloride.

A determination of the azimuth of the magnet of the horizontal component magnetograph is carried out each year by comparing the deflections produced by an auxiliary magnet with its axis (a) magnetic east-west and (b) inclined at a known small angle to this azimuth. Drift of the magnet system of the Watson balance has been compensated from time to time in the past by adjusting the position of a small control magnet which was fixed vertically to the lower part of the pier on which the balance stands. This control magnet was removed during October 1932 and has not since been replaced.

The azimuth lines in use in the east chamber are those which were determined in 1914 and of which particulars are given on p. 70 of "Hourly Values from Autographic Records, Geophysical Section", 1913.

¹Terr. Magn. atmos. Elect., Washington, D.C., 6, 1901.

The diurnal range of temperature in the east chamber of the magnet house is normally negligible. Temperature is ascertained daily at 10h by the thermometers within the instrument cases. The daily values appear in Tables 272, 276, etc.; the monthly means of the readings so obtained during 1934, together with the mean values for the years 1911-1933, were as follows:-

EXCESS OF MEAN TEMPERATURE ABOVE 280°A.

Month.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Mean 1934	3.0	2.5	1.9	1.7	2.3	3.5	4.8	6.2	6.7	6.4	5.1	4.5
Mean 1911-33.	3.5	2.9	2.5	2.4	2.7	3.6	4.7	5.7	6.3	6.2	5.4	4.4

The annual range of temperature during 1934 was 5°·2 C., the mean range for the previous twenty-three years being 4°·3 C.

The constants of the standard magnetographs were as follows:-

	Horizontal Force	Declination	Vertical Force
Time scale .. 1 hour equivalent to	15.5 mm.	15.5 mm.	15.5 mm.
Time marks	Every two hours, beginning at exact		
Error of time mark	hour. Not more than ± 1 min.		
Period of vibration, seconds ..	14.4	10.9	7.5
Logarithmic decrement ¹ .. .. .	.378	.621	-
Angular equivalent of 1 mm. on paper, radians .. .. .	.00032	.00029	.0003
Twist of bifilar suspension ..	33°	-	-
length of bifilar suspension			
Ratio	73	-	-
mean breadth of suspension			
Temperature coefficient, per 1° C.	- 9γ	-	+13γ
Direction of marked pole	West	North	-
Mean Azimuth of magnet	256°	346°	346°

The temperature coefficient of the Horizontal Force variometer (formerly the N component variometer) has remained sensibly constant for many years.

In issues of the Observatories' Year Book for years earlier than 1933 the temperature coefficient of the Vertical Force magnetograph has been given as +26γ per 1° C. A recent re-examination of the question shows that this was approximately the value until early in 1929. During that year however several adjustments were made to the instrument and as a result of these the temperature coefficient apparently was considerably reduced. The trend of base line values in relation to temperature variations in the magnetic chamber shows that in 1930

¹Log. decr. = $\log_e a_n - \log_e a_{n+1}$; where a_n , a_{n+1} are the amplitudes of two successive swings on the same side of the zero position.

and 1931 the temperature coefficient of the vertical force variometer was about $+10\gamma$ and that in 1932 and 1933 and part of 1934 the coefficient was approximately $+13\gamma$ per 1°C . By the latter part of 1934 the coefficient had reverted to $+26\gamma$ per 1°C .

Determinations of scale value of the standard magnetographs are carried out at intervals of two weeks. The method adopted is that due to Broun. It consists essentially in measuring the photographically recorded deflection of the suspended or pivoted magnet produced by an auxiliary or test magnet situated at a known distance from the deflected magnet. Two sets of relative positions of the deflecting and deflected magnets are used. For the H and D instruments they may be termed the "end on" and "broadside on" positions, the magnet axes being in one plane. In the case of the V instrument the deflecting magnet is vertical; in one position the line joining its centre to that of the deflected magnet is collinear with the axis of the latter, but in the other position it is perpendicular thereto. On a given occasion deflections are produced with the test magnet first on one side of the deflected magnet and then, at the same distance, on the other side, two deflections being produced at each side by reversal of the test magnet. Thus four deflection dots are obtained on the record. The two sets of relative positions of the magnets are employed on alternate occasions. The distance between the deflected and deflecting magnets is 90 cm., and approximate values of the double deflections produced are 47 and 93 mm. for the H instrument, 45 and 89 mm. for the D, and 58 mm. for the V. In deducing the scale values the force producing the deflections on the H and V instruments is determined from the deflection on the D instrument of which the scale value is known from its dimensions. The advantage of the method lies in the fact that by using the same deflecting distance in all cases, the magnetic moment of the test magnet is eliminated.

In the following table are given the scale values, obtained by overlapping means, which were employed in reducing the curve readings for 1934.

SCALE VALUES OF THE MAGNETOGRAPHS (γ per mm. on the paper).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Horizontal Force	4.56	4.56	4.57	4.56	4.56	4.57	4.57	4.56	4.56	4.57	4.57	4.56
Vertical Force	3.74	3.74	3.75	3.75	3.75	3.75	3.75	3.75	3.76	3.77	3.78	3.78
Declination	————— 1 mm. = $1'00$, or 4.81γ —————											

In addition to the standard magnetographs there are in the west chamber of the underground magnet house auxiliary instruments of the Adie pattern (formerly the standard instruments at Kew Observatory) which also record changes in declination, D, horizontal force, H and vertically downward force, V. Declination records have been obtained since August, 1927, while the vertical force (Adie) and horizontal force records commenced in March and December, 1928. The general arrangements of these instruments are similar to those of the instruments in the east chamber. The declination magnet is suspended by a bundle of silk fibres (the torsion effect of which is negligible) and the scale value of the record is $1'17$ to 1 mm. The vertical

force balance consists of a single magnet, of which the dimensions are approximately 13.5 cm. x 2 cm. x 0.2 cm. With the object of reducing loss of record during magnetic storms the scale values of the auxiliary H and V records are arranged to be considerably greater than those of the standard H and V records. Thus, in 1934 the scale values of the Adie H and V records were approximately 10γ and 5γ per mm. respectively. Determinations of scale value are made by the method due to Broun. To facilitate the necessary adjustment, from time to time, of the azimuth of the horizontal force magnet, magnetic meridian lines (and lines perpendicular thereto) representing a sufficient range of values of declination were laid down in the west chamber in December, 1928, on the basis of simultaneous observations of declination in the chamber and in the east magnetic hut.

An auxiliary la Cour magnetograph of the quick run type, recording H, D, and V, was installed in the west chamber of the underground magnet house in connection with the second International Polar Year and has been continued since then.

The routine absolute observations of the magnetic elements are made in the east magnetic hut; as a rule two complete sets of observations are made every week, but general determinations of declination and horizontal force are made on nearly every week-day. Declination is determined by means of the Kew pattern unifilar magnetometer (which was employed by Rucker and Thorpe in their magnetic surveys of the British Isles, 1886-1892) placed on Pier No. 5. Determinations of horizontal force have in general been made daily with a Schuster-Smith Coil magnetometer placed on a pillar erected specially for it and twice weekly throughout the year with the Kew pattern unifilar magnetometer mentioned above. Determinations of inclination (dip) are made by means of the Schulze inductor on Pier No. 6.

For a detailed description of the method of observation with the Kew pattern magnetometer reference should be made elsewhere.¹

In determining declination four readings are taken, two with the magnet erect, two with the magnet inverted. A correction is applied to the mean of the observations for the observed torsion in the silk suspending fibre. The fixed mark is about one half-mile (0.8 km.) distant from Pier No. 5, and its bearing is taken as 8° 12' 30" west of south.

Determination of horizontal intensity with the Kew unifilar magnetometer comprises observations of (a) the time of vibration of the collimator magnet, and (b) the deflection of a mirror magnet by the collimator magnet. Usually deflection observations have been made for three distances of the collimator magnet, the order of the positions of the latter being: on east arm at 35 cm., 30 cm., 25 cm.; on west arm at 25 cm., 30 cm., 35 cm., Thus the mean times for the deflections at the three distances are very nearly, if not exactly, identical and the observations are concentrated at the 25 cm. distance. Commencing on April 28, 1931, deflections were observed at 25 cm. only, except on one occasion per month when deflections were observed at the three distances 35 cm., 30 cm. and 25 cm. By observing deflections at 25 cm. only the time of observation is reduced by about 16 minutes. The time interval between the mean times of the vibration and deflection experiments is usually about half an hour. The horizontal intensity, H , is calculated from $H = \sqrt{mH_V \times H_R/m}$ where mH_V is obtained from the vibration experiment and H_R/m from the deflections made at the 25 cm. distance, m being the moment of the collimator magnet. H_R/m is corrected for the distribution of magnetism in the magnets. From the latter part of 1913 until the end of 1923 the value of this correction, viz., $\log_{10}(1 + P/25^2 + Q/25^4)$, applied to the observations

¹Dict. of Applied Physics, Vol. II, p. 532 or Stewart and Gee's "Practical Physics.

of a given month was a mean value derived from the observations obtained during the seven months including the given month as fourth of the seven. The monthly values so derived show considerable fluctuations, and it is improbable that P and Q actually varied to the extent implied. Commencing in 1924 the value of the correction used in reducing the horizontal intensity observations has been the mean of the mean values for each of the years 1917-24, 1917-25, etc. The mean value of the logarithm for the years 1917-34 is .00545. A variation of .00020 in the value of $\log_{10} (1 + P/25^2 + Q/25^4)$ corresponds with a variation of about 4γ in the derived value of H.

The values of P, Q, and $\log_{10} (1 + P/25^2 + Q/25^4)$ for individual years are as follows:-

Year	P	Q	$\log_{10}(1 + P/25^2 + Q/25^4)$
1917	+ 6.86	+ 419	... .00520
1918	+ 7.60	+ 69	... .00533
1919	+ 9.13	- 603	... .00563
1920	+ 8.22	- 217	... .00544
1921	+ 7.98	+ 25	... .00554
1922	+ 6.81	+ 513	... .00513
1923	+ 6.37	+ 614	... .00508
1924	+ 7.90	- 129	... .00531
1925	+ 8.21	- 262	... .00538
1926	+ 9.67	- 938	... .00564
1927	+10.42	-1265	... .00580
1928	+ 8.71	- 547	... .00541
1929	+ 9.74	- 917	... .00571
1930	+ 8.68	- 537	... .00540
1931	+ 8.77	- 685	... .00530
1932	+10.45	-1315	... .00576
1933	+ 8.63	- 499	... .00541
1934	+ 9.52	- 775	... .00572

Though observations of horizontal force have continued to be made twice weekly with the Kew Magnetometer, the absolute standard as from 1st January 1934 has been the Schuster-Smith Coil. This instrument was installed at the observatory in February 1931 and a first series of comparative observations extended from October 1931 until June 1933 when the potentiometer was returned to the makers in order that certain alterations might be incorporated in it. After recalibration at the National Physical Laboratory the potentiometer was returned to the Observatory and the Coil was brought into daily use.

A complete description of the Schuster-Smith Coil and of the method of observing with it is given in the Philosophical Transactions of the Royal Society, A. Vol. 223 (1922), pp. 175-200. Essentially the instrument consists of a Helmholtz-Gauguin system of two coils of wire accurately wound on a hollow marble cylinder. A small magnet is suspended at the centre of the coil system. The current passing through the coils is very accurately adjusted by use of a Broca Galvanometer in a potentiometer circuit in which the electromotive force across a known resistance is balanced against a Weston Standard cell. The principle of the instrument is that a horizontal magnetic field, slightly greater than the earth's field and almost opposite to it in direction, is set up through the coil system. By suitable adjustment of the current through

the coils this coil field can be arranged to be of such a magnitude that the resultant field, as indicated by the alignment of the magnet at the centre, is exactly at right angles to the earth's field. In this equilibrium position if α is the angle between the direction of the earth's field and that set up by the coils, if F is the constant of the coil system (i.e. the field due to unit current through the coil) and i is the current, then

$$H = Fi \cos \alpha$$

The replacement of the Elliott No. 60 Kew Type magnetometer by the Schuster-Smith coil as standard has involved a discontinuity of -14γ in H and correspondingly -38γ in V as from 1st January 1934. This fall in H has been established by a long series of intercomparisons between the old and new standards. Of the total amount of 14γ it has been estimated that 10γ is accounted for by departure of the moment of inertia of the magnet system of the Elliott magnetometer from the value as originally determined and as used up to and including the year 1933 in the reduction of the results of absolute observations. When the most recent determinations of the moment of inertia are incorporated the values of H determined by the Elliott magnetometer are lowered by 10γ . If this change came in gradually throughout a period of about twenty-five years it will have affected the calculated secular changes to the extent of less than $\frac{1}{2}\gamma$ per annum.

The remaining 4γ of fall between the Elliott determinations, corrected as described above, and the determinations made by the Schuster-Smith Coil is to be regarded as the net change arising from instrumental differences.

On the basis of a short series of observations made at Eskdalemuir in January 1933 by an officer from the Royal Observatory, Greenwich, using Kew Magnetometer Casella No. 181 as a travelling standard, it was deduced that the Eskdalemuir Schuster-Smith Coil reads about 5γ lower than the Abinger Coil; this means that the Elliott No. 60 determinations, corrected for the revised moment of inertia of magnet, apparently read only 1γ different from the Abinger Coil. These results are, however, subject to some uncertainty and it was decided that the Eskdalemuir Coil, without any correction, should be used from 1st January 1934 as the absolute standard for Eskdalemuir. Thus, as already indicated, changes of -14γ in H and -38γ in V must be kept in mind in comparing the published results for 1933 and earlier years with the results for 1934 and later years.

The Schulze inductor¹ consists essentially of a coil of insulated wire which can be rotated continuously and rapidly about an axis which coincides with a diameter of the coil. This axis is capable of rotation about a horizontal and vertical axis. The inclination and azimuth of the coil axis are read off on a vertical and horizontal scale respectively. The windings of the coil are led off from a commutator to a Broca galvanometer. To effect a determination of magnetic inclination, the coil is then rotated steadily at the rate of about 360 revolutions per minute and the inclination of the axis

¹For description of, and discussion of method of observation with earth inductors see papers by:-

H. Wild. Met. Z., Braunschweig 1895, p. 41.

O. Venske. Berlin, Ber. preuss. met. Inst., 1924, p. 91.

(and references given therein).

N.E. Dorsey. Terr. Magn. atmos. Elect., Washington, D.C., 18, 1913, p. 1.

of rotation is adjusted until the galvanometer deflection is the same in magnitude and sign whether the sense of rotation is positive or negative. In this position the rotation axis of the coil coincides with the direction of the earth's field and the inclination to the horizontal may be read off from the vertical circle. Two series of settings are made, one with the vertical circle facing east, the other with the circle facing west.

The base line values of the magnetograph records are deduced from the results of the absolute observations, any of the latter obtained during times of considerable disturbances being excluded.

In the case of horizontal force and declination, the equivalent value of the mean curve ordinate, corresponding to the period of observation, is subtracted from the observed value of the element to give the deduced base line value of the record. Similarly, by the combined use of the curve ordinates at the times of the inclination and horizontal force observations the value of H corresponding to the inclination observations is obtained and thence the base value for V . The base line values finally adopted are obtained from a curve drawn smoothly through points given by the deduced values, due allowance being made for discontinuities in the records.

Some of the absolute determinations of D , I and H are summarized in the subjoined table. Considerations of space make it necessary to limit the observations printed to about two per week, but, as indicated above, absolute observations of some of the elements are made more frequently. For each set of absolute observations are shown the deduced base line values, of H , D , and V and, in brackets, the adopted base line values. Thus, an entry 16210 (11) signifies:- deduced base line value 16210, adopted base line value 16211. The adopted values were obtained as described in the foregoing, and therefore the base line values corresponding to dates between those given in the table may be obtained by interpolation.

ABSOLUTE DETERMINATIONS OF D, I AND H, AND BASE LINE VALUES OF H, D AND V.

Eskdalemuir

1934.

Date	Declination			Inclination			Horizontal Force		Base line values (deduced and adopted)		
	Mean Time.	D.		Mean Time.	I.		Mean Time	H.	H.	D. D.	V.
	h. m.	°	'	h. m.	°	'	h. m.	γ	16,000γ+	°	16,000γ+
Jan. 5	9 33	14 5 50		9 15	69 45.9		11 35	16555*	222 (20)	13 26.3 (26.2)	762 (58)
10	12 19	14 8 50		11 26	69 45.4		11 55	16568*	222 (20)	25.7 (26.0)	777 (65)
12	9 43	14 5 50		9 23	69 45.3		12 6	16552*	214 (19)	25.8 (26.0)	773 (68)
17	9 41	14 5 40		9 20	69 45.5		12 3	16561*	219 (19)	26.0 (26.0)	765 (73)
19	9 33	14 5 10		9 14	69 45.8		11 25	16544*	213 (18)	26.1 (26.0)	764 (75)
23	10 1	14 5 10		9 41	69 46.9		11 54	16554*	221 (18)	26.2 (26.0)	785 (76)
26	9 41	14 5 3		9 18	69 46.0		11 24	16548*	212 (17)	26.1 (26.0)	786 (76)
30	9 35	14 2 55		9 17	69 45.4		-	-	-	25.9 (26.0)	776 (74)
Feb. 2	9 37	14 3 15		9 17	69 45.2		11 15	16557*	218 (14)	13 25.8 (26.0)	769 (72)
7	9 35	14 3 20		9 13	69 45.7		11 33	16551*	218 (13)	25.9 (26.0)	773 (69)
9	9 37	14 6 55		9 13	69 46.0		11 49	16534	210 (12)	26.2 (26.0)	772 (68)
13	9 53	14 3 3		9 17	69 45.3		9 38	16539	211 (12)	26.0 (26.0)	760 (66)
16	11 13	14 7 38		9 17	69 44.9		10 15	16545	210 (11)	26.1 (26.0)	763 (64)
20	9 49	14 3 5		9 19	69 46.0		9 37	16536	212 (10)	26.1 (26.0)	770 (64)
23	9 47	14 4 7		9 16	69 45.0		9 39	16544	212 (09)	26.1 (26.0)	759 (65)
26	9 43	14 3 55		9 14	69 46.0		9 33	16540	210 (09)	25.9 (25.9)	779 (67)
Mar. 7	9 17	14 3 23		9 3	69 45.5		9 33	16517	207 (05)	13 25.8 (25.8)	768 (72)
9	9 41	14 2 55		9 9	69 46.3		9 33	16531	206 (05)	25.7 (25.8)	778 (74)
14	11 57	14 7 50		14 8	69 45.5		11 20	16523	203 (03)	25.8 (25.8)	778 (77)
16	9 15	14 2 27		9 46	69 47.0		9 27	16527	204 (03)	26.1 (25.8)	773 (79)
19	14 7	14 9 55		9 39	69 45.9		14 21	16533	199(203)	25.8 (25.8)	792 (80)
23	9 13	14 3 7		9 31	69 46.5		16 11	16547	202 (02)	25.9 (25.8)	775 (80)
27	9 55	14 1 55		9 16	69 46.3		9 45	16526	202 (02)	25.7 (25.7)	770 (78)
29	9 27	14 0 55		9 13	69 46.4		9 43	16530	202 (01)	25.8 (25.7)	786 (76)
Apr. 4	10 59	14 1 8		12 33	69 47.9		12 56	16507	201 (01)	13 24.6 (25.6)	772 (76)
11	9 55	14 1 55		9 15	69 46.7		9 47	16511	198(200)	25.1 (25.3)	762 (76)
13	9 57	14 1 52		9 15	69 46.9		9 39	16512	200 (00)	25.0 (25.3)	767 (76)
17	14 33	14 7 15		13 56	69 46.1		14 25	16530	195(200)	25.1 (25.1)	778 (75)
20	9 53	14 1 5		9 14	69 46.2		9 45	16523	201 (01)	25.1 (25.1)	781 (75)
24	8 47	13 58 20		8 12	69 45.7		8 37	16527	202 (01)	25.1 (25.1)	711 (16)
27	8 9	13 57 10		8 55	69 47.1		8 27	16518	199(201)	25.2 (25.1)	707 (13)
May 1	8 53	13 58 57		8 21	69 46.1		8 45	16533	203 (02)	13 24.8 (25.0)	713 (10)
4	9 5	13 59 55		8 33	69 46.9		8 37	16520	202 (03)	25.1 (25.1)	717 (10)
9	9 5	14 0 28		8 28	69 45.7		8 55	16539	208 (04)	25.3 (25.2)	700 (09)
11	9 5	13 59 35		8 22	69 45.3		8 33	16536	206 (05)	25.3 (25.2)	702 (08)
15	9 3	13 58 47		8 21	69 46.4		8 53	16520	208 (06)	24.9 (25.0)	686(708)
16	13 45	14 4 24		14 34	69 44.7		15 13	16551	206 (06)	24.8 (25.0)	704 (08)
22	9 9	13 58 55		8 22	69 45.7		9 1	16530	210 (08)	24.9 (25.0)	702 (07)
25	8 55	13 59 20		8 18	69 46.9		8 46	16521	209 (08)	25.2 (25.0)	731 (06)
29	8 49	13 57 30		8 15	69 45.7		8 41	16530	210 (10)	25.0 (25.0)	706 (06)
June 1	9 7	13 58 40		8 19	69 46.1		8 57	16532	214 (11)	13 25.1 (25.0)	712 (05)
5	9 3	13 57 0		8 26	69 46.5		8 53	16519	210 (12)	25.1 (25.0)	705 (05)
8	9 7	13 58 25		8 18	69 46.4		8 57	16521	209 (13)	25.1 (25.0)	715 (04)
12	8 59	13 54 10		8 17	69 44.7		8 49	16539	215 (14)	24.9 (25.0)	686(704)
18	9 11	13 57 40		8 32	69 46.7		9 1	16529	215 (16)	24.9 (25.0)	718 (03)
22	8 59	13 54 50		8 19	69 46.5		8 49	16524	216 (17)	24.9 (25.0)	704 (02)
26	9 3	13 57 10		8 21	69 46.1		8 53	16515	218 (18)	25.2 (25.0)	672(701)
29	8 49	13 56 55		8 14	69 45.5		8 41	16529	219 (19)	25.0 (25.0)	682(701)

* Observations from Kew unifilar magnetometer Elliott 60.

ABSOLUTE DETERMINATION-Continued

Eskdalemuir

1934

Date	Declination			Inclination		Horizontal Force		Base line values (deduced and adopted)		
	Mean Time.	D.		Mean Time	I.	Mean Time	H.	H.	D.	V.
	h. m.	°	' "	h. m.	°	h. m.	γ	16,000γ+	°	46,000γ+
July 3	11 47	14 4	0	8 17	69 46.6	8 47	16524	223 (20)	13 25.2 (25.0)	698 (700)
6	9 3	13 55	40	8 20	69 46.6	8 53	16517	222 (21)	24.9 (25.0)	689 (700)
11	11 43	14 2	46	8 8	69 45.5	8 43	16530	220 (22)	24.8 (24.9)	693 (700)
13	10 47	13 58	45	8 17	69 46.1	8 37	16518	220 (23)	24.9 (24.9)	694 (700)
17	8 53	13 54	20	8 13	69 46.9	8 43	16516	224 (24)	24.9 (25.0)	691 (99)
20	8 49	13 55	55	8 22	69 46.5	14 35	16573	226 (25)	24.9 (25.0)	695 (99)
25	8 51	13 55	10	8 14	69 46.3	8 41	16520	227 (28)	25.2 (25.0)	696 (98)
31	16 38	13 56	5	15 37	69 44.6	16 58	16563	233 (32)	24.1 (24.9)	704 (698)
Aug. 7	15 21	14 2	20	14 35	69 45.3	15 7	16555	236 (35)	13 24.3 (24.9)	720 (697)
10	14 51	14 3	45	14 13	69 45.4	14 41	16547	237 (36)	24.3 (24.9)	710 (696)
13	11 28	14 1	51	14 46	69 45.3	11 56	16501	236 (36)	24.2 (24.8)	701 (696)
15	14 8	14 5	7	11 47	69 47.6	13 56	16530	236 (36)	24.5 (24.8)	711 (696)
17	11 33	14 0	35	8 43	69 47.0	9 18	16508	235 (36)	24.5 (24.8)	695 (96)
21	8 53	13 57	35	8 14	69 45.0	8 43	16530	238 (37)	25.2 (24.8)	691 (96)
24	11 15	14 2	18	8 14	69 46.3	8 43	16521	238 (38)	25.0 (24.8)	679 (96)
29	8 57	13 58	40	8 17	69 49.7	8 49	16455	237 (39)	24.8 (24.8)	697 (95)
31	8 57	13 58	27	8 11	69 47.5	8 47	16508	240 (39)	24.8 (24.8)	705 (695)
Sept. 4	10 23	14 0	30	8 27	69 47.3	10 45	16491	236 (39)	13 24.7 (24.8)	713 (695)
7	11 39	14 1	35	8 23	69 47.4	8 51	16514	239 (39)	24.8 (24.8)	701 (694)
12	9 1	13 56	15	8 19	69 47.7	8 51	16508	238 (40)	24.6 (24.7)	708 (694)
14	8 53	13 57	20	8 15	69 47.6	8 44	16517	239 (40)	25.3 (24.7)	727 (694)
19	8 49	13 55	47	8 15	69 47.3	8 39	16520	239 (40)	24.1 (24.6)	711 (693)
21	8 55	13 55	28	8 16	69 47.5	8 44	16513	241 (40)	24.2 (24.6)	696 (93)
26	10 29	14 0	38	8 17	69 47.8	8 42	16522	240 (40)	21.6 (22.5)	684 (56)
28	8 57	13 55	57	8 17	69 47.9	8 46	16516	241 (40)	21.8 (22.6)	648 (60)
Oct. 3	9 1	13 55	33	8 19	69 46.9	10 7	16520	240 (40)	13 22.7 (22.8)	677 (69)
6	9 27	13 54	50	8 41	69 47.7	9 11	16521	240 (40)	22.8 (22.9)	672 (74)
9	9 51	13 54	52	8 17	69 46.9	9 41	16519	240 (39)	22.9 (23.0)	644 (75)
12	9 55	13 57	47	9 17	69 48.2	9 47	16509	238 (39)	23.4 (23.1)	694 (75)
17	9 57	13 56	53	9 17	69 48.1	9 43	16513	235 (36)	23.2 (23.2)	679 (76)
19	12 7	14 1	33	9 19	69 47.4	9 55	16517	236 (36)	23.0 (23.2)	680 (77)
24	10 9	14 2	37	9 18	69 49.5	9 49	16477	240 (35)	23.3 (23.2)	643 (78)
26	10 13	13 58	55	9 25	69 47.2	9 48	16505	234 (34)	23.0 (23.2)	657 (79)
30	9 13	13 54	42	9 31	69 47.2	9 57	16517	233 (33)	23.5 (23.2)	659 (80)
Nov. 2	9 15	13 55	45	9 29	69 46.6	9 55	16525	229 (31)	13 22.9 (23.2)	663 (80)
6	9 5	13 55	17	9 23	69 46.7	9 57	16525	230 (30)	23.2 (23.3)	671 (82)
9	9 11	13 58	22	9 29	69 47.9	10 5	16511	227 (27)	23.3 (23.3)	678 (82)
14	9 13	13 57	45	9 30	69 46.8	9 57	16531	228 (27)	23.6 (23.3)	687 (84)
16	9 13	13 57	43	9 32	69 46.6	10 5	16536	228 (26)	23.4 (23.3)	686 (85)
20	9 15	13 55	10	9 33	69 46.8	9 57	16527	226 (25)	23.4 (23.4)	675 (87)
24	9 3	13 56	20	9 51	69 46.3	10 19	16534	225 (25)	23.3 (23.4)	682 (88)
27	9 15	13 55	37	9 33	69 46.9	10 6	16532	226 (24)	23.5 (23.4)	687 (89)
Dec. 5	9 3	13 56	55	9 23	69 47.1	9 57	16516	223 (23)	13 23.0 (23.3)	685 (93)
7	9 7	13 55	10	9 25	69 47.1	10 1	16524	223 (23)	23.2 (23.3)	692 (94)
12	9 3	13 55	30	9 23	69 46.7	9 59	16530	223 (23)	23.2 (23.3)	693 (96)
15	9 9	13 56	20	9 53	69 46.0	9 35	16542	223 (22)	23.4 (23.3)	699 (98)
18	10 17	13 55	30	9 15	69 46.3	9 37	16534	221 (21)	23.5 (23.4)	685 (98)
21	9 11	13 56	20	9 29	69 46.6	9 52	16524	219 (20)	23.3 (23.4)	683 (700)
26	14 11	13 57	22	9 22	69 46.3	9 47	16523	218 (20)	23.6 (23.4)	683 (704)

The hourly readings are obtained from the magnetograms, standardized as described in the foregoing, by means of a ruled glass scale. The reading for any given hour G.M.T. is that ordinate estimated to be the mean reading for 60 minutes between exact hours. The product of this ordinate and the scale value is added to the adopted base line value, and the sum so obtained is the hourly value printed in the tables.

IDENTIFICATION NUMBERS OF INSTRUMENTS IN USE IN 1934.

Unifilar Magnetometer, Kew pattern .. Elliott, No. 60.
(with collimator magnet, 60a, and
mirror magnet, 60c).

Schuster-Smith Coil Magnetometer, Cambridge Inst.Co. No.37629.
(with Standard Cell No. L34635 and Potentiometer No. L35968)

Dip Inductor Schulze, No. 103.

Notes on Tables.

The hourly values of H, D and V, obtained as described above, appear in three of the four monthly tables. The mean value for the day is computed as the mean of the twenty-four hourly values.

The letters "Q" and "D" denote the five quiet and the five most disturbed days as selected at De Bilt.

In the fourth table for each month are given:-

- (a) the values and times of the daily maximum and minimum and the values of the absolute daily range for each of the elements H, D and V.
- (b) the value of $HR_H + VR_V$ for each day, where R_H , R_V denote the absolute ranges for a calendar day of the horizontal and vertical components. (This measure of magnetic activity was adopted in 1932 by the International Commission for Terrestrial Magnetism and Atmospheric Electricity. In volumes of The Observatories' Year Book prior to that of 1932 the values of the quantity $R_N^2 + R_W^2 + R_V^2$ were used as a measure of activity).
- (c) the daily magnetic character figures, assigned according to the international scheme, wherein "0", "1", "2", respectively, denote quiet, moderately disturbed, and highly disturbed conditions.
- (d) the daily values of temperature in the underground magnetograph chamber.

Mean diurnal inequalities of the components N, W, V, H, D, and I on all days and on international quiet and disturbed days are given, for the months, seasons and year, in Tables 317 to 334. In calculating diurnal inequalities the non-cyclic change has been eliminated on the assumption that its time-rate is linear. The inequalities of N, W, and I have been computed from those of H, D, and V, by means of the formulae:

$$\delta N = \cos D. \delta H - \frac{180 \times 60}{\pi} H \sin D. \delta D$$

$$\delta W = \sin D. \delta H + \frac{180 \times 60}{\pi} H \cos D. \delta D$$

$$\delta I = \frac{180 \times 60}{\pi} \cos I \left(\frac{\delta V \cos I - \delta H \sin I}{H} \right)$$

in which δD and δI are expressed in minutes of arc, and where H , D , and I for any given month are the respective mean values for that month as published in Table 338. The values of the mean diurnal inequalities of the several elements on the three different types of day are brought together in Table 335, and the values of the non-cyclic change of H , D , and V are given in Table 336.

The results of harmonic analysis of the mean diurnal inequalities of N , W , and V for the months, seasons¹ and year are to be found in Tables 339 and 340, in which are given the values of a_n , b_n , c_n , and α_n , in the two equivalent series $\Sigma(a_n \cos 15nt^\circ + b_n \sin 15nt^\circ)$ and $\Sigma c_n \sin (15nt^\circ + \alpha_n)$. In the former series t is reckoned in hours from midnight G.M.T., whilst the published values of α_n refer to Local Mean Time. The values of the harmonic coefficients have been computed from the inequalities as given in the tables and have been corrected, where necessary, on account of the fact that the hourly values are not instantaneous but mean values. The factors by which the coefficients have to be multiplied (vide Report of the British Association, 1883, p. 98) are 1.00286 for a_1 , b_1 , c_1 ; 1.01152 for a_2 , b_2 , c_2 ; 1.02317 for a_3 , b_3 , c_3 ; and 1.04720 for a_4 , b_4 , c_4 . The values were obtained to two decimal places and finally were rounded off to 0.1 γ .

The mean values of $HR_H + VR_V$ are summarized in Table 337.

In former years Table 338 has supplied for the separate months and year the mean values of N , W , V , T , D , I and H derived from all days. Similar data are given in Table 338 for 1934 but the table has been rearranged and extended to provide in addition the mean values of the primary elements H , D and V on the internationally selected groups of quiet and disturbed days.

Tables 341 and 342 contain mean values of the magnetic elements for 1934 and recent years at a number of observatories.

Review of Results of Magnetic Observations.

Mean and Extreme Values of the Magnetic Elements, 1934.—The mean values† are given below in Table 1 along with the corresponding values for the previous year. The values of H , D , and V have been computed from the hourly values derived from the autographic records of all days, standardized by

¹The seasons are defined for this purpose as follows:— "Winter", January, February, November, December; "Equinox", March, April, September, October; "Summer", May, June, July, August.

†See remarks on p. 174.

means of the absolute observations; those of N, W, I, and T have been deduced from the values of H, D, and V.

TABLE 1.

Year.	H.	D. (West)	I.	N.	W.	V.	T.
	γ	° /	° /	γ	γ	γ	γ
1933 ..	16558	14 12.1	69 45.2	16052	4062	44890	47847
1934 ..	16536	14 0.6	69 45.9	16044	4003	44859	47810

Westerly declination was on the average 11.5 less in 1934 than in 1933. The rate of decrease is practically the average rate of recent years. Between 1913 and 1920 the average rate of decrease was 9.3. Of the apparent fall of 22γ in H between 1933 and 1934, 14γ is accounted for by the discontinuity introduced on January 1, the reasons for which have been already outlined. The residual real decrease of 8γ is 5γ less than between 1932 and 1933 but only 2γ less than the average annual rate of decrease over the 10 years 1923-32. When allowance is made for the effect on the two derived components N and W of the discontinuity in H, the changes in them are similar to former years, a slight increase (6γ) in N and a decrease of 56γ in W. Inclination, whose mean value is unaffected by the discontinuity in H or V rose 0.7 compared with 0.2 between 1932 and 1933 and the natural change in V (i.e. allowing for the artificial 38γ decrease at the beginning of the year) was a rise of 7γ compared with a fall of 26γ from 1932 to 1933. The apparent fall of 37γ in T would have been an increase of 3γ had the measurements of H and V continued on the 1933 basis.

Annual mean values derived from (a) international quiet days and (b) international disturbed days are as follows:-

- (a) H, 16539γ; D, 14° 0.7; N, 16046γ; W, 4004γ; V, 44858γ
 (b) H, 16531γ; D, 14° 0.6; N, 16039γ; W, 4002γ; V, 44861γ

In comparing these with the values for previous years the discontinuities in H and V and the components derived from them must be kept in mind.

The differences between the mean annual values of N, W, and V, derived from all, international quiet, and international disturbed days in the years 1926-34 inclusive, are given below, together with the mean differences for the years 1915-1925. In every year of the series quoted the mean value of N and of W on quiet days exceeded the mean value on all and on disturbed days. The only years in the period 1915-25, for which either the all or the disturbed day mean value of V exceeded the quiet day value were 1917, 1919, 1921.

Quiet day mean-All day mean.

Quiet day mean-Disturbed day mean.

	N	W	V	N	W	V
	γ	γ	γ	γ	γ	γ
1934 ..	+2.3	+1.0	-0.5	+7.2	+2.3	-2.5
1933 ..	+2.9	+1.2	+0.1	+7.7	+3.4	+0.2
1932 ..	+3.5	+0.9	+1.9	+9.4	+3.9	+1.8
1931 ..	+2.5	+1.2	-0.5	+7.4	+3.1	-0.9
1930 ..	+7.0	+2.8	+1.6	+16.1	+5.6	+3.7
1929 ..	+3.8	+1.4	+0.2	+11.1	+2.8	+1.9
1928 ..	+4.5	+1.4	-1.6	+7.7	+2.6	-3.4
1927 ..	+2.9	+1.1	-0.3	+9.1	+2.4	-2.7
1926 ..	+4.8	+2.0	-0.7	+16.1	+5.7	-1.4
1915-1925	+2.7	+1.2	+0.7	+8.5	+3.3	+1.5

The resultant vector representing the average excess of the mean values on quiet days over the mean values on all days, for the years 1915-1925, has a magnitude of 3γ ; its azimuth is 336° , measured from true north through east, and it is inclined at about 77° to the downwardly directed vertical. The vertical plane which contains this vector approximates very closely in azimuth to the vertical plane passing through Eskdalemuir and the pole (taken as 78° N 68° W) of the axis of magnetization of the earth. (cf. S. Chapman, "On certain average characteristics of world-wide magnetic disturbance". Lond. Proc. Roy. Soc. Series A. Vol. 115, p.242.)

The extreme values of H, D, and V actually recorded during 1934 are given in Table II.

TABLE II

Component.	Maximum		Minimum		Absolute Annual Range
	Value	Date, 1934	Value	Date, 1934	
Horizontal Force	16804 γ	d h m Sept. 25 17 58	16403 γ	d h m Dec. 29 20 0	401 γ
Declination	$14^\circ 25'3$	May 11 22 59	$13^\circ 17'7$	Dec. 29 20 4	$1^\circ 7'6$
Vertical Force	45061 γ	Dec. 29 18 44	44697 γ	Dec. 4 1 55	364 γ

The range of $1^\circ 7'6$ in declination is equivalent to a range of 325 γ in the component of force perpendicular to the magnetic meridian.

Magnetic Character of the Year .- The Eskdalemuir practice of tabulating for each day the value of ΣR^2 has been discontinued in favour of the expression $HR_H + VR_V$ presently being tried on an international basis as a numerical measure for characterising days. The magnetic character figures on the scale 0, 1, 2 which were assigned in accordance with the international scheme are summarized in Table III. This table contains also the monthly mean values of the international character figures, which for 1934 are based on the estimates made at about 50 observatories, and the mean monthly values of $HR_H + VR_V$ for all, international quiet (Q), and international disturbed (D) days.

The Eskdalemuir mean value of $HR_H + VR_V$ for the year, like the mean character figure, is less than for 1933. The mean sunspot numbers for the years 1923-34, are, in order, 5.8, 16.7, 44.3, 63.9, 69.0, 77.8, 65.0, 35.7, 21.2, 11.1, 5.7 and 8.7.

The mean values of $HR_H + VR_V$ for all days suggest that September was the most disturbed month.

DIURNAL VARIATION OF MAGNETIC ELEMENTS

ESKDALEMUIR 1934

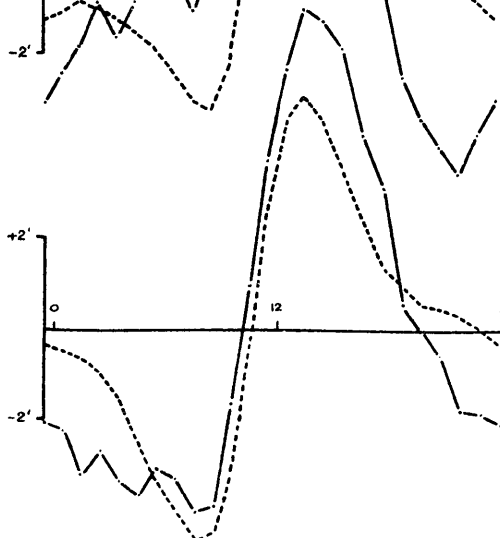
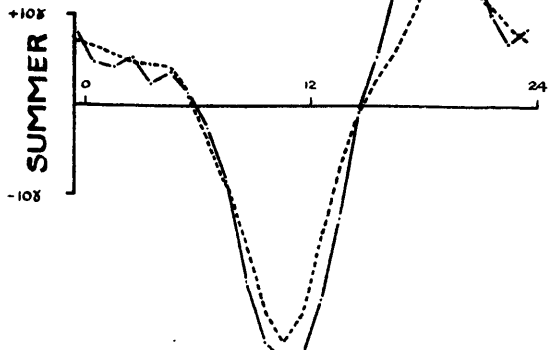
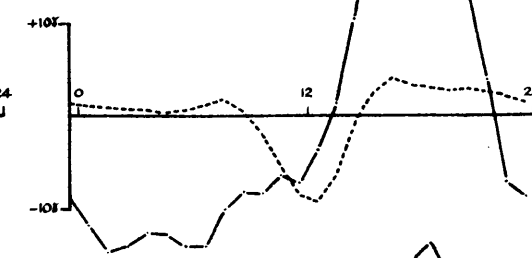
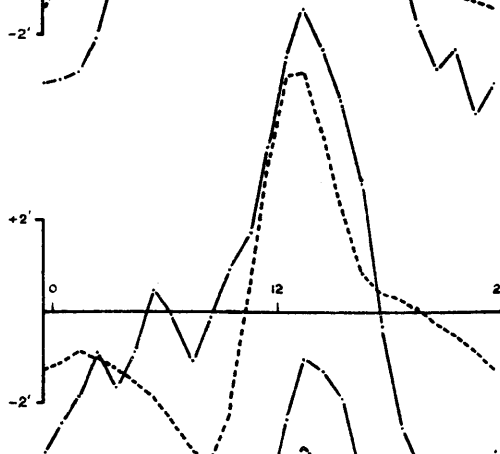
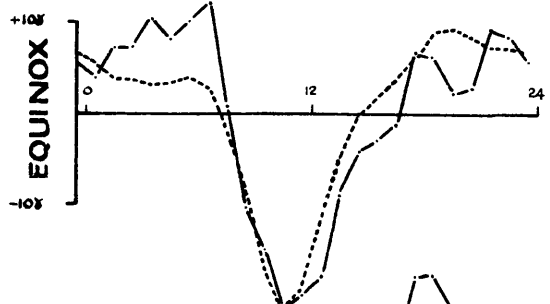
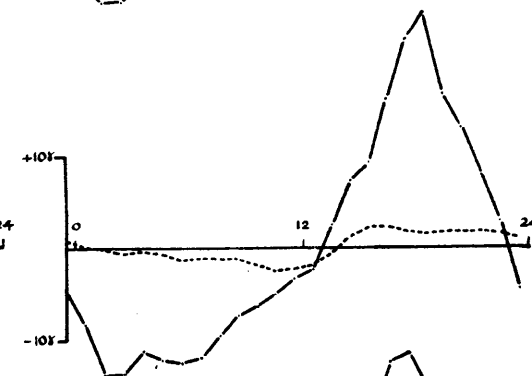
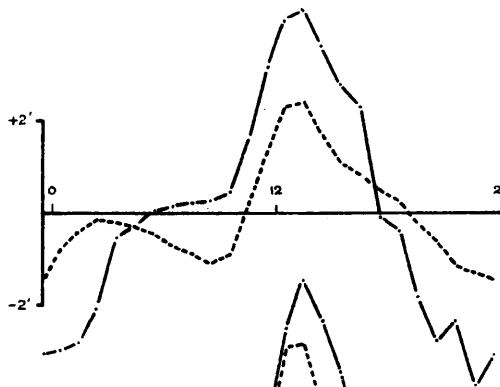
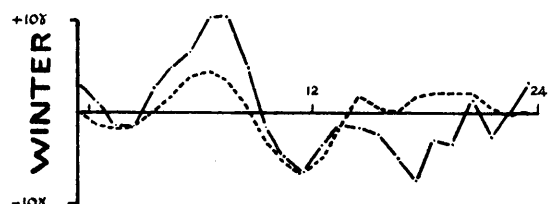
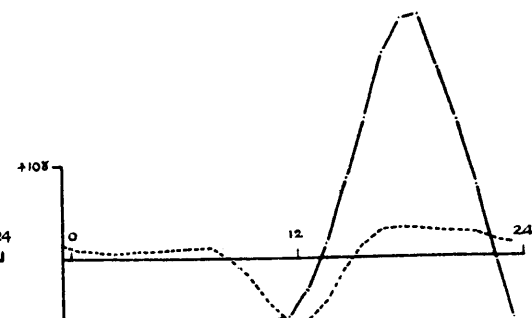
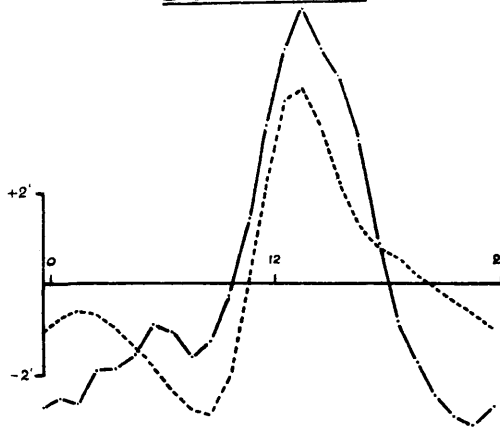
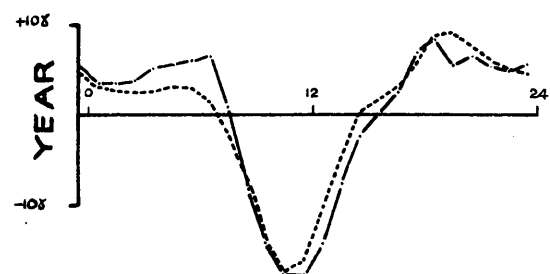
QUIET DAYS-----

DISTURBED DAYS———

HORIZONTAL FORCE

DECLINATION

VERTICAL FORCE



In Table III the annual mean values are the means of the monthly values entered in the corresponding columns.

TABLE III.

Month.	Magnetic Character Figures Number of			Mean Character Figure		Mean Value of $\frac{HR_H + VR_V^*}{10,000\gamma^2}$		
	"0" days	"1" days	"2" days	Eskdale-muir	Inter-national	All days	Q days	D days
1934								
January	24	6	1	.26	.52	164	82	355
February	15	11	2	.54	.65	230	99	523
March	7	22	2	.84	.76	333	134	613
April	19	10	1	.40	.45	256	196	440
May	17	11	3	.55	.51	316	186	705
June	19	10	1	.40	.44	271	195	453
July	13	17	1	.61	.43	260	183	438
August	6	24	1	.84	.68	312	168	539
September	8	19	3	.83	.68	352	155	757
October	11	18	2	.71	.50	222	116	477
November	17	12	1	.47	.39	163	73	400
December	11	18	2	.71	.66	250	71	801
Year, 1934	167	178	20	.60	.56	261	138	542
Year, 1933	156	175	34	.67	.64	300	135	658
Year, 1932	126	208	32	.74	.71	327	139	701
Year, 1931	137	208	20	.68	.66	345	185	679
Year, 1930	94	230	41	.85	.83	556	195	1246
Year, 1929	118	213	34	.75	.67	-	-	-
Year, 1928	96	246	24	.80	.63	-	-	-
Year, 1927	95	231	39	.85	.63	-	-	-
Year, 1926	90	227	48	.89	.65	-	-	-
Year, 1925	145	191	29	.69	.56	-	-	-
Year, 1924	191	153	22	.54	.55	-	-	-
Year, 1923	235	111	19	.41	.48	-	-	-
Year, 1922	174	145	46	.65	.65	-	-	-

Diurnal Inequalities .- The mean diurnal inequalities for all days, and international quiet and disturbed days, for the months, seasons and the year, are given in Tables 317-334, and the corresponding inequality ranges in Table 335.

The inequalities of H, D and V for international quiet and disturbed days are shown graphically in Plate III, while in Plate IV are given vector diagrams illustrating the diurnal variation of magnetic force in the horizontal, the prime vertical and the meridian planes.

The ranges of the annual mean inequalities of H and D for all days and for quiet days are all slightly greater than for 1933 but the ranges for disturbed days in these elements and in V are the lowest for the whole set of years 1915-34 for which comparable ranges are available. The range in the V all day inequality is the lowest since 1924, and the q day inequality is the lowest of any year since 1915 except 1932.

* $NR_N + WR_W + VR_V$ in 1930 and 1931
 $\frac{10,000\gamma^2}{10,000\gamma^2}$

The average values of the diurnal inequality ranges for the year and seasons for the period 1916-26 (not the values of the range of the representative mean diurnal inequalities for this period) are given below, along with the 1934 values expressed as a percentage of the average values. The units employed are ly for force and l' for declination. The mean sun spot number for 1916-26 is 46.7; that for 1934 is 8.7.

The 1934 ranges are all below the average.

		All days					International quiet days.					International disturbed days.				
		N.	W.	V.	H.	D.	N.	W.	V.	H.	D.	N.	W.	V.	H.	D.
Year,	1916-26	36.6	38.7	21.9	35.6	8.26	32.7	37.0	12.1	32.4	8.00	48.3	53.7	65.6	49.7	11.14
	1934%	76	88	75	75	88	83	92	83	82	89	64	73	60	53	82
Winter,	1916-26	22.1	27.7	15.9	18.3	6.31	19.0	19.4	5.2	15.9	4.42	30.1	49.5	53.8	27.5	10.50
	1934%	73	91	79	74	87	68	89	87	69	86	66	76	72	65	77
Equinox,	1916-26	41.5	44.2	27.2	39.0	9.57	37.8	42.0	13.1	37.2	9.04	56.0	65.3	82.0	55.4	13.76
	1934%	80	83	66	75	83	83	96	101	82	94	69	73	53	57	81
Summer,	1916-26	54.0	55.6	26.5	56.1	11.33	45.6	53.4	19.8	46.7	11.12	78.3	67.9	70.2	85.5	12.80
	1934%	84	86	80	83	88	88	86	73	91	86	65	79	57	58	86

Daily Range.— The values of mean absolute daily range for the months and seasons of the year, together with the corresponding means for 1916-26 are given in Table IV; the ranges are also expressed as percentages of the mean absolute daily range for the year. The declination ranges, measured in minutes of arc have been multiplied by 4.81 to convert them to units of force of the component perpendicular to the magnetic meridian.

TABLE IV.— ABSOLUTE DAILY RANGE. MEAN MONTHLY VALUES.

	Mean Absolute Daily Range						Mean Daily Range expressed as Percentage of Yearly mean.					
	1934			Mean 1916-26			1934			Mean 1916-26		
	H	D	V	N	W	V	H	D	V	N	W	V
January ..	Y 42	Y 53	Y 21	Y 69	Y 73	Y 39	% 65	% 79	% 62	% 80	% 88	% 81
February ..	56	70	30	69	76	38	86	104	88	80	92	80
March.. ..	77	86	46	95	94	57	118	128	135	110	113	119
April.. ..	65	68	33	98	88	54	100	101	97	114	106	113
May	76	65	42	102	88	59	117	97	124	119	106	123
June	71	64	34	92	85	46	109	96	100	107	102	96
July	74	67	30	86	82	43	114	100	88	100	99	90
August. ..	84	78	38	98	88	55	129	116	112	114	106	115
September..	85	83	48	100	92	63	131	124	141	116	111	131
October ..	55	61	29	94	93	57	85	91	85	109	112	119
November ..	41	49	21	62	66	34	63	73	62	72	80	71
December ..	54	64	36	60	64	33	83	96	105	70	77	69
Winter ..	48	59	27	65	70	36	74	88	79	76	84	75
Equinox ..	71	75	39	97	92	58	109	112	115	113	111	121
Summer ..	76	69	36	95	86	51	117	103	105	110	104	106
Year	65	67	34	86	83	48	-	-	-	-	-	-

The mean daily ranges of H, D and V are smaller than those for any other year since 1925.

The frequency distribution of absolute daily ranges recorded in 1934 is shown in Table V, which also contains the percentage distribution for the periods 1916-1926.

TABLE V.- FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

Range	Number of Cases 1934			Percentage Distribution					
				H	N	D	W	V	
Y	H.	D.	V.	1934	1916-26	1934	1916-26	1934	1916-26
0-9	0	0	19	0.0	0.0	0.0	0.0	5.2	6.3
10-19	7	1	105	1.9	1.7	0.3	0.9	28.8	20.2
20-29	30	19	95	8.2	4.9	5.2	4.5	26.0	24.8
30-39	40	41	61	11.0	7.8	11.2	7.5	16.7	14.3
40-49	52	56	25	14.2	9.9	15.3	10.6	6.8	8.1
50-59	49	71	15	13.4	12.2	19.5	12.0	4.1	4.8
60-69	61	54	8	16.7	12.9	14.8	13.1	2.2	4.2
70-79	34	34	12	9.3	10.3	9.3	12.4	3.3	3.1
80-89	29	19	2	7.9	8.1	5.2	8.6	0.5	2.3
90-99	15	12	7	4.1	6.5	3.3	7.5	1.9	2.1
100-109	13	13	4	3.6	5.3	3.6	4.7	1.1	1.1
110-119	13	15	4	3.6	4.0	4.1	3.5	1.1	1.2
120-120	7	12	3	1.9	3.5	3.3	2.7	0.8	0.8
130-139	2	4	0	0.5	2.6	1.1	2.2	0.0	0.8
140-149	2	4	0	0.5	1.7	1.1	2.2	0.0	0.5
150-159	4	1	1	1.1	1.3	0.3	1.2	0.3	0.7
160-169	4	2	0	1.1	1.2	0.5	0.9	0.0	0.5
170-179	0	0	1	0.0	0.8	0.0	1.0	0.3	0.4
180-179	0	2	0	0.0	0.6	0.5	0.7	0.0	0.5
190-199	1	1	0	0.3	0.5	0.3	0.6	0.0	0.3
200+	2	4	3	0.5	4.4	1.1	3.1	0.8	3.1
Days omitted	0	0	0	0.0	..	0.0	..	0.0	..

TABLE VI. PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT ESKDALEMUIR 1934.

Where the beginning of a disturbance has been marked by a "sudden commencement," the serial number is followed by an asterisk (*), and the time entered in the second column is that of the sudden commencement, estimated to the nearest minute. In other cases, the exact hour nearest the time at which disturbance may be regarded as having begun is entered in the second column. To the tabulated values of maximum and minimum the following have to be added:- H, 15000γ; D, 14°; V, 44000γ.

13°

			Horizontal Force					Declination					Vertical Force				
			Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range	Max.	Time	Min.	Time	Range
	d. h. m.	d. h.	γ	d. h. m.	γ	d. h. m.	γ	'	d. h. m.	'	d. h. m.	'	γ	d. h. m.	γ	d. h. m.	γ
1	Jan. 1 8	Jan. 2 19	605	1 22 39	452	1 17 20	153	80.1	1 18 15	49.2	1 17 37	30.9	965	1 18 19	839	2 5 15	126
2*	Feb. 8 17 6	Feb. 12 24	595	12 21 20	490	10 18 30	105	79.0	9 17 12	40.8	9 0 40	38.2	929	9 17 46	779	9 4 20	150
3*	Feb. 15 11 21	Feb. 19 24	599	17 20 16	430	16 14 14	169	80.6	16 16 43	44.8	17 21 3	35.8	971	16 18 42	843	16 11 20	128
4	Mar. 4 10	Mar. 8 7	617	5 20 57	418	5 8 12	199	79.3	5 8 40	35.6	4 21 34	43.7	944	4 19 16	795	7 22 40	149
5	Mar. 22 4	Mar. 26 2	627	23 21 44	467	25 1 52	160	80.9	22 22 13	46.6	25 2 3	34.3	897	25 17 3	772	25 1 58	125
6	Mar. 28 12	Apr. 6 20	607	4 21 12	443	31 12 58	164	78.5	5 15 2	36.7	4 23 27	41.8	911	5 15 52	810	29 0 30	101
7	May 1 22	May 3 24	621	2 23 39	486	3 11 0	135	70.2	2 14 0	46.8	3 1 47	23.4	876	2 18 23	770	3 0 27	106
8	May 11 20	May 13 2	611	12 23 22	451	11 23 9	160	85.3	11 22 59	42.1	11 23 40	43.2	870	12 18 50	735	11 23 8	135
9	May 18 2	May 19 3	648	18 17 23	481	19 0 49	167	78.8	18 17 4	50.1	19 0 16	28.7	1016	18 17 58	812	19 1 38	204
10	June 4 12	June 6 24	623	4 20 3	473	5 10 56	150	71.4	5 15 4	45.9	5 3 4	25.5	889	6 17 52	779	6 0 41	110
11	June 11 11	June 12 19	611	11 19 29	498	12 3 44	113	70.8	12 14 50	49.8	12 2 49	21.0	877	11 19 9	811	12 4 52	66
12*	July 3 10 31	July 5 8	613	3 17 31	476	3 12 24	137	73.1	3 13 40	54.1	4 8 32	19.0	895	3 18 12	809	3 12 6	86
13*	July 30 3 17	Aug. 6 24	612	3 17 40	437	30 8 52	175	80.9	30 13 27	42.0	4 21 3	38.9	919	30 14 42	802	5 2 8	117
14	Aug. 12 15	Aug. 14 23	598	12 19 0	487	14 11 9	111	70.5	13 14 0	40.7	12 23 10	29.8	874	12 19 43	815	12 23 53	59
15	Aug. 26 5 42	Aug. 29 24	610	29 20 28	445	28 11 25	165	69.9	26 14 7	42.0	26 22 30	27.2	895	28 16 4	787	27 5 0	108
16	Sept. 1 10	Sept. 4 23	600	2 18 13	470	3 9 37	130	68.1	1 12 51	44.6	2 18 5	23.5	931	2 16 49	780	3 1 22	151
17	Sept. 24 7	Sept. 25 23	804	25 17 58	445	25 18 20	359	70.8	25 13 41	20.3	25 17 58	50.5	1032	25 17 58	806	25 5 9	226
18	Oct. 24 0	Oct. 26 20	583	24 6 12	443	25 17 42	140	71.1	24 13 42	36.7	25 17 20	34.4	942	25 17 12	806	24 6 14	136
19	Nov. 7 5	Nov. 8 24	562	7 7 52	445	7 16 36	117	71.2	7 12 11	33.4	7 19 52	37.8	932	7 16 58	820	7 23 50	112
20	Dec. 3 21	Dec. 4 24	613	3 23 14	437	4 2 22	176	64.4	4 5 59	22.3	4 1 32	42.1	913	4 14 12	697	4 1 55	216
21	Dec. 29 6	Dec. 31 4	655	29 18 40	403	29 20 0	252	64.5	29 13 59	17.7	29 20 4	46.8	1061	29 18 44	826	30 0 32	235

The intervals of maximum frequency in 1934 lie between 60 and 69 γ for H, 50-59 γ for D, and 10-19 γ for V. For D and V these intervals are both 10 γ lower than in 1933: for H the same. In 1923, the year of the last sunspot minimum, the intervals were 40-49 γ for N and W, 10-19 γ for V.

On 13 days in 1934 the absolute range in either H or D was 160 γ or more. The numbers of such days for N and W in the years 1915 to 1931 were, in order, 30, 47, 35, 56, 58, 36, 27, 32, 11, 10, 24, 46, 41, 48, 50, 88, 17, whilst in 1932 and 1933 for H and D the numbers were 31 and 17. In 1934 and in 1932 there were two days and in 1933 only one day on which the range in each of H, D, and V was 200 γ or more as compared with 18 such days for N, W and V in 1926, seven in 1927, five in 1928, nine in 1929, 16 in 1930, and one in 1931.

Irregular changes in Declination.- In connexion with the supply of declination data to mine surveyors it has been the practice to classify the hourly periods between the exact hours G.M.T. into four groups according to the range in declination within each period. The range limits, which were adopted in consultation with representative mine surveyors, are:- less than 5', between 5' and 15', between 15' and 30', and greater than 30'. This method of classification has been applied to the declination records obtained in the year 1934, and the actual frequencies of occurrence of hourly ranges in the last three of the four divisions mentioned are set out below. A range of 30' is equivalent to a change of 144 γ in the component of horizontal force perpendicular to the magnetic meridian.

Number of cases per month

Range Interval	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
5' to 15'	29	56	89	38	28	30	24	57	69	49	30	44	543
15' to 30'	2	5	7	2	2	1	1	5	6	2	4	10	47
> 30'	0	0	0	0	1	0	0	0	3	0	0	1	5

Hourly Distribution. 1934
Hour ending at (G.M.T.)

Range Interval	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5' to 15'	34	34	32	25	23	14	9	8	8	6	5	5	10	11	12	18	19	25	36	40	50	40	39	40
15' to 30'	3	2	1	0	1	0	0	0	1	0	0	0	0	0	0	1	3	7	4	6	5	5	7	1
> 30'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	1

On the average quiet day the most conspicuous change in declination is that from the most easterly value at about 8h or 9h to the most westerly value at about 13h or 14h, the rate of change being greatest between 10h and 12h. The hourly range due to the regular diurnal variation at this time of day is less than 5', but doubtless it happens at times that the occurrence of slight disturbance results in the hourly range exceeding 5', whereas the occurrence of the same degree of irregularity at another hour of the day would not cause the hourly range to exceed 5'. Thus the figures given above for the range interval 5' -15' tend to exaggerate somewhat the incidence of irregular changes between 9h and 13h. The hourly distributions of the frequency of occurrence of ranges between 5' and 15' and between 15' and 30' exhibit the well known tendency for irregular changes to occur predominantly during the "night" hours-at least in Europe.

Principal Magnetic Disturbances during 1934.- Particulars of the principal magnetic disturbances recorded during the year are given in Table VI. Corresponding information for the same disturbances is given in the Lerwick Section. The magnetograms for the most highly disturbed days are not reproduced in this volume, but photographic copies may be obtained on application to the Director, Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

Remarks on Magnetic and Allied Phenomena, 1934.

JANUARY.- (Average Character Figure 0.26).

An exceedingly quiet month. The afternoons and evenings of 1st and 2nd and particularly of 1st were rather disturbed. In D and V the movements were similar in nature to those recorded at the same time at Lerwick. In H between 1d 17h and 1d 19h whilst a shallow depression of some 45γ and then a fine peak 270γ high were recorded at Lerwick, the movement at Eskdalemuir consisted mainly of a depression of some 110γ with merely a slight rise and fluctuations superposed on it in the latter half of the period in question. V during the period showed a hump of about 95γ. Conditions thereafter were quiet until the night of 14th to 15th which showed slight disturbance of no particular interest and were again relatively quiet until the end of the month except for slight disturbance on the night of 22nd-23rd.

FEBRUARY.- (Average Character Figure 0.54)

Also a quiet month, though less so than January. The only feature worthy of mention in the opening days was a D bay some 15' deep between 2d 20h and 21h. Near this time a sunspot, central meridian passage 3.3d, was in solar latitude 28°*. A sudden commencement at 8d 17h 16m ushered in the next disturbance, also slight. (Previous to the sudden commencement, for about 30 minutes slightly oscillatory movement is noticeable in the H trace). Conditions for some days thereafter were not entirely quiet but no movement of note occurred until a further sudden commencement, at 15d 11h 21m. This may have been associated with a sunspot, central meridian passage 15.4d, noted as being in latitude 70°*. On the following afternoon, 16th, there was a general rise of V of the order of 100 or 110γ. There was also considerable fluctuation in H and D on both sides of normal, but no peaks of the striking order noted at Lerwick at this time. Minor disturbance continued until 19th. The remainder of the month was quiet.

MARCH.- (Average Character Figure 0.84).

Measured by the international mean character figure, this was the most disturbed month of the year; disturbance, however, though more frequent was not large.

The first three days were slightly disturbed. More important movements occurred on 4th-5th especially in H and D. Shortly after 4d 22h D fell to a minimum of 13° 35'·6 and after 5d 8h rose to a maximum of 14° 19'·3. H movements were at different times on both sides of normal, the chief being a bay with a minimum of 16418 at 5d 8h 12m. Appreciable disturbance continued for some days diminishing gradually. During this disturbance of March 4-7, the mean ranges of the three elements H, D, V, as recorded at British Observatories

* "The Observatory" February 1935.

were, at Abinger 135γ, at Eskdalemuir 186γ and at Lerwick 295γ. Following this period, the most marked movements were bays in D centred at 10d 19h 51m and 11d 20h 2m respectively 14' and 18' deep. The bays recorded simultaneously at Lerwick were respectively rather over 60% deeper. Near this time there was a sunspot, central meridian passage 12.8d, in solar latitude -28° .*

Until 22nd no further movements of note occurred. Just after 22h on that evening H and D rose suddenly in an oscillatory manner to the extent of some 90γ and 20' respectively. At Lerwick the corresponding displacements in H were mainly in the opposite sense, whilst those in D were twice as great as at Eskdalemuir. Movements at the same time in V were downward to the extent of 60γ at Eskdalemuir and of about 190γ at Lerwick. On the following evening there were similar movements in H, but smaller ones in D and V.

The night of 24th-25th showed further disturbance, the depressions of H, D and V below an undisturbed level being about 65γ, 15' and 75γ around 25d 1h to 2h. Again on the night of 28th-29th there was disturbance of nearly the same order and the remaining days of the month continued to be slightly disturbed.

APRIL.- (Average Character Figure 0.40).

A very quiet month.

The somewhat disturbed conditions which had characterized the last days of the preceding month continued during the first week of April. The 4th was the only day with disturbance approximating to character 2, there being fairly considerable and rather irregular movement in both H and D from about 4d 18h until 5d 2h.

A quiet period ensued until 16th when very slight disturbance started and continued for about four days. The remainder of the month was notably quiet.

MAY.- (Average Character Figure 0.55).

Another quiet month.

Slight disturbance with normal characteristics affected the 2nd and 3rd; thereafter, until 11th conditions were fairly quiet for the season of the year. Between 22h and midnight there occurred a movement, first up and then down, in D, with the considerable range of $43^{\circ}.2$, the maximum of $14^{\circ} 25'3$ at 11d 22h 59m being indeed the highest value of D recorded during the year. The corresponding H movement first down and then up had a range of 160γ, whilst in V the displacement was downward throughout with a minimum of 44735γ at 11d 23h 8m.

The mean ranges recorded in this storm were, at Abinger 110γ, at Eskdalemuir 168γ, and at Lerwick 388γ.

The next disturbance began with short period fluctuation about 18d 2h. At 18d 4h 6m, some two hours after the fluctuations started, there was a rather abrupt one resembling a sudden commencement. The disturbance went on for about 24 hours. All three records are characteristic but the V record is

* "The Observatory" February 1935

more notable than those of H and D, showing a very steady rise to the late afternoon maximum (which had the considerable value of 45016 γ) and an even more regular fall to the minimum which occurred soon after 19d 1h.

The remainder of the month showed no features worthy of mention.

JUNE.- (Average Character Figure 0.40).

Another quiet month. A slight disturbance of no special interest is regarded as extending from 4d 12h to about 6d 18h. Further periods of slight disturbance were 11th to 15th and 18th to 21st. A small movement of the sudden commencement type occurring at 14d 12h 36m was followed by some hours of slightly enhanced activity.

JULY.- (Average Character Figure 0.61).

This month too was free from any important disturbance. A small movement of sudden commencement type occurring at 1d 20h 11m was not immediately followed by any appreciable activity but the afternoon of 3rd was slightly disturbed. A period of slight disturbance, possibly associated with a spot of central meridian passage 12.9d on the sun's disc in solar latitude +25°*, was that between 14th and 16th. Though conditions on some days were not entirely quiet there was no movement of note until a sudden commencement occurred at 30d 3h 19m (displacements - 4 γ and +59 γ in H, -2' and +9' in D, and -5 γ in V). The ensuing disturbance however was small.

AUGUST.- (Average Character Figure 0.84).

Disturbance in this month was more frequent but at no time large. The opening days of the month, chiefly the 4th and 5th were slightly disturbed. A fairly quiet period then followed until the 12th when further slight disturbance commenced which affected the next two days. About this time there were two spots on the sun's disc, one, central meridian passage 12.5d in solar latitude -29°, the other, central meridian passage 14.7d in latitude +4°. * Slight disturbance was thereafter frequent until 23rd inclusive.

The 24th and 25th were very quiet days but at 26d 5h 42m there occurred a small sudden commencement which ushered in some further disturbance. Irregular movements, again not large, continued with diminishing intensity for about four days.

SEPTEMBER.- (Average Character Figure 0.83).

As in August there were few really quiet days in this month, but except for four days, 24th-28th, disturbance was generally slight. From 24d 7h, following 15 minutes of small irregular movements, H was continuously disturbed till late on the 25th, reaching a climax in a series of four toothed movements with period 20 - 25 minutes starting at 25d 17h. Of these, the third and largest fell from a maximum of 16804 γ at 17h 58m to 16445 γ at 18h 20m. Synchronous with these H movements V was high, and, in a single sharp peak at 17h 58m attained its second highest value for the year, 47032 γ : D at the same time swung westerly from a minimum of 14° 20'.3 through 50' and back through 38' within 30 minutes. In this disturbance the mean extreme range in the three components was 276 γ compared with 463 γ at Lerwick and 170 γ at Abinger.

* "The Observatory" February 1935.

OCTOBER.- (Average Character Figure 0.71).

Another month devoid of features of noteworthy interest. Though only five or six days were uniformly quiet, the 25th was the only day with an H movement exceeding 100γ. This was the largest perturbation in a disturbance which started early on the 24th and lasted intermittently till the evening of the 26th. It had no distinctive features.

NOVEMBER.- (Average Character Figure 0.47).

November was one of the four quietest months of the year, disturbance being practically confined to a period of 40 hours on the 7th and 8th which was probably associated with a sunspot*, central meridian passage 7.0d, in solar latitude 23°. But apart from a decided tendency for repetition of pattern in the afternoons of those days especially in respect of a series of small (10-12γ) and sharp (2 min. period) pulses and some subsequent slower waves in H the disturbance was undistinguished.

DECEMBER.- (Average Character Figure 0.71).

Another month with few really quiet days and also, except for periods on 3rd-4th, 24th-25th and 29th-30th, without disturbance of noteworthy magnitude. Of these the first had as its main feature a sustained fall of 176γ in V from 3d 22h 45m to the lowest value of V during the year, 44697γ at 4d 1h 55m. Recovery from this minimum was not complete for another six hours. During this depression of V, H was oscillating about its mean value in long period irregular waves, the greatest of which, with range about 110γ, occurred between 23h and midnight on the 3rd. In this disturbance the means of the extreme ranges in the three components at Lerwick, Eskdalemuir and Abinger were 461γ, 198γ and 140γ respectively.

The disturbance on the 29th began at 6h and continued as irregular slight movements mainly in H till 18h 26m when five successive sharp rises and falls of 12-15 minute period started. From the maximum of the first of those peaks at 18h 40m H fell at the rate of about 25γ/min. through 202γ to a minimum at 18h 48m and rose to the second peak 4 minutes later at the rate of 40γ/min. The subsequent three waves were of quickly diminishing amplitude. During this time V was well above its mean value and rose in one isolated peak coincident with the time of the first and largest of those in H to the highest value of the year 45061γ. The largest and steepest D movements were easterly but not simultaneous with those in the force components. It is to be noted that this, the most active phase of the disturbance, coincided with an auroral display observed as far south as Barnstaple.

Though H had two very similar flat-topped waves each of 105γ amplitude and 50-minute period starting at 29d 23h no noteworthy synchronous movements appeared in V or D. The means of the overall ranges in the three components during the disturbance were 504γ, 237γ and 145γ at Lerwick, Eskdalemuir and Abinger respectively.

* "The Observatory" February 1935.

167. ESKDALEMUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

JANUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	994.2	993.6	993.3	992.4	992.1	992.2	992.1	992.2	992.1	991.6	991.3	990.8	990.8	990.8	990.4	990.1	989.8	989.6	989.1	988.8	987.9	987.7	988.0	987.6	990.2
2	987.6	987.9	988.2	988.5	988.6	988.7	989.3	989.9	990.3	990.1	990.3	990.0	990.0	989.6	989.3	989.0	988.4	988.5	988.1	987.7	987.1	987.0	986.6	985.8	988.6
3	985.7	985.5	985.3	985.1	985.0	985.0	985.0	985.1	985.1	985.0	984.0	983.1	982.2	982.0	981.1	980.9	980.7	979.8	979.0	978.3	977.9	977.3	976.9	975.8	982.4
4	975.7	975.7	975.6	974.5	973.4	973.4	972.8	972.2	971.6	970.9	970.0	967.8	969.6	969.0	968.8	970.3	970.9	972.1	972.8	973.1	973.3	974.7	974.9	975.4	972.7
5	975.9	976.5	977.1	977.7	978.3	979.7	981.1	983.3	984.7	985.9	987.0	987.8	988.6	989.5	990.4	991.0	991.4	992.1	992.1	992.6	992.4	991.7	991.4	990.7	985.9
6	989.1	988.5	987.0	985.5	983.9	983.2	982.7	983.6	982.5	982.2	982.2	981.4	981.1	981.2	981.8	981.8	982.5	982.8	982.8	983.0	983.0	983.0	983.0	983.4	983.5
7	983.2	982.8	982.0	980.8	979.8	979.1	978.2	977.7	977.4	976.7	975.9	974.4	973.3	972.1	972.7	973.8	974.6	975.1	976.0	977.4	978.3	978.9	979.8	980.3	977.6
8	980.6	981.0	981.3	981.7	981.7	981.7	982.1	982.8	983.6	983.9	984.1	983.8	983.9	984.2	984.8	985.0	986.6	987.2	988.2	989.3	989.9	990.6	990.9	991.2	984.8
9	991.6	991.3	992.1	992.1	992.0	991.7	991.5	991.6	991.5	991.0	990.8	989.7	989.2	988.9	988.4	988.0	987.1	986.3	985.9	985.5	985.1	984.2	983.0	982.5	989.0
10	981.7	981.3	981.1	980.8	980.8	981.6	981.6	981.4	982.3	982.9	983.2	982.6	981.8	981.2	981.0	980.7	980.3	979.8	979.2	978.9	978.3	977.3	976.2	980.7	
11	975.1	974.0	972.9	971.7	970.8	969.1	968.3	967.8	967.8	966.8	966.0	965.0	964.0	963.2	962.3	961.5	960.0	958.4	957.7	956.9	956.2	955.5	954.4	954.8	964.6
12	954.7	955.5	955.9	955.9	956.0	955.9	956.2	957.4	957.8	957.9	957.3	957.2	957.1	956.7	956.8	957.3	957.0	956.6	957.8	958.7	959.0	959.7	960.3	960.3	957.0
13	961.1	962.0	962.7	963.0	963.6	963.7	965.3	966.0	966.3	966.3	966.2	966.0	965.6	965.4	966.0	966.1	966.2	965.8	965.6	964.5	963.7	962.8	961.6	960.1	964.4
14	958.5	956.9	955.0	935.5	951.7	950.3	949.3	948.8	948.0	947.9	947.8	947.8	947.7	947.7	948.1	948.4	948.7	949.2	950.5	950.8	951.6	951.8	952.6	952.7	950.8
15	953.4	953.2	954.3	954.8	954.7	955.1	955.7	956.6	957.0	957.7	958.0	958.7	958.9	959.0	959.4	959.9	960.3	961.1	961.4	961.9	962.3	962.5	962.8	963.9	958.2
16	964.6	965.6	966.9	968.0	968.9	969.8	971.2	972.0	973.4	974.6	975.9	976.8	977.1	977.6	977.8	977.8	977.1	976.4	975.9	975.0	973.6	972.6	971.4	970.2	972.8
17	969.2	968.2	967.1	965.8	964.1	962.8	960.5	958.3	956.4	955.1	954.0	952.5	953.2	955.2	957.7	959.3	960.7	961.4	962.3	962.9	963.6	964.1	964.8	965.4	961.1
18	965.2	964.8	964.8	963.8	963.5	962.6	962.3	962.3	962.1	962.0	961.7	961.7	960.9	959.9	959.2	958.8	959.0	960.0	961.0	961.5	962.0	962.8	964.5	965.6	962.2
19	966.9	967.9	969.6	970.7	972.1	973.7	975.3	977.0	979.0	980.8	982.8	984.5	985.6	986.7	988.3	989.9	991.8	993.4	995.0	996.0	997.3	998.5	999.6	1000.2	983.6
20	001.2	001.8	002.2	003.0	003.6	004.0	004.5	005.1	006.4	007.0	007.2	006.9	006.4	005.8	005.5	005.2	004.7	004.6	004.1	004.0	003.8	003.7	003.1	002.9	004.4
21	002.5	002.6	001.8	002.4	002.7	002.7	003.5	003.3	004.8	005.5	006.0	006.0	005.4	005.3	005.7	005.9	005.7	005.5	005.1	004.8	004.5	004.0	003.5	002.9	004.3
22	002.6	001.3	001.4	000.7	000.3	999.9	999.8	999.5	999.8	999.3	999.0	998.7	998.0	997.0	997.0	996.4	996.0	996.7	996.4	996.7	996.9	997.3	997.1	997.6	998.7
23	997.9	998.3	998.1	998.6	999.0	999.8	999.9	1000.5	1001.1	1001.7	1001.8	1001.8	1001.6	1001.4	1001.2	1001.1	1001.1	1001.5	1001.7	1001.8	1001.7	1001.9	1001.8	1001.8	1000.6
24	001.4	001.3	000.9	000.7	000.0	000.0	000.1	000.3	000.5	000.3	000.3	999.6	998.8	998.3	998.3	998.1	997.9	997.7	997.7	997.4	997.1	996.7	995.7	995.1	999.1
25	994.6	993.6	992.8	991.9	990.9	990.0	989.2	988.9	988.4	988.2	988.1	987.5	986.8	985.8	985.5	984.9	984.8	984.5	984.0	983.8	983.5	983.3	982.5	987.7	
26	982.1	981.7	981.2	980.8	981.2	981.1	981.1	981.9	982.4	983.3	983.8	983.4	983.2	983.2	983.6	983.4	983.4	983.4	983.6	983.7	983.9	984.6	984.4	982.8	
27	984.3	983.8	984.1	984.4	985.4	985.9	987.2	988.6	990.6	991.9	992.9	994.2	994.7	995.4	995.7	996.8	997.7	998.6	999.1	999.9	1000.8	1001.4	1001.7	1002.2	992.9
28	002.5	002.7	002.9	003.1	003.2	003.1	003.6	004.2	004.2	004.7	004.8	004.8	004.6	004.4	004.4	004.7	004.8	005.0	005.2	005.0	005.1	005.1	004.9	004.9	004.2
29	004.9	004.7	004.7	004.7	004.7	004.7	005.0	005.0	005.5	005.6	005.7	005.5	005.0	004.8	004.6	004.6	004.8	004.9	004.9	004.9	005.1	004.9	004.6	004.3	004.2
30	004.2	003.9	004.1	003.6	003.5	003.8	003.8	003.8	003.7	003.5	003.6	003.7	003.2	002.8	002.9	003.6	004.9	005.7	006.2	007.0	007.2	008.2	009.0	009.6	004.7
31	010.0	010.4	011.0	011.5	011.6	011.7	011.9	011.8	011.6	011.8	011.6	010.7	010.1	009.7	009.0	008.9	008.3	008.2	008.1	008.3	008.2	007.7	007.5	007.9	009.2
Mean (Station Level)	983. .94	983 .88	983 .80	983 .80	983 .47	983 .42	983 .55	983 .85	984 .14	984 .28	984 .32	984 .08	983 .84	983 .87	983 .83	983 .97	984 .10	984 .25	984 .38	984 .49	984 .56	984 .56	984 .52	984 .48	984 .03
Mean (Sea Level)	1013 .19	1013 .12	1013 .03	1012 .82	1012 .67	1012 .62	1012 .76	1013 .06	1013 .33	1013 .42	1013 .40	1013 .10	1012 .84	1012 .66	1012 .64	1013 .04	1013 .24	1013 .42	1013 .55	1013 .69	1013 .78	1013 .90	1013 .77	1013 .72	1013 .19

168. ESKDALEMUIR: H_b = 237.3 metres.

FEBRUARY, 1934.

Station Level ↑ <

169. ESKDALEUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

MARCH, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	23.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	980.5	980.0	980.0	979.8	978.8	978.5	978.2	978.4	977.8	977.8	977.4	976.7	976.0	976.1	976.6	976.1	975.2	976.0	976.1	976.1	976.0	976.2	975.8	975.5	977.4
2	974.9	974.3	973.7	973.0	972.4	971.4	971.7	972.0	973.2	973.8	974.6	974.6	975.1	975.7	976.6	977.3	978.1	978.8	979.3	979.5	979.5	979.8	979.7	979.8	975.6
3	980.0	979.8	979.3	979.8	980.8	981.8	982.6	983.9	984.7	985.8	986.8	987.0	987.6	987.8	988.1	988.7	989.5	990.0	990.7	990.8	991.2	991.5	991.7	991.7	986.1
4	991.9	991.8	991.4	991.0	990.8	990.8	990.2	989.9	989.5	988.9	988.1	987.3	986.5	985.5	984.8	984.0	983.6	983.1	982.5	981.7	981.0	980.2	979.4	978.9	986.6
5	978.0	977.2	976.2	975.1	974.2	973.4	972.7	971.6	970.4	968.9	967.8		966.9	966.2	966.0	965.7	966.1	966.1	966.4	966.4	966.4	966.4	966.7	966.8	969.9
6	967.0	966.9	966.6	966.4	966.0	965.8	965.8	965.5	965.6	965.1	965.0		964.7	964.4	964.5	964.7	964.8	965.3	965.6	965.8	966.3	966.3	966.6	966.8	965.7
7	966.8	967.0	967.3	967.5	968.1	969.0	969.3	969.3	970.7	970.7	971.8	972.6	972.8	972.9	973.3	973.6	973.9	974.7	975.5	976.0	976.5	977.3	978.2	978.3	972.0
8	979.0	979.1	979.1	979.0	979.1	979.0	979.0	979.3	979.3	979.4	979.5	979.5	979.4	979.2	979.0	979.2	979.4	979.5	979.8	979.9	979.9	980.0	980.0	979.4	
9	979.8	979.4	979.1	979.0	978.9	979.0	979.0	979.2	979.2	979.2	978.9	978.8	978.6	977.9	977.3	977.1	977.8	977.0	976.7	976.4	976.3	976.2	976.0	975.2	978.1
10	974.9	974.5	973.9	972.9	972.4	971.7	971.5	971.1	970.8	970.6	970.0	969.7	969.1	968.7	968.4	968.2	968.3	968.2	968.0	967.7	967.2	967.0	966.6	966.1	970.1
11	965.7	965.0	964.1	963.3	963.0	962.3	961.7	960.9	960.4	959.7	959.0	958.5	957.8	957.3	956.9	956.4	955.6	955.4	955.4	955.0	954.9	954.9	954.9	954.5	959.1
12	954.2	953.9	954.0	954.2	954.8	956.0	956.8	957.3	958.1	958.7	958.8	959.3	959.3	959.3	959.4	959.4	959.4	960.1	960.6	961.1	961.4	961.4	961.4	961.4	958.1
13	961.7	962.0	962.0	962.7	963.7	964.5	965.1	965.7	966.3	966.7	967.1	967.3	967.4	967.6	967.7	968.0	968.1	968.5	968.6	968.7	968.6	968.4	967.9	967.6	966.2
14	967.6	966.9	966.0	965.0	964.4	963.4	962.7	962.0	960.8	959.6	958.0	956.6	954.9	953.1	951.4	949.7	948.5	947.1	945.9	944.1	942.9	942.0	941.1	940.8	955.3
15	940.2	939.9	939.7	939.4	939.2	939.2	939.4	939.7	940.1	940.2	940.3	940.8	941.0	941.4	942.0	942.6	943.0	944.3	945.3	947.1	948.6	949.7	950.4	950.9	942.5
16	951.3	951.8	951.9	952.3	952.8	953.0	953.4	953.6	953.6	953.1	952.6		951.8	950.8	949.8	948.1	946.3	944.5	943.0	941.3	940.0	939.9	939.8	939.9	948.9
17	939.9	939.8	939.4	939.1	938.9	939.1	939.2	939.3	939.5	939.7	939.8	939.8	939.7	939.6	939.8	939.7	940.1	941.0	941.8	942.7	943.8	945.1	946.0	946.5	940.7
18	947.0	947.6	948.5	949.3	950.0	950.7	951.3	952.0	952.2	952.5	952.5	952.7	953.3	953.9	954.5	954.9	955.5	956.8	957.8	958.7	959.3	959.9	960.6	960.9	953.5
19	960.9	960.9	961.1	961.1	961.2	961.7	962.2	962.7	962.7	962.7	962.7	962.7	962.4	962.0	961.3	961.9	962.0	962.5	962.7	963.4	963.6	963.6	964.2	964.9	962.3
20	965.1	965.5	965.9	966.1	967.1	968.3	969.3	970.2	970.9	971.8	972.5	973.3	973.9	974.8	975.5	976.5	977.5	978.2	979.9	980.7	981.4	981.9	982.5	982.8	973.5
21	983.8	984.2	984.8	985.1	985.6	986.5	986.9	987.0	987.2	987.3	987.1	986.9	986.2	985.6	985.1	984.5	984.3	984.2	984.2	984.1	983.9	983.4	983.3	983.1	985.2
22	982.9	982.9	982.9	982.9	983.3	983.8	984.2	984.7	985.1	985.3	985.4	985.4	985.3	985.3	987.2	987.8	988.7	990.1	990.8	991.2	991.9	992.1	992.1	992.1	986.7
23	982.2	982.1	981.5	981.4	981.4	981.2	981.2	981.5	981.4	980.5	980.2	980.2	980.1	980.9	980.9	980.7	980.8	980.0	980.2	980.0	980.9	980.8	980.8	980.8	990.6
24	988.6	988.2	987.8	987.5	987.4	987.2	987.3	987.6	987.8	987.9	988.6	988.6	988.6	989.0	989.4	990.2	990.8	992.4	993.9	994.9	995.8	996.7	997.7	998.2	990.3
25	998.4	998.5	998.8	999.0	999.2	999.2	999.3	999.5	999.4	999.3	999.1	998.7	997.9	997.3	996.9	996.3	996.1	996.0	995.7	995.9	994.2	993.7	992.8	992.1	997.3
26	991.1	990.3	989.2	988.4	987.9	987.3	987.0	986.4	986.6	987.2	987.4	986.5	986.7	986.7	989.1	989.4	990.4	991.1	992.0	992.5	992.9	993.9	994.4	994.9	989.7
27	995.1	995.3	995.6	996.1	996.3	996.7	997.1	997.1	997.1	997.1	997.1	996.9	996.9	996.9	996.6	996.1	995.6	995.7	995.7	995.7	995.5	995.3	994.9	994.7	996.1
28	994.6	994.2	993.8	993.3	993.0	992.6	992.8	992.8	992.6	992.1	991.8	991.4	991.0	990.6	990.1	989.5	989.2	989.4	989.9	990.6	990.6	990.5	990.6	990.6	991.7
29	990.7	990.9	990.6	990.3	990.0	989.8	989.3	989.4	989.0	988.2	987.6	987.0	986.8	986.8	985.9	985.1	984.9	984.8	984.8	984.8	984.5	984.2	983.9	983.6	987.3
30	983.5	983.4	983.1	982.8	982.8	982.9	983.1	983.3	983.1	983.2	983.2	983.5	983.5	983.2	983.1	983.1	983.2	983.6	984.0	984.6	984.7	985.0	985.2	985.3	983.6
31	985.6	985.8	985.8	985.8	986.0	986.3	986.8	987.3	987.6	987.8	987.9	988.1	988.3	988.6	988.8	988.8	989.0	989.5	990.2	990.5	991.0	991.4	991.4	991.6	988.2
Mean (Station Level)	974 -59	974 -48	974 -29	974 -14	974 -17	974 -26	974 -37	974 -51	974 -59	974 -60	974 -50	974 -45	974 -26	974 -05	974 -01	974 -23	974 -03	974 -33	974 -59	974 -73	974 -81	974 -93	974 -99	974 -98	974 -43
Mean (Sea Level)	1003 -77	1003 -67	1003 -49	1003 -34	1003 -37	1003 -45	1003 -54	1003 -57	1003 -51	1003 -45	1003 -27	1003 -16	1002 -94	1002 -70	1002 -68	1002 -61	1002 -77	1003 -19	1003 -52	1003 -72	1003 -84	1003 -99	1004 -08	1004 -09	1003 -40

170. ESKDALEUIR: H_b = 237.3 metres.

APRIL, 1934.

Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	991.7	991.8	991.9	992.0	992.2	992.6	993.2	993.4	993.5	993.6	993.5	993.3	993.1	993.0	992.9	992.9	993.0	993.6	993.7	993.7	993.9	994.1	993.9	993.0	993.0
2	993.9	993.8	993.7	993.7	994.0	994.4	994.6	995.1	995.2	995.0	995.1	994.9	994.7	994.4	994.4	994.4	994.5	994.9	994.9	994.8	994.8	994.8	994.5	994.5	994.5
3	994.0	993.4	993.2	993.1	993.0	993.1	993.1	993.0	992.9	992.8	992.5	992.5	992.2	991.8	991.4	991.1	991.2	991.3	991.4	991.4	991.4	991.1	990.9	992.3	992.3
4	990.3	989.6	989.0	988.7	988.3	988.1	987.8	987.2	986.6	986.2	985.4	985.0	984.1	983.6	983.0	982.8	982.6	982.7	983.1	983.1	983.0	982.9	982.8	982.8	985.8
5	982.6	982.3	982.2	982.1	982.0	982.2	982.4	982.9	983.3	983.9	984.0	983.6	983.6	983.4	983.3	983.1	983.2	983.3	983.5	983.6	983.0	982.6	982.6	983.0	983.0
6	982.1	981.3	980.1	979.7	979.3	979.1	979.0	978.6	978.1	977.9	977.9	977.3	976.6	976.3	975.7	975.2	975.5	975.5	975.7	975.7	975.1	975.1	974.7	977.6	977.6
7	974.5	973.9	973.5	973.1	972.8	972.5	972.4	972.1	971.5	971.1	970.7	969.9	968.9	968.2	967.8	967.4	967.0	966.5	966.0	965.3	965.2	965.5	965.5	969.1	969.1
8	965.8	966.2	966.2	966.2	966.1	966.8	967.2	967.9	968.1	968.9	969.1	969.4	969.9	970.4	970.8	971.1	971.5	972.1	973.0	973.9	974.6	975.2	975.8	969.9	969.9
9	975.8	975.8	975.8	975.8	976.0	976.1	976.5	976.9	977.1	977.4	978.0	978.5	979.1	979.5	979.8	979.9	980.3	980.9	981.3	981.5	981.0	980.7	980.3	978.5	978.5
10	980.3	979.7	979.4	979.0	978.5	978.2	977.8	977.9	977.9	977.6	977.6	977.2	976.7	976.4	976.2	976.2	976.3	976.4	976.9	977.7	977.9	978.0	978.6	978.5	977.8
11	978.3	977.7	977.3	976.9	976.1	975.9	976.3	975.7</																	

PRESSURE
Readings in millibars at exact hours, Greenwich Mean Time.

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171. ESKDALEMUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

MAY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	988.4	987.2	987.1	986.4	986.0	985.2	984.6	984.3	983.8	983.1	982.4	982.1	981.6	981.2	980.8	980.3	980.1	980.1	980.0	980.3	980.2	980.1	980.1	980.0	982.9
2	980.1	980.2	980.6	980.3	981.5	982.2	982.7	983.5	984.1	984.3	984.4	984.5	985.0	985.5	986.0	986.7	986.9	987.2	987.8	988.2	988.3	988.6	988.8	988.8	984.8
3	989.1	988.2	988.7	988.7	988.9	988.8	988.9	989.1	989.0	988.9	988.8	988.5	988.0	987.6	987.0	986.9	986.7	986.2	986.1	985.9	985.9	985.4	985.3	984.5	987.7
4	984.3	983.5	983.1	982.6	981.9	981.5	981.9	981.2	980.6	979.9	979.3	978.6	977.8	977.1	976.3	975.8	975.4	975.3	975.2	975.3	974.8	974.0	973.0	972.3	978.6
5	971.3	970.5	969.7	969.0	968.6	968.8	968.4	968.5	968.9	969.7	969.9	970.3	971.2	972.2	973.0	973.9	974.9	975.9	977.5	978.5	978.9	979.5	980.2	980.8	972.7
6	980.9	981.0	980.9	980.2	979.6	978.5	977.2	975.8	973.6	972.8	972.0	971.2	971.2	970.9	969.4	969.1	969.2	970.3	971.0	971.3	971.0	970.7	970.8	971.0	973.9
7	970.9	971.1	971.5	972.9	974.8	976.5	977.7	978.5	980.9	983.7	985.7	987.3	989.1	989.9	990.9	991.5	992.3	992.9	993.5	994.2	994.6	995.0	995.1	995.1	984.7
8	994.9	994.9	994.6	994.1	994.1	994.2	994.1	993.9	993.9	993.9	994.0	993.7	993.6	993.3	993.1	993.2	993.2	993.2	993.4	993.5	993.8	994.5	994.7	994.6	993.9
9	994.3	994.9	994.9	995.0	995.1	995.9	996.7	997.3	997.5	997.9	997.9	997.9	998.0	998.2	998.3	998.1	998.2	998.3	999.1	999.5	999.9	1000.0	999.7	999.7	997.5
10	999.7	999.5	999.7	999.6	1000.2	1000.7	1000.9	1001.3	1001.5	1001.3	1001.1	1001.1	1000.9	1000.8	1000.8	1000.8	1001.1	1001.4	1001.5	1001.7	1002.3	1002.6	1002.5	1002.7	1001.0
11	002.5	002.4	002.1	001.8	001.8	001.8	001.7	001.4	001.2	000.7	000.3	000.3	999.9	999.2	998.3	998.1	997.6	997.0	997.0	996.8	996.8	996.5	996.4	996.0	999.7
12	995.6	995.2	994.6	994.2	994.0	994.2	994.3	995.0	995.0	994.9	995.6	995.7	995.7	995.8	995.6	995.4	995.0	994.5	994.4	994.2	994.1	993.7	993.2	993.2	994.8
13	992.8	992.4	992.1	991.2	990.5	990.0	989.2	988.5	987.4	986.8	984.9	983.4	982.0	981.0	980.4	980.1	980.1	979.1	978.5	977.7	977.7	977.6	977.6	977.8	984.4
14	978.4	979.8	980.3	981.0	981.7	982.2	983.1	983.5	983.6	983.6	982.9	982.7	982.1	981.9	982.0	982.2	982.8	982.9	983.1	983.9	985.0	985.2	985.3	984.8	982.5
15	984.7	984.6	984.3	983.8	983.6	983.0	982.7	981.9	981.2	980.6	979.0	977.5	976.3	974.9	973.1	971.1	969.3	967.4	965.9	964.9	964.1	963.9	963.2	962.7	975.6
16	982.2	981.8	981.3	981.1	981.3	981.9	982.2	983.2	984.2	985.2	986.9	986.5	987.4	988.1	988.5	989.0	989.1	989.3	990.0	990.4	990.4	990.5	990.5	990.5	986.0
17	970.4	970.1	969.9	969.9	970.1	970.6	970.9	970.9	971.0	971.3	971.8	971.8	972.4	972.6	972.8	972.7	973.1	973.3	973.3	973.9	974.5	974.6	974.9	975.0	972.0
18	975.4	975.8	975.9	976.7	977.3	977.7	978.2	978.6	979.0	979.0	979.2	979.0	979.0	979.0	979.5	980.0	980.4	980.9	981.6	982.1	983.0	983.0	983.2	982.8	979.3
19	982.4	981.8	981.3	980.4	979.7	978.7	978.0	977.4	976.9	976.3	975.9	975.8	976.5	976.6	977.8	978.3	978.7	979.8	980.4	980.8	981.2	981.5	981.8	981.8	979.2
20	981.6	981.1	980.8	980.5	980.8	980.8	980.8	981.0	981.6	982.0	982.4	983.0	983.5	984.1	984.9	985.1	985.0	985.2	984.9	985.1	984.9	984.2	983.8	983.0	982.9
21	982.5	981.3	981.8	982.0	981.7	981.6	981.9	981.9	981.8	981.9	982.2	982.6	983.0	983.6	984.3	984.0	984.6	985.2	986.2	987.6	988.8	989.1	989.7	990.0	984.0
22	989.7	989.6	989.6	989.5	989.4	989.4	989.6	989.9	990.4	991.1	991.8	992.4	992.8	993.0	993.5	994.1	994.8	995.4	996.4	996.8	997.4	997.8	998.1	998.2	992.6
23	998.2	998.0	998.9	998.5	998.5	998.4	998.4	998.2	998.0	997.7	997.4	997.2	996.9	996.2	995.9	995.7	995.7	995.9	995.9	996.7	997.3	997.8	997.8	997.5	997.4
24	997.0	997.7	997.3	997.2	997.6	997.2	997.0	997.1	997.1	997.1	997.1	996.7	996.2	995.7	995.2	994.8	994.3	994.1	994.0	994.1	993.7	993.3	993.1	992.9	995.0
25	992.6	992.7	991.8	991.3	991.3	991.3	991.1	990.9	991.1	991.4	991.6	991.9	992.2	992.4	992.9	993.3	994.0	994.8	995.3	996.1	996.8	997.5	997.9	998.1	993.2
26	998.4	998.3	998.3	998.6	999.0	999.4	999.4	999.7	999.4	999.2	999.0	998.3	998.0	997.7	997.5	997.3	997.3	997.4	997.4	997.3	997.4	997.1	996.6	996.2	998.1
27	996.3	995.6	995.4	995.4	994.9	994.6	995.4	995.2	995.1	995.5	995.5	995.5	995.3	995.2	995.1	994.4	994.9	994.6	994.7	994.8	995.1	995.1	994.8	994.1	995.1
28	994.0	993.6	993.0	993.2	993.2	993.2	993.1	993.5	993.5	993.5	993.2	993.0	993.1	993.1	993.5	993.2	992.9	992.9	992.9	993.1	993.6	993.8	993.9	993.8	993.4
29	994.0	993.8	993.8	993.8	993.9	994.2	994.5	994.4	994.4	994.4	994.4	994.0	993.9	993.5	993.3	993.1	993.1	993.0	993.1	993.3	993.5	993.7	993.7	993.4	993.7
30	993.3	993.0	992.9	992.9	992.9	992.5	992.7	992.6	992.3	992.2	991.9	992.1	991.0	991.7	991.6	991.5	991.3	991.2	991.1	991.4	991.9	992.2	992.2	992.4	992.2
31	992.2	992.1	991.9	991.8	991.6	991.5	991.3	991.1	991.1	991.1	991.0	990.6	990.2	990.1	989.7	989.6	989.5	989.5	989.9	990.3	991.1	991.3	991.6	991.7	990.9
Mean (Station Level)	987.37	987.21	987.03	986.91	986.94	986.98	987.05	987.10	987.08	987.10	987.03	986.95	986.93	986.84	986.83	986.72	986.80	986.89	986.90	987.28	987.67	987.72	987.72	987.59	987.12
Mean (Sea Level)	1016.35	1016.18	1016.01	1015.90	1015.89	1015.87	1015.82	1015.77	1015.68	1015.62	1015.49	1015.35	1015.28	1015.15	1015.13	1015.03	1015.21	1015.35	1015.65	1016.09	1016.49	1016.60	1016.64	1016.54	1015.79

172. ESKDALEMUIR: H_b = 237.3 metres.

JUNE, 1934.

Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	991.6	991.5	991.9	992.1	992.4	992.7	992.9	993.2	993.1	993.3	993.3	993.3	993.3	993.5	993.4	993.8	994.1	994.3	995.1	996.4	997.4	998.0	998.4	998.9	993.9
2	998.7	998.7	998.8	998.8	999.2	999.2	999.4	999.9	1000.2	1000.6	1000.6	1000.7	1000.7	1000.4	1000.4	1000.2	1000.2	1000.4	1000.9	1001.0	1001.3	1001.6	1001.8	1001.5	1000.2
3	001.3	001.2	001.1	001.2	001.2	001.1	001.1	000.7	000.7	000.7	000.7	000.4	000.1	999.8	999.2	999.1	998.9	998.8	998.5	998.3	998.7	998.2	998.4	997.9	999.9
4	997.4	997.4	996.3	995.9	995.6	995.8	995.6	995.2	995.0	994.8	994.6	994.6	994.1	993.3	992.5	992.2	991.9	991.9	992.9	993.3	993.4	993.7	993.7	993.6	994.5
5	993.4	993.3	993.2	993.1	993.1	993.2	993.0	992.8	992.2	991.9	991.8	991.2	990.6	990.3	989.9	990.0	989.9	990.0	990.4	990.7	990.9	991.1	991.2	990.8	991.6
6	990.9	991.0	991.2	991.4	991.8	991.9	991.8	991.2	990.8	990.4	990.1	989.5	989.1	988.8	988.3	988.2	988.1	988.0	988.1	988.2	988.0	988.0	988.1	989.7	989.7
7	987.6	987.4	987.5	987.3	987.3	987.7	988.0	988.2	988.4	988.6	988.9	989.1	989.5	989.5	989.4	989.7	989.8	989.9	990.1	990.2	990.8	990.8	991.1	991.1	989.0
8	991.1	991.1	990.9	990.8	990.9	991.2	991.6	991.7	992.0	992.1	991.9	991.9	991.9	992.0	992.0	992.0	992.1	992.7	992.6	992.9	993.4	993.8	993.9	993.9	992.0
9	993.9	994.1	994.0	993.8	994.5	994.4	994.7	994.8	994.8	994.6	994.8	994.8	994.9	994.9	994.6	994.5	994.2	994.2	994.2	994.5	994.9	995.0	995.1	995.1	994.5
10	994.9	994.8	994.6	994.6	994.4	994.4	994.3	994.0	993.9	993.7	993.6	993.2	992.9	992.8	992.4	992.1	991.9	991.7	991.7	991.9	992.3	992.4	992.4	992.1	993.3
11	991.9	991.9	991.7	991.4	991.4	991.5	991.2	991.3	991.3	991.5	990.9	990.													

173. ESKDALEMUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

JULY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	997.9	997.5	997.5	997.6	997.4	997.4	997.4	997.2	997.1	997.1	996.9	996.7	996.3	995.8	995.6	995.8	995.8	995.9	996.1	996.3	996.4	996.2	996.4	996.7	996.7
2	996.5	996.7	996.7	996.7	996.8	996.8	997.0	997.0	996.9	997.1	997.2	997.4	997.6	997.4	997.5	997.7	997.6	997.7	998.0	998.6	998.6	998.6	998.7	998.7	997.4
3	996.4	996.5	996.4	996.5	996.5	996.5	996.7	996.8	996.8	996.8	996.7	996.6	996.3	997.9	997.5	997.4	997.1	997.0	997.0	997.1	997.4	997.3	997.3	996.9	996.0
4	996.9	996.7	996.6	996.5	996.2	996.1	996.1	996.0	995.5	995.5	995.4	995.2	995.0	994.8	994.3	993.9	993.5	993.0	992.8	993.0	993.0	993.0	993.0	993.0	994.9
5	992.9	992.8	992.5	992.3	992.4	992.4	992.3	992.1	992.1	991.9	991.9	991.8	991.6	991.5	991.5	991.5	991.4	991.3	991.2	991.2	991.2	991.2	991.2	991.2	992.0
6	992.5	992.4	992.3	992.4	992.6	992.9	993.3	993.3	993.4	993.4	993.7	993.7	993.9	994.0	994.0	994.1	994.0	994.2	994.2	994.5	994.9	995.0	995.1	995.3	993.7
7	995.5	995.5	995.7	995.7	995.8	996.0	996.2	996.4	996.4	996.4	996.6	996.6	996.5	996.6	996.6	996.6	996.6	996.8	997.1	998.1	998.2	998.7	998.8	998.8	996.8
8	000.1	000.1	999.9	000.0	000.3	000.4	000.4	000.4	000.3	000.2	000.1	999.7	999.2	999.0	998.7	998.5	997.9	997.9	998.1	998.1	998.2	998.2	998.4	998.5	999.3
9	996.0	997.8	997.4	997.2	997.0	996.8	996.7	996.6	996.6	996.6	996.4	996.7	996.5	995.2	994.8	994.8	994.5	994.0	993.9	993.7	993.9	994.0	994.1	994.1	995.7
10	993.9	993.5	993.2	993.0	993.0	992.9	992.6	992.5	992.3	991.9	991.7	991.3	990.9	990.7	990.2	990.0	990.9	990.0	990.0	990.0	990.0	990.1	990.0	990.0	991.5
11	989.3	989.0	988.8	988.6	988.6	988.6	988.2	987.7	987.6	987.0	986.6	986.6	986.4	985.9	985.8	985.5	985.3	985.2	984.9	985.1	985.0	984.7	984.6	984.2	986.7
12	983.7	983.4	983.1	982.6	982.4	982.5	982.3	982.1	982.0	981.8	981.5	981.3	981.1	981.1	980.9	980.8	980.0	979.9	979.7	979.8	980.0	979.9	979.7	979.5	981.4
13	979.0	978.6	978.6	978.7	978.4	978.6	978.6	978.5	978.5	978.5	978.4	978.7	978.6	978.8	978.9	978.9	978.9	978.9	979.0	979.2	979.2	979.8	979.8	979.8	978.9
14	980.0	980.1	980.0	980.1	980.6	980.9	981.4	981.9	982.0	982.3	982.6	982.9	983.3	983.6	984.0	984.2	984.5	984.7	985.2	985.9	986.6	986.9	987.1	987.5	983.1
15	987.6	987.5	987.6	987.7	987.7	987.6	987.6	987.3	987.2	987.2	987.2	987.1	987.0	987.2	987.0	987.1	987.0	987.2	987.4	987.6	988.0	988.1	988.1	987.8	987.4
16	988.0	988.0	988.0	988.1	988.1	988.2	988.3	988.4	988.5	988.7	988.7	988.9	989.0	988.9	989.0	989.0	989.0	989.0	989.2	989.2	989.6	989.8	989.8	989.6	988.7
17	989.6	989.4	989.2	989.4	989.5	989.7	989.7	989.9	990.1	990.0	989.8	989.7	989.6	989.6	989.5	989.4	988.9	988.4	988.0	987.6	987.5	987.2	987.3	986.6	989.0
18	985.7	985.4	984.9	984.4	984.1	983.6	983.3	983.2	982.9	982.6	982.3	982.1	981.5	981.7	981.5	981.2	981.3	982.3	982.4	982.4	982.3	982.2	982.2	982.2	983.0
19	982.0	981.8	981.6	981.3	981.7	982.2	982.5	982.6	982.5	982.6	982.6	982.6	983.0	983.0	983.1	983.1	983.2	983.1	983.2	983.3	983.3	983.5	983.5	983.2	982.7
20	982.9	982.7	982.3	982.1	982.0	981.7	981.7	981.6	981.7	981.7	981.3	981.4	981.6	981.7	981.7	981.9	981.9	982.0	982.2	982.6	982.9	983.1	983.3	983.3	982.1
21	983.3	983.3	983.0	983.0	983.3	983.2	983.3	983.3	983.0	982.8	982.7	982.7	982.4	982.2	982.0	981.7	981.5	981.6	982.0	982.3	982.5	982.7	982.7	982.6	982.6
22	982.5	982.4	982.2	981.9	982.1	982.1	982.5	982.5	982.6	982.6	982.5	982.7	982.6	982.7	982.5	982.6	982.7	983.2	983.6	983.8	984.3	984.2	984.1	982.8	982.6
23	984.1	984.0	984.2	984.5	984.7	984.9	985.2	985.1	985.1	985.0	984.9	984.7	984.8	984.8	984.9	984.8	984.7	984.7	985.1	985.1	985.0	984.8	984.8	984.8	985.6
24	984.7	984.8	984.3	984.2	984.5	984.9	985.2	985.4	985.4	985.4	985.8	985.9	986.2	986.1	986.0	986.1	986.1	986.3	986.3	986.4	986.7	987.0	986.8	986.8	985.6
25	986.7	986.2	985.9	985.5	984.8	985.0	985.2	985.6	986.0	986.2	986.3	987.1	987.6	987.6	988.4	988.8	988.9	988.8	989.0	989.1	989.3	989.0	988.6	987.3	987.2
26	986.6	985.5	984.7	983.7	983.0	982.7	982.5	982.1	981.9	981.5	981.9	982.2	982.5	982.5	982.6	983.0	983.0	983.9	984.0	984.4	985.1	985.7	985.6	985.1	983.6
27	984.6	984.3	983.8	983.0	982.6	982.9	982.9	983.0	983.3	983.5	984.1	984.1	984.5	984.7	984.7	984.1	984.1	984.2	983.9	983.9	983.6	983.5	983.6	983.8	987.9
28	981.8	980.8	979.0	977.7	977.7	978.5	978.0	977.5	976.0	975.8	976.0	975.8	975.9	976.4	976.9	977.6	978.2	978.5	978.4	979.2	979.6	979.6	979.3	979.4	977.9
29	978.8	978.7	978.5	978.2	978.2	978.2	978.3	978.4	978.1	978.0	978.1	978.1	978.0	978.0	978.2	978.5	978.5	978.5	978.5	978.7	979.1	979.1	978.8	978.5	978.4
30	977.9	977.4	977.0	976.9	977.2	977.1	977.1	977.3	977.4	977.2	976.7	976.9	976.8	976.7	976.2	976.6	976.4	976.2	976.1	975.8	975.7	974.5	973.6	973.6	976.6
31	973.1	973.2	971.9	971.8	971.5	971.7	971.4	971.6	971.5	971.6	971.8	972.0	972.2	972.5	972.8	972.8	973.0	973.3	974.1	974.8	975.7	976.4	977.0	977.2	973.0
Mean (Station Level)	987 -57	987 -36	987 -06	986 -88	986 -84	986 -87	986 -90	986 -89	986 -85	986 -81	986 -76	986 -78	986 -76	986 -73	986 -68	986 -71	986 -66	986 -68	986 -76	986 -95	987 -24	987 -37	987 -30	987 -16	986 -95
Mean (Sea Level)	1015 -89	1015 -70	1015 -42	1015 -25	1015 -16	1015 -09	1014 -97	1014 -81	1014 -65	1014 -52	1014 -44	1014 -39	1014 -33	1014 -30	1014 -23	1014 -27	1014 -24	1014 -33	1014 -52	1014 -89	1015 -33	1015 -49	1015 -52	1015 -42	1014 -89

174. ESKDALEMUIR: H_b = 237.3 metres.

AUGUST, 1934.

Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	977.7	978.0	978.5	978.5	978.8	979.1	979.1	980.3	979.9	979.9	979.7	979.5	979.3	979.2	979.1	978.6	978.0	977.4	976.9	976.4	975.8	974.8	974.3	973.1	978.1
2	971.9	970.8	969.9	968.8	967.9	967.5	967.0	966.4	966.2	965.7	965.8	965.2	965.0	965.0	964.9	964.8	964.8	964.8	965.2	965.3	965.6	965.7	965.8	966.6	966.6
3	965.8	966.0	966.0	966.4	967.1	967.9	968.4	969.1	970.1	970.5	971.2	971.9	972.4	973.1	973.4	973.7	974.0	974.5	974.9	975.6	976.4	977.3	977.3	977.4	971.4
4	977.2	977.1	977.1	977.5	977.8	978.1	978.3	978.7	978.5	978.7	978.6	979.0	979.2	979.4	979.6	979.8	980.2	980.4	980.8	981.2	981.8	981.9	982.0	981.9	979.3
5	981.8	981.8	981.9	981.8	982.0	982.0	982.1	982.5	982.5	982.4	982.4	982.5	982.6	982.5	982.4	982.4	982.4	982.4	982.5	982.7	982.8	982.5	982.4	982.3	982.3
6	982.5	982.4	982.1	982.0	982.2	982.2	982.3	982.8	983.3	983.8	983.1	983.2	983.3	983.1	983.2	983.4	983.3	983.5	983.6	983.8	984.1	984.3	984.2	984.2	983.1
7	984.6	984.8	984.9	985.2	985.3	986.0	986.4	986.9	987.0	987.5	987.8	988.1	988.5	988.6	988.9	989.1	989.4	989.5	989.9	990.3	990.6	990.8	990.8	990.8	987.9
8	990.9	990.7	990.1	989.9	989.4	989.2	989.2	989.2	988.6	988.0	987.6	987.0	986.5	986.1	985.6	984.7	984.1	983.3	983.3	982.8	982.2	981.3	980.6	980.0	986.6
9	979.4	979.3	979.3	978.8	978.5	977.8	977.4	977.0	976.7	976.7	976.8	976.8	976.5	976.9	977.0	976.9	976.9	977.5	977.7	978.0	978.0	978.1	978.0	977.7	977.7
10	978.1	977.3	976.7	976.2	975.5	974.4	973.7	972.7	971.9	971.1	970.3	970.3	970.3	970.3	971.2	971.5	971.5	972.0	972.4	973.2	973.6	973.9	974.3	973.5	973.5
11	974.4	973.9	974.2	975.1	975.2	9																			

175. ESKDALEMUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

SEPTEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
↑ Station Level ↓	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	978.3	978.0	977.7	977.6	977.5	977.5	977.7	977.6	977.6	977.5	977.1	976.9	976.6	976.6	976.6	976.4	976.6	976.6	976.2	977.2	977.2	977.2	977.1	977.1	977.2
2	976.9	976.8	976.6	976.5	976.5	976.6	976.3	976.8	976.9	976.5	976.3	976.0	976.3	975.3	975.4	974.9	974.3	973.7	973.1	972.9	971.7	971.1	969.2	968.5	975.0
3	967.5	966.6	966.4	966.3	967.0	967.8	968.6	969.2	970.0	970.9	971.4	971.8	972.6	973.0	973.3	973.7	974.9	975.7	976.6	977.7	978.5	978.5	979.0	979.6	972.1
4	979.6	979.6	979.9	980.0	979.9	979.5	979.6	979.9	980.6	981.1	981.8	982.6	983.2	983.5	983.8	983.7	983.8	984.5	985.1	986.4	987.5	988.4	987.9	988.2	982.6
5	988.7	989.2	989.6	989.9	990.7	991.6	992.2	993.2	993.3	994.2	994.5	995.1	995.5	995.5	995.7	996.1	996.5	996.9	997.2	997.8	998.3	998.4	998.3	998.4	994.3
6	998.3	998.1	997.4	996.3	996.9	997.1	997.0	997.2	996.9	996.5	996.0	995.4	995.0	993.9	993.4	992.4	991.6	991.5	991.4	991.1	990.6	989.7	989.0	988.5	994.5
7	987.6	986.5	985.2	984.7	983.3	983.6	983.4	983.2	982.5	982.3	981.7	981.2	981.4	981.6	981.6	981.9	982.4	982.6	982.6	982.1	981.3	980.4	979.3	978.9	982.9
8	978.1	976.3	975.1	974.4	973.4	974.1	974.6	974.9	975.4	975.4	976.1	976.6	977.2	977.5	977.5	978.1	978.2	977.9	977.9	977.9	977.6	977.6	977.6	977.6	976.6
9	976.5	975.9	975.5	975.1	974.7	974.9	975.1	975.3	975.3	976.1	976.3	976.6	977.0	978.1	978.9	979.9	980.9	981.8	982.4	983.5	984.6	985.0	985.8	986.2	979.1
10	987.1	987.2	987.1	987.2	987.4	987.5	987.2	988.2	987.9	988.2	987.8	988.0	988.0	987.6	987.8	987.8	987.4	987.5	987.4	987.7	987.7	987.9	988.4	988.7	987.7
11	989.3	989.6	989.9	990.1	990.4	990.9	991.2	991.2	991.5	991.9	992.3	992.3	992.6	993.1	993.0	993.5	994.3	995.2	995.8	996.4	996.7	997.2	997.7	998.2	992.3
12	998.7	998.8	998.8	999.1	999.8	1000.4	1000.8	1001.3	1001.5	1001.9	1002.7	1003.1	1003.6	1004.1	1004.3	1004.7	1005.0	1005.5	1006.0	1006.1	1006.2	1006.3	1006.4	1006.5	1000.5
13	1001.0	1000.9	1000.5	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	1000.3	999.0
14	997.5	997.2	996.9	996.6	996.4	996.4	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	995.2
15	991.7	991.2	990.8	989.9	988.9	988.9	988.6	987.8	987.8	987.8	987.0	986.0	985.2	984.5	983.7	983.0	982.2	982.1	982.0	981.9	981.9	981.9	981.9	981.9	985.8
16	980.9	980.9	981.1	981.2	981.2	981.3	981.7	981.7	981.9	982.3	982.5	982.7	983.4	983.4	984.0	984.4	984.5	984.7	984.8	984.8	984.8	984.8	984.8	984.8	982.9
17	983.2	982.1	981.1	980.3	979.6	978.7	978.1	977.4	976.6	976.9	976.6	976.5	976.1	976.3	975.9	976.7	977.4	978.0	979.0	979.9	980.0	980.2	980.7	981.0	978.7
18	981.4	981.4	981.5	981.6	981.5	981.4	981.9	982.0	982.0	981.9	981.5	981.9	981.7	981.3	981.0	980.6	980.2	980.2	979.9	980.2	979.9	979.1	978.4	978.1	980.9
19	977.5	976.8	976.2	975.6	975.5	975.0	974.8	974.6	974.0	973.8	973.0	972.5	972.3	972.2	972.3	972.5	972.9	973.4	974.1	974.2	974.6	974.7	974.5	974.3	974.3
20	974.2	974.7	975.0	974.9	975.1	975.6	976.0	976.3	976.4	976.6	976.6	976.7	976.8	976.7	976.7	977.0	977.1	977.2	977.4	977.6	977.5	977.3	977.5	977.9	976.4
21	978.0	978.1	978.3	978.6	979.0	979.3	980.2	980.6	981.0	981.2	981.2	981.1	981.7	982.2	982.7	983.2	983.7	984.4	984.8	985.3	985.8	985.9	986.0	985.7	981.8
22	985.2	984.1	983.5	982.7	981.7	980.1	978.2	976.8	975.2	972.2	969.7	968.0	966.5	966.0	965.9	966.3	967.2	967.8	968.7	968.1	968.1	968.7	969.3	973.1	973.1
23	969.1	969.5	970.3	971.9	972.7	974.1	974.6	975.8	976.1	977.3	977.2	977.9	978.4	978.8	979.2	979.5	979.5	979.5	979.3	979.3	978.8	978.4	977.7	977.1	976.1
24	976.6	976.0	975.6	974.7	973.9	973.2	972.8	972.3	971.5	971.1	971.3	971.4	971.5	971.5	971.8	971.9	972.1	972.6	973.7	974.4	975.2	976.5	976.4	976.9	973.5
25	977.8	978.1	978.4	979.0	980.0	980.4	981.1	981.5	982.0	982.4	982.4	982.8	982.8	982.6	982.4	981.6	981.3	981.1	981.2	980.7	980.0	979.4	978.9	978.4	980.6
26	977.1	976.3	975.2	974.0	973.0	971.3	970.1	969.3	968.7	968.4	968.1	967.8	967.1	966.5	966.0	967.3	969.7	971.2	972.6	974.1	975.5	976.5	978.0	979.3	971.8
27	981.0	982.4	982.4	983.1	982.5	983.0	984.4	984.1	985.3	985.7	986.9	986.9	987.5	987.9	988.1	988.3	988.3	988.3	988.3	988.3	988.1	987.9	986.6	985.5	985.7
28	984.5	983.5	982.3	981.5	981.0	980.8	980.9	980.9	981.4	981.7	982.1	981.9	981.8	981.9	982.0	981.3	981.2	981.3	981.5	981.9	981.6	981.6	981.6	981.4	981.8
29	981.0	980.2	979.7	979.9	980.1	981.3	982.2	982.4	983.1	983.2	983.7	983.8	983.8	983.5	983.2	983.3	983.5	983.8	983.9	983.9	983.9	983.9	983.9	983.8	982.5
30	983.7	983.4	982.8	982.6	982.5	982.7	982.3	982.7	982.5	982.1	981.4	981.3	981.1	980.7	980.3	979.6	979.3	979.1	979.4	979.4	979.6	979.5	979.5	979.6	981.2
Mean (Station Level)	982.96	982.65	982.36	982.21	982.11	982.14	982.29	982.34	982.37	982.42	982.28	982.25	982.30	982.22	982.18	982.20	982.40	982.64	982.94	983.23	983.31	983.28	983.22	983.18	982.56
Mean (Sea Level)	1011.43	1011.11	1010.79	1010.63	1010.54	1010.54	1010.64	1010.57	1010.51	1010.46	1010.26	1010.17	1010.19	1010.09	1010.06	1010.13	1010.39	1010.74	1011.17	1011.51	1011.66	1011.68	1011.64	1011.61	1010.77

176. ESKDALEMUIR: H_b = 237.3 metres.

OCTOBER, 1934.

Day	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
↑ Station Level ↓	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	979.8	980.1	980.2	980.6	980.7	981.1	981.7	982.1	982.3	982.5	982.4	982.5	982.5	982.7	982.8	982.7	983.0	983.0	982.9	982.9	982.9	982.6	982.2	982.0	978.7
2	982.1	982.1	981.9	981.4	980.9	980.7	980.5	980.3	980.4	980.2	979.6	979.1	978.5	978.1	977.6	977.6	976.9	976.4	976.1	975.8	975.3	974.7	974.4	973.7	978.0
3	972.9	972.1	971.2	970.1	969.0	968.0	967.3	966.1	964.9	963.4	961.4	959.2	958.6	957.7	957.8	957.7	957.0	956.0	957.9	957.6	957.6	957.6	957.6	957.0	962.8
4	956.5	955.5	954.5	953.5	952.7	951.4	949.4	948.4	947.6	946.4	945.4	944.8	945.6	944.6	944.0	944.1	944.6	945.3	946.7	948.5	950.3	951.5	953.2	949.2	966.9
5	954.7	956.3	957.4	958.0	959.4	960.5	961.5	962.5	963.0	964.1	965.3	966.9	967.9	968.4	969.4	970.7	971.9	973.5	974.9	976.2	977.4	978.7	980.1	981.5	966.9
6	982.7	983.6	984.5	985.5	986.2	986.9	987.7	988.2	988.0	987.9	987.3	986.5	985.7	984.9	984.1	983.2	983.6	983.6	983.7	983.7	983.5	983.6	983.9	984.0	985.1
7	983.0	983.7	983.5	983.2	983.2	983.5	983.9	984.3	984.7	985.6	986.3	986.8	986.8	986.7	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	986.8	987.2
8	984.0	985.4	985.7	986.7	986.9	986.3	986.8	987.6	987.7	987.4	986.9	986.5	985.8	985.2	984.8	984.6	984.6	984.6	984.6	984.6	984.6	984.6	984.6	984.6	984.7
9	988.5	989.0	989.0	989.4	989.5	990.1	990.9	991.4	991.8	992.2	992.6	992.8	993.1	993.4	993.5	994.1	994.7	995.1	995.6	995.9	995.9	995.9	995.9	995.9	992.6
10	994.2	993.3	992.6	991.5	990.9	990.6	991.1	991.0	991.2	991.5	991.7	991.4	991.8	991.8	992.2	993.1	993.1	993.1	994.0	994.7	995.2	995.3	995.3	995.3	992.7
11	995.5	995.7	995.3	995.2	995.2	995.4	995.7	996.0	996.3	996.4	996.4	996.2	995.8	995.9	995.8	995.8	995.8	995.9	996.0						

PRESSURE
Readings in millibars at exact hours, Greenwich Mean Time.

177. ESKDALEMUIR: H_b (height of barometer cistern above M.S.L.) = 237.3 metres.

NOVEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	984.2	984.3	984.0	984.0	983.8	983.7	983.3	983.5	983.5	983.7	983.3	983.0	982.9	982.5	982.5	982.5	982.9	983.5	983.4	983.5	983.5	983.6	983.6	983.6	983.4
2	983.3	983.1	983.0	983.9	983.5	983.8	984.3	984.6	984.5	984.6	984.6	984.4	984.5	984.5	984.6	984.9	985.0	985.3	985.7	985.8	985.7	985.6	985.6	985.4	984.5
3	985.1	984.5	983.8	983.4	983.1	982.7	982.4	982.5	982.5	982.5	982.2	982.4	982.4	982.5	982.4	982.7	983.3	983.9	984.6	985.2	985.7	986.1	986.2	986.6	983.7
4	987.0	987.0	987.1	987.6	988.0	988.0	988.0	988.3	988.0	987.6	987.4	986.5	985.9	985.6	984.9	984.2	983.9	983.6	983.1	982.8	982.6	982.2	981.9	981.9	985.6
5	981.5	981.0	980.9	980.7	980.0	979.7	980.0	980.6	980.9	980.8	980.2	979.9	979.2	979.1	978.9	978.8	978.6	978.4	978.2	977.9	977.8	977.6	977.9	977.2	979.5
6	977.5	977.6	977.8	977.9	978.2	978.3	978.2	978.8	979.0	979.4	979.4	979.5	979.4	979.3	979.1	979.3	979.8	980.3	980.3	980.5	980.9	980.8	981.0	980.9	979.2
7	980.7	980.6	980.4	980.5	980.7	981.0	981.7	981.9	982.3	982.3	982.3	982.2	981.8	981.6	981.7	981.8	982.0	982.2	982.0	981.8	981.6	981.2	980.8	980.6	981.5
8	980.0	979.4	978.6	977.9	977.4	976.8	976.3	976.1	975.6	975.2	974.5	973.6	972.7	972.0	971.5	971.2	970.7	970.5	969.9	969.8	969.5	969.3	969.3	969.1	973.9
9	969.0	968.6	968.1	968.0	968.2	968.1	968.2	968.1	967.7	968.2	967.5	967.5	967.1	967.0	966.4	966.3	966.0	965.9	965.7	965.4	965.1	964.8	964.3	963.7	967.0
10	963.5	963.5	963.6	963.9	964.1	964.6	965.2	965.7	966.5	967.1	967.5	967.8	968.5	969.5	970.1	970.7	971.6	972.4	972.8	973.8	974.3	974.8	975.5	975.8	968.6
11	976.2	976.4	976.3	976.5	976.6	976.8	977.2	977.5	977.8	978.0	978.0	978.0	977.9	977.6	977.6	978.0	977.8	978.0	978.1	978.5	978.3	978.4	978.4	978.2	977.5
12	977.6	977.7	977.5	976.9	976.5	976.3	976.3	975.9	975.6	974.9	974.2	973.4	972.5	971.6	971.6	970.7	970.3	969.8	969.3	968.8	968.2	967.8	967.5	967.1	973.0
13	966.6	966.3	966.0	965.8	965.7	965.7	965.0	964.6	964.4	963.8	963.2	962.7	962.6	962.7	962.0	961.5	960.8	960.2	959.9	959.4	958.8	958.2	957.6	957.0	968.0
14	972.6	972.8	973.0	973.6	974.4	974.9	975.7	976.6	977.6	978.2	978.6	978.8	979.2	979.5	980.1	980.9	981.6	982.2	982.8	982.9	983.0	983.4	983.6	984.1	978.5
15	984.2	984.0	984.2	984.5	984.7	985.3	985.9	986.7	987.5	987.7	987.9	987.9	988.3	988.3	988.3	989.1	989.9	990.2	990.7	991.1	991.5	991.4	991.3	991.4	987.8
16	991.3	991.4	991.1	991.3	991.2	991.6	991.6	991.6	991.4	991.5	991.2	990.7	990.3	989.8	989.1	989.3	989.0	989.3	989.1	989.0	989.1	989.0	989.1	988.9	990.3
17	988.8	989.0	989.0	989.1	989.5	989.8	990.0	990.7	990.9	991.0	991.0	991.2	991.2	991.3	991.6	991.9	992.6	993.0	993.6	994.1	994.5	994.6	995.0	995.3	991.5
18	995.6	995.9	996.0	996.0	996.5	996.6	996.9	997.4	997.9	998.0	997.6	997.4	997.1	996.9	996.7	996.8	996.9	997.1	997.1	996.8	996.8	996.4	996.0	996.0	996.6
19	995.8	995.5	995.4	995.0	994.6	994.8	994.6	994.9	995.1	995.3	995.0	994.6	994.5	994.0	993.9	993.9	994.1	994.3	994.4	994.4	994.3	994.3	993.9	993.8	994.6
20	993.6	993.4	993.3	993.0	992.5	992.7	992.8	993.2	993.7	994.2	994.4	995.0	995.2	995.6	996.2	996.6	997.1	997.4	997.8	998.2	998.6	999.2	999.6	999.9	995.6
21	000.0	999.9	999.9	999.8	999.8	999.5	999.5	999.5	999.6	999.6	999.1	998.8	998.3	998.1	997.7	997.9	998.3	998.2	998.5	998.8	999.1	999.0	998.8	999.0	999.1
22	999.4	999.0	999.0	998.8	998.6	998.4	998.7	998.8	999.1	999.1	999.1	999.6	998.2	997.9	998.0	997.9	997.4	997.2	997.2	996.9	996.6	996.4	996.7	996.4	998.2
23	996.4	996.4	996.5	996.5	996.7	996.5	996.8	997.3	997.8	998.0	998.2	998.0	998.0	998.0	998.0	998.4	998.8	999.3	999.8	999.8	1000.5	1000.5	1000.7	1000.7	998.1
24	000.8	000.8	000.8	000.9	001.0	001.2	001.2	002.3	002.6	003.0	003.0	003.1	002.9	002.8	002.7	002.7	003.2	003.8	003.9	004.2	004.3	004.4	004.2	003.8	002.6
25	003.7	003.8	003.2	003.0	002.7	003.0	003.3	003.4	003.4	003.3	002.6	002.6	002.1	002.0	001.6	001.4	001.0	000.8	001.2	000.2	999.3	998.0	998.3	997.4	001.8
26	997.2	996.5	995.7	995.4	995.8	996.0	995.8	995.8	994.2	995.8	995.6	995.6	995.4	995.0	994.0	993.6	993.0	992.4	991.8	991.1	990.5	989.9	989.5	989.9	996.6
27	000.4	000.9	000.8	001.2	001.3	001.6	001.9	002.3	002.5	002.5	002.5	002.5	002.2	002.0	001.7	002.0	002.1	002.2	002.5	002.6	002.5	002.4	002.5	001.8	001.9
28	001.7	002.0	001.9	001.8	001.7	001.7	001.8	002.5	002.8	002.8	002.6	002.3	002.2	002.0	001.7	002.2	002.2	002.5	002.6	002.7	002.8	002.9	002.8	002.3	002.3
29	002.9	003.0	003.0	003.0	003.0	003.1	003.3	003.7	004.0	004.2	004.2	003.9	003.7	003.1	003.2	003.2	003.2	003.2	003.1	003.0	002.8	002.7	002.5	002.4	003.2
30	002.2	002.1	001.9	001.6	001.6	001.6	001.5	001.5	001.3	001.1	000.5	000.5	999.6	999.2	999.0	998.9	998.5	998.1	997.6	997.1	996.6	996.1	995.6	995.3	999.7
Mean (Station Level)	987 -96	987 -88	987 -73	987 -69	987 -72	987 -79	987 -96	988 -25	988 -41	988 -57	988 -42	988 -27	988 -02	987 -87	987 -83	987 -97	988 -16	988 -37	988 -47	988 -53	988 -52	988 -48	988 -45	988 -39	988 -15
Mean (Sea Level)	1017 -23	1017 -15	1016 -99	1016 -94	1016 -98	1017 -06	1017 -23	1017 -50	1017 -60	1017 -68	1017 -45	1017 -26	1016 -98	1016 -83	1016 -81	1017 -02	1017 -28	1017 -53	1017 -64	1017 -73	1017 -74	1017 -71	1017 -69	1017 -65	1017 -31

178. ESKDALEMUIR: H_b = 237.3 metres.

DECEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.	mb.
1	994.5	994.0	993.2	992.5	992.0	991.4	990.9	990.2	989.8	989.8	988.8	987.9	986.8	986.2	985.3	984.5	984.1	983.5	982.8	982.2	981.6	981.1	980.3	979.5	987.5
2	978.7	977.5	976.9	976.7	975.0	974.2	973.4	972.9	972.2	971.5	971.0	970.0	969.2	968.8	968.4	968.4	968.8	969.2	969.5	969.9	970.3	970.7	971.0	971.0	972.0
3	971.2	971.2	971.0	970.8	970.8	971.1	971.2	971.4	971.6	971.6	971.9	971.6	971.8	971.7	971.5	971.8	972.2	972.3	972.3	972.3	972.9	973.0	973.0	973.0	971.7
4	973.0	973.0	973.0	972.8	972.6	972.4	972.8	973.4	973.5	973.4	973.1	972.6	971.8	971.7	971.7	971.7	971.7	971.6	971.6	971.6	971.8	971.8	971.3	971.1	972.4
5	970.7	970.7	970.2	969.6	969.5	970.0	970.1	970.4	970.4	970.6	970.6	970.9	971.1	971.2	971.8	972.5	973.6	974.1	974.3	975.0	975.7	976.2	976.8	977.1	972.1
6	976.8	977.3	977.5	977.4	977.3	976.8	976.7	977.0	976.9	976.9	976.3	975.9	975.0	974.9	974.7	974.6	974.4	974.3	973.4	973.2	972.8	972.3	972.0	971.7	975.4
7	971.0	970.6	970.4	970.3	970.3	970.4	970.6	971.1	971.5	971.7	971.5	971.9	972.3	973.0	973.8	974.3	974.3	974.6	974.6	974.3	974.0	973.6	973.3	972.4	972.3
8	972.0	971.1	970.6	970.3	969.6	968.9	968.9	968.8	968.9	968.8	968.2	968.6	968.7	968.8	969.1	969.2	969.5	969.7	969.9	969.8	969.8	969.8	969.2	968.9	969.1
9	964.1	963.0	962.3	961.1	960.4	959.0	958.3	957.8	957.2	956.6	956.2	954.7	954.0	953.0	951.7	951.2	952.5	956.6	957.1	958.5	959.3	960.0	961.1	961.2	957.9
10	961.8	962.3	962.9	963.5	963.9	963.9	964.4	965.4	966.0	966.1	966.4	966.5	966.9	966.8	967.1	968.2	968.6	968.7	969.2	969.3	969.5	969.5	969.7	969.5	966.3
11	969.3	968.7	968.3	967.7	967.3	966.6	966.2	965.7	965.1	964.8	964.6	963.9	963.2	962.4	962.0	962.1									

PRESSURE AT STATION LEVEL AND AT SEA LEVEL
ANNUAL MEANS FROM HOURLY VALUES

197

179. ESKDALEMUIR: $h_b = 237.3$ metres

1934.

Hour G.M.T.	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
Station Level	mb. 983.48	mb. 983.35	mb. 983.17	mb. 983.05	mb. 983.01	mb. 983.06	mb. 983.16	mb. 983.28	mb. 983.34	mb. 983.38	mb. 983.31	mb. 983.19	mb. 983.07	mb. 982.94	mb. 982.91	mb. 982.91	mb. 983.00	mb. 983.17	mb. 983.34	mb. 983.51	mb. 983.62	mb. 983.65	mb. 983.64	mb. 983.57	mb. 983.25
Sea Level	012.32	012.20	012.03	011.91	011.87	011.88	011.93	011.96	011.94	011.91	011.78	011.60	011.45	011.30	011.28	011.31	011.45	011.69	011.94	012.19	012.56	012.43	012.45	012.4	011.90

PRESSURE AT STATION LEVEL; MONTHLY MEANS AND DIURNAL INEQUALITIES
The departures for the mean of the day are adjusted for non-cyclic change.†

180. ESKDALEMUIR: $h_b = 237.3$ metres

1934.

Month	Mean	Hour 1	G.M.T. 2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
Jan.	984.03	mb. +0.11	mb. +0.02	mb. -0.07	mb. -0.29	mb. -0.44	mb. -0.51	mb. -0.39	mb. -0.11	mb. +0.16	mb. +0.29	mb. +0.31	mb. +0.05	mb. -0.21	mb. -0.40	mb. -0.25	mb. -0.13	mb. -0.02	mb. +0.12	mb. +0.22	mb. +0.31	mb. +0.37	mb. +0.35	mb. +0.29	mb. +0.22
Feb.	989.23	+0.08	+0.02	-0.14	-0.31	-0.29	-0.28	-0.12	+0.07	+0.27	+0.37	+0.48	+0.35	+0.07	-0.23	-0.37	-0.41	-0.41	-0.07	+0.06	+0.17	+0.16	+0.18	+0.16	+0.17
Mar.	974.43	+0.32	+0.19	-0.01	-0.18	-0.16	-0.09	+0.01	+0.13	+0.20	+0.19	+0.08	+0.01	-0.19	-0.42	-0.47	-0.56	-0.47	-0.19	+0.05	+0.18	+0.24	+0.35	+0.39	+0.37
Apr.	978.42	+0.11	0.00	-0.15	-0.20	-0.14	+0.07	+0.23	+0.38	+0.37	+0.39	+0.37	+0.28	+0.09	-0.21	-0.46	-0.80	-0.54	-0.54	-0.23	+0.07	+0.14	+0.19	+0.30	+0.19
May	987.12	+0.29	+0.12	-0.05	-0.18	-0.15	-0.11	-0.06	-0.01	-0.03	-0.01	-0.08	-0.17	-0.20	-0.29	-0.31	-0.42	-0.34	-0.25	-0.06	+0.23	+0.52	+0.56	+0.55	+0.43
June	989.30	+0.11	-0.08	-0.16	-0.25	-0.18	-0.06	+0.04	+0.03	+0.03	+0.06	-0.04	0.00	-0.05	-0.13	-0.19	-0.25	-0.29	-0.26	-0.08	+0.10	+0.38	+0.44	+0.44	+0.29
July	986.95	+0.30	+0.13	-0.15	-0.29	-0.31	-0.25	-0.20	-0.17	-0.19	-0.20	-0.22	-0.18	-0.16	-0.16	-0.19	-0.13	-0.16	-0.10	0.00	+0.22	+0.54	+0.85	+0.85	+0.54
Aug.	980.83	+0.34	+0.24	+0.07	0.00	-0.10	-0.01	-0.05	-0.12	-0.12	-0.24	-0.40	-0.44	-0.41	-0.35	-0.28	-0.29	-0.18	-0.10	+0.08	+0.34	+0.49	+0.54	+0.52	+0.41
Sept.	982.56	+0.41	+0.11	-0.19	-0.34	-0.44	-0.41	-0.26	-0.21	-0.18	-0.14	-0.28	-0.31	-0.26	-0.34	-0.39	-0.37	-0.17	+0.07	+0.36	+0.66	+0.73	+0.71	+0.64	+0.60
Oct.	980.21	+0.14	+0.14	-0.01	-0.07	-0.08	-0.05	+0.18	+0.32	+0.35	+0.39	+0.19	-0.07	-0.24	-0.33	-0.38	-0.40	-0.34	-0.13	-0.04	0.00	+0.06	+0.08	+0.11	+0.20
Nov.	988.15	-0.02	-0.12	-0.28	-0.33	-0.32	-0.26	-0.11	+0.17	+0.31	+0.45	+0.29	+0.12	-0.14	-0.31	-0.36	-0.24	-0.06	+0.13	+0.21	+0.26	+0.24	+0.18	+0.14	+0.06
Dec.	989.54	+0.31	+0.17	+0.03	-0.20	-0.35	-0.43	-0.44	-0.29	-0.12	-0.05	-0.10	-0.31	-0.61	-0.58	-0.47	-0.28	+0.01	+0.33	+0.46	+0.54	+0.64	+0.62	+0.57	+0.44
Year	983.25	+0.21	+0.06	-0.09	-0.22	-0.25	-0.20	-0.10	+0.02	+0.09	+0.12	+0.05	-0.06	-0.19	-0.31	-0.34	-0.34	-0.25	-0.08	+0.09	+0.26	+0.38	+0.41	+0.40	+0.33

ABSOLUTE EXTREMES OF PRESSURE AT STATION LEVEL FOR EACH DAY
Maximum and Minimum for the interval 0h. to 24h. Greenwich Mean Time.

181. ESKDALEMUIR: $h_b = 237.3$ metres

1934.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	mb. 994.7	mb. 987.5	mb. 013.2	mb. 007.9	mb. 980.6	mb. 975.4	mb. 984.1	mb. 981.6	mb. 988.9	mb. 979.9	mb. 989.9	mb. 981.4
2	990.5	985.8	012.8	006.6	979.9	971.4	985.2	983.5	988.8	979.9	981.9	988.4
3	985.8	975.8	008.8	004.9	981.8	979.3	984.5	980.9	989.2	984.5	001.5	987.9
4	975.8	968.9	007.0	003.5	982.1	978.9	980.9	984.6	982.3	987.9	981.6	987.0
5	992.8	975.4	003.7	007.9	987.9	985.6	984.1	981.9	988.3	989.8	983.0	991.1
6	990.7	980.9	988.7	985.2	987.6	984.0	982.6	974.7	981.1	988.6	982.0	987.8
7	983.4	972.0	985.9	978.3	978.3	966.6	974.7	964.6	985.2	970.7	981.3	987.2
8	991.3	980.3	987.4	977.9	980.1	978.3	975.9	985.5	985.2	982.9	984.0	980.8
9	982.2	982.5	987.6	987.1	980.0	975.2	981.7	975.6	000.0	984.5	985.3	983.8
10	983.2	976.2	985.7	986.9	975.2	966.1	980.4	976.0	002.7	989.5	985.1	981.6
11	976.2	953.3	006.5	985.7	986.1	954.2	978.5	971.4	002.7	986.0	982.8	980.2
12	980.3	954.6	010.6	006.5	961.6	953.5	978.3	969.9	986.1	983.0	982.8	988.5
13	986.6	960.1	010.1	007.4	968.8	981.3	985.0	978.3	983.2	977.3	988.5	986.0
14	980.1	947.5	015.3	007.6	967.9	940.8	980.1	973.8	985.3	977.6	983.4	987.0
15	983.9	952.7	018.0	015.2	950.9	939.1	982.6	974.8	985.1	982.7	984.1	983.0
16	977.9	983.9	016.8	014.5	953.8	939.8	985.9	978.3	970.7	981.0	983.8	980.2
17	970.2	952.3	014.7	012.5	946.5	938.8	980.7	971.1	975.0	969.6	981.7	989.0
18	965.6	958.7	013.1	003.7	960.9	946.5	971.2	966.1	983.2	975.0	981.5	980.1
19	000.3	965.6	004.1	001.4	964.9	980.6	981.0	969.1	982.8	975.7	980.2	972.1
20	007.2	000.2	003.2	989.1	982.8	964.9	984.2	974.7	985.3	980.4	983.4	981.2
21	006.1	001.8	989.6	985.9	987.4	982.8	974.7	973.1	980.1	981.3	982.9	986.3
22	002.9	985.8	986.6	984.5	982.2	982.8	978.3	971.9	988.3	989.3	987.4	984.9
23	001.9	987.6	985.1	987.3	982.3	988.8	978.4	955.1	989.1	985.5	981.9	987.3
24	001.9	985.1	987.3	974.7	988.2	986.9	984.5	953.7	987.6	982.8	981.4	988.0
25	985.3	982.5	980.8	975.4	989.5	982.1	964.5	982.1	988.1	980.9	988.2	984.6
26	984.6	980.8	982.4	989.4	984.8	986.3	974.5	963.0	989.8	986.2	985.1	982.3
27	002.3	983.8	989.4	979.5	987.2	984.6	989.4	974.4	986.7	983.3	983.4	981.6
28	005.2	002.0	980.8	978.2	984.7	989.1	983.8	989.4	984.1	982.7	984.3	982.1
29	005.7	004.3			981.0	983.6	985.7	981.4	984.6	983.0	986.5	984.3
30	009.7	002.6			985.3	982.7	985.9	983.4	981.1	988.3	987.7	978.5
31	012.0	007.2			981.6	985.3		982.4	989.4		977.2	971.2
Mean	988.91	978.96	002.61	985.92	979.13	970.17	982.24	974.91	980.98	983.38	982.17	986.63

Note. - When pressure exceeds 1000 mb. the leading figure 1 is not printed, i.e., 1005.6 mb. is written 005.6. This rule does not, however, apply to monthly means.

† See page 21

TEMPERATURE
Readings in degrees absolute at exact hours, Greenwich Mean Time.

182. ESKDALEMUIR: Louvred Hut: h_t (height of thermometer bulb above ground) = 0.9 metres.

JANUARY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	73.7	74.0	75.0	75.0	74.3	74.2	73.8	74.4	75.7	76.2	76.6	76.9	77.3	77.2	77.7	77.8	78.1	78.2	78.0	78.0	79.1	78.9	78.6	78.5	78.4
2	79.0	79.0	78.2	77.2	76.6	75.8	78.4	76.6	76.5	76.8	77.8	76.6	76.5	76.1	76.8	76.0	78.2	76.9	76.7	77.0	77.2	77.4	77.2	77.4	77.0
3	77.8	78.0	78.1	78.1	78.0	78.0	78.0	78.3	78.3	78.3	78.4	78.7	78.0	79.4	79.4	79.4	79.1	79.2	79.3	79.6	80.0	80.0	80.1	80.6	78.8
4	81.0	80.7	80.9	80.8	80.8	80.7	80.5	80.5	80.4	80.4	80.4	80.4	80.9	80.4	79.0	78.5	78.7	75.8	75.2	74.6	74.7	74.3	74.3	74.0	78.7
5	74.1	74.4	74.2	74.4	74.8	75.1	75.3	74.2	74.2	75.9	77.0	78.0	77.7	77.9	77.5	75.9	75.6	74.7	75.0	75.0	73.8	74.0	74.3	75.1	75.3
6	75.6	76.6	77.0	77.0	78.0	78.5	79.0	79.4	79.9	80.0	79.6	80.3	80.6	81.0	81.8	81.9	81.8	81.2	81.0	81.0	80.9	81.0	81.1	80.3	79.7
7	80.0	79.8	80.6	80.8	80.7	80.7	80.7	80.7	80.4	80.6	80.6	80.7	80.8	80.0	80.0	78.3	77.9	77.9	77.7	76.7	75.9	75.8	75.0	74.8	79.2
8	74.8	74.6	74.2	74.2	74.4	74.7	74.2	74.3	74.7	75.3	75.9	76.0	76.9	77.0	76.8	76.6	76.2	76.0	76.1	75.8	75.9	75.0	75.4	75.4	75.4
9	75.8	74.6	75.5	76.1	76.6	76.5	75.2	76.1	77.0	77.3	77.6	78.0	77.4	77.1	77.0	76.7	76.6	76.8	76.1	75.5	75.5	76.3	77.2	77.9	76.5
10	78.4	78.8	79.0	79.3	79.6	79.6	79.7	80.0	80.0	80.0	80.0	80.0	79.9	78.8	79.8	80.0	80.1	80.1	80.0	79.5	79.2	79.0	79.0	78.7	79.5
11	78.5	78.8	78.8	79.0	79.1	79.6	79.3	79.0	78.5	78.7	78.3	78.1	78.0	78.0	78.0	78.0	78.6	78.5	78.8	78.4	79.3	79.4	79.4	76.2	78.6
12	76.0	75.8	74.4	74.7	75.4	75.7	75.9	75.6	75.7	76.6	77.7	77.6	77.1	77.6	77.5	76.9	77.2	77.7	77.8	78.2	78.2	78.3	78.4	78.3	78.8
13	78.3	78.2	78.1	77.6	77.1	76.9	76.7	76.7	77.2	77.1	77.6	77.6	77.3	77.1	77.0	76.9	77.0	76.9	77.1	77.6	77.8	77.1	77.0	77.3	77.3
14	77.0	77.0	76.4	76.2	76.1	76.4	76.3	76.2	76.1	76.3	76.7	77.0	76.9	76.8	76.1	75.8	75.8	75.7	75.9	76.0	75.6	75.0	74.9	74.6	76.2
15	74.6	74.1	74.1	74.0	74.6	74.9	75.3	75.3	75.3	76.0	77.0	76.6	77.3	76.7	76.1	76.3	76.0	75.0	74.5	74.9	75.0	75.1	75.2	75.7	75.4
16	75.0	75.6	75.3	75.7	76.2	76.1	76.3	76.0	76.0	76.8	76.6	76.6	77.0	76.9	76.0	75.6	75.1	75.4	75.0	74.7	73.5	73.4	73.6	73.7	75.5
17	73.7	73.7	78.2	79.7	79.7	79.8	80.0	80.4	80.5	81.4	82.4	82.3	80.8	80.1	80.1	79.9	79.0	78.7	78.3	78.2	77.8	77.8	77.3	77.5	79.0
18	77.6	77.4	77.3	77.1	77.0	77.0	77.0	77.1	77.1	76.8	77.1	76.2	76.4	76.3	75.9	75.7	75.7	75.6	76.0	75.8	76.2	76.0	75.6	75.7	78.5
19	75.2	75.2	75.0	74.7	74.7	73.9	73.3	73.9	74.0	75.4	76.7	76.5	76.9	77.0	76.1	75.2	73.4	72.0	73.7	72.6	70.7	69.8	68.6	69.1	74.0
20	69.5	68.0	68.5	68.1	67.2	66.5	66.0	65.5	66.0	67.6	69.6	71.5	72.4	73.1	73.5	73.3	72.8	72.9	73.7	74.3	75.3	75.6	76.3	76.2	70.8
21	76.4	76.8	76.9	76.7	77.0	77.8	77.7	77.9	77.8	77.8	78.3	78.6	79.0	78.6	78.5	78.4	78.2	78.2	78.0	78.0	78.0	77.9	77.7	77.7	77.8
22	77.4	77.0	76.9	76.7	76.2	76.3	76.0	76.0	75.8	75.9	76.1	76.5	76.6	76.6	76.5	76.0	76.1	76.0	75.8	75.9	76.0	76.0	76.2	76.4	76.3
23	76.8	77.2	77.3	77.6	77.7	77.8	77.7	77.8	77.8	77.7	77.9	78.3	78.5	78.6	78.8	79.0	79.0	79.1	79.1	79.2	79.1	78.9	78.8	78.9	78.2
24	78.8	78.7	78.7	78.8	78.5	78.6	78.6	78.6	78.5	78.0	77.6	78.6	79.0	78.4	77.7	75.7	74.7	72.6	71.5	71.0	70.4	69.7	69.0	68.1	76.0
25	67.9	67.8	69.8	70.4	70.5	72.2	73.0	74.0	73.3	72.9	73.0	73.4	73.5	73.1	73.1	73.0	72.9	73.3	73.6	73.8	74.1	74.0	74.6	76.6	72.5
26	77.4	77.8	77.9	78.0	77.8	77.4	77.3	77.8	77.9	77.7	77.6	77.8	78.8	78.7	78.1	77.9	77.7	77.6	76.9	76.8	76.6	76.4	76.1	76.0	77.5
27	76.0	76.3	75.9	76.2	76.4	76.1	75.8	75.0	74.9	76.8	77.8	77.9	77.5	77.5	77.3	76.5	74.3	73.3	74.2	71.7	71.0	69.2	68.0	68.0	74.9
28	68.7	68.1	67.1	67.0	67.0	66.9	66.9	66.6	66.3	71.0	73.3	75.2	77.1	78.1	78.3	76.9	73.2	72.7	71.0	70.0	69.3	68.6	68.0	67.2	70.7
29	66.6	66.4	66.7	66.5	66.6	67.5	68.6	69.2	70.2	70.9	71.9	74.5	75.0	74.9	75.2	75.2	75.0	75.0	74.4	73.5	72.9	72.6	72.9	72.4	71.3
30	73.0	75.4	75.3	75.0	77.8	77.3	76.9	77.4	77.9	78.1	79.3	79.3	79.4	80.0	80.2	80.0	77.1	76.7	76.7	76.0	75.2	75.4	74.6	73.6	77.0
31	72.7	72.4	71.0	70.2	68.9	68.5	68.3	68.6	68.6	70.4	73.2	76.2	76.8	77.2	77.0	75.5	75.0	75.0	75.3	75.6	75.8	76.0	76.4	76.1	73.3
Mean	75.4	75.4	75.5	75.6	75.6	75.7	75.7	75.8	75.9	76.5	77.1	77.5	77.7	77.7	77.5	77.1	76.5	76.3	76.2	76.0	75.8	75.6	75.6	75.4	76.2

183. ESKDALEMUIR: Louvred Hut: h_t = 0.9 metres.

FEBRUARY, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	75.9	76.4	77.1	77.3	76.8	76.4	76.4	76.0	75.7	75.6	76.3	76.9	77.1	76.6	76.5	76.2	75.9	75.2	75.3	75.3	75.4	75.0	74.6	74.3	76.0
2	73.9	73.8	73.7	73.6	73.5	75.5	75.2	75.3	75.2	76.9	77.6	77.6	79.0	80.0	80.6	81.9	80.8	79.0	78.9	78.9	78.8	79.8	79.6	79.2	77.5
3	75.6	75.6	75.8	75.4	75.4	75.5	75.1	73.7	73.7	75.7	76.6	76.6	80.0	80.6	81.9	80.8	79.0	78.9	78.9	78.8	79.8	79.6	79.2	78.7	77.5
4	78.7	78.2	77.9	77.9	77.6	78.0	77.6	77.1	77.9	78.0	78.8	79.7	79.7	79.8	79.5	79.1	78.8	78.2	77.2	76.6	76.8	76.7	77.1	76.8	78.1
5	76.8	76.0	75.6	75.3	75.0	75.0	75.2	74.1	73.9	78.1	78.3	79.0	78.0	78.3	78.3	77.9	77.9	78.1	78.4	78.7	78.8	79.0	78.6	79.0	77.2
6	79.1	79.3	79.4	79.5	79.4	79.8	80.0	80.3	80.4	80.7	81.5	81.4	81.5	81.7	82.2	81.9	80.6	80.4	80.4	80.3	79.8	80.1	80.1	80.2	80.4
7	79.7	79.7	79.7	80.0	79.9	80.0	80.0	80.0	79.6	80.7	80.7	80.7	81.0	80.8	80.7	80.5	79.8	80.0	80.2	79.6	78.9	79.0	79.0	79.1	79.9
8	77.1	76.6	76.4	75.4	76.0	76.7	76.8	77.3	77.6	78.0	78.9	78.9	79.2	79.0	79.0	78.9	77.8	76.9	76.1	76.0	74.8	74.0	76.0	75.2	77.1
9	75.5	75.1	76.0	76.0	76.5	76.7	77.0	77.3	77.4	77.9	78.1	78.4	78.8	79.2	79.5	79.5	79.3	79.0	78.8	78.8	78.3	76.8	76.6	79.2	77.8
10	79.2	79.3	79.2	78.3	77.6	77.2	76.2	76.4	76.7	78.0	78.9	79.5	80.2	80.8	79.5	79.0	78.7	78.0	78.1	78.1	78.0	77.9	77.8	77.9	78.4
11	77.8	77.8	77.7	77.9	77.9	78.2	76.7	77.0	77.2	77.4	78.1	78.9	79.9	80.8	81.0	81.1	81.2	81.3	81.1	81.0	80.8	80.4	80.2	80.0	79.2
12	79.8	79.8	78.3	78.2	78.3	78.2	78.3	77.4	79.1	80.9	81.0	82.0	79.7	79.0	78.0	77.2	76.9	77.0	77.1	77.1	76.7	76.4	76.2	75.8	78.4
13	75.8	75.8	75.8	75.9	75.5	75.2	75.2	75.4	75.4	76.2	76.6	76.4	81.7	82.4	82.5	81.3	78.8	76.2	74.1	72.8	71.4	74.3	75.3	75.7	76.6
14	76.0	76.0	76.0	75.9	76.1	76.3	76.0	76.3	77.4	78.3	80.5	81.7	81.7	82.4	82.4	81.6	78.4	79.0	77.0	75.0	74.3	73.8	71.6	71.5	77.1
15	71.0	69.8	70.0	69.2	68.4	67.8	68.0	68.8	70.9	71.9	74.3	76.9	78.4	80.0	81.0	79.2	78.4	77.2	77.8	77.0	76.0	75.7	76.0	74.0	74.1
16	74.5	74.1	73.3	73.3	74.2	74.2	74.8	74.5	76.0	76.7	77.2	77.9	79.2	79.0	78.6	78.1	77.0	75.8	75.1	75.2	73.8	72.7	70.9	69.8	75.3
17	69.9	70.2	71.1	71.2	71.6	71.9	72.1	72.2	72.8	73.8	74.5</														

TEMPERATURE
Readings in degrees absolute at exact hours, Greenwich Mean Time.

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184. ESKDALEUIR: Louvred Hut: h_t (height of thermometer bulb above ground) = 0.9 metres.

MARCH, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	65.0	65.2	65.2	66.0	66.5	67.4	68.3	69.8	73.2	74.0	75.0	76.0	76.6	76.5	76.6	76.5	76.4	76.8	77.2	77.5	77.6	77.8	77.8	77.9	72.9
2	77.9	77.8	78.0	78.1	78.4	78.4	78.6	79.0	79.4	80.0	80.5	80.6	81.2	81.0	79.7	79.5	77.8	75.1	72.9	71.7	71.0	73.3	74.4	77.6	
3	73.8	73.1	74.2	74.2	74.1	74.2	73.3	74.1	74.8	75.8	76.8	78.1	78.7	77.8	78.9	77.9	77.2	76.1	76.1	76.1	76.1	75.6	75.8	75.8	75.7
4	75.8	75.3	74.9	75.4	75.7	75.8	76.5	76.6	77.1	77.9	78.0	78.2	78.4	78.6	78.7	79.0	78.6	77.9	77.8	78.0	77.0	77.4	77.5	77.8	77.2
5	77.7	77.2	77.1	76.9	77.0	77.1	77.0	76.9	77.3	77.7	78.2	78.4	76.2	75.0	75.4	76.3	76.0	74.2	74.7	74.2	74.2	74.7	75.0	74.7	76.3
6	73.7	73.9	73.6	73.7	74.0	74.1	74.1	74.3	74.6	75.0	76.7	77.2	75.2	76.0	74.0	74.9	75.7	74.0	73.6	73.4	73.1	72.7	73.1	73.0	74.4
7	73.1	72.7	73.1	72.8	72.6	73.1	73.5	73.6	74.1	76.0	76.0	77.1	77.2	77.0	76.0	75.1	75.0	74.4	74.0	74.0	74.2	74.0	73.1	72.1	74.3
8	70.4	70.6	71.1	71.1	73.4	73.6	73.7	73.6	74.6	75.5	75.8	77.0	77.9	77.8	78.1	78.1	77.1	76.3	76.0	75.8	75.7	76.0	75.9	75.8	75.0
9	75.7	75.5	75.6	75.7	75.7	75.7	75.7	75.0	75.3	75.8	76.2	77.0	77.3	78.0	78.6	77.0	76.3	76.1	75.8	76.0	75.0	75.9	76.0	75.2	76.1
10	75.0	75.0	74.6	74.0	74.4	74.9	75.1	75.4	75.6	75.6	75.6	75.0	76.2	75.7	75.3	75.0	74.3	73.8	74.0	74.1	74.1	74.3	74.5	74.6	74.9
11	74.8	74.9	74.8	74.9	75.0	75.0	75.1	75.6	75.9	75.9	76.3	76.5	76.8	77.0	77.1	76.2	76.4	76.1	75.8	75.4	74.5	74.5	74.6	75.1	75.6
12	75.1	74.8	74.6	75.4	75.8	74.3	73.8	74.8	74.9	74.7	75.2	75.1	75.6	75.6	75.8	75.3	75.0	74.4	74.0	73.9	73.9	74.0	74.0	74.0	74.8
13	73.9	73.6	73.7	73.7	73.8	73.8	73.8	74.1	74.5	73.5	73.8	74.5	75.5	76.6	76.5	76.0	75.3	74.0	72.8	72.2	72.5	71.4	70.0	68.3	73.8
14	67.1	66.3	65.9	65.5	64.9	64.8	64.7	67.6	71.1	73.3	75.2	75.9	75.2	75.0	74.7	74.6	73.5	73.0	73.1	73.4	73.9	74.1	74.2	73.8	71.2
15	73.3	73.3	73.1	73.1	72.3	72.2	72.8	73.5	73.9	74.9	75.7	75.2	75.1	75.1	75.6	76.2	76.0	75.8	74.6	74.6	74.8	74.7	74.8	75.2	74.4
16	74.4	74.8	74.6	74.6	74.6	74.4	74.3	75.0	75.4	75.4	75.2	77.3	76.5	77.4	77.2	76.9	75.5	73.4	73.6	74.0	74.0	74.2	75.0	74.6	75.1
17	74.2	74.2	74.0	73.5	73.6	73.5	73.6	73.9	74.1	74.3	75.6	74.8	76.5	75.0	74.4	74.7	74.0	74.4	74.6	74.4	74.3	74.3	74.3	74.3	74.4
18	74.2	74.2	74.3	74.0	73.4	73.5	73.2	74.0	74.2	73.9	74.1	76.1	76.8	77.4	78.3	78.2	77.6	77.0	76.4	75.9	75.8	75.4	75.5	75.5	75.3
19	75.5	75.3	75.1	74.6	73.9	73.7	73.7	73.7	75.8	76.8	78.2	79.2	78.8	78.8	78.9	78.6	77.8	76.7	76.3	76.0	75.9	75.0	75.7	75.8	76.2
20	75.9	75.9	75.8	75.8	76.0	75.9	75.9	75.9	76.3	76.7	77.9	78.6	79.4	79.7	80.0	80.0	79.4	76.0	76.0	76.7	76.4	76.0	75.1	74.8	76.9
21	74.4	74.0	73.2	73.1	73.0	72.7	73.0	75.9	77.8	78.3	79.5	79.8	80.3	80.9	81.8	81.8	80.0	76.3	73.9	71.4	70.6	69.6	69.1	69.3	75.5
22	69.3	70.0	70.6	70.8	71.2	71.7	72.0	72.9	73.2	75.0	77.3	78.4	79.0	78.8	78.4	78.5	77.9	76.6	76.4	75.7	75.8	75.6	73.1	73.1	74.6
23	71.5	70.9	69.4	69.2	68.6	68.8	70.4	71.2	74.1	76.0	78.0	79.0	79.6	81.0	80.3	79.7	78.9	77.6	77.0	76.8	77.0	77.0	77.1	77.2	75.2
24	77.3	77.4	77.6	77.7	77.8	78.2	79.1	79.8	80.5	80.7	81.1	82.4	82.4	83.6	84.0	84.7	84.0	82.3	81.1	78.7	77.3	77.3	76.0	73.7	79.7
25	73.1	72.7	71.4	71.0	70.1	71.8	72.0	74.8	79.9	79.9	80.0	80.0	81.0	82.0	81.4	80.9	80.6	79.6	79.2	79.1	78.9	79.0	79.0	79.4	77.2
26																									
27	79.0	78.8	78.9	79.1	79.0	79.2	79.0	79.2	79.8	78.8	79.4	79.7	80.7	81.0	81.9	82.3	80.4	78.6	76.5	76.0	75.5	75.2	74.0	74.6	78.7
28	72.7	72.6	72.4	71.0	70.1	69.6	70.2	73.6	78.3	79.2	80.2	80.4	81.1	82.0	80.3	80.0	80.1	78.9	76.8	74.5	72.7	71.2	70.6	69.7	75.5
29	69.0	68.8	68.4	67.7	67.7	67.2	68.0	71.8	76.4	79.6	81.1	82.0	82.3	82.6	82.7	83.0	82.9	80.4	77.5	76.3	74.3	73.3	73.3	72.2	75.3
30	72.1	70.2	70.7	71.1	72.0	73.1	73.4	74.7	75.2	76.9	76.6	78.1	76.5	77.0	76.9	76.1	76.0	75.7	75.3	74.8	74.7	74.7	74.7	74.1	74.6
31	74.2	74.1	74.2	74.1	74.1	73.9	74.0	74.6	76.4	76.9	77.4	76.4	76.8	77.7	77.3	77.3	76.8	76.4	76.0	75.5	74.4	72.1	72.0	71.9	75.2
Mean	73.6	73.4	73.3	73.2	73.3	73.3	73.5	74.5	75.8	76.5	77.2	77.8	78.1	78.3	78.2	78.0	77.4	76.3	75.8	75.3	74.9	74.7	74.4	74.2	75.5

185. ESKDALEUIR: Louvred Hut: h_t = 0.9 metres.

APRIL, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	74.0	74.5	74.4	73.0	74.2	74.3	74.9	75.3	76.7	77.8	78.4	79.4	78.7	80.0	79.1	78.6	78.3	77.8	77.2	76.3	76.8	76.9	76.8	76.5	76.6
2	76.6	76.7	76.7	76.8	76.8	77.1	77.4	77.6	77.1	77.0	77.1	77.6	77.8	77.2	77.1	77.1	76.8	77.0	76.9	76.8	76.7	76.6	76.4	76.4	77.0
3	76.2	76.0	75.9	75.9	75.6	75.9	76.5	77.1	77.6	78.0	77.7	77.8	78.7	80.0	80.5	80.7	80.3	78.6	74.5	72.9	72.3	71.0	70.1	69.9	76.4
4	69.0	69.2	69.9	71.6	70.0	69.6	70.5	75.6	77.1	78.7	79.4	80.9	80.0	80.6	80.6	81.0	80.0	78.3	75.8	75.4	75.9	75.9	75.8	75.5	75.6
5	75.5	75.7	75.7	76.0	76.1	75.0	75.1	74.7	74.7	75.6	76.3	77.9	76.7	77.6	78.3	78.1	76.6	75.4	73.8	72.6	72.8	72.2	72.2	72.2	75.4
6	71.4	70.3	70.7	70.6	71.4	71.3	72.9	74.2	75.9	74.4	74.7	76.0	77.1	73.6	75.1	73.9	75.3	74.7	73.0	71.4	71.3	72.0	70.6	69.2	73.0
7	69.0	70.0	71.0	69.4	69.7	70.2	71.0	72.0	74.7	76.3	76.9	76.9	74.1	73.8	74.4	75.5	75.8	75.1	74.8	73.9	73.9	73.7	73.5	73.5	73.2
8	73.2	73.2	73.0	73.0	72.9	73.0	73.6	73.9	74.3	74.7	77.0	77.9	77.5	77.7	78.6	79.0	78.2	76.6	74.6	74.0	72.6	71.0	72.8	72.8	74.8
9	73.4	73.5	73.1	73.8	73.7	74.2	74.8	75.8	76.9	77.4	75.2	75.0	75.0	74.6	75.4	75.7	75.6	74.7	74.3	74.1	74.2	73.9	74.0	74.0	74.7
10	74.0	73.8	73.7	73.9	73.9	74.1	74.1	74.0	73.9	73.8	73.7	73.7	74.1	74.4	74.5	74.8	75.1	75.7	75.4	74.2	73.3	72.9	72.4	71.3	74.0
11	72.0	72.1	73.5	73.6	73.9	74.1	74.4	75.2	75.8	75.9	76.0	76.4	76.6	76.7	76.6	76.8	76.6	76.6	76.6	76.4	76.2	76.4	76.8	76.8	75.4
12	76.8	77.0	76.9	77.3	77.4	77.4	77.8	78.2	78.8	79.2	78.7	78.5	78.6	79.6	79.6	79.1	78.8	77.8	77.1	77.3	76.7	76.8	77.2	77.6	77.9
13	78.2	78.6	78.5	78.2	78.3	78.6	79.0	79.3	80.1	80.5	81.9	82.7	83.3	84.1	83.7	83.7	83.8	83.3	81.9	81.0	81.8	81.9	81.7	80.4	81.0
14	80.4	79.8	79.9	79.9	80.1	80.0	80.5	81.0	81.6	82.1	82.5	83.0	84.0	83.4	82.7	82.2	81.6	81.2	80.8	80.6	80.4	80.3	80.7	80.3	81.2
15	79.8	79.6	79.4	79.0	79.3	79.4	80.0	80.6	80.8	81.3	84.0	85.4	86.7	86.8	87.9	88.1	87.7	84.9	83.8	82.4	81.6	81.0	80.6	80.6	82.5
16	80.6	80.1	80.0	80.0	80.0	80.0	80.1	80.7	81.3	82.4	81.4	81.0	81.9	83.5	84.4	85.3	84.4	83.5	83.0	81.9	81.9	82.2	81.8	81.1	81.8
17	80.3	80.3	80.7	80.4	80.7	80.8	81.3	81.9	82.8	83.0	83.4	84.9	85.2	86.0	86.0	86.8	86.4	84.0	82.0	80.7	80.4	80.3	80		

TEMPERATURE
Readings in degrees absolute at exact hours, Greenwich Mean Time.

186. ESKDALEMUIR: Louvred Hut: h_t (height of thermometer bulb above ground) = 0.9 metres.

MAY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	76.7	76.6	77.2	77.2	77.2	78.0	80.0	82.1	83.9	84.2	84.7	85.0	85.2	86.0	86.8	86.5	84.6	84.0	83.3	81.8	81.9	81.4	81.0	80.9	81.8
2	81.0	81.0	80.7	80.4	80.1	80.0	80.0	81.5	82.8	85.2	85.0	86.4	86.4	86.0	86.2	86.6	86.1	84.9	82.5	79.1	77.7	76.0	74.7	74.1	82.0
3	73.2	76.0	77.1	78.0	77.6	79.0	81.5	82.5	81.7	81.0	82.7	83.7	84.0	84.0	85.0	84.3	84.0	83.4	83.1	82.1	81.6	81.0	80.5	79.8	80.9
4	80.2	80.0	79.7	79.4	78.9	77.9	79.6	81.5	83.3	85.6	87.7	88.7	89.1	89.7	89.3	88.4	86.0	84.3	83.4	81.8	81.2	80.8	78.4	77.9	83.1
5	75.9	74.9	74.0	72.4	74.2	76.3	80.7	81.5	80.6	80.1	80.3	81.6	81.7	82.0	81.3	80.7	80.0	78.5	77.0	76.9	76.9	76.6	76.2	76.8	78.2
6	77.5	76.5	75.6	75.1	75.6	76.9	76.9	76.0	78.3	79.6	80.6	82.0	83.3	82.8	83.0	83.1	81.4	79.4	78.8	78.7	78.4	78.2	79.7	80.0	79.0
7	79.3	78.8	79.3	79.5	79.0	79.0	79.9	81.8	82.9	83.7	82.6	84.0	85.2	85.0	85.9	85.1	83.6	83.9	82.5	80.4	80.6	79.8	79.7	79.7	81.7
8	79.6	79.8	80.3	80.1	80.3	80.4	80.8	80.6	81.1	81.4	81.6	81.6	81.4	81.4	81.8	81.8	81.4	81.2	81.1	81.0	81.0	81.0	81.1	81.1	80.9
9	81.2	81.3	81.4	81.2	80.9	81.6	81.7	82.2	82.9	84.2	85.1	86.3	86.4	86.0	86.4	86.0	85.8	84.9	82.9	82.3	82.0	82.4	82.4	82.4	83.5
10	82.4	82.2	82.2	82.2	82.3	82.5	82.7	83.6	84.6	87.0	88.2	88.7	90.2	90.2	91.5	93.0	92.2	91.0	89.0	88.4	87.7	86.5	85.2	83.3	86.5
11	82.2	84.2	85.2	84.9	84.9	85.3	87.0	87.5	88.3	88.8	91.7	90.7	90.5	91.0	91.7	92.3	91.7	91.7	90.1	87.7	85.8	84.5	83.1	82.3	87.7
12	82.7	82.8	83.4	84.1	83.7	84.7	84.6	84.7	85.2	85.5	84.9	83.9	82.4	82.3	82.6	82.1	82.7	82.0	81.6	81.0	79.2	78.7	78.5	78.4	82.7
13	77.8	77.1	76.1	77.0	77.6	77.8	78.6	79.3	79.8	80.0	79.7	80.1	79.9	81.1	81.5	81.3	79.6	80.0	79.6	79.7	79.7	79.7	79.7	79.1	78.2
14	78.6	78.2	77.4	76.2	76.2	77.1	78.3	79.6	80.0	79.2	81.7	82.1	83.2	81.2	82.8	80.9	78.5	80.2	79.3	78.2	76.7	76.2	75.3	74.6	78.9
15	76.3	75.6	75.7	75.9	75.3	76.0	76.0	76.6	76.9	77.1	77.6	77.5	77.6	77.6	78.4	79.1	79.6	79.8	79.8	78.3	78.0	77.3	76.7	76.9	77.3
16	77.1	76.9	77.1	77.2	76.6	76.1	76.7	76.8	77.1	76.9	77.4	77.9	77.8	78.3	80.1	80.0	76.8	77.7	77.2	75.7	74.9	74.6	74.2	74.6	76.9
17	73.8	74.3	74.7	74.2	74.6	74.8	75.9	77.7	77.8	78.2	78.6	78.9	81.1	81.7	82.8	81.2	81.7	82.2	81.3	79.6	78.0	76.1	76.4	76.9	77.8
18	74.4	74.1	73.8	73.7	73.6	74.2	75.6	77.0	77.9	79.5	79.3	81.3	81.7	82.8	81.2	81.7	82.2	81.3	79.6	78.0	76.1	76.4	76.9	76.7	77.8
19	76.6	76.7	76.5	76.6	76.9	77.7	79.2	79.9	80.0	80.4	81.1	81.7	82.3	83.0	80.9	82.6	83.3	82.7	81.5	80.1	78.7	79.3	80.6	80.1	79.9
20	79.6	79.7	79.6	79.3	79.4	79.4	79.1	79.9	80.5	81.3	81.9	82.1	83.2	83.0	83.0	82.6	81.9	82.0	81.6	81.2	81.1	81.4	81.6	82.1	81.1
21	82.1	82.4	82.6	82.6	83.2	82.8	83.7	85.1	85.8	85.7	87.6	87.0	87.0	87.4	86.9	85.6	85.1	84.3	83.0	82.7	82.2	81.9	81.6	81.4	84.2
22	82.3	81.3	80.9	81.2	81.6	82.0	82.7	84.0	84.9	85.9	86.4	85.5	87.4	87.9	87.1	86.0	85.0	83.8	83.7	81.8	80.6	80.0	76.5	78.3	83.3
23	75.2	75.2	76.0	77.2	79.0	79.0	81.3	82.2	83.1	84.0	84.2	84.7	85.4	88.4	87.0	86.0	85.8	84.8	83.4	81.8	81.2	80.0	79.0	78.4	81.6
24	78.3	77.5	76.7	76.1	78.0	79.5	80.0	82.2	81.8	83.4	82.7	83.4	83.4	85.1	84.6	84.7	84.6	83.0	82.6	81.5	80.3	80.0	79.9	78.6	81.2
25	78.4	78.2	78.2	78.1	78.5	78.7	79.1	80.2	81.6	82.1	82.4	83.3	84.0	85.0	84.6	83.7	82.6	81.8	80.0	78.9	77.5	75.7	75.9	75.4	80.2
26	74.7	75.0	74.4	74.6	74.9	76.1	77.7	78.7	79.3	81.8	82.0	84.5	83.9	85.1	86.2	84.7	84.7	83.0	81.9	81.0	80.3	79.9	79.1	79.3	80.0
27	80.0	80.1	80.1	80.1	80.4	80.7	81.0	82.0	83.0	83.0	83.0	83.0	83.1	85.3	85.3	85.7	85.0	84.4	83.4	82.5	82.1	82.0	81.6	81.6	82.4
28	81.4	81.4	81.8	81.5	81.8	82.2	83.0	83.6	83.7	83.9	85.0	85.6	87.2	88.3	86.1	86.5	85.9	85.5	84.0	83.2	82.9	81.5	81.3	80.7	83.7
29	81.1	79.5	79.1	79.3	79.6	80.7	81.7	82.0	82.8	83.9	85.0	86.1	86.4	86.9	87.2	87.4	87.0	87.0	86.1	84.7	80.9	80.2	81.0	81.5	83.2
30	81.6	82.3	82.3	82.3	82.6	83.3	85.0	87.4	89.2	90.1	90.9	91.2	91.2	92.3	92.3	91.9	91.1	90.6	88.9	85.7	84.6	84.4	82.3	81.4	86.9
31	81.6	81.3	80.3	78.0	80.6	83.6	85.7	87.2	88.3	89.3	90.5	90.9	91.0	91.3	91.5	92.2	91.7	92.1	88.8	87.0	83.1	81.9	80.5	79.3	86.2
Mean	78.8	78.7	78.7	78.5	78.9	79.5	80.5	81.5	82.2	83.0	83.6	84.2	84.6	85.0	85.0	84.9	84.1	83.6	82.5	81.3	80.3	79.8	79.4	79.1	81.6

187. ESKDALEMUIR: Louvred Hut: h_t = 0.9 metres.

JUNE, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	79.1	78.6	78.0	77.2	78.3	81.9	86.1	90.3	92.6	94.1	93.1	95.4	95.9	95.3	94.5	93.4	93.5	92.4	90.2	85.6	82.6	82.2	81.9	81.6	87.2
2	81.3	81.3	81.2	80.9	80.8	80.9	81.1	81.8	82.2	85.2	86.3	87.1	87.9	89.0	88.4	88.7	88.3	87.4	85.1	82.9	81.6	79.1	77.6	78.5	83.6
3	78.1	77.0	75.3	75.9	76.9	81.1	83.0	85.2	87.2	88.5	89.2	89.2	90.0	90.6	90.3	90.2	89.7	88.5	87.4	84.7	83.8	82.5	80.5	79.3	84.3
4	78.8	79.1	79.1	79.1	79.4	79.8	81.0	85.0	86.4	87.6	89.0	90.0	91.5	92.6	92.9	92.8	92.3	88.2	84.8	83.3	82.5	82.2	81.8	81.4	85.0
5	80.9	80.9	80.8	80.8	81.1	81.3	82.0	84.1	86.8	88.4	89.0	90.0	90.7	91.0	89.3	86.8	86.0	84.2	82.8	81.8	81.0	80.7	80.4	80.4	84.2
6	80.1	80.0	79.3	79.1	79.4	81.7	81.8	85.3	87.5	88.2	89.6	89.6	89.4	89.0	89.4	88.3	89.0	87.8	85.9	84.2	82.2	81.0	80.6	80.6	84.5
7	80.9	80.8	80.7	80.8	81.2	81.5	82.0	83.5	85.6	86.2	86.5	86.1	85.6	86.1	86.1	84.6	85.0	84.1	83.3	82.7	82.0	81.7	81.3	80.9	83.3
8	81.1	81.1	81.2	81.1	81.3	82.0	82.5	83.3	83.3	82.6	84.7	86.9	86.7	86.9	87.0	86.4	86.9	85.1	84.2	83.8	82.7	81.5	81.3	80.7	83.7
9	82.0	82.1	81.9	81.5	82.1	83.5	84.9	87.0	86.6	88.3	89.2	90.1	90.8	88.8	89.3	88.2	89.1	90.0	90.0	89.0	86.3	85.0	83.9	83.1	86.3
10	82.8	81.6	81.4	81.3	82.0	83.0	85.1	86.6	90.4	92.0	91.7	93.0	92.9	93.5	92.8	92.4	92.9	91.2	90.6	88.6	86.2	85.3	83.7	82.7	87.7
11	81.7	81.1	80.9	81.5	83.3	85.9	88.1	90.0	91.5	93.0	93.8	95.1	94.9	95.3	93.7	92.6	90.8	89.0	86.6	84.2	82.5	81.5	81.4	81.1	87.5
12	80.7	80.4	80.2	80.0	80.2	80.4	81.1	82.1	83.3	85.4	87.1	88.3	89.9	90.9	91.7	92.2	92.5	91.9	90.6	88.0	84.3	82.1	80.4	80.0	85.2
13	78.6	78.0	77.2	77.0	77.6	79.5	82.9	87.6	88.4	88.0	89.2	88.0	87.9	87.7	87.0	87.1	86.9	87.4	88.3	86.6	86.1	85.7	85.8	85.7	84.6
14	85.3	85.1	85.2	85.1	85.2	85.8	86.6	87.9	89.6	90.3	86.9	87.0	87.1	87.0	87.7	87.6	86.8	86.0	85.3	84.8	84.3	83.8	83.7	83.7	86.2
15	83.6	83.7	83.7	83.9	84.1	84.5	85.1	85.5	86.0	86.6	87.0	87.3	87.4	87.4	87.6	87.3	87.4	87.8	86.9	86.2	85.9	85.7	85.7	85.8	85.9
16	85.6	85.5	85.8	85.8	85.6	85.6	86.3	86.2	86.8	87.7	87.6	88.4	91.0	91.0	91.5	92.1	92.0	90.0	87.3	86.3	85.3	84.2	83.2	82.4	87.3
17	82.0	81.7	81.1	81.1	81.8	83.9	85.7	86																	

188. ESKDALEUIR: Louvred Hut: h_t (height of thermometer bulb above ground) = 0.9 metres.

JULY, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	84.8	84.0	83.2	83.2	84.5	86.2	87.2	90.9	91.9	91.2	93.0	93.4	94.9	94.6	93.6	92.7	91.2	89.2	89.0	88.0	86.2	85.9	85.7	84.9	88.7
2	83.2	82.7	83.2	83.8	83.9	84.3	85.0	85.8	87.9	88.0	88.4	90.1	89.0	91.0	91.1	90.2	91.0	90.3	88.9	86.4	85.6	84.3	83.0	82.0	86.7
3	81.7	81.8	80.0	78.0	80.6	83.0	85.6	87.7	88.9	90.3	91.0	92.4	93.2	93.3	93.4	93.0	93.1	92.5	91.0	88.8	85.3	83.0	80.6	80.0	87.1
4	79.2	78.6	78.5	80.0	81.8	83.9	86.1	88.5	91.4	91.2	91.8	92.6	92.7	93.3	94.8	95.6	95.7	95.4	94.2	90.6	88.2	86.1	83.9	84.0	88.2
5	82.8	82.0	80.4	79.9	80.3	82.8	87.0	90.9	92.0	93.1	94.1	95.0	96.5	96.9	97.2	97.2	97.2	97.0	95.0	90.5	86.7	85.0	83.7	82.8	89.4
6	82.1	81.6	81.6	81.6	82.2	84.3	88.7	91.8	94.6	95.9	95.4	95.1	95.7	95.1	94.4	93.9	93.7	93.2	93.0	90.9	89.6	88.0	87.0	86.0	89.7
7	85.2	84.3	83.9	82.8	83.8	86.0	90.3	93.6	96.1	97.1	98.0	99.0	99.5	00.0	99.4	99.7	98.6	98.0	95.9	91.1	88.3	87.6	87.3	86.7	92.2
8	86.0	85.5	84.9	84.6	84.9	85.0	86.0	88.3	91.0	92.6	94.0	95.3	95.7	96.2	96.4	96.5	95.7	94.9	93.4	91.0	88.8	88.0	86.4	84.4	90.3
9	83.6	83.3	83.0	82.6	83.1	85.3	89.3	92.3	94.7	96.0	97.3	97.9	98.2	99.0	99.4	99.6	99.3	98.6	96.8	93.6	90.5	88.7	87.5	87.0	91.9
10	85.2	84.9	83.9	83.6	83.8	87.6	91.6	95.0	97.2	98.7	99.5	00.3	00.7	00.3	01.2	00.6	00.2	97.4	95.9	94.6	92.6	90.9	89.0	88.2	93.4
11	86.0	87.5	86.8	86.4	86.6	88.7	91.4	95.2	97.2	99.2	00.7	00.2	01.1	01.4	97.8	98.0	98.0	97.0	96.0	93.5	91.1	90.5	89.0	88.4	93.7
12	88.7	89.0	89.1	88.9	88.5	88.6	88.8	88.0	89.5	90.2	91.5	91.7	91.9	91.3	91.2	91.3	90.9	91.0	91.0	90.3	89.6	89.8	89.1	88.6	90.0
13	88.3	88.4	88.3	88.2	88.2	88.3	88.3	88.7	88.7	88.8	87.8	87.7	88.0	88.1	89.1	89.2	88.6	88.6	88.5	88.2	87.9	87.7	87.5	87.3	88.3
14	86.8	86.0	85.4	85.1	85.1	85.0	85.0	85.9	86.6	86.2	90.0	90.9	91.1	91.1	90.5	92.1	91.0	90.0	88.7	86.5	85.0	84.2	83.0	83.6	87.4
15	81.5	80.2	78.4	77.4	79.3	81.7	82.9	84.3	86.5	86.1	86.0	86.3	87.0	86.5	88.0	87.5	87.8	87.9	88.1	87.7	87.5	87.6	87.6	87.6	85.0
16	87.6	87.6	87.4	87.4	87.4	87.6	87.8	88.1	88.7	88.4	88.0	89.4	89.7	89.8	89.4	90.0	89.1	88.7	87.9	87.1	86.6	86.6	86.5	86.3	88.1
17	86.1	86.1	86.2	86.3	86.4	86.7	87.1	87.7	88.5	89.9	89.5	89.2	89.9	90.0	90.4	91.0	92.0	92.0	90.3	88.0	86.0	86.1	86.6	86.9	88.3
18	86.9	87.0	86.8	86.4	86.2	86.3	87.3	89.0	89.9	90.5	90.9	91.3	92.2	89.1	91.5	90.5	89.4	87.8	86.3	85.4	84.8	84.5	84.2	84.2	87.9
19	84.6	84.4	84.6	84.3	84.2	84.6	85.6	87.2	87.0	87.2	87.4	87.8	88.8	89.2	90.7	90.9	90.7	90.0	88.1	86.1	86.0	85.4	85.6	85.5	86.9
20	85.5	85.2	84.8	84.8	85.2	86.3	85.4	85.5	86.6	86.9	88.5	89.2	89.4	89.9	89.9	88.7	89.0	88.5	88.2	88.0	87.6	87.0	86.8	86.1	87.2
21	85.6	85.8	86.0	86.0	85.9	85.8	87.2	90.2	92.2	93.6	93.6	93.6	94.3	95.0	94.3	95.0	95.2	93.4	91.5	89.5	88.0	86.0	85.5	85.4	90.0
22	85.7	85.8	85.5	85.6	85.9	85.8	85.9	86.0	86.2	86.3	86.2	86.4	86.8	87.1	91.0	90.8	91.0	90.0	88.3	85.5	83.8	84.7	84.0	83.5	86.6
23	82.6	81.0	79.0	78.0	79.2	80.1	83.4	85.0	87.1	88.4	87.2	90.0	88.8	88.8	88.1	88.5	88.6	86.5	86.1	84.9	84.6	84.6	84.1	84.2	84.9
24	84.1	84.3	84.5	83.9	84.1	84.5	85.2	86.1	88.0	89.9	88.9	88.8	89.2	90.9	92.1	91.0	91.0	90.4	88.8	87.0	84.3	82.7	83.0	82.3	86.9
25	82.0	83.2	84.3	84.8	85.7	86.5	87.3	88.3	88.0	89.0	89.1	89.9	89.2	89.2	89.5	90.2	88.3	88.6	87.5	87.0	86.5	86.6	86.0	86.0	87.1
26	85.8	86.2	86.8	87.6	88.0	88.1	88.1	88.4	88.2	89.4	88.5	88.4	88.5	88.3	88.4	88.1	86.7	86.2	85.7	85.0	84.4	84.5	84.4	84.3	87.0
27	84.0	84.2	84.2	84.3	83.8	84.2	84.8	85.0	85.5	88.0	87.7	87.6	87.2	85.7	86.3	87.0	86.7	85.3	85.0	84.5	84.6	84.6	84.9	84.6	85.4
28	84.6	84.0	84.4	85.7	86.6	86.7	86.6	86.9	86.9	86.6	86.9	87.3	88.7	90.5	89.4	89.2	88.0	88.6	86.1	85.1	84.6	84.1	83.6	83.8	86.5
29	83.4	83.2	83.2	83.2	83.6	84.0	84.5	85.2	87.0	87.6	87.6	89.2	90.2	90.3	90.3	88.2	88.8	88.8	88.0	87.4	86.7	86.1	86.0	86.0	86.6
30	86.1	86.0	86.1	86.7	87.6	87.6	87.6	87.6	87.8	88.1	88.5	89.6	90.4	90.7	89.3	88.7	88.5	88.7	88.3	87.8	85.8	86.2	86.2	86.5	87.8
31	86.2	86.0	87.1	86.8	86.8	86.9	87.4	88.1	88.0	89.5	89.4	89.7	90.9	90.3	89.0	89.1	88.2	87.9	87.8	87.5	86.5	86.3	86.4	85.8	87.8
Mean	84.8	84.5	84.2	84.1	84.6	85.5	86.9	88.5	89.7	90.5	90.9	91.5	91.9	92.0	92.2	92.1	91.7	91.0	90.0	88.3	86.9	86.2	85.6	85.3	88.3

189. ESKDALEUIR: Louvred Hut: h_t = 0.9 metres.

AUGUST, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	85.1	84.5	83.8	83.4	84.0	85.2	87.4	86.6	88.2	88.2	88.2	90.3	90.0	90.4	89.7	89.7	88.7	88.2	87.9	86.8	86.4	86.5	86.4	86.0	87.1
2	86.0	85.6	85.9	85.6	85.8	86.0	86.9	87.1	89.9	88.7	88.7	90.5	90.6	90.0	89.9	89.9	89.0	86.3	86.7	86.3	86.1	86.0	85.8	85.6	87.5
3	85.4	86.0	86.0	86.0	85.9	85.9	85.3	85.2	85.5	86.0	86.4	87.2	87.0	86.7	86.3	87.1	87.8	86.1	87.8	86.1	85.0	83.8	83.4	83.7	85.8
4	84.0	83.8	83.5	83.5	83.7	83.9	85.0	85.4	87.3	88.5	90.0	89.0	90.3	90.1	90.0	91.0	88.0	87.9	86.8	85.5	83.8	82.8	83.8	83.7	86.3
5	84.2	84.0	84.0	84.2	84.2	84.8	85.3	85.6	86.4	89.0	88.8	90.0	91.1	91.5	91.4	90.9	90.7	90.1	89.2	88.2	87.6	86.6	86.7	86.0	87.5
6	85.7	85.6	85.6	85.2	85.0	85.0	86.3	86.5	88.0	86.0	86.6	87.1	87.5	87.6	87.7	87.4	87.1	86.8	86.6	86.4	86.2	86.1	86.0	85.8	86.3
7	86.1	86.2	86.1	86.1	86.1	86.3	86.7	87.7	88.0	87.7	88.2	90.0	90.2	91.2	92.7	92.0	92.0	91.0	89.3	88.3	87.1	85.8	84.3	84.2	88.1
8	83.4	81.7	81.5	80.9	80.5	82.3	83.5	85.7	89.0	89.5	90.0	89.9	89.8	90.8	91.2	88.1	88.2	87.8	87.6	87.1	87.3	87.6	87.7	87.3	86.5
9	85.7	85.1	83.8	84.0	84.1	84.4	84.5	85.0	85.3	85.7	86.8	87.1	89.8	89.0	87.0	88.5	88.0	88.2	86.8	86.0	85.3	85.3	85.1	84.8	86.1
10	84.6	84.5	84.4	84.6	84.5	84.4	84.6	84.7	84.8	85.1	85.2	86.1	85.9	86.4	86.8	87.3	87.1	86.0	85.1	85.0	85.0	84.8	84.6	84.6	85.3
11	84.2	83.8	83.0	83.2	82.8	82.9	82.8	84.1	85.2	86.8	87.0	87.0	85.3	86.1	86.5	86.4	86.1	85.4	85.2	84.4	84.0	83.5	83.7	83.1	84.7
12	82.9	82.6	82.6	82.8	83.1	83.7	84.3	84.7	84.9	85.7	87.3	86.6	87.3	87.5	89.5	88.8	87.3	86.5	85.8	84.9	84.2	83.7	82.8	83.4	85.1
13	83.9	84.1	83.9	83.2	83.9	84.3	84.3	85.1	86.7	86.4	86.8	89.2	89.8	88.6	89.3	90.0	88.3	87.5	86.1	84.0	84.0	82.0	82.3	82.3	85.7
14	81.8	82.1	82.5	83.1	83.0	83.2	84.1	85.0	86.0	87.5	89.5	89.2	89.4	89.6	88.7	89.5	87.7	87.3	85.8	84.0	82.8	80.9	79.1	79.9	85.2
15	80.4	81.7	81.0	81.1	82.6	83.1	83.6	84.9	85.7	86.1	86.4	87.3	87.2	87.6	87.9	87.4	87.4	87.7	87.8	87.5	87.1	84.6	84.7	83.3	85.1
16	83.5	80.5	82.3	80.0	79.8	82.8	83.2	84.0	85.9	87.8	88.1	89.8	90.0	89.7	88.5	87.1	87.3	86.2	84.7	84.5	83.6	83.5	83.4	81.8	84.9
17	80.6	79.8	78.2	77.3	77.9	79.9	81.8	84.3</																	

TEMPERATURE
Readings in degrees absolute at exact hours, Greenwich Mean Time.

190. ESKDALEMUIR: Louvred Hut: h_t (height of thermometer bulb above ground) = 0.9 metres.

SEPTEMBER, 1934.

Hour G. M. T.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	75.2	75.5	74.6	74.9	75.2	76.1	80.0	83.1	83.4	84.1	85.2	85.9	86.1	86.5	87.3	87.3	86.8	85.3	81.0	79.5	77.5	77.3	76.5	75.6	80.8
2	75.3	74.3	73.9	73.1	72.3	73.1	74.7	78.3	81.3	83.3	87.0	87.1	87.0	86.8	86.6	85.2	85.3	85.0	84.6	83.7	83.3	83.2	82.8	83.2	81.1
3	83.7	84.5	85.3	85.8	84.9	84.3	84.4	86.3	85.9	86.8	87.7	87.5	86.8	86.9	87.7	87.2	86.7	85.8	83.8	82.5	84.7	83.7	85.0	85.1	85.5
4	85.1	84.9	84.7	84.2	83.5	83.3	84.2	85.6	85.0	85.8	87.8	86.9	87.5	88.2	87.2	88.5	86.8	86.9	85.7	85.5	84.7	82.5	81.3	82.0	85.4
5	80.8	80.6	81.9	81.0	80.2	80.8	82.6	84.1	86.4	87.3	87.5	88.8	88.4	90.3	90.6	89.9	88.8	86.3	84.6	81.7	79.7	78.3	78.3	77.4	84.1
6	76.8	75.9	77.5	79.4	79.9	80.2	81.5	82.9	84.6	87.2	87.8	88.3	88.0	87.8	87.9	87.1	86.5	85.6	85.0	84.9	85.0	84.9	85.0	85.0	83.8
7	85.3	84.7	84.9	84.9	85.7	85.9	86.1	86.3	87.1	88.0	88.8	89.7	89.0	89.7	90.1	89.6	89.0	87.7	87.2	86.3	86.3	85.9	86.2	87.1	
8	86.5	86.8	89.0	89.0	88.6	87.3	85.7	86.8	85.9	87.5	88.5	89.0	88.6	88.6	88.3	88.4	88.0	86.1	84.0	83.0	81.9	80.4	80.6	81.3	86.3
9	82.5	82.8	83.1	83.4	83.8	84.2	85.0	85.7	84.7	85.8	86.7	86.8	87.4	89.3	88.9	87.8	86.3	85.5	83.4	80.7	79.8	79.3	77.8	76.5	84.2
10	75.5	75.8	77.0	77.3	79.2	79.9	81.6	82.4	85.0	85.6	85.4	86.6	86.6	87.7	86.9	87.2	87.6	87.1	87.0	86.9	86.9	86.8	85.6	86.0	83.7
11	85.7	85.5	84.9	84.1	82.8	84.8	84.9	86.9	87.8	88.0	87.2	89.1	89.1	89.0	88.5	87.8	87.1	86.5	85.9	85.8	85.7	85.9	85.7	85.6	86.4
12	85.1	85.0	84.0	84.5	84.9	84.8	84.9	84.9	85.6	88.1	88.0	89.0	90.8	90.5	91.4	91.4	91.0	88.0	84.2	82.5	83.0	82.4	81.5	86.3	
13	81.4	81.3	82.2	82.2	81.5	82.1	83.3	86.4	89.3	90.9	91.7	92.0	93.2	93.4	93.5	93.8	93.6	91.1	89.1	87.1	87.5	87.4	87.2	87.0	87.7
14	86.4	86.0	85.3	85.2	85.0	84.7	85.2	87.3	89.8	91.7	92.8	93.3	95.1	95.6	95.4	95.1	93.6	91.6	89.9	88.8	88.1	87.1	87.3	87.2	89.5
15	86.4	85.9	85.3	85.2	85.0	84.7	85.6	86.7	88.2	90.2	92.2	93.8	93.9	94.0	93.3	93.0	91.7	90.8	90.0	88.7	88.2	88.1	88.0	87.2	89.0
16	86.9	87.0	86.7	86.2	85.9	85.8	85.7	86.0	86.4	87.2	88.7	88.6	89.1	89.0	88.1	87.3	86.6	85.8	85.9	85.7	85.6	86.0	85.4	85.1	86.7
17	84.9	85.1	85.6	85.0	84.0	84.2	86.1	86.7	87.2	87.1	85.8	84.1	85.2	84.0	85.7	85.6	85.3	84.4	84.0	84.0	83.6	82.7	81.9	82.3	84.3
18	82.0	82.2	82.2	81.4	82.0	82.2	81.9	83.8	84.6	85.3	86.5	84.8	87.8	87.8	86.9	86.4	86.3	84.7	84.7	84.0	83.7	83.6	83.9	84.0	84.2
19	83.8	83.9	83.9	83.7	83.4	83.4	83.8	83.9	83.6	83.9	84.4	85.1	85.1	85.7	85.3	84.9	84.0	83.6	83.0	82.3	82.1	81.9	82.0	82.2	83.7
20	81.8	81.3	81.2	80.6	79.4	80.3	80.2	83.1	83.5	83.6	83.9	84.0	84.8	85.3	84.2	82.9	83.0	81.6	79.2	80.9	81.1	80.0	79.7	78.7	81.9
21	79.7	80.2	79.3	79.4	78.8	79.0	78.4	81.4	82.8	83.2	83.2	85.7	85.4	84.6	84.1	84.2	83.2	82.6	80.4	79.0	79.7	77.6	77.4	77.1	81.1
22	77.4	77.7	78.2	78.9	79.2	79.7	81.0	80.8	80.6	80.8	81.6	82.7	86.2	86.6	86.1	84.5	84.5	82.3	81.9	78.4	78.9	79.0	79.2	80.1	81.0
23	80.7	81.0	81.6	81.9	82.0	82.1	81.8	82.4	84.1	83.4	85.4	86.2	85.9	85.2	85.4	85.4	83.9	83.0	82.5	81.6	82.0	82.1	82.4	82.7	83.1
24	82.5	82.6	82.6	82.5	82.5	82.3	82.4	82.8	83.4	83.7	82.2	82.1	84.0	84.4	84.1	83.9	83.9	82.4	81.6	81.2	80.3	80.4	78.9	79.4	82.4
25	78.4	80.1	80.3	80.0	79.3	79.3	80.0	81.2	82.7	84.2	84.6	85.4	85.0	85.2	83.9	84.0	83.7	83.3	83.2	83.4	83.1	83.1	83.0	83.2	82.4
26	83.3	83.2	83.4	83.4	82.3	82.1	82.3	82.7	83.7	85.9	87.1	87.7	87.4	87.0	87.1	84.3	83.8	82.8	82.4	82.2	82.7	82.6	82.6	82.6	84.0
27	82.6	82.7	82.4	82.4	82.4	82.1	82.4	83.2	83.5	85.3	84.5	85.4	86.2	85.8	85.6	85.0	84.1	82.9	83.0	82.8	82.5	81.3	82.1	83.6	83.5
28	83.6	83.5	84.2	84.7	85.5	86.4	86.8	87.9	88.1	88.7	88.8	89.7	89.7	89.4	89.1	89.4	89.7	89.4	88.0	86.0	85.6	85.7	85.6	85.2	87.1
29	84.0	84.3	85.2	85.6	86.8	87.8	85.6	83.7	84.0	84.0	83.9	83.7	83.6	83.6	83.6	83.4	82.9	82.7	82.4	82.5	82.0	81.5	81.7	81.2	83.8
30	81.6	81.5	81.6	81.7	82.5	83.9	84.2	84.4	84.8	84.7	85.3	85.5	84.6	86.0	86.4	86.1	86.2	86.4	85.7	85.7	85.5	85.3	85.4	84.9	84.5
Mean	82.2	82.2	82.4	82.4	82.3	82.5	83.1	84.3	85.1	86.0	86.7	87.2	87.6	87.8	87.6	87.2	86.7	85.6	84.4	83.7	83.4	82.9	82.7	82.6	84.5

191. ESKDALEMUIR: Louvred Hut: h_t = 0.9 metres.

OCTOBER, 1934.

Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	84.1	83.0	81.2	80.0	79.2	77.3	76.5	79.2	83.7	84.9	85.2	85.3	86.2	85.9	84.2	84.5	84.0	82.2	81.7	81.7	80.9	80.3	79.9	82.3	
2	80.6	79.8	80.0	80.0	79.8	78.4	79.5	80.0	82.8	83.9	84.8	85.3	85.5	85.5	84.9	84.8	83.7	82.5	82.1	81.3	80.7	80.4	80.1	82.0	
3	80.4	80.2	80.1	80.1	79.2	79.5	79.9	80.7	81.0	81.4	82.2	83.6	83.0	83.1	84.1	83.1	82.5	81.6	80.6	79.0	77.1	76.0	75.7	80.5	
4	75.5	75.6	77.3	78.3	78.8	79.6	80.4	81.0	81.3	81.8	81.1	81.7	82.6	82.4	82.0	81.7	81.6	80.7	80.9	80.8	80.6	80.7	80.6	80.2	
5	80.4	80.2	79.7	80.0	80.1	80.0	80.2	80.7	81.7	82.4	83.0	81.3	81.7	82.0	83.1	81.7	80.8	80.9	80.0	79.7	80.5	81.0	80.5	81.0	
6	80.0	79.5	77.8	76.7	76.1	76.9	77.0	77.9	78.8	81.4	82.1	83.3	82.9	82.4	82.5	81.8	81.8	82.1	82.6	83.4	85.1	86.2	86.3	86.4	81.2
7	86.5	86.4	86.5	86.6	86.6	87.0	87.0	87.1	87.6	87.4	87.5	87.8	87.4	87.2	86.6	86.0	85.4	84.4	83.6	83.0	83.0	83.0	82.4	81.4	85.8
8	80.2	79.7	79.0	78.7	78.4	78.4	77.0	80.0	80.6	82.2	82.1	84.3	82.5	83.0	82.9	82.0	82.0	80.6	79.7	79.2	80.3	80.5	80.9	81.0	80.6
9	80.5	79.0	78.6	77.4	77.4	76.6	76.0	78.3	80.7	81.8	82.5	83.2	82.0	83.7	82.5	83.2	80.9	80.0	79.2	79.2	79.4	79.4	80.1	80.1	80.1
10	81.1	82.6	83.1	83.5	83.6	83.7	83.9	84.6	85.3	85.7	86.8	87.6	87.0	86.8	86.5	86.4	85.5	84.2	83.8	82.9	83.0	82.8	82.3	82.6	84.3
11	82.7	82.8	83.3	83.7	84.4	84.6	84.9	85.1	85.2	85.6	86.8	87.0	87.7	88.2	88.8	88.0	87.4	86.9	86.5	86.2	86.0	85.2	85.5	85.1	85.7
12	85.2	85.2	85.1	85.2	85.4	85.1	84.8	84.6	84.6	84.9	85.2	85.4	85.5	85.6	85.7	85.7	85.4	85.6	85.4	84.7	84.3	83.0	81.7	80.0	84.8
13	80.0	78.2	77.2	76.4	76.0	76.0	75.4	77.5	80.9	83.1	82.8	83.5	83.9	83.6	83.6	82.8	82.1	82.5	82.6	84.6	85.1	85.6	86.2	86.3	81.4
14	86.1	84.9	84.0	83.9	83.0	81.9	81.2	80.8	80.8	81.0	81.9	82.8	83.5	81.0	80.1	80.1	79.8	78.8	78.0	77.9	76.7	76.1	75.4	75.3	80.9
15	75.3	75.1	75.0	74.9	74.3	74.8	75.7	75.6	77.2	77.8	78.1	79.9	81.8	81.0	81.0	80.6	80.1	79.2	79.6	79.0	79.4	79.3	79.0	79.2	78.0
16	78.8	78.0	77.6	77.0	76.4	75.9	76.2	77.2	78.7	79.6	79.3	79.9	80.6	81.0	80.3	79.8	79.4	79.4	80.0	80.0	80.2	80.1	80.2	80.4	79.0
17	80.3	80.2	80.2	80.3	80.1	80.0	80.3	80.8	80.7	81.0	81.7	82.6	80.7	81.0	81.3	81.9	82.4	83.7	84.1	84.1	83.6	83.3	83.0	82.7	81.6
18	82.7	83.2	83.1	83.0	82.6	83.0	83.0	83.4	83.6	83.9	84.4	85.0	86.1	84.8	83.9	83.8	83.3	82.6	82						

TEMPERATURE: ANNUAL MEANS OF HOURLY VALUES.
From readings in degrees absolute at exact hours, Greenwich Mean Time.

194. ESKDALEMUIR: Louvred Hut: $h_t = 0.9$ metres.

1934.

Hour	G.M.T.	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean.
1	2																							
78-92	78-73	78-70	78-62	78-70	79-01	79-53	80-33	81-13	81-33	82-41	82-94	83-21	83-36	83-26	82-95	82-45	81-82	81-14	80-43	79-95	79-59	79-34	79-11	80-73

TEMPERATURE: MONTHLY MEANS AND DIURNAL INEQUALITIES.
The departures from the mean of the day are adjusted for non-cyclic change.†

195. ESKDALEMUIR: Louvred Hut: $h_t = 0.9$ metres.

1934.

Month	Mean	Hour	G.M.T.	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
		1	2																						
Jan.	276-21	0-77	0-76	0-65	0-58	0-54	0-49	0-52	0-43	0-25	0-28	0-86	1-27	1-49	1-47	1-30	0-84	0-29	0-06	0-00	-0-28	-0-44	-0-61	-0-69	-0-84
Feb.	276-93	-1-17	-1-31	-1-41	-1-58	-1-66	-1-47	-1-44	-1-30	-0-64	0-21	1-04	1-94	2-39	2-68	2-63	2-15	1-22	0-54	0-16	-0-21	-0-49	-0-60	-0-70	-0-98
Mar.	275-45	-1-77	-1-98	-2-07	-2-15	-2-13	-2-08	-1-91	-0-94	0-40	1-11	1-80	2-34	2-60	2-81	2-67	2-53	1-94	0-82	0-24	-0-23	-0-62	-0-89	-1-13	-1-35
Apr.	277-85	-1-87	-2-05	-2-13	-2-21	-2-26	-1-96	-1-19	-0-17	0-78	1-36	1-65	2-12	2-47	2-57	2-71	2-62	2-25	1-38	0-15	-0-72	-1-03	-1-27	-1-40	-1-79
May	281-57	-2-73	-2-80	-2-85	-3-03	-2-67	-2-09	-1-05	-0-04	0-67	1-41	2-05	2-61	3-03	3-42	3-46	3-34	2-50	2-00	0-95	-0-30	-1-27	-1-80	-2-25	-2-53
June	285-26	-3-49	-3-73	-4-04	-4-15	-3-61	-2-48	-1-14	0-51	1-68	2-63	2-82	3-40	3-71	3-93	3-68	3-19	3-09	2-29	1-22	-0-16	-1-40	-2-13	-2-73	-3-07
July	288-28	-3-49	-3-75	-4-02	-4-14	-3-65	-2-74	-1-36	0-18	1-39	2-23	2-57	3-18	3-61	3-73	3-87	3-77	3-42	2-75	1-68	0-01	-1-40	-2-07	-2-69	-3-05
Aug.	285-29	-2-32	-2-63	-2-83	-3-12	-3-03	-2-58	-1-67	-0-59	0-70	1-53	2-22	2-90	3-05	3-35	3-38	3-21	2-61	1-80	0-62	-0-28	-0-84	-1-55	-1-83	-2-09
Sept.	284-52	-2-21	-2-19	-2-00	-2-02	-2-12	-1-88	-1-37	-0-20	0-62	1-55	2-17	2-70	3-05	3-26	3-08	2-65	2-08	0-97	-0-17	-0-96	-1-29	-1-72	-1-98	-2-04
Oct.	280-81	-0-63	-0-97	-1-18	-1-30	-1-49	-1-58	-1-59	-0-87	0-09	0-78	1-30	1-74	1-77	1-75	1-37	1-11	0-56	0-21	0-11	-0-01	-0-04	-0-20	-0-41	-0-55
Nov.	277-27	-0-84	-0-93	-0-88	-0-78	-0-95	-0-88	-0-67	-0-12	0-61	1-26	1-65	1-84	1-80	1-57	0-91	0-37	0-07	-0-07	-0-38	-0-46	-0-63	-0-68	-0-88	
Dec.	279-05	-0-35	-0-29	-0-24	-0-25	-0-27	-0-30	-0-29	-0-34	-0-27	0-05	0-36	0-63	0-75	0-75	0-61	0-33	0-21	0-09	-0-07	-0-15	-0-16	-0-22	-0-24	-0-33
Year	280-73	-1-81	-1-95	-2-03	-2-11	-2-03	-1-72	-1-20	-0-40	0-43	1-15	1-68	2-20	2-48	2-62	2-52	2-22	1-71	1-09	0-41	-0-31	-0-79	-1-14	-1-40	-1-63

ABSOLUTE EXTREMES OF TEMPERATURE FOR EACH DAY.
Maximum and Minimum for the interval 0h. to 24h. Greenwich Mean Time.

196. ESKDALEMUIR: Louvred Hut: $h_t = 0.9$ metres.

1934.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	79-1	73-5	77-4	74-2	77-9	84-0	80-5	73-0	87-2	76-0	95-2	77-2
2	79-1	75-5	80-3	73-5	81-4	70-4	78-3	76-2	87-2	74-0	89-0	77-4
3	80-6	77-4	82-0	73-4	79-3	73-0	81-2	69-8	85-5	73-0	90-3	74-2
4	81-0	74-0	80-0	76-5	79-1	74-9	81-4	68-2	90-0	77-3	93-2	78-7
5	78-1	73-7	79-3	73-4	78-8	74-0	78-6	71-5	83-0	72-4	91-5	80-2
6	82-0	75-1	82-8	78-9	77-9	72-5	77-9	69-2	84-1	74-8	90-9	79-0
7	81-0	74-8	81-1	78-9	77-6	72-0	77-8	68-7	86-0	78-6	87-5	80-6
8	77-1	74-0	79-8	73-3	78-5	70-0	79-0	82-0	87-7	80-7	96-7	84-0
9	78-2	74-6	79-6	74-6	78-7	74-8	77-7	71-3	87-0	80-7	91-0	81-3
10	80-2	77-8	81-0	75-8	76-3	73-7	75-8	71-3	93-1	82-1	93-9	80-8
11	79-6	76-2	81-3	76-6	77-3	74-4	76-9	71-0	92-6	82-0	95-4	80-6
12	78-5	74-3	82-0	75-8	75-9	73-7	80-0	76-6	85-6	78-3	93-0	79-2
13	78-4	76-6	82-5	71-2	78-8	68-2	84-6	77-5	82-8	75-8	89-6	76-6
14	77-2	74-6	82-8	71-3	77-0	64-1	84-8	79-6	83-2	74-6	90-4	83-6
15	77-8	73-7	81-1	67-4	76-4	71-5	88-6	79-0	79-9	74-4	87-9	83-5
16	77-2	73-3	79-4	69-8	77-7	73-3	85-3	79-9	81-0	73-7	92-3	82-3
17	82-5	73-6	80-2	69-1	76-5	73-3	87-1	79-8	82-0	72-9	92-2	80-7
18	77-7	75-4	80-4	76-7	79-1	73-0	85-1	78-8	83-2	72-8	92-5	83-4
19	77-0	87-8	80-7	75-2	79-5	73-3	84-7	72-2	83-6	76-4	88-2	83-4
20	76-3	65-1	80-6	76-5	80-3	74-5	82-2	70-0	83-5	78-8	89-7	79-3
21	79-5	76-1	81-6	78-4	82-0	68-6	83-3	75-3	87-9	81-4	88-0	78-0
22	77-7	75-6	83-6	78-7	79-6	68-2	83-3	75-9	88-3	76-5	83-9	79-0
23	79-2	76-4	80-0	75-7	81-2	68-1	81-4	73-9	88-4	74-0	85-9	76-6
24	79-0	68-0	78-9	72-4	84-8	73-7	83-0	74-0	85-8	75-9	86-2	78-6
25	76-6	67-8	80-9	71-0	82-2	70-1	81-6	70-6	85-1	75-1	88-0	81-3
26	79-2	75-9	73-0	67-8	82-3	73-1	81-8	76-2	86-6	74-4	90-5	77-6
27	78-4	67-9	77-0	70-6	82-4	69-1	82-3	76-0	86-1	79-3	88-3	81-6
28	78-6	66-2	78-6	65-2	83-1	67-0	81-6	76-0	88-4	80-7	90-6	81-0
29	75-4	65-4			78-2	70-2	83-2	74-4	87-4	78-3	94-2	77-4
30	80-2	72-4			78-2	71-5	88-0	70-4	92-5	81-1	95-1	84-2
31	77-4	67-9			79-6	70-7			92-8	77-9		
Mean	78-70	72-92	80-28	73-64	79-21	71-28	81-90	73-91	86-19	76-86	90-45	79-93

Note.- The initial 2 or 3 of the readings is omitted, i.e., 275-0 degrees is printed 75-0.

† See page 21

209. ESKDALEUIR: (Louvred Hut) $h_t = 0.9$ metres.

1934.

Hour G. M. T.	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
Relative Humidity	89.1	89.6	89.9	90.1	89.8	89.2	88.1	85.8	83.0	80.0	78.2	76.1	74.7	73.8	74.1	74.9	76.9	79.6	82.3	85.0	86.4	87.6	88.3	88.9	83.4
Vapour Pressure (in Millibars)*	mb. 8.3	mb. 8.2	mb. 8.2	mb. 8.2	mb. 8.2	mb. 8.4	mb. 8.5	mb. 8.8	mb. 9.0	mb. 9.1	mb. 9.2	mb. 9.3	mb. 9.3	mb. 9.3	mb. 9.2	mb. 9.1	mb. 9.0	mb. 8.9	mb. 8.8	mb. 8.6	mb. 8.5	mb. 8.5	mb. 8.4	mb. 8.4	mb. 8.8

* Computed from the mean temperature and the mean relative humidity.

RELATIVE HUMIDITY: MONTHLY MEANS AND DIURNAL INEQUALITIES
The departures for the mean of the day are adjusted for non-cyclic change.†

210. ESKDALEUIR: (Louvred Hut) $h_t = 0.9$ metres.

1934.

Month	Mean	Hour 1	G.M.T. 2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
January	88.0	+1.8	+1.5	+0.9	+1.1	+1.3	+0.4	+1.1	+1.3	+0.9	+0.4	-0.6	-2.0	-3.4	-4.2	-4.3	-2.3	-1.1	-0.7	-0.3	+1.0	+0.9	+1.9	+2.2	+2.1
February	79.5	+4.1	+4.4	+5.2	+4.8	+3.8	+2.5	+3.1	+4.4	+2.9	-0.1	-3.1	-6.7	-8.4	-9.6	-9.7	-7.8	-4.9	-1.5	+0.1	+1.3	+2.7	+4.5	+4.2	+3.8
March	83.6	+4.5	+5.3	+6.4	+7.0	+6.9	+6.6	+6.6	+6.0	+3.0	-1.1	-5.1	-8.0	-9.3	-11.7	-11.0	-11.3	-8.2	-1.8	+0.3	+1.9	+3.3	+3.1	+3.0	+3.7
April	80.9	+7.1	+7.1	+7.9	+7.9	+8.1	+7.5	+7.0	+3.3	-1.1	-6.0	-6.4	-7.9	-10.4	-11.8	-10.8	-11.9	-10.2	-5.5	-0.3	+2.7	+4.9	+5.8	+5.9	+7.1
May	77.6	+9.9	+10.2	+10.8	+11.5	+10.3	+8.8	+5.3	+1.1	-2.0	-3.9	-5.6	-7.6	-10.5	-13.6	-13.8	-13.4	-9.7	-9.1	-4.0	+0.9	+3.6	+5.3	+7.0	+8.3
June	79.3	+11.4	+11.9	+12.7	+13.1	+11.6	+9.5	+5.5	-0.6	-5.7	-9.3	-9.9	-11.3	-13.6	-13.8	-12.9	-11.0	-11.2	-8.4	-4.2	+1.4	+6.6	+8.7	+9.7	+10.5
July	78.6	+10.9	+11.7	+12.1	+12.2	+11.7	+10.8	+7.2	+1.5	-3.5	-8.9	-9.0	-11.0	-12.5	-13.3	-13.6	-13.5	-12.1	-8.7	-4.0	+1.8	+4.9	+5.9	+8.3	+9.3
August	83.2	+7.2	+7.5	+8.5	+8.8	+8.5	+8.5	+6.5	+3.9	+0.1	-4.5	-7.3	-10.6	-10.4	-12.1	-11.8	-12.8	-10.2	-6.6	-0.8	+2.7	+3.7	+6.2	+7.6	+7.7
September	84.8	+6.8	+6.5	+6.9	+7.4	+8.0	+8.9	+7.3	+3.3	-0.3	-4.5	-7.0	-10.1	-11.8	-11.7	-12.1	-11.1	-7.8	-2.9	-0.3	+2.9	+3.4	+5.0	+6.3	+6.7
October	85.0	+2.6	+4.6	+4.2	+4.1	+4.1	+3.7	+3.5	+2.3	-0.2	-3.2	-5.1	-7.0	-8.1	-7.5	-5.2	-4.8	-1.9	+0.5	+0.7	+2.2	+2.4	+2.5	+2.1	+3.7
November	87.8	+1.4	+2.3	+1.9	+2.2	+2.3	+2.6	+2.2	+2.1	+1.3	-0.4	-2.5	-3.1	-4.6	-4.7	-4.4	-1.8	-1.1	-0.8	-0.4	+0.1	+0.7	+1.5	+1.5	+1.6
December	92.0	+1.1	+1.0	+0.8	+0.9	+0.8	+0.4	+0.7	+0.9	+0.5	-0.7	-1.2	-2.1	-2.1	-1.8	-1.8	-1.1	+0.3	+0.4	+0.6	+0.5	-0.1	+0.3	+0.7	+1.3
Year	83.4	+5.7	+6.2	+6.5	+6.7	+6.5	+5.9	+4.7	+2.5	-0.4	-3.4	-5.2	-7.3	-8.7	-9.6	-9.3	-8.6	-6.5	-3.8	-1.1	+1.6	+3.0	+4.2	+4.9	+5.5

† See page 21

RAINFALL: ANNUAL TOTALS OF HOURLY VALUES

† Amounts in millimetres; durations, in hours, for periods of sixty minutes between the exact hours, Greenwich Mean Time.

211. ESKDALEUIR: $h_t = 242.0$ metres + 0.4 metres.

1934.

Hour G. M. T.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	Noon to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	0 to 1	
Amount	67.7	62.6	63.3	72.9	64.2	78.9	76.4	67.0	86.0	59.8	68.5	78.9	90.9	82.9	80.0	61.2	64.8	79.8	80.9	61.1	66.7	56.9	59.7	65.6	1876.7
Duration	49.8	48.9	56.2	62.3	62.1	67.5	66.6	55.9	55.7	45.6	51.4	52.0	53.8	55.1	49.5	43.6	48.6	53.5	45.2	45.7	48.0	46.5	50.1	51.3	1264.9

† The totals and durations for individual months are printed in the tables on the following pages.

NOTES ON RAINFALL

212. ESKDALEUIR:

1934.

Rainfall Duration. There were 123 days on which no duration of rainfall was registered. There were 39 days on which the duration of rainfall was registered as 0.1 hour to 1.0 hour, 34 days with 1.1 to 2.0 hours, 89 days with 2.1 to 6.0 hours, 55 days with 6.1 to 12.0 hours, and 25 days with more than 12 hours. The day with the greatest duration was January 23rd when the duration was 21.6 hours, the amount falling being 12.4 mm.

Notable falls of the Year.

(a) The greatest amount in a 60-minute period was 11.9 mm., which was recorded between 17h. and 18h. August 2nd, on this occasion 5 mm. fell in 7 minutes and 10 mm. in 26 minutes. Falls of 5 mm. in one hour or less occurred on 20 days.

(b) Details of the greatest continuous falls are as follows:-

Date	Amount mm.	Duration hrs.
January 1st - 2nd.	42	21.3
January 3rd - 4th.	44	21.8
January 6th.	36	20.2
January 16th - 17th.	37	15.8
August 2nd - 3rd.	32	9.5
October 25th.	27	7.8

Wet Periods. (a) There were three "rain spells" (i.e., periods of fifteen or more consecutive days on each of which 0.2 mm. or more of rain fell), viz. March 1st - 18th, September 15th - 30th, December 1st - 20th.

(b) There were no "wet spells" (i.e., periods of fifteen or more consecutive days on each of which 1.0 mm. or more of rain fell).

Dry Periods. (a) There were no periods of "absolute drought" (i.e., fifteen or more consecutive days to none of which is credited 0.2 mm. of rain or more) or of "partial drought" (i.e., twenty-nine or more consecutive days, the mean daily rainfall of which does not exceed 0.2 mm.).

(b) There were two "dry spells" (i.e. periods of at least 15 consecutive days to none of which is credited 1 mm. of rain or more) viz., February 9th - 23rd, and May 26th - June 13th.

Rate of Rainfall. (Jardi Recorder)

The highest instantaneous rate of rainfall was 109 mm/hr. at 17h. 35m. on August 2nd. The maximum rate exceeded 50 mm/hr. on May 19th, July 26th. August 2nd, 4th, 21st, 29th, September 4th, 9th, 17th and 18th.

RAINFALL.

Amounts in millimetres, for periods of sixty minutes, between the exact hours, Greenwich Mean Time.

215. ESKDALENUIR: E_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 242.0 metres + 0.4 metres.

JANUARY, 1934.

Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Dura- tion. 0-24	Max. Rate	
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1	...	...	...	...	1.4	1.3	.9	1.0	.4	.9	1.0	.6	1.6	3.1	2.1	1.1	1.4	4.4†	5.6	5.7	3.3	2.6	2.2	.4	41.0	19.6	9	
2	.7	.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.9	1.3	3
3	...	...	...	...	.1	.1	.3	.2	.4	.3	.4	...	.1	.4	...	...	...	.7	.6	1.7	1.8	2.3†	1.7	1.1	12.2	11.4	6	
4	1.1	1.8	2.5	1.1	.9	1.8	3.0	2.9	2.0	2.4	2.3	3.5	3.2	3.0	2.3†	.2	.5	.2	...	...	...	...	...	...	...	34.7	15.7	12
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	.1	1.0	1.1	1.2	2.1	1.0	1.3	1.6	4.0	5.4	2.8†	4.6	1.7	2.3	2.0	1.4	.4	.4	.3	.5	.6	35.8	20.2	12	
7	.2	.2	1.0	.8	.3	.2	.1	...	.5	.9	.8	.8	.3	2.5	4.1†	1.9	1.0	1.0	.7	.5	.4	...	...	...	...	18.2	18.4	18
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.2	.1	.3	.4†	...	...	.2	.5	...	...	...	1.7	2.3	7
9	...	...	...	.1	...	.1	...	...	...	.2	.5	...	.2	.3	...	.3	.5	...	...	...	.8	...	...	.3	3.3	4.9	4	
10	.9	2.5	4.2	2.8	1.4	.7	2.8†	2.4	1.4	.5	.4	.4	.5	2.1	.9	1.7	.7	.4	...	.6	1.3	2.1	.5	.4	31.6	21.0	8	
11	.4	.6	.3	.1	.1	...	.9	.1	.1	.2	1.0	.1	...	.1	...	.4	.6	.5	1.6	1.1	.3	.3	...	2.8†	11.6	13.1	22	
12	3.5†	...	...	2.4	.9	.1	...	...	...	...	...	...	...	...	...	...	...	.2	.5	.6	...	...	...	.3	8.5	5.4	9	
13	.8	.3	...	...	...	...	...	...	.1	...	...	...	.2	...	...	...	...	...	...	.3	...	...	...	.1	1.8	2.9	3	
14	...	.1	.5	.4	.7	.9	1.5	.9	.4	.5	.1	.3	.6	.5	.2	.1	...	...	(.1)	(...)	...	...	...	...	...	7.8	12.9	2
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.3	...	...	...	...	...	.2	.1	...	...	...	0.6	1.7	2
16	...	...	...	.1	...	.1	.2	.2	.4	(...)	(.1)	(...)	.2	...	...	...	...	...	.7	.9	(1.4)	(1.3)	1.1	.7	7.4	8.0	4	
17	(1.4)	(1.5)	(1.7)	(2.8)	1.6	3.2	4.6	5.3	4.7	4.1†	.7	.3	.4	.6	...	...	.1	...	...	...	...	...	...	...	...	33.0	13.4	12
18	...	...	...	...	...	...	...	...	.1	.1	...	.7	.5	.2	.2	.1	.1	.1	...	...	...	...	...	...	...	2.1	4.2	4
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	.5	.3	.1	.2	...	...	...	...	...	...	...	...	...	.1	.1	.7	.8	.6	.3	...	3.7	8.0	1	
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.5	.1	.1	...	.4	.1	.1	.1	.3	1.7	5.0	2	
23	.7	1.0	.4	.4	.5	.8	.2	.3	.3	.5	.3	.9	1.0	.8	1.3	.8	.9	.1	...	.3	.1	.3	.2	.3	12.4	21.6	4	
24	.3	.3	.1	.1	.2	.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.1	5.2	1
25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(.1)	(.6)	(1.2)	.4	.7	...	.9	.4	...	4.3	5.1	...	
26	...	...	...	...	.9†	.5	.6	.3	.9	...	...	...	...	...	...	...	...	.1	1.2	1.8	1.0	...	...	.1	7.4	7.4	6	
27	.2	.3	.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.7	1.6	3
28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	...	...	...	...	.1	.1	.1	...	...	...	...	...	.3	.2	.3	.9	2.1†	.3	...	...	...	...	...	...	...	4.4	7.1	8
31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sum	10.2	8.8	10.9	11.2	10.6	11.4	16.5	15.9	12.7	11.9	9.2	11.6	14.5	16.6	16.5	9.9	11.2	11.8	12.9	15.7	12.1	11.4	7.0	7.4	287.9	237.4		
Total Dura- tion.	hr. 9-1	hr. 9-2	hr. 8-3	hr. 8-6	hr. 13-7	hr. 12-5	hr. 10-7	hr. 10-6	hr. 10-9	hr. 9-1	hr. 7-9	hr. 7-9	hr. 10-9	hr. 11-4	hr. 8-6	hr. 9-3	hr. 10-1	hr. 11-0	hr. 8-4	hr. 11-0	hr. 11-5	hr. 9-8	hr. 7-7	hr. 9-2	hr. 237.4			

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

214. ESKDALEMUIR: $H_r = 242.0$ metres + 0.4 metres.

FEBRUARY, 1934.

[illegible]

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

RAINFALL

Amounts in millimetres, for periods of sixty minutes, between the exact hours, Greenwich Mean Time.

213

215. BSKDALEMUIR: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 242.0 metres + 0.4 metres.

MARCH, 1934.

Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Duration	Max. Rate
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1	4.5	5.1	4
2	16.3	7.0	5
3	3.2	3.3	4
4	5.4	4.1	17
5	4.7	3.0	9
6	5.4	3.4	...
7	0.3	0.6	...
8	2.3	4.3	1
9	2.0	1.6	2
10	4.2	7.6	2
11	2.6	3.9	2
12	19.6	17.2	...
13	2.1	3.1	...
14	4.8	4.6	...
15	4.4	5.7	2
16	7.0	7.9	1
17	7.9	6.8	...
18	3.3	2.8	2
19
20	0.6	1.4	1
21
22	1.4	2.0	...
23	1.8	4.5	1
24	2.6	7.8	1
25
26	6.0	7.9	2
27
28
29	0.3	1.1	1
30
31	0.1	...	...
Sum	3.4	3.4	4.1	4.7	3.0	4.9	4.6	7.5	9.2	4.2	4.2	4.5	7.7	3.5	5.1	4.0	3.9	5.2	7.5	3.9	7.4	3.1	2.3	1.3	113.2	11.9	
Total Duration	hr. 4.0	hr. 4.6	hr. 5.2	hr. 5.8	hr. 4.9	hr. 5.9	hr. 5.9	hr. 5.3	hr. 5.8	hr. 4.2	hr. 4.2	hr. 3.7	hr. 5.2	hr. 4.2	hr. 4.6	hr. 4.2	hr. 3.4	hr. 6.9	hr. 7.4	hr. 6.0	hr. 5.4	hr. 4.5	hr. 2.8	hr. 3.0	hr. 116.9		

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

216. BSKDALEMUIR: H_r = 242.0 metres + 0.4 metres.

APRIL, 1934.

Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1
2	0.6	1.1	1
3	0.2	0.4	2
4	0.1	0.5	...
5	1.0	2.6	2
6	1.6	1.9	...
7	5.9	3.3	...
8
9	3.9	3.5	...
10	15.1	13.6	...
11	7.8	6.8	3
12	27.0	17.7	(3)
13	1.4	1.8	(1)
14	4.6	5.9	(2)
15	3.2	4.0	(5)
16	0.1	...	...
17	8.7	4.1	(6)
18	1.8	2.5	(8)
19	2.6	2.5	(8)
20	9.2	5.6	(4)
21	1.7	1.6	(2)
22	7.3	3.5	(15)
23	11.2	6.6	(2)
24
25	1.0	0.3	(9)
26
27	0.1	...	...
28	0.8	1.6	...
29	0.3	...	...
30	1.6	5.2	1
31
Sum	4.2	2.8	2.2	2.4	2.9	2.1	4.1	4.4	4.7	4.0	2.8	11.2	9.2	6.8	5.7	3.3	7.3	6.8	4.7	6.7	8.9	9.4	6.8	5.6	129.2	96.7	
Total Duration	hr. 4.6	hr. 2.5	hr. 2.8	hr. 3.1	hr. 3.2	hr. 3.6	hr. 5.2	hr. 4.2	hr. 3.9	hr. 3.3	hr. 2.4	hr. 5.2	hr. 3.6	hr. 4.9	hr. 4.0	hr. 2.6	hr. 5.2	hr. 4.3	hr. 3.7	hr. 5.6	hr. 4.4	hr. 4.7	hr. 4.7	hr. 4.8	hr. 96.7		
Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24		

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

RAINFALL.

Amounts in millimetres, for periods of sixty minutes, between the exact hours, Greenwich Mean Time.

221. ESKDALEMUIR: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 242.0 metres + 0.4 metres.

SEPTEMBER, 1934.

Hour O.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Dura- tion 0-24	Max. Rate	
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	9	4	1.0	1	2.6	3.2	4
3	.1	.3	1.9	1.0	.51	.16	2.9†	.8	8.3	4.7	24
4	...	.2	...	1.1	.2	...	.1	.3	.5	.1	...	2.6†	...	...	...	...	...	...	...	...	...	...	...	.4	5.5	3.1	68
5	...	...	...	...	.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.1	0.1	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	.4	.3	3.3	1.5	...	...	.7†	...	...	...	...	...	.5	...	...	...	...	...	...	...	...	...	...	6.7	2.8	27
8	...	...	...	...	...	.5†	...	...	.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.6	0.6	6
9	...	...	.3	2.0	...	...	...	.2	7.4†	2.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.5	3.1	85
10	...	...	...	...	...	...	...	...	.1	...	...	...	...	...	...	.1	...	...	...	...	.1	1.0	1.7†	.5	3.5	3.3	16
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.6†	3.6	0.7	17
16	2.4†	...	...	...	...	...	...	(...)	(.1)	(...)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.5	1.0	38
17	...	...	...	...	...	...	...	...	...	1.1	3.6	...	2.3†	.1	...	...	...	...	...	...	...	...	...	...	7.1	2.5	53
18	...	...	...	...	...	...	...	...	...	...	...	.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	.9	.5	.1	1.4	...	...	1.3	.5	6.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.6	4.4	55
20	(Δ)	(Δ)	(Δ)	(.1)	(Δ)	(Δ)	(Δ)	...	.5	...	3.0	2.7	.8	1.0	1.3†	...	.3	...	...	...	...	...	...	...	12.5	6.7	15
							1	.1	.2	0.6	0.9	2
2121	0.3	0.6	1
22	...	...	...	...	...	2.1	1.3	.5	.8	1.6	2.1	1.8	1.8	.5	.8	...	...	.9†	.3	.7	.1	.5	.2	.1	18.1	11.1	23
232	0.2	0.5	1
24	2.1†	1.7	4.0	2.1	14
25	...	.1	.1	...	...	...	...	...	...	...	...	...	...	...	.1	...	...	...	...	...	...	...	1.8†	.9	2.8	2.9	5
26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	.9	...	...	...	1.4	4.8	3.8	3.0	1.8	1.8†	.4	...	.1	2.0	1.8	1.5	...	.6	...	...	...	...	.2	...	23.9	10.1	13
28	0.5	0.4	5
29	...	1.2	1.4	2.1	.6	1.1	1.4	.1	.6	.5	.4	.1	1.3†	.6	11.4	9.0	9
30	(.1)	(...)	.3	1.0	1.9†	.21	.4	.361	5.0	6.1	8
29	.1	.5	.1	.1	.1	.3	3.0†	1.1	...	.4	2.1	1.7	3.5	3.2	...	2.2	3.9	5.1	7.2	3.2	.4	.2	.2	...	38.6	18.1	38
Sum	4.4	3.2	4.2	11.4	5.0	9.6	12.6	8.3	18.2	6.8	11.2	14.9	6.4	10.0	5.8	4.4	4.2	7.8	10.4	5.7	1.6	2.3	5.0	8.0	181.4	95.9		
Total Dura- tion.	hr. 3.8	hr. 3.7	hr. 4.2	hr. 5.4	hr. 3.5	hr. 4.7	hr. 8.1	hr. 5.9	hr. 5.4	hr. 4.3	hr. 5.5	hr. 5.9	hr. 3.2	hr. 4.5	hr. 3.7	hr. 1.8	hr. 1.0	hr. 2.8	hr. 2.3	hr. 3.7	hr. 2.7	hr. 2.8	hr. 4.4	hr. 4.6	hr. 95.9			

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

222. ESKDALEMUIR: $H_n = 242.0 \text{ metres} + 0.4 \text{ metres.}$

OCTOBER, 1934.

[illegible]

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more).

DURATION OF BRIGHT SUNSHINE

For periods of sixty minutes, between the exact hours of Local Apparent Time.

225. ESKDALEMUIR: h_s (height of recorder above ground) = 1.5 metres.

JANUARY, 1934.

226. ESKDALEMUIR: $h_g = 1.5$ metres.

FEBRUARY, 1934.

* Hoar Frost on Sunshine ball : value estimated. † Ångström Pyrheliometer.

241. ESKDALEMUIR:

 H_a (height of anemograph above M.S.L.) = Height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	360	0.1	---	0.0	180	0.2	180	0.2	---	0.0	180	0.1	180	0.9	180	4.7	210	7.7	200	6.5	210	9.2	220	9.3
2	180	3.0	230	4.9	260	3.5	260	2.0	280	3.1	280	1.8	300	2.5	290	2.9	300	3.9	280	3.2	270	3.9	270	4.1
3	330	0.6	330	1.3	350	2.4	350	2.5	350	2.9	360	2.9	360	2.0	60	2.3	60	2.5	60	3.3	40	2.0	130	3.1
4	360	2.1	360	1.8	360	2.0	360	0.7	360	0.9	350	0.5	350	0.7	10	1.0	20	0.2	90	0.2	130	0.5	180	0.9
5	180	0.2	90	0.1	---	0.0	350	0.1	170	0.1	40	0.1	160	3.5	200	9.5	200	9.0	210	9.5	200	7.8	190	9.9
6	170	5.2	180	5.1	180	3.0	180	2.8	150	2.3	130	3.2	130	7.4	130	9.5	140	10.6	140	12.5	140	12.2	150	10.9
7	170	9.6	180	14.2	180	13.2	200	13.9	210	11.2	220	9.1	230	12.3	250	12.2	270	11.9	280	9.5	270	9.8	280	7.3
8	190	0.8	210	0.2	200	3.0	190	4.7	200	5.1	200	5.3	200	7.1	210	8.8	200	8.6	200	9.3	210	8.9	210	9.7
9	210	1.8	210	1.7	240	1.7	200	2.0	200	3.2	210	3.2	220	4.5	230	4.8	240	5.9	220	5.5	220	5.9	220	6.2
10	190	1.1	200	1.3	170	1.4	170	1.4	190	1.0	210	1.3	220	0.3	200	0.9	230	2.0	170	2.5	250	3.1	240	3.8
11	340	0.1	340	0.2	360	0.2	20	1.3	10	1.3	10	0.6	10	0.1	150	0.5	180	1.8	190	3.0	210	3.6	210	4.4
12	310	0.1	---	0.0	160	0.1	150	0.1	180	0.8	210	1.5	260	1.7	150	1.3	300	3.4	310	3.1	320	4.4	310	5.0
13	300	3.0	320	3.5	300	1.2	260	0.9	240	2.5	240	3.9	230	5.0	230	6.1	230	5.8	230	7.1	240	10.4	230	12.7
14	310	14.0	310	11.5	320	9.5	330	7.9	330	8.5	320	5.7	320	6.5	320	5.9	310	6.8	310	7.0	300	10.2	290	9.9
15	280	2.6	270	0.8	300	2.0	250	1.0	220	1.7	230	2.0	240	3.1	240	3.7	220	5.0	220	6.2	210	7.1	210	9.2
16	210	1.7	260	3.5	240	3.6	260	3.3	300	3.7	350	4.9	350	6.6	350	6.9	350	7.4	350	7.8	350	7.8	350	9.4
17	230	3.5	250	3.8	260	6.4	260	7.6	260	6.9	280	5.0	250	5.6	260	4.8	270	6.0	250	7.3	250	9.3	260	8.4
18	250	5.0	250	3.5	240	3.9	250	4.9	230	2.2	200	0.7	170	0.7	170	0.9	200	3.6	220	4.1	200	4.6	200	3.5
19	280	0.3	210	0.1	300	0.1	350	0.4	130	0.4	180	0.5	160	5.0	160	6.2	160	7.3	170	7.3	180	9.9	200	14.1
20	220	6.3	210	7.5	200	8.2	210	9.5	210	9.9	230	8.4	250	5.0	250	7.5	250	6.4	240	7.9	230	9.5	240	9.4
21	220	7.5	220	6.7	220	8.7	200	5.5	210	4.9	210	6.7	210	6.3	220	7.9	230	11.8	240	12.5	250	13.8	250	15.0
22	210	2.7	190	3.2	180	2.5	200	2.7	220	4.4	210	4.5	220	5.0	230	5.8	250	5.8	270	5.5	270	6.8	280	6.1
23	300	0.6	360	0.5	10	0.2	130	0.2	260	1.6	100	0.7	150	2.2	220	2.5	210	3.3	230	3.0	240	4.0	240	4.5
24	300	8.1	330	3.5	290	0.8	270	1.2	30	1.9	310	6.0	310	5.5	310	8.4	310	5.9	300	5.1	290	3.9	290	3.1
25	280	1.0	270	0.3	---	0.0	220	0.3	---	0.0	---	0.0	270	0.5	90	0.5	50	0.8	40	1.8	40	3.1	40	4.0
26	10	1.0	10	0.8	360	0.2	60	0.2	150	0.1	---	0.0	140	0.1	190	0.7	230	2.0	220	2.8	240	5.2	230	3.6
27	290	2.9	210	4.9	190	3.0	180	2.5	270	6.6	280	7.9	240	3.2	210	2.8	270	6.9	250	3.6	240	3.9	260	5.0
28	290	5.6	290	5.0	300	6.0	290	8.1	280	7.2	270	6.6	290	8.3	300	11.3	290	6.7	290	6.5	290	4.5	290	4.3
29	360	1.4	310	1.8	320	0.7	240	0.3	140	0.4	160	0.5	280	1.1	280	1.2	280	0.7	270	1.5	280	2.8	210	1.8
30	350	2.0	360	2.1	360	1.5	360	1.7	360	1.7	350	1.7	360	1.0	130	0.1	150	1.8	160	3.6	160	3.7	170	4.1
31	300	0.2	200	0.1	310	0.3	330	0.6	350	0.6	360	2.2	40	0.9	90	2.2	110	1.5	150	2.7	130	2.7	150	4.0
Mean	---	3.0	---	3.0	---	2.9	---	2.9	---	3.1	---	3.1	---	3.7	---	4.6	---	5.3	---	5.5	---	6.3	---	6.7

242. ESKDALEMUIR: H_a = 235 metres + 15 metres.

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	---	0.0	360	0.1	---	0.0	360	0.1	---	0.0	---	0.0	---	0.0	130	0.1	90	1.0	40	2.2	30	2.0	40	2.3
2	20	3.5	20	4.4	20	3.5	10	4.8	20	4.3	20	5.0	30	4.8	30	5.0	20	5.0	30	5.2	50	5.0	50	5.4
3	10	1.8	20	1.5	360	0.7	40	0.5	330	0.5	250	0.1	30	2.6	30	3.0	30	3.2	40	4.7	50	4.1	50	5.1
4	20	3.2	30	1.9	360	1.5	360	1.5	360	1.2	360	1.7	10	2.0	50	2.2	60	4.0	70	3.8	70	2.6	70	2.5
5	30	5.1	30	4.0	20	4.6	30	4.0	30	3.9	30	2.8	30	3.7	40	5.0	40	4.5	30	4.7	40	4.3	40	4.3
6	30	5.5	40	5.6	40	4.5	40	4.7	40	5.4	30	4.4	20	4.5	30	3.8	30	4.2	30	6.1	30	7.6	30	7.5
7	10	2.3	20	2.5	20	2.3	20	4.0	20	3.7	20	3.7	40	4.2	50	4.3	50	4.6	50	5.6	60	6.3	60	5.6
8	40	3.1	40	1.7	30	2.5	40	3.2	40	3.7	50	4.1	60	5.0	70	4.9	80	4.2	70	4.5	50	3.4	70	3.0
9	30	2.1	50	3.1	50	3.4	40	3.5	30	2.4	40	2.1	50	3.5	50	3.7	70	2.5	50	2.9	60	2.8	80	4.4
10	360	1.6	360	0.4	350	0.5	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	160	0.3	130	0.7	220	1.4	230	2.3
11	350	0.1	---	0.0	---	0.0	---	0.0	360	0.6	360	2.1	60	1.0	80	0.9	110	1.5	70	2.2	70	2.7	60	3.4
12	30	3.6	30	3.8	30	3.7	40	3.8	30	3.6	40	4.2	50	3.2	60	3.0	50	2.9	60	2.8	70	1.9	50	1.7
13	350	0.5	360	0.1	---	0.0	---	0.0	---	0.0	---	0.0	150	0.1	180	1.5	220	3.7	240	5.1	230	4.8	230	6.0
14	190	2.1	160	1.5	190	0.7	100	0.7	220	0.7	220	0.1	110	0.3	160	1.3	170	1.8	170	1.7	60	5.8	60	5.2
15	360	1.0	10	0.3	340	0.2	---	0.0	---	0.0	180	0.2	170	0.9	170	2.4	170	2.5	180	2.6	190	3.5	200	3.7
16	170	1.0	180	1.0	210	1.1	210	3.7	200	3.2	210	3.5	200	4.4	190	5.1	210	4.6	210	6.3	230	5.3	230	6.3
17	340	0.1	---	0.0	---	0.0	---	0.0	210	0.1	180	0.1	180	1.7	200	3.2	210	4.4	220	5.5	220	6.2	230	5.9
18	140	0.3	120	0.2	---	0.0	---	0.0	180	0.3	200	1.1	180	1.1	200	2.9	210	3.9	200	5.4	200	7.0	210	6.9
19	210	7.2	200	6.7	200	7.8	200	7.4	210	6.1	210	5.9	220	4.6	230	4.3	230	3.5	280	4.5	300	7.3	300	7.9
20	280	5.0	280	6.1	280	7.8	300	7.3	310	7.2	310	8.5	320	6.5	330	5.1	330	5.2	320	5.3	310	5.4	300	8.0
21	220	1.5	150	1.3	150	1.3	190	1.4	210	1.2	200	1.0	230	4.5	230	5.5	230	6.3	230	7.2	230	7.1	230	5.9
22	60	5.7	50	5.1	60	5.4	60	5.5	50	5.1	60	5.5	50	5.5	40	5.4	40	6.0	40	5.6	30	6.0	20	7.3
23	320	0.2	290	0.1	10	0.9	350	1.5	350	3.5	20	3.2	60	6.0	60	6.4	70	5.4	70	4.7	80	3.9	80	4.4
24	60	2.6	50	2.9	40	1.0	30	1.9	50	2.0	50	3.0	50	3.1	60	3.1	80	4.9	80	5.9	70	6.0	80	6.7
25	50	1.5	40	1.5	40	2.3	30	2.9	40	3.4	30	2.0	30	1.8	10	2.1	30	2.4	30	2.8	30	2.7	40	2.8
26	330	0.7	340	0.2	140	0.2	360	0.1	350	0.1	---	0.0	---	0.0	30	0.1	180	1.2	200	4.7	210	7.0	220	7.1
27	240	0.4	150	0.5	110	0.1	10	0.1	---	0.0	---	0.0	---	0.0	220	3.9	220	5.1	230	6.3	230	7.0	230	6.5
28	340	0.2	20	0.1	360	0.1	---	0.0	230	0.1	150	0.1	320	0.9	10	3.7	20	3.7	30	3.7	30	3.5	30	3.4
29	10	0.6	20	0.6	180	0.1	190	0.1	---	0.0	---	0.0	330	0.1	80	0.1	140	0.9	180	2.3	210	1.8	190	0.9
30	300	1.0	310	2.1	70	0.2	220	0.1	210	0.4	180	0.6	170	0.3	160	1.4	120	0.8	220	1.4	320	5.0	320	4.9
Mean	---	2.1	---	2.0	---	1.9	---	2.1	---	2.1	---	2.2	---	2.5	---	3.1	---	3.5	---	4.2	---	4.7	---	4.9
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

M.S.L. + h_a (height of anemograph above ground) = 235 metres + 15 metres.

MAY, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
210	8.5	200	8.9	210	10.1	210	9.9	210	8.4	200	5.1	200	4.1	210	3.5	210	3.5	180	3.0	170	2.7	180	2.7	4.6	1
270	4.2	290	4.8	280	4.4	270	3.1	290	3.0	300	3.5	300	3.2	330	1.2	30	0.2	330	0.3	340	0.1	340	0.1	2.8	2
140	6.0	150	4.5	150	3.5	140	3.1	140	2.6	130	3.0	110	1.3	30	0.7	10	0.8	10	1.5	360	1.4	360	2.3	2.4	3
120	1.2	160	0.8	180	3.1	210	4.1	210	5.5	190	4.5	190	2.5	180	2.0	190	2.6	190	2.5	200	2.3	210	1.2	1.8	4
200	11.3	200	12.4	210	13.2	200	13.5	210	13.2	210	11.7	210	11.5	220	7.5	230	8.5	210	5.1	190	2.5	180	2.5	6.8	5
160	9.1	150	9.3	160	7.8	160	9.3	170	9.9	200	12.2	180	12.4	180	9.5	170	8.8	160	9.2	170	11.1	180	12.7	8.6	6
270	7.9	270	7.4	270	6.9	270	6.0	270	5.3	260	4.0	240	4.3	220	4.5	230	3.2	190	1.7	200	0.1	190	1.0	7.8	7
210	9.3	210	9.1	210	9.2	200	8.2	200	7.5	200	6.7	210	5.3	190	4.6	210	5.5	200	3.1	200	2.5	180	1.5	6.0	8
210	6.9	220	6.7	220	7.5	230	7.3	230	7.3	240	7.6	220	6.6	210	3.4	200	4.5	190	2.0	180	1.5	170	1.6	4.6	9
240	3.9	250	4.1	250	3.2	250	3.2	270	3.5	300	3.4	320	3.3	340	0.8	170	0.1	10	0.3	30	0.2	340	0.1	1.9	10
230	4.7	220	3.9	230	4.0	240	4.1	230	4.5	230	5.1	230	4.3	190	1.2	200	1.5	180	0.5	---	0.0	320	0.1	2.1	11
10	3.8	60	5.0	60	4.5	50	4.2	50	2.8	60	2.3	50	0.9	320	0.4	300	4.8	310	8.2	310	7.0	310	6.0	3.0	12
240	12.9	230	12.2	270	9.9	270	9.8	280	10.5	280	9.7	280	9.8	270	11.0	280	11.2	280	10.6	290	12.0	300	13.2	8.1	13
290	13.7	300	12.8	320	12.3	310	11.3	320	11.4	320	9.2	330	8.5	320	7.3	310	4.8	300	4.9	290	3.0	320	5.7	8.7	14
210	10.2	200	9.8	190	8.8	200	9.5	210	8.0	200	7.2	210	6.2	270	2.5	300	0.9	280	1.6	270	2.1	240	1.7	4.7	15
340	9.9	340	9.1	330	4.8	310	4.5	300	6.0	310	4.8	310	6.0	310	7.1	310	6.0	310	7.9	290	7.1	260	3.3	6.0	16
260	8.0	250	8.3	230	9.0	230	10.3	250	7.5	230	5.7	210	5.3	270	4.4	250	6.6	250	5.0	250	5.3	240	5.4	6.5	17
190	3.7	200	4.1	220	6.3	210	6.0	220	6.5	210	6.0														

JUNE, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
50	2.4	80	3.0	70	3.9	70	3.5	60	4.7	70	4.5	60	3.9	40	2.8	40	3.0	40	4.5	40	5.6	30	6.3	2.3	1										
70	5.0	70	4.9	70	4.9	70	5.0	60	4.9	60	5.5	60	6.0	40	3.6	20	4.0	70	1.6	360	1.0	20	1.3	4.3	2										
60	4.2	60	4.0	70	4.4	70	4.8	70	4.1	60	4.5	60	4.3	40	3.8	10	3.1	20	4.5	20	4.4	20	3.9	3.2	3										
60	2.4	50	3.0	50	3.2	30	4.0	20	5.0	50	6.6	60	5.6	50	4.8	30	4.1	30	4.7	20	4.9	20	5.2	3.4	4										
30	5.1	40	5.4	50	5.2	60	6.3	40	5.4	50	7.4	30	5.5	40	6.2	40	6.9	50	5.9	40	5.5	30	6.9	5.1	5										
30	8.0	30	7.7	30	8.1	30	8.0	30	7.4	40	7.2	40	6.2	50	3.5	30	2.5	20	1.5	30	2.7	20	2.9	5.4	6										
50	5.5	40	5.0	50	5.6	40	5.8	50	6.7	40	6.5	30	6.0	30	4.8	30	5.1	30	4.1	50	4.9	50	4.0	4.7	7										
60	4.5	60	4.1	90	3.1	80	4.2	130	3.3	140	3.2	110	2.0	40	1.0	20	1.3	20	0.5	40	0.8	20	1.1	3.0	8										
100	2.6	90	3.1	60	3.3	50	1.8	350	0.6	310	0.5	---	0.0	120	0.1	100	0.1	290	0.3	350	0.5	360	0.6	2.1	9										
270	1.2	270	1.2	340	1.2	30	1.4	20	0.4	20	0.5	50	1.0	10	0.4	330	0.9	340	1.1	350	0.3	---	0.0	0.7	10										
70	4.1	60	4.6	60	6.3	60	7.5	50	7.3	50	7.4	50	5.4	40	3.5	30	2.8	20	3.2	40	3.5	30	3.5	3.1	11										
100	1.1	90	0.9	70	0.9	140	1.0	150	0.5	110	0.7	140	2.0	100	1.3	20	1.6	350	1.5	360	0.9	350	0.9	2.1	12										
240	5.1	230	5.0	230	4.9	230	4.5	230	5.1	230	4.9	220	3.5	210	3.0	210	2.5	190	2.5	190	2.1	200	2.2	2.8	13										
40	4.6	50	4.8	50	4.5	50	3.5	50	3.3	50	3.1	50	4.0	40	3.0	30	1.9	350	1.6	350	2.4	360	1.7	2.5	14										
210	4.6	210	4.9	200	4.2	210	3.7	210	4.5	210	4.1	200	4.2	190	3.3	180	1.5	180	1.2	200	0.9	170	0.4	2.3	15										
220	6.5	200	8.0	200	7.6	210	5.5	200	4.9	210	5.9	190	4.9	160	1.9	130	0.6	200	0.1	---	0.0	---	0.0	3.9	16										
230	6.9	230	7.2	230	6.6	210	7.1	210	6.8	230	6.7	230	5.7	230	5.1	230	4.9	240	2.5	180	0.2	140	0.2	3.7	17										
210	7.1	220	7.2	230	7.1	230	6.9	230	6.1	220	6.9	210	4.9	210	3.6	190	2.6	210	6.2	200	6.6	210	6.0	4.3	18										
300	8.8	300	10.0	290	8.4	280	5.7	280	5.9	270	4.8	270	3.5	270	4.6	270	2.6	260	3.1	260	4.3	260													

Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

243. ESKDALEMUIR:

 H_a (height of anemograph above M.S.L.) = Height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	340	0.4	---	0.0	340	0.1	---	0.0	---	0.0	---	0.0	---	0.0	110	0.2	270	1.1	270	3.2	280	2.4	260	2.1
2	310	1.9	320	3.9	300	2.9	300	1.7	260	1.3	250	1.9	260	1.8	280	3.3	280	4.1	290	4.9	290	3.4	290	4.8
3	200	1.4	60	1.0	360	0.5	180	0.2	280	0.1	30	0.1	130	0.1	130	0.2	130	1.0	140	1.0	130	1.2	150	1.6
4	110	0.2	10	0.1	---	0.0	360	0.1	---	0.0	---	0.0	140	0.1	130	0.1	160	0.4	270	0.5	30	0.1	150	0.2
5	---	0.0	340	0.1	330	0.1	---	0.0	---	0.0	---	0.0	---	0.0	140	0.8	200	2.2	220	3.0	220	3.1	240	3.2
6	350	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	160	0.1	150	1.4	210	2.3	240	1.8
7	---	0.0	---	0.0	330	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	160	0.3	230	2.9	240	3.0	240	2.4
8	10	6.1	10	7.5	360	7.4	360	6.3	360	5.6	350	4.9	360	4.5	360	4.1	30	4.0	60	4.5	60	2.7	80	2.5
9	360	1.0	350	0.4	360	0.7	350	0.5	350	0.1	---	0.0	---	0.0	140	0.1	140	0.1	170	1.0	170	1.4	180	1.5
10	350	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	130	0.1	110	0.2	140	0.7	160	1.0
11	360	0.2	350	0.7	350	0.4	350	0.8	350	0.2	350	0.5	---	0.0	---	0.0	---	0.0	130	0.1	60	1.7	90	2.2
12	360	2.8	360	3.4	360	3.0	10	3.4	360	3.4	360	1.5	40	0.1	20	1.3	10	1.7	10	0.7	40	0.6	50	1.5
13	170	0.2	160	0.1	190	0.3	210	1.0	230	0.5	180	0.1	170	0.1	180	0.1	160	0.1	140	0.1	50	3.4	50	3.2
14	350	0.6	330	2.5	320	3.5	320	4.0	340	2.9	330	3.5	320	4.1	340	1.6	260	0.3	330	0.9	10	1.1	320	2.6
15	260	0.2	150	0.4	170	0.2	---	0.0	---	0.0	---	0.0	---	0.0	150	0.4	170	3.0	190	5.0	200	6.2	200	7.2
16	190	2.9	200	3.1	190	3.5	200	3.1	210	4.2	200	3.3	200	4.3	200	5.0	210	6.5	210	6.6	200	6.7	210	7.0
17	190	5.0	180	4.7	190	5.5	200	6.2	200	5.5	200	4.9	210	6.2	210	6.7	200	7.3	200	8.1	210	9.0	210	8.4
18	30	0.4	100	0.2	340	0.5	360	0.5	10	0.6	10	1.3	10	0.7	10	0.1	140	0.1	190	0.1	180	2.7	200	3.3
19	260	4.9	270	4.4	290	4.0	280	4.5	290	6.2	290	6.1	290	4.3	290	6.3	290	7.3	300	6.0	290	6.0	290	5.8
20	200	0.2	180	0.2	190	1.5	190	0.6	180	1.6	160	0.1	170	1.6	160	3.2	160	3.0	160	2.7	150	2.3	170	2.7
21	360	2.1	360	1.9	360	2.5	350	3.2	360	2.8	20	1.4	360	2.6	30	1.7	80	1.9	130	2.5	150	3.3	140	2.9
22	---	0.0	---	0.0	---	0.0	---	0.0	340	0.1	---	0.0	---	0.0	190	0.4	190	0.9	190	1.5	210	1.1	190	1.2
23	290	0.3	20	0.2	360	0.1	360	0.1	360	0.1	---	0.0	---	0.0	270	0.2	310	3.2	300	3.4	290	2.2	260	3.0
24	290	2.2	290	2.3	280	1.0	290	0.8	290	2.9	310	4.7	50	0.5	60	0.1	50	0.2	30	2.5	10	2.2	30	1.4
25	130	0.1	190	0.6	190	1.9	210	2.6	210	3.8	230	5.0	240	4.2	260	4.7	250	4.7	260	3.5	260	4.1	280	5.3
26	220	5.5	220	7.1	220	7.0	240	6.0	250	7.8	260	7.6	260	7.5	260	7.9	270	7.2	270	8.0	270	7.8	270	7.2
27	270	6.5	270	6.9	250	5.6	260	5.5	270	6.8	280	6.7	280	6.4	290	7.5	300	8.1	280	8.3	290	8.0	290	7.5
28	250	6.0	250	6.4	220	5.3	230	5.9	250	6.5	260	6.5	270	7.2	270	9.4	270	9.0	270	7.7	270	8.2	270	7.5
29	210	2.6	230	2.1	200	2.5	170	1.9	190	1.4	210	1.6	230	2.2	240	3.2	230	3.5	240	5.8	250	4.9	260	4.5
30	---	0.0	160	0.9	180	1.9	190	2.3	220	5.8	230	6.3	210	7.2	200	5.5	210	7.0	200	7.7	210	8.9	210	10.1
31	310	0.1	160	0.1	190	1.4	180	1.7	170	2.2	170	2.0	170	2.6	180	5.5	200	5.4	200	8.7	210	8.5	210	8.9
Mean	---	1.7	---	2.0	---	2.0	---	2.0	---	2.3	---	2.3	---	2.2	---	2.7	---	3.1	---	3.6	---	3.9	---	4.0

244. ESKDALEMUIR: H_a = 235 metres + 15 metres.

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	230	3.8	210	1.8	220	1.4	210	1.6	200	1.0	160	1.0	200	2.0	200	3.2	200	3.9	200	5.7	200	5.2	200	5.1
2	80	5.6	90	6.8	90	5.0	90	7.1	90	5.0	80	5.5	90	5.2	90	4.9	90	4.2	70	4.2	50	4.5	60	3.9
3	---	0.0	290	0.1	280	4.0	270	3.9	270	4.3	280	4.9	270	4.4	270	5.1	270	5.3	260	5.2	250	6.1	250	6.6
4	190	1.3	200	2.1	190	2.0	210	1.2	180	1.8	180	1.5	180	3.4	180	5.0	180	5.0	210	8.5	210	8.2	210	7.8
5	150	0.2	150	0.5	160	0.1	180	0.6	190	0.2	---	0.0	190	1.2	170	1.1	170	0.8	160	1.6	190	4.0	190	4.6
6	20	0.1	350	0.1	360	0.4	10	0.2	60	0.4	50	3.8	50	5.0	50	3.6	50	3.5	50	2.3	50	4.0	70	4.9
7	70	4.5	60	3.7	60	3.7	50	3.3	40	3.0	30	2.5	40	3.0	50	3.7	50	3.4	60	3.5	50	2.5	60	4.6
8	360	1.7	360	0.7	350	1.2	360	1.0	350	1.5	350	0.3	---	0.0	---	0.0	130	0.1	180	0.7	210	2.7	220	2.6
9	270	2.7	260	1.5	240	2.4	230	4.1	220	4.0	230	4.9	220	6.3	230	6.7	220	6.9	230	7.0	240	6.8	250	7.3
10	220	5.0	210	3.0	210	4.1	220	5.0	210	4.3	210	4.4	220	4.3	220	4.0	180	2.1	150	1.6	80	0.8	10	0.7
11	280	4.2	280	6.4	280	8.9	270	5.1	210	3.0	180	2.8	200	4.4	220	4.1	220	3.3	270	4.8	270	5.1	260	5.4
12	210	4.2	190	3.7	210	4.9	210	4.0	250	5.0	260	4.1	270	5.2	260	4.1	240	4.0	270	3.8	280	5.0	290	4.8
13	300	4.2	280	3.3	240	2.2	290	1.4	310	2.0	310	4.4	320	7.2	320	7.6	320	6.1	340	6.4	330	5.0	330	5.5
14	30	0.7	360	0.5	330	1.3	360	2.5	360	1.6	---	0.0	170	0.5	180	0.7	180	0.8	180	1.6	220	1.1	240	2.7
15	300	0.1	210	0.9	180	1.8	170	0.7	220	1.6	190	2.1	190	2.0	200	4.1	210	5.7	210	7.5	210	7.6	220	8.2
16	290	2.7	290	2.0	270	2.5	250	1.3	280	0.7	270	0.7	240	2.6	240	2.8	270	3.4	280	4.9	260	5.2	270	5.0
17	160	0.4	150	0.6	160	0.6	290	0.1	240	0.1	230	0.1	160	0.3	190	1.7	260	1.9	270	2.5	270	2.6	260	3.1
18	---	0.0	---	0.0	---	0.0	320	0.1	320	0.1	---	0.0	---	0.0	170	0.4	200	1.5	230	3.0	220	4.0	220	4.9
19	220	5.8	270	5.5	290	4.3	290	2.0	230	0.8	200	1.3	210	2.6	250	5.8	240	6.1	240	6.8	240	6.5	250	5.8
20	190	1.9	190	1.9	170	3.0	160	1.8	160	2.7	140	4.5	130	5.3	130	5.3	140	6.1	120	6.5	120	5.5	150	1.4
21	230	7.9	240	7.9	230	8.0	220	8.1	210	7.3	220	9.4	220	11.6	210	10.7	210	13.1	200	14.6	210	16.8	210	15.5
22	240	4.1	230	5.9	240	8.4	240	5.3	240	6.1	240	4.2	230	4.8	230	5.5	220	6.3	220	7.8	210	6.4	200	8.3
23	180	1.7	170	1.8	200	1.6	230	2.4	240	2.0	220	1.0	220	1.9	250	5.2	240	5.3	250	5.0	250	4.7	260	5.6
24	320	0.4	330	1.7	300	1.2	290	1.3	150	0.5	270	0.5	280	1.3	310	2.8	310	4.8	320	4.8	310	5.5	310	4.5
25	---	0.0	---	0.0	350	0.1	---	0.0	330	0.1	---	0.0	20	0.1	---	0.0	140	0.5	210	3.4	230	4.7	230	5.0
26	---	0.0	340	0.1	320	0.7	310	0.7	330	1.1	330	0.1	---	0.0	---	0.0	140	0.1	170	2.0	210	3.6	200	3.8
27	220	0.4	260	0.4	200	0.4	170	1.9	190	1.5	170	2.6	160	3.5	150	4.2	150	5.6	150	7.9	160	7.0	160	6.7
28	200	0.3	180	0.2	190	3.9	170	4.5	170	6.3	160	4.9	170	4.4	170	4.7	160	5.0	160	5.0	150	5.9	160	7.0
29	190	0.1	200	0.6	200	0.2	260	0.7	250	0.2	---	0.0	---	0.0	260	0.5	280	1.4	290	3.7	290	3.7	280	4.1
30	230	5.6	240	5.6	230	4.6	230	4.3	240	4.4	240	5.5	240	5.6	240	6.1	230	5.4	220	6.0	220	5.5	230	6.1
31	340	0.1	360	0.1	---	0.0	310	0.1	10	0.1	---	0.0	---	0.0	160	0.3	160	2.0	220	3.6	200	4.1	200	3.6
Mean	---	2.2	---	2.2	---	2.7	---	2.5	---	2.3	---	2.5	---	3.2	---	3.7	---	4.0	---	4.9	---	5.2	---	5.3
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

WIND: DIRECTION AND SPEED

Averages for periods of sixty minutes, ending at the exact hours, Greenwich Mean Time.

M.S.L. + h_a (height of anemograph above ground) = 235 metres + 15 metres.

JULY, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
220	2.3	230	3.0	230	5.0	250	4.5	290	6.0	290	5.2	290	2.0	280	2.4	280	3.6	280	4.6	290	4.0	280	3.0	2.3	1
300	5.0	320	2.9	320	3.9	320	3.5	310	3.7	300	4.2	300	4.7	300	4.7	300	3.3	360	0.7	260	1.2	70	0.2	3.1	2
210	2.4	220	3.3	210	4.0	220	4.3	200	4.7	210	5.2	210	4.6	220	3.5	290	1.2	360	0.2	340	1.0	330	0.5	1.8	3
200	1.7	200	1.8	190	1.2	200	2.7	190	1.9	220	2.2	210	2.8	230	1.7	80	0.4	---	0.0	350	0.2	340	0.1	0.8	4
230	2.8	230	3.7	240	3.8	240	3.0	240	2.8	220	1.3	230	1.1	260	0.4	330	1.4	340	0.2	350	0.1	---	0.0	1.4	5
210	1.6	200	2.5	220	1.9	230	0.1	310	0.1	320	0.1	350	0.1	---	0.0	330	0.3	340	0.1	350	0.1	---	0.0	0.5	6
240	2.6	260	2.0	240	2.4	260	2.4	320	3.0	310	2.0	340	0.8	30	2.0	350	3.6	360	5.4	10	8.3	10	5.1	1.9	7
120	1.5	110	1.6	100	1.4	90	1.6	80	2.4	60	3.1	50	2.4	40	0.9	360	2.4	360	3.3	360	0.2	350	0.2	3.4	8
170	1.0	180	0.7	210	1.2	200	1.2	200	2.3	200	2.6	210	2.2	240	0.8	340	0.3	---	0.0	---	0.0	---	0.0	0.8	9
180	1.2	200	1.9	200	2.5	200	3.0	210	3.2	210	2.7	20	1.6	10	1.7	10	1.6	360	2.0	10	0.1	360	0.1	1.0	10
100	2.0	120	0.9	140	2.6	180	1.2	20	1.0	110	1.5	---	0.0	360	0.1	340	0.2	360	2.3	10	1.4	360	0.7	0.9	11
60	2.3	60	1.0	40	0.3	40	0.1	10	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	200	1.1	180	0.5	1.2	12
20	0.2	10	0.5	30	0.5	30	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	10	0.3	10	0.3	10	0.3	0.5	13
320	2.3	310	4.0	300	5.0	290	5.5	290	6.4	290	5.5	290	5.4	290	4.8	290	5.1	290	4.6	300	3.5	110	1.2	3.4	14
210	7.5	210	7.3	210	6.5	210	6.5	210	6.2	210	6.8	210	6.0	200	4.6	190	3.5	190	3.7	200	3.5	190	4.2	3.7	15
200	8.8	210	10.0	210	11.1	220	11.2	210	10.5	210	9.5	200	5.9	200	6.1	200	4.5	190	3.5	190	4.7	200	5.8	6.2	16
200	7.5	210	6.1	210	6.2	210	6.0	210	5.1	210	4.2	200	2.6	280	0.5	330	0.4	340	0.5	360	1.4	350	1.2	5.0	17
200	4.2	250	4.3	290	5.3	280	5.0	270	4.6	250	4.7	260	5.1	260	4.5	270	5.5	270	6.5	270	6.8	270	4.7	3.0	18
290	5.5	270	5.0	270	5.2	280	4.9	280	3.6	280	3.2	270	2.4	270	0.8	230	2.3	220	3.0	230	2.8	200	0.6	4.4	19
180	2.2	160	1.9	160	1.7	150	1.9	360	0.2	10	0.8	20	2.0	40	2.4	40	1.2	190	0.7	360	1.7	10	1.9	1.6	20
160	2.9	180	2.3	180	2.1	130	1.0	130	0.6	140	2.2	140	3.2	190	0.4	80	0.3	340	1.0	340	0.5	360	0.4	1.9	21
200	1.9	260	3.3	280	3.0	280	3.2	290	4.3	300	4.9	300	3.4	290	3.5	300	3.4	10	1.2	50	1.1	100	0.6	1.7	22
270	2.9	300	4.7	300	4.9	290	5.0	270	4.0	270	3.9	270	2.7	270	2.9	280	2.2	280	2.2	300	4.9	360	1.6	2.4	23
350	0.4	360	0.3	350	0.4	230	0.3	220	2.2	240	3.3	220	2.6	210	1.2	330	0.2	310	0.1	---	0.0	350	0.1	1.3	24
280	5.0	280	6.0	280	4.9	280	4.3	270	4.0	270	4.5	240	2.8	210	2.0	240	3.4	230	2.9	220	3.2	220	4.0	3.6	25
280	7.5	280	7.7	280	9.9	280	9.8	280	10.1	280	10.0	280	10.3	280	9.0	280	6.2	280	5.2	270	5.1	260	4.8	7.8	26
280	7.9	280	6.9	280	5.3	280	6.1	280	8.1	280	7.9	270	7.0	280	8.0	280	8.9	260	4.7	250	5.4	260	4.6	6.9	27
280	7.8	280	8.0	280	7.9	290	6.8	280	5.4	280	4.9	290	5.9	280	3.4	230	1.3	310	1.6	260	0.8	240	1.9	5.9	28
250	6.3	250	6.6	250	5.1	260	3.6	280	2.3	260	4.2	260	2.2	240	2.7	230	2.6	210	2.8	220	2.0	160	0.1	3.2	29
200	10.7	200	11.0	210	12.2	210	11.5	210	9.9	200	8.5	210	5.4	210	2.5	190	0.8	210	1.0	320	0.1	240	0.3	5.7	30
210	10.1	210	11.4	200	11.6	210	11.4	210	12.1	200	9.6	200	8.6	200	5.6	220	5.7	200	4.2	200	4.5	220	5.1	6.1	31
---	4.1	---	4.3	---	4.5	---	4.2	---	4.2	---	4.2	---	3.4	---	2.7	---	2.4	---	2.2	---	2.2	---	1.7	3.0	

AUGUST, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
210	5.0	210	4.9	210	4.0	210	3.4	230	2.0	240	0.9	40	0.1	10	0.2	20	0.2	60	3.2	90	3.3	90	4.0	2.8	1
70	5.5	80	4.1	70	3.9	80	2.8	60	2.2	120	0.9	300	0.7	270	0.2	320	1.3	330	0.7	170	0.1	70	0.1	3.5	2
250	6.5	230	5.5	220	5.1	230	5.9	220	5.6	210	5.9	210	5.0	200	5.8	200	2.6	180	0.2	---	0.0	210	0.1	4.1	3
210	8.1	210	7.9	210	7.3	210	7.6	220	6.9	210	5.5	210	4.5	210	3.0	190	1.1	190	0.2	200	0.1	210	0.2	4.2	4
200	5.1	210	4.1	210	4.6	210	3.1	230	1.1	230	0.4	---	0.0	360	0.3	360	1.3	360	0.4	330	0.4	30	0.1	1.5	5
80	5.5	80	5.2	80	5.0	70	4.9	60	4.5	50	5.1	60	5.0	60	5.6	60	5.6	60	5.7	60	5.6	60	5.1	3.9	6
70	3.6	70	3.9	60	4.1	80	3.7	60	3.5	60	2.5	50	1.5	360	1.1	360	2.8	350	2.6	350	1.9	350	2.2	3.1	7
210	2.5	220	2.8	200	3.9	210	4.7	220	4.1	230	4.7	220	3.6	200	1.6	180	1.4	210	5.3	210	5.4	230	5.5	2.4	8
260	6.6	270	7.8	270	7.9	270	6.5	250	6.3	250	5.9	250	5.9	250	5.4	250	5.5	250	4.9	250	5.4	240	5.3	5.6	9
20	2.6	10	2.8	360	3.5	350	3.0	310	3.5	290	6.2	290	6.4	290	5.6	290	5.0	280	4.5	290	7.0	290	7.5	4.0	10
260	7.0	240	7.0	270	7.9	280	8.6	280	9.7	280	8.9	280	8.2	270	8.6	270	10.1	260	7.9	250	8.3	210	5.6	6.5	11
300	5.4	290	4.5	290	6.0	280	6.0	290	6.9	290	7.0	300	6.6	310	5.9	310	5.5	320	5.2	320	2.7	320	3.1	4.9	12
350	5.4	360	3.8	350	2.4	350	2.5	360	2.7	10	3.1	30	3.4	20	1.5	340	1.6	350	1.9	360	3.0	60	1.0	3.7	13
220	3.0	240	3.7	230	4.4	220	4.3	210	5.2	230	4.4	210	3.1	180	1.3	160	0.6	---	0.0	340	0.1	---	0.0	1.8	14
230	5.9	220	5.3	220	5.2	220	5.9	220	5.0	220	4.0	220	5.0	260	3.3	270	2.1	280	1.4	290	2.2	280	1.7	3.7	15
270	5.2	270	6.1	280	5.3	280	4.8	270	4.4	270	4.5	280	3.2	270	4.7	280	3.3	270	2.9	280	1.1	240	1.2	3.4	16
270	2.5	260	2.7	280	2.7	270	2.9	270	2.2	290	1.6	310	2.1	310	1.6	340	0.6	120	0.1	---	0.0	330	0.1	1.4	17
220	5.7	210	6.4	220	7.3	220	6.9	210	5.7	220	5.9	200	5.0	200	7.0	210	7.8	210	6.9	210	6.8	210	6.7	3.8	18
250	6.5	250	7.1	250	6.7	230	6.5	240	7.0	230	6.5	220	6.2	220	5.8	220	3.3	210	1.6	200	1.1	180	2.2	4.7	19
310	0.9	300	5.7	300	9.5	280	9.9	280	8.2	270	8.9	270	10.1	260	8.8	260	7.2	220	3.8	200	2.5	230	4.4	5.2	20
220	14.8	220	13.6	210	14.1	210	14.7	210	14.7	210	14.6	210	14.3	210	13.8	210	14.2	220	11.6	220	8.3	280	7.5	12.0	21
210	10.2	210	11.0	200	9.5	210	8.4	210	7.9	210	7.2	210	5.9	210	5.1	210	2.8	210	1.4	220	0.7	200	0.1	6.0	22
260	5.4	270	5.6	270	5.5	260	6.0	270	4.8	240	3.8	240	3.5	240	1.5	230	1.2	190	1.4	210	0.5	140	0.4	3.2	23
300	3.9	290	3.8	280	3.3	280	4.1	290	3.6	280	3.3	280	1.7	310	1.5	320	1.0	340	0.4	270	0.1	350	0.1	2.3	24
240	3.4	230	4.9	230	4.8	230	4.3	220	3.9	220	3.7	240	2.5	210	0.4	---	0.0	---	0.0	150	0.1	---	0.0	1.7	25
190	4.6	200	5.1	200	4.6	210	5.3	210	4.5	220	2.5	250	0.5	330	1.1	330	1.0	340	0.5	340	0.2	250	0.3	1.8	26
150	6.2	160	5.3	160	5.7	170	4.6	170	5.1	180	3.5	180	3.3	150	5.4	190	4.8	170	2.4	160	2.5	170	1.6	3.9	27
180	6.9	170	6.0	190	4.8	170	3.8	140	1.6	270	0.6	310	0.6	200	0.9	200	1.5	210	1.7	170	0.3	220	0.6	3.4	28
280	4.5	280	5.1	280	5.2	280	4.6	230	7.6	250	6.0	230	3.4	210	3.0	250	3.5	220	3.1	220	3.6	230	6.2	3.0	29
230	6.9	220	5.6	210	8.1	210	7.0	210	5.4	230	3.0	220	0.6	190	0.1	50	0.2	360	0.2	350	0.1	360	0.1	4.3	30
210	4.6	260	3.6	230	3.6	210	3.6	230	3.8	230	4.1	230	2.7	10	0.1	340	0.4	350	0.4	350	0.1	350	0.3	1.7	31
---	5.5	---	5.5	---	5.7	---	5.5	---	5.2	---	4.7	---	4.0	---	3.6	---	3.2	---	2.7	---	2.4	---	2.4	3.9	
12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day

Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

245. ESKDALEMUIR:

 H_a (height of anemograph above M.S.L.) = Height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	360	0.2	350	0.4	360	0.1	180	0.1	350	0.1	360	0.1	360	0.1	160	0.1	180	1.4	190	2.1	190	1.9	200	1.6
2	320	0.4	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	120	0.1	180	1.5	210	3.0	180	4.0
3	160	7.7	180	6.5	180	7.0	190	9.6	210	10.8	190	7.3	200	6.4	200	8.6	200	11.0	200	12.0	200	13.8	200	15.1
4	200	9.1	200	8.0	180	6.1	180	5.6	170	4.8	160	4.2	160	4.8	180	5.8	200	11.3	200	11.4	210	11.0	210	9.2
5	220	0.2	140	0.1	270	0.1	---	0.0	---	0.0	230	0.1	20	0.2	280	0.1	310	0.6	300	2.2	300	2.1	290	2.8
6	350	0.1	---	0.0	350	0.3	350	1.2	360	2.5	350	2.4	360	1.1	40	0.6	40	1.7	80	3.6	90	5.0	110	6.0
7	110	5.8	100	5.2	90	3.2	130	6.0	130	7.1	130	6.2	130	6.4	130	5.8	140	4.7	140	6.0	150	6.3	180	6.1
8	30	0.4	20	1.3	180	2.0	170	4.7	180	6.3	200	6.3	210	13.0	210	14.2	210	15.5	200	16.5	210	16.4	210	14.2
9	350	1.1	20	0.6	100	0.1	100	0.1	180	0.6	190	0.8	190	1.2	180	3.6	210	4.2	190	2.3	170	1.9	160	2.2
10	340	0.1	340	0.1	350	0.1	---	0.0	340	0.1	---	0.0	210	0.3	210	0.1	180	2.3	180	7.4	180	6.7	180	6.4
11	230	4.8	240	3.9	230	3.8	230	3.9	200	2.5	190	2.7	200	5.3	210	6.6	200	6.2	210	7.5	210	9.7	200	9.7
12	180	1.8	190	1.2	220	2.2	220	3.5	210	2.1	190	1.1	190	1.2	160	0.5	170	0.3	210	1.6	210	1.5	230	1.3
13	350	0.5	360	0.3	360	0.2	360	0.1	340	0.4	340	0.2	350	0.2	360	0.2	50	1.2	130	2.2	140	2.7	150	4.0
14	360	1.5	360	1.9	360	2.3	10	1.4	10	2.1	360	2.5	360	2.4	350	3.7	20	1.5	20	1.9	50	3.3	50	4.1
15	20	2.0	20	2.0	20	1.7	20	1.5	20	1.3	40	1.3	50	3.4	40	2.3	40	3.5	40	2.6	60	2.2	80	2.9
16	180	1.1	210	2.9	200	5.5	190	5.2	200	5.7	200	6.6	190	5.1	180	3.3	190	2.7	180	4.2	200	6.6	200	6.3
17	160	1.0	140	0.6	140	1.2	150	3.1	160	4.2	160	3.1	150	3.3	150	7.0	160	7.8	160	7.3	170	5.7	170	6.1
18	200	4.7	200	5.0	210	5.0	200	4.3	190	3.5	190	3.7	180	4.9	170	7.2	200	7.9	180	9.7	190	12.0	210	10.5
19	200	7.2	190	6.9	200	7.9	210	6.4	210	6.0	200	5.4	210	7.8	210	6.7	200	7.4	210	9.5	200	9.2	200	9.6
20	250	2.5	210	1.2	180	0.3	200	0.2	270	0.4	180	0.2	300	0.1	220	0.5	290	2.5	290	2.6	270	2.4	280	2.7
21	240	2.5	230	2.8	230	2.8	250	3.5	250	3.2	250	1.2	260	1.7	220	1.3	240	3.5	240	4.2	280	4.3	290	4.9
22	350	0.3	140	0.2	340	0.2	360	0.3	330	0.1	350	0.2	160	4.2	160	5.6	160	5.0	160	5.9	180	5.5	170	5.2
23	270	8.9	280	9.2	280	10.2	280	9.4	280	9.5	280	6.9	280	7.3	280	5.7	290	8.2	290	7.1	290	7.2	290	8.2
24	230	6.3	220	5.4	220	5.6	210	5.3	200	3.4	210	5.4	200	4.7	200	4.7	200	5.0	200	6.1	240	6.0	300	3.8
25	240	3.2	240	2.9	250	6.3	250	5.9	230	3.6	240	3.5	230	4.1	240	5.0	250	6.8	250	6.7	230	7.6	220	8.9
26	200	10.6	190	9.6	190	10.2	190	8.9	180	6.2	170	5.3	170	5.4	170	5.6	180	6.0	200	9.1	220	10.0	220	10.1
27	210	7.5	210	7.2	210	5.2	220	6.2	240	10.2	240	13.3	240	11.3	230	11.3	240	13.8	240	8.3	230	10.2	240	9.2
28	170	4.4	170	4.8	180	5.2	170	5.3	160	5.2	170	5.3	180	5.7	190	9.3	200	9.3	200	9.2	190	8.8	200	10.1
29	200	0.7	250	0.5	260	0.3	200	0.2	200	1.0	200	2.8	200	6.2	220	5.5	210	2.5	200	4.3	210	3.9	200	4.8
30	180	3.4	190	3.7	180	6.2	170	5.0	180	7.4	190	6.4	200	9.7	190	11.6	190	10.4	180	7.3	170	8.9	190	13.1
Mean	---	3.3	---	3.1	---	3.4	---	3.6	---	3.7	---	3.5	---	4.3	---	4.8	---	5.5	---	6.1	---	6.5	---	6.8

246. ESKDALEMUIR: H_a = 235 metres + 15 metres.

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	260	2.3	270	1.0	280	1.2	290	1.1	270	0.7	170	0.5	240	0.3	180	0.4	150	0.2	270	1.8	250	2.4	260	2.6
2	70	0.6	20	0.2	10	0.4	270	0.5	320	0.7	30	0.1	310	0.2	250	0.1	140	0.1	290	1.3	320	1.9	280	1.6
3	270	0.1	150	0.2	170	0.2	190	0.2	180	0.3	180	1.2	180	1.3	180	0.6	180	4.2	160	4.6	150	5.2	160	5.8
4	340	0.5	340	1.0	360	0.9	30	0.3	130	2.0	140	2.7	140	5.1	130	5.0	130	5.3	120	5.5	110	5.7	100	5.5
5	280	8.5	280	5.9	270	5.0	230	5.5	230	5.0	210	4.3	220	5.3	230	7.3	240	7.2	230	8.4	240	9.9	240	8.0
6	160	1.6	200	2.3	220	1.5	200	1.3	190	1.3	300	0.7	310	0.4	320	0.6	140	0.5	180	1.1	180	5.6	170	4.9
7	190	8.2	200	10.1	200	10.0	200	10.5	200	12.0	200	10.3	200	9.4	200	7.8	220	10.1	230	11.6	220	10.1	220	10.1
8	240	6.3	240	6.8	230	6.1	220	5.5	220	5.3	210	5.8	180	2.7	180	1.8	210	4.5	210	5.0	230	7.0	220	7.7
9	240	7.9	270	3.6	270	2.9	280	3.4	270	3.4	270	2.8	190	2.3	180	1.6	210	3.3	250	3.9	270	5.0	280	5.0
10	190	3.9	210	6.9	210	7.9	220	10.0	230	11.5	230	10.3	230	9.9	230	8.4	240	8.1	250	8.8	240	9.8	250	9.5
11	200	2.7	190	3.2	190	2.1	180	1.9	200	3.3	220	4.4	210	3.8	230	4.5	230	5.3	230	6.1	230	6.2	250	7.0
12	230	5.9	250	6.0	250	7.7	240	7.8	240	6.8	240	7.3	230	8.2	230	9.4	220	8.5	210	7.7	240	10.2	240	12.3
13	20	1.3	140	0.5	160	0.3	90	0.2	290	0.4	190	0.5	160	0.1	100	0.2	180	0.3	220	2.7	230	3.5	230	3.0
14	250	13.4	260	13.1	260	13.1	270	11.6	280	10.6	290	12.7	290	11.0	280	10.8	280	9.2	280	10.1	280	10.5	270	9.3
15	290	9.9	290	10.9	290	11.0	300	9.9	300	10.3	300	10.4	300	11.5	300	10.1	290	10.3	320	10.1	320	6.0	330	8.0
16	10	9.0	360	9.0	350	7.1	350	7.8	360	7.1	350	5.5	340	7.2	340	8.7	350	9.5	350	10.5	340	9.4	340	8.1
17	310	5.2	300	5.0	300	6.3	320	5.0	310	4.1	320	2.4	300	1.0	310	2.7	320	2.2	330	1.7	20	0.8	340	2.3
18	300	10.4	280	10.4	270	5.1	260	4.9	230	4.7	230	3.7	240	4.7	250	5.4	240	7.2	210	5.2	250	8.7	250	10.5
19	280	2.7	190	2.4	200	2.7	240	3.4	210	3.7	200	4.5	180	4.1	180	4.3	170	4.1	190	4.9	180	4.0	180	4.1
20	220	10.5	220	10.1	220	9.8	220	8.4	220	6.8	230	7.1	230	6.4	230	5.9	240	6.3	240	6.6	240	7.2	250	7.8
21	230	8.8	220	8.8	230	8.7	230	8.2	220	8.0	220	9.3	210	8.8	200	8.6	210	11.3	200	11.8	200	13.0	210	12.3
22	190	13.5	200	12.7	200	13.1	210	12.3	210	13.3	220	13.0	220	11.2	220	10.5	220	11.5	210	12.8	220	15.0	220	15.1
23	240	8.6	240	8.5	230	6.5	240	7.0	240	8.7	250	9.9	240	9.0	230	9.0	230	7.5	220	8.8	230	11.2	220	10.1
24	190	0.1	340	0.1	---	0.0	330	0.1	320	0.3	320	0.4	340	0.1	---	0.0	---	0.0	350	0.1	190	0.2	170	0.8
25	40	5.0	30	5.4	30	3.3	30	3.5	40	3.9	20	5.0	30	2.9	360	3.8	160	3.8	160	5.0	160	7.2	160	7.0
26	260	7.6	240	9.2	240	9.9	230	10.5	230	10.0	220	10.0	230	10.1	220	9.5	230	10.8	230	12.4	230	15.3	240	15.2
27	210	12.6	210	14.9	220	15.7	220	15.5	230	15.5	240	12.6	230	11.0	230	10.0	240	12.1	250	10.5	250	9.8	250	10.1
28	240	9.2	240	10.2	260	7.5	250	7.8	260	9.0	240	10.0	240	9.9	240	9.9	240	9.2	240	10.1	240	9.9	240	9.7
29	260	8.0	270	6.7	280	5.6	270	7.0	260	5.7	280	6.8	280	6.0	280	7.3	280	10.1	280	10.0	280	10.1	280	10.3
30	140	0.1	150	0.2	10	0.3	20	0.5	140	0.5	350	0.5	360	1.7	350	0.7	360	1.7	10	3.1	30	4.3	40	3.1
31	20	10.7	20	9.5	20	8.5	10	5.7	360	5.3	350	6.2	350	5.9	350	6.2	350	3.8	350	4.9	350	5.1	340	5.7
Mean	---	6.3	---	6.3	---	5.8	---	5.7	---	5.8	---	5.8	---	5.5	---	5.5	---	6.1	---	6.7	---	7.4	---	7.5
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

$M.S.L. + h_a$ (height of anemograph above ground) = 235 metres + 15 metres.

SEPTEMBER, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	o	m/s	m/s	
180	2.0	200	3.3	250	3.5	250	3.0	220	2.7	220	2.5	240	1.3	---	0.0	340	0.4	350	0.3	340	0.6	10	0.1	1.2	1
190	4.4	200	4.3	180	3.8	210	4.7	210	4.5	180	2.3	170	2.3	180	2.9	160	3.3	150	5.4	150	7.0	180	8.1	2.6	2
210	15.5	210	15.6	210	15.4	210	16.2	200	15.2	210	12.4	210	9.8	200	5.5	210	6.2	210	6.0	200	6.1	200	8.6	10.3	3
200	11.0	200	11.0	210	10.0	210	9.9	210	9.3	200	5.4	200	7.9	210	7.0	220	5.4	220	3.5	240	1.7	100	0.5	7.2	4
270	2.5	250	3.2	240	2.5	210	4.4	210	3.7	200	3.0	260	1.8	360	0.3	340	0.4	340	0.6	340	0.4	---	0.0	1.3	5
110	5.6	110	5.9	100	5.2	110	6.0	90	6.4	80	6.1	90	5.7	90	5.5	90	6.1	100	6.2	110	6.1	100	6.5	4.0	6
180	5.6	190	6.0	200	7.3	200	9.5	200	8.1	200	7.1	200	4.3	200	4.1	220	1.0	10	0.2	10	0.9	360	1.2	5.2	7
210	14.1	210	13.7	210	12.6	210	11.5	210	8.6	200	5.6	190	4.3	200	3.1	130	1.4	10	0.4	350	0.6	340	0.6	7.9	8
300	4.0	300	5.5	290	5.4	280	5.3	270	5.0	270	4.3	260	2.9	260	2.1	290	1.1	290	0.9	300	0.3	30	0.1	2.3	9
190	8.7	190	8.0	190	8.8	190	7.6	190	9.0	190	8.3	190	8.8	180	8.1	180	9.0	190	10.7	220	10.0	240	6.4	5.3	10
200	10.2	200	9.5	200	8.1	200	7.8	200	8.1	210	5.3	210	3.6	210	4.2	210	5.5	220	4.3	210	4.2	190	2.3	5.9	11
230	1.5	210	1.7	220	1.5	230	0.7	180	0.3	320	0.1	330	1.1	360	0.9	340	0.8	350	1.1	350	1.3	340	1.0	1.3	12
180	3.8	180	4.7	190	4.0	150	1.8	170	0.5	120	0.5	260	0.4	10	0.9	350	1.0	360	2.2	360	2.3	360	1.6	1.5	13
70	4.3	90	4.3	120	6.3	110	6.1	100	4.9	70	3.9	50	2.5	40	2.0	380	1.7	360	1.9	10	2.6	30	2.6	3.0	14
100	4.0	110	3.5	130	3.2	120	2.1	110	2.8	70	0.8	20	0.3	20	0.4	350	0.2	180	1.8	170	1.4	180	2.0	2.1	15
200	8.0	200	7.7	200	9.1	190	8.2	190	6.1	180	3.8	170	2.4	190	2.6	180	1.7	160	1.9	160	2.6	180	2.6	4.7	16
180	4.9	200	7.7	200	7.9	200	10.5	200	9.2	210	8.1	200	6.9	210	5.5	210	6.8	210	3.5	200	3.2	190	3.8	5.3	17
200	9.7	200	11.3	200	11.6	200	10.4	200	11.6	200	7.3	20													

OCTOBER, 1934.

[illegible]

247. ESKDALEMUIR:

H_a (height of anemograph above M.S.L.) = Height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	220	0.8	240	2.5	20	1.0	320	1.8	210	0.4	300	2.0	300	3.7	280	3.2	200	1.5	280	2.0	200	2.1	260	4.8
2	270	1.5	270	0.8	290	5.1	300	6.8	290	3.5	200	0.8	290	2.0	40	0.7	280	5.2	280	6.1	280	6.3	280	7.2
3	360	0.4	350	0.6	10	1.5	10	0.1	60	0.6	70	2.3	40	2.0	360	2.3	40	1.2	10	1.5	360	2.6	350	2.2
4	180	2.7	190	0.8	200	0.4	260	0.2	10	0.6	340	1.0	340	1.6	350	1.4	350	3.3	10	2.2	20	2.4	20	2.3
5	10	6.7	10	6.9	10	7.8	10	7.6	10	7.6	10	7.5	360	7.0	360	7.0	10	5.5	20	7.1	20	8.8	20	7.8
6	10	8.9	10	9.8	10	9.6	10	9.3	10	7.0	10	5.9	360	5.0	360	5.8	360	6.5	360	6.1	360	6.1	360	7.5
7	350	6.0	10	3.9	350	7.5	350	5.0	350	4.0	10	2.9	350	6.1	10	2.2	340	6.3	340	3.7	340	4.4	350	5.7
8	360	0.2	280	0.1	340	0.3	360	0.2	330	0.1	360	0.1	340	0.1	---	0.0	270	0.1	---	0.0	170	0.1	160	0.7
9	10	2.5	350	2.1	310	1.5	60	2.2	60	4.0	250	1.2	20	3.5	20	4.6	20	6.3	20	10.3	10	8.2	10	6.4
10	20	12.1	30	11.9	30	11.2	30	10.3	30	10.4	30	10.0	30	10.1	30	10.1	40	10.0	40	9.0	40	10.0	40	9.7
11	20	5.6	20	5.9	20	5.2	20	5.9	20	5.1	20	8.1	20	5.2	20	5.0	10	4.7	20	4.6	10	4.5	10	3.8
12	330	0.3	20	0.9	10	0.7	350	1.9	340	0.4	10	0.6	360	0.6	350	0.4	10	0.1	---	0.0	70	0.1	70	2.1
13	360	1.5	350	1.9	10	1.8	10	2.3	350	2.6	40	2.0	40	1.9	10	1.4	30	1.6	40	1.5	60	2.8	70	2.8
14	350	0.3	350	0.7	360	1.2	350	0.7	10	1.4	360	2.3	350	1.9	350	2.4	360	2.5	20	0.7	360	1.3	40	1.4
15	10	0.4	350	2.0	10	2.8	10	4.7	10	4.1	10	4.2	10	5.5	10	6.2	10	6.1	10	5.0	10	6.0	20	7.0
16	20	6.9	20	6.3	20	5.4	30	5.3	40	5.0	40	5.3	40	4.9	30	5.7	30	5.9	30	6.1	40	5.7	40	5.5
17	10	4.4	350	3.7	10	2.3	360	2.5	360	2.8	360	3.4	10	2.6	10	3.7	10	3.5	10	3.4	360	3.8	20	4.0
18	10	0.2	360	0.1	350	0.1	360	0.1	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	190	0.1	---	0.0
19	200	2.9	230	4.8	250	4.6	230	5.1	220	4.0	220	4.5	220	4.4	210	4.8	220	5.2	190	2.1	220	4.8	210	4.9
20	210	5.5	210	6.4	210	5.8	210	5.8	210	7.0	210	7.3	200	7.9	200	5.6	210	6.5	220	6.8	220	6.1	210	5.1
21	350	0.2	340	0.1	---	0.0	---	0.0	---	0.0	150	1.1	140	0.4	160	0.8	190	1.5	190	3.4	210	4.5	220	7.2
22	210	7.1	210	6.8	210	6.1	210	7.7	210	7.4	210	7.1	220	6.8	220	7.8	220	7.6	230	7.7	240	9.3	230	10.2
23	240	7.6	240	6.9	240	5.5	240	5.7	240	4.2	240	3.3	260	2.0	250	2.2	240	0.9	240	1.1	190	0.3	200	0.8
24	210	2.5	210	2.7	220	3.3	240	3.7	230	4.7	230	5.7	240	5.7	230	3.6	240	4.2	240	5.0	230	3.3	220	3.8
25	230	6.0	220	6.9	230	9.2	230	8.7	220	7.5	230	9.1	220	7.2	210	6.9	220	6.2	220	8.1	230	9.7	240	9.8
26	230	14.6	220	12.3	220	12.0	230	11.5	220	9.6	210	8.1	210	6.5	210	7.3	230	9.3	220	9.1	210	7.1	220	6.2
27	280	4.7	280	4.2	270	4.6	260	6.2	240	3.5	210	3.4	220	3.9	210	3.2	210	4.7	200	3.1	220	5.6	220	6.2
28	260	8.5	260	6.6	240	3.7	240	4.1	220	2.6	240	4.9	250	4.8	250	4.7	240	4.3	230	3.5	220	3.9	230	3.4
29	140	1.1	150	1.9	200	0.2	330	0.1	320	0.1	310	0.4	---	0.0	---	0.0	330	0.2	310	0.1	---	0.0	---	0.0
30	210	2.3	190	2.4	200	2.6	230	2.8	220	1.9	200	2.0	200	1.5	200	1.7	200	0.3	150	0.1	200	0.1	190	1.4
Mean	---	4.1	---	4.1	---	4.1	---	4.3	---	3.7	---	3.8	---	3.8	---	3.7	---	4.0	---	4.0	---	4.3	---	4.7

248. ESKDALEMUIR: H_a = 235 metres + 15 metres

Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	200	8.6	200	7.2	200	5.5	180	5.3	190	5.6	190	5.2	200	6.3	190	7.1	190	7.9	190	8.2	190	7.1	200	8.7
2	190	8.1	200	8.6	190	7.4	200	7.8	210	8.2	200	5.1	160	2.4	160	2.2	170	2.4	170	4.0	170	3.0	170	2.5
3	190	1.7	200	1.9	240	3.9	230	5.7	220	5.8	230	7.2	230	7.2	230	7.9	240	7.2	230	5.1	220	3.2	220	4.0
4	---	0.0	340	0.2	10	1.0	40	4.7	50	5.9	50	6.8	40	5.8	40	5.1	40	6.3	40	7.2	40	8.8	40	9.3
5	30	12.1	40	11.3	30	10.9	30	13.1	30	12.8	30	12.3	30	11.7	40	11.8	30	11.5	30	10.1	30	10.0	30	9.8
6	10	3.4	10	3.7	20	2.7	60	0.8	40	0.8	30	1.9	50	1.8	40	1.0	60	2.6	60	4.4	50	2.8	60	3.6
7	10	2.6	10	2.8	10	2.7	350	3.4	10	3.0	10	1.7	360	1.3	10	0.5	350	0.7	350	0.2	30	0.1	200	5.3
8	160	5.4	170	5.2	170	5.5	170	5.6	170	4.8	170	4.3	160	4.5	170	5.0	180	3.1	190	3.5	190	6.5	190	10.0
9	160	8.1	160	7.5	150	6.7	160	6.5	160	7.8	160	9.0	150	8.3	160	7.3	160	9.5	150	10.1	150	10.5	150	9.6
10	200	8.2	210	8.2	200	8.5	200	8.6	210	7.2	200	7.6	200	7.7	200	9.0	190	8.2	190	9.9	190	10.1	190	10.7
11	190	8.5	180	6.8	170	6.1	160	4.6	170	6.4	170	5.9	170	5.5	170	6.8	170	6.0	160	7.6	170	6.7	170	5.6
12	160	3.9	150	4.2	140	4.3	120	5.5	120	6.0	110	7.1	110	7.3	120	7.1	120	7.9	120	8.0	120	8.1	130	6.6
13	180	5.9	160	5.9	170	6.0	170	5.1	180	5.6	170	3.7	160	3.2	160	3.7	170	3.9	160	4.2	160	4.4	150	5.7
14	170	1.5	170	1.7	170	2.6	170	3.0	160	2.9	160	3.0	160	3.7	160	4.5	160	2.9	160	2.5	150	4.3	150	5.0
15	120	6.3	110	6.0	110	5.4	100	5.6	90	5.4	80	4.9	80	5.9	80	4.7	70	3.4	70	5.2	60	4.9	50	4.1
16	10	1.2	360	1.7	10	0.8	10	1.2	340	0.7	120	0.2	160	0.2	140	0.2	160	0.6	160	0.2	150	0.3	170	2.2
17	120	0.2	250	0.1	310	0.1	250	0.4	260	0.2	350	0.1	40	0.1	190	0.1	290	0.4	230	0.3	220	3.0	230	3.1
18	160	6.5	160	5.0	160	5.1	160	5.8	150	7.2	160	6.3	160	6.3	180	7.0	200	5.2	170	5.1	170	5.1	160	5.3
19	130	3.8	130	4.5	140	3.4	160	3.0	160	2.8	160	2.9	170	2.6	160	0.7	---	0.0	---	0.0	140	0.8	160	1.9
20	240	0.1	130	0.1	140	0.4	190	0.3	280	0.2	270	0.8	230	1.8	280	1.1	300	4.0	300	5.7	320	4.4	180	2.2
21	350	0.3	10	0.1	340	0.2	360	0.3	340	0.2	340	0.1	350	0.1	350	0.1	320	0.1	---	0.0	---	0.0	---	0.0
22	10	2.0	20	1.3	20	0.7	70	1.0	70	0.4	120	2.5	110	1.0	110	1.4	100	0.8	---	0.0	---	0.0	---	0.0
23	100	5.2	100	4.9	110	3.5	120	3.4	100	4.2	110	4.6	110	3.8	120	5.5	120	5.2	120	6.3	130	5.0	140	5.7
24	120	1.7	100	1.7	100	2.2	80	1.6	120	3.2	130	3.1	130	2.0	150	3.3	100	1.1	110	3.0	120	2.0	130	2.9
25	100	3.8	100	4.2	110	5.6	110	6.5	110	8.1	100	6.7	100	6.3	110	6.4	120	6.5	130	5.7	120	6.5	120	6.9
26	110	9.6	120	9.9	120	10.0	100	10.1	110	9.8	110	8.0	110	10.9	110	10.0	130	7.0	140	4.9	160	3.5	160	2.4
27	160	6.9	180																					

M.S.L. + h_a (height of anemograph above ground) = 235 metres + 15 metres.

NOVEMBER, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s		
280	5.0	280	5.1	300	6.7	290	6.6	290	3.6	280	1.2	190	0.5	190	2.7	180	0.8	220	2.0	230	0.9	280	0.8	2.6	1
290	6.9	290	4.8	280	2.2	230	1.8	250	2.5	190	0.4	360	0.7	380	0.9	350	0.3	340	0.4	330	0.1	350	0.1	2.8	2
350	1.6	350	0.9	340	0.6	250	0.2	230	0.5	220	0.4	180	2.7	170	3.7	170	4.0	170	4.1	200	3.2	200	3.5	1.8	3
10	3.2	20	4.0	20	4.0	20	3.7	20	4.5	10	3.1	10	4.0	10	3.5	10	4.3	10	5.2	10	6.0	20	6.2	2.9	4
20	8.2	10	7.7	10	6.8	10	6.5	10	5.7	10	6.5	10	6.2	10	7.2	10	8.5	10	8.9	10	7.9	10	9.2	7.3	5
10	6.9	360	7.3	360	6.7	350	6.5	350	4.9	360	2.8	350	5.3	350	5.7	350	4.8	350	2.9	350	4.9	360	3.6	6.2	6
350	5.1	330	5.0	320	5.4	310	5.1	300	4.3	190	1.4	300	3.7	280	1.3	290	2.0	180	0.4	210	0.2	100	0.1	3.8	7
170	2.3	190	1.9	160	1.1	180	0.8	120	0.2	30	0.7	360	0.9	360	1.3	30	2.2	30	3.1	10	4.0	360	3.7	1.0	8
10	6.5	30	4.8	10	4.0	10	3.8	10	3.7	10	5.1	20	7.2	20	7.4	20	9.1	20	10.1	20	10.3	20	11.7	5.7	9
40	10.7	50	10.2	40	9.0	40	10.5	40	10.0	30	8.9	30	8.4	40	7.9	40	7.1	30	6.8	30	6.9	20	6.1	9.5	10
10	4.5	360	4.5	360	3.6	10	2.8	10	2.7	360	2.8	360	2.8	40	1.5	10	0.6	140	0.2	100	0.3	290	0.1	3.7	11
70	1.7	70	1.6	70	2.1	60	2.9	20	1.3	10	1.0	330	0.7	10	1.1	10	1.6	10	1.5	10	1.2	10	0.3	1.0	12
50	2.5	50	3.3	70	2.9	20	1.3	320	1.8	350	2.2	350	2.2	340	1.4	340	1.6	350	1.3	350	1.9	20	0.2	1.9	13
70	3.0	80	3.0	30	3.4	50	2.5	40	1.2	350	0.9	310	0.6	330	1.7	340	1.8	360	0.6	330	1.2	360	1.4	1.6	14
20	6.8	10	5.6	360	4.6	360	4.4	360	3.9	360	5.0	10	4.7	10	5.1	10	5.0	20	5.8	10	5.9	10	6.0	4.9	15
50	5.1	40	4.3	20	4.1	40	4.2	40	3.4	30	4.2	30	3.5	10	4.2	20	3.9	10	2.9	350	3.2	350	2.8	4.7	16
10	4.0	10	3.3	360	3.1	360	2.3	10	2.7	360	2.2	350	0.8	330	2.3	340	1.5	20	1.1	360	0.1	10	0.2	2.7	17
---	0.0	190	0.6	280	2.8	210	1.8	190	1.2	160	1.2	180	2.0	170	0.9	220	2.7								

DECEMBER, 1934.

[illegible]

249. ESKDALEMUIR: $H_a = 235$ metres + 15 metres.

1934.

Day	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust
1	m/s 16	h. m. 21 25	m/s 15	h. m. 4 0	m/s 20	h. m. 13 50	m/s 13	h. m. 21 35	m/s 15	h. m. 14 30	m/s 12	h. m. 23 25	m/s 12	h. m. 17 20	m/s 11	h. m. 23 55	m/s 8	h. m. 14 5	m/s 9	h. m. 14 40	m/s 14	h. m. 15 35	m/s 17	h. m. 13 0
2	13	22 35	9	7 45	22	6 30	18	14 0	11	14 10	11	18 20	12	9 35	16	1 20	15	23 0	6	12 25	15	8 40	14	2 55
3	19	20 55	7	23 20	18	15 35	13	16 15	10	12 40	10	21 40	9	16 45	14	7 45	25	18 55	16	14 10	8	21 45	13	7 45
4	22	16 25	5	16 50	14	9 35	13	23 55	9	16 40	13	17 30	7	15 5	13	10 55	21	9 30	19	23 35	11	22 10	21	23 35
5	18	2 40	18	21 40	21	12 40	25	7 55	24	15 55	13	21 20	8	14 5	11	14 10	8	11 45	19	0 5	18	23 15	24	4 30
6	28	4 30	20	20 40	17	11 10	14	9 15	23	17 30	15	10 15	5	13 10	12	11 40	15	18 10	15	22 35	16	1 40	9	9 20
7	32	12 55	29	18 35	21	18 25	19	15 50	27	8 10	13	15 50	12	22 20	8	11 55	16	15 50	21	13 5	13	2 25	14	17 45
8	20	14 15	34	0 45	10	13 25	11	2 15	15	14 0	11	17 55	14	2 55	10	23 10	25	9 20	19	23 0	7	22 15	22	14 10
9	20	13 25	28	24 0	11	22 5	18	14 35	15	12 5	8	4 5	5	17 10	18	14 45	13	14 0	19	0 35	20	23 10	26	17 10
10	27	4 40	27	0 25	19	7 55	17	10 45	10	13 10	6	11 35	7	17 40	15	23 25	17	21 10	20	12 5	21	12 15	20	12 20
11	21	7 10	20	2 40	22	20 0	22	23 15	9	12 40	12	17 5	8	14 45	21	16 10	16	13 0	20	17 0	11	3 5	14	9 35
12	21	22 30	11	0 50	26	23 30	23	20 30	15	21 10	9	5 45	6	3 30	14	16 35	7	3 20	21	16 5	5	15 10	16	18 5
13	21	0 20	9	23 5	24	0 30	17	7 40	23	21 25	10	12 45	6	11 0	13	9 20	8	11 50	21	23 10	7	13 40	11	0 30
14	14	20 10	12	3 40	19	21 10	22	13 20	24	12 45	10	10 45	13	16 30	9	16 0	11	14 15	24	5 30	7	13 5	16	18 45
15	15	6 20	9	19 5	21	19 15	29	20 0	16	13 45	9	16 55	12	12 55	13	9 40	8	12 5	22	16 20	13	7 40	11	3 30
16	21	5 45	11	12 25	15	14 25	18	22 50	17	16 55	13	13 40	17	15 15	14	13 35	15	14 50	19	0 15	11	9 45	5	15 35
17	31	12 25	7	13 45	14	19 20	17	10 45	19	15 10	13	14 5	14	10 50	8	15 45	18	13 30	26	21 45	9	0 35	11	18 40
18	18	1 20	18	23 20	17	4 40	5	20 15	13	16 50	16	15 25	17	23 10	15	16 55	19	14 55	25	12 10	6	21 5	16	16 35
19	15	10 45	24	9 35	11	21 50	13	15 55	22	11 40	18	14 5	15	4 10	15	16 10	16	9 55	17	22 55	11	14 35	8	1 35
20	13	22 45	24	18 15	17	22 35	19	19 25	18	4 10	17	2 55	6	9 25	22	15 0	12	16 20	18	1 50	12	5 15	13	10 0
21	16	2 55	29	9 50	14	0 40	21	13 35	30	16 55	13	9 55	8	17 45	27	11 55	13	13 50	23	23 15	17	23 0	4	18 40
22	21	16 50	19	16 0	13	17 10	15	11 0	19	13 35	15	12 35	9	15 20	17	13 40	24	15 45	25	13 20	19	12 45	9	22 30
23	17	23 35	16	9 5	14	14 55	15	14 10	18	15 50	11	7 25	11	16 10	14	12 15	25	3 10	18	10 40	15	0 0	11	13 5
24	19	4 45	19	8 50	16	16 30	11	15 20	15	1 5	12	14 5	9	5 15	11	13 10	16	17 35	9	22 20	13	23 15	14	15 5
25	12	23 45	13	22 0	13	17 5	9	15 25	13	18 30	8	4 30	17	14 5	10	11 40	17	21 55	26	22 25	21	22 20	18	23 40
26	20	4 15	19	13 30	15	14 25	16	15 10	15	22 15	15	13 5	22	15 20	10	13 45	23	15 35	25	12 30	22	0 10	21	6 5
27	18	2 35	21	9 55	10	14 40	21	9 20	23	23 40	16	14 45	20	20 10	17	9 30	23	8 10	27	4 40	18	23 20	21	2 35
28	3	15 20	12	0 0	8	17 45	19	8 55	19	2 55	15	14 15	18	7 30	15	13 0	18	12 5	22	13 5	17	0 45	20	8 25
29	8	15 10	-	-	14	14 45	13	0 45	8	13 5	13	14 55	13	14 30	15	17 5	15	6 45	23	11 20	4	1 40	15	16 50
30	14	16 0	-	-	11	10 35	10	16 10	9	13 55	9	10 45	19	14 55	14	14 35	22	15 25	18	22 30	14	23 40	25	21 45
31	13	22 35	-	-	9	14 15	-	-	9	13 55	-	-	20	15 5	12	13 0	-	-	18	1 0	-	-	20	11 5

DISTRIBUTION OF WIND SPEED: EXTREME VELOCITIES AS RECORDED BY THE DINES TUBE ANEMOGRAPH

250. ESKDALEMUIR: $H_a = 235$ metres + 15 metres.

1934.

Month	DISTRIBUTION OF WIND SPEED								EXTREME VELOCITIES				
	More than 17.1 m/s.		10.8 to 17.1 m/s.		5.5 to 10.7 m/s.	1.6 to 5.4 m/s.	Less than 1.6 m/s.	No Record.	Highest Hourly Wind			Highest Gust	
	Dates of Occurrence.	Duration	No. of Days.	Duration	Duration	Duration	Duration	Duration	Year from N.	Speed	Hour Ended	Speed	Date
Jan. ...	6,7,10,17	hr. 11	15	hr. 111	hr. 315	hr. 180	hr. 127	-	200	m/s. 20	day hr. 7 14	m/s. 32	day h. m. 7 12 55
Feb. ...	9,21	4	9	51	226	243	148	-	300	19	21 8	34	8 0 45
Mar. ...	-	0	8	39	285	260	160	-	30	14	13 1	26	12 23 30
Apr. ...	15	1	10	62	291	228	138	-	200	17	15 20	29	15 20 0
May ...	21	1	8	48	226	307	162	-	260	17	21 14	30	21 16 55
June ...	-	0	-	0	152	365	203	-	300	10	19 14	18	19 14 5
July ...	-	0	3	9	135	315	285	-	210	12	30 15	22	26 15 20
Aug. ...	-	0	2	16	172	354	202	-	210	17	21 11	27	21 11 55
Sept. ...	-	0	7	42	249	278	151	-	200	17	8 10	25	3 18 55
Oct. ...	-	0	16	96	343	203	102	-	290	16	17 22	27	27 4 40
Nov. ...	-	0	6	13	224	299	184	-	230	15	26 1	22	26 0 10
Dec. ...	-	0	10	45	272	316	111	-	200	15	30 23	26	9 17 10
Year ...	8	17	94	532	2890	3348	1973	-	200	20	Jan. 7 14	34	Feb. 8 0 45

MARCH, 1934.

APRIL, 1934.

[illegible]

263. ESKDALENUIR.

NOVEMBER, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						Remarks on the Weather of the Day.
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	
1	Cu: Cist: Cl.	Cu: Freu.	Cu: Stcu.	7	1	2	1	2	2	J	J	1	1	1	1	...	...	...	...	...	...	bc, b a: b, b, p: b n.
2	Stcu.	Cu.	Stcu: Cist: Cl.	1	1	1	2	1	1	1	1	1	1	1	1	...	...	...	...	...	...	bc, by a: by, b, p: b n.
3	St: Nbst.	St: Frst: Nbst.	St: Frst.	10	10	10	10	10	10	I	I	G	G	G	G	...	...	...	...	...	...	c, m, a: c, m, p: c, m, n.
4	Stcu: Cl.	St: Ast: Cu.	St: Ast.	8	9	10	10	9	3	h	j	j	j	j	j	...	...	...	...	...	...	bc, m, a: c, m, p: c, m, n.
5	Stcu: Acu: Cist.	Cu: Acu: Cist.	Stcu.	9	7	5	9	9	7	k	k	j	j	j	j	...	...	...	...	...	...	c, bc a: bc, c, p: c, bc n.
6	Stcu.	Stcu.	Cu.	1	1	6	2	1	0	k	1	k	k	k	k	...	...	...	...	...	...	bc, bc a: bc, b, p: b n.
7	Stcu.	Cu: Ast: Cu.	Acu.	7	5	1	1	2	1	k	1	j	j	j	j	...	...	...	...	...	...	bc, by a: by, b, p: b, b, n.
8	Stcu.	Stcu.	Stcu.	2	1	9	8	2	0	j	j	j	j	j	j	...	...	...	...	...	...	bc, c a: bc, b, p: b, b, n.
9	St: Stcu.	Frnb: Nbst.	Frnb: Nbst.	8	9	10	9	10	4	j	j	j	j	j	j	...	...	...	...	...	...	cl, i, m, a: c, m, p: c, m, n.
10	Frnb: Ast.	Frnb: Ast.	Frnb.	10	10	10	9	9	8	I	j	j	j	j	j	...	...	...	...	...	...	c, m, a: c, m, p: c, m, n.
11	Frst: Stcu.	Frst: Stcu: Ast.	Stcu.	9	9	10	9	9	8	j	1	m	I	j	j	...	...	...	...	...	...	c, c, a: c, c, p: c, c, n.
12	Stcu.	Cu: Freu: Stcu.	Stcu.	4	1	2	8	9	5	1	k	1	k	k	k	...	...	...	...	...	...	bc, b a: b, b, p: c, bc n.
13	Frst: Ast: Cu.	Stcu.	Stcu.	9	9	10	7	9	4	j	1	k	k	k	j	...	...	...	...	...	...	c, c, a: bc, b, p: c, bc n.
14	Stcu.	Cu: Acu: Cl.	Stcu.	9	8	4	6	1	1	k	1	1	j	j	j	...	...	...	...	...	...	cl, bc a: bc, b, b, n.
15	Frst: Stcu.	Stcu.	Stcu.	1	1	9	4	5	6	j	k	k	k	k	j	...	...	...	...	...	...	bc, m, a: c, bc, p: bc, bc n.
16	Frst: Stcu.	Frnb: Stcu.	Frst: Stcu.	10	10	10	10	10	10	j	j	j	j	j	j	...	...	...	...	...	...	d, c, a: c, c, p: c, d, n.
17	Stcu: Ast: Cu.	St: Stcu: Cl.	Stcu: Acu: Cl.	7	8	9	5	1	1	I	j	j	j	j	j	...	...	...	...	...	...	bc, c a: bc, b, p: b, b, n.
18	Stcu: Acu: Cl.	Stcu: Acu: Cl.	St: Stcu.	2	4	9	10	10	10	1	k	k	j	j	j	...	...	...	...	...	...	cl, c a: c, c, p: c, m, n.
19	St: Stcu.	St: Stcu.	St.	10	9	10	10	10	10	I	I	G	G	G	G	...	...	...	...	...	...	cl, m, a: c, d, m, p: c, d, n.
20	Frnb: Nbst.	St: Stcu.	Stcu: Cl.	10	9	10	2	1	6	G	I	j	k	1	1	...	...	...	...	...	...	cl, c, a: c, p: b, b, bc n.
21	St: Stcu.	Frst: Stcu.	St: Stcu.	10	9	10	9	9	10	G	k	I	I	I	I	...	...	...	...	...	...	c, c, m, a: c, d, m, p: c, n.
22	St: Stcu.	Stcu.	St: Stcu.	10	9	9	9	9	10	h	h	j	k	I	I	...	...	...	...	...	...	cl, m, a: c, d, m, p: c, d, n.
23	St: Stcu.	Frst: Stcu.	St: Stcu.	10	10	9	10	10	10	I	h	h	h	I	j	...	...	...	...	...	...	cl, d, m, a: c, d, m, p: c, d, n.
24	St: Stcu.	Frst: Stcu.	Stcu.	10	10	10	10	10	10	I	1	k	k	k	k	...	...	...	...	...	...	c, a, p and n.
25	St: Stcu.	Frst: Stcu.	St: Stcu.	10	10	10	9	9	10	k	j	j	j	j	j	...	...	...	...	...	...	c, a, p and n.
26	St.	Frst: Stcu.	St: Stcu.	10	10	10	10	10	10	h	h	1	k	k	k	...	...	...	...	...	...	cl, m, a: c, c, d, p: c, n.
27	St: Stcu.	St.	St: Stcu.	10	9	10	10	8	5	1	j	I	I	I	I	...	...	...	...	...	...	cl, m, a: c, c, d, m, p: c, m, n.
28	Stcu.	Frst: Stcu.	Frst: Stcu.	8	9	10	9	9	5	k	k	j	j	j	j	...	...	...	...	...	...	cl, c, a: c, c, d, p: bc, bc n.
29	St.	Frst: Stcu.	St: Stcu.	10	9	10	10	10	10	C	D	h	h	h	G	...	...	...	...	...	...	cl, Fe, of, c, a: c, d, m, p: c, d, m, n.
30	Stcu.	St.	St.	10	10	10	9	10	10	G	h	E	E	F	I	...	...	...	...	...	...	cl, m, of a: of, om, p: om, c, m, n.
Mean Cloud Am't.				7.77	2.8	1.7	6.7	1.6	2													

264. ESKDALENUIR.

DECEMBER, 1934.

1	St: Stcu.	Frnb: St.	Frnb: Nbst.	10	10	10	10	10	10	h	j	j	I	I	G	id	...	...	...	...	...	cl, c, a: c, c, m, p: c, d, n.
2	St.	St.	St.	10	10	10	10	10	10	G	F	G	G	E	h	d	...	...	...	...	...	cl, m, a: od, id, p: od, f, c, n.
3	St.	Frst: St: Stcu.	St.	10	9	9	10	10	5	h	j	h	j	G	I	id	...	...	...	...	...	cl, c, a: c, d, m, p: c, d, m, n.
4	St: Stcu.	Frnb.	Frnb: Nbst.	10	10	10	10	10	10	h	h	G	G	h	h	d	...	...	...	...	...	cl, c, m, a: c, c, m, p: c, c, m, n.
5	St: Frst.	St: Ast: Cu.	Stcu.	9	9	9	8	7	4	I	k	k	k	k	k	p	...	...	...	...	...	p, c, d, m, a: c, d, m, p: bc n.
6	Stcu.	Frnb: Nbst.	St.	2	9	10	10	10	10	k	k	j	j	F	1	...	...	...	...	...	...	b, m, a: c, c, m, p: om, c, m, n.
7	St: Stcu.	Frst: Stcu.	St: Stcu.	10	10	9	10	9	10	I	G	k	j	j	j	...	...	...	...	...	...	cl, c, m, a: c, d, m, p: c, c, d, n.
8	Frnb: Nbst.	Cu: Stcu.	Stcu.	10	10	9	10	8	1	h	I	k	k	j	j	...	...	...	...	...	...	cl, p, m, a: c, c, p: c, b, n.
9	Frnb: Nbst.	St: Stcu: Ast.	Stcu.	10	10	10	10	7	9	j	j	j	k	k	j	...	...	...	...	...	...	c, a: c, c, p: c, p, n.
10	St: Stcu.	Cu: Stcu.	Cu: Stcu.	8	9	9	9	9	10	j	k	j	j	j	j	...	...	...	...	...	...	c, c, a: c, c, p: c, p, n.
11	St: Stcu.	Frnb: Nbst.	Frnb: Nbst.	9	9	10	10	10	10	j	j	I	I	I	1	...	...	...	...	...	...	c, m, a: c, c, m, p: c, c, m, n.
12	Frst: Stcu.	Frnb: Nbst.	Stcu.	10	10	10	9	9	8	j	j	I	I	j	k	...	...	...	...	...	...	cl, c, m, a: c, c, m, p: c, c, n.
13	Stcu.	Frst: Stcu.	Stcu.	10	7	9	8	10	10	j	j	I	I	1	1	...	...	...	...	...	...	bc, c, p, m, a: c, p, p: c, c, m, n.
14	Frst: Stcu.	Frnb: Nbst.	Frnb: Nbst.	10	9	10	10	10	10	1	1	I	I	1	1	...	...	...	...	...	...	cl, m, a: c, c, m, p: c, c, m, n.
15	Frnb.	Frst: Stcu.	Frst: Stcu.	10	9	9	10	9	9	j	k	k	k	k	h	...	...	...	...	...	...	cl, c, a: c, c, p: c, c, m, n.
16	Frst: Stcu.	Frst: Cu: Stcu.	Frst: Acu.	10	9	9	9	7	9	j	h	j	k	I	1	...	...	...	...	...	...	bc, c a: c, c, m, p: bc, m, n.
17	St.	St.	Frst.	10	10	10	9	9	10	F	D	E	1	k	h	...	...	...	...	...	...	om, of a: of, c, p: c, c, m, n.
18	Frst: Nbst.	Frnb: Nbst.	Frst.	10	9	10	10	8	9	h	j	I	I	I	1	...	...	...	...	...	...	cl, c, m, a: c, c, m, p: bc, c, m, n.
19	St: Frst.	Frst.	Frst: Stcu.	10	10	10	10	9	9	I	I	I	h	I	F	...	...	...	...	...	...	c, m, a: c, c, m, p: c, m, n.
20	Stcu.	Stcu.	Cu: Stcu.	10	8	5	5	8	9	j	1	k	1	1	1	...	...	...	...	...	...	c, bc a: bc, c, p: bc, c, n.
21	St.	St: Ast: Cu.	Stcu.	10	10	9	4	7	9	D	D	I	k	j	j	...	...	...	...	...	...	of, c, m, a: c, m, p: bc, c, n.
22	Stcu.	Stcu.	St: Stcu.	9	6	6	9	10	9	j	I	I	I	I	1	...	...	...	...	...	...	c, bc, m, a: bc, m, p: c, m, n.
23	Stcu.	St: Stcu.	St: Stcu.	10	10	10	10	10	9	1	I	I	h	1	1	...	...	...	...	...	...	cl, id, m, a: c, d, m, p: c, d, m, n.
24	Stcu.	Stcu: Ast: Cu.	Stcu.	10	9	9	10	10	9	1	I	I	1	1	1	...	...	...	...	...	...	bc, m, a: c, m, p and n.
25	St: Stcu.	Stcu.	Frnb: Nbst.	9	9	10	10	10	10	1	j	j	I	1	1	...	...	...	...	...	...	cl, c a: c, c, m, p: c, c, m, n.
26	Frst: Nbst: Ast.	Frnb: Ast.	Stcu.	10	10	10	9	9	9	j	h	j	j	j	j	...	...	...	...	...	...	c, c, a: c, c, p: c, p, n.
27	Stcu: Ast: Cu.	Frnb: Ast.	Frnb: Nbst.	9	10	10	10	10	9	j	h	I	I	I	1	...	...	...	...	...	...	c, c, m, a: c, m, p: c, c, m, n.
28	Frst: Stcu.	Stcu.	Stcu.	9	10	9	9	10	10	j	I	j	I	j	I	...	...	...	...	...	...	cl, id, m, a: c, c, m, p: c, c, m, n.
29	St: Stcu.	Cu: Stcu: Acu.	Cu: Stcu.	9	9	7	8	9	8	j	I	k	m	1	1	...	...	...	...	...	...	c, bc a: bc, c, p: c, bc n.
30	Frnb: Nbst.	St.	St.	10	10	10	10	10	10	I	G	F	h	h	h	...	...	...	...	...	...	c, id, f a: oid, p: o, c, m, n.
31	St: Stcu.	Stcu.	St: Stcu.	9	7	9	9	9	7	I	j	k	j	j	j	...	...	...	...	...	...	cl, id, q, c a: c, p, p: c, bc n.
Mean Cloud Am't.				9.49	2.9	2.9	2.9	0.8	7													
Mean Annual Cloud Am't.				8.08	0.8	1.7	7.7	4.7	0													
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						

265. ESKDALEMUIR.

1934.

Month	JANUARY Factor 6.23				FEBRUARY Factor 6.29				MARCH Factor 6.30			
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.
1	505	-35	-130	Z-	140	-110	105	120	270	300	Z-	250
2	300	455	370	580	65	270	190	440	50	Z-	155	(415)
3	200	220	180	-480	165	230	265	430	Z-	185	170	185
4	Z-	Z-	Z-	190	55	65	-	-	290	115	70	Z±
5	125	280	180	530	-	-	180	220	200	115	Z±	145
6	150	175	Z-	5	55	105	170	170	Z+	90	Z±	320
7	230	90	Z-	Z-	75	55	110	50	135	235	255	225
8	180	130	50	-115	Z+	95	Z+	345	190	200	-220	195
9	410	245	185	Z-	125	35	100	120	275	-20	195	585
10	Z-	-245	Z-	Z-	75	285	175	195	410	120	210	-80
11	5	5	190	190	145	115	115	115	115	145	105	-190
12	180	175	205	90	130	145	635	400	45	Z-	-155	100
13	40	10	180	250	355	245	390	465	235	170	155	340
14	Z-	Z-	-575	190	305	540	270	720	205	220	200	Z+
15	205	140	Z-	Z-	310	825	400	875	Z±	585	0	25
16	170	-345	205	Z-	770	555	345	480	180	125	195	Z-
17	Z-	Z-	55	125	530	345	210	515	200	180	Z±	195
18	70	180	-80	(475)	375	280	125	235	130	110	180	205
19	195	225	380	(870)	195	130	185	195	90	540	190	285
20	585	340	490	365	115	90	145	140	115	-85	155	130
21	90	125	165	350	80	145	115	130	145	100	175	205
22	120	170	195	55	125	95	125	285	140	140	15	230
23	75	375	170	305	230	195	150	285	155	225	220	195
24	170	170	295	605	15	25	Z-	245	160	315	165	210
25	455	245	310	-5	530	355	280	185	90	185	230	385
26	230	Z-	280	Z-	230	245	190	220	125	Z-	175	195
27	35	195	(365)	420	115	190	245	280	160	190	180	210
28	235	245	290	305	155	395	200	595	285	275	180	345
29	155	280	665	(1000)	-	-	-	-	595	125	90	50
30	Z-	85	-205	220	-	-	-	-	80	130	100	200
31	150	285	375	425	-	-	-	-	80	155	55	245
(a)	201	201	280	359	210	232	217	312	183	202	152	233
(b)	175	216	261	328	225	239	218	317	187	171	138	209
Mean	(a) 255	(b) 245	(a) 243	(b) 250	(a) 193	(b) 176						
Month	APRIL Factor 6.31				MAY Factor 6.36				JUNE Factor 6.30			
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.
1	195	130	130	165	185	255	275	275	345	180	115	395
2	105	130	40	145	100	95	155	420	135	80	90	180
3	95	90	155	440	40	25	125	200	150	110	155	185
4	345	315	195	180	150	90	110	120	205	145	135	55
5	25	155	125	180	275	Z-	155	Z-	195	85	140	35
6	300	250	Z±	320	115	Z±	Z-	-25	155	135	180	205
7	155	170	Z±	225	Z-	125	180	25	-45	120	45	55
8	70	115	230	395	95	80	275	285	120	145	-110	Z+
9	280	175	Z+	120	420	245	195	235	240	200	40	200
10	Z+	Z-	-165	(150)	215	460	175	(130)	235	170	125	195
11	(55)	Z±	45	Z-	130	240	215	395	275	185	225	255
12	Z-	Z-	110	Z±	435	15	135	145	115	180	185	205
13	175	275	305	320	180	85	Z-	65	215	275	45	225
14	Z-	165	-	-	105	200	180	335	170	175	125	50
15	-	-	185	55	200	25	Z-	Z-	120	170	610	475
16	100	145	220	245	Z-	-105	155	160	490	180	155	185
17	135	190	225	Z±	120	5	Z±	Z±	115	145	120	140
18	Z-	280	185	390	145	180	Z±	225	195	140	135	260
19	110	185	210	80	170	Z+	Z-	175	365	275	130	125
20	185	155	205	Z-	Z-	-305	5	370	110	220	-25	235
21	80	130	15	145	Z-	145	105	240	105	155	130	55
22	195	Z-	Z±	485	25	325	160	340	Z±	-	Z+	80
23	35	185	-10	Z±	185	145	155	230	85	185	100	115
24	195	245	Z±	195	235	115	135	235	-	-	280	90
25	180	125	Z+	335	Z-	115	95	125	115	80	125	235
26	225	100	95	130	75	105	135	200	255	135	135	Z-
27	-35	170	Z-	-30	85	120	165	120	315	540	Z-	250
28	80	90	50	175	145	145	130	215	155	145	Z-	200
29	-195	100	80	245	390	65	150	200	215	170	195	580
30	275	310	185	620	185	195	180	120	280	130	185	225
31	-	-	-	-	115	170	180	505	-	-	-	-
(a)	154	174	149	249	174	144	155	226	202	172	155	196
(b)	119	182	145	246	174	162	168	248	190	160	143	203
Mean	(a) 181	(b) 168	(a) 175	(b) 188	(a) 181	(b) 174						

Note:—The Potential Gradient is reckoned as positive if the potential increases upwards. For Indeterminate Potential Gradient the following notation is used: Z +, Indeterminate, positive value; Z -, Indeterminate, negative value; Z ±, Indeterminate in magnitude and sign.
(a) Mean of all positive readings. (b) Mean from all complete days using both positive and negative readings.

265. BSKDALENUIR.

1934.

Month	JULY Factor 6.20				AUGUST Factor 5.75				SEPTEMBER Factor 5.99											
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.								
Day	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.								
1	310	145	125	250	250	145	130	155	200	155	180	325								
2	180	95	175	240	Z±	Z-	55	Z±	285	440	170	Z-								
3	155	110	200	415	210	5	Z-	225	Z±	155	105	280								
4	195	125	200	245	150	300	180	275	75	50	155	275								
5	300	140	170	195	180	145	135	85	240	195	120	255								
6	85	110	65	95	345	110	210	-205	220	270	235	360								
7	130	185	125	210	220	455	115	160	Z-	120	225	235								
8	30	75	90	175	135	65	130	285	165	30	140	290								
9	145	120	105	215	180	180	-	95	15	Z±	190	335								
10	220	200	155	145	75	120	130	145	120	275	170	90								
11	230	180	130	235	70	95	50	110	175	205	155	190								
12	75	60	120	155	100	15	105	245	155	130	130	130								
13	240	-55	280	-695	175	115	135	230	245	330	175	615								
14	175	130	120	225	110	115	125	310	435	460	(150)	385								
15	120	120	235	270	515	210	200	170	355	175	245	Z±								
16	90	195	120	50	145	205	140	200	210	160	180	220								
17	25	95	115	105	180	105	125	485	215	145	160	85								
18	Z±	270	Z+	140	270	60	85	235	-	Z±	220	345								
19	125	120	150	350	110	115	75	180	110	90	-15	145								
20	175	180	145	175	120	Z±	100	125	115	125	135	Z-								
21	155	155	125	240	150	70	-135	65	135	130	115	255								
22	5	155	370	280	140	Z-	145	Z-	65	200	-20	-								
23	145	200	210	240	235	155	155	270	120	110	165	155								
24	105	95	185	205	175	125	130	255	45	50	(130)	255								
25	295	195	150	170	135	200	170	390	125	-	140	170								
26	195	115	-	-	700	505	150	225	105	(Z-)	Z-	220								
27	-	-	90	80	140	155	155	115	50	80	150	290								
28	210	145	120	180	105	Z±	Z±	185	-30	(85)	95	(380)								
29	70	90	75	175	10	395	80	230	(135)	50	-5	450								
30	-5	175	120	285	235	200	55	315	170	90	150	-75								
31	110	195	95	170	190	185	155	280	-	-	-	-								
(a)	153	143	149	203	191	187	125	214	165	165	160	268								
(b)	145	133	151	178	199	174	118	206	159	153	136	253								
Mean	(a) 182		(b) 152		(a) 174		(b) 174		(a) 182		(b) 175									
Month	OCTOBER Factor 5.99				NOVEMBER Factor 5.99				DECEMBER Factor 5.98											
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.								
Day	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.	v/m.								
1	275	315	140	265	335	305	380	565	185	40	65	(-185)								
2	185	335	110	280	195	175	480	455	25	55	50	740								
3	205	-80	Z±	390	130	Z-	Z-	-185	205	180	250	350								
4	140	200	-45	Z-	420	375	280	255	95	105	Z-	Z-								
5	(50)	105	100	215	60	180	145	210	90	50	95	110								
6	140	270	255	40	120	190	230	290	90	170	-10	390								
7	240	Z-	140	180	180	185	345	490	310	Z-	230	310								
8	100	145	Z-	370	165	280	190	460	105	Z-	155	415								
9	Z-	200	255	280	535	-50	Z±	185	Z-	Z-	90	245								
10	110	275	185	305	Z-	Z-	Z-	-30	Z-	180	285	Z-								
11	140	185	90	135	70	5	Z-	570	225	270	Z-	345								
12	145	90	185	245	205	335	235	485	145	5	105	275								
13	110	195	200	200	125	115	215	510	Z-	305	310	35								
14	55	130	Z-	Z±	255	140	110	485	365	245	-40	-215								
15	105	170	Z-	150	245	100	320	140	150	-40	220	355								
16	105	120	250	145	115	100	115	170	490	585	310	570								
17	55	90	210	205	105	335	155	530	250	340	375	Z-								
18	105	70	110	210	305	255	395	370	50	50	-450	300								
19	165	95	25	325	305	155	320	255	Z-	Z±	Z-	390								
20	-305	190	225	290	155	110	185	380	Z-	145	230	255								
21	0	105	105	-10	285	635	245	295	140	295	220	310								
22	60	Z±	Z±	125	100	130	110	180	495	310	400	370								
23	85	175	Z±	445	110	125	205	285	260	195	Z-	175								
24	500	420	-15	Z-	280	125	240	190	105	220	200	320								
25	Z-	300	-185	Z-	100	160	150	170	255	145	285	250								
26	-50	130	5	90	-15	140	145	175	Z±	50	-	-								
27	Z±	Z-	Z-	Z±	75	190	135	195	-	-	Z±	Z±								
28	Z±	Z±	Z±	130	175	145	210	425	Z-	125	35	520								
29	110	120	85	-270	495	495	370	325	-500	365	255	185								
30	Z±	Z-	(Z±)	-25	575	470	545	235	215	-365	25	Z±								
31	125	165	295	405	-	-	-	-	65	-75	145	290								
(a)	137	184	155	235	221	219	247	328	196	193	196	326								
(b)	85	168	150	181	210	227	247	324	147	163	130	276								
Mean	(a) 178		(b) 146		(a) 254		(b) 252		(a) 228		(b) 179									
Annual Means.									(a)	182	183	262								
									(b)	168	177	247								
									(a) 201		(b) 190									

Notes:—The Potential Gradient is reckoned as positive if the potential increases upwards. For Indeterminate Potential Gradient the following notation is used: Z +, Indeterminate, positive value; Z -, Indeterminate, negative value; Z± Indeterminate in magnitude and sign.
(a) Mean of all positive readings. (b) Mean from all complete days using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES (in volts per metre).
The departures from the mean of the day are adjusted for non-cyclic change.†

266. ESKDALEMUIR.

* 0a Days Only.

1934.

MONTH AND SEASON	Hour 0 to 1	G.M.T. 1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non Cyclic Change†	No.of Days Used	Mean Values	
Jan.	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m		
Feb.	-69	-115	-102	-106	-124	-180	-157	-118	-87	-73	-56	-49	+44	+10	+45	+92	+119	+214	+289	+211	+140	+120	+32	+1	-127	4	332	
Mar.	+5	-28	-36	-36	-26	-15	-40	-40	+14	+1	-15	-40	-43	-58	-63	-27	+15	+52	+111	+90	+81	+84	+28	-6	+32	14	320	
	+61	+40	+16	+12	-23	-21	-10	+17	+10	+1	-38	-34	-34	-42	-27	-39	-19	-34	-19	+23	+5	+62	+39	+53	+90	4	202	
Apr.	-21	+17	+17	+4	-22	-55	-24	+42	+28	-10	-42	-66	-84	-43	-26	-33	-75	-56	+39	+177	+173	+80	+16	-42	+117	2	217	
May	+17	+4	-3	-8	-4	+25	+25	0	-15	-22	-28	-33	-42	-46	-28	-25	-34	-24	-11	+48	+65	+49	+63	+29	+47	10	190	
June	+40	+45	+24	+8	+1	+22	+16	-24	-49	-58	-30	-38	-42	-48	-42	-44	-25	-11	+4	+51	+59	+55	+53	+36	-3	13	191	
July	+5	+8	+9	+3	-1	+8	+8	-9	-30	-16	-3	-35	-45	-35	-26	-22	-18	-5	+24	+47	+55	+37	+20	+13	+1	16	166	
Aug.	+46	+41	+31	+44	+82	+70	+32	+36	+38	-25	-50	-37	-54	-62	-82	-74	-64	-54	-4	+30	+37	+4	-9	+36	+42	7	218	
Sept.	+17	+36	+22	+17	+29	+37	+85	+45	+13	-29	-69	-68	-69	-67	-73	-67	-59	-15	+37	+36	+51	+80	+40	+10	+65	8	228	
Oct.	+47	+5	-4	+5	+20	-46	-42	+3	+19	-39	-28	-55	-57	-44	-56	-34	-17	+11	+52	+57	+41	+36	+77	+39	-18	3	170	
Nov.	-28	-35	-35	-67	-68	-55	-36	-36	-27	-28	-28	-29	-35	-13	+14	+19	+65	+90	+111	+93	+76	+40	+22	+4	-35	17	270	
Dec.	+8	-14	-36	-84	-93	-70	-76	-71	-45	-10	-32	+39	+39	+9	-18	-4	+44	+86	+59	+45	+21	+89	+99	+28	+10	4	288	
Year	+11	0	-8	-17	-19	-22	-20	-13	-11	-26	-35	-37	-43	-37	-32	-21	-6	+21	+58	+76	+67	+80	+40	+17	-	-		231
Winter	-21	-48	-52	-73	-78	-75	-77	-66	-36	-27	-33	-20	-21	-13	-5	+20	+61	+111	+143	+110	+80	+83	+45	+7	-	-		303
Equinox	+26	+25	+13	+9	+1	-21	-3	-27	-17	-19	-44	-56	-61	-49	-45	-43	-43	+23	+27	+73	+67	+59	+43	+15	-	-		204
Summer	+27	+25	+15	+12	+19	+31	+20	+1	-14	-30	-28	-36	-46	-48	-45	-41	-35	-23	+3	+44	+54	+36	+32	+29	-	-		191

267. ESKDALEMUIR.

* 1a and 2a Days Only.

1934.

MONTH AND SEASON	Hour 0 to 1	G.M.T. 1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Non Cyclic Change†	No.of Days Used	Mean Values	
Jan.	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m			
Feb.	-15	-15	-40	-55	-70	-29	-41	-31	+13	+63	+1	+13	+35	+10	-29	-37	-45	-4	+23	+51	+73	+114	+51	-32	+115	3	196	
Mar.	-66	-95	-62	-27	-30	-19	-45	-54	-53	-25	0	-5	-8	-18	+11	+40	+50	+85	+75	+101	+92	+61	+14	-15	-56	5	156	
	-36	-13	-17	-29	-61	-3	-7	-9	+27	+14	-47	-51	-31	-1	-17	-5	+13	+23	+29	+29	+51	+85	+57	-8	-123	7	179	
Apr.	-38	-8	-13	+1	+34	+3	+18	-25	-17	-25	-33	-68	-20	-35	-24	-28	-35	-20	+33	+92	+90	+75	+55	-22	-3	5	173	
May	+21	-26	-33	-36	+1	0	+42	+17	-41	-92	-41	-51	-37	-13	+4	+13	-8	-21	+20	+34	+54	+84	+62	+44	+19	5	168	
June	+8	+1	-25	-29	+15	+29	+32	+44	+9	+3	-24	-32	-36	+13	-4	-24	-34	-17	+5	+11	+16	+7	+36	-8	+8	6	161	
July	-31	-55	-39	-22	-25	+8	+59	+9	-16	+1	-26	-38	-21	-14	-1	-22	-28	-1	+34	+50	+81	+62	+33	+20	-22	6	140	
Aug.	+23	+62	+48	+37	-10	+20	-12	-30	-46	-38	-53	-23	-70	-85	-34	-26	-21	-5	0	+23	+38	+98	+44	+66	-52	6	162	
Sept.	-44	-8	+6	-90	+4	-28	-50	-54	-69	-70	-15	-24	+3	-15	-28	+20	+24	+26	+63	+122	+110	+81	+38	+9	+25	2	154	
Oct.	-29	+17	-14	-85	-43	-34	-48	-42	-43	-25	-17	-52	+19	+29	+19	+25	+11	+100	+66	+37	+69	+19	-20	-20	+83	5	166	
Nov.	-50	-63	-60	-49	-40	-19	-24	-26	-10	+35	+17	+12	-28	-45	-36	+8	+46	+110	+108	+50	+56	+46	+5	-54	+38	8	211	
Dec.	-37	-65	-39	-138	-128	-125	-59	-34	-26	-13	-10	-3	-8	-4	-94	-107	-31	+22	+203	+114	+146	+156	+65	+104	+50	2	206	
Year	-25	-22	-24	-43	-29	-16	-11	-20	-23	-14	-21	-27	-17	-15	-19	-12	-5	-25	+55	+59	+73	+74	+45	+7	-	-	181	
Winter	-42	-59	-50	-67	-67	-48	-42	-36	-19	+15	+2	+4	-2	-14	-37	-24	+5	+53	+102	+79	+92	+94	+59	+1	-	-	192	
Equinox	-37	-3	-9	-51	-17	-15	-22	-33	-25	-27	-28	-49	-7	-5	-13	+3	+3	+32	+48	+70	+80	+65	+33	+10	-	-	168	
Summer	+5	-5	-12	-13	-5	+14	+30	+10	-23	-31	-36	-36	-41	-25	-9	-15	-23	-11	+15	+29	+47	+63	+44	+31	-	-	158	

† see page 21.

* Note. For explanation of 0a and 2a Days, see page 164.

ELECTRICAL CHARACTER OF EACH DAY, AND APPROXIMATE DURATION OF
NEGATIVE POTENTIAL GRADIENT.

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268. ESKDALEMUIR.

1934.

Month	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
Day	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.
1	2c	Hours 12.9	1b	Hours 2.0	1b	Hours 1.3	1a	Hours 0.1	0a	Hours ...	0a	Hours ...
2	1b	0.6	0a	...	2c	6.1	1a	0.3	0a	...	0a	...
3	2b	5.8	1a	0.1	1c	2.5	1a	0.9	1a	0.7	0a	...
4	2c	15.3	(0a)	...	2c	5.7	1a	0.7	0a	...	1a	0.3
5	1a	0.1	(0a)	...	1c	2.7	1b	2.7	2c	5.2	1a	0.7
6	2c	9.3	1a	0.1	1c	1.9	1c	2.6	2c	10.7	0a	...
7	2c	7.5	1b	2.5	1b	0.2	1c	2.9	2b	3.3	1a	1.9
8	1b	2.0	1b	1.2	1b	2.9	1a	1.0	1a	0.3	1b	2.3
9	2c	4.6	1a	0.7	2b	3.7	1b	1.6	0a	...	1b	1.1
10	2c	16.6	0a	...	2a	4.3	2c	8.3	(1a)	(0.9)	0a	...
11	2c	8.2	0a	...	2b	6.9	2c	9.0	0a	...	0a	...
12	1c	2.6	0a	...	2c	13.3	2c	14.6	1b	1.3	0a	...
13	1b	2.4	0a	...	1b	0.1	1b	0.8	1c	2.8	1a	0.3
14	2c	18.5	0a	...	1c	0.1	(2b)	---	1b	0.2	1b	2.3
15	2b	3.4	0a	...	2c	4.8	(2b)	---	2c	13.5	1a	0.1
16	2c	(7.5)	0a	...	2c	6.0	0a	...	2c	9.3	0a	...
17	2c	12.2	0a	...	1c	2.7	2c	3.1	2c	3.6	0a	...
18	2b	3.8	0a	...	1b	1.4	1b	2.7	1b	0.8	0a	...
19	1a	0.3	1b	0.3	1a	1.0	2b	4.8	2c	9.7	1b	2.7
20	0a	...	1a	0.2	1b	2.0	2c	6.9	2c	10.1	1a	0.8
21	1a	1.3	1b	0.4	0a	...	(1b)	2.5	1b	2.5	2c	4.4
22	1a	0.4	1a	0.2	1b	2.7	2c	5.9	1a	0.4	2c	---
23	1b	0.9	0a	...	0a	...	2c	6.0	0a	...	0a	...
24	0a	...	2b	5.5	1a	0.6	1b	0.3	1b	2.0	(1b)	---
25	2b	5.3	1b	0.7	1a	0.1	1b	0.5	2b	5.7	0a	...
26	2c	3.9	0a	...	1b	2.7	1b	0.7	0a	...	1b	0.7
27	1b	0.5	0a	...	0a	...	2b	9.1	1a	0.1	2b	4.0
28	0a	...	0a	...	0a	...	2b	3.5	0a	...	1b	0.8
29	0a	...	...	...	1a	0.9	2b	8.7	1a	0.1	0a	...
30	2b	6.7	...	...	1a	0.1	0a	...	0a	...	0a	...
31	0a	...	...	...	1a	0.5	...	...	0a	...	...	...
Total	---	152.6	---	13.9	---	77.2	---	100.2	---	83.2	---	22.4
No. of Days used	---	31	---	28	---	31	---	28	---	31	---	28
Mean	---	4.9	---	0.5	---	2.5	---	3.6	---	2.7	---	0.8
	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.	Character	Duration of Negative Pot. Grad.
1	0a	Hours ...	1b	Hours 1.4	0a	Hours ...	0a	Hours ...	0a	Hours ...	1b	Hours 2.5
2	0a	...	2c	7.1	1b	2.7	0a	...	0a	...	2b	3.4
3	0a	...	2c	6.1	1c	2.9	(2c)	3.0	2c	8.4	1a	0.8
4	0a	...	1b	2.0	1b	1.5	2c	7.7	1a	0.1	2c	12.6
5	0a	...	1a	0.5	0a	...	2c	5.7	0a	...	(1a)	---
6	0a	...	2b	6.7	0a	...	1b	2.0	1a	0.1	1a	2.6
7	0a	...	0a	...	2b	3.1	2b	3.5	0a	...	2b	3.1
8	1a	0.5	1b	0.7	1a	0.1	2c	3.7	0a	...	2b	4.2
9	0a	...	1b	0.7	1c	2.9	1b	1.5	2b	6.4	2c	10.5
10	0a	...	2b	3.8	1b	0.3	1a	0.7	2c	17.9	2c	6.0
11	1a	0.3	1a	1.7	0a	...	0a	...	2b	4.3	2b	5.3
12	1a	0.2	1b	0.7	0a	...	1a	1.0	0a	...	2b	4.0
13	2b	4.8	1a	0.1	0a	...	1b	1.9	1b	1.3	1c	2.7
14	0a	...	0a	...	0a	...	2b	3.2	0a	...	2c	8.3
15	1a	0.1	1a	0.1	1c	2.1	2c	6.2	0a	...	2b	4.0
16	1a	0.1	0a	...	1b	0.5	1a	0.1	1a	1.2	1b	0.9
17	1b	0.9	0a	...	1b	2.4	1a	0.3	1a	0.8	2b	4.1
18	2c	4.1	1a	1.1	(2c)	---	0a	...	0a	...	2c	8.6
19	0a	...	1b	0.7	1b	2.9	1a	0.1	0a	...	2c	10.2
20	0a	...	1b	2.9	1b	2.7	1b	2.2	1a	0.1	1b	1.9
21	0a	...	2c	7.8	1a	0.4	2b	5.2	0a	...	0a	...
22	1b	2.5	1c	2.4	(2c)	---	2c	4.4	0a	...	0a	...
23	1b	1.2	1b	0.5	0a	...	2c	5.0	1a	0.1	2b	5.3
24	0a	...	1a	0.1	1b	2.5	2c	9.3	0a	...	0a	...
25	0a	...	0a	...	(1b)	---	2c	13.1	0a	...	0a	...
26	(1b)	---	0a	...	2c	7.1	1b	2.9	1a	2.6	(2c)	---
27	(1b)	(0.7)	0a	...	0a	...	2c	10.3	1a	0.1	(2c)	---
28	1a	0.6	2c	5.1	1a	1.4	2c	6.0	0a	...	2c	6.3
29	0a	...	2c	3.7	1b	2.0	2b	5.8	0a	...	2b	5.1
30	1a	1.5	1b	0.8	2c	8.9	2c	---	0a	...	2b	5.2
31	(0a)	...	1b	0.3	...	...	1a	0.5	...	...	1b	1.9
Total	---	17.0	---	57.0	---	46.4	---	105.3	---	43.4	---	119.5
No. of Days used	---	30	---	31	---	27	---	30	---	30	---	28
Mean	---	0.6	---	1.8	---	1.7	---	3.5	---	1.5	---	4.3

Annual Values. Character Frequency ... 0 1 2 Duration ... Total. No. of Days Mean
109 163 103 836.1 353 2.37

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
 Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

273. ESKDALEMUIR. (H.)

16,000 γ (·16 C.G.S. unit) +

FEBRUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 Q	542	543	543	546	548	552	553	551	547	543	540	539	537	538	547	548	548	548	552	552	552	548	548	548	546
2	547	550	551	551	551	558	559	557	555	547	541	539	539	546	550	547	547	551	552	548	542	532	534	547	547
3	546	543	545	547	551	551	553	550	546	545	538	537	540	547	553	555	555	553	553	548	544	534	540	546	547
4	546	548	553	557	544	547	551	551	548	546	542	537	535	543	552	551	518	544	540	548	542	540	536	542	546
5	538	541	538	541	541	545	545	545	543	537	540	531	540	545	554	555	538	532	515	518	528	528	536	542	538
6 Q	537	536	537	540	543	542	541	541	538	532	528	524	528	536	538	545	542	541	541	541	541	539	541	538	538
7	550	542	543	545	547	548	550	546	545	541	537	532	532	537	542	550	550	551	541	545	542	541	542	547	544
8	542	544	542	543	544	544	545	544	536	532	536	539	541	540	540	540	541	546	540	533	540	546	554	541	542
9 D	540	554	540	543	544	549	566	550	536	527	531	536	536	544	540	527	530	513	525	531	532	533	531	531	537
10 D	528	527	535	540	540	536	536	540	540	545	540	545	540	545	536	518	539	536	518	528	536	534	540	541	536
11	540	537	532	533	544	545	545	540	541	544	539	535	532	531	532	540	544	541	547	537	536	536	545	544	539
12	541	537	540	542	541	542	549	542	540	541	539	536	536	536	540	540	540	542	540	544	541	558	549	520	541
13	514	530	535	535	536	540	544	545	541	540	531	529	532	536	538	539	537	539	538	533	535	538	540	533	536
14 Q	539	537	538	537	539	541	544	544	540	534	530	530	531	527	535	541	545	549	549	549	549	548	545	540	540
15	540	540	540	541	545	545	551	552	552	545	537	543	541	543	550	554	527	533	537	541	537	544	544	543	543
16 D	544	548	541	542	541	544	548	551	548	548	551	544	548	548	493	516	512	516	525	535	522	512	522	521	534
17 D	525	521	519	522	528	536	534	537	530	516	521	519	517	513	527	526	527	540	543	542	558	525	512	517	527
18 D	530	534	531	528	535	538	544	537	535	534	522	535	525	518	534	534	540	539	531	534	542	548	537	530	534
19	535	534	535	533	526	539	540	548	541	534	521	517	518	524	532	539	535	530	541	540	533	539	535	535	533
20	534	536	534	536	535	547	547	552	546	535	533	526	524	529	525	533	537	535	534	536	539	538	539	539	536
21	543	538	538	538	542	543	544	543	543	535	529	524	533	542	548	546	542	542	541	546	547	536	536	538	540
22	547	536	548	539	536	544	546	547	539	534	525	529	534	537	534	538	536	535	542	543	542	540	539	539	539
23 Q	538	540	541	539	542	543	546	547	549	543	538	533	532	534	542	535	533	538	541	542	540	534	541	542	540
24	546	545	542	542	543	546	546	547	543	541	534	530	535	533	533	541	543	538	533	529	525	542	547	529	539
25	541	542	544	541	542	542	546	543	542	540	534	510	509	530	532	537	538	542	539	538	541	537	546	534	537
26 Q	542	537	541	541	542	546	543	543	542	538	540	536	528	532	534	535	537	546	546	548	548	547	546	547	541
27	545	545	545	545	546	546	550	550	547	542	534	527	522	524	536	541	549	535	539	538	538	540	544	545	540
28	545	545	540	540	540	541	545	542	540	537	528	526	527	536	534	531	527	536	541	540	536	546	549	549	538
Mean	539	540	540	540	541	544	547	546	543	539	534	532	532	535	537	539	537	539	539	540	540	539	541	538	539

MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

274. ESKDALEMUIR. (D.)

14° +

FEBRUARY, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1 Q	5.0	5.8	5.9	5.9	5.9	5.2	4.8	4.8	3.9	3.9	5.2	6.2	6.9	7.0	7.0	6.3	5.9	6.0	5.9	5.3	5.0	4.4	4.9	4.9	5.5
2	5.0	5.1	5.9	5.2	5.9	5.9	5.2	4.9	4.0	3.5	4.8	6.2	7.3	8.8	8.9	7.2	6.6	5.9	6.0	4.3	-7.8	-2.0	2.2	4.8	4.7
3	5.0	5.1	5.5	6.2	5.0	4.8	4.0	4.3	3.9	4.1	6.0	7.4	8.8	8.9	7.8	6.6	6.1	6.0	6.0	3.2	2.0	3.8	4.0	5.4	4.7
4	3.9	8.2	3.9	4.9	4.0	4.8	4.3	4.2	4.0	4.1	5.9	7.0	8.0	8.7	9.6	8.9	4.1	6.3	7.2	-2.3	1.0	3.2	1.0	-0.6	4.8
5	3.0	3.9	4.0	4.6	4.0	4.0	4.9	4.3	4.1	5.0	6.9	8.8	9.0	9.1	8.3	7.2	6.3	3.4	5.0	6.2	3.2	3.4	4.5	4.8	5.3
6 Q	4.9	5.0	5.3	5.9	5.7	5.1	4.9	4.9	4.4	4.5	5.9	7.9	10.0	11.3	9.9	7.2	6.8	6.9	6.9	5.9	5.2	3.5	3.1	3.6	6.0
7	3.8	4.6	4.3	4.9	4.3	4.9	4.2	4.0	4.0	3.9	4.9	7.2	9.2	10.1	9.5	8.1	7.3	6.8	4.9	4.7	5.2	4.0	4.8	4.0	5.6
8	3.6	4.1	4.9	4.6	4.8	4.9	4.9	4.9	4.9	4.9	5.1	6.2	8.0	8.9	7.6	6.9	6.5	6.0	3.9	4.0	3.3	5.6	5.2	4.6	5.3
9 D	10.7	10.8	14.0	1.8	-3.0	-3.1	1.9	5.0	7.6	6.3	8.0	10.0	9.9	11.1	13.1	12.6	15.2	16.6	8.0	5.9	5.0	4.9	5.0	5.0	4.5
10 D	4.1	5.0	4.9	4.5	4.2	3.9	4.0	4.0	4.1	5.0	6.3	5.9	9.0	12.0	12.9	6.0	6.1	6.1	1.8	-2.8	5.0	4.9	3.5	2.7	5.1
11	3.9	4.1	2.9	9.0	2.2	3.0	4.0	4.4	4.2	4.6	5.0	5.8	8.0	8.2	7.9	6.0	6.9	6.2	0.9	4.0	4.4	3.9	3.0	1.6	4.8
12	4.3	4.7	5.0	4.9	5.1	5.8	4.6	4.0	2.9	2.9	4.8	6.0	6.9	7.6	8.0	7.1	8.2	5.5	4.9	5.0	-4.2	0.2	-4.1	4.3	4.3
13	-3.1	3.6	3.1	3.9	4.8	4.0	4.9	4.2	2.0	3.1	4.9	6.8	7.9	8.1	8.9	8.0	6.9	5.6	5.0	4.1	4.0	3.2	-3.8	-1.0	4.1
14 Q	2.0	3.1	5.2	4.6	3.9	4.1	3.9	3.5	2.0	2.0	4.0	6.0	8.0	8.0	7.8	6.6	5.2	4.5	4.6	4.6	4.4	4.6	4.0	1.9	4.5
15	1.1	3.0	4.0	4.5	4.5	4.0	3.2	4.0	2.8	3.0	4.5	7.9	9.2	9.0	9.9	10.0	11.0	9.9	7.3	5.5	2.0	-0.9	3.0	4.1	5.2
16 D	4.1	4.1	4.9	5.2	4.9	4.9	4.2	4.0	3.3	3.6	5.6	7.3	8.2	13.2	14.4	17.3	16.3	12.8	4.0	7.9	12.2	4.6	6.0	3.0	7.3
17 D	3.6	3.1	0.9	4.0	2.2	4.1	5.1	9.2	6.0	5.8	3.5	6.3	8.9	6.4	7.8	5.0	6.9	4.8	4.3	3.1	-4.0	-8.2	-5.0	-0.5	3.5
18 D	2.9	2.1	4.0	4.0	4.9	5.0	4.0	3.9	4.3	5.1	5.0	7.3	9.0	7.1	7.1	6.2	3.3	-7.0	2.2	6.0	4.3	5.0	0.3	2.6	4.1
19	4.0	4.1	3.9	3.6	4.9	3.2	2.2	3.6	3.1	3.1	4.0	5.9	7.3	7.8	7.1	6.9	6.1	3.0	5.1	5.8	4.6	2.1	2.2	2.9	4.4
20	3.1	3.2	4.1	5.7	5.4	4.9	5.6	4.9	4.1	3.2	3.6	6.1	7.9	9.0	7.8	6.0	6.0	3.0	4.2	2.1	4.7	4.2	4.0	3.8	4.9
21	3.9	4.0	4.6	4.2	4.1	4.1	4.2	4.2	3.4	2.9	4.1	5.9	6.2	7.9	8.9	8.0	7.1	7.1	7.6	6.0	4.8	1.9	1.9	0.3	4.9
22	1.1	1.0	5.1	3.0	3.1	3.2	3.4	4.0	5.0	5.0	6.0	7.3	8.2	8.9	8.0	6.9	5.9	4.7	3.2	4.6	4.8	4.5	3.1	3.0	4.7
23 Q	3.6	4.0	5.1	4.0	4.1	3.4	3.8	4.0	3.2	3.6	4.9	5.6	7.7	8.0	8.2	7.7	7.1	7.9	7.0	6.1	4.9	2.9	2.2	3.5	5.

TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT.
Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

281. ESKDALEMUIR. (H.)

16,000 γ (·16 C.G.S. unit) +

APRIL, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	542	543	530	529	534	534	533	528	525	507	479	489	506	525	533	538	534	533	555	547	563	539	538	533	530
2	534	537	538	526	538	538	536	532	525	517	507	502	516	528	543	548	544	544	539	548	539	542	539	535	533
3	538	534	535	538	535	543	540	535	530	520	508	502	502	515	531	540	539	533	538	557	535	529	530	538	531
4 D	538	548	535	534	537	534	535	529	526	511	503	502	502	516	525	533	529	539	570	534	538	548	524	529	530
5 D	521	534	543	538	535	528	535	539	533	537	529	526	521	534	531	530	529	535	538	534	534	533	539	538	533
6 D	538	533	539	529	529	524	533	528	506	491	515	515	518	529	536	530	537	542	542	538	541	560	542	533	530
7	539	532	544	534	540	543	542	524	520	517	515	511	517	526	531	539	538	547	547	547	542	542	542	542	534
8	543	543	542	542	542	542	546	542	529	520	510	507	520	537	547	556	551	547	546	547	547	542	552	538	539
9	537	537	537	533	533	546	544	541	534	529	524	520	524	528	534	542	545	547	547	547	543	542	542	542	537
10	545	543	542	542	541	534	543	538	530	520	516	519	523	532	541	545	548	551	551	547	547	547	544	547	539
11	552	547	542	543	543	545	541	532	523	515	515	517	523	530	546	553	556	556	557	556	555	552	553	552	542
12	556	550	548	549	550	547	547	542	533	525	517	515	521	528	537	543	542	550	553	551	551	550	551	547	542
13 Q	547	543	547	547	547	547	546	537	524	515	518	528	533	547	552	547	542	547	547	551	550	548	547	547	542
14	551	543	546	547	553	552	549	539	534	519	508	507	518	520	531	538	548	547	556	552	551	548	555	549	540
15	546	542	538	538	539	543	542	534	525	510	506	511	523	538	542	547	551	551	551	553	556	548	551	542	539
16 D	539	556	556	557	552	547	552	544	532	514	511	491	502	502	524	528	547	558	580	552	566	542	542	542	538
17 Q	542	545	542	537	535	542	537	532	519	511	506	509	518	526	537	539	546	552	552	551	549	547	547	547	536
18 Q	547	545	543	543	543	544	542	533	524	511	511	516	525	529	537	542	547	552	556	556	555	551	552	552	540
19	550	550	547	547	546	543	542	538	533	523	513	510	515	524	534	542	555	547	564	552	551	557	547	551	541
20	548	544	543	534	544	543	540	543	535	525	518	511	514	530	538	544	548	556	553	548	549	549	552	558	540
21	549	544	542	541	541	543	543	538	530	516	521	526	526	525	521	533	536	548	554	552	548	548	548	550	538
22	548	549	548	544	548	552	553	549	538	529	511	508	517	511	534	551	562	551	553	552	553	552	556	552	543
23 Q	544	543	543	541	541	538	538	538	529	520	512	517	533	531	535	543	552	556	557	556	552	558	557	552	541
24	549	549	548	539	543	544	543	534	529	517	510	516	535	536	537	539	544	549	553	552	548	548	544	543	540
25	543	543	542	539	535	540	543	538	525	512	517	521	525	529	536	538	543	546	548	552	549	538	543	554	537
26	540	535	538	535	538	538	538	534	527	521	517	520	522	529	533	539	548	552	554	552	546	548	548	540	537
27	540	534	535	534	534	538	535	532	519	503	507	517	522	529	535	539	544	552	553	548	540	543	539	548	534
28	554	544	539	535	543	549	549	540	530	522	518	521	530	537	544	544	549	553	551	549	548	548	546	548	541
29 Q	544	545	544	544	544	544	540	539	531	523	519	521	536	540	551	551	550	555	554	553	549	548	549	546	543
30	544	544	544	544	544	548	540	535	530	527	525	529	535	538	535	542	553	557	562	557	557	558	558	554	544
Mean	544	543	542	539	541	542	542	536	528	518	513	513	521	528	536	541	545	548	552	550	548	547	546	545	538

MAGNETIC DECLINATION (WEST).

Mean values for periods of sixty minutes ending at the hours of Greenwich Mean Time.

282. ESKDALEMUIR. (D.)

14° +

APRIL, 1934.

Hour G. M. T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
Day	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1 D	5.5	3.5	0.8	3.6	2.9	2.0	3.5	0.6	1.5	2.8	6.3	8.6	10.8	12.5	8.5	7.0	5.0	-1.0	3.6	-0.7	-3.0	-2.7	0.4	3.5	3.6
2	6.3	4.5	1.2	2.6	2.5	1.3	0.6	-0.4	-0.7	0.4	4.5	8.5	12.7	13.1	9.3	7.1	4.8	3.7	0.7	-0.3	0.3	0.7	1.2	3.3	3.7
3	3.8	4.5	5.3	4.7	3.7	3.3	1.1	-0.5	-1.7	-1.7	0.8	5.3	9.8	12.0	11.3	9.0	7.7	5.5	4.0	-0.3	-0.5	-1.2	-0.5	1.3	3.6
4 D	6.0	3.2	2.8	3.0	2.7	1.5	0.5	-1.0	-2.3	-1.5	0.4	4.0	7.5	8.9	9.3	9.4	8.7	6.0	-5.7	-1.7	-0.5	-7.0	-14.7	-17.5	0.9
5 D	-8.4	-1.7	3.4	2.4	0.7	0.3	0.7	-2.7	-2.3	-0.9	2.7	5.1	6.7	10.4	13.7	9.7	8.7	8.2	-0.7	-3.4	0.7	2.2	3.5	4.5	2.6
6 D	4.9	3.2	2.2	0.3	1.3	3.5	7.5	3.2	3.3	7.3	6.3	6.9	9.0	7.7	8.8	6.8	4.7	3.2	-0.2	0.0	2.2	3.2	0.7	1.2	4.0
7	0.4	5.0	2.6	0.5	2.0	0.9	0.9	0.7	-0.4	0.5	2.7	5.1	7.3	8.3	6.9	6.4	5.3	4.5	3.4	1.4	2.9	3.4	3.4	3.2	3.2
8	3.3	3.3	2.2	1.3	1.2	1.2	0.3	-0.6	-0.5	1.2	4.2	6.4	8.2	8.4	8.2	7.5	7.1	5.2	4.5	4.2	2.9	2.7	1.1	1.3	3.5
9	2.3	2.2	2.3	1.1	3.2	1.3	0.2	-0.5	0.3	1.3	3.3	5.4	8.5	8.5	7.3	6.3	5.2	3.7	1.6	2.2	2.3	2.6	2.9	3.1	3.2
10	2.7	2.5	3.2	2.5	2.9	4.1	2.6	0.2	-0.9	0.1	2.6	5.3	8.2	7.9	6.3	5.1	3.5	2.8	2.7	2.8	3.3	2.3	1.5	2.3	3.2
11	1.4	1.4	1.4	1.3	1.3	0.9	-0.4	-1.5	-1.4	1.1	4.0	7.4	9.4	9.9	8.7	7.4	6.1	4.7	4.3	4.2	4.1	3.5	3.3	3.2	3.6
12	2.6	2.3	3.1	1.4	1.5	1.3	0.1	-0.8	-0.6	0.3	2.5	5.4	8.3	9.1	8.3	6.7	4.9	4.2	3.1	2.4	3.2	3.3	3.3	3.1	3.3
13 Q	3.6	2.3	3.1	2.1	1.3	1.0	0.2	-0.7	-0.7	1.2	3.9	7.3	9.2	9.2	7.4	5.2	3.4	3.2	3.3	3.4	3.4	3.4	3.2	2.4	3.4
14	2.8	2.3	2.5	2.3	2.3	1.4	1.1	0.5	-0.8	0.1	3.5	7.4	11.6	12.4	10.6	8.2	5.3	3.4	3.1	3.2	1.5	0.2	1.8	1.5	3.7
15	2.0	1.8	-0.3	0.3	1.2	0.7	0.1	-1.0	-1.0	0.1	4.0	7.6	10.8	11.9	9.4	7.0	4.3	3.1	3.1	3.6	3.4	3.3	2.0	-3.9	3.1
16 D	-1.1	2.1	1.2	0.4	1.9	2.7	0.7	-0.1	-1.2	-0.1	2.3	6.4	10.1	12.9	12.4	10.1	5.4	2.2	3.1	2.1	-1.8	-0.1	2.0	3.1	3.2
17 Q	3.2	2.9	2.3	2.4	2.0	0.2	-1.3	-1.8	-1.0	0.1	2.5	6.0	8.3	8.7	7.4	6.0	4.4	3.9	3.3	3.4	3.3	3.1	2.8	3.0	3.1
18 Q	2.2	2.3	2.2	1.9	1.5	1.2	-0.1	-1.1	-1.0	1.0	3.9	6.2	8.4	9.3	9.0	8.0	6.7	5.9	4.8	4.1	3.8	3.0	2.5	2.9	3.7
19	2.4	2.1	2.0	2.0	1.3	0.7	0.0	-0.3	-1.1	0.1	3.1	5.3	8.7	9.5	10.0	8.7	8.3	6.1	0.1	1.1	4.1	2.0	2.0	1.8	3.3
20	1.7	1.3	1.2	6.0	1.2	0.1	-1.1	-1.8	-2.1	0.1	3.1	5.2	6.6	7.4	6.9	5.6	5.0	2.2	1.2	2.9	2.9	2.4	0.6	1.1	2.5
21	1.4	1.2	1.0	1.3	1.0	0.4	0.7	-0.3	0.1	1.3	3.1	5.2	7.3	9.0	7.2	6.3	5.0	3.7	1.1	1.1	2.3	2.6	2.1</		

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE
INTERNATIONAL QUIET DAYS.

Departures from mean of the day adjusted for non-cyclic change.†

MONTH AND SEASON	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
323. ESKDALEMUIR. NORTH COMPONENT (QUIET DAYS) 1934.																								
January	Y -2.6	Y -3.0	Y -3.1	Y -1.9	Y +0.3	Y +2.8	Y +5.0	Y +5.3	Y +3.7	Y +1.1	Y -2.2	Y -5.5	Y -4.2	Y -0.2	Y +3.0	Y +1.5	Y -0.9	Y -0.3	Y -0.3	Y -0.6	Y +1.4	Y +0.9	Y -0.1	Y -0.2
February	+2.5	+0.6	+0.8	+1.7	+3.9	+6.2	+8.5	+8.0	+4.7	-0.4	-4.9	-8.6	-12.2	-11.6	-6.0	-3.0	-2.0	+1.3	+2.5	+3.6	+3.6	+1.9	+3.0	+1.7
March	+5.9	+1.7	+3.5	+3.5	+6.0	+6.7	+7.6	+5.7	+0.7	-7.9	-15.6	-17.9	-14.4	-8.5	-5.5	-2.0	+0.4	+3.9	+3.7	+4.7	+4.5	+5.4	+8.0	+8.2
April	+6.7	+6.3	+5.9	+4.8	+4.9	+6.3	+4.9	+1.1	-9.1	-20.2	-28.3	-25.4	-17.9	-12.7	-3.5	+0.2	+4.8	+10.2	+11.3	+11.7	+9.7	+8.9	+9.1	+8.2
May	+6.7	+7.0	+4.8	+4.6	+5.3	+1.8	-2.4	-4.9	-10.4	-15.6	-22.7	-22.1	-18.4	-9.5	-4.4	+0.1	+4.6	+10.3	+13.6	+14.6	+12.1	+10.0	+7.5	+7.6
June	+6.4	+5.8	+6.0	+5.9	+7.4	+6.3	+2.0	-3.3	-11.8	-20.0	-25.1	-23.9	-16.4	-10.1	-4.3	+1.1	+4.0	+8.3	+13.4	+13.6	+11.8	+9.3	+7.7	+6.0
July	+7.2	+5.6	+5.8	+5.9	+9.9	+9.1	+4.9	+1.4	-8.3	-19.0	-27.0	-29.3	-23.4	-18.2	-10.5	-4.3	+2.7	+8.8	+16.4	+17.7	+14.5	+11.3	+9.1	+8.3
August	+7.3	+7.0	+6.8	+6.0	+5.3	+4.2	+1.9	-3.0	-8.8	-16.5	-22.7	-23.8	-18.8	-12.7	-5.1	-1.6	+0.7	+5.9	+12.2	+16.2	+10.9	+9.6	+9.3	+7.7
September	+8.5	+6.9	+6.9	+6.0	+4.1	+3.3	+2.0	+2.8	-10.6	-20.4	-28.3	-24.9	-18.1	-8.7	-4.7	-1.0	+3.7	+8.6	+12.0	+12.1	+11.4	+9.9	+10.3	+9.7
October	+5.1	+4.2	+3.5	+4.2	+5.3	+7.6	+7.6	+4.0	+0.3	-7.2	-17.2	-21.6	-20.5	-13.8	-5.7	-1.3	+1.5	+3.1	+5.8	+7.2	+7.7	+7.1	+6.9	+6.3
November	+0.7	-0.4	-0.6	+1.2	+2.7	+4.1	+4.3	+2.9	-1.6	-7.3	-10.9	-12.2	-8.3	-4.8	-0.1	+0.9	+1.9	+2.6	+4.7	+4.8	+4.6	+3.8	+3.2	+3.8
December	-1.5	-0.7	-1.1	0.0	+1.5	+4.1	+4.6	+3.9	+1.9	-0.8	-2.7	-4.3	-4.2	-1.3	+1.0	-1.7	-3.0	+0.6	-0.1	+1.3	+1.6	+0.6	-0.9	+2.0
Year	+4.4	+3.5	+3.3	+3.7	+4.7	+5.2	+4.1	+1.4	-4.1	-11.2	-17.0	-18.4	-14.7	-9.3	-3.8	-1.0	+1.5	+4.9	+7.9	+8.8	+7.8	+6.5	+5.8	+5.8
Winter	-0.2	-0.9	-1.0	+0.2	+2.1	+4.3	+5.1	+4.5	+2.2	-1.9	-5.2	-7.9	-7.5	-4.5	-0.5	-0.6	-1.0	+1.1	+1.7	+2.3	+2.8	+1.8	+1.4	+1.8
Equinox	+6.5	+4.8	+4.9	+4.7	+5.1	+6.0	+5.6	+2.0	-4.7	-13.9	-21.3	-22.5	-17.2	-10.9	-4.9	-1.0	+2.5	+5.4	+6.2	+8.7	+6.3	+7.6	+6.0	+6.0
Summer	+6.9	+6.4	+5.8	+6.3	+7.0	+5.4	+1.6	-2.5	-9.8	-17.8	-24.4	-24.8	-19.3	-12.6	-6.1	-1.2	+3.0	+6.3	+13.8	+15.5	+12.3	+10.1	+8.4	+7.4
324. ESKDALEMUIR. WEST COMPONENT (QUIET DAYS) 1934.																								
January	Y -3.8	Y -0.8	Y -0.1	Y -0.1	Y +0.9	Y +1.1	Y -0.6	Y -2.0	Y -3.2	Y -2.2	Y +2.1	Y +3.5	Y +7.7	Y +9.8	Y +5.8	Y +3.4	Y +3.7	Y +2.1	Y -0.9	Y -3.3	Y -2.3	Y -7.1	Y -7.4	Y -6.3
February	-5.7	-3.2	+0.6	-0.8	-1.4	-3.1	-3.2	-2.8	-6.8	-8.3	-2.9	+3.0	+10.3	+13.1	+13.4	+7.9	+4.1	+4.3	+3.8	+1.4	-1.5	-6.5	-7.5	-7.9
March	-4.6	-1.4	-3.1	-2.9	-5.1	-7.1	-6.9	-9.2	-15.1	-14.9	-3.4	+6.5	+19.5	+24.0	+20.7	+12.9	+6.3	+1.7	+0.3	-0.5	-4.3	-5.2	-5.0	-5.2
April	-3.0	-4.4	-4.5	-6.5	-8.9	-10.6	-15.3	-20.1	-22.4	-17.8	-5.9	+10.4	+23.4	+25.2	+21.0	+14.0	+7.9	+6.4	+5.0	+3.8	+1.9	+1.8	+0.9	-2.4
May	+0.2	-0.4	-1.2	-4.9	-9.9	-14.5	-18.5	-21.2	-20.4	-15.4	-4.2	+9.0	+17.0	+19.7	+15.5	+12.3	+9.1	+7.9	+6.7	+6.1	+4.0	+2.7	+0.3	-0.1
June	-0.3	-1.5	-3.9	-6.2	-11.0	-17.0	-20.9	-26.2	-28.5	-23.2	-10.9	+4.4	+15.9	+18.9	+18.9	+17.2	+13.4	+11.0	+12.5	+12.8	+10.9	+8.2	+4.6	+0.7
July	-0.2	-0.8	-4.5	-7.2	-11.6	-16.7	-20.9	-24.6	-27.3	-22.4	-10.7	+3.9	+17.6	+24.2	+24.8	+21.4	+15.7	+10.5	+8.0	+5.5	+5.3	+6.0	+3.5	+1.5
August	-2.0	-2.8	-3.8	-6.1	-8.6	-13.4	-16.2	-20.3	-21.0	-16.5	-6.3	+5.8	+18.3	+23.7	+23.8	+16.7	+10.6	+6.9	+6.3	+3.0	+1.7	+0.9	+0.8	-1.7
September	-3.8	-3.1	-5.7	-8.1	-9.6	-10.3	-15.2	-18.9	-18.2	-11.7	+3.4	+15.5	+23.9	+23.0	+16.2	+7.3	+2.0	+2.3	+5.5	+5.8	+4.7	+2.3	-2.7	-4.5
October	-3.4	-2.7	-1.7	-1.9	-2.2	-2.6	-5.4	-10.4	-14.2	-14.3	-5.2	+5.1	+15.4	+18.3	+16.0	+8.5	+3.3	+2.9	+2.3	+0.8	0.0	-1.7	-3.1	-4.7
November	-3.8	-1.6	-1.8	-1.1	-1.2	-1.5	-3.9	-5.4	-7.2	-7.8	-0.8	+6.1	+11.9	+11.7	+7.8	+5.4	+4.5	+2.5	+1.4	+0.3	-2.7	-3.8	-3.8	-4.3
December	-2.4	-3.0	-2.5	-1.5	-0.7	-0.5	-1.2	-2.3	-2.0	-0.8	+2.0	+5.4	+7.6	+7.6	+5.6	+3.6	+2.8	+2.1	+2.1	-0.7	-3.0	-4.4	-6.1	-8.3
Year	-2.7	-2.1	-2.7	-3.9	-5.8	-8.0	-10.7	-13.6	-15.6	-12.9	-3.6	+6.7	+15.7	+18.4	+15.8	+10.9	+6.9	+5.0	+4.5	+2.9	+1.3	-0.7	-2.1	-3.6
Winter	-3.9	-2.2	-0.9	-0.9	-0.6	-1.0	-2.2	-3.1	-5.0	-4.8	+0.1	+4.5	+9.4	+10.6	+6.2	+5.1	+3.8	+2.7	+1.6	-0.5	-2.3	-5.4	-6.2	-6.7
Equinox	-3.7	-2.9	-3.8	-4.8	-6.4	-7.7	-10.7	-14.6	-17.5	-14.7	-2.8	+9.9	+20.5	+22.9	+18.5	+10.7	+4.9	+3.3	+3.3	+2.5	+0.6	-0.7	-2.5	-4.2
Summer	-0.5	-1.4	-3.3	-6.1	-10.2	-15.4	-19.1	-23.1	-24.3	-19.4	-8.0	+5.8	+17.2	+21.6	+20.7	+16.9	+12.2	+9.1	+6.4	+6.9	+5.5	+4.2	+2.3	+0.1
325. ESKDALEMUIR. VERTICAL COMPONENT (QUIET DAYS) 1934.																								
January	Y 0.0	Y -0.4	Y -0.8	Y -0.3	Y -0.5	Y -0.9	Y -0.9	Y -0.8	Y -1.1	Y -2.4	Y -2.7	Y -1.4	Y -1.1	Y -0.5	Y +1.1	Y +1.0	Y +0.6	Y +1.0	Y +2.0	Y +2.1	Y +1.6	Y +1.7	Y +1.6	Y +0.9
February	-0.3	-0.1	-0.7	-0.3	-0.7	-1.1	-1.1	-1.5	-1.4	-1.6	-3.2	-3.8	-3.4	-2.4	0.0	+3.4	+3.3	+2.7	+1.9	+1.9	+1.7	+2.5	+2.1	+2.1
March	+0.8	-0.4	-1.3	-1.5	-1.6	-1.1	-0.8	+0.6	+1.3	-0.2	-3.9	-6.8	-8.6	-6.4	+0.1	+4.3	+5.4	+4.1	+3.8	+3.2	+3.3	+2.8	+2.1	+0.8
April	+1.5	+1.6	+2.1	+2.4	+2.3	+2.5	+3.5	+2.7	+0.3	-4.2	-8.4	-13.1	-14.3	-10.0	-2.3	+0.6	+4.3	+5.3	+5.5	+4.7	+5.1	+4.2	+2.0	+1.7
May	+2.3	+2.4	+2.1	+2.2	+4.2	+4.5	+4.4	+2.3	-1.3	-6.4	-10.3	-13.4	-11.6	-7.1	-2.6	-0.3	+2.1	+4.4	+4.7	+4.6	+4.6	+3.7	+2.4	+1.9
June	+1.5	+1.5	+1.6	+2.7	+3.4	+4.7	+4.7	+3.9	+1.1	-3.0	-9.7	-11.1	-10.8	-8.0	-5.3	-2.8	+1.9	+3.6	+3.4	+4.0	+4.2	+3.7	+2.4	+2.4
July	+1.3	+1.0	+1.0	+2.3	+2.1	+3.1	+2.2	+1.3	+0.1	-1.8	-4.4	-8.1	-10.3	-8.6	-6.2	-2.7	+2.1	+4.3	+5.6	+5.1	+3.9	+2.8	+2.2	+1.7
August	-0.4	-0.2	+0.1	-0.2	+0.4	+0.2	+0.8	+2.2	-0.1	-1.8	-4.6	-7.4	-7.2	-4.6	-1.1	+2.6	+4.6	+5.8	+4.4	+2.8	+1.7	+1.2	+1.0	0.0
September	+0.8	+1.1	+1.2	+1.7	+1.5	+1.8	+2.1	+2.3	-0.7	-3.5	-6.4	-9.0	-7.4	-3.9	+1.0	+2.1	+3.5	+2.2	+1.3	+1.7	+1.5	+1.9	+1.8	+1.4
October	+1.0	+0.9	+0.6	+0.1	-0.5	-0.7	-0.2	+1.6	+0.8	+0.6	-2.7	-5.4	-6.5	-4.7	-0.5	+3.1	+2.6	+1.3	+1.4	+0.9	+1.2	+1.3	+2.1	+1.5
November	+1.2	+0.4	-0.2	-0.5	-0.7	-0.9	-0.9	-0.5	-0.3	-1.4	-2.6	-3.2	-2.4	-0.2	+1.6	+2.1	+1.5	+1.3	-0.1	+0.7	+1.5	+1.6	+1.0	+1.0
December	-0.7	-0.8	-1.4	-1.1	-1.6	-2.0	-1.8	-1.7	-1.9	-1.8	-1.1	-0.3	-0.8	+0.5	+1.9	+2.0	+2.7	+2.1	+1.9	+2.0	+1.6	+1.1	+1.0	0.0
Year	+0.7	+0.6	+0.4	+0.6	+0.7	+0.8	+1.0	+1.0	-0.3	-2.3	-5.0	-6.9	-7.0	-4.7	-1.0	+1.3	+2.9	+3.2	+3.0	+2.6	+2.7	+2.4	+1.8	+1.3
Winter	+0.1	-0.2	-0.8	-0.5	-0.9	-1.2	-1.2	-1.1	-1.2	-1.8	-2.4	-2.2	-1.9	-0.7	+1.1	+2.1	+2.0	+1.8	+1.4	+1.7	+1.7	+1.7	+1.5	+1.0
Equinox	+1.0	+0.8	+0.7	+0.7	+0.4	+0.6	+1.1	+1.8	+0.4	-1.8	-5.3	-8.6	-9.2	-6.3	-0.4	+2.5	+4.0	+3.2	+3.0	+2.6	+2.8	+2.5	+2.0	+1.3
Summer	+1.2	+1.2	+1.2	+1.7	+2.5	+3.1	+3.0	+2.4	-0.1	-3.3	-7.3	-10.0	-10.0	-7.1	-3.8	-0.8	+2.7	+4.5	+4.5	+4.2	+3.6	+2.9	+2.0	+1.5

† See page 21.

Departures from mean of the day adjusted for non-cyclic change.†

MONTH AND SEASON.	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
326. ESKDALEMUIR. DECLINATION (measured positive towards the West) (QUIET DAYS). 1934.																								
January	-0.62	0.00	+0.14	+0.07	+0.17	+0.07	-0.39	-0.68	-0.85	-0.50	+0.53	+1.00	+1.77	+1.99	+1.01	+0.60	+0.80	+0.44	-0.16	-0.63	-0.54	-1.49	-1.48	-1.25
February	-1.29	-0.68	+0.08	-0.24	-0.49	-0.96	-0.99	-0.88	-1.62	-1.66	-0.33	+1.10	+2.74	+3.24	+3.01	+1.76	+0.94	+0.80	+0.63	+0.09	-0.49	-1.40	-1.67	-1.69
March	-1.24	-0.38	-0.82	-0.76	-1.33	-1.78	-1.79	-2.15	-3.09	-2.59	+0.14	+2.66	+4.68	+5.28	+4.46	+2.71	+1.25	+0.38	-0.15	-0.29	-1.12	-1.28	-1.30	-1.48
April	-0.96	-1.22	-1.22	-1.56	-2.04	-2.47	-3.35	-4.10	-4.03	-2.53	+0.19	+3.42	+5.65	+5.75	+4.42	+2.82	+1.34	+0.76	+0.42	+0.18	-0.13	-0.11	-0.30	-0.91
May	-0.31	-0.45	-0.50	-1.23	-2.25	-3.01	-3.61	-4.01	-3.56	-2.27	+0.35	+2.97	+4.39	+4.47	+3.38	+2.47	+1.59	+1.05	+0.63	+0.47	+0.18	+0.01	-0.33	-0.41
June	-0.39	-0.60	-1.09	-1.56	-2.60	-3.75	-4.32	-5.11	-5.11	-3.62	-0.88	+2.14	+4.06	+4.33	+4.03	+3.41	+2.49	+1.79	+1.82	+1.86	+1.58	+1.16	+0.53	-0.17
July	-0.41	-0.46	-1.22	-1.81	-2.86	-3.84	-4.46	-5.03	-5.07	-3.52	-0.75	+2.33	+4.78	+5.83	+5.55	+4.54	+3.01	+1.65	+0.75	+0.18	+0.30	+0.41	+0.24	-0.14
August	-0.78	-0.94	-1.12	-1.64	-2.02	-2.92	-3.38	-3.94	-3.76	-2.46	-0.08	+2.42	+4.68	+5.44	+5.06	+3.44	+2.10	+1.08	+0.64	-0.24	-0.22	-0.32	-0.32	-0.74
September	-1.22	-0.96	-1.51	-1.94	-2.15	-2.28	-3.16	-3.85	-3.12	-1.29	+2.07	+4.42	+5.66	+5.08	+3.52	+1.52	+0.21	+0.01	+0.49	+0.53	+0.34	-0.06	-1.09	-1.42
October	-0.95	-0.76	-0.53	-0.60	-0.72	-0.93	-1.48	-2.30	-2.97	-2.50	-0.15	+2.16	+4.17	+4.60	+3.53	+1.78	+0.58	+0.43	+0.16	-0.22	-0.41	-0.72	-0.99	-1.28
November	-0.81	-0.31	-0.33	-0.29	-0.39	-0.53	-1.01	-1.23	-1.61	-1.19	+0.41	+1.87	+2.82	+2.62	+1.58	+1.04	+0.80	+0.36	+0.04	-0.20	-0.78	-0.96	-0.94	-1.06
December	-0.41	-0.57	-0.44	-0.30	-0.22	-0.31	-0.49	-0.67	-0.61	-0.11	+0.54	+1.32	+1.78	+1.64	+1.11	+0.85	+0.73	+0.38	+0.44	-0.20	-0.68	-0.92	-1.19	-1.77
Year	-0.78	-0.61	-0.71	-0.99	-1.41	-1.89	-2.37	-2.81	-2.93	-2.02	+0.17	+2.32	+3.93	+4.19	+3.39	+2.25	+1.32	+0.76	+0.48	+0.13	-0.16	-0.47	-0.74	-1.03
Winter	-0.78	-0.39	-0.14	-0.19	-0.23	-0.43	-0.72	-0.87	-1.12	-0.87	+0.29	+1.32	+2.28	+2.37	+1.68	+1.06	+0.82	+0.49	+0.24	-0.23	-0.62	-1.19	-1.32	-1.44
Equinox	-1.09	-0.83	-1.02	-1.21	-1.56	-1.86	-2.45	-3.05	-3.28	-2.23	+0.56	+3.17	+5.04	+5.18	+3.98	+2.21	+0.85	+0.39	+0.23	+0.05	-0.33	-0.54	-0.92	-1.27
Summer	-0.47	-0.61	-0.98	-1.56	-2.43	-3.38	-3.94	-4.52	-4.37	-2.97	-0.34	+2.47	+4.48	+5.02	+4.50	+3.47	+2.30	+1.39	+0.96	+0.57	+0.46	+0.31	+0.03	-0.37
327. ESKDALEMUIR. INCLINATION (QUIET DAYS) 1934.																								
January	+0.23	+0.21	+0.19	+0.06	-0.05	-0.22	-0.35	-0.34	-0.22	-0.10	+0.05	+0.28	+0.12	-0.17	-0.28	-0.12	+0.01	+0.01	+0.09	+0.15	0.00	+0.10	+0.18	+0.13
February	-0.09	+0.02	-0.09	-0.10	-0.25	-0.38	-0.40	-0.38	-0.23	+0.12	+0.29	+0.49	+0.60	+0.49	+0.15	+0.15	+0.14	-0.08	-0.20	-0.20	-0.18	+0.05	0.00	+0.10
March	-0.30	-0.10	-0.21	-0.21	-0.34	-0.34	-0.40	-0.21	+0.26	+0.77	+0.98	+0.88	+0.40	+0.01	+0.02	+0.01	0.00	+0.09	-0.18	-0.17	-0.16	-0.16	-0.22	-0.40
April	-0.35	-0.30	-0.26	-0.15	-0.11	-0.18	+0.02	+0.33	+0.98	+1.61	+1.84	+1.17	+0.42	-0.17	-0.15	-0.26	-0.35	-0.62	-0.75	-0.68	-0.52	-0.52	-0.56	-0.45
May	-0.38	-0.40	-0.24	-0.18	-0.09	+0.24	+0.59	+0.75	+1.00	+1.12	+1.30	+0.98	+0.62	+0.12	-0.04	-0.24	-0.39	-0.69	-0.90	-0.95	-0.75	-0.60	-0.44	-0.45
June	-0.38	-0.32	-0.28	-0.22	-0.22	0.00	+0.33	+0.76	+1.30	+1.64	+1.60	+1.21	+0.54	+0.14	-0.18	-0.42	-0.44	-0.65	-1.00	-1.01	-0.86	-0.66	-0.53	-0.35
July	-0.42	-0.33	-0.28	-0.28	-0.39	-0.24	+0.09	+0.38	+1.00	+1.59	+1.84	+1.65	+0.98	+0.57	+0.10	-0.15	-0.39	-0.65	-1.06	-1.12	-0.95	-0.78	-0.60	-0.53
August	-0.46	-0.42	-0.38	-0.41	-0.20	-0.04	+0.18	+0.60	+0.93	+1.32	+1.48	+1.29	+0.74	+0.30	+0.10	-0.12	-0.12	-0.26	-0.80	-1.03	-0.70	-0.61	-0.60	-0.48
September	-0.47	-0.37	-0.32	-0.22	-0.09	0.00	+0.18	+0.66	+0.98	+1.45	+1.61	+1.13	+0.48	+0.09	+0.08	0.00	-0.20	-0.54	-0.85	-0.85	-0.80	-0.65	-0.58	-0.52
October	-0.27	-0.20	-0.19	-0.25	-0.33	-0.48	-0.41	-0.04	+0.25	+0.76	+1.15	+1.20	+0.93	+0.46	+0.10	-0.02	-0.09	-0.22	-0.39	-0.46	-0.47	-0.40	-0.33	-0.30
November	+0.07	+0.09	+0.06	-0.09	-0.18	-0.29	-0.24	-0.10	+0.23	+0.59	+0.69	+0.62	+0.29	+0.11	-0.09	-0.10	-0.17	-0.19	-0.34	-0.30	-0.21	-0.15	-0.12	-0.17
December	+0.13	+0.08	+0.09	+0.01	-0.12	-0.30	-0.33	-0.28	-0.16	+0.02	+0.11	+0.19	+0.16	-0.03	-0.11	+0.11	+0.21	-0.04	+0.01	-0.03	0.00	+0.08	+0.21	+0.01
Year	-0.22	-0.17	-0.16	-0.17	-0.20	-0.19	-0.08	+0.17	+0.53	+0.90	+1.05	+0.92	+0.52	+0.19	-0.04	-0.10	-0.15	-0.33	-0.53	-0.55	-0.47	-0.36	-0.30	-0.28
Winter	+0.09	+0.10	+0.06	-0.03	-0.15	-0.30	-0.33	-0.27	-0.09	+0.16	+0.29	+0.38	+0.29	+0.10	-0.08	+0.01	+0.05	-0.07	-0.11	-0.09	-0.10	+0.02	+0.07	+0.02
Equinox	-0.35	-0.24	-0.25	-0.21	-0.22	-0.25	-0.15	+0.16	+0.62	+1.12	+1.32	+1.09	+0.56	+0.18	+0.01	-0.07	-0.18	-0.32	-0.54	-0.54	-0.49	-0.43	-0.42	-0.42
Summer	-0.41	-0.37	-0.29	-0.27	-0.23	-0.01	+0.30	+0.62	+1.06	+1.42	+1.55	+1.28	+0.72	+0.28	-0.05	-0.23	-0.33	-0.59	-0.94	-1.03	-0.81	-0.66	-0.54	-0.45
328. ESKDALEMUIR. HORIZONTAL FORCE (QUIET DAYS) 1934.																								
January	+3.5	+3.1	+3.0	+1.9	+0.5	+3.0	+4.7	+4.6	+2.8	+0.5	-1.6	-4.4	-2.1	+2.3	+4.4	+2.3	+0.1	+0.2	-0.5	-1.4	+0.8	+0.9	-2.0	-1.8
February	+1.0	-0.2	+0.9	+1.4	+3.4	+5.2	+5.5	+5.1	+2.8	-2.5	-5.5	-8.5	-9.9	-7.9	-2.4	-0.9	-0.9	+2.3	+3.4	+3.8	+3.1	+0.2	+1.0	-0.4
March	+4.6	+1.3	+2.6	+2.7	+4.5	+4.7	+5.6	+3.2	-3.1	-11.4	-15.9	-15.2	-9.0	-2.2	-0.1	+1.3	+2.0	+0.1	+3.8	+3.5	+3.5	+3.1	+4.0	+6.4
April	+5.7	+5.0	+4.6	+3.0	+2.5	+3.4	+0.9	-4.0	-14.4	-24.0	-28.9	-22.0	-11.4	-5.9	+1.9	+3.7	+6.6	+11.5	+12.2	+12.3	+9.9	+8.1	+9.0	+7.3
May	+6.5	+6.7	+4.3	+3.2	+2.7	-1.9	-7.0	-10.1	-15.2	-19.0	-23.0	-19.1	-13.5	-4.3	-0.3	+3.2	+6.7	+11.9	+14.6	+15.7	+12.7	+10.3	+7.4	+7.3
June	+6.1	+5.2	+4.8	+4.1	+4.4	+1.8	-3.3	-9.8	-18.6	-25.2	-27.0	-22.0	-11.9	-5.0	-0.6	+5.4	+7.2	+10.8	+16.1	+16.4	+14.2	+11.1	+8.6	+6.0
July	+6.9	+5.2	+4.5	+4.9	+6.7	+4.6	-0.5	-4.8	-14.9	-24.0	-28.8	-27.3	-18.2	-11.5	-3.9	+1.2	+6.6	+11.2	+17.9	+18.5	+15.4	+12.2	+9.7	+8.4
August	+6.6	+6.1	+5.6	+6.2	+3.0	+0.7	-2.2	-8.0	-13.8	-20.1	-23.6	-21.6	-13.6	-6.3	+1.0	+2.6	+3.4	+7.5	+13.4	+16.4	+11.0	+9.5	+9.2	+7.0
September	+7.3	+5.9	+5.2	+3.8	+1.6	+0.6	-1.9	-7.5	-14.9	-22.7	-24.6	-20.2	-9.6	-2.6	-0.5	+0.9	+4.1	+6.9	+13.0	+13.2	+12.2	+10.2	+8.3	+6.3
October	+4.1	+3.4	+2.9	+3.6	+4.6	+6.7	+6.0	+1.3	-3.3	-10.6	-18.0	-19.6	-16.0	-8.5	-1.5	+0.9	+2.3	+3.7	+6.2	+7.2	+7.4	+6.4	+5.9	+4.9
November	-0.3	-0.8	-1.0	+0.9	+2.3	+3.6	+3.2	+1.4	-3.5	-9.0	-10.8	-10.3	-5.0	-1.7	+1.9	+2.2	+3.0	+3.1	+4.9	+4.7	+3.8	+2.7	+2.1	+2.6
December	-2.1	-1.4	-1.7	-0.4	+1.3	+3.8	+4.1	+3.2	+1.3	-1.0	-2.1	-2.8	-2.8	+0.7	+2.4	-0.7	-2.2	+1.1	+0.4	+1.1	+0.8	-0.5	-2.4	-0.1
Year	+3.6	+2.8	+2.5	+2.6	+3.1	+3.0	+1.3	-2.1	-7.9	-14.1	-17.3	-16.1	-10.3	-4.4	+0.3	+1.8	+3.2	+6.0	+8.8	+9.3	+7.9	+6.1	+5.1	+4.7
Winter	-1.2	-1.4	-1.2	0.0	+1.9	+3.9	+4.4	+3.6	+0.9	-3.0	-5.0	-8.5	-4.9	-1.7	+1.6	+0.7	0.0	+1.7	+2.1	+2.1	+0.4	+0.4	-0.3	+0.1
Equinox	+5.4	+3.9	+3.8	+3.3	+3.3	+3.9	+2.7	-1.7	-8.9	-17.2	-21.3	-19.3	-11.5	-4.8	-0.1	+1.7	+3.7	+6.1	+8.8	+9.1	+8.3	+7.2	+7.1	+6.7
Summer	+6.5	+5.8	+4.8	+4.6	+4.2	+1.3	-3.3	-8.2	-15.6	-22.1	-25.6	-22.6	-14.3	-6.8	-0.7	+3.1	+6.0	+10.3	+15.5	+16.7	+13.3	+10.8	+8.7	+7.2

† See page 21.

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1934.
NOTE.— The ranges are those shown in Tables 317 to 334, in the preparation of which
the non-cyclic change has been eliminated.†

335. ESKDALEMUIR.

1934.

MONTH AND SEASON	All Days			Quiet Days			Disturbed Days			All Days			Quiet Days			Disturbed Days		
	N.	W.	V.	N.	W.	V.	N.	W.	V.	D.	I.	H.	D.	I.	H.	D.	I.	H.
January	Y 14.1	Y 28.3	Y 9.9	Y 10.8	Y 17.2	Y 4.8	Y 27.7	Y 35.6	Y 31.3	Y 5.76	Y 0.97	Y 11.9	Y 3.48	Y 0.63	Y 8.2	Y 7.02	Y 2.44	Y 28.9
February	19.8	29.3	16.1	19.4	21.7	7.2	26.7	46.6	51.8	6.49	1.03	15.3	4.93	1.00	15.4	10.36	2.29	20.6
March	30.4	37.8	21.1	25.9	39.1	14.0	49.0	52.5	51.1	8.87	1.55	24.0	8.37	1.38	22.3	12.57	2.44	39.9
April	41.6	47.8	23.0	38.0	47.6	19.8	55.0	56.1	38.3	10.25	2.08	39.2	9.85	2.39	39.2	12.47	2.61	48.7
May	43.2	40.1	26.2	37.3	40.9	18.2	54.0	55.9	58.2	8.65	2.40	44.2	8.48	2.25	38.7	11.92	2.59	56.0
June	45.1	50.2	21.9	38.7	47.4	15.8	47.9	63.6	41.4	10.16	2.66	46.6	9.44	2.65	43.4	13.22	2.25	45.4
July	45.4	55.8	20.5	47.0	52.1	15.9	46.0	69.3	33.4	11.32	2.93	49.0	10.90	2.79	47.3	13.94	2.70	49.6
August	47.5	47.5	18.9	40.0	44.8	13.0	67.6	52.3	50.8	10.02	2.78	47.0	9.38	2.51	40.0	12.59	3.53	62.0
September	39.0	36.3	24.5	38.4	42.8	12.5	53.5	55.7	66.8	8.25	2.23	34.9	9.31	2.36	37.8	12.36	3.59	44.4
October	30.7	30.6	14.2	29.3	33.6	9.6	39.8	53.1	44.2	7.22	1.92	28.4	7.47	1.68	27.0	11.98	3.31	41.5
November	20.9	23.9	9.8	17.0	19.8	5.3	39.8	36.1	27.7	5.57	1.21	17.2	4.33	1.03	15.7	8.18	2.48	34.5
December	11.3	23.9	16.1	9.5	16.1	4.7	42.4	49.1	63.7	5.17	0.84	9.7	3.55	0.54	6.9	10.60	2.81	31.7
Year	27.9	34.0	16.4	27.2	34.0	10.2	30.9	39.3	39.1	7.28	1.45	26.8	7.12	1.60	26.6	9.13	1.79	26.3
Winter	16.1	25.3	12.6	13.0	17.3	4.5	20.0	37.5	38.9	5.52	0.95	13.5	3.81	0.72	10.9	8.13	2.06	17.9
Equinox	33.4	36.9	17.9	31.2	40.4	13.2	38.4	47.6	43.3	7.98	1.83	29.4	8.46	1.86	30.4	11.21	2.46	31.7
Summer	45.1	47.6	21.3	40.3	45.9	14.5	51.2	53.8	40.0	10.02	2.69	46.7	9.54	2.58	42.3	10.96	2.51	49.5

NON-CYCLIC CHANGE†.

MEAN VALUES OF HR_H † VR_V *
(Unit 10,000 γ^2)

336. ESKDALEMUIR.

1934.

337. ESKDALEMUIR.

1934.

MONTH	All Days			Quiet Days			Disturbed Days		
	H.	D.	V.	H.	D.	V.	H.	D.	V.
January	Y -0.1	Y -0.05	Y +0.1	Y +0.8	Y +0.38	Y +1.0	Y -7.5	Y -1.16	Y +4.2
February	+0.1	-0.02	+0.2	+5.1	+0.37	+0.3	-2.2	+1.11	0.0
March	-0.2	-0.04	-0.4	+5.7	+1.39	+0.8	-2.9	-1.84	-2.5
April	+0.5	-0.05	0.0	+2.5	-0.67	-0.8	-1.5	+0.94	-7.0
May	-0.3	-0.01	-0.1	+2.0	+0.24	-1.8	-3.4	-1.26	-6.7
June	+0.7	+0.04	0.0	+4.8	+0.07	-1.5	-5.3	-0.47	+1.6
July	-0.8	-0.08	+0.6	-0.7	+0.50	+1.2	-1.1	+0.17	+1.1
August	-0.4	-0.23	-1.0	+4.8	-0.24	-0.1	-10.2	-0.22	-8.3
September	-0.1	+0.14	+1.1	+0.6	-0.65	-0.4	+2.5	+0.27	+2.0
October	+0.2	-0.02	0.0	+0.7	-0.24	-1.1	+0.4	-0.47	+0.6
November	0.0	-0.02	-0.1	-0.6	-0.23	-0.4	-5.3	-0.29	+0.5
December	-0.3	-0.02	+0.6	+2.6	-0.06	-0.2	-6.9	-0.72	+1.1
Year 1934	-	-	-	-	-	-	-	-	-

†See page 121.

*See page 177.

HR_H	VR_V	Sum	Mean Character Figure
70	94	164	0.26
90	132	230	0.54
128	205	333	0.84
108	147	256	0.40
126	189	316	0.55
118	152	271	0.40
123	137	260	0.61
140	171	312	0.84
141	211	352	0.83
92	130	222	0.71
68	95	163	0.47
90	161	250	0.71
108	152	261	0.60

MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS.
(All days except those noted in monthly tables.)

338. ESKDALEMUIR.

1934.

MONTH	Horizontal Force			Declination (West)			Vertical Force			North Component	West Component	Inclination (North)	Total Force
	a	q	d	a	q	d	a	q	d		all days	all days	all days
	16,000 γ +			13 $^{\circ}$ +			44,000 γ +						
January	545	548	542	65.9	66.5	66.3	857	856	859	Y 18047	Y 4030	Y 69 45.3	Y 47811
February	539	541	534	64.9	65.2	64.9	861	860	864	18042	4024	69 45.7	47813
March	535	538	527	63.9	64.3	63.4	858	859	860	18039	4018	69 45.9	47808
April	538	540	532	63.0	63.3	62.9	853	852	855	18043	4015	69 45.6	47805
May	539	539	541	61.9	61.6	62.5	852	852	851	18046	4010	69 45.5	47804
June	544	544	542	60.8	60.6	60.8	850	850	847	18052	4006	69 45.1	47804
July	543	540	537	60.3	59.9	60.7	859	861	863	18051	4004	69 45.4	47812
August	533	537	528	59.1	58.9	58.9	855	854	858	18043	3995	69 46.0	47805
September	529	534	521	58.1	58.4	58.5	861	858	866	18040	3990	69 46.4	47809
October	530	533	522	57.7	57.8	57.6	863	862	867	18042	3988	69 46.4	47811
November	532	535	527	56.7	56.6	56.4	864	863	868	18045	3984	69 46.3	47813
December	530	534	519	55.4	55.5	54.3	870	870	871	18044	3978	69 46.6	47818
Year	536	539	531	60.6	60.7	60.6	859	858	861	18044	4003	69 45.9	47810

M.O. 380
(Valentia)

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

VALENTIA OBSERVATORY

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON
HIS MAJESTY'S STATIONERY OFFICE

1936

VALENTIA OBSERVATORY

Latitude	..	..	..	51° 56' N.
Longitude	..	..	..	10° 15' W.
G.M.T. of Local Mean Noon..				12h 41m.

Heights in metres above Sea Level.

Barometer	..	..	..	13.7
Rain-gauge	..	..	..	9.1
Robinson Cup Anemograph	..			26
Dines Pressure Tube Anemometer				30

Heights in metres above Ground.

Thermometer Bulbs	..	..	1.3
Sunshine Recorder	..	..	12.8
Robinson Cup Anemograph	..		14
Dines Pressure Tube Anemometer			13
Beckley Rain-gauge Rim	..		0.5

INTRODUCTION.

SITE

Valentia Observatory derives its name from the fact that it was originally established on Valentia Island in 1867. It was removed to the mainland in March, 1892, and now lies in a direct line between the old site on Valentia Island and the town of Cahirciveen, about $2\frac{1}{2}$ miles (4 km.) north-east from the former, and three-quarters of a mile (1 km.) south-west of the latter. It is quite remote from any other buildings. The general character of the country surrounding the Observatory is hilly. The eastern bank of the Cahir river is about 150 metres to the westward, and in that direction there is no very high ground between the Observatory and the open sea, some $3\frac{1}{2}$ miles (6 km.) away. To the north-west, however, are hills varying in height from 400 (120 m.) to 900 feet (275 m.), the highest being less than 3 miles (5 km.) distant. These are only separated by a narrow gully running in a N N W direction from other hills equally high, which stretch away to the northward: the nearest of these is but little more than a mile ($1\frac{1}{2}$ km.) from the Observatory. Beyond the town of Cahirciveen to the north-east the river opens out considerably, and the country in this direction becomes an open boggy basin, rising by only a gentle gradient. Southward of this, however, it soon rises again, and at about a mile south-east of the Observatory it culminates in the hill Bantee upwards of 1,245 feet (380 m.) in height. Still further south it opens out once more to a distance of nearly 5 miles (8 km.)

from the Observatory, where there is a range of hills running east and west, and varying in height from 400 (120 m.) to 1,300 feet (400 m.). To the south-west there is an opening to the sea, between Valentia Island and the mainland; and the circle of hills is completed by those on the island itself, the highest of which is about 800 feet (240 m.) high, and bears about west-south-west from the Observatory. Photographs of the Observatory building, together with a site plan, showing the disposition of the various instruments were reproduced in the introduction to the 1928 volume.

METEOROLOGY

The elements dealt with in the following tables are:- atmospheric pressure, air temperature, humidity, rainfall, sunshine, wind speed and direction, earth temperature, minimum temperature on the grass, together with a diary of cloud, visibility and weather.

Pressure and Temperature.-- The photographic barograph and thermograph are installed in a room on the ground floor of the Observatory tower. The standard Fortin barometer, from which the control readings at 9h. 15h. and 21h. are taken, is mounted in the same room beside a window which faces the north-east. The stems of the dry and wet bulb thermometers pass out into the screen placed against the north wall of the tower. Close to the bulbs of these thermometers are the bulbs of the standard thermometers from which the control readings at 9h. 15h. and 21h. are taken.

Rainfall.-- The Beckley rain-gauge and 8-inch (20.3 cm.) Check Gauge are placed in a railed-off enclosure about 40 metres to the north of the tower.

Sunshine.-- The recorder is cemented to a wooden rail on the roof of the tower. The exposure of the sunshine recorder is such that there is no appreciable loss of record due to obstructions in the months of May, June, July and August. During the remainder of the year the hill Bente lying to the south-east cuts off early morning sunshine. The reduction in possible record, assuming that the recorder becomes sensitive to sunshine only when the sun is at an altitude of more than three degrees, is shown in the following table for the 1st and 15th of each month:-

Reduction in Possible Record in Tenths of an Hour.								
Month.	Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.
1st	.5	.5	.7	.5	.3	.7	.5	.6
15th	.6	.5	.7	.3	.5	.7	.5	.5

Wind, Speed and Direction.-- Up to 1925 measurements of wind speed and direction as given in tables 413-424, were obtained from the Robinson cup anemograph on the roof of the Observatory tower. From 1926 to 1931 measurements of wind speed and direction refer to records from an old pattern Dines Pressure Tube Anemometer. A comparison between the mean velocities as recorded

by this anemometer and the cup anemograph is given in the General Introduction. A new Dines Pressure Tube Anemometer with 1 -inch connecting pipes, was brought into use as from January 1st 1932. The new instrument was erected alongside the old instrument with its head at the same height: a comparison extending over the period May, 1931, to January, 1932, showed that the new instrument recorded higher velocities than the old. In hourly mean values the difference was nearly uniform and equal to .4 m/s or 1 mi/hr. In gust velocities the increase was approximately 12 per cent of the velocity recorded by the old instrument.

The site of the Dines Pressure Tube Anemometer is in an open field, about 250 metres S E by E of the Observatory tower. About 1 mile ($1\frac{1}{2}$ km.) to the south-east is the highest point (1,245 feet) of the hill Bente which extends for some little distance in a northerly and south-westerly direction. A description of the surrounding country has already been given.

In a few instances where records of the Dines Pressure Tube Anemometer have been defective, the required values have been obtained from the records of the cup anemograph, a suitable adjustment of such values having been made in accordance with the table in the General Introduction showing the effect of exposure on the two instruments. Values thus obtained are entered as interpolated values.

Earth Temperature.— The thermometers are at depths of 30 cm. and 122 cm. below the grass covered surface of the ground. The site is well exposed. The thermometers are of the standard type described in the "Meteorological Observers' Handbook".

Minimum Temperature on the Grass.— The grass minimum thermometer is of the type described in the General Introduction. It is exposed over short grass in the field enclosure. It is set at 18h and read at 7h on the succeeding day, the observation being entered to the day of reading.

Visibility.— Lists of the objects used for visibility observations and their distances and bearings from the point of observation are given in the following tables.

LANDWARDS VISIBILITY OBJECTS AT VALENTIA OBSERVATORY.

Indication letter of object.	Standard distance of object.	Actual distance of object.	Bearing of object in degrees from N.	Description of object.
A	Metres 25	Metres. 25	350°	Gate near workshop.
B	50	50	345°	White post in fence of instrument enclosure.
C	100	100	125°	Hedge at S. end of vegetable garden.
D	200	200	330°	Notice board on beach.
E	500	475	100°	Bungalow.

LANDWARDS VISIBILITY OBJECTS AT VALENTIA OBSERVATORY (Contd.)

Indication letter of object.	Standard distance of object.	Actual distance of object.	Bearing of object in degrees from N.	Description of object.
F	Metres. 1,000	Metres. 1,100	50°	Parsonage.
G	2,000	1,910	55°	Wireless school.
Intermediate object.	-	3,500	20°	Top of Castlequin Mountain.
h	4,000	-	-	No object available.(Top of Castlequin well visible.)
I	7,000	7,600	40°	Top of Knocknadober Mountain
J	10,000	10,000	220°	Kilkeaveragh Mountain.
Intermediate object.	-	17,000	55°	Drung Hill.
k	20,000	-	-	No object available.(Drung Hill well visible).
l	30,000	-	-	No object available.
m	50,000	-	-	No object available.

SEAWARDS VISIBILITY OBJECTS AT VALENTIA OBSERVATORY.

F	1,000	1,000	235°	Farmhouse on skyline.
G	2,000	2,200	265°	Laght Point.
H	4,000	3,760	280°	Black Rock.
I	7,000	6,500	250°	Ridge between two hills on Valentia.
J	10,000	10,000	220°	Kilkeaveragh Mountain.
k	20,000	-	-	No object available.
Intermediate objects.	- -	23,500 25,500	320° 325°	Mount Eagle. Croaghmarhin Mountain.
l	30,000	-	-	No object available.(Croagh- marhin well visible.)
m	50,000	-	-	No object available.(Croagh- marhin exceptionally vis- ible.)

Two observations, one in a landwards direction, the other in a seawards direction, are made at each hour of observation. The position of the Observatory is such that a distinction between visibility landwards and seawards cannot be made when the range of visibility is less than 1,000 yards. Objects corresponding with the letter A to E have therefore been included in the table of landwards objects only. Kilkeaveragh Mountain is used as both a landwards and seawards object corresponding with J.

Entries of "l" and "m" for visibility in a landwards direction are made:-

(a) When Croaghmarhin Mountain (see table of seawards objects) is clearly visible and there is reason to believe that the range of visibility in a landwards direction is as good as, or nearly as good as, visibility seawards.

(b) When Croaghmarhin Mountain is invisible but there is reason to believe from the appearance of Drung Hill that the range of visibility landwards is greater than the range seawards and is sufficiently good to justify the entry made.

When the mountains used as objects at 3,500 metres and beyond are cloud capped the appropriate entries for the range of visibility are determined by the clearness or otherwise with which the lower parts of the mountains can be seen.

The Observatory is far removed from smoky industrial areas; the observations are therefore not much affected by smoke pollution of the atmosphere.

Notes on the Meteorological Summaries.

The Weather of 1934.- Generally, the weather during the first half of the year was dry with more than average sunshine and variable temperature. February and November were notably dry and September and December abnormally wet.

Pressure.- No change in the values used for reducing pressure at station level to pressure at mean sea level was made at Valentia Observatory by the introduction in 1928 of the revised scheme as set out in the General Introduction.

Mean Pressure for the year was 0.3 millibars below normal. Of the monthly mean pressures seven were higher and five were lower than normal. The departures ranged from an excess of twenty millibars in February to a deficiency of seventeen millibars in December.

Details of the Fourier analysis of the diurnal inequalities of pressure for the year are given in Table A, together with normal values referring to the period 1871-1926 as computed by Dr. A. Crichton Mitchell.* The coefficients are given to the nearest .001 mb. and the phase angles to the nearest 1°.

Temperature.- Mean temperature for the year 1934 was 0.5°A. (0.9°F.) above

*Diurnal Variation of Pressure and Temperature at Cahirciveen (Valentia) by A. Crichton Mitchell D. Sc., 1871-1926. London, Quart. J. R. met. Soc., 55, 1929. p. 310.

normal. For the individual months, December, with an excess of 2.3°A . (4.8°F .) showed the greatest departure.

The harmonic analysis of the monthly and seasonal diurnal inequalities of temperature is given in Table B. together with normal values referring to the period 1871-1926 as computed by Dr. A. Crichton Mitchell.* The coefficients are given to the nearest $.001^{\circ}\text{A}$ and the phase angles to the nearest 1° .

Rainfall.-- The total rainfall for the year was 1576mm., this amount being 162 mm. below the normal. December, with a total of 364 mm. was the wettest month on record. February with a total of only 13mm. was abnormally dry.

Bright Sunshine.-- Sunshine was very slightly in excess of normal, January to July, (May excepted) were above and the other months correspondingly below the average. April with a total of 192 hours (46% of possible) was the brightest and December with 21 hours (9% of possible) the dulllest month.

Cloud and Weather.-- The mean amount of cloud at all observation hours was 7.4. The most cloudy month was December with mean cloud amount of 8.5. The month with least cloud was April with a mean of 6.2.

Visibility.-- The observations of visibility in tables 429-440 refer to visibility in a landwards direction. The observations, when the range of visibility seawards differs from the range landwards, are shown in the following tables:--

Date	Hour	Visibility Landwards	Visibility Seawards
Jan. 1	13	J	k
" 22	21	J	H
" 31	9	J	k
Feb. 14	18	J	k
" 25	15	J	l
" 26	15	J	k
" 28	15	l	m
Mar. 8	7	J	k
" 11	7	h	J
" 12	18	J	k
" 23	13	I	H
" 24	7	F	G
" 25	18	I	G
" 30	7	J	k
" 30	13	J	k
" 30	15	J	k
Apr. 4	18	J	l
" 5	7	J	k
May 4	18	k	J
" 9	13	I	H
" 22	13	I	H
" 22	18	I	H
June 9	7	J	k
" 15	15	k	J
" 15	18	k	J
" 21	7	h	I
July 20	13	k	J
" 20	21	J	k

Date	Hour	Visibility Landwards	Visibility Seawards
July 27	13	J	k
" 30	7	k	J
Aug. 1	15	I	J
" 1	18	I	J
" 5	9	J	k
" 5	13	h	J
" 5	15	I	J
" 6	7	J	k
" 7	7	J	k
" 10	7	J	k
" 16	18	h	G
Sept. 14	18	J	k
" 18	18	J	k
" 19	18	J	k
" 25	9	J	l
Oct. 12	15	J	k
" 13	7	J	k
" 17	7	h	I
Nov. 11	18	J	k
" 14	18	J	k
" 20	9	F	J
" 20	13	J	k
" 28	18	J	k
" 29	9	J	k
" 29	13	I	J
Dec. 9	15	J	l
" 21	7	I	J
" 31	13	J	k

*Diurnal Variation of Pressure and Temperature at Cahirciveen (Valentia) 1871-1926 by A. Crichton Mitchell D.Sc., London, Quart. J. R. met. Soc., 55, 1929, p. 310.

IDENTIFICATION NUMBERS OF INSTRUMENTS IN USE 1934.

Standard Fortin Barometer	M.O.	463	
Standard Dry Bulb Thermometer	M.O.	1701	Corrections Nil. (255°-266° + .2° (267°-268° + .1°
Standard Wet Bulb Thermometer	M.O.	1702	Corrections (269°-272° Nil. (273° and above, -.1°
Recording Beckley Rain-gauge			
Jardi Rate of Rainfall Recorder	M.O.	3	
Control Rain-gauge	M.O.	402	
Glass for Control Rain-gauge	M.O.	1572	
Campbell Stokes Sunshine Recorder	M.O.	5	
Robinson Cup Anemograph	Beck	46	
Dines Pressure Tube Anemometer			
			(2.0°F. - .3°F. (12.0°F. - .2°F.
Grass Minimum Thermometer	M.O.	18136/29	corrections (32.0°F. Nil. (52.0°F. Nil. (72.0°F. Nil. (260°A. + .1°
Earth Thermometer 1 ft.	M.O.	9	Corrections (280°A and above, Nil (273°A Nil.
Earth Thermometer 4 ft.	M.O.	24005	Corrections (278°A. - .1°A. (283°A and above, Nil

All thermometer corrections are applied before tabulation.

TABLE A.

Diurnal Variation of Barometric Pressure Fourier Coefficients.

Valentia Observatory, Longitude 10° 15' W.

Values of c_n α_n in the series $\sum c_n \sin (15nt + \alpha_n)$, t being Local Mean Time

reckoned in hours from midnight.

Month or Season	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926
	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°	mb.	mb.	°	°
January	.161	.101	124	165	.219	.317	157	157	.207	.156	8	257	.065	.069	187	218
February	.045	.124	293	197	.433	.342	151	154	.150	.115	345	355	.031	.041	104	104
March	.346	.118	127	159	.363	.357	136	154	.034	.044	270	269	.058	.038	46	58
April	.158	.101	106	191	.395	.311	163	149	.034	.035	133	176	.047	.036	52	11
May	.087	.168	172	179	.332	.273	145	145	.096	.074	176	163	.020	.017	101	343
June	.208	.196	181	199	.257	.254	151	146	.091	.079	166	161	.014	.004	275	340
July	.253	.242	185	184	.285	.248	138	145	.074	.079	168	165	.006	.013	293	16
August	.518	.252	215	189	.297	.278	165	145	.094	.054	186	165	.005	.034	19	348
September	.363	.193	205	202	.293	.344	157	150	.060	.002	322	46	.069	.044	4	1
October	.553	.202	186	194	.327	.336	172	153	.062	.071	58	349	.028	.014	123	42
November	.090	.076	149	181	.362	.343	172	155	.144	.128	3	355	.039	.034	157	153
December	.213	.130	298	191	.326	.317	143	158	.096	.158	357	355	.042	.074	224	194
Arithmetic Mean	.250	.242	...	...	.324	.310	...	...	.095	.083	...	...	.035	.035	...	...
Year	.182	.155	184	188	.316	.308	156	152	.024	.030	6	5	.011	.003	90	70
Winter	.018		224		.326		156		.148		360		.034		178	
Equinox	.291		169		.335		157		.015		8		.041		41	
Summer	.252		198		.288		150		.087		174		.005		38	

VALENTIA OBSERVATORY

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TABLE B.
Diurnal Variation of Temperature Fourier Coefficients .

Valentia Observatory, Longitude 10° 15' W.

Values of $c_n \alpha_n$ in the series $\sum c_n \sin (15nt^\circ + \alpha_n)$, t being Local Mean Time
reckoned in hours from midnight.

Month or Season	c_1		α_1		c_2		α_2		c_3		α_3		c_4		α_4	
	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926	1934	1871- 1926
	$^{\circ}A$	$^{\circ}A$	$^{\circ}$	$^{\circ}$	$^{\circ}A$	$^{\circ}A$	$^{\circ}$	$^{\circ}$	$^{\circ}A$	$^{\circ}A$	$^{\circ}$	$^{\circ}$	$^{\circ}A$	$^{\circ}A$	$^{\circ}$	$^{\circ}$
January	.609	0.48	232	239	.292	0.26	40	54	.134	0.11	238	227	.052	0.02	79	48
February	1.378	0.81	229	237	.574	0.37	45	59	.118	0.09	248	246	.087	0.03	163	202
March	1.260	1.34	239	237	.512	0.42	62	64	.080	0.04	21	334	.129	0.08	189	224
April	1.760	1.80	233	239	.344	0.36	93	72	.197	0.15	45	41	.097	0.06	261	236
May	1.740	2.08	245	241	.204	0.19	123	97	.163	0.24	60	55	.045	0.04	22	305
June	2.287	2.05	243	243	.324	0.11	153	97	.289	0.21	61	63	.069	0.03	330	13
July	2.262	1.86	244	244	.270	0.15	142	78	.254	0.20	63	63	.077	0.01	360	344
August	1.014	1.74	242	243	.326	0.30	72	71	.145	0.16	46	49	.025	0.03	277	243
September	1.322	1.55	241	240	.384	0.45	72	67	.033	0.06	3	212	.067	0.09	228	228
October	.699	1.11	234	237	.316	0.41	66	59	.090	0.08	265	260	.041	0.07	272	207
November	.544	0.72	232	236	.347	0.35	54	55	.103	0.12	246	242	.018	0.01	122	102
December	.283	0.44	229	233	.188	0.26	54	53	.086	0.11	240	238	.026	0.03	115	55
Arithmetic Mean	1.264	1.33	...	...	.340	0.30	...	...	.141	0.13	...	...	.061	0.04	...	...
Year	1.276	1.33	239	240	.280	0.30	75	67	.054	0.05	40	38	.013	0.02	23	234
Winter	.687		231		.337		48		.110		244		.035		124	
Equinox	1.254		237		.381		72		.062		19		.069		228	
Summer	1.887		244		.236		122		.211		3		.046		348	

NOTE.-- The seasonal means are derived from the following groups of months:- "Winter": January, February, November and December; "Equinox": March, April, September, and October; "Summer": May to August inclusive.

TERRESTRIAL MAGNETISM

Notes on the Magnetic Observations for the year 1934.

Absolute observations of declination, horizontal force and inclination were made weekly at Valentia Observatory during the year 1934. The instruments in use were Dover unifilar, No. 139, with collimator magnet 139A and mirror magnet 139C, and Dover dip circle, No. 118. These instruments are the same as in previous years except that Dover dip circle, No. 239 was used from May 1930 to October 1931. The mean times of observations were 10.22 for declination, 11.49 for horizontal force and 14.33 for inclination, all according to Greenwich Mean Time. In the individual observations the greatest departure from the mean time in any element was 62 minutes. The deflection of the mirror magnet was measured for two distances of the collimator magnet, namely, 30 cm. and 40 cm. The complete deflection observation consisted of eight readings of the mirror magnet. The distribution constant, P , used for 1934 was computed from the mean deflections for 30 cm. and 40 cm. for the seven years 1927-1933 inclusive. The mean P so obtained was 7.63. The moment of the collimator magnet has decreased at the rate of about 1 unit per annum.

The values of declination, horizontal force and inclination obtained in the absolute observations are given in detail in Table C, but in Table D the

mean monthly values are computed only from such of these absolute observations as were taken at times subsequently found, by reference to the Eskdalemuir magnetograph curves, to be free from serious disturbance. Observations in Table C taken at disturbed times, and not, therefore, utilised for mean values in Table D, are marked with an asterisk. The north, west and vertical components and the total force for each month and the year are computed from the corresponding mean values of the observed elements.

Westerly declination has diminished by $10^{\circ}8'$ as compared with 1933. From 1932 to 1933 the decrease was $10^{\circ}9'$ and in the previous 12 months $11^{\circ}4'$. The average annual decrease for five year periods since 1910 is as follows:-

1910-15	1915-20	1920-25	1925-30	1929-34
$8^{\circ}2'$	$9^{\circ}2'$	$11^{\circ}1'$	$11^{\circ}0'$	$10^{\circ}7'$

The rate of the eastward movement of the magnetic needle increased slowly up to about 1927, but is now apparently decreasing again.

Northerly inclination decreased $0^{\circ}4'$ from 1933 to 1934. Changes during the past few years have been irregular but, on the whole, it appears that inclination is diminishing at a slow rate.

Up to 1920 the mean annual values of horizontal force had shown a steady decline from year to year. In the years 1921 to 1924, 1927, 1931, 1933 and in 1934 the change was in the opposite direction, each year having a mean value higher than that of the preceding year.

The amount of annual change is shown in the following table:-

Period	Annual Change
1910-15	5γ decrease (mean value).
1915-20	6γ " (mean value).
1920-21	8γ increase.
1921-22	1γ "
1922-23	3γ "
1923-24	2γ "
1924-25	5γ decrease.
1925-26	14γ "
1926-27	2γ increase.
1927-28	11γ decrease.
1928-29	5γ "
1929-30	8γ "
1930-31	2γ increase.
1931-32	6γ decrease.
1932-33	2γ increase.
1933-34	1γ "

The reversal of the annual change in horizontal force in certain years was not accompanied by a corresponding reversal in total force. The average annual decrease in total force for five year periods since 1910 is as follows

1910-15	1915-20	1920-25	1925-30	1929-34
49γ	33γ	32γ	20γ	26γ

The total force has continued to decrease, but at a rate which is apparently diminishing gradually. The individual changes from year to year as shown in Table D are somewhat irregular, but this may be due in considerable measure to instrumental uncertainties. The total force is computed from the horizontal force and the inclination, using the formula $T = H \sec. I$, so that

an error of 0.1 in I would give an error approximately 4γ in T at Valentia. In addition, it is to be remembered that the secular change data for Valentia are obtained from absolute observations made at fixed hours at any of which the value obtained for an element may differ, by an amount which is not necessarily constant, from its true mean value for the day of observation. It is by no means improbable that owing to this and errors of observation, uncertainties to the extent of several tenths of a minute of arc may be introduced into the mean value of I for the year. For the average change over a series of years these possible errors are naturally much diminished and the average fall of 33γ per annum in the total force obtained from the values in Table D is probably a close approximation to the true change. This continued decrease in the total force indicates that the rise in the value of the horizontal force observed in certain years was not a true increase in the magnetic field but merely a component increase arising from the fall in the inclination, which becomes proportionally more effective in the horizontal component as the actual inclination angle itself becomes smaller. The magnetic field in the Valentia district continues to become less year by year, therefore, although, without observations of inclination, the opposite would have appeared to be the case in some years.

TABLE C.

Valentia Observatory. Absolute Magnetic Observations, 1934

Latitude $51^{\circ}56'$ N. Longitude $10^{\circ}15'$ W.

Date		Westerly Declination		Horizon- tal Force	Northerly Inclination		Date	Westerly Declination		Horizon- tal Force	Northerly Inclination		
		°	'	Y	°	'		°	'	Y	°	'	
January	5	16	49.1	17827	67	58.5	July	7	16	43.4	17805	67	58.1
"	12	16	50.1	17823	67	56.2	"	13	16	39.9	17809	67	57.6
"	19	16	48.9	17815	67	58.0	"	20	16	41.7	17804	67	57.4
"	26	16	47.0	17813	67	56.7	"	27	16	43.2	17811	67	56.6
February	2	16	46.7	17825	67	57.0	August	3	16	42.0	17789	67	57.8
"	9	16	48.6	17817	67	57.7	"	10	16	41.3	17814	67	57.2
"	16	16	46.7	17835	68	0.1*	"	17	16	41.6	17806	67	58.4
"	23	16	46.7	17819	67	57.5	"	24	16	40.5	17815	67	58.1
March	2	16	47.3	17788	67	57.5	"	31	16	42.8	17796	67	57.3
"	9	16	46.9	17801	67	57.5	September	7	16	42.1	17800	67	57.5
"	16	16	46.7	17814	67	57.6	"	14	16	43.6	17808	67	57.6
"	23	16	46.8	17812	67	58.1	"	21	16	42.5	17812	67	57.3
"	29	16	45.3	17813	67	57.7	"	28	16	40.6	17777	67	59.1
April	6	16	47.1	17817	67	57.7	October	5	16	40.4	17814	67	58.2
"	14	16	45.0	17803	67	57.5	"	12	16	42.9	17808	67	57.0
"	20	16	45.9	17800	67	56.9	"	19	16	40.2	17806	67	56.9
"	27	16	43.8	17830	67	57.6	"	26	16	41.4	17778	67	57.2
May	4	16	43.9	17804	67	58.2	"	31	16	39.8	17804	67	57.7
"	11	16	46.3	17818	67	57.8	November	9	16	39.4	17804	67	58.6
"	18	16	49.2	17805	67	57.7*	"	16	16	41.4	17827	67	57.3
"	25	16	42.5	17830	67	56.7	"	23	16	40.5	17819	67	56.9
June	1	16	42.9	17813	67	57.1	"	30	16	39.1	17825	67	56.6
"	8	16	45.3	17830	67	55.7	December	7	16	41.8	17810	67	56.9
"	15	16	42.5	17810	67	58.1	"	15	16	40.7	17842	67	57.4
"	22	16	41.3	17816	67	57.2	"	21	16	41.1	17821	67	57.2
"	29	16	41.3	17808	67	58.3	"	28	16	39.2	17814	67	56.0

*Disturbance at these times. Values not utilised in computing means given in Table D.

TABLE D.

VALENTIA OBSERVATORY.

Magnetic Date for the Year 1934.

1934	Declination (West)	Inclination (North)	Horizon- tal Force	North	West	Vertical	Total
	° /	° /	Y	Y	Y	Y	Y
January	16 48.8	67 57.3	17819	17057	5154	44004	47454
February	16 47.2	67 57.4	17824	17065	5148	44021	47465
March	16 46.6	67 57.7	17806	17048	5140	43987	47407
April	16 45.5	67 57.4	17813	17057	5136	43994	47435
May	16 45.5	67 57.6	17814	17057	5136	44003	47431
June	16 42.7	67 57.3	17815	17063	5123	43995	47444
July	16 42.1	67 57.4	17807	17056	5118	43978	47419
August	16 41.6	67 57.8	17804	17054	5114	43986	47398
September	16 42.2	67 57.9	17799	17048	5116	43977	47382
October	16 40.9	67 57.4	17802	17053	5110	43966	47406
November	16 40.1	67 57.3	17819	17070	5111	44004	47454
December	16 40.7	67 56.9	17822	17072	5115	43995	47477
Year, 1934	16 43.7	67 57.5	17812	17058	5127	43993	47431
Year, 1933	16 54.5	67 57.9	17811	17041	5180	44005	47473
Year, 1932	17 5.4	67 58.5	17809	17023	5234	44024	47490
Year, 1931	17 16.8	67 58.7	17815	17011	5292	44048	47514
Year, 1930	17 27.6	67 59.8	17813	16992	5345	44081	47546
Year, 1929	17 37.3	67 59.6	17821	16985	5395	44093	47559
Year, 1928	17 48.0	67 59.3	17826	16973	5449	44096	47563
Year, 1927	17 59.5	67 59.2	17837	16965	5509	44119	47588
Year, 1926	18 10.8	68 0.1	17835	16945	5565	44147	47612
Year, 1925	18 22.4	68 0.0	17849	16939	5626	44177	47646
Year, 1920	19 17.9	68 5.3	17840	16837	5896	44353	47806
Year, 1915	20 3.8	68 7.9*	17869	16785	6130	44519*	47972*
Year, 1910	20 44.6	68 13.0	17892	16732	6337	44771	48215

* Mean of 11 months only.

Air Ministry, Meteorological Office.

·OBSERVATORIES' YEAR BOOK, 1934.

ERRATUM.

Page 308 — Table 370: In blank space on extreme right

insert :	Mean
	°A
	84.04

London,
September, 1936.

(33725) Wt. 2277/980 375 9/36 Hw. G.371

HUMIDITY: ANNUAL MEANS FROM HOURLY VALUES
For exact hours, Greenwich Mean Time.

315

385. VALENTIA OBSERVATORY: North Wall Screen: $h_t = 1.3$ metres.

1934.

Hour G. M. T.	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
Relative Humidity	83.7	84.1	84.4	84.8	84.6	84.6	83.9	82.8	81.8	80.0	78.8	78.0	77.4	76.8	76.5	76.8	77.6	79.1	80.0	81.1	82.0	82.7	83.1	83.4	81.2
Vapour Pressure in Millibars.*	mb. 10.4	mb. 10.4	mb. 10.4	mb. 10.3	mb. 10.3	mb. 10.3	mb. 10.4	mb. 10.6	mb. 10.7	mb. 10.8	mb. 11.0	mb. 11.1	mb. 11.1	mb. 11.1	mb. 11.0	mb. 11.0	mb. 10.9	mb. 10.9	mb. 10.8	mb. 10.6	mb. 10.5	mb. 10.6	mb. 10.5	mb. 10.4	mb. 10.7

* Computed from the mean temperature and mean relative humidity.

RELATIVE HUMIDITY: MONTHLY MEANS AND DIURNAL INEQUALITIES
The departures from the mean of the day are adjusted for non-cyclic change.†

386. VALENTIA OBSERVATORY: North Wall Screen: $h_t = 1.3$ metres.

1934.

MONTH	Mean	Hour 1	G.M.T. 2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
January	82.4	+1.1	+1.6	+1.5	+1.2	+0.7	+1.2	+2.1	+1.4	+2.6	+2.5	+1.3	+0.9	+0.7	-2.2	-2.9	-2.9	-2.4	-1.9	-1.6	-2.2	-2.5	-0.7	0.0	+0.3
February	79.1	+2.7	+2.8	+2.3	+2.3	+2.8	+4.2	+4.5	+2.9	+3.1	+0.9	-1.4	-3.7	-5.8	-6.4	-6.5	-5.3	-4.0	-2.3	-1.9	+1.6	+1.6	+1.9	+2.1	+1.4
March	75.1	+1.3	+1.4	+1.8	+3.2	+2.4	+2.2	+2.8	+3.5	+3.4	-0.8	-0.8	-3.5	-4.7	-5.7	-5.2	-3.7	-3.8	-1.7	+1.1	+1.6	+2.2	+0.8	+1.3	+0.9
April	75.0	+2.6	+5.0	+5.2	+5.6	+5.6	+6.7	+5.2	+2.6	+0.4	-2.9	-3.2	-4.8	-4.5	-4.9	-6.7	-5.9	-5.6	-3.6	-2.0	-0.8	+0.6	+2.1	+1.0	+2.3
May	78.8	+3.8	+4.6	+5.1	+6.1	+5.8	+4.7	+1.9	+0.4	-2.1	-3.3	-5.2	-4.1	-4.7	-4.8	-4.1	-5.1	-3.2	-3.3	-2.5	-0.7	+1.2	+2.5	+3.6	+3.8
June	80.4	+5.5	+6.0	+6.9	+7.5	+8.1	+7.4	+4.1	+0.9	-1.2	-5.6	-5.4	-6.4	-6.3	-5.9	-6.5	-7.4	-5.6	-4.6	-3.3	-1.5	+1.0	+3.2	+4.1	+6.2
July	81.3	+5.6	+5.7	+6.3	+6.3	+6.5	+5.3	+2.1	-0.1	-3.0	-3.9	-6.1	-6.5	-6.5	-5.7	-5.3	-5.5	-6.1	-2.7	-1.3	-0.3	+1.8	+3.6	+4.6	+5.1
August	84.4	+3.0	+3.3	+3.5	+3.9	+3.4	+4.2	+3.9	+2.6	+0.4	-1.9	-3.4	-3.7	-4.5	-4.5	-5.7	-4.4	-4.5	-3.4	-1.7	+0.5	+1.6	+1.9	+2.5	+2.9
September	85.3	+2.9	+3.5	+3.4	+3.8	+3.8	+3.6	+3.3	+2.5	+1.3	-0.8	-3.0	-4.0	-4.9	-6.2	-4.9	-5.5	-4.2	-2.0	-0.8	-0.1	+0.9	+1.9	+2.5	+2.9
October	82.8	+0.7	+0.1	+0.9	+1.7	+0.8	+0.7	+1.9	+2.1	+1.3	+0.8	-0.6	-0.5	-0.5	-2.7	-3.5	-1.8	-1.9	0.0	-0.2	+0.6	-0.4	-0.4	+0.1	+0.8
November	81.5	+0.5	+0.9	+1.3	+0.7	+1.0	+1.3	+1.6	+0.8	+0.8	+0.5	-0.3	-1.3	-2.8	-2.8	-3.7	-4.0	-1.3	+0.6	+0.1	+0.9	+1.7	+1.5	+1.1	+0.9
December	87.7	+0.5	+0.6	+0.4	+0.9	+0.3	-0.5	-0.3	+0.1	+0.7	+1.1	+0.1	-0.6	-0.9	-0.5	-1.0	-1.0	-0.6	+0.1	+0.6	+0.3	+0.1	-0.4	-0.1	+0.2
Year	81.2	+2.5	+3.0	+3.2	+3.6	+3.4	+3.4	+2.8	+1.6	+0.6	-1.1	-2.3	-3.2	-3.8	-4.4	-4.7	-4.4	-3.6	-2.1	-1.1	0.0	+0.8	+1.5	+1.9	+2.2

† See page 21.

RAINFALL: ANNUAL TOTALS OF HOURLY VALUES

Amounts, in millimetres; durations in hours for periods of sixty minutes between the exact hours, Greenwich Mean Time.

387. VALENTIA OBSERVATORY: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r
(height of receiving surface above ground) = 9.1 metres + 0.5 metre.

1934.

Hour G. M. T.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to Noon	Noon to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	0 to 24
Amount	mm. 77.3	mm. 84.2	mm. 68.6	mm. 68.5	mm. 64.6	mm. 77.0	mm. 71.8	mm. 75.7	mm. 61.5	mm. 48.2	mm. 58.5	mm. 57.0	mm. 61.4	mm. 61.3	mm. 74.1	mm. 67.9	mm. 45.3	mm. 56.0	mm. 67.2	mm. 55.8	mm. 60.3	mm. 65.8	mm. 70.5	mm. 77.7	mm. 1576.2
Duration	hr. 50.5	hr. 49.5	hr. 51.7	hr. 53.6	hr. 55.4	hr. 48.1	hr. 44.7	hr. 44.0	hr. 47.5	hr. 35.4	hr. 32.6	hr. 31.5	hr. 34.6	hr. 33.3	hr. 31.9	hr. 31.1	hr. 30.6	hr. 37.1	hr. 36.6	hr. 32.5	hr. 36.0	hr. 39.1	hr. 41.4	hr. 42.2	hr. 971.6

NOTES ON RAINFALL

388. VALENTIA OBSERVATORY.

1934.

Notable Falls of the Year:-

There was one "Noteworthy Fall" on Dec. 8th, when 19 mm. fell in 45 min, 10 mm. of which fell in 8 min.
The maximum fall in a day was 79 mm. on Oct. 24th.

Details of the greatest continuous falls are as follows:-

Date	Amount mm.	Duration hrs.
March 4th.	20	4.3
" 14th.	20	5.4
Sept. 28th.	23	9.4
Oct. 24th.	86	23.5
Dec. 1st.	22	9.1
Dec. 22nd.	36	22.3

Wet Periods:-

There were 3 "Rain Spells" (i.e., periods of 15 or more consecutive days on each of which 0.2 mm. or more of rain fell) Jan. 1st - 15th, July 28th - Aug. 12th, Aug 26th - Sept 10th, and 2 "Wet Spells" (i.e., periods of 15 or more consecutive days on each of which 1 mm. or more of rain fell) Oct. 20th - Nov. 3rd, Nov. 30th - Dec. 30th.

Dry Periods:-

There were 2 "Absolute Droughts" (i.e., 15 or more consecutive days to none of which is credited 0.2 mm. of rain or more) May 26th - June 12th, June 27th - July 11th, and 1 "Partial Drought" i.e., 29 or more consecutive days the mean daily rainfall of which does not exceed 0.2 mm.) Jan 26th - Feb. 23rd.

Rate of Rainfall (Jardi Recorder)

The highest instantaneous rate of rainfall was 136 mm/hr. at 14h. 34m. on December 8th. The maximum rate exceeded 50 mm/hr. on March 4th., April 15th, 24th, May 4th, August 3rd, 21st, September 4th, 16th, 27th, 28th, October 3rd, 5th, 21st, 23rd, 24th, December 1st, 6th, 8th, 12th, 25th, 26th, 27th and 30th.

RAINFALL

Amounts in millimetres, for periods of sixty minutes between the exact hours, Greenwich Mean Time.

389. VALENTIA OBSERVATORY: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 9.1 metres + 0.5 metre.

JANUARY, 1934.

Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Dura- tion 0-24	Max. Rate		
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.	
1	...	...	-1	mm.	...	...	-6	-4	1-9†	-9	mm.	...	...	...	...	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	3-9	3-3	11
2	...	...	(Δ)	(Δ)	(-1)	(Δ)	(Δ)	(Δ)	(-1)	(Δ)	...	-1	...	...	...	...	...	...	...	...	...	...	...	...	...	0-3	0-3	...
3	-2	...	-1	-7	-2	1-4	1-4†	1-0	-5	-1	5-6	6-7	6
4	-2	-2	-2	1-0	1-0	1-2	-8	-1	-2†	4-9	4-6	11
5	-1	-1†	-1	0-3	0-6	6
6	-2	-3	-4	-2	-1	...	-2	...	-2	2-3	1-0†	-2	-3	-1	-1	-3	5-9	8-9	10
7	...	-2	-1	-1	-1	-1	-2	-2	2-9	1-4	1-6	-9	1-0	1-1	-4	...	...	-2	...	...	...	...	...	...	1-0†	11-5	9-7	25
8	-4†	...	-3	...	-1	...	-7	-3	...	-1	-1	2-0	0-7	17
9	...	...	...	...	...	...	...	...	...	...	-3	-5	-5	2-1	-6	-2	1-6	2-6	2-3	2-6†	2-3	1-2	1-0	2-3	20-1	11-0	17	17
10	-9	-1	-1	1-1	1-0	...	...	-1	-1	-1	...	...	...	...	...	...	-4	...	...	...	...	3-8	4-8†	1-4	13-9	6-4	45	45
11	2-3	...	...	...	-8	-9	...	-2	-5	...	-2	2-0	1-4†	-5	...	-4	...	...	-8	...	...	...	...	...	...	10-0	3-2	40
12	...	...	...	...	...	...	...	...	...	...	...	-3	2-8	1-6†	...	...	...	-2	-2	...	-1	...	...	...	...	5-2	1-5	43
13	...	...	-6†	...	...	...	...	...	...	...	...	...	...	...	-1	...	-8	2-8	1-8	2-7	1-1	-3	2-1	1-1	13-4	7-4	20	20
14	-2	-1	...	...	...	...	...	...	...	...	-2	2-2	-8	-4	...	...	...	...	...	-2	-1	1-1†	-2	...	...	5-5	4-1	15
15	-1	-6†	2-0	-1	...	...	...	...	...	...	-2	-6	...	...	...	-2	-1	...	...	...	...	-6	...	...	...	4-7	2-0	19
16	-4†	...	...	...	...	...	...	...	-3	-7	1-1	-6	-2	...	...	-2	...	...	...	...	...	...	-2	-3	4-0	5-2	12	
17	-2	-1	...	...	-2	-1	-2	...	...	...	...	...	...	...	...	...	...	...	...	...	-1	...	-9†	-9	2-7	3-7	7	
18	-4	-2	...	...	...	...	...	...	...	-3	-1	-5	-1	...	...	...	-3	-7†	-2	-1	...	...	...	...	...	2-9	2-3	22
19	...	...	-1	...	-3†	-7	...	...	...	-8	-4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2-3	0-8	25
20	-3	0-3	0-6	...
21	1-0	1-3	1-9	1-5	1-0	-8	1-4	1-0	-2	-6	1-0	1-3	-3	-5	-2	-1	...	...	-2†	-1	...	...	...	...	...	14-4	14-1	9
22	-3	2-0	1-1	1-9	2-0	3-0†	2-3	1-4	1-4	-4	1-3	-8	-9	-8	-1	-1	-2	...	...	...	...	...	...	...	...	20-0	14-0	10
23	...	...	...	...	...	...	-1	-3	-4	-2	...	...	...	...	...	...	-1	-1	-3	-1	-1	-4	-3	...	...	2-4	10-2	4
24	-4	-4	...	-1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-9	2-3†	...	4-1	3-3	10
25	4-3	4-6†	-9	...	...	...	...	...	...	...	...	-5	...	...	...	...	...	...	...	...	...	...	...	...	...	10-3	2-7	15
26	...	...	...	-3†	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-1	-2	...	...	...	0-6	0-5	7
27	-5†	...	...	...	...	...	...	...	...	...	...	-1	...	...	...	...	...	...	...	...	...	...	...	...	...	0-6	0-2	22
28
29
30
31
Sum	11-2	10-1	7-9	5-5	5-9	5-9	5-3	3-8	9-7	6-7	7-6	11-4	11-0	8-2	3-1	2-9	4-6	7-2	5-9	5-9	4-3	7-6	10-4	9-7	171-8	127-9			
Total Dura- tion	hr. 7-8	hr. 6-6	hr. 5-7	hr. 4-6	hr. 3-7	hr. 3-9	hr. 4-6	hr. 4-9	hr. 6-5	hr. 7-1	hr. 6-7	hr. 7-5	hr. 8-2	hr. 6-4	hr. 3-1	hr. 3-0	hr. 4-8	hr. 5-3	hr. 3-9	hr. 3-2	hr. 4-4	hr. 4-1	hr. 5-7	hr. 6-2	hr. 127-9				

† Hour of occurrence of the maximum rate of the fall (5 mm/hr. or more.)

390. VALENTIA OBSERVATORY: $H_r = 9.1 \text{ metres} + 0.5 \text{ metre}$

FEBRUARY, 1934.

[illegible]

† Hour of occurrence of the maximum rate of the fall (5 mm/hr. or more.)

RAINFALL

Amounts in millimetres, for periods of sixty minutes between the exact hours, Greenwich Mean Time.

393. VALENTIA OBSERVATORY: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 9.1 metres + 0.5 metre.

MAY, 1934.

Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Dura- tion. 0-24	Max. Rate	
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm./hr.	
1	-1	-3	-6	1-3	-3	-7†	-4	3-7	4-0	6
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	-1	-5	2-2	-6	...	...	-1	-1	-1	...	...	...	-8	4-6†	3-3	-2	...	-7	...	...	...	-2	...	13-5	5-8	73
5	-1	...	...	...	-4	-5†	...	-4	-1	...	...	-1	...	-1	...	...	...	...	...	...	...	-3	...	-4	2-4	1-2	25
6	-1	-4	...	...	...	-2	...	...	-8	2-5†	...	...	...	-1	-6	-6	...	-4	1-1	...	...	...	1-1	...	7-9	5-6	27
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1-0	-5	1-2	-9	-4	-2	-8	2-1†	-4	-1	7-6	9-2	7
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	-1	-1	-1	-1	...	-3	-1	0-8	3-9	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	-1	-1	...	...	...	-9	-7	-3	-2	...	-1	.6†	3-0	2-7	9
16	-1	-5	1-4	-6	-5†	3-1	1-3	18
17	-2†	...	...	-4	...	...	...	...	...	...	...	...	...	-2	-8	1-0	1-6	1-6	1-0	-7	1-0	-7	-6	-1	9-9	10-8	10
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	-1	...	-1	-4†	-1	0-1	0-1	2
20	-2	-1	-6	-2	-1	-1	...	-2	-1	-9†	0-7	0-9	8
21	-3	-3	0-7	0-9	3
22	-1	-1	0-7	2-1	...
23	-1	-1	-1	-1	-1	-2	-1	0-3	3-0	...
24
25	-2	-1	0-9	0-8	11
26
27
28
29
30
31
Sum	1-9	1-2	2-6	4-8	3-1	2-0	1-3	2-9	2-5	3-0	...	0-1	0-6	1-3	6-1	5-0	2-1	3-6	4-8	1-4	2-8	1-4	2-0	1-3	57-8	58-0		
Total Dura- tion.	hr. 2-9	hr. 3-5	hr. 4-6	hr. 5-3	hr. 4-0	hr. 3-6	hr. 2-7	hr. 2-0	hr. 2-6	hr. 1-2	hr. ...	hr. 0-1	hr. 0-2	hr. 2-0	hr. 2-5	hr. 2-9	hr. 1-6	hr. 3-1	hr. 4-0	hr. 2-0	hr. 2-4	hr. 1-6	hr. 1-6	hr. 1-6	hr. 58-0			

† Hour of occurrence of the maximum rate of the fall (5 mm/hr. or more.)

394. VALENTIA OBSERVATORY: $H_r = 9.1$ metres + 0.5 metre.

JUNE, 1934.

Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.		
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	...	-3	...	-2†	...	...	...	-2	-5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1-2	1-1	7
14	...	...	...	...	-3	-5†	-3	1-5	2-7	-3	...	...	...	-2	-3	-9	1-3	-5	-7	...	...	...	...	8-5	8-9	9
15	-1	-1	-2	-1	-1	-1	-1	0-8	5-3	3	
16	-1	-2	-1	-2	-1	-1	-3	-1	-1	-2†	-3	-3	-6	1-0	-9	-1	4-7	9-9	6	
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	-6	...	-1	2-3†	3-7	-9	...	...	...	...	...	...	...
19	-4	-3	-1	-2	1-2	2-0	3-0	-8	1-9	16-5	8-7	20	
20	0-9	1-7	9	
21	-3	-6	-3	-4	...	-3	2-3†	2-1	-7	7-1	6-5	12	
22	3-9	7-2	4	
23	-4	-4	-7	-1	...	-4	1-8†	1-7	1-3	-3	-2	...	-1	-1	-1	7-6	8-0	15	
24	-3†	-9	-1	1-3	0-9	7	
25	1-3	3-1	...
26	-6	-2	...	2-2	1-9†	-6	-5	-2	-8	-3	7-3	4-8	33	
27	
28	-1†	0-1	0-1	6	
29	
30	
Sum	1-7	1-5	1-4	3-4	3-0	2-9	2-7	3-8	6-8	2-7	1-5	0-2	0-4	2-9	4-8	3-4	1-7	1-5	1-5	2-7	2-5	4-4	2-0	2-8	62-2	66-2		
Total Duration.	hr. 4-3	hr. 3-5	hr. 3-6	hr. 4-2	hr. 4-0	hr. 4-0	hr. 3-2	hr. 3-1	hr. 3-5	hr. 1-9	hr. 1-2	hr. 0-2	hr. 0-6	hr. 1-9	hr. 1-7	hr. 3-1	hr. 2-9	hr. 2-7	hr. 2-4	hr. 2-9	hr. 2-1	hr. 3-5	hr. 3-0	hr. 2-7	hr. 66-2			
Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-24			

† Hour of occurrence of the maximum rate of the fall (5 mm/hr. or more.)

DURATION OF BRIGHT SUNSHINE

For periods of sixty minutes, between the exact hours of Local Apparent Time.

401. VALENTIA OBSERVATORY: H_R (height of recorder above ground) = 12.8 metres.

JANUARY, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
2	--	--	--	--	--	...	4	...	...	9	1.0	2	...	--	--	--	--	--	2.5	32
3	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
4	--	--	--	--	--	...	...	...	...	...	...	4	...	--	--	--	--	--	0.4	5
5	--	--	--	--	--	...	9	6	8	6	1	3	...	--	--	--	--	--	3.3	42
6	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
7	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
8	--	--	--	--	--	...	2	9	7	9	8	6	2	--	--	--	--	--	4.3	54
9	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
10	--	--	--	--	--	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
11	--	--	--	--	--	...	...	...	4	1	4	...	1	--	--	--	--	--	1.0	12
12	--	--	--	--	--	...	3	2	...	...	1	1	...	--	--	--	--	--	0.7	9
13	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
14	--	--	--	--	...	...	...	...	...	...	1	1	...	--	--	--	--	--	0.2	2
15	--	--	--	--	...	...	...	...	2	3	...	5	...	...	--	--	--	--	1.0	12
16	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
17	--	--	--	--	...	...	...	4	5	2	5	2	...	...	--	--	--	--	1.8	22
18	--	--	--	--	...	...	...	4	...	...	...	1	...	...	--	--	--	--	0.5	6
19	--	--	--	--	...	...	4	8	9	8	6	1.0	5	...	--	--	--	--	5.0	60
20	--	--	--	--	...	...	...	5	2	2	...	2	...	...	--	--	--	--	1.1	13
21	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
22	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
23	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
24	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...
25	--	--	--	--	...	...	...	4	5	5	5	...	1	...	--	--	--	--	2.0	23
26	--	--	--	--	...	3	1.0	1.0	1.0	1.0	1.0	1.0	8	...	--	--	--	--	7.1	82
27	--	--	--	--	...	...	9	4	7	7	9	...	...	...	--	--	--	--	3.6	41
28	--	--	--	--	...	4	1.0	1.0	1.0	1.0	7	3	...	...	--	--	--	--	5.4	61
29	--	--	--	--	...	4	1.0	1.0	1.0	1.0	1.0	8	...	...	--	--	--	--	6.2	70
30	--	--	--	--	...	...	...	...	...	...	...	...	...	...	--	--	--	--	...	...
31	--	--	--	--	...	5	1.0	1.0	8	6	...	6	6	2	--	--	--	--	5.3	59
Sum	--	--	--	--	..	1.6	7.1	8.6	8.7	8.8	7.7	6.4	2.3	0.2	--	--	--	--	51.4	
Mean	--	--	--	--	...	.05	.23	.28	.28	.28	.25	.21	.07	.01	--	--	--	--	1.66	20

402. VALENTIA OBSERVATORY: $H_s = 12.8$ metres.

FEBRUARY, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%
1	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
2	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
5	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29
10	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61
11	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70
12	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48
13	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	68
14	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
15	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
16	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
17	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	85
18	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	75
19	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65
20	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32
21	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	49
23	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
24	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
25	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60
26	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
27	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	54
28	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60
Sum	--	--	--	...	0.7	7.5	9.0	11.4	13.4	12.7	12.7	10.9	9.5	3.4	...	--	--	--	91.2		
Mean	--	--	--	...	.03	.27	.32	.41	.48	.45	.45	.39	.34	.12	...	--	--	--	3.26		33
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day		Per cent. of Possible

MAY, 1934.

JUNE, 1934.

[illegible]

M.O. 380
(Kew)

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia, and Kew, and the results of soundings of the upper atmosphere by means of registering balloons.

KEW OBSERVATORY

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON
HIS MAJESTY'S STATIONERY OFFICE
1936

KEW OBSERVATORY.

Latitude	..	..	..	..	..	..	51° 28' N.
Longitude	..	..	..	..	..	..	0° 19' W.
G.M.T. of Local Mean Noon	..	..	..	..	..	..	12h. 1m.

Heights in Metres above Sea Level.

Barometer	..	..	..	..	..	..	10.4
Raingauge Site..	..	..	..	..	..	..	5.5
Dines Pressure Tube Anemometer	..	..	..	..	..	..	28

Heights in Metres above Ground.

Thermometer Bulbs	..	..	..	..	..	..	3.0
Sunshine Recorder	..	..	..	..	..	..	13.3
Dines Pressure Tube Anemometer	..	..	..	..	..	..	23
Beckley Raingauge Rim	..	..	..	..	..	..	0.53

INTRODUCTION.

The observatory was built in 1769 as the private observatory of King George III. Since 1842 it has been devoted to physics and meteorology. The meteorological records are continuous from 1854. The Observatory is in the Old Deer Park, Richmond (Surrey), about 10 miles (16 km.) to the west of the City of London. The Observatory stands on a low artificial mound whose level is about $1\frac{1}{2}$ metres higher than that of the surrounding park. Round the Observatory a golf course has been laid out. The river Thames is distant about 300 metres on the north and west. Kew Gardens, which are extensively wooded, lie to the east-north-east, the nearest point of the Gardens being about 600 metres away. The town of Richmond, to the south-east, is about 1,100 metres distant. On the east side of the Park is the main road from Richmond to Kew; on the south side the railway from Richmond to Twickenham. An open area partly wooded, Syon Park, lies to the north-north-east across the river. Richmond Park is about $1\frac{1}{2}$ miles ($2\frac{1}{2}$ km.) to the south-east. General views of the Observatory building and the exposure lawn are to be found in the 1928 volume. The photographs were taken in 1925. The changes (before the end of 1934) which need be noted are the substitution of other experimental screens for the small marine screens which were being tested in 1925, the removal in 1929 of the hedge near the North Wall Screen, the erection in 1929

in place of the Robinson anemograph of the new Dines Pressure Tube Anemometer with its vane 5.3 metres above the dome and the removal in 1934 of the staging carrying the mast and vane of the old Dines Pressure Tube Anemometer. For the early history of the Observatory reference may be made to papers by S.P. Rigaud*, R.H. Scott†, C. Chree‡, R.S. Whipple††, and O.J.R. Howarth††.

METEOROLOGY.

The elements dealt with in the following tables are: atmospheric pressure, temperature, humidity, rainfall, sunshine, solar radiation, wind speed and direction, earth temperature, minimum temperature on the grass, level of underground water; there is also a diary of cloud and weather.

For brief descriptions of most of the instruments from which values of the above elements have been obtained and of the methods of tabulating the records, reference should be made to the General Introduction. The following notes supplement, where necessary, the information contained therein.

Notes on Instruments.

Pressure.— The barograph is mounted in the basement of the Observatory, where the diurnal variation of temperature is very small. The normal position of the instrument has been in the north room occupied by the magnetographs. When the magnetographs were removed and the preparations for the installation of the seismographs were commenced, the barograph was placed in the photographic darkroom (June 16th, 1925). The instrument remained in that position until May 21st, 1928, when it was restored to its original site and electric lighting installed. The barograph magnifies barometric changes in the ratio 1.553 : 1, i.e., the change of ordinate equivalent to a change of 1 mm. in the height of the barometer is 1.553 mm. "Residual corrections," obtained from the control observations taken daily with the Newman Barometer at 9h, 15h and 21h, are applied to the hourly measurements. The same correction is applied to all the readings on the same photographic sheet, i.e., generally for forty-eight hours. The individual entries published for the hours of the control observations may differ by .3 mb from those observations. The Newman barometer is compared from time to time with the two large mercury barometers, which were set up in 1855 and 1860 respectively, the accuracy of which has been confirmed by indirect comparisons with the new standard of the N.P.L.** A zero correction for the Newman barometer is based on these comparisons. The correction + 0.2 mb. (+0.006 mercury inch) which has been applied for many years, remained in use. Comparisons are made on the assumption that the value of the acceleration due to gravity is $g = 981.199 \text{ cm/sec}^2$. This is the value given by pendulum observations.†††

*Observatory, London 1882, p.279.

†London, Rec. roy. Soc., 1897.

‡London, Proc. roy. Soc., 39, 1885 pp. 37-86. ††London, Proc. opt. Conv., 1926

‡‡The British Association for the Advancement of Science: a retrospect, 1831-1921. London, 1922.

†††A comparison between the values of "g" at Cambridge and Kew Observatory was made during the year 1925 by Sir. G.P. Lenox-Conyngham with the assistance of Mr. G. Manley. A similar comparison between Potsdam and Cambridge was made by Prof. Meinesz earlier in the year. These observations are in accord with those made at Kew and Potsdam by Putnam in 1900, from which the value stated above was derived. The value for Potsdam, $g = 981.274$, based on the observations of Kühnen and Fürtwangler, is adopted as the standard of reference. For the latitude of Kew Observatory, $51^{\circ} 28'$, the formula in the General Introduction gives $g = 981.185$.

**London Met. Mag., 68, 1933, pp.119-120.

The departure from the value given for the latitude by the formula quoted in the General Introduction is insignificant. On occasions when a loss of trace occurred, the missing hourly values were derived from the Dines Float Barograph.* There were 23 hours in the year for which this was necessary.

Temperature and Humidity.— The thermograph is mounted in the West Room on the first floor of the Observatory, the thermometer bulbs being exposed in the screen attached to the north wall of the building. This screen has single louvres and the bottom is open. There is an additional flat louvred screen which shields the main screen from direct sunshine when the sun is in the West and not too low. The height of the bottom of the bulbs of the recording thermometers above the bottom of the sides of the screen containing them is 30 cm. in summer, 33 cm. in winter. The height of the bulbs above the top of the artificial mound on which the Observatory stands is approximately 3 metres; the height above the lawn where the rain-gauge is situated is approximately 5 metres. The scale values of the photographic records are not identical for the dry and wet-bulb curves. For the dry-bulb, tube No. 4 II was in use and the scale value was 1 mm. = 0.3336°A ; for the wet-bulb, the old Falmouth wet-bulb tube (no number) was in use and the scale value was 1 mm. = 0.290°A .

Up to the year 1916 thermometers graduated on the Fahrenheit scale were in use in the North Wall Screen for controlling the thermograph readings. Then thermometers graduated in the absolute scale were introduced. Of these two absolute thermometers one was broken in June, 1933 and one of the old Fahrenheit thermometers took its place. Readings of the control thermometers are used for the daily weather service and for that purpose readings on the absolute scale have to be converted to Fahrenheit. It was decided that it would be more convenient to make the alternative conversion from Fahrenheit to Absolute and accordingly the use of thermometers with the absolute graduation terminated at the end of 1933. Before the Fahrenheit thermometers which had been in use up to 1916 were put back in the screen they were tested at the National Physical Laboratory. It is satisfactory to note that the two thermometers are correct within 0.1°F . The close agreement of the scale of the Kew standards with the scale of the hydrogen thermometer was demonstrated by Harker in 1905**. The recent tests indicate that these thermometers with large bulbs keep their zeros well.

The water for the wet-bulb thermometers is supplied from a tank fitted outside the screen. A large bottle is inverted over the tank and water flowing from this bottle keeps the level constant in the tank and in the cups from which wicks are taken to the wet-bulbs. The height of the apparatus is adjusted so that the water drips steadily from the wet-bulbs. A bottleful of water lasts at least a week. It is found that the bottle survives severe frost.

Control eye-readings of the standard thermometers are taken daily at 9h, 15h and 21h. Residual corrections obtained from the control observations are applied to the hourly measurements of the curves. The same correction is applied to all the readings on the same photographic sheet, i.e., generally for forty-eight hours. The individual entries published for the hours of the control observations may differ by 0.3°A . from these observations. The larger departures refer to occasions when temperature is oscillating or changing rapidly.

*For descriptions of this instrument see "Observatories' Year Book", 1923 p.94, and London, Quart. J. R. met. Soc., 55, 1929, p.37.

**London Proc. roy. Soc. 78 (A), 1907, p.225. and London, Coll. Res. nat. phys. Lab., 2, p.215.

In cases of loss of the dry-bulb record owing to the failure of the electric light or any other cause the readings of a mercury-in-steel thermograph are adopted. There were 30 hours in the year for which this was necessary. The auxiliary thermograph which had been in a second North Wall Screen was moved in November 1933 to the screen containing the bulbs of the photo-thermograph.

When the wet-bulb trace is missing or defective the missing values are derived from the dry-bulb trace and the records of a hair hygograph. The same procedure is always adopted when the wet-bulb reading is below 273°A . 435 hours had thus to be dealt with during the year. Humidity was determined from the dry and wet-bulb readings by the procedure described in the General Introduction to this volume.*

It may be noted that during 1934, as in previous years, the temperatures published for Kew Observatory in the Daily Weather Report and elsewhere also refer to the North Wall Screen. For the daily and weekly reports the readings of maximum and minimum thermometers exposed in that screen are utilised.

Rainfall.- As from January, 1921, the standard raingauge for the Observatory has been an 8 -inch gauge with the deep "Snowdon" funnel. The site is level and protected from wind, principally by hedges about $1\frac{1}{2}$ m. high and distant 11 metres to East and 17 metres to West. The readings of this standard gauge are at 7h and 18h. The hourly readings of the Beckley gauge are adjusted to give totals in agreement with the standard gauge. Continuous records of the rate of rainfall are obtained from the Jardi rate of rainfall recorder. The instrument is situated 12 metres from the north wall of the Observatory and the rim is 1.2 metres above the surrounding ground. With heavy rainfall comparable records are obtained from the "minute-by-minute gauge"††. The rim of this gauge which is situated on the lawn 10 metres SW of the Beckley gauge is 1.2 metres above the ground.

Sunshine.- The sunshine recorder is mounted on the south parapet of the roof. The same frame has been in use since 1880 and it is believed that the ball has not been changed. The ball is now somewhat yellow. The exposure is satisfactory. The greatest elevations of the sky line in the azimuths in which the sun can rise and set are 1° and 3° respectively.

Solar Radiation.- For previous years observations made with the Ångström pyrheliometer of the intensity of direct solar radiation received by a surface normal to the sun's rays have been published in the Year Book. For 1934 these observations are supplemented by daily totals of radiation recorded by the Gorczynski pyrheliograph. The Ångström pyrheliometer observations are made within half an hour of noon. The mean intensity, derived from three readings, is given in Tables 499 to 510 in mw/cm^2 . ($1 \text{ mw} = 0.01435 \text{ cal}/\text{min.}$). The secant of the sun's zenith distance at the time of these observations is entered under "sec Z" and the atmospheric conditions under "sky".

The Ångström instruments in use are by Rose, Stockholm. No. 24 was in use throughout the year. The ammeter is No. 68956, which was certified at the National Physical Laboratory in 1919.† The readings are evaluated according to Ångström's original instructions.†† To bring the readings into

*Prior to 1926 the tables, based on Glaisher's factors, published in "The Computer's Handbook," M.O. 223, Sec. 1, 1916, were used.

††London, Met. Mag. Aug. 1934., pp.157-158.

†In view of the discovery by Marten (Berlin, Ber. Meteor. Inst., 1928, p.64) that errors are likely to be caused by temperature changes produced in a microammeter when sunshine falls on it, it may be noted that the instrument used at Kew is always in shadow.

††London, Report of the International Meteorological Committee, St. Petersburg, 1899, p.57.

accordance with the scale adopted by the Smithsonian Institution, a correction of + 3.5 per cent. would be required.†

The Moll thermopile of the Gorzyski pyrliograph is mounted on a heliostat near the sunshine recorder and is connected to a Richard millivoltmeter in the dome. The pen of the millivoltmeter is depressed once each minute electromagnetically. The apparatus is standardised by the Ångström pyrliometer. The total radiation for the day is given in joules/cm² (1 joule = .239 calorie.).

Wind Speed and Direction.-

Particulars of Dines Pressure Tube Anemometer:-

Pattern Mark II (see "Observer's Handbook" 1934 p.115).

Suction Holes 80 holes in 4 rows of 20. Diameter 2 mm.

Connecting tubes Length 8 m. Internal diameter 24 mm.

Height of vane above lawn 23 m.

The present instrument with its head mounted above the dome has been in regular use since January 1st 1931. Details of the anemometers previously in use will be found in the 1933 Year Book.

There is a continuous belt of trees along the river about 300 metres away and other tall trees at shorter distances, but few of the trees have their summits above the level of the new vane.

Earth Temperature.- The two thermometers in use were at 30 cm. and 122 cm. The ground in which the tubes for the thermometers are sunk is under grass. The soil is gravel. The site is well exposed. There are, however, three fruit trees about 9 metres to the east and 6 metres high. The bulb of the lower thermometer is 430 cm. above sea level. In some years the underground water surpasses this level.

Minimum Temperature on the Grass.- The grass minimum thermometer is set at 18h and read at 7h on the succeeding day, the reading being assigned to the day of reading.* The thermometer is placed with the bulb about 25 mm. above the turf. The exposure is good, there being no obstruction within 76° from the zenith. The thermometer has a spherical bulb, diameter 17 mm.

†R.E. Watson, London, Met. Off., Geophys. Mem., 3, No. 21, 1923.

*The hour of the readings to be published in the "Observatories' Year Book" was changed from 9h. to 7h. as from January 1st, 1924.

Control barometer	Newman 34
Control Dry Bulb Thermometer	No. 666
Control Wet Bulb Thermometer	No. 788
Recording Beckley Raingauge	1
Jardi Rate of Rainfall Recorder	M.O. 3/32
Control Raingauge (8-inch)	M.O. 1271
Measuring Glass for the Control Raingauge	1693 & 1589
Campbell-Stokes Sunshine Recorder	M.O. 12
Dines Pressure Tube Anemometer Head	M.O. 1057
Dines Pressure Tube Anemometer Recorder	M.O. 1057
Earth Thermometer 1 ft.	M.O. 5
Earth Thermometer 4 ft.	M.O. 10
Grass Minimum Thermometer	M.O. 18011
Photo-thermograph (Dry Bulb					4 II
(Wet Bulb(Old Falmouth Wet Bulb)					No number
Photo barograph	"

	No. 666 N.P.L. 1933		No. 788 N.P.L. 1933		M.O.5 N.P.L. 1913		M.O.10 N.P.L. 1913		M.O.18011 N.P.L. 1929	
Certified	°F 2	-0.1	°F 2	+0.1	°A 260	+0.1	°A 260	+0.3	°F 2	0.0
	12	-0.1	12	+ .1	273	.0	273	+ .1	22	.0
	32	-0.1	32	.0	280	.0	280	+ .2	32	.0
	52	-0.1	52	- .1	290	.0	290	+ .1	52	.0
	72	.0	72	.0	300	.0	300	.0	72	.0
	92	.0	92	.0	310	.0	316	+ .1	-	-
	112	.0	-	-	-	-	-	-	-	-
	122	.0	-	-	-	-	-	-	-	-
Applied		0.0		0.0		0.0		+0.1		0.0

Notes on Meteorological Tables.

The year was warm and sunny, especially in the summer months.

The lowest reading of the "grass minimum" thermometer was 261.9°A (12.0°F) on Jan. 21st.

The lowest temperature in the North Wall Screen, 267.5°A (22.1°F) was recorded between 8h. and 9h. on Jan. 22nd.

Jan. 24th was an "ice day" the maximum temperature in the North Wall Screen being 272.5°A (31.1°F).

The maximum temperature in the same screen was 302.0°A (84.2°F) on June 17th and 18th.

There were 10 days on which the maximum temperature exceeded 300°A (80.6°F).

The rainfall for the year was 17% below the normal.

The heaviest fall occurred on July 18th, 33 mm.

In December the number of days of precipitation was 26; this number was equalled in 1911 but has not been exceeded in any December in the period since 1871.

The sunshine for the year, 1573 hours was 108 hours in excess of the normal.

The excess was greatest in July and September.

The highest wind velocity recorded in a gust was 26 m/s (58 mi/hr) on Jan. 14th.

Diurnal Variation of Pressure and Temperature.-Harmonic Analysis. The first four harmonic components computed for each month are tabulated in Tables A and B.

The inequality is supposed to be given by the expression,

$$c_1 \sin(15 t^{\circ} + \alpha_1) + c_2 \sin(30 t^{\circ} + \alpha_2) + \dots,$$

t being the time in hours since midnight. The angles α are the phases of the several sine-waves at midnight. The curves are tabulated according to Greenwich mean time but the phases in Table A have been reduced to local mean time. The difference in longitude between Kew and Greenwich being only $19'$ the correction is hardly appreciable in the figures, which are rounded to the nearest degree.

TABLE A.

Diurnal Variation of Barometric Pressure. Fourier Coefficients. $\Sigma c \sin (nt + a)$.
Kew Observatory, Longitude $0^{\circ} 19' W$. Local Mean Time.

Month and Season	c_1		a_1		c_2		a_2		c_3		a_3		c_4		a_4	
	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926
January	0.212	0.021	0	0	0.287	0.312	160	155.6	0.172	0.165	337	353	0.099	0.068	194	211
February	0.098	0.055	19	75.8	0.489	0.362	141	152.3	0.149	0.117	341	350	0.017	0.028	98	141
March	0.378	0.111	11	40.0	0.387	0.401	135	153.1	0.051	0.067	337	337	0.044	0.041	36	33
April	0.161	0.279	108	31.4	0.474	0.403	151	151.3	0.030	0.026	201	185	0.061	0.036	32	353
May	0.498	0.318	18	27.5	0.398	0.345	138	148.6	0.111	0.086	143	161	0.016	0.022	242	319
June	0.521	0.302	19	17.2	0.385	0.319	144	143.4	0.115	0.091	160	160	0.022	0.005	276	261
July	0.557	0.262	26	17.1	0.333	0.306	149	143.1	0.090	0.100	153	157	0.002	0.012	298	286
August	0.221	0.213	50	20.7	0.314	0.343	148	145.7	0.055	0.063	164	157	0.044	0.036	282	312
September	0.256	0.121	23	4.9	0.425	0.400	161	149.3	0.042	0.014	357	346	0.045	0.044	346	327
October	0.150	0.064	61	72.8	0.377	0.378	157	152.6	0.117	0.081	346	368	0.037	0.014	19	8
November	0.049	0.033	152	121.0	0.360	0.341	155	153.2	0.149	0.129	359	348	0.022	0.032	189	169
December	0.205	0.081	156	136.0	0.268	0.306	147	150.1	0.150	0.150	346	351	0.061	0.074	193	201
Arithmetic Mean	0.275	-	-	-	0.375	-	-	-	0.103	-	-	-	0.039	-	-	-
Year	0.190	0.137	33	28.7	0.372	0.350	149	150.0	0.037	0.031	353	359	0.004	0.008	257	280
Winter	0.084	-	170	-	0.348	-	149	-	0.153	-	345	-	0.045	-	188	-
Equinox	0.194	-	36	-	0.410	-	152	-	0.046	-	341	-	0.044	-	20	-
Summer	0.443	-	24	-	0.356	-	144	-	0.092	-	28	-	0.020	-	274	-

mb. / in each case

Note:—"Winter" comprises the four months, January, February, November, December, "Equinox" the months March, April, September, October, and "Summer" May to August.

TABLE B.

Diurnal Variation of Temperature. Fourier Coefficients. $\Sigma c \sin (nt + a)$.
Kew Observatory, Longitude $0^{\circ} 19' W$. Local Mean Time.

Month and Season	c_1		a_1		c_2		a_2		c_3		a_3		c_4		a_4	
	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926	1934	1871-1926
January	1.095	0.99	220	223.2	0.583	0.43	35	40.2	0.159	0.17	190	215	0.021	0.01	54	12
February	1.988	1.53	214	223.8	0.714	0.57	11	40.1	0.085	0.12	180	220	0.043	0.06	151	181
March	2.672	2.45	220	224.4	0.683	0.63	45	43.5	0.093	0.07	320	340	0.149	0.11	199	205
April	3.069	3.21	222	225.8	0.434	0.48	28	51.4	0.125	0.22	43	24	0.028	0.07	229	218
May	4.049	3.72	223	226.3	0.047	0.15	1	72.5	0.277	0.31	20	32	0.110	0.04	33	16
June	4.149	3.72	223	225.7	0.081	0.02	26	84.1	0.340	0.26	41	35	0.063	0.10	89	34
July	4.412	3.68	224	226.0	0.084	0.06	120	52.7	0.401	0.29	31	35	0.077	0.07	62	34
August	3.731	3.54	225	226.7	0.233	0.34	66	53.2	0.339	0.30	23	30	0.004	0.03	35	221
September	3.739	3.22	231	226.3	0.766	0.71	57	45.9	0.209	0.14	15	20	0.127	0.16	204	207
October	2.007	2.32	232	225.3	0.622	0.76	63	42.7	0.158	0.10	266	238	0.070	0.12	213	186
November	1.295	1.39	223	222.8	0.368	0.57	38	37.6	0.174	0.18	221	221	0.027	0.02	18	128
December	0.629	0.90	233	225.0	0.342	0.40	49	39.4	0.160	0.16	216	212	0.009	0.04	141	24
Arithmetic Mean	2.736	-	-	-	0.413	-	-	-	0.210	-	-	-	0.061	-	-	-
Year	2.728	2.56	224	225.6	0.389	0.42	43	45.2	0.090	0.06	18	17	0.018	0.02	159	195
Winter	1.244	-	220	-	0.486	-	30	-	0.139	-	205	-	0.013	-	96	-
Equinox	2.860	-	226	-	0.613	-	50	-	0.090	-	14	-	0.093	-	205	-
Summer	4.086	-	224	-	0.091	-	61	-	0.336	-	30	-	0.058	-	55	-

°A / in each case.

Note:—"Winter" comprises the four months, January, February, November, December, "Equinox" the months March, April, September, October, and "Summer" May to August.

Level of Underground Water.- In Table 527 there is given for each day the height of the surface of underground water. Up to August 1933 the level recorded was that of the surface of the water in a pipe passing through the floor of the basement. From August 17th 1933 to December 20th 1934 the float rested on the bottom of the well, the water being lower than at any previous time since the installation of the apparatus. From November 1933 to December 1934 observations were made on the site of a pump in the garden, about 25 metres west of the well in the basement. The zero of the scale of height is at the same level as that of the well in the basement. According to measurements made in January 1935 the height of the bench-mark above this zero was 750 cm. The height of the bench-mark, which is on the east wall of the observatory, above the (Newlyn) datum of the Ordnance Survey was determined in 1932 as 23.245 feet = 763 cm. Accordingly the height of the zero above Ordnance datum is 13 cm.

Cloud Amount.- The mean cloud amounts for the six hours of observation are given month by month in the diary of cloud and weather. The following means are derived from these data:-

Mean Amount of Cloud from Six Observation Hours.

Month	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Cloud	7.1	6.2	6.8	7.4	6.3	6.9	5.3	6.6	5.7	7.8	8.2	8.2	6.9

Mean Amount of Cloud for the Year at the Six Observation Hours.

Hour ..	7h	9h	13h	15h	18h	21h
Cloud ..	7.2	7.5	7.6	7.2	6.4	5.4

Visibility.- The objects used for the classification of visibility are enumerated below. The Observatory is on very low ground. The view is bounded on the south-east by Richmond Hill and on the west by the trees near the river. For object H a church tower seen through trees and with high ground behind it has to be used. There is no conspicuous object at the appropriate distance to serve as I, and interpolation is necessary. The object J is in London and is therefore more affected by atmospheric pollution than the other objects.

LIST OF OBJECTS.

Identification Letter.	Object	View Point	Bearing	Actual Distance	Standard Distance
X	(A not visible)	-	m	m	m
A	Verification House	S.W. Corner of Observatory Bldg.	S.W.	25	25
B	17ft. Stevenson Screen	S.E. Corner of Observatory Bldg.	S.W.	50	50
C	New Magnetic Hut	S.W. Corner of Observatory Bldg.	S.	110	100
D	S.W. Tree	" "	S.W.	200	200
E	Golf Club House	Observatory	S.E.	500	500
F	Orange Tree Hotel	"	S.E.	970	1,000
G	St. Matthias's Church	"	S.E.	1,900	2,000
H	South Ealing Church	"	N.	4,000	4,000
i	(Mortlake Chimney well visible..)	"	E.	3,500	7,000
	(Chelsea Chimneys not visible ..)	"	E.	9,300	
J	Chelsea Chimneys	"	E.	9,300	10,000
K	Surrey Hills	"	S.	20,000	20,000
l	Surrey Hills well visible	"	S.	20,000	30,000
m	Surrey Hills, exceptionally visible	"	S.	20,000	50,000

ATMOSPHERIC ELECTRICITY.

In Atmospheric Electricity the systematic observations reported in the Year Book are devoted to potential gradient, air-earth current and conductivity. These three elements are observed each afternoon when conditions are favourable. In the case of potential gradient the continuous autographic records are also utilised.

Potential Gradient, Conductivity and Air-Earth Current.- Since 1909 the current flowing from air to earth has been estimated by the method developed by C.T.R. Wilson.* Until the end of 1930 the observations incorporated in the Year Book were made with an electrometer set up on a tripod. The current received by a small plate mounted on the electrometer was measured, as well as the strength of the electric field over this plate. From these measurements the effective conductivity of the air was deduced and hence the strength of the current in the natural electric field.

It was always realised that this scheme was not entirely satisfactory. The construction of an underground laboratory has facilitated an improvement. The current which is now measured is that flowing into a plate which is flush with the roof of the laboratory and nearly at ground level. The plate is supported from below on a stand which carries a Lindemann electrometer and a variable condenser or "compensator". The cover for the plate is mounted on a long handle which can be manipulated from below. A detailed description of the installation has been published in a Geophysical Memoir† prepared by Mr. F.J. Scrase. The electrometer is calibrated once a month by means of Weston standard cells. Since the beginning of 1932 absolute measurements on fine afternoons at 14h 30m of potential gradient, air-earth current and conductivity have all been made with this apparatus.

The potential gradient, F , is given in volts per centimetre by the formula,

$$F = 4\pi (9 \times 10^{11}) C v / A,$$

where C is the capacity, in farads, of the system (when shielded), v the voltage acquired by the test plate after being exposed to the field, earthed and then shielded, and A is the area of the plate. A minor alteration was made to the apparatus on 11th October 1933 when a shutter was fitted to the electrometer system so that the latter can be completely screened from the compensator whilst readings are being made. This involved a slight change in the capacity from 6.00 to 5.91×10^{11} farads. The diameter of the test plate is 20.8 cm. The mean strength of the electric field is derived from five observations made at intervals of about 6 minutes.

The air-earth current is given in amperes per square centimetre by the formula,

$$i = C \delta v / At,$$

where δv is the voltage acquired by the plate in t seconds. For obtaining the mean value of the current four observations, each lasting five minutes, are averaged. The observations of the current are sandwiched between the observations of the field strength and from the two mean values i and F the conductivity λ † is deduced. No observations are made during rain nor

*Cambridge Proc. Camb. phil. Soc., 13, 1906, p. 184.

†London, Met. Off., Geophys. Mem., No. 60, 1934.

when the potential gradient is negative.

The use of the test plate at ground level introduced a discontinuity in the series of observations. Revised mean values for the period up to 1931 have been published in Mr. Scrase's memoir. In 1934 the mean value of the current for the year, allowing equal weight to each month is 117×10^{-18} amp. cm^{-2} . This is somewhat higher than the corresponding values for other years, the mean value for the period 1912 to 1933 being 99×10^{-18} amp. cm^{-2} . The mean value of the conductivity for the year is 41×10^{-18} ohm. $^{-1}$ cm^{-1} whilst the mean of corresponding values for the period 1912 to 1933 is 37×10^{-18} ohm. $^{-1}$ cm^{-1} .

Potential Gradient.— Two changes in the system by which potential gradient is estimated were made in 1932.

The Kelvin electrograph, which has been housed since 1915 in a low building known as the Clinical House, provides a record of the electrical potential at a point not far from the wall of the building. By the application of a factor the potential gradient at a specified site is deduced.

Up to Feb. 10th., 1932 the point at which the potential was measured was where the jet from a water dropper broke into spray. On that date a radio-active collector was substituted for the water dropper. The collector is 1.21 m. from the window and 1.87 m. above ground level. A collector freshly coated with polonium is now installed every six months. The adoption of the radio-active collector in place of the water dropper eliminates the risk of failure of the apparatus owing to frost.

The second change of practice was in the system adopted for standardization. Previously the absolute observations were made at a site in the Observatory garden, the potential at points one metre and two metres above the ground being determined with the aid of a lighted fuse carried by a long insulated rod and connected to an electrostatic voltmeter.

As from the beginning of 1932 the electrograph has been standardized by means of the observations of the field strength over the test plate of the Wilson apparatus at the underground laboratory. Experiments have shown that the potential gradient found in this way is, to a very close approximation, equal to that found by measuring the potential at a height of one metre in the open part of the grounds.

Owing to this change of practice there is a discontinuity in the published record of potential gradient. Amended values of the monthly and annual means of potential gradient for earlier years have been published in Mr. Scrase's memoir. The amended figures represent more closely the potential gradient in the open. The correction to be applied was + 12 per cent.

The control observations are now taken at 14h 30m. From the observations the factor is derived by which the potential gradient recorded by the electrograph must be multiplied to obtain the potential gradient in the open.

The mean factor for the year was 2.66. The equivalent height of the collector of the electrograph may be estimated by dividing one metre by this factor, i.e., the collector was on the average at the same potential as a point 37.6 cm. above ground in the paddock.

The data appearing in Table 541 include the electrical character figure assigned to each day from the consideration of the electrograms. Of the character figures, 0 denotes the absence of negative potential, 1 implies the existence of negative potential at one or more times during the day but with a total duration of less than 3 hours, while 2 implies the existence of negative potential with a total duration of 3 hours or more. As a negative potential gradient hardly ever occurs except when rain is in the neighbourhood, character 0 occurs on dry days and character 2 on days with continuous rainfall. The present criteria for character figures were adopted as from the beginning of 1914. Correcting for missing days, the average frequency of character figure 0, 1, and 2 during the years 1914-1933 inclusive were 187: 138: 40. The corresponding figures for 1934 are 154: 148: 63.

In accordance with a resolution of the International Union for Geodesy and Geophysics (Section for Terrestrial Magnetism and Atmospheric Electricity: Prague Meeting 1927) tabulations of the duration of negative potential gradient have been included in the Year Book since 1928. The total duration of negative gradient is given for each day for which the electrograph record is satisfactory.

Table 542 contains daily data derived from measurements of the electrograms. They represent means for the 60-minute intervals ending at 3h, 9h, 15h and 21h G.M.T. respectively. On occasions when the trace was defective, either through failure of insulation or some other cause, values of potential gradient have been omitted. The electrograph is intended to record the potential gradient of fine weather and the limits are approximately -1500 and +2000 volts per metre. In showers and thunderstorms gradients of 10000 volts per metre or more may occur. These are, of course, beyond the range of the instrument. Even when the curve does not go beyond the limits of the chart the changes may be so rapid that no satisfactory estimate is possible of the mean value of the ordinate. All such occurrences are indicated by the letter z. If there is no doubt as to the sign of the hourly mean value, though a numerical measure is unobtainable, the sign is indicated by a + or a - attached to the z. The symbol $z\pm$ indicates that there were oscillations on both sides of the zero line, and that the sign of the mean value was uncertain.

The extreme hourly values in Table 542 are 1735v/m at 3h on Jan 25th and -1080 at 15h on Nov. 9th. The former value is representative of foggy conditions; on this occasion fog developed after 18h on the 23rd after a fine evening and continued until about 4h on the 25th. The extreme negative gradient was associated with moderate rain.

At the foot of each section of Table 542 there are two sets of mean values. These are obtained according to different rules. The (a) mean is the arithmetic mean of all the positive potential gradients in the column. The (b) mean is the algebraic mean of all the entries which remain in the column after those have been eliminated which refer to days in which at least one of the four hourly values is indeterminate. The last line gives the mean value for each month as derived from the (a) and (b) means for the four hours.

The diurnal inequalities and the mean monthly and annual values in Table 543 are based on the curves for certain "quiet days". Normally 10 quiet days are selected in each month, these being calendar days characterised by no negative potential gradient, no large irregular movements, no indication of inferior insulation and no large non-cyclic change.

When there are not 10 calendar days with these characteristics in a month the number can sometimes be made up by using other spells of 24 hours. In 1934 there were numerous occasions when negative potential gradient occurred in fine weather. This phenomenon, which has not yet been explained, happened with wind from North-East and mostly at night. The result was that the number of days with no negative potential gradient was reduced. The treatment of the months in which there were not 10 quiet days is shewn in the following list.

	<u>Calendar Days</u>	<u>Other Spells</u>	<u>Total</u>
Jan.	9	1	10
Apr.	8	1	9
June	8	0	8
Nov.	7	3	10
Dec.	4	5	9

Except in the months where other spells were used the non-cyclic change is given explicitly in Table 543, so that anyone who may desire to reproduce the figures as they were before the non-cyclic change was applied can easily do so.

All the inequalities shew a well marked double oscillation with minima in the early morning and early afternoon, maxima in the late morning as well as in the evening. The diurnal inequalities for the whole year shew the higher maximum at 9h., the lower minimum at 5h. This is not the case in every year. The following list gives the annual mean potential gradient for selected quiet days together with the hours of the extremes and the range of the inequality for each year from 1910. The correction of +12 per cent has been applied to the means and ranges of all years from 1910 to 1931.

KEW OBSERVATORY POTENTIAL GRADIENT (REFERRED TO PADDOCK) 1910-1934.

Year	Mean Range Max. Min.				Year	Mean Range Max. Min.				Year	Mean Range Max. Min.			
	v/m	v/m	hr.	hr.		v/m	v/m	hr.	hr.		v/m	v/m	hr.	hr.
1910	347	155	20	4	1919	371	139	8	4	1928	334	139	9	3
1911	337	172	9	4	1920	353	137	9	3	1929	379	153	9	4
1912	336	167	9	4	1921	315	148	20	3,4	1930	373	183	9	3
1913	375	179	19	3,4	1922	356	161	20	4	1931	379	171	20	4
1914	386	189	20	3	1923	356	179	9	4	1932	391	173	21	4
1915	397	194	19	5	1924	368	149	20	4	1933	363	183	9	3
1916	411	169	20	4	1925	365	144	19	3	1934	374	189	9	5
1917	397	172	20	4	1926	313	132	20	4					
1918	388	156	20	2	1927	353	144	19	3					

ATMOSPHERIC POLLUTION.

The Owens atmospheric pollution recorder or air filter No.1* is situated in the Clinical House, and the level of the intake is about 1½m. above that of the adjacent ground. The weight of the pollution is not obtained directly but is deduced from shade numbers 0,1,2, etc., assigned to the deposit left on the filter paper through which the air is drawn. The equivalents of the shade numbers are allotted in accordance with the results of an investigation carried out for the Atmospheric Pollution Committee by Mr. J.G. Clark.† When the normal volume of air, 2 litres, is aspirated (it is drawn through a hole 3.2 mm. in diameter) shade number 1 answers to 0.32 milligrams per cubic metre. The Owens apparatus was designed in the first place for dealing with the air of cities, and the amount of pollution at the Observatory is usually so small that the shade recorded when the 2 litres are aspirated is either 0 or 1.

Preliminary experiments with a spare recorder having justified the assumption that increasing the volume of air would increase the shade number in proportion, an auxiliary tank was brought into use at the beginning of July, 1928. With this tank in operation each spot on the filter paper corresponds with 6.4 litre of air. The unit shade is therefore equivalent to 0.1mg/m³. When fog prevails the auxiliary tank is put out of action and the unit shade reverts to the value 0.32 mg/m³.

Special attention is now paid to the maintenance of consistency in the standard of shades. Each new scale of shades is compared directly with the standard preserved by Dr. Owens. New scales of shades were taken into use on the following dates:-

June 7, 1925; July 1, 1926; (retrospectively) January 1, 1928; August 1, 1930; January 1, 1931; June 1, 1931; and March 1, 1933.

During 1934 the highest estimate of pollution was 4.2 mg/m³, this value occurring on January 24th from 14h to 15h. There were 44 days on which the pollution reached 1.0 mg/m³; the number of hours credited with 1.0 mg/m³ or more being 321. The months in which these days and hours occurred are given in the accompanying table.

	days	hours
Jan.	12	112
Feb.	11	94
Mar.	2	4
Apr.	3	4
Nov.	13	98
Dec.	3	9
Year	44	321

Table 544 gives for each month mean hourly values derived from all the days for which complete records were obtained. There were 361 such days in the year. The highest and lowest of these hourly values are underlined.

Table 545 gives diurnal inequalities derived from the data in Table 544 after the application of non-cyclic corrections. The principal reason for computing the diurnal inequalities was to facilitate comparison with the corresponding diurnal variations in barometric pressure and in the potential gradient of atmospheric electricity.

The mean values computed for recent years are given in the following table, together with the means for successive pairs of months. The unit is 1 mg/m³.

*A description of the instrument is given in the "Report of the Advisory Committee for Atmospheric Pollution", 4th Report, 1917-1918, p. 20.

†"Report of the Advisory Committee for Atmospheric Pollution," 3rd Report, 1916-1917, p.20.

	1926	1927	1928	1929	1930	1931	1932	1933	1934
Jan.-Feb.	.29	.25	.22	.40	.18	.24	.32	.25	.44
Mar.-Apr.	.30	.10	.18	.27	.13	.15	.26	.17	.19
May-June	.08	.07	.09	.05	.05	.06	.09	.10	.10
July-Aug.	.07	.05	.05	.06	.07	.07	.05	.08	.08
Sept.-Oct.	.19	.17	.15	.10	.13	.25	.15	.21	.10
Nov.-Dec.	.26	.21	.25	.21	.29	.33	.29	.43	.30
Year	.20	.14	.15	.18	.14	.18	.19	.21	.20

The nature of the diurnal variation is most easily recognised in Table 545. There is always a well defined minimum during the night and another in the early afternoon. The first maximum of the day usually occurs about 9h and the second one follows about 12 hours later. This double oscillation is apparently due to two causes, the variation in human activity in producing pollution and the variation in the wind which disperses it. In 1934 the principal maximum was in the evening in January, February, April and from October to December; in the forenoon in the remaining months. The principal minimum occurred in the afternoon from May to September; in the early morning in the remaining months. Curves illustrating the diurnal variation of atmospheric pollution will be found in the Annual Reports of the Advisory Committee on Atmospheric Pollution and in a paper† by Dr. Whipple on the relation between Atmospheric Pollution and Potential Gradient.

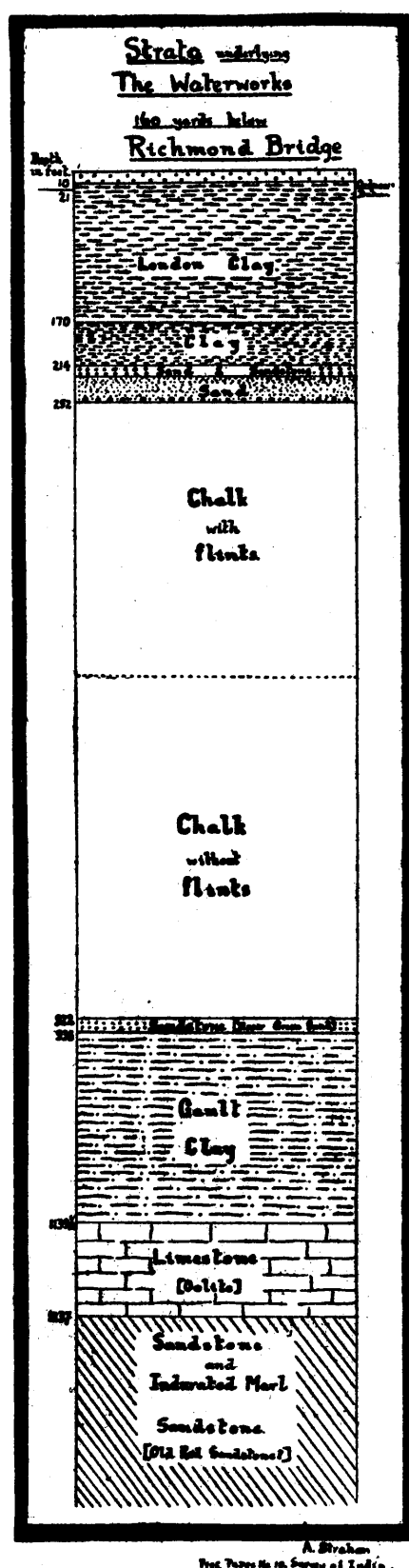
SEISMOLOGY.

Notes on Instruments.— The seismographs, three Galitzin pendulums with galvanometric registration, were transferred from Eskdalemuir Observatory during the latter part of 1925 and have been in regular operation since the beginning of 1926. Earth movements in the north, east and vertical directions are recorded. The pendulums, which are in the old magnetograph room, are mounted on a massive concrete pillar, separated from the floor. The galvanometers and recording apparatus are accommodated on slate slabs in the old seismograph room, which housed the Milne instrument until it was put out of action on June 17th, 1925. To eliminate temperature variation as far as possible, the windows of the pendulum room are provided with triple glass and also shielded by louvred screens from direct sunshine which might fall on them morning and evening. The annual range of temperature variation is about 10°C. and the mean daily range about 0.2°C. To diminish the sensitivity of the vertical pendulum to temperature changes the steel controlling spring was replaced in May, 1928, by one made of elinvar, an alloy which has a temperature coefficient of elasticity about one-tenth that of steel.* A detailed report on the behaviour of the spring has been published in a paper† by F.J. Scrase. The difficulties usually associated with the operation of the vertical pendulum have been greatly diminished.

‡"London, Quart. J.R. met. Soc.," 55, 1929, pp. 351-361.

*Y. Dammann. "Contribution à l'étude des propriétés élastiques de l'élinvar. Son utilisation dans les séismographes, Publ. Bur. Cent. Seis. Int., Strasbourg," Ser. A, Fasc. No. 5, 1927, pp. 122-129.

†"London, Inst. Physics, J. Sci. Instr.," 6, 1929, p.385.



The concrete pillar rests on gravel. The underlying geological strata are shown in the diagram on this page. The diagram is based on the results obtained*in sinking a well near Richmond Bridge. The Richmond boring terminated at a depth of 440 metres in Old Red Sandstone. At Stonebridge Park, 8 km. to the north, a boring was carried down† to a depth of 600 metres, the last 280 metres being in Old Red Sandstone. There is no information as to deeper strata near Richmond. It may be noted, however, that the sandstone beds dip at about 30° and that a boring at Little Missenden, Bucks, entered Silurian rocks at a depth of 370 metres with no evidence of the presence of Old Red Sandstone.

For detailed description of the Galitzin seismograph and for particulars of interpretation of the records, reference may be made to Fürst B Galitzin's "Vorlesungen über Seismometrie" (Leipzig, 1914), or to G.W. Walker's "Modern Seismology" (London, 1913).††

From January to August timing was controlled by the half-seconds clock (Morrison 8587) which had been in use since the seismographs were installed. A Synchronome clock (Hope-Jones No. 1901) was brought into use from August 23rd. Daily comparisons are made with the Greenwich wireless time-signal relayed by Droitwich. Time breaks are made electro-magnetically every minute and seismometric readings can be determined to the nearest second.

The free periods of the Galvanometers (T_1), were determined in November, 1925, and were found to have suffered very little change since the original determinations at Eskdalemuir were made. The lengths of the simple equivalent pendulums (ℓ) are assumed to have remained unaltered.

The values of the other constants which are used for deriving the scale values were re-determined in September, 1934. In the case of the horizontal instruments it was found that the magnifications agreed closely with those obtained from the previous tests in October, 1933.

In the following table are summarized the values of the constants. T is the free period of the pendulum, μ is a damping coefficient which

*"London, Quart. J. geol. Soc.", 40, 1884, p.274; 41, 1885, p. 523.

†Records of London Wells, "Mem. Geol. Surv. Eng., London", 1913.

††The graphical method adopted at Kew for determining the constants of the pendulums is explained in a memoir by F.J. Scrase, "London, Met. Off., Geophys. Mem.," 5, No. 49, 1930.

vanishes when the free movement of the pendulum is just aperiodic, A is the length of the beam of light from the galvanometer mirror to the recording drum (usually about 1100 mm), and k is the "transmission" factor. The fac-

tor $\frac{kAT}{4\pi\ell}$ determines the magnification for regular earth movements with a period equal to that of the pendulum.

Component	ℓ	T_1	1934	T	μ^2	$\frac{kA}{\pi\ell}$	$\frac{kAT}{4\pi\ell}$
N	mm. 118	sec. 24.68	Jan. 1 to Sept. 5	sec. 24.9	-0.04	sec. ⁻¹ 47.1	293
			Sept. 5 to Dec. 31	24.5	+0.01	46.7	286
E	118	24.80	Jan. 1 to Sept. 6	24.8	-0.04	43.3	269
			Sept. 6 to Dec. 31	24.8	-0.01	42.6	264
Z	360	13.04	Jan. 1 to Sept. 11	12.3	+0.13	109	335
			Sept. 11 to Dec. 31	13.1	+0.01	109	357

In windy weather the seismographs, especially the horizontal components, are affected by slow oscillations, which are attributed to the tilting of the ground, the movement being conveyed through the foundations of the Observatory. On occasions the reading of an earthquake record is rendered very difficult, if not impossible, by these irregular disturbances.

Notes on Tables.- The "Seismological Diary", Table 546, contains the particulars of the earthquakes recorded at the Observatory. The notation employed is as follows*:-

In the second column of the diary the entries N, E, Z, refer to the records from the north-south, east-est and vertical seismographs respectively.

P is the normal first phase (longitudinal waves). Other types of longitudinal vibrations occur when the waves are reflected from (PcP or penetrate (PKP) the earth's central core.

PP, PPP... are longitudinal waves reflected once, twice ... near the earth's surface.

S is the normal second phase (transverse waves). The waves which penetrate the central core and pass through it as longitudinal vibrations are designated by the symbol SKS.

PS and PPS are waves which suffer a change or changes from longitudinal to transverse oscillation or vice versa, on reflection near the surface.

SS, SSS...are transverse waves reflected once, twice... near the surface.

For the supplementary reflected waves from deep focus earthquakes the notation used is that introduced by F.J. Scrase, London. Proc. roy. Soc., A. 132, (1931).

L indicates long waves (surface waves).

l is the sudden commencement of a phase. e means a gradual or indistinct commencement. These letters are used as prefixes to the phase symbols, but where the character of the phase is not assignable the letters are used as independent symbols. When the commencement of a phase is moderately clear the prefixes are not used.

*The notation was amended from the beginning of 1933, the most important change being the adoption of a special letter, K, for the compressional waves through the core. This symbol has been taken from the Georgetown bulletins, and is now being introduced in the International Seismological Summary, 1930. Previously a pulse which started and finished as a transverse wave but passed through the core as a compressional wave was denoted by ScPcS. In the new notation such a pulse is denoted by SKS.

All times entered against the above phases are the times of arrival of the phases at the station. The phases denoted by M are successive prominent maxima occurring during the principal or surface phase. The period is the duration of a double oscillation (to and fro movement).

The entries under A are the amplitudes, in microns ($\mu = 0.001$ mm.), of the components of the true displacement of the ground from the position of rest. Displacements to the north, east and upwards are regarded as being positive. When successive positive and negative displacements have the same magnitude the time of occurrence is given for the positive one.

The following formulae, due to Galitzin, are employed for computing the times of the maxima and the amplitudes of sinusoidal waves:-

(1) Lag of the displacement shown by the galvanometer after the maximum displacement of the ground

$$= \frac{T_p}{2\pi} \left[\frac{\pi}{2} + \text{Arctan} \frac{2u_1}{u_1^2 - 1} \right] + \text{Arctan} \frac{2u(1-\mu^2)^{\frac{1}{2}}}{u^2 - 1}$$

each inverse tangent being taken as between 0 and π

(2) Magnification of record=

$$u = \frac{kA T_p}{\pi \ell} \frac{1}{(1+u^2)(1+u_1^2) \{1-\mu^2 f(u)\}^{\frac{1}{2}}}$$

In these formulae T_p is the period of the earth wave considered, T , T_1 , and μ are as defined on p.365

$$u = \frac{T_p}{T}, u_1 = \frac{T_p}{T_1} \text{ and } f(u) = \left[\frac{2u}{1+u^2} \right]^{\frac{1}{2}}$$

Δ is the distance in kilometres of the epicentre measured along the arc of a great circle. For earthquakes located within 10,000 km. of Kew the distance is generally derived from the interval between P. and S. by the tables, due to Zeissig, given in Klotz's "Seismological Tables" (Publication of the Dominion Observatory, Ottawa, Vol. III, No.2). For greater distances other phases are considered and Δ is obtained from the travel curves given by Gutenberg.* The azimuth of the epicentre (0° to 360°) is measured from north through east. When an estimation of the azimuth is possible, it is used, together with Δ , for provisional determination of the co-ordinates of the epicentre. The co-ordinates given in the Diary have generally been received at a later date; the authorities for these determinations are inserted in brackets. Here the letter J.S.A. signify the Jesuit Seismological Association of America, U.S.C.G.S., the United States Coast and Geodetic Survey., and U.R.S.S. the bulletins issued by the United Soviet States.

Brackets enclosing figures or phase symbols indicate that the interpretation is uncertain.

The total number of shocks recorded during the year was 269. The phases being sufficiently well defined, estimates of the epicentral distances were obtained for 59 shocks, whilst in 10 cases the records of the initial impulses were sufficiently sharp to allow of computations of azimuth and so of estimates of the co-ordinates of the epicentres. There were 9 earthquakes which produced a disturbance at the observatory with an amplitude exceeding 0.1mm. in a horizontal component. These earthquakes originated, in north-eastern India (January 15th), in the China Sea (February 14th), in New Zealand (March 5th), in the Philippine Islands (April 15th), in Panama (July 18th), in the New Hebrides (July 18th and 21st), in Tibet (December 15th), and in Lower California (December 31st).

For comparison the statistics for all the years in which the Galitzin seismographs have been in operation at Kew Observatory are given:-

YEAR	Shocks recorded.	Epicentral distances.	Azimuths estimated.	Shock exceeding 0.1 mm.
1926	306	55	-	10
1927	314	76	6	9
1928	339	97	19	18
1929	320	74	6	12
1930	301	56	6	8
1931	274	53	11	16
1932	246	57	8	8
1933	263	71	8	8
1934	269	59	10	9

*Handbuch der Geophysik, Berlin, 1929, p. 212.

Microseisms.— In Table 547 are given the amplitude (A) and period (Tp) of the microseisms shown by the north component seismograph on each day at 0h, 6h, 12h, and 18h. On a few occasions (less than 2 per cent, of the total number) when the north component record was not available measurements of the east component record have been included. The group of waves of greatest amplitude occurring in the 30 minutes centring at the hour in question is selected, and the amplitude tabulated is the mean obtained from the three largest complete waves in that group. The period is derived from a measurement made on the same group*. The total time, to the nearest second, for a number of complete consecutive waves is measured, the number of waves being chosen so that the time is between 23 and 30 seconds. The period is then derived from the following division table:—

Number of Waves	Time interval in seconds.							
	30	29	28	27	26	25	24	23
3	10.0	9.7	9.3	9.0	8.7	8.3	8.0	7.7
4	7.5	7.3	7.0	6.7	6.5	6.3		
5	6.0	5.8	5.6	5.4	5.2			
6	5.0	4.8	4.7	4.5				
7	4.3	4.1	4.0	3.9				
8	3.7	3.6	3.5					
9	3.3	3.2	3.1					
10	3.0	2.9	2.8					
11	2.7	2.6						
12	2.5							

In computing the mean period occasions of zero amplitude are omitted. The mean values of amplitude and period of each month of 1934 and for the year, together with the corresponding mean values for the period 1926 to 1933, are given below:—

MICROSEISMS-MONTHLY AND ANNUAL MEANS

1926 to 1933	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Amplitude(μ)	2.3	1.6	1.3	0.9	0.5	0.4	0.3	0.5	0.6	1.1	1.7	2.0	1.1
Period(sec.)	6.5	6.1	5.8	5.5	4.8	4.7	4.4	4.6	5.0	5.3	6.0	6.4	5.4
1934													
Amplitude(μ)	2.2	1.3	1.9	0.8	0.5	0.1	0.1	0.3	0.5	1.0	0.7	1.8	0.9
Period(sec.)	6.5	6.2	6.6	5.3	5.5	4.7	4.5	4.9	5.0	5.5	5.7	6.5	5.6

The means for the several hours are as follows:—

MICROSEISMS-MEANS AT SPECIFIED HOURS.

1926 to 1933	0h.	6h.	12h.	18h.
Amplitude(μ)	1.12	1.11	1.08	1.10
Period(sec.)	5.44	5.44	5.41	5.43
1934				
Amplitude(μ)	0.94	0.95	0.88	0.93
Period(sec.)	5.64	5.53	5.57	5.57

These figures indicate that there is no regular diurnal variation in amplitude or period of the microseisms recorded at Kew Observatory.†

*F.J.W. Whipple and F.J. Scrase, "On the Frequency of Microseisms of Different Periods at Eskdalemuir and at Kew," "London, Mon. Not. R. Astr. Soc., Geophys. Supp." 2, No. 2, 1928.

†F.J.W. Whipple and A.W. Lee, "Studies in Microseisms," "London, Mon. Not. R. Astr. Soc., Geophys. Supp." 2, No. 7, 1931.

SEPTEMBER, 1934.

OCTOBER, 1934.

1	89	89	88	88	86	90	91	88	94	91	80	68	63	64	66	68	72	76	79	83	88	90	93	94	82.3	14.8
2	94	95	96	96	95	96	95	97	95	94	90	86	81	86	89	93	96	97	96	96	96	91	91	92	83.0	13.9
3	94	95	96	96	96	94	94	92	91	91	86	74	73	77	82	84	89	92	92	95	93	90	86	86	89.2	13.2
4	85	87	88	92	87	85	91	80	73	67	71	71	64	59	58	59	71	82	88	83	79	82	80	79	77.6	11.3
5	82	84	86	80	86	86	87	82	75	74	72	62	58	59	58	64	69	72	79	79	86	87	89	88	76.5	10.1
6	88	88	89	91	94	93	94	93	88	85	80	73	78	83	88	87	94	94	96	94	96	98	96	97	89.7	11.8
7	94	96	97	97	97	96	95	92	91	90	89	86	87	86	85	86	87	88	89	93	93	95	97	96	91.8	17.5
8	97	98	94	94	93	93	90	90	89	83	76	68	64	65	64	63	62	67	72	72	76	82	80	86	80.1	12.8
9	87	89	91	93	91	91	89	87	83	7	62	54	51	44	51	53	59	64	73	80	84	84	86	87	75.3	9.5
10	88	92	92	92	92	95	92	89	87	75	74	67	67	66	71	70	73	80	82	81	85	89	90	92	82.4	12.1
11	93	94	94	95	96	96	94	91	87	75	72	68	64	64	63	66	72	75	78	81	86	88	88	89	82.1	14.2
12	93	93	93	93	92	95	95	92	94	81	71	68	64	62	63	67	69	71	77	79	79	81	80	82	80.7	11.5
13	84	85	89	89	88	89	90	88	85	83	79	73	73	76	74	78	82	85	89	88	86	87	86	85	83.8	13.7
14	87	88	88	89	90	89	92	90	84	72	67	56	51	51	55	53	55	55	66	69	68	71	72	73	72.4	11.4
15	64	66	62	58	64	64	67	66	65	65	59	51	52	59	63	82	84	85	85	87	90	95	96	90	72.0	7.1
16	90	91	88	87	82	81	76	74	69	64	62	58	60	57	64	70	63	69	68	69	68	72	75	75	72.5	7.6
17	79	81	78	84	90	88	91	90	86	83	76	78	86	88	91	95	91	88	91	89	91	94	96	93	87.0	9.3
18	93	94	98	98	95	98	96	95	88	87	77	76	77	73	73	70	76	78	82	83	83	85	88	87	85.5	11.4
19	89	87	79	73	74	73	81	77	73	73	62	64	60	64	69	72	77	82	88	89	90	91	93	96	78.0	11.3
20	94	94	95	95	94	95	94	95	91	89	81	80	85	83	82	81	85	86	87	89	88	88	86	88	88.7	13.3
21	88	88	85	82	83	83	83	83	88	89	84	83	75	71	80	76	78	81	81	79	80	80	82	82	82.0	12.7
22	81	83	87	88	90	91	94	92	85	71	59	55	48	51	52	62	73	75	81	84	83	83	84	88	76.5	11.9
23	88	92	93	91	93	89	92	94	89	79	68	68	58	55	51	55	68	74	75	79	81	85	88	88	78.9	9.6
24	96	93	88	90	90	90	96	89	90	82	76	69	65	60	63	70	72	78	77	81	83	84	91	90	81.7	10.5
25	94	91	90	90	88	86	87	85	84	80	74	71	73	76	76	78	73	86	88	87	86	80	83	86	83.1	13.9
26	83	83	74	73	75	76	84	82	76	72	66	59	57	59	59	66	61	71	77	79	82	76	77	80	72.9	10.2
27	79	80	79	79	76	78	79	76	71	68	67	67	65	67	66	68	70	74	77	79	77	76	75	76	73.8	10.5
28	79	82	74	77	77	78	82	74	70	71	69	64	54	54	52	55	58	70	71	76	76	81	81	79	70.9	8.9
29	82	84	86	88	89	87	88	92	81	69	67	59	53	54	54	54	58	64	71	70	77	81	88	88	74.4	7.3
30	87	91	87	93	93	91	94	93	88	82	77	76	73	70	68	73	69	71	81	86	89	92	89	90	83.4	7.1
31	93	94	96	100	100	100	98	94	93	90	89	85	81	84	87	93	93	93	93	89	85	82	82	87	91.0	6.3
Mean	87.5	88.6	87.8	88.0	88.3	88.2	89.4	87.2	84.0	79.0	73.6	68.9	66.4	66.7	68.9	71.5	74.2	78.2	81.6	82.9	84.0	85.2	86.0	86.7	80.9	11.2
Vapour Pressure*	mb. 10.9	mb. 10.9	mb. 10.8	mb. 10.7	mb. 10.7	mb. 10.7	mb. 10.9	mb. 11.1	mb. 11.3	mb. 11.3	mb. 11.1	mb. 10.8	mb. 10.6	mb. 10.6	mb. 10.7	mb. 10.8	mb. 10.8	mb. 10.9	mb. 11.1	mb. 11.0	mb. 11.0	mb. 10.9	mb. 10.8	mb. 10.7	mb. 10.9	
Hour	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Mean	

‡Mean of the row.

483. KEW OBSERVATORY: North Wall Screen: $h_t = 3.0$ metres.

1934.

Hour G. M. T.	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
Relative Humidity.	86.3	87.2	87.7	88.4	88.4	87.4	85.4	82.5	79.4	75.4	71.2	67.8	65.6	64.4	64.2	65.3	67.3	69.9	73.7	77.0	79.7	82.0	83.6	85.0	77.7
Vapour Pressure in Millibars.*	mb. 9.9	mb. 9.8	mb. 9.7	mb. 9.7	mb. 9.7	mb. 9.7	mb. 9.8	mb. 10.0	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.2	mb. 10.3	mb. 10.3	mb. 10.3	mb. 10.2	mb. 10.2	mb. 10.1	mb. 10.0	mb. 10.0	mb. 10.1

* Computed from the mean temperature and mean relative humidity.

RELATIVE HUMIDITY: MONTHLY MEANS AND DIURNAL INEQUALITIES.
The departures from the mean of the day are adjusted for non-cyclic change.†

484. KEW OBSERVATORY: North Wall Screen: $h_t = 3.0$ metres.

1934.

Month.	Mean	1	2	3	4	5	6	7	8	9	10	11	Noon	13	14	15	16	17	18	19	20	21	22	23	24
January	86.3	+3.4	+3.2	+3.5	+2.7	+2.9	+4.1	+3.8	+3.8	+3.0	+1.6	-0.6	-3.4	-5.4	-7.8	-8.3	-6.7	-4.0	-2.3	-1.0	-0.1	+0.9	+1.9	+2.4	+2.6
February	81.7	+4.3	+4.6	+5.2	+5.8	+5.4	+6.1	+5.2	+4.6	+4.8	+0.5	-2.7	-5.5	-8.3	-10.3	-11.7	-10.3	-5.7	-3.8	-2.0	+1.0	+2.2	+3.6	+3.8	+4.4
March	79.3	+8.1	+8.7	+8.6	+9.3	+10.1	+10.8	+10.0	+8.5	+4.5	+0.9	-6.7	-12.0	-13.3	-15.6	-15.8	-15.3	-12.4	-6.8	-1.6	+0.9	+3.3	+4.3	+4.8	+6.8
April	74.9	+10.2	+10.9	+11.2	+12.5	+12.4	+12.2	+9.7	+6.6	+3.5	-1.1	-6.8	-10.2	-14.2	-15.1	-17.0	-16.0	-13.9	-11.2	-5.6	-1.0	+2.4	+5.1	+6.8	+8.6
May	68.5	+14.5	+15.3	+16.0	+17.1	+17.1	+12.1	+7.3	+3.2	-2.2	-7.5	-10.7	-13.8	-16.1	-16.8	-17.1	-15.5	-14.6	-12.2	-7.5	-1.5	+2.9	+7.6	+10.3	+12.1
June	68.5	+13.4	+16.0	+16.9	+18.1	+16.5	+12.5	+7.8	+2.1	-2.9	-6.3	-8.7	-10.0	-12.7	-14.0	-16.0	-16.5	-16.0	-13.4	-8.0	-3.9	+1.8	+3.9	+8.2	+11.3
July	64.2	+13.5	+15.6	+16.0	+20.7	+20.1	+15.4	+9.5	+3.7	-0.7	-5.5	-9.5	-12.6	-13.6	-16.1	-16.0	-17.0	-16.8	-15.0	-11.2	-6.6	-1.4	+4.7	+8.8	+12.0
August	73.7	+12.3	+13.4	+15.3	+16.3	+16.3	+14.7	+11.3	+6.0	+1.6	-3.8	-9.4	-13.2	-16.1	-16.8	-17.9	-17.1	-15.8	-14.6	-9.1	-1.5	+2.4	+5.7	+9.3	+10.6
September	77.6	+11.6	+12.5	+13.1	+13.3	+14.3	+14.3	+13.0	+7.7	+1.8	-5.2	-12.3	-16.9	-18.9	-19.6	-18.3	-17.3	-15.0	-9.3	-2.0	+2.4	+4.7	+7.1	+8.8	+9.6
October	80.9	+6.6	+7.7	+6.8	+7.1	+7.3	+7.2	+8.4	+6.2	+3.0	-1.9	-7.3	-12.0	-14.5	-14.3	-12.1	-9.5	-6.7	-2.8	+0.7	+1.9	+3.1	+4.2	+5.1	+6.8
November	87.3	+3.4	+3.3	+2.7	+3.0	+3.8	+3.8	+4.4	+4.2	+3.2	+0.4	-2.0	-5.3	-7.3	-7.5	-7.7	-5.1	-2.5	-2.2	-0.2	+0.6	+1.7	+2.2	+3.1	
December	89.2	+1.3	+1.8	+2.0	+2.3	+2.1	+2.0	+1.7	+1.1	+0.9	+0.5	-0.6	-3.1	-4.7	-5.2	-4.3	-2.1	+0.1	-0.1	+0.3	+0.6	+0.7	+1.2	+0.7	+0.6
Year	77.7	+8.5	+9.4	+9.9	+10.7	+10.7	+9.6	+7.7	+4.8	+1.7	-2.3	-6.4	-9.8	-12.1	-13.3	-13.5	-12.4	-10.4	-7.8	-3.9	-0.7	+2.0	+4.3	+5.9	+7.3

† See page 21

RAINFALL: ANNUAL TOTALS OF HOURLY VALUES.

Amounts, in millimetres; durations, in hours for periods of sixty minutes between the exact hours, Greenwich Mean Time.
485. KEW OBSERVATORY: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 5.5 metres + 0.53 metres.

1934.

Hour G. M. T.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to Noon	Noon to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	0 to 1
Amount.	mm. 14.4	mm. 21.1	mm. 16.9	mm. 15.6	mm. 20.8	mm. 18.3	mm. 17.0	mm. 15.8	mm. 16.5	mm. 13.8	mm. 11.5	mm. 14.3	mm. 36.3	mm. 21.5	mm. 16.2	mm. 20.9	mm. 26.4	mm. 17.5	mm. 25.3	mm. 27.8	mm. 19.9	mm. 20.7	mm. 13.0	mm. 18.8	mm. 501.0
Duration.	hr. 14.2	hr. 16.8	hr. 13.5	hr. 12.2	hr. 14.6	hr. 19.3	hr. 16.4	hr. 15.8	hr. 13.2	hr. 13.4	hr. 11.2	hr. 12.2	hr. 20.0	hr. 16.1	hr. 16.7	hr. 17.3	hr. 19.7	hr. 17.2	hr. 19.8	hr. 19.8	hr. 19.8	hr. 15.8	hr. 15.2	hr. 17.6	hr. 388.3

NOTES ON RAINFALL.

486. KEW OBSERVATORY.

1934.

Dry Periods.

The following definitions are adopted by "The British Rainfall Organisation".

An "absolute drought" is a period of at least 15 consecutive days to none of which is credited 0.2 mm. of rain or more.
A "partial drought" is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm.
A "dry spell" is a period of at least 15 consecutive days to none of which is credited 1.0 mm. or more.

"Absolute droughts" Feb.3rd. - 24th. and May 17th. - June 5th.
"Partial droughts" Jan.19th. - Feb.27th. and May 7th. - June 20th.
"Dry spells" Jan.31st. - Feb.24th. and May 17th. - June 19th.

Wet Periods.

The following definitions are adopted by "The British Rainfall Organisation".

A "Rain Spell" is a period of at least 15 consecutive days to each of which is credited 0.2 mm. of rain or more.
A "Wet Spell" is a period of at least 15 consecutive days to each of which is credited 1.0 mm. or more.

"Rain Spell" Dec.4th. - 20th.
No "Wet Spells" occurred in 1934.

Rainfall Duration.

Hours	0.1-1.0	1.1-2.0	2.1-6.0	6.1-12	> 12
Number of days.	56	36	61	7	2

Continuous Falls.

The fall of the longest duration was 7 mm. in 6h. 42m. on Nov.9th.

Heavy Falls in Short Periods.

* On July 18th. 5 mm. fell in 1 minute, 10 mm. in 2½ minutes and 25 mm. in 13 minutes.
On July 22nd. 5 mm. fell in 3 minutes and 10 mm. in 6½ minutes.

Rate of Rainfall (Jardi Recorder)

The highest instantaneous rate of rainfall recorded by this instrument was 150 mm/hr. at 19h. 20m. on July 22nd.*
The maximum rate exceeded 50 mm/hr. on July 13th., 18th., 24th., August 12th., and September 24th.

* Meteorological Magazine, August 1934, pp. 158-160. "...on July 18th., when the minute by minute gauge indicated a maximum rate of fall of 300 mm/hr. the pen of the Jardi instrument did not reach the top of its range 150 mm/hr. The most likely explanation of the discrepancy is that half of the precipitation in the other gauge was hail."

RAINFALL.

Amounts in millimetres, for periods of sixty minutes between the exact hours, Greenwich Mean Time.

491. KEW OBSERVATORY: H_r (height of receiving surface above M.S.L.) = H (height of station above M.S.L.) + h_r (height of receiving surface above ground) = 5.5 metres + 0.53 metres.

MAY, 1934.

Hour G.M.T.	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Amount 0-24	Dura- tion. 0-24	Max. Rate	
Day	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	hr.	mm/hr.
1	
2	-1	-1	0.2	0.4	2
3	
4	
5	-1	-3	-5	-1	1.0	1.7	3
6	1.9†	-9	-9	...	3.7	2.1	18
7	1.1	1.4	2.5	1.6	4
8	-1	-2	-1	-2	-2	0.8	2.1	...
9	-3	-2	-2	-1	0.8	2.7	...
10	
11	
12	
13	
14	-1	-2	0.3	0.3	3
15	
16	-3	-2	-3	-9†	-1	1.8	2.2	9
17	
18	
19	-1	0.1	0.1	2
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
Sum	1.4	1.6	0.2	0.1	0.3	0.2	0.4	1.2	0.5	...	...	0.1	0.1	...	0.1	0.2	...	0.2	0.4	0.1	...	1.9	1.1	1.1	11.2	13.2	
Total Dura- tion.	hr. 2.0	hr. 1.3	hr. 0.9	hr. 0.1	hr. 0.6	hr. 0.5	hr. 0.8	hr. 0.9	hr. 0.8	hr. ...	hr. ...	hr. 0.1	hr. 0.2	...	hr. 0.2	hr. 0.3	hr. ...	hr. 0.3	hr. 0.8	hr. 0.1	hr. ...	hr. 0.7	hr. 1.3	hr. 1.3	hr. 13.2			

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.)

492. KEW OBSERVATORY: $H_r = 5.5 \text{ metres} + 0.53 \text{ metres.}$

JUNE, 1934.

[illegible]

† Hour of occurrence of the maximum rate of the fall (5 mm/hr. or more.)

JULY, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.) ‡ See Table 486.

AUGUST, 1934.

† Hour of occurrence of the maximum rate of fall (5 mm/hr. or more.)

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

499. KEW OBSERVATORY: h_s (height of recorder above ground) = 13.3 metres.

JANUARY, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam.			
																					* Total for day	† Rate near Noon	Sec Z	Sky
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	1	1.0	1.0	1.0	1.0	6	7	---	---	---	---	---	---	5.4	68	550	---	---	---
6	---	---	---	---	---	---	2	9	1	---	---	---	---	---	---	---	---	---	1.2	15	130	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	1	8	6	---	1	---	---	---	---	---	---	---	1.6	20	200	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	2	5	---	---	---	---	---	---	---	---	---	---	---	0.7	9	60	---	---	---
12	---	---	---	---	---	---	---	---	3	3	1	---	---	---	---	---	---	---	0.7	9	50	---	---	---
13	---	---	---	---	---	---	3	---	---	---	---	---	---	---	---	---	---	---	0.3	4	50	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	3	9	---	---	2	---	---	---	---	---	---	---	1.4	17	200	---	---	---
16	---	---	---	---	---	4	1.0	1.0	1.0	1.0	5	---	---	---	---	---	---	---	4.9	59	780	57	3.33	Clear
17	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---	---	---	---	0.2	2	10	---	---	---
18	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	0.1	1	20	---	---	---
19	---	---	---	---	---	6	6	8	7	8	9	2	---	---	---	---	---	---	4.6	55	540	---	---	---
20	---	---	---	---	---	---	9	6	1.0	1.0	1.0	2	---	---	---	---	---	---	5.7	67	580	---	---	---
21	---	---	---	---	---	---	---	1	8	1.0	1.0	1.0	1	---	---	---	---	---	4.0	47	410	---	---	---
22	---	---	---	---	---	---	---	---	8	1.0	---	---	---	---	---	---	---	---	1.8	21	190	15	3.11	Fog
23	---	---	---	---	---	2	6	1.0	1.0	1.0	1.0	5	---	---	---	---	---	---	6.3	73	680	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	2	3	6	1	1	6	4	---	---	---	---	---	2.3	26	210	---	---	---
27	---	---	---	---	---	2	2	2	---	1	9	1.0	---	---	---	---	---	---	2.6	30	220	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	6	2	1	---	---	---	---	---	---	0.9	10	50	---	---	---
Sum.	---	---	---	---	---	1.7	5.9	7.6	7.9	7.9	6.4	6.1	1.2	---	---	---	---	---	44.7	---	4970	---	---	---
Mean	---	---	---	---	---	.05	.19	.25	.25	.25	.21	.20	.04	---	---	---	---	---	1.44	17	160	---	---	---

500. KEW OBSERVATORY: h_s = 13.3 metres.

FEBRUARY, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam.			
																					* Total for Day	† Rate near Noon	Sec Z	Sky
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	---	---	---	---	---	6	6	7	8	2	4	7	1	---	---	---	---	---	4.1	45	290	---	---	---
2	---	---	---	---	---	4	7	8	1.0	6	4	1	4	---	---	---	---	---	4.4	48	480	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	1.0	1.0	1.0	1.0	1.0	1.0	4	---	---	---	---	---	6.4	68	840	41	2.59	Hazy
7	---	---	---	---	---	---	---	2	---	1	---	---	---	---	---	---	---	---	0.3	3	10	---	---	---
8	---	---	---	---	---	---	9	1.0	1.0	1.0	1.0	1.0	7	---	---	---	---	---	6.6	70	1130	87	2.53	Hazy
9	---	---	---	---	---	5	1.0	1.0	1.0	1.0	1.0	1.0	1	---	---	---	---	---	7.6	80	1550	---	---	---
10	---	---	---	---	---	---	---	5	---	---	---	---	---	---	---	---	---	---	0.5	5	40	---	---	---
11	---	---	---	---	---	---	---	---	---	1	1.0	1.0	1.0	1	---	---	---	---	3.2	33	370	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	1.0	1.0	1.0	3	---	---	---	---	---	3.3	34	120	---	---	---
14	---	---	---	---	---	---	---	---	---	---	6	---	---	---	---	---	---	---	0.6	6	80	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	6	1.0	1.0	1.0	1.0	6	---	---	---	---	---	5.2	52	480	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	1	4	3	8	7	---	---	---	---	---	---	---	---	2.3	23	580	---	---	---
20	---	---	---	---	---	---	1.0	1.0	1.0	6	1.0	1.0	6	3	---	---	---	---	7.3	71	770	---	---	---
21	---	---	---	---	---	1	---	3	4	9	8	1.0	1.0	4	---	---	---	---	4.9	48	370	---	---	---
22	---	---	---	---	---	---	4	9	1.0	1.0	1.0	1.0	4	---	---	---	---	---	6.7	65	570	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	1	3	---	---	---	---	---	---	---	0.4	4	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	1	7	9	6	9	8	5	4	---	---	---	---	4.9	48	680	---	---	---
27	---	---	---	---	5	1.0	1.0	1.0	1.0	9	1.0	1.0	6	---	---	---	---	---	8.0	75	1110	60	2.00	Hazy
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sum.	---	---	---	---	0.5	3.5	7.1	9.3	11.6	10.8	12.4	11.6	8.2	1.7	---	---	---	---	76.7	---	9440	---	---	---
Mean	---	---	---	---	.02	.13	.25	.33	.41	.39	.44	.41	.29	.06	---	---	---	---	2.74	28	340	---	---	---

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

501. KEW OBSERVATORY: h_g (height of recorder above ground) = 13.3 metres.

MARCH, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam				
																					*Total for Day	*Rate near Noon	Sec Z	Sky	
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²			
1	--	--	--	-3	-6	-7	-4	...	-7	1-0	-2	...	...	--	--	--	4-5	42	390	...	...	...
2	--	--	--	-5	-1	...	-4	...	...	...	...	...	...	--	--	--	1-1	10	110	...	...	...
3	--	--	--	-3	...	-6	1-0	1-0	1-0	1-0	-9	...	...	--	--	--	7-8	71	1060	...	...	...
4	--	--	--	-4	1-0	1-0	1-0	-7	...	...	...	...	...	--	--	--	4-1	37	680	...	...	...
5	--	--	--	-1	-9	1-0	-8	...	...	--	--	--	2-8	25	350	...	...	...
6	--	--	--	-1	...	...	...	...	...	...	...	...	--	--	--	0-1	1	20	...	...	...
7	--	--	--	-1	1-0	1-0	1-0	1-0	-9	-6	-3	-9	1-0	1-0	...	--	--	--	8-3	79	1450	...	...	...
8	--	--	--	-9	-3	-8	-7	-9	-3	...	...	...	--	--	--	3-9	35	390	...	...	...
9	--	--	--	-3	-2	-7	-9	1-0	-9	-8	-1	...	--	--	--	4-9	43	540	...	...	...
10	--	--	--	-9	-8	-5	-5	-5	-2	-9	-6	...	--	--	--	4-9	43	280	...	...	...
11	--	--	--	...	-1	...	-1	-1	-2	-2	-5	...	...	...	...	--	--	--	1-2	10	70	...	...	...
12	--	--	--	-2	...	...	...	...	...	...	...	--	--	--	0-2	2	10	...	...	...
13	--	--	--	--	--	--	50	...	...	...
14	--	--	--	-1	...	...	...	...	...	...	...	...	--	--	--	0-1	1	10	...	...	...
15	--	--	--	...	-5	1-0	-7	-9	-7	-5	-8	-2	-1	...	...	--	--	--	5-4	46	450	...	...	...
16	--	--	--	-2	1-0	1-0	1-0	1-0	-6	-6	-1	...	...	...	...	--	--	--	5-5	47	790	...	...	...
17	--	--	--	...	-1	...	...	-4	-8	-7	-7	-3	...	...	...	--	--	--	3-0	25	500	...	...	...
18	--	--	--	-2	1-0	-9	-8	-3	-5	-9	1-0	-9	-8	-9	-4	...	--	--	8-6	72	1680	...	...	...
19	--	--	--	-1	-3	-7	...	...	--	--	--	1-1	9	30	...	...	...
20	--	--	--	--	--	--	
21	--	--	-2	...	...	...	--	--	--	0-2	2	10	...	...	...
22	--	--	-2	-8	-9	-9	-4	-6	-9	-3	...	...	--	--	--	5-0	41	680	...	...	...
23	--	--	-2	1-0	-9	-5	...	...	...	...	--	--	--	2-6	21	320	34	1.58	Hazy	
24	--	--	-4	-7	-3	...	...	...	1-0	1-0	1-0	-3	...	--	--	1-4	11	180	...	...	...
25	--	--	-2	...	-7	1-0	1-0	1-0	1-0	1-0	1-0	-3	...	--	--	7-2	58	840	...	...	...
26	--	--	1-0	-6	-3	1-0	1-0	1-0	-4	...	...	--	--	3-7	30	390	...	...	...
27	--	--	-1	1-0	-8	-4	-1	-5	-3	-6	-1	...	--	--	3-7	30	250	...	...	...
28	--	--	-3	-6	1-0	1-0	1-0	1-0	1-0	1-0	1-0	1-0	-2	...	--	--	9-3	74	1420	...	...	...
29	--	--	-3	-1	...	...	...	...	...	...	--	--	--	0-4	3	20	...	...	...
30	--	--	-6	-2	-1	...	-7	-1	...	...	...	...	--	--	--	1-7	13	220	...	...	...
31	--	--	-1	-5	1-0	1-0	1-0	1-0	1-0	1-0	-6	...	...	--	--	7-2	56	810	...	...	...
Sum	--	--	...	0-5	4-8	8-3	11-4	13-9	14-0	13-1	13-7	12-3	10-4	7-0	1-0	...	--	--	110-4	--	--	13960	--	--	--
Mean	--	--	...	-02	-15	-27	-37	-45	-45	-42	-44	-40	-34	-23	-03	...	--	--	3-56	30	--	450	--	--	--

502. KEW OBSERVATORY: h_g = 13.3 metres.

APRIL, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	--	--	...	...	...	...	-3	-3	-9	1-0	1-0	-4	-4	...	...	...	--	--	3-9	30	490	...	...	...
2	--	--	...	...	...	...	...	-7	1-0	1-0	-8	-9	-7	...	...	...	--	--	5-6	43	420	...	...	...
3	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	--	--	...	...	20	...	...	...
4	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	--	--	...	...	...	...	...	...
5	--	--	...	-3	1-0	-8	1-0	1-0	-9	1-0	1-0	-6	-8	-8	...	...	--	--	9-2	70	980	53	1.43	Hazy
6	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	--	--	...	...	...	...	...	...
7	--	--	...	...	...	...	...	...	...	-1	...	-1	-1	...	...	...	--	--	0-3	2	60	...	...	...
8	--	--	...	...	...	...	...	-9	1-0	1-0	-6	...	...	...	...	...	--	--	3-5	26	340	...	...	...
9	--	--	...	...	...	-8	-8	-5	-2	-1	...	...	...	...	...	...	--	--	2-4	18	340	...	...	...
10	--	--	...	...	...	-7	1-0	-9	-9	...	-8	-4	...	...	-8	...	--	--	5-5	41	620	...	...	...
11	--	--	...	...	...	...	...	-2	...	-2	-3	-1	...	...	...	...	--	--	0-8	6	10	...	...	...
12	--	--	...	...	...	-1	...	-1	-8	1-0	-9	-9	-3	-2	-2	...	--	--	4-5	33	380	...	...	...
13	--	--	...	1-0	1-0	1-0	-9	-9	1-0	1-0	1-0	1-0	-9	-7	-1	...	--	--	10-5	77	1880	80	1.36	Clear
14	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	--	--	...	...	10	...	...	...
15	--	--	...	...	...	-1	-1	-7	1-0	1-0	1-0	1-0	1-0	...	...	-2	--	--	6-1	44	1170	...	...	...
16	--	--	...	...	...	...	...	-2	-1	-3	1-0	-9	1-0	-9	-9	-4	--	--	5-7	41	860	...	...	...
17	--	--	...	-4	1-0	-9	-7	-9	-9	-9	-8	-9	1-0	1-0	1-0	-5	--	--	10-9	79	1490	...	...	...
18	--	--	...	-1	-6	...	...	...	...	...	-3	...	...	...	-1	-4	--	--	1-5	11	150	...	...	...
19	--	--	...	...	-5	-5	-6	...	-9	-9	-8	1-0	1-0	-7	-5	-1	--	--	7-5	53	620	...	...	...
20	--	...	-3	1-0	1-0	1-0	-8	-9	-8	-8	-9	1-0	1-0	1-0	-9	-1	...	--	11-5	82	1890	...	...	...
21	--	...	...	...	...	...	...	...	...	...	...	-2	-6	...	...	...	--	--	0-8	6	20	...	...	...
22	--	...	...	...	-1	-7	-2	1-0	-3	...	-3	1-0	1-0	1-0	-4	-7	...	--	7-7	54	1170	...	...	...
23	--	...	...	...	-1	-1	-6	-5	-2	-1	-4	-1	-4	-3	-3	...	--	--	3-1	22	180	...	...	...
24	--	...	...	...	...	-3	-2	-7	-5	-6	-9	-3	-2	-9	-4	-3	...	--	5-3	37	710	...	...	...
25	--	...	...	...	-5	-9	-9	-4	-6	1-0	-1	...	-3	...	...	...	--	--	4-7	33	730	...	...	...
26	--	...	...	-2	-2	-6	-6	-4	-4	...	-2	-3	-2	-8	...	...	--	--	3-9	27	500	...	...	...
27	--	...	...	...	...	...	...	-2	-2	-1	-1	...	...	...	...	...	--	--	0-6	4	30	...	...	...
28	--	...	...	...	...	...	...	...	...	-4	...	...	...	...	...	...	--	--	0-4	3	30	...	...	...
29	--	...	...	...	...	...	-9	-8	-5	-5	-5	-6	-9	-7	1-0	-3	...	--	6-7	46	700	...	...	...
30	--	...	...	...	...	-1	1-0	1-0	-8	1-0	1-0	1-0	1-0	1-0	1-0	-2	...	--	9-1	62	1490	...	...	...
Sum	--	...	0-4	4-2	7-2	8-6	11-4	12-2	13-8	14-3	13-7	12-9	12-0	11-3	6-5	3-2	...	--	131-7	--	17230	--	--	--
Mean	--	...	-01	-14	-24	-29	-38	-41	-46	-48	-46	-43	-40	-38	-22	-11	...	--	4-39	32	570	--	--	--
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent. of Possible	* Total for Day	† Rate near Noon	Sec 2	Sky
SOLAR RADIATION Received on surface perpendicular to solar beam																								

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

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505. KEW OBSERVATORY: h_g (height of recorder above ground) = 13.3 metres.

JULY, 1934.

Hour L. A. T.																				Total for Day	Per cent. of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam			
	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	* Total for day			†Rate near Noon	Sec Z	Sky	
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²			
1	3	1.0	1.0	1.0	1.0	1.0	1.0	...	...	...	...	...	...	...	...	...	...	13.7	83	2520	80	1.14	Clear
2	11.0	67	1490	...	...	...
3	8.9	54	1160	...	...	...
4	12.1	74	1510	...	...	...
5	14.8	90	2990	69	1.14	Clear
6	13.9	85	2600	...	...	...
7	14.1	86	2940	68	1.14	Clear
8	15.2	93	3010	86	1.14	Clear
9	12.3	75	2320	75	1.14	Hazy
10	14.9	92	2810	81	1.15	Hazy
11	14.0	86	2630	75	1.15	Hazy
12	0.2	1	20	...	...	...
13	0.7	4	60	...	...	...
14	3.9	24	440	...	...	...
15	10.2	63	2280	...	...	...
16	1.9	12	130	...	...	...
17	13.7	85	3380	83	1.16	Clear
18	9.2	57	1220	...	...	...
19	11.1	69	2040	...	...	...
20	11.1	70	1780	79	1.16	Clear
21	3.4	21	370	...	...	...
22	6.3	40	1000	...	...	...
23	7.6	48	1340	...	...	...
24	4.2	27	510	...	...	...
25	4.7	30	740	...	...	...
26	10.7	68	870	...	...	...
27	9.0	58	540	...	...	...
28	6.6	42	680	...	...	...
29	3.1	20	230	...	...	...
30	12.0	78	2240	...	...	...
31	6.8	44	1300	...	...	...
Sum	281.3	--	47150	--	--	--
Mean	9.07	56	1520	--	--	--

506. KEW OBSERVATORY: h_g = 13.3 metres.

AUGUST, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²			
1	--	...	5	7	10	9	9	6	6	...	4	1	...	...	...	...	...	...	5.7	37	840	...	...	...
2	--	...	...	...	...	1	2	3	2	1	...	2	1	...	...	...	...	...	1.2	8	20	...	...	...
3	--	...	9	10	9	6	5	8	6	...	8	5	7	3	7	8	...	...	9.1	60	630	...	...	...
4	--	...	6	10	10	10	10	10	10	9	8	8	2	1	3	2	...	...	9.9	65	1880	...	...	...
5	--	...	2	...	2	9	9	6	1	6	4	6	5	1	...	...	...	...	5.1	34	800	...	...	...
6	--	...	...	...	...	...	...	...	...	1	...	...	...	1	...	5	...	...	0.7	5	40	...	...	...
7	--	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	0.1	1	...	...	...	...
8	--	...	...	...	...	...	...	...	...	...	5	10	8	10	2	...	...	...	3.5	23	250	...	...	...
9	--	...	...	...	...	3	8	9	8	8	4	3	1	...	3	4	...	...	5.1	34	410	...	...	...
10	--	...	...	1	...	1	...	...	...	...	...	...	...	3	3	...	...	...	0.8	5	40	...	...	...
11	--	...	...	...	...	1	...	...	...	5	6	2	1	7	9	8	...	...	3.9	26	420	...	...	...
12	--	...	...	...	...	...	...	...	...	...	3	2	3	4	3	5	...	...	2.0	14	20	...	...	...
13	--	...	1	...	2	4	7	8	...	5	6	1	...	...	...	...	...	...	3.4	23	740	...	...	...
14	--	...	4	10	7	...	...	...	4	7	2	5	...	4	10	1	...	...	5.4	37	810	...	...	...
15	--	...	...	4	10	10	10	10	8	9	10	10	10	9	10	6	...	...	11.6	79	1810	...	...	...
16	--	...	...	...	...	...	...	...	...	3	10	9	8	10	10	7	...	...	5.7	39	860	...	...	...
17	--	...	...	...	...	3	2	...	5	3	...	...	...	...	...	...	...	...	1.3	9	170	...	...	...
18	--	...	...	...	7	8	5	8	10	10	5	4	7	9	8	2	...	...	8.3	58	1160	...	...	...
19	--	...	...	...	...	...	...	5	10	10	10	10	10	10	10	7	...	...	8.2	57	1210	...	...	...
20	--	...	6	7	4	1	3	9	7	10	7	9	10	8	10	2	...	...	9.3	65	770	...	...	...
21	--	...	1	10	10	10	8	7	9	10	10	10	9	1	9	1	...	...	10.5	74	1580	...	...	...
22	--	...	...	...	2	9	8	7	7	9	8	3	1	...	...	...	...	...	5.4	38	570	...	...	...
23	--	...	2	10	10	10	10	10	10	10	7	10	9	10	9	1	...	...	11.8	84	2650	...	...	...
24	--	...	1	10	10	10	10	10	8	3	5	10	8	3	4	1	...	...	9.3	66	1900	...	...	...
25	--	...	...	...	9	10	10	10	10	10	9	10	10	9	10	5	...	...	11.2	80	1590	...	...	...
26	--	--	2	10	10	10	10	10	10	10	10	8	10	10	10	3	--	--	12.3	88	2330	...	...	...
27	--	--	...	...	2	...	1	4	2	7	10	10	9	10	9	1	--	--	6.5	47	990	...	...	...
28	--	--	...	8	...	9	8	...	...	...	...	...	...	...	...	...	--	--	2.9	21	100	...	...	...
29	--	--	...	1	6	7	7	7	10	9	10	8	6	8	6	3	--	--	8.4	61	1180	...	...	...
30	--	--	...	...	...	3	2	6	10	7	1	...	5	...	9	4	--	--	4.7	34	720	...	...	...
31	--	--	...	...	5	10	10	10	9	10	8	8	5	1	10	...	--	--	8.6	63	1680	...	...	...
Sum	--	...	3.9	9.8	12.7	15.4	15.2	16.4	16.2	17.2	17.0	16.4	14.5	13.2	16.4	7.6	...	--	191.9	--	28140	--	--	--	
Mean	--	...	13	32	41	50	49	53	52	55	55	53	47	43	53	25	...	--	6.19	43	910	--	--	--	
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for day	Per cent. of Possible	* Total for day	Rate near Noon	Sec Z	Sky	
SOLAR RADIATION Received on surface perpendicular to solar beam																									

* Goresynski Pyrheliograph. † Ångström Pyrheliometer.

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

507. KEW OBSERVATORY: h_g (height of recorder above ground) = 13.3 metres.

SEPTEMBER, 1934.

Hour L. A. T.																			Total for Day	Per cent of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam			
	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21			* Total for day	† Rate near Noon	Sec Z	Sky
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1	87	1820	87	1.37	Clear
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.4	82	1920	...	...	...
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.0	52	1340	...	...	...
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.8	21	240	...	...	...
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10.6	80	2330	...	...	...
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.3	48	590	...	...	...
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.7	74	1340	...	...	...
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.0	38	880	...	...	...
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.9	61	900	...	...	...
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.9	76	1450	...	...	...
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.9	69	1800	...	...	...
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.5	51	1130	55	1.47	Hazy
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.4	50	1050	43	1.48	Hazy
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10.0	79	1700	54	1.49	Hazy
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.1	56	700	...	...	...
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.9	71	1620	69	1.51	Clear
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.6	53	550	...	...	...
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.0	16	210	...	...	...
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.6	53	1070	...	...	...
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2	10	...	...	...
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.7	14	200	...	...	...
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	...	...	20	...	...	...
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.6	63	1300	...	...	...
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1	10	...	...	...
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.6	72	2100	80	1.63	Clear
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7	6	80	...	...	...
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.0	76	1650	70	1.66	Clear
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	69	1880	79	1.67	Clear
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.9	16	250	...	...	...
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	70	1120	...	...	...
Sum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	185.9	---	31240	---	---	---
Mean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.20	49	1040	---	---	---

508. KEW OBSERVATORY: h_g = 13.3 metres.

OCTOBER, 1934.

Day																			Total for Day	Per cent of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam			
	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.			* Total for day	† Rate near Noon	Sec Z	Sky
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	3	80	...	...	...
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	...	...	...	...	...	...
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	3	40	...	...	...
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.4	56	870	...	...	...
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.0	44	640	...	...	...
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2	40	...	...	...
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1	20	...	...	...
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.7	15	620	...	...	...
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.7	42	1080	...	...	...
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.8	34	840	...	...	...
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.0	64	1820	...	...	...
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.1	47	1380	...	...	...
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1	30	...	...	...
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2	100	...	...	...
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.6	43	460	...	...	...
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.1	38	500	...	...	...
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	...	...	...	...	...	...
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	1	10	...	...	...
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.2	31	530	...	...	...
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	...	...	...	...	...	...
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	3	10	...	...	...
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.3	52	1340	87	2.16	Clear
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.5	74	1610	...	...	...
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.0	20	290	...	...	...
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.7	17	240	...	...	...
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.5	55	1310	84	2.26	Clear
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.0	10	180	...	...	...
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.9	19	280	...	...	...
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.2	73	1610	81	2.35	Hazy
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	4	40	...	...	...
31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	...	...	10	...	...	...
Sum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	79.8	---	15660	---	---	---
Mean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.57	24	510	---	---	---
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for day	Per cent. of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam			

* Goresynski Pyrheliograph. † Ångström Pyrheliometer.

DURATION OF BRIGHT SUNSHINE
For periods of sixty minutes, between the exact hours of Local Apparent Time.

401

509. KEW OBSERVATORY: h_s (height of recorder above ground) = 13.3 metres.

NOVEMBER, 1934.

Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for day	Per cent of Possible	SOLAR RADIATION Received on surface perpendicular to solar beam			
																					* Total for day	† Rate near Noon	Sec Z	Sky
Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	--	--	--	--	1	7	1.0	1.0	1.0	1.0	9	5	1	--	--	--	--	--	6.3	65	1050	79	2.44	Hazy
2	--	--	--	--	...	1	...	6	8	1.0	1.0	9	4	--	--	--	--	--	4.8	50	760	...	...	...
3	--	--	--	--	...	...	1.0	1.0	1.0	1.0	1.0	1.0	2	--	--	--	--	--	7.2	76	1730	...	...	...
4	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
5	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
6	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
7	--	--	--	--	...	...	...	...	1	1.0	7	...	...	--	--	--	--	--	1.8	19	380	...	...	...
8	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
9	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
10	--	--	--	--	...	...	...	...	...	1	...	...	...	--	--	--	--	--	0.1	1	10	...	...	...
11	--	--	--	--	...	...	3	1	...	...	...	...	...	--	--	--	--	--	0.4	4	60	...	...	...
12	--	--	--	--	...	...	...	1	1	...	5	1.0	6	--	--	--	--	--	2.3	26	...	...	...	...
13	--	--	--	--	...	...	...	4	6	3	6	1.0	...	--	--	--	--	--	2.9	32	210	...	...	...
14	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
15	--	--	--	--	...	...	...	...	...	1	2	...	...	--	--	--	--	--	0.3	3	50	...	...	...
16	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
17	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
18	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
19	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
20	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	10	...	...	...
21	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
22	--	--	--	--	...	...	...	...	8	1.0	6	8	5	--	--	--	--	--	3.7	43	590	60	3.14	Hazy
23	--	--	--	--	...	...	...	...	7	2	...	...	...	--	--	--	--	--	0.9	11	150	41	3.18	Hazy
24	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
25	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
26	--	--	--	--	...	...	...	...	1	1.0	1.0	1.0	...	--	--	--	--	--	3.1	37	480	19	3.29	Hazy
27	--	--	--	--	...	...	...	7	1.0	1.0	7	7	1	--	--	--	--	--	4.2	51	410	...	...	...
28	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
29	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
30	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
Sum	--	--	--	--	0.1	0.6	2.3	3.9	6.2	7.7	7.2	6.9	2.7	0.2	--	--	--	--	38.0	--	5890	--	--	--
Mean	--	--	--	--	.00	.03	.08	.13	.21	.26	.24	.23	.09	.01	--	--	--	--	1.27	14	200	--	--	--

510. KEW OBSERVATORY: h_s = 13.3 metres.

DECEMBER, 1934.

Day	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	%	joules/cm ²	mw/cm ²		
1	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	--	--	--	--	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	--	--	--	--	...	...	...	5	5	...	...	...	...	--	--	--	--	--	1.0	12	160	...	...	...
6	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
7	--	--	--	--	...	2	8	4	8	8	1	...	...	--	--	--	--	--	3.1	39	470	...	...	...
8	--	--	--	--	...	2	5	3	...	...	...	...	...	--	--	--	--	--	1.0	13	60	...	...	...
9	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
10	--	--	--	--	...	...	...	...	...	2	7	4	...	--	--	--	--	--	1.3	16	100	...	...	...
11	--	--	--	--	...	...	...	1	...	...	...	...	...	--	--	--	--	--	0.1	1	10	...	...	...
12	--	--	--	--	...	...	...	3	...	8	5	5	...	--	--	--	--	--	2.1	27	240	...	...	...
13	--	--	--	--	...	...	3	1	1	5	4	6	...	--	--	--	--	--	1.9	24	110	...	...	...
14	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	10	...	...	...
15	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	10	...	...	...
16	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
17	--	--	--	--	...	...	...	2	...	9	9	4	...	--	--	--	--	--	2.4	31	280	...	...	...
18	--	--	--	--	...	...	3	1	2	2	2	...	...	--	--	--	--	--	1.0	13	120	...	...	...
19	--	--	--	--	...	...	3	1	1	3	...	...	...	--	--	--	--	--	0.8	10	80	...	...	...
20	--	--	--	--	...	...	...	...	...	6	9	...	...	--	--	--	--	--	1.5	19	90	...	...	...
21	--	--	--	--	...	...	...	7	8	4	1.0	3	...	--	--	--	--	--	3.2	41	290	22	3.85	Hazy
22	--	--	--	--	...	...	...	...	...	...	3	9	2	--	--	--	--	--	1.4	18	140	...	...	...
23	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
24	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
25	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
26	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	10	...	...	...
27	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
28	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
29	--	--	--	--	...	...	...	...	...	1	5	7	...	--	--	--	--	--	1.3	17	170	...	...	...
30	--	--	--	--	...	...	...	...	...	...	...	...	...	--	--	--	--	--	...	...	...	...	...	...
31	--	--	--	--	...	...	...	4	1.0	9	9	6	...	--	--	--	--	--	3.8	49	370	...	...	...
Sum	--	--	--	--	...	...	1.3	3.1	4.0	5.1	6.8	5.4	0.2	...	--	--	--	--	25.9	--	2720	--	--	--
Mean	--	--	--	--	...	...	.04	.10	.13	.16	.22	.17	.01	...	--	--	--	--	0.84	11	90	--	--	--
Annual Total	...	7.4	38.9	60.1	88.0	110.4	136.3	154.7	159.6	159.9	157.0	148.6	124.2	99.3	74.8	46.1	7.2	...	1572.6	--	238050	--	--	--
Annual Mean	...	.02	.11	.16	.24	.30	.37	.42	.44	.44	.43	.41	.34	.27	.20	.13	.02	...	4.31	35	650	--	--	--
Hour L. A. T.	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	Total for Day	Per cent of Possible	* Total for day	† Rate near Noon	Sec Z	Sky
SOLAR RADIATION Received on surface perpendicular to solar beam																								

511. KEW OBSERVATORY:

Dines Pressure Tube Anemometer from Jan., 1926

 H_a (height of vane of anemometer above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	280	0.5	20	0.2	30	0.4	10	0.2	315	0.1	275	0.2	275	0.2	310	0.1	235	0.1	300	0.1	130	0.1	265	0.6
2	230	0.4	215	0.1	---	0.0	190	1.0	195	0.2	185	1.2	190	1.4	190	1.7	190	0.9	195	1.8	190	1.5	195	0.8
3	190	2.0	200	2.0	200	1.7	210	1.0	195	1.6	235	1.2	260	1.0	255	1.4	275	1.4	275	1.1	280	0.9	275	1.2
4	200	2.1	205	3.6	205	5.0	205	5.0	205	5.0	210	5.2	205	6.0	200	5.7	205	5.5	210	5.4	220	6.5	220	6.3
5	275	2.6	280	2.9	290	3.8	275	2.9	290	3.6	275	2.8	255	3.2	230	2.2	245	1.7	245	2.6	265	2.9	275	4.0
6	225	1.5	205	1.6	205	1.6	200	1.5	195	1.8	205	2.2	195	4.4	200	4.8	195	3.9	195	4.2	210	7.4	215	7.5
7	220	7.9	220	7.2	220	6.5	215	7.5	215	7.3	205	5.7	205	6.7	200	6.9	205	7.8	205	8.0	210	8.4	210	8.8
8	235	5.1	235	3.2	250	3.0	250	2.6	260	3.0	270	2.8	245	2.1	245	1.4	220	1.3	235	1.6	230	3.0	235	3.1
9	210	1.1	220	1.0	235	1.0	275	0.9	355	0.6	345	0.1	320	0.2	20	0.1	25	0.1	175	0.2	315	0.2	20	0.1
10	165	3.2	185	4.0	185	3.4	190	3.2	190	2.2	180	2.2	185	4.5	175	4.9	175	4.4	175	4.4	185	5.7	185	6.0
11	180	6.0	180	6.1	180	5.2	185	7.0	180	7.6	175	7.9	170	6.8	170	7.6	170	7.4	170	7.0	165	6.8	175	7.0
12	190	10.0	200	10.3	220	8.4	225	5.4	215	4.0	205	3.0	205	2.5	210	3.0	210	2.1	230	1.8	245	1.5	180	1.0
13	235	5.6	230	5.0	235	5.8	230	4.8	230	4.9	230	4.9	230	5.2	240	5.1	235	5.2	230	5.1	225	4.9	215	5.3
14	175	9.5	175	10.6	180	11.7	200	10.7	210	12.0	215	13.3	215	13.4	235	12.5	240	13.5	245	12.0	245	11.2	250	11.0
15	250	6.8	245	7.8	240	6.2	235	5.8	235	5.1	220	3.6	215	4.4	235	5.0	265	6.1	270	6.0	270	6.5	250	6.8
16	245	4.8	240	5.0	240	4.5	245	5.3	255	5.7	280	6.2	260	6.3	260	6.5	265	5.9	270	6.0	270	6.2	275	7.2
17	220	6.5	225	7.1	225	7.5	220	6.9	215	7.8	205	7.9	205	7.8	205	9.2	210	9.2	215	9.1	225	9.9	230	10.0
18	220	7.0	215	7.0	215	6.4	215	7.0	230	8.5	230	9.0	230	9.6	235	9.7	235	9.4	230	8.9	230	9.1	230	8.6
19	270	6.2	305	7.0	280	5.0	260	4.1	250	3.5	240	3.4	250	3.8	255	2.6	245	2.3	220	2.1	240	2.7	275	4.1
20	350	3.6	345	3.2	340	2.9	350	3.2	345	3.2	330	2.3	345	2.2	235	0.9	220	0.9	245	0.3	190	1.6	175	2.6
21	215	0.7	245	0.4	235	0.3	195	0.8	250	0.2	220	0.2	210	0.2	250	0.4	160	0.2	250	0.4	220	0.5	225	0.6
22	65	0.6	70	0.3	35	0.3	30	0.3	85	0.2	40	0.1	---	0.0	310	0.1	215	0.5	230	0.5	230	0.5	240	1.0
23	175	1.5	275	0.5	65	0.1	55	0.2	90	0.7	340	0.2	290	0.1	90	0.1	---	0.0	155	0.2	185	0.1	200	2.0
24	90	0.1	35	0.1	30	0.1	10	0.9	10	1.0	45	1.0	90	1.4	100	0.8	95	0.9	80	0.3	135	0.7	330	0.5
25	100	0.3	130	1.4	135	1.0	175	1.5	180	4.3	180	3.6	185	4.2	180	4.9	190	5.4	200	5.5	190	3.5	195	3.6
26	185	4.0	165	4.2	185	3.1	205	3.3	210	4.1	210	3.6	195	3.6	195	4.2	195	4.4	195	4.3	200	4.5	215	5.5
27	245	2.5	250	2.4	230	3.6	225	4.4	240	3.6	240	3.3	250	4.6	245	5.6	245	5.7	255	5.4	270	5.0	285	7.0
28	325	2.6	325	2.3	340	1.9	340	2.1	340	2.5	340	1.5	320	0.9	315	0.9	285	1.0	230	0.6	225	1.2	300	1.6
29	10	4.1	200	4.8	30	4.5	25	3.4	20	2.9	40	4.1	50	4.7	60	4.1	45	4.3	45	4.2	45	4.2	30	3.9
30	220	1.2	260	1.4	260	1.1	240	1.0	250	1.4	265	1.5	280	2.0	250	1.9	265	1.1	270	2.0	250	1.5	260	1.5
31	320	2.9	335	2.4	5	4.2	60	4.9	25	3.6	10	3.0	20	4.0	15	3.0	360	2.5	360	2.9	355	3.4	360	3.1
Mean	---	3.6	---	3.7	---	3.6	---	3.5	---	3.6	---	3.5	---	3.8	---	3.8	---	3.7	---	3.7	---	3.9	---	4.3

512. KEW OBSERVATORY: H_a = 5 metres + 23 metres

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	335	5.9	340	7.0	335	6.8	340	7.0	360	9.0	15	8.9	10	8.9	20	9.2	35	9.8	30	10.0	30	10.8	30	10.8
2	30	5.2	35	5.2	35	5.2	30	4.4	15	4.0	15	3.4	5	3.5	15	3.0	10	3.4	20	3.5	30	6.3	30	6.8
3	350	2.0	355	1.6	5	0.5	225	0.2	245	0.5	245	0.5	245	0.8	235	1.5	230	1.8	240	1.8	235	1.6	225	1.9
4	5	3.2	10	3.0	20	4.1	25	5.6	30	6.7	30	6.0	25	5.5	30	5.5	40	6.4	40	6.0	45	6.4	45	6.0
5	45	6.5	40	5.2	40	4.9	35	5.0	35	5.0	35	5.2	45	5.2	50	4.8	40	4.5	50	4.8	40	5.2	35	6.1
6	295	0.6	325	2.0	330	3.0	325	2.0	300	1.2	280	0.8	305	1.2	315	1.1	265	0.5	280	1.0	340	3.5	325	3.0
7	215	1.6	220	1.8	250	1.8	275	1.8	265	2.4	235	3.1	230	3.0	235	2.5	245	2.5	245	2.0	260	2.6	270	4.5
8	250	5.6	265	6.3	255	6.9	260	7.0	265	6.8	265	6.3	260	6.3	265	6.1	265	4.2	295	5.2	305	8.5	300	8.8
9	225	3.0	230	2.5	215	2.0	220	2.0	225	2.0	215	1.4	210	2.0	210	2.0	220	2.2	230	2.4	225	3.3	245	4.8
10	230	3.6	235	3.3	235	3.5	230	3.2	230	2.8	230	2.6	240	2.6	235	3.0	240	2.6	240	2.5	250	2.5	255	3.0
11	260	1.2	305	1.4	280	0.6	230	1.3	230	1.0	220	1.4	250	1.4	265	0.6	240	1.7	240	1.5	260	1.9	295	2.0
12	240	1.2	240	0.6	240	0.8	240	0.5	230	0.6	230	0.4	235	0.6	260	0.5	255	0.4	235	0.6	---	0.0	230	1.0
13	80	0.2	65	0.9	80	1.6	95	1.4	90	2.0	85	2.6	80	1.5	55	1.1	45	1.7	55	1.4	85	2.9	95	2.8
14	50	1.8	230	0.7	---	0.0	5	0.1	80	0.1	30	0.4	330	0.5	75	0.4	235	0.7	240	0.2	215	1.7	240	0.9
15	10	2.9	360	1.8	15	3.0	25	3.1	35	2.8	20	2.4	360	2.0	330	1.4	340	1.9	340	0.7	340	1.3	360	0.9
16	210	0.8	235	0.1	270	0.1	255	0.2	230	0.6	250	0.8	225	0.9	235	1.4	265	0.4	270	0.2	215	0.5	225	0.6
17	325	1.0	335	1.5	340	1.0	350	2.2	350	2.4	10	2.4	15	2.2	20	2.4	20	2.6	355	2.4	330	1.2	325	0.8
18	25	1.5	15	1.1	345	2.1	20	1.9	360	2.0	65	1.4	85	1.0	30	0.2	340	0.4	20	0.5	40	0.5	170	0.8
19	235	1.8	220	1.9	220	1.2	220	1.0	225	1.4	230	1.8	230	1.5	220	2.2	225	1.5	235	1.2	240	1.1	345	1.0
20	235	3.0	220	2.7	215	2.6	240	2.2	250	2.1	235	2.0	230	2.0	210	2.0	215	1.9	260	1.4	310	4.9	310	6.1
21	260	3.7	265	4.2	270	4.5	265	2.9	270	2.2	235	1.7	225	2.2	230	2.9	245	3.5	240	3.0	270	3.0	305	4.8
22	250	0.5	265	2.6	270	2.3	280	1.9	260	1.9	260	1.8	270	1.5	260	1.5	265	1.7	260	2.1	245	2.5	240	2.5
23	225	1.4	205	0.5	245	0.8	235	1.5	215	2.3	220	2.3	225	2.5	235	2.5	225	2.7	230	2.8	235	2.1	225	3.1
24	250	0.4	255	0.5	200	0.5	230	0.8	195	1.4	195	1.5	215	1.8	250	2.5	235	1.0	185	0.6	220	0.6	215	1.8
25	195	3.2	195	2.5	185	2.0	190	2.5	175	3.6	170	4.4	180	3.8	195	5.9	200	5.1	200	3.9	210	4.4	220	3.9
26	340	2.5	350	3.9	360	5.3	360	5.5	5	4.9	360	5.2	355	5.2	360	6.4	360	7.9	360	8.0	5	6.9	355	7.4
27	320	3.0	310	3.0	300	3.4	310	4.2	305	4.5	325	5.2	340	8.4	345	8.5	345	8.9	345	9.4	340	8.0	345	8.0
28	340	2.9	330	4.0	345	3.6	340	3.0	330	3.1	315	3.3	320	3.7	320	3.8	320	3.0	305	3.9	310	3.2	335	3.4
Mean	---	2.5	---	2.6	---	2.6	---	2.7	---	2.8	---	2.8	---	2.9	---	3.0	---	3.0	---	3.0	---	3.5	---	3.8
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

WIND: DIRECTION AND SPEED

Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

513. KEW OBSERVATORY:

Dines Pressure Tube Anemometer from Jan., 1926

 H_a (height of vane of anemometer above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	320	0.6	275	1.1	280	1.2	295	2.0	275	0.9	245	0.6	245	0.8	270	1.1	270	0.5	280	0.7	320	0.6	280	0.3
2	190	0.5	200	1.4	200	1.5	215	0.3	190	0.2	175	0.6	185	2.0	195	2.1	200	3.0	200	6.0	205	6.0	200	6.4
3	275	1.2	245	0.6	230	0.6	230	0.9	230	1.2	215	1.2	235	1.8	235	1.6	260	2.5	270	3.0	295	4.5	310	5.1
4	215	2.4	215	2.0	210	2.0	220	2.4	215	1.7	200	2.7	200	2.5	205	2.3	275	3.2	240	2.9	250	4.4	255	4.6
5	215	4.7	210	3.3	210	4.9	195	3.3	195	3.2	205	4.1	210	3.4	200	3.8	200	4.9	195	5.1	210	4.8	210	3.5
6	245	5.0	240	3.8	230	4.2	235	2.9	220	2.9	230	2.6	230	2.4	225	3.0	220	3.6	215	3.6	230	2.9	235	3.2
7	275	2.5	270	2.4	265	3.2	265	3.2	265	3.5	240	3.0	240	3.6	245	4.1	260	5.0	270	5.6	290	7.5	290	7.4
8	225	2.0	210	2.5	215	2.6	220	2.6	225	2.1	215	1.9	190	1.1	190	1.4	195	1.2	230	2.1	240	1.6	245	1.6
9	—	0.0	335	0.1	25	0.1	15	0.4	10	0.1	355	0.3	25	0.2	—	0.0	—	0.0	340	0.2	15	0.5	105	2.1
10	120	4.8	110	5.4	115	5.9	125	5.4	130	6.6	115	5.3	125	4.4	140	3.2	150	3.2	180	2.5	220	3.6	215	4.3
11	135	3.3	135	4.5	150	4.4	145	4.3	130	4.4	140	4.5	150	4.4	160	4.7	165	4.5	180	5.1	185	5.0	185	5.1
12	75	2.9	80	3.4	65	3.9	50	3.9	70	4.1	45	2.6	65	4.0	65	3.2	65	2.6	85	2.8	95	3.1	80	2.3
13	245	3.6	240	3.0	250	3.7	265	3.0	270	2.1	235	2.5	240	3.0	240	2.4	270	2.5	280	3.5	275	2.4	285	3.3
14	35	2.6	30	2.5	20	2.5	30	3.0	50	1.3	65	2.0	85	1.9	95	2.5	120	2.0	185	3.2	220	5.0	205	5.6
15	210	5.6	210	6.0	200	5.2	190	5.0	185	4.8	195	6.8	210	7.4	210	9.0	215	9.7	220	9.1	210	10.6	215	9.5
16	230	5.4	225	4.8	230	4.8	225	4.5	220	4.5	220	4.0	215	4.3	215	5.0	225	5.8	230	5.8	235	6.7	230	7.0
17	225	4.9	220	4.8	205	4.8	215	5.0	210	4.1	185	3.7	180	3.8	185	3.8	205	5.0	215	5.6	200	5.6	200	5.9
18	265	3.5	265	3.3	270	3.9	265	4.3	260	3.7	255	3.3	250	3.5	255	4.6	265	5.7	275	7.0	270	5.4	280	5.0
19	215	3.1	205	3.5	200	3.1	180	2.2	165	2.5	165	3.4	125	2.7	145	4.2	160	5.5	150	7.4	135	7.1	135	7.5
20	85	1.5	85	1.6	70	1.7	70	1.5	75	2.0	70	2.1	65	1.8	85	1.9	110	1.6	90	0.7	210	2.2	240	2.2
21	330	3.0	325	3.5	320	4.1	315	4.0	310	3.9	310	3.9	310	4.0	315	4.2	325	4.8	330	4.9	330	4.4	325	4.0
22	240	1.0	245	0.5	245	0.9	245	1.0	245	0.9	250	0.8	300	0.5	—	0.0	—	0.0	265	1.0	250	1.6	265	2.3
23	225	1.3	225	1.3	230	1.1	225	1.1	225	1.2	245	0.5	295	0.2	305	1.1	320	0.7	280	0.1	320	0.6	200	1.0
24	210	0.2	220	0.2	220	0.1	215	0.2	215	0.2	—	0.0	—	0.0	235	0.2	220	1.0	205	1.9	215	3.5	235	3.2
25	210	0.6	220	0.3	—	0.0	210	0.1	210	0.1	—	0.0	345	0.6	15	2.0	20	3.2	15	3.5	40	2.0	30	2.6
26	235	0.7	215	0.9	205	0.3	235	0.2	220	0.3	210	0.4	180	1.0	190	0.6	170	0.5	170	2.0	190	1.8	185	1.4
27	350	3.6	355	3.9	355	3.3	355	6.0	355	5.9	360	4.7	5	3.9	355	3.4	360	5.1	15	6.4	25	7.0	30	7.0
28	40	4.3	50	3.9	55	5.2	45	5.4	45	5.2	40	5.7	35	5.9	40	6.5	50	5.9	50	6.5	65	7.2	70	9.0
29	50	4.9	35	4.3	30	4.5	25	4.9	35	4.9	30	4.8	30	4.9	35	5.4	45	6.2	55	6.0	55	7.0	50	7.1
30	45	2.4	50	2.7	60	2.3	45	0.8	25	0.5	15	1.1	30	0.8	30	1.1	70	3.7	90	4.4	100	4.0	100	3.9
31	80	2.0	60	0.8	40	0.3	5	1.7	20	2.5	40	3.0	35	3.0	40	4.5	55	5.4	75	5.5	80	6.6	80	6.7
Mean	—	2.7	—	2.7	—	2.6	—	2.6	—	2.6	—	2.6	—	2.7	—	3.0	—	3.5	—	4.0	—	4.4	—	4.5

514. KEW OBSERVATORY: $H_a = 5$ metres + 25 metres.

1	45	4.8	35	4.1	30	3.9	35	4.9	35	5.0	35	5.6	40	6.0	40	6.8	35	7.7	35	7.8	30	6.9	30	6.9
2	30	6.6	25	6.8	20	5.6	10	5.3	15	4.9	20	5.2	25	6.0	25	5.3	30	5.8	25	6.3	20	7.6	20	7.5
3	35	5.3	30	5.6	15	6.6	25	6.0	20	4.8	30	5.0	30	4.8	20	5.5	20	5.7	20	5.4	30	5.2	25	5.8
4	20	3.8	35	3.4	15	4.9	25	4.6	20	3.9	5	3.2	10	3.0	35	3.4	20	4.6	35	4.7	30	5.4	35	3.7
5	10	2.4	360	1.5	10	1.8	5	1.9	20	1.7	15	1.7	5	1.2	30	2.6	50	3.0	75	4.3	55	3.5	75	5.8
6	45	6.0	50	5.7	40	5.0	45	4.9	45	3.3	30	4.5	35	4.7	40	4.4	30	3.5	15	3.6	10	4.1	10	5.1
7	360	3.0	360	2.8	360	2.7	355	3.4	360	4.3	5	3.5	10	3.6	10	3.5	35	2.6	5	2.4	350	2.7	360	2.4
8	220	0.1	—	0.0	—	0.0	130	0.3	325	0.1	190	0.2	255	0.2	270	0.2	270	0.2	240	0.1	280	0.2	295	1.3
9	60	3.0	35	1.0	330	1.2	315	0.9	350	1.0	340	1.0	350	1.2	360	2.0	5	4.0	5	4.5	350	4.8	360	4.9
10	—	0.0	5	0.4	50	0.1	215	0.1	220	0.1	230	0.1	240	0.4	230	0.2	200	0.2	220	0.2	170	1.9	155	2.0
11	85	6.9	100	6.4	105	5.9	135	5.5	150	7.5	150	6.7	150	5.1	150	5.1	150	5.0	150	5.6	180	6.5	170	7.0
12	85	0.5	100	1.5	100	2.4	145	2.4	175	4.5	185	7.4	180	6.6	180	6.0	185	6.5	205	6.6	250	9.9	250	11.2
13	190	3.5	195	3.2	195	2.6	190	2.0	185	0.6	160	0.2	155	0.5	165	3.3	175	5.6	170	6.0	185	6.5	185	6.5
14	180	2.6	185	3.0	175	4.0	180	4.4	180	5.1	180	5.3	180	4.6	185	4.3	195	6.2	205	5.7	215	7.0	215	7.8
15	190	2.0	225	1.7	220	2.5	210	1.2	160	0.6	175	1.5	185	1.7	190	1.9	190	3.1	200	4.1	190	4.3	180	5.4
16	215	3.5	225	3.6	230	4.5	210	3.1	205	2.5	220	2.0	215	2.3	220	3.5	220	3.6	220	3.3	225	3.1	250	2.7
17	240	1.1	220	0.9	225	0.5	205	0.8	195	1.5	190	1.6	190	1.3	190	2.8	205	2.7	205	2.9	205	4.6	200	6.7
18	210	1.5	200	1.8	205	2.3	195	2.0	175	3.0	185	2.4	195	4.6	180	4.5	205	6.2	195	7.5	200	8.0	200	8.4
19	180	7.0	190	9.5	205	8.7	200	7.4	215	9.4	230	8.3	235	8.8	230	7.2	230	7.9	235	9.2	260	7.6	265	7.4
20	245	1.5	270	0.9	310	2.1	320	2.2	305	1.4	290	0.7	280	1.9	310	3.3	310	4.2	305	3.8	295	4.1	290	3.5
21	205	3.5	215	3.7	205	2.5	205	3.6	215	5.0	210	4.4	210	5.7	210	6.1	210	6.1	210	6.2	205	5.4	205	5.1
22	230	1.0	230	0.8	230	0.8	250	0.3	235	0.4	265	0.7	295	0.5	325	2.0	325	1.7	330	1.4	310	2.3	275	1.5
23	330	3.1	310	1.6	275	0.8	245	1.2	225	1.5	230	1.3	265	1.5	290	3.1	310	4.5	310	3.8	320	3.9	300	4.1
24	205	6.1	205	6.0	205	6.5	200	5.6	200	3.1	230	2.8	280	3.6	290	3.3	290	3.5	290	3.6	270	1.1	25	3.7
25	235	1.9	230	1.9	220	1.8	210	2.2	215	2.2	210	2.0	225	2.9	235	2.7	245	3.5	250	3.1	245	4.2	225	6.8
26	205	3.5	190	2.5	185	2.5	175	2.8	155	3.2	175	5.2	190	4.6	195	4.8	195	4.7	200	4.9	190	6.8	190	6.6
27	220	2.1	220	1.5	220	1.3	200	1.5	205	1.2	235	0.4	235	0.5	260	0.2	210	1.2	220	1.0	290	1.0	300	2.7
28	320	0.5	320	0.8	315	0.6	295	0.1	315	0.2	330	0.7	25	1.5	35	1.9	35	0.9	20	1.0	30	0.7	210	0.1
29	—	0.0	240	0.1	250	0.1	330	0.1	—	0.0	255	0.1	360	0.2	10	1.0	5	0.9	355	0.9	55	2.4	90	3.6
30	35	3.8	25	4.5	25	5.0	30	5.0	25	5.7	30	6.7	35	6.8	35	7.2	35	6.7	35	7.3	30	7.3	35	7.6
Mean	—	3.0	—	2.9	—	3.0	—	2.9	—	2.9	—	3.0	—	3.2	—	3.6	—	4.1	—	4.2	—	4.6	—	5.1
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

MAY. 1934.

JUNE, 1934.

[illegible]

WIND: DIRECTION AND SPEED

Direction expressed in degrees from North (E = 90°, S = 180°, W = 270°, N = 360°). Speed in metres per second.

517. KEW OBSERVATORY:

Dines Pressure Tube Anemometer from Jan., 1926

 H_a (height of vane of anemometer above M.S.L.) = height of ground above

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	5	1.8	10	1.4	350	1.5	5	0.9	5	0.9	330	2.0	30	2.0	35	0.9	10	1.0	30	2.5	30	3.7	35	4.1
2	210	0.1	240	0.2	215	0.8	235	0.6	240	0.3	260	0.1	5	1.0	20	2.0	15	2.9	20	2.0	355	2.5	360	3.0
3	90	3.2	115	1.2	100	0.4	—	0.0	—	0.0	—	0.0	130	0.1	105	0.1	205	0.5	145	0.3	55	0.8	180	1.1
4	85	0.9	95	1.5	100	0.4	—	0.0	—	0.0	—	0.0	—	0.0	210	0.1	180	0.2	215	0.5	175	0.9	105	1.0
5	120	0.1	180	0.1	190	0.1	190	0.1	—	0.0	100	0.1	115	0.5	115	1.0	130	1.2	125	1.7	95	2.8	90	3.5
6	85	3.5	90	2.4	65	1.1	55	1.8	45	1.9	60	1.6	80	3.5	85	3.5	90	3.5	65	5.0	85	6.5	90	6.8
7	80	4.3	80	3.1	75	2.3	75	0.5	50	0.3	40	1.0	80	2.6	80	3.3	85	3.1	85	4.4	80	4.1	75	4.5
8	85	3.2	80	1.5	65	0.8	40	1.8	50	2.3	65	2.4	90	2.1	100	2.6	90	3.5	90	4.8	90	5.2	100	5.7
9	80	3.5	80	4.0	80	4.7	65	2.8	80	2.5	50	3.0	55	3.9	80	3.0	85	4.3	80	5.3	90	6.8	90	6.7
10	70	3.1	70	2.1	55	1.6	45	2.5	45	2.8	65	2.1	85	4.0	85	4.2	85	4.5	95	4.8	80	5.3	85	5.6
11	85	2.1	95	1.0	80	2.1	95	0.7	40	1.2	45	0.8	80	2.6	85	4.2	85	4.9	100	5.2	95	5.2	90	6.6
12	105	0.2	65	1.5	90	1.9	120	0.6	—	0.0	305	0.1	15	0.2	340	0.6	325	1.5	25	0.6	130	2.4	200	2.0
13	240	2.5	230	1.9	230	1.2	230	0.2	230	1.2	230	1.5	240	1.6	245	2.0	250	2.5	255	2.5	240	3.5	235	4.3
14	235	1.8	230	1.8	245	1.4	250	1.0	265	1.0	270	1.6	300	2.6	300	2.5	295	2.5	300	3.5	295	2.8	280	2.7
15	315	1.6	245	1.1	240	0.8	230	1.5	230	1.5	235	1.5	250	1.8	270	1.4	270	1.6	270	3.3	275	3.9	275	3.8
16	240	1.9	230	2.5	225	2.2	215	2.5	215	2.2	230	2.7	230	2.9	245	2.6	245	2.9	240	3.9	235	4.0	235	4.2
17	210	0.6	205	0.4	200	0.7	230	0.2	195	0.2	200	0.1	185	0.4	200	2.0	190	3.6	210	2.8	210	3.1	180	2.5
18	60	2.0	60	2.4	70	2.4	75	1.6	45	1.5	45	1.4	30	1.4	25	1.8	5	2.2	20	4.5	20	5.8	15	8.0
19	305	2.4	290	1.7	290	1.9	280	(1.3)	280	(1.4)	290	2.0	290	1.9	275	2.1	290	2.6	290	4.1	280	3.1	300	3.2
20	235	2.0	220	1.1	215	1.2	215	0.6	205	0.6	210	0.1	220	1.0	190	0.8	160	2.4	195	2.5	180	2.8	175	3.2
21	70	3.5	85	3.2	55	3.3	30	3.2	85	2.0	30	2.3	40	3.4	60	2.3	35	2.2	50	3.3	60	4.6	55	3.4
22	25	0.6	25	1.1	20	1.2	25	1.0	345	1.4	10	1.5	40	1.3	20	1.1	330	0.9	330	1.2	255	1.5	270	1.7
23	290	1.5	340	2.4	330	1.8	325	1.2	325	2.1	335	1.9	310	1.7	330	3.0	325	3.5	330	3.9	330	3.5	310	4.0
24	275	1.0	285	1.6	260	1.4	260	1.4	220	1.9	230	2.0	235	2.3	240	2.5	260	2.8	220	3.6	240	3.6	245	4.6
25	265	0.8	310	1.0	260	1.3	250	1.4	235	0.8	220	1.4	230	1.0	240	1.1	220	1.0	240	1.5	245	3.0	255	3.1
26	245	2.0	220	1.6	200	2.2	220	2.5	215	2.9	245	3.2	245	3.5	235	4.0	240	5.1	245	6.0	250	6.4	255	7.1
27	320	2.9	290	1.8	255	2.1	255	3.1	250	2.4	230	2.4	235	3.1	265	4.3	285	5.5	280	5.8	280	5.1	285	4.9
28	235	4.0	240	4.4	235	4.5	230	4.5	225	3.9	220	3.6	225	4.0	245	6.0	260	5.8	255	7.6	250	6.6	245	7.1
29	250	3.4	245	3.6	230	2.8	225	3.5	225	3.6	220	3.5	230	3.6	245	3.8	235	4.0	250	4.7	240	5.6	240	6.4
30	255	3.8	250	3.6	245	3.5	230	3.0	220	3.4	225	2.8	225	2.5	235	4.5	220	4.4	210	2.6	210	3.5	205	5.0
31	145	5.1	175	3.9	205	2.9	225	4.1	235	5.1	215	3.1	205	3.4	210	4.9	220	5.6	220	6.4	195	5.1	210	6.2
Mean	—	2.2	—	2.0	—	1.8	—	1.6	—	1.7	—	1.7	—	2.1	—	2.5	—	3.0	—	3.6	—	4.0	—	4.4

518. KEW OBSERVATORY: H_a = 5 metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	220	2.7	225	2.2	225	1.4	220	1.7	220	1.8	220	2.4	225	3.0	220	2.5	220	3.0	215	3.5	215	3.8	215	5.1
2	170	6.9	170	5.0	175	4.1	185	5.0	195	5.5	180	5.0	200	6.4	205	7.2	210	8.4	215	8.4	220	9.1	225	8.7
3	225	4.4	225	3.9	225	3.4	215	3.0	220	3.4	220	3.5	225	4.2	215	4.0	240	3.8	260	3.1	260	2.8	250	2.8
4	215	1.1	230	0.9	240	0.7	235	1.0	245	1.0	250	1.2	240	0.6	265	0.6	250	1.1	250	1.2	255	1.9	235	3.0
5	230	0.7	230	1.4	210	1.4	205	1.0	215	0.8	200	0.6	205	1.4	200	1.6	195	3.0	195	4.4	200	4.6	210	5.0
6	100	3.4	100	4.4	105	4.1	130	2.5	155	2.1	130	3.0	130	3.0	145	3.5	160	3.8	175	2.6	190	3.0	175	3.2
7	350	1.9	355	2.0	355	1.3	325	1.7	5	2.1	15	2.4	50	3.0	40	1.5	10	2.2	10	3.2	20	4.4	35	5.5
8	30	3.0	35	3.4	355	1.2	5	2.0	10	2.7	15	2.7	360	2.5	5	3.9	360	3.4	10	2.5	5	2.5	355	3.3
9	235	1.5	220	2.1	230	2.3	230	1.6	220	1.8	225	2.6	235	2.5	235	3.0	235	3.1	245	4.5	280	5.9	275	5.5
10	225	2.5	225	2.7	220	2.8	230	3.1	230	3.6	225	4.4	220	5.5	220	6.6	215	8.0	210	8.5	215	8.6	210	7.0
11	230	2.6	230	3.3	235	2.4	235	2.9	245	2.8	225	3.1	235	3.2	235	2.9	230	4.4	245	4.0	255	4.5	260	3.0
12	240	2.8	245	3.2	240	3.0	235	3.4	225	3.5	220	3.6	220	3.9	225	4.0	225	4.9	225	5.4	235	5.3	235	5.5
13	250	2.0	265	1.5	245	1.6	260	1.7	260	1.6	260	1.6	280	2.2	300	3.0	310	4.0	310	5.0	310	4.4	305	4.5
14	320	3.0	305	3.0	300	2.5	300	2.2	295	1.6	305	1.6	320	1.7	340	3.3	340	4.1	355	4.4	355	3.4	355	4.1
15	110	0.2	115	0.3	240	0.2	190	0.5	180	0.3	245	0.5	245	1.0	235	1.6	230	2.2	235	3.2	225	3.5	230	4.0
16	225	2.4	215	1.3	225	2.0	230	3.0	235	2.8	235	2.2	230	3.0	230	4.4	220	4.6	230	3.5	225	3.5	260	3.0
17	270	1.0	245	0.7	300	0.6	330	1.1	360	0.9	10	1.8	30	1.3	20	0.6	70	0.4	360	0.5	305	0.9	240	1.6
18	235	0.5	240	0.5	210	0.4	220	0.4	225	0.3	225	0.2	230	0.2	220	0.4	220	0.8	215	1.9	235	2.0	225	2.9
19	225	2.8	225	1.6	240	1.6	220	2.2	230	1.4	245	2.4	235	3.0	225	3.5	240	3.4	255	3.7	245	3.6	265	4.6
20	205	1.2	195	1.2	200	0.8	190	1.4	195	2.2	185	2.5	185	5.2	195	6.2	200	7.8	210	8.4	225	9.7	245	9.5
21	220	3.5	225	4.1	235	2.6	225	3.1	205	2.5	215	3.6	220	6.1	220	5.4	215	6.6	225	7.1	220	6.6	215	8.8
22	200	3.4	210	4.2	210	3.7	215	3.5	230	3.4	215	3.5	220	4.4	220	3.2	220	4.1	210	4.6	215	5.2	200	5.4
23	235	2.6	230	3.0	225	3.0	225	2.8	235	2.3	235	1.5	220	3.1	225	3.4	225	3.3	225	4.9	240	5.0	235	5.0
24	225	1.0	225	1.4	225	1.4	220	1.0	240	0.9	235	1.1	220	1.1	230	1.2	260	1.2	250	2.1	255	2.6	285	3.0
25	10	1.0	355	1.4	5	1.5	5	1.0	10	1.5	10	1.7	45	1.9	45	2.4	50	4.4	45	4.5	50	4.3	45	3.4
26	20	1.3	10	1.3	10	1.0	350	0.5	335	0.2	350	0.3	15	0.4	85	0.7	65	4.0	75	3.1	80	3.8	75	3.5
27	60	2.1	55	2.1	55	1.2	55	0.3	95	1.8	90	1.4	110	1.4	95	1.7	110	2.1	95	2.2	95	2.0	130	1.4
28	90	0.3	85	0.8	110	0.1	85	0.1	100	0.4	95	0.6	85	0.9	175	2.2	200	3.5	205	4.8	210	4.5	190	5.0
29	295	3.8	275	2.0	240	2.2	240	2.0	225	2.7	235	2.4	220	3.3	235	3.5	260	4.2	250	4.5	240	4.9	255	5.6
30	210	2.1	200	1.4	200	1.5	200	1.2	220	1.0	205	1.1	205	1.0	215	1.5	235	1.6	245	1.2	245	1.9	245	2.1
31	220	0.7	230	0.5	250	0.6	245	0.9	250	0.7	250	0.5	190	0.2	205	0.2	245	0.6	245	1.4	235	2.2	235	2.4
Mean	--	2.2	--	2.2	--	1.8	--	1.9	--	1.9	--	2.1	--	2.6	--	2.9	--	3.6	--	3.9	--	4.2	--	4.2
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

519. KEW OBSERVATORY: H_a (height of vane of anemometer above M.S.L.) = height of ground above Dines Pressure Tube Anemometer from Jan., 1926

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	190	0.3	240	0.6	235	0.6	245	0.5	230	0.5	230	1.2	240	0.6	270	1.0	270	0.4	270	1.2	260	2.2	260	2.7
2	220	1.3	235	0.7	240	0.5	230	0.7	235	0.2	210	0.2	205	0.4	235	0.4	230	0.9	230	2.0	220	3.6	200	4.0
3	170	8.2	175	7.3	175	5.9	180	5.4	190	5.0	230	4.5	215	3.5	220	4.0	220	5.0	215	6.4	225	5.8	230	5.6
4	180	2.7	180	3.2	190	1.8	180	2.4	175	2.6	170	2.4	165	2.6	170	1.4	190	3.6	195	4.7	215	5.6	205	5.8
5	225	1.6	230	1.5	220	1.8	220	1.4	225	1.2	215	1.5	220	1.6	240	1.8	255	2.0	285	3.0	285	2.7	270	3.1
6	245	0.1	10	0.1	---	0.0	125	0.1	245	0.2	270	0.1	70	0.4	95	1.2	110	2.0	125	3.9	130	4.8	105	5.0
7	85	1.7	90	2.0	75	2.0	85	2.2	95	1.6	120	1.6	155	2.4	180	2.5	190	2.5	200	3.5	215	3.4	205	3.5
8	210	2.0	190	1.9	190	2.2	200	3.1	210	3.3	205	2.5	200	1.6	220	3.5	215	4.5	205	4.0	205	5.5	210	5.9
9	185	3.0	185	2.6	200	2.8	200	2.9	195	3.9	190	3.2	195	3.9	205	4.2	220	5.2	220	5.7	230	5.9	250	5.5
10	230	1.5	235	0.7	230	0.6	220	0.1	240	0.2	---	0.0	---	0.0	---	0.0	180	0.2	190	2.0	220	3.5	230	3.7
11	230	0.2	230	0.2	275	0.1	120	0.1	140	0.1	---	0.0	---	0.0	---	0.0	190	0.2	185	1.5	210	1.4	230	2.0
12	285	0.1	340	0.1	---	0.0	---	0.0	220	0.1	---	0.0	---	0.0	---	0.0	50	0.6	60	3.5	65	4.6	70	4.0
13	35	2.6	35	1.6	40	2.7	40	3.0	40	3.8	30	3.5	25	3.4	35	3.8	45	4.0	55	4.5	50	4.0	50	3.6
14	60	2.5	60	2.0	60	2.0	60	2.5	60	2.7	60	2.9	55	3.0	70	3.1	85	3.5	70	2.3	85	3.3	90	5.6
15	80	2.4	60	1.6	55	0.6	50	1.0	70	1.4	65	0.3	75	1.2	85	0.7	90	1.5	85	1.2	145	2.0	180	2.5
16	220	3.0	220	2.2	230	2.6	215	2.4	205	2.6	220	3.3	210	2.2	205	3.0	215	4.6	230	5.0	240	5.5	235	5.5
17	160	3.6	165	4.3	160	4.3	165	4.4	170	4.5	170	4.6	175	4.0	165	5.4	175	6.2	185	7.0	200	9.3	205	9.6
18	205	2.5	190	1.9	190	2.0	185	2.4	190	2.0	180	1.6	170	1.3	175	2.3	190	2.5	190	3.3	200	4.4	200	4.0
19	225	1.6	205	1.4	220	1.0	195	1.9	195	2.3	190	2.4	210	2.5	225	3.5	230	6.2	235	5.7	235	5.5	240	5.7
20	245	2.8	245	1.8	240	2.0	245	2.0	250	2.7	260	3.2	255	3.3	260	3.5	265	4.4	265	3.8	260	4.7	265	4.6
21	225	1.4	220	1.7	220	2.2	215	2.1	240	1.6	235	1.5	225	1.6	235	1.9	250	3.0	260	3.7	275	3.4	280	3.7
22	220	0.6	230	0.6	205	0.6	100	0.4	270	0.2	165	0.6	170	0.7	190	2.5	200	4.8	195	5.0	200	6.7	195	7.1
23	260	4.9	270	4.9	270	3.7	270	3.5	240	3.5	245	3.6	240	3.7	240	3.8	255	4.4	260	4.7	270	5.4	280	5.9
24	210	1.4	205	2.1	200	2.4	195	2.6	195	1.6	200	1.9	200	1.8	185	2.0	185	3.6	190	4.0	185	5.1	180	5.6
25	230	3.3	235	3.1	225	3.0	225	2.8	220	3.4	220	2.4	225	2.5	230	1.1	260	2.5	250	3.0	240	3.2	255	3.1
26	185	1.8	175	2.1	175	2.5	170	3.4	170	3.4	170	3.3	180	4.5	195	5.2	200	7.0	205	6.9	215	7.1	220	8.9
27	240	1.8	220	2.0	225	3.3	235	2.4	235	1.5	230	1.8	220	1.8	220	1.1	225	1.6	240	2.3	255	2.6	235	3.0
28	135	1.1	130	0.9	140	1.5	120	1.7	130	2.4	155	3.4	175	3.1	180	3.5	200	2.8	190	4.1	175	3.5	160	4.8
29	170	3.6	170	4.0	170	4.7	170	4.3	170	4.8	175	4.5	170	4.0	170	4.2	160	5.1	175	5.0	180	5.5	160	5.2
30	---	0.0	195	1.8	185	1.6	180	1.6	185	1.6	185	1.5	185	1.8	180	2.8	195	3.9	195	5.7	205	6.8	210	7.1
Mean	---	2.1	---	2.0	---	2.0	---	2.1	---	2.2	---	2.1	---	2.1	---	2.4	---	3.3	---	4.0	---	4.6	---	4.9

520. KEW OBSERVATORY: H_a = 5 metres + 23 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	195	4.1	195	4.2	205	4.2	210	3.9	210	4.4	210	4.3	200	4.5	205	4.9	205	5.0	205	4.6	210	5.5	220	9.1
2	215	1.5	220	1.0	215	1.3	200	1.3	215	0.7	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	310	0.8	325	1.2
3	250	1.5	220	2.4	220	1.5	200	0.5	110	0.3	140	0.3	150	0.8	165	2.8	170	3.4	190	4.1	215	4.5	210	6.6
4	215	4.8	180	3.4	180	3.4	175	3.6	185	5.6	210	5.6	200	4.6	210	6.5	205	8.0	205	9.6	205	9.9	215	10.1
5	230	5.0	225	4.8	225	4.9	230	4.4	230	3.5	215	3.2	220	3.1	230	3.1	250	4.8	245	5.0	245	5.1	250	5.0
6	235	2.1	240	3.0	240	2.7	225	2.4	215	2.3	210	2.0	200	2.1	210	1.7	225	1.6	215	1.7	220	3.7	210	3.9
7	220	4.5	220	6.4	225	5.5	220	4.5	225	5.0	220	4.5	220	5.6	220	5.5	215	5.9	200	6.0	200	5.6	215	6.3
8	210	2.4	240	2.2	315	3.6	345	0.9	300	0.6	15	0.3	330	0.6	335	1.0	360	1.9	15	2.6	5	2.5	15	2.4
9	270	1.0	240	1.5	220	2.5	205	1.9	220	2.9	235	2.5	225	3.9	245	3.1	265	3.0	280	3.7	300	5.0	300	5.0
10	270	2.0	250	0.9	240	1.6	225	1.5	220	2.1	210	1.5	220	2.3	230	2.6	230	3.1	250	3.4	250	4.6	250	4.1
11	235	2.9	230	2.0	230	2.4	225	2.0	220	2.5	225	2.0	230	2.2	230	3.0	245	3.0	270	3.4	280	4.6	275	4.3
12	240	1.1	240	0.5	240	1.2	230	2.2	250	1.6	245	2.1	250	2.2	230	1.8	235	2.3	250	2.6	255	4.0	255	4.5
13	260	2.4	255	2.0	225	1.9	240	2.4	255	2.1	265	2.5	255	2.0	240	2.0	260	2.5	275	2.5	275	2.9	270	2.6
14	260	4.7	250	5.0	245	5.4	240	5.7	235	6.9	245	5.8	245	5.8	235	5.4	240	5.4	265	5.3	270	6.3	280	6.9
15	265	6.4	275	6.9	290	7.0	280	5.7	280	6.1	280	5.4	270	4.2	270	4.4	290	6.5	300	7.1	300	7.4	305	8.2
16	245	1.6	290	2.0	310	2.5	325	3.4	340	4.8	345	4.8	345	5.0	350	7.1	355	8.2	355	8.7	355	8.5	355	8.9
17	245	2.0	250	3.0	260	3.2	270	3.3	270	3.4	265	3.3	265	3.2	260	3.1	265	3.2	275	4.0	280	4.1	285	3.9
18	245	1.6	245	2.1	225	2.1	220	2.5	230	2.0	235	1.9	245	2.0	245	2.0	270	2.5	260	2.5	270	3.6	280	4.0
19	245	2.6	250	2.5	285	2.0	310	2.2	285	1.5	285	1.6	285	1.5	275	1.9	285	2.9	265	2.2	280	2.4	270	2.8
20	215	2.5	220	2.5	225	2.4	220	2.8	230	2.5	225	3.0	225	3.0	220	3.7	220	3.5	225	3.6	230	4.6	235	3.8
21	225	3.8	225	3.9	225	3.9	235	3.1	225	3.3	235	5.0	220	3.1	220	2.9	220	4.5	210	3.9	200	4.0	205	4.5
22	200	7.1	195	7.4	195	6.8	200	6.5	200	7.6	200	7.1	200	6.9	220	4.5	235	4.0	240	4.0	240	4.9	240	5.8
23	205	2.2	190	0.9	180	0.6	215	0.6	230	1.1	245	1.1	220	1.5	240	1.2	225	1.6	260	1.2	240	1.7	235	2.4
24	220	1.0	200	1.5	200	2.4	195	1.7	200	1.5	200	2.5	195	2.6	190	2.7	180	3.0	190	3.5	200	6.1	205	6.9
25	160	2.8	160	2.4	155	2.5	170	4.1	170	3.9	165	4.5	170	4.5	180	5.0	170	6.1	170	5.8	180	6.4	180	6.5
26	220	7.0	230	6.5	245	6.3	245	6.4	255	5.0	245	3.4	220	3.2	220	4.5	230	4.5	240	4.8	230	5.1	245	6.5
27	225	4.9	220	5.0	220	5.8	230	4.4	225	6.4	225	6.0	220	8.5	230	8.1	230	8.8	235	8.9	230	10.0	235	9.2
28	235	4.4	235	4.8	245	5.7	235	5.0	230	5.8	235	6.6	240	5.0	255	5.1	260	5.0	255	4.9	250	5.5	250	6.0
29	230	2.8	220	3.1	220	3.5	220	2.7	220	3.0	220	2.5	220	2.9	225	2.6	230	3.5	250	4.4	270	5.0	270	5.1
30	220	2.4	215	1.9	215	1.5	240	1.0	210	1.5	210	1.7	215	1.3	235	0.4	215	0.9	220	1.9	220	2.4	230	2.5
31	230	1.7	290	0.7	325	0.5	320	0.2	290	0.8	320	0.9	325	1.5	320	2.0	310	2.2	305	3.4	310	3.7	300	3.1
Mean	---	3.1	---	3.1	---	3.3	---	3.0	---	3.2	---	3.2	---	3.2	---	3.4	---	3.9	---	4.2	---	4.9	---	5.2
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

WIND: DIRECTION AND SPEED

Averages for periods of sixty minutes, ending at the exact hours, Greenwich Mean Time.

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M.S.L. + h_a (height of anemometer above ground) = 5 metres + 23 metres.

SEPTEMBER, 1934.

12 - 13		13 - 14		14 - 15		15 - 16		16 - 17		17 - 18		18 - 19		19 - 20		20 - 21		21 - 22		22 - 23		23 - 24		Mean	Day
°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	m/s	
250	2.8	220	2.3	265	3.5	265	3.3	255	3.9	230	5.2	230	3.5	255	1.7	300	1.3	250	0.5	225	0.6	215	1.5	1.7	1
215	4.6	210	5.3	200	5.7	200	4.5	195	5.8	200	3.9	185	4.1	170	3.4	170	3.7	160	5.1	165	5.9	170	7.6	3.1	2
240	5.2	225	5.0	225	6.0	220	5.7	215	5.8	215	5.5	205	5.1	210	4.5	200	2.5	190	2.5	190	2.5	180	2.7	5.0	3
210	6.4	210	5.9	205	6.5	210	5.1	215	6.0	205	5.1	195	2.6	200	2.5	230	2.0	225	2.7	240	2.1	265	1.6	3.6	4
270	3.0	270	3.2	335	2.4	335	1.8	305	1.7	305	1.0	275	0.4	280	0.2	300	0.1	220	0.6	230	0.7	—	0.0	1.6	5
110	5.2	100	6.0	90	6.5	85	7.4	85	7.0	90	6.5	95	5.0	100	5.5	100	5.1	90	5.0	90	4.6	90	3.3	3.5	6
190	2.5	170	3.6	175	3.6	180	2.4	180	2.2	170	1.8	140	0.6	110	1.3	110	1.4	240	0.3	220	0.3	210	0.8	2.1	7
225	6.2	225	5.4	230	5.1	230	4.3	215	3.5	200	3.0	200	3.2	185	2.5	185	3.0	190	2.5	200	1.9	200	2.3	3.5	8
240	6.1	250	5.5	220	5.0	260	5.2	255	4.6	260	4.0	255	2.6	260	2.0	240	1.5	230	1.8	230	2.0	230	2.5	3.8	9
215	4.2	225	5.5	215	3.8	220	4.0	225	4.8	215	4.1	205	3.1	195	2.1	205	2.4	205	1.5	200	0.4	245	0.1	2.0	10
245	1.6	270	1.6	285	2.2	255	1.7	300	1.3	320	1.0	345	0.1	—	0.0	—	0.0	—	0.0	230	0.1	—	0.0	0.6	11
100	3.5	80	3.0	50	3.4	50	3.2	50	3.8	35	3.5	25	2.2	75	1.2	50	2.7	35	2.9	30	2.9	40	3.0	2.0	12
60	3.5	90	4.7	95	6.4	95	5.5	90	4.4	90	4.2	85	4.0	75	1.8	70	2.6	60	2.5	60	2.5	80	3.3	3.6	13
90	6.0	95	6.6	90	6.4	95	6.4	100	5.0	100	4.5	85	4.0	80	3.9	65	2.8	65	2.4	80	3.7	80	3.8	3.8	14
170	3.6	200	3.8	205	4.2	205	4.6	205	4.8	205	3.8	230	3.2	220	1.2	195	1.2	210	3.5	215	3.3	220	3.7	2.4	15
215	6.2	210	6.5	215	6.3	215	6.0	210	6.4	210	5.3	180	2.4	160	1.7	145	1.6	120	1.6	145	2.6	125	1.8	3.8	16
200	6.0	205	9.1	235	7.9	245	6.0	230	5.0	225	4.9	220	5.1	215	4.1	220	4.3	220	3.9	220	2.8	220	1.8	5.4	17
195	5.0	190	5.4	185	5.5	195	6.0	185	5.0	195	4.0	210	3.2	190	1.8	195	2.1	195	2.0	190	2.3	195	2.0	3.1	18
235	5.7	235	6.5	225	6.3	225	7.3	220	6.4	210	5.1	210	5.2	205	5.2	205	5.1	200	3.3	205	3.1	220	2.6	4.2	19
270	3.8	270	2.5	270	3.1	270	2.6	280	2.0	255	1.7	295	1.5	260	1.4	240	1.5	260	1.6	255	1.3	265	0.5	2.6	20
285	4.2	295	4.0	300	4.5	295	3.6	310	3.0	330	2.1	340	0.5	200	0.8	195	1.6	215	1.4	230	0.5	210	0.5	2.3	21
210	7.2	210	6.4	210	7.4	220	7.6	220	6.8	230	6.4	230	5.4	245	4.4	255	6.1	245	4.9	235	5.4	260	6.2	4.3	22
280	5.6	275	5.2	280	5.3	275	5.0	260	3.5	240	2.5	235	2.8	230	2.5	225	2.4	225	2.8	230	2.9	230	1.5	3.9	23
180	7.4	185	6.4	220	6.8	265	5.8	275	5.2	270	3.4	265	3.3	290	3.8	265	2.9	265	2.9	245	2.2	225	2.5	3.6	24
240	3.6	220	4.8	220	4.6	215	4.8	205	5.0	200	4.1	190	2.6	195	3.2	200	2.6	190	2.2	200	1.8	195	2.0	3.1	25
215	10.0	210	9.1	205	9.3	210	9.9	215	9.3	215	9.6	210	7.9	215	8.1	260	6.0	265	3.9	270	3.2	255	2.7	6.1	26
220	3.9	220	3.2	215	3.9	200	3.9	190	4.0	185	3.9	165	3.1	150	2.1	140	2.0	140	2.6	130	1.6	140	1.3	2.5	27
175	4.8	175	5.5	175	5.9	160	5.4	155	4.1	155	3.6	160	2.6	160	2.5	160	4.0	155	3.2	165	4.1	170	4.0	3.4	28
180	5.6	180	4.8	205	4.7	245	6.5	270	4.4	250	2.1	230	2.1	215	2.4	220	2.5	225	2.0	225	1.6	215	2.0	4.0	29
205	8.0	210	7.3	215	7.6	220	6.6	215	7.4	200	4.9	200	4.8	195	3.5	190	3.8	190	4.1	190	4.0	185	3.1	4.2	30
---	5.1	---	5.1	---	5.3	---	5.1	---	4.7	---	4.0	---	3.2	---	2.7	---	2.7	---	2.5	---	2.4	---	2.3	3.3	

OCTOBER, 1934.

°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°
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521. KEW OBSERVATORY:

 H_a (height of vane of anemometer above M.S.L.) = height of ground above

Dines Pressure Tubes Anemometer from Jan., 1926

Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	
Day	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	275	2.0	245	1.8	265	2.4	270	1.9	265	2.4	250	1.9	235	2.4	215	2.5	225	2.2	255	2.8	280	3.5	275	4.5
2	255	2.9	225	2.4	240	2.5	240	2.8	240	2.9	260	2.9	250	3.0	250	3.1	255	3.2	270	3.3	276	4.1	280	4.1
3	180	1.1	200	0.7	180	0.7	180	1.3	180	2.1	95	1.0	170	1.1	170	2.5	170	3.4	180	3.3	190	5.0	190	5.7
4	80	4.6	50	4.1	65	6.2	65	8.8	65	8.9	55	8.5	55	7.8	65	7.9	70	9.7	70	7.9	65	6.2	80	5.0
5	255	1.8	265	1.2	275	1.2	225	1.1	330	0.9	20	1.0	30	1.0	50	1.8	40	2.0	70	2.0	35	2.5	30	2.7
6	355	3.0	350	3.1	345	3.8	5	3.5	360	4.4	5	4.3	5	4.7	10	5.0	10	4.5	10	4.9	15	6.4	20	7.2
7	15	4.1	15	3.8	15	3.5	5	3.4	5	3.4	360	3.1	360	3.2	360	3.4	15	2.6	360	3.1	345	3.0	380	2.5
8	245	1.2	240	1.2	220	1.6	215	1.6	205	1.7	205	1.6	215	1.6	210	1.0	200	0.9	195	1.4	215	4.1	210	5.8
9	180	3.4	180	3.4	165	3.8	180	2.9	170	2.9	185	2.5	165	1.6	160	2.5	155	3.1	140	2.5	125	2.9	155	4.3
10	155	2.8	130	3.0	115	2.9	105	3.7	145	3.9	110	3.9	125	5.0	105	4.4	115	5.2	130	5.6	140	5.0	135	4.9
11	50	3.4	50	4.1	40	3.9	50	4.0	60	3.5	45	2.5	30	3.9	35	2.6	30	1.8	50	0.8	15	1.4	5	3.0
12	250	1.1	305	1.2	320	1.6	325	1.0	300	1.0	260	1.1	260	1.4	265	1.6	270	1.9	295	2.0	305	2.8	305	2.8
13	105	0.3	70	0.4	315	0.5	40	0.6	70	1.0	65	2.0	95	2.3	85	4.3	90	4.2	90	3.9	100	3.5	105	3.6
14	15	3.0	20	2.2	25	2.1	55	2.4	50	3.5	45	4.0	50	4.0	55	3.6	60	4.0	55	4.1	40	3.7	30	3.8
15	15	1.6	360	1.3	15	1.0	360	1.4	355	1.7	5	1.4	350	1.4	30	2.7	60	2.5	50	2.4	50	2.9	45	3.5
16	20	3.3	15	3.4	20	4.9	20	5.6	25	5.9	35	4.0	50	5.0	75	4.5	70	3.6	100	3.2	105	2.8	80	3.4
17	30	3.7	25	4.1	45	5.1	40	5.0	30	4.9	15	4.4	15	4.4	5	4.9	10	5.0	5	4.6	15	4.4	10	4.3
18	10	2.5	20	3.1	15	3.4	5	3.5	360	3.2	10	3.0	355	1.9	355	1.2	10	2.2	10	2.5	20	3.5	15	3.3
19	240	0.5	250	0.9	235	0.9	235	0.9	230	0.7	235	0.7	230	1.2	250	1.2	215	1.2	250	1.0	225	0.8	240	1.2
20	235	1.0	220	1.1	230	1.2	235	1.2	225	1.1	245	1.3	240	1.0	205	0.7	225	1.0	225	0.7	230	0.7	230	0.8
21	325	0.5	310	0.5	330	0.5	250	0.2	295	0.3	200	0.3	235	0.3	245	0.4	245	0.3	240	0.3	275	0.3	240	0.1
22	215	0.3	210	0.7	200	1.0	255	0.7	270	0.8	265	0.5	210	0.4	195	0.9	210	1.0	210	1.0	220	1.5	235	2.3
23	260	0.9	265	1.4	240	1.6	255	1.0	255	1.4	240	1.1	265	1.3	220	2.4	210	2.5	215	2.2	220	1.9	225	3.0
24	220	1.2	230	1.0	235	0.9	240	0.8	260	0.8	250	1.4	270	1.3	270	0.5	235	0.9	230	1.1	245	0.6	245	0.1
25	350	0.6	140	0.7	210	0.6	230	0.4	200	0.5	240	0.1	195	0.5	205	0.7	200	1.0	200	2.0	210	2.0	200	2.5
26	230	2.5	235	3.1	245	2.9	235	3.4	235	3.6	235	3.1	245	3.6	235	3.2	240	4.0	240	3.7	250	3.7	265	3.9
27	230	3.4	235	2.5	245	1.9	235	1.7	225	1.4	225	1.6	220	1.4	220	1.2	230	1.1	245	1.0	280	1.4	280	1.6
28	290	0.5	345	1.1	330	0.2	295	0.4	310	0.5	290	0.1	315	0.6	360	0.5	220	0.7	315	0.5	350	0.7	10	0.9
29	235	0.8	225	1.0	225	0.5	190	0.3	130	0.2	100	0.2	120	0.4	110	0.7	95	1.4	110	1.8	135	1.0	175	0.8
30	115	1.5	130	1.6	130	1.2	120	1.0	130	1.2	100	1.1	110	1.4	125	1.0	125	0.9	110	1.6	120	2.4	140	2.5
Mean	---	2.0	---	2.0	---	2.1	---	2.2	---	2.4	---	2.2	---	2.3	---	2.4	---	2.6	---	2.6	---	2.8	---	3.1

522. KEW OBSERVATORY: H_a = 5 metres + 25 metres.

	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s	°	m/s
1	145	3.0	165	2.6	200	2.2	220	1.7	210	1.5	180	1.6	150	1.7	175	1.7	180	2.0	200	2.1	210	3.9	215	4.4
2	190	4.4	200	4.3	200	5.1	195	6.0	195	6.8	200	6.0	200	6.0	190	5.8	190	5.2	185	5.8	185	6.5	190	6.6
3	245	5.6	245	5.0	240	4.3	235	4.9	230	5.2	230	5.0	225	6.0	220	5.2	215	5.0	220	5.0	230	4.8	225	4.9
4	210	4.9	215	4.8	220	4.8	210	3.1	200	3.4	185	3.2	180	4.0	190	4.5	185	5.0	180	5.4	195	5.5	190	4.9
5	190	5.0	190	4.9	210	4.5	215	4.4	210	3.8	220	3.4	225	4.5	220	5.0	210	4.2	210	5.7	220	7.1	220	8.6
6	220	0.5	190	0.5	130	0.3	170	0.9	160	1.5	110	1.6	110	1.9	180	2.6	200	4.5	205	6.0	200	6.5	200	5.5
7	205	5.9	210	6.0	210	5.0	210	4.3	210	3.1	210	3.2	205	3.0	195	3.0	200	2.7	190	2.6	210	3.2	235	4.8
8	185	6.5	180	6.6	190	6.3	190	7.1	190	7.4	195	7.6	195	7.9	200	7.7	200	5.7	205	6.6	210	6.6	205	7.7
9	160	5.8	150	6.8	160	6.6	160	6.5	160	6.0	160	7.8	155	8.0	160	8.0	155	6.4	155	7.6	150	7.2	160	8.1
10	185	1.8	190	2.4	195	3.2	165	2.2	165	1.6	205	2.2	220	1.0	160	1.1	135	0.3	190	0.8	185	1.2	225	1.3
11	195	0.3	190	2.0	180	3.1	185	4.0	190	2.7	190	3.0	190	2.5	190	2.6	185	3.4	185	4.6	185	5.2	180	6.7
12	140	5.6	135	6.0	130	5.8	135	5.1	135	4.9	140	5.1	140	4.3	165	3.2	175	2.5	195	4.0	220	7.3	230	6.0
13	175	2.8	170	3.2	185	2.5	185	1.4	165	2.6	175	3.5	170	3.0	160	3.2	165	3.5	170	4.3	180	3.8	180	5.6
14	165	2.5	150	2.1	140	2.3	155	2.5	145	2.4	140	2.8	135	3.2	130	3.5	120	3.8	120	3.5	150	4.0	145	4.5
15	205	3.9	180	3.1	190	4.0	200	5.8	185	5.0	180	7.0	185	6.2	185	6.0	180	5.9	185	5.9	190	5.4	185	5.6
16	155	2.3	130	2.0	110	2.0	100	2.1	80	1.1	50	1.0	360	1.6	345	1.6	315	2.5	310	2.4	290	3.0	285	3.5
17	260	0.2	330	0.3	285	0.7	225	1.6	255	1.3	275	0.9	255	1.1	250	0.6	235	1.1	220	1.4	255	1.7	270	1.8
18	185	7.0	180	8.3	175	7.9	175	7.1	185	6.1	200	5.4	200	5.8	215	6.4	215	4.8	215	6.5	220	7.2	215	6.9
19	205	5.7	205	6.6	205	6.3	205	7.8	205	6.1	200	5.5	195	4.9	200	5.2	190	4.4	190	4.8	185	4.8	190	5.0
20	285	3.7	285	3.6	285	3.5	290	4.4	270	3.5	270	3.0	270	3.5	270	3.5	270	3.7	275	3.2	280	3.2	295	4.4
21	270	2.5	280	1.5	265	1.6	275	2.0	300	1.6	230	1.4	210	1.7	215	1.4	220	0.8	210	1.2	225	1.2	265	1.1
22	290	0.5	80	1.5	85	2.2	70	2.5	90	1.6	85	2.0	105	2.0	110	2.0	95	2.5	85	2.0	135	0.7	90	2.0
23	95	3.5	100	3.5	100	3.8	95	3.7	95	3.0	95	3.5	100	3.8	115	3.0	115	3.3	115	3.5	125	3.8	130	5.5
24	105	2.4	100	1.7	95	2.5	95	3.0	95	3.2	90	3.8	110	3.9	105	3.8	100	3.8	100	3.7	100	4.4	90	5.2
25	100	1.3	95	0.7	140	1.0	105	1.0	115	2.0	120	1.9	125	2.7	180	3.0	100	3.0	105	3.3	115	4.0	110	3.5
26	120	4.6	135	5.8	140	6.0	160	5.2	180	4.8	200	4.5	205	3.9	200	5.5	190	3.5	190	3.3	190	4.3	195	4.5
27	220	2.0	230	2.0	220	1.4	215	2.0	225	3.0	190	2.2	190	2.6	190	2.7	180	3.0	180	3.0	190	5.0	180	5.5
28	185	2.8	195	2.8	180	3.5	180	2.6	185	2.7	155	2.7	165	2.7	180	1.7	170	2.4	185	5.2	185	5.3	175	4.2
29	160	3.9	155	3.1	155	2.5	175	2.0	200	3.6	210	3.3	245	5.1	240	5.1	250	6.1	265	7.6	275	7.3	275	6.4
30	235	3.6	230	3.2	220	3.0	215	3.4	205	3.7	200	3.1	200	2.8	195	3.1	205	5.0	195	5.9	205	6.6	215	7.5
31	220	6.5	220	6.4	220	5.1	220	5.8	235	5.1	225	4.8	225	6.0	240	4.4	250	4.0	260	3.3	245	3.6	260	5.0
Mean	---	3.6	---	3.7	---	3.6	---	3.7	---	3.6	---	3.6	---	3.8	---	3.7	---	3.7	---	4.2	---	4.7	---	5.1
Annual Mean	---	2.7	---	2.7	---	2.6	---	2.6	---	2.7	---	2.7	---	2.9	---	3.1	---	3.5	---	3.8	---	4.2	---	4.5
Hour G. M. T.	0 - 1		1 - 2		2 - 3		3 - 4		4 - 5		5 - 6		6 - 7		7 - 8		8 - 9		9 - 10		10 - 11		11 - 12	

NOVEMBER, 1934.

DECEMBER, 1934.

[illegible]

523. KEW OBSERVATORY: $H_a = 5$ metres + 23 metres.

1934.

Day	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust	Max. in a Gust	Time of Gust
1	m/s 3	h. m. 6 5	m/s 21	h. m. 16 55	m/s 5	h. m. 16 45	m/s 15	h. m. 16 10	m/s 9	h. m. 0 10	m/s 15	h. m. 16 15	m/s 9	h. m. 11 50	m/s 15	h. m. 23 55	m/s 12	h. m. 17 30	m/s 18	h. m. 11 35	m/s 12	h. m. 11 15	m/s 11	h. m. 14 10
2	6	22 20	17	12 40	13	12 15	16	20 0	10	23 0	17	18 50	11	16 45	23	13 45	17	23 50	5	23 25	10	9 5	16	4 10
3	8	22 50	11	21 10	15	13 30	13	17 20	12	16 5	15	14 50	9	18 25	13	12 40	17	0 30	17	15 0	13	12 40	13	0 35
4	15	13 20	15	22 30	12	15 30	12	9 0	9	22 45	16	14 15	12	17 40	12	18 0	13	11 20	23	13 50	17	9 5	13	22 55
5	10	13 20	13	0 40	15	18 55	13	22 25	17	15 0	14	15 5	9	16 20	13	14 30	8	13 10	13	14 30	11	22 30	17	11 25
6	18	12 55	8	12 40	11	0 20	11	0 20	21	15 20	17	13 5	12	20 25	12	7 35	13	15 20	15	19 30	16	11 5	15	20 10
7	18	11 30	10	13 25	15	11 10	9	4 40	13	10 10	11	18 45	11	10 55	13	12 30	8	11 20	17	13 15	10	0 55	14	23 55
8	13	0 5	18	10 15	9	16 55	6	16 50	11	16 20	13	14 15	12	21 5	11	8 0	12	11 50	12	2 20	12	11 20	17	7 5
9	9	23 25	13	13 40	9	23 45	11	12 10	6	1 50	9	11 40	12	13 10	14	13 5	14	11 45	13	13 50	14	16 35	18	7 5
10	15	14 0	9	1 10	14	15 45	12	22 55	14	14 40	11	15 55	11	12 10	21	16 25	10	13 5	12	14 15	13	9 15	7	2 35
11	21	23 50	7	15 0	11	9 40	15	13 5	8	10 55	13	16 10	13	12 5	12	11 25	6	11 55	10	10 35	9	12 50	14	13 50
12	23	0 45	3	20 10	9	4 30	22	12 15	11	22 55	8	6 10	9	11 15	14	15 45	8	10 50	13	13 55	9	12 30	15	11 0
13	17	23 35	10	20 50	9	2 20	14	14 30	14	7 15	9	18 5	9	11 10	17	14 10	11	14 30	13	23 30	9	11 30	13	11 25
14	26	8 55	10	23 55	20	17 35	16	11 15	18	10 5	11	13 25	13	16 30	12	7 35	12	13 25	18	22 50	9	16 0	10	19 40
15	20	13 50	10	0 10	25	12 45	18	15 35	15	18 25	9	12 55	15	12 20	11	16 0	11	17 15	18	9 25	13	19 20	17	20 10
16	15	21 50	8	13 40	18	19 15	14	15 35	15	2 5	10	18 10	10	10 30	9	16 30	13	13 5	19	8 45	12	3 15	9	14 20
17	23	14 55	5	3 45	15	13 25	15	15 20	15	17 15	10	18 45	9	16 50	5	14 5	19	14 35	11	10 50	12	4 10	14	23 55
18	22	21 55	5	0 25	18	15 45	17	18 30	15	11 15	13	17 45	22	19 5	9	13 40	13	15 30	9	11 0	9	3 10	16	0 40
19	17	0 15	11	14 20	17	13 50	18	9 0	18	11 20	18	11 5	11	10 10	11	12 50	15	15 45	8	3 0	3	12 30	16	2 50
20	9	13 30	13	13 35	10	19 35	11	17 45	13	10 35	18	11 30	11	21 10	22	14 40	11	10 50	12	14 20	3	4 25	11	13 30
21	3	17 55	10	11 35	11	9 55	13	7 40	16	17 40	16	17 15	12	4 15	19	16 10	10	12 5	19	23 25	2	22 20	5	1 5
22	5	23 10	7	3 20	11	16 55	11	15 35	15	9 40	21	9 35	15	19 15	16	13 15	17	14 30	17	0 30	5	12 35	6	22 50
23	7	15 5	7	10 0	5	7 50	14	22 15	11	15 45	17	19 30	12	14 10	13	11 15	14	11 50	8	14 20	5	11 30	10	11 40
24	4	16 50	9	18 15	9	11 50	14	3 5	11	1 5	14	2 50	14	12 35	9	14 20	17	12 30	15	11 20	4	6 15	10	13 40
25	16	21 30	15	7 40	8	14 10	17	14 20	14	19 20	9	16 40	10	14 30	11	13 20	11	15 55	23	19 10	9	23 55	11	22 20
26	12	13 10	17	13 40	10	22 30	15	10 45	14	1 25	12	14 50	21	14 20	11	16 20	22	17 45	15	3 40	11	12 45	11	1 40
27	14	14 20	19	10 5	15	14 30	7	15 35	10	17 0	16	12 0	15	14 30	10	17 40	10	13 15	21	10 35	7	0 20	14	14 10
28	10	14 25	11	4 5	16	11 50	6	15 20	9	15 15	13	18 15	19	9 55	13	16 45	13	14 15	15	5 40	3	1 25	15	15 10
29	13	2 5	-	-	14	11 5	14	18 40	9	23 45	17	17 15	21	16 5	15	13 20	14	15 45	13	14 35	3	19 40	17	8 55
30	7	23 35	-	-	9	12 55	14	12 35	13	10 45	13	12 20	14	12 55	15	13 20	17	14 10	7	14 30	9	14 25	16	12 40
31	14	23 20	-	-	11	11 30	-	-	9	9 15	-	-	15	16 15	11	15 30	-	-	13	14 25	-	-	13	6 30

DISTRIBUTION OF WIND SPEED: EXTREME VELOCITIES AS RECORDED BY THE DINES TUBE ANEMOGRAPH

524. KEW OBSERVATORY: $H_a = 5$ metres + 23 metres.

1934.

Month	DISTRIBUTION OF WIND SPEED.								EXTREME VELOCITIES.				
	More than 17.1 m/s.		10.8 to 17.1 m/s.		5.5 to 10.7 m/s.	1.6 to 5.4 m/s.	Less than 1.6 m/s.	No Record.	Highest Hourly Wind			Highest Gust	
	Dates of Occurrence.	Duration	No. of Days.	Duration	Duration	Duration	Duration	Duration	Year from N.	Speed	Mid. Time	Speed	Date
Jan. ...	---	hr. 0	2	hr. 10	hr. 191	hr. 331	hr. 212	hr. 0	° 240	m/s 13	day h. m. 14 8 30	m/s 26	day h. m. 14 8 55
Feb. ...	---	0	1	6	85	383	198	0	40	12	1 15 30	21	1 15 55
Mar. ...	---	0	0	0	147	451	146	0	210	11	15 10 30	25	15 12 45
Apr. ...	---	0	1	1	202	380	137	0	250	11	12 11 30	22	12 12 15
May ...	---	0	0	0	126	472	146	0	180	10	6 14 30	21	6 15 20
June ...	---	0	0	0	178	413	129	0	85	10	23 18 30	21	22 9 35
July ...	---	0	0	0	99	470	175	0	255	10	26 14 30	22	18 19 5
Aug. ...	---	0	0	0	87	494	163	0	225	10	10 17 30	23	2 13 45
Sept. ...	---	0	0	0	111	475	134	0	215	10	26 12 30	23	26 17 45
Oct. ...	---	0	1	4	158	492	90	0	215	13	4 15 30	23	25 19 10
Nov. ...	---	0	0	0	32	422	266	0	70	10	4 8 30	17	4 9 5
Dec. ...	---	0	0	0	164	506	74	0	220	9	5 16 30	18	9 7 5
Year ...	---	0	5	21	1580	5289	1870	0	240	13	Jan. 14 8 30	26	Jan. 14 8 55

TEMPERATURE IN THE GROUND AT DEPTHS OF 30 cm. (1 foot) AND 122 cm. (4 feet).

525. KEW OBSERVATORY: Readings in degrees absolute at 9h., Greenwich Mean Time.

1934.

Month	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.	30cm.	122cm.
1	75.7	79.2	76.1	78.8	75.7	78.5	78.3	79.8	83.6	82.2	87.8	85.2	90.8	87.8	92.2	89.6	87.8	89.0	87.5	87.9	79.5	85.4	81.0	83.0
2	75.3	79.2	75.2	78.8	75.6	78.5	79.1	79.8	84.8	82.3	88.5	85.2	92.0	87.8	91.9	89.7	87.9	88.7	87.4	87.8	79.3	85.1	81.1	82.9
3	76.1	79.2	74.7	78.8	76.1	78.5	79.7	79.8	84.9	82.4	88.6	85.3	92.3	87.9	90.9	89.8	89.0	88.7	86.9	87.8	79.9	85.0	82.1	83.0
4	76.9	79.2	74.5	78.6	76.1	78.5	79.3	79.9	84.8	82.6	88.5	85.6	92.2	88.0	90.7	89.8	88.9	88.7	86.6	87.8	80.2	84.8	82.9	83.0
5	76.7	79.2	75.0	78.5	77.1	78.4	78.9	80.0	84.6	82.7	87.6	85.7	92.1	88.1	91.0	89.6	88.3	88.6	85.7	87.7	79.9	84.6	83.0	83.0
6	76.1	79.2	75.5	78.4	77.6	78.6	79.3	80.0	83.9	82.8	87.9	85.8	92.3	88.2	91.3	89.6	88.4	88.6	85.0	87.5	80.2	84.3	82.3	83.1
7	77.5	79.2	75.7	78.4	77.0	78.7	79.0	80.0	83.9	83.0	87.2	86.0	92.9	88.3	90.9	89.5	89.2	88.5	86.3	87.3	79.9	84.2	82.8	83.1
8	78.0	79.3	76.1	78.4	78.7	78.8	78.5	80.0	84.3	83.0	87.4	85.8	93.2	88.4	90.7	89.5	90.4	88.5	87.1	87.2	78.8	84.1	82.7	83.1
9	76.3	79.2	75.9	78.5	76.7	78.8	79.3	80.0	84.7	83.0	88.3	85.8	93.3	88.6	91.1	89.4	89.8	88.6	88.0	87.2	80.0	84.0	83.0	83.2
10	76.0	79.4	75.4	78.4	77.0	78.8	78.8	80.0	85.1	83.1	89.0	85.7	93.3	88.8	90.9	89.3	88.8	88.6	85.4	87.1	80.9	83.9	81.9	83.2
11	76.7	79.4	76.2	78.3	78.0	78.7	80.1	80.1	85.7	83.1	89.4	85.9	93.3	89.0	89.9	89.3	88.4	88.7	86.3	87.1	80.7	83.9	81.4	83.2
12	78.0	79.4	75.8	78.5	78.3	78.8	81.4	80.1	86.5	83.2	89.2	86.1	93.9	89.4	89.4	89.3	89.0	88.7	86.5	87.1	80.1	83.7	81.7	83.2
13	77.7	79.3	75.2	78.5	78.1	78.8	81.0	80.1	87.9	83.4	89.2	86.1	92.7	89.1	89.0	89.2	89.3	88.6	86.3	87.1	79.5	83.7	81.0	83.1
14	78.4	79.5	75.5	78.5	78.3	79.0	82.0	80.2	87.7	83.7	90.2	86.3	92.0	89.2	89.1	89.2	89.9	88.5	87.0	87.1	79.7	83.5	81.0	83.1
15	78.0	79.5	75.5	78.4	78.1	79.1	82.3	80.5	86.2	84.0	90.6	86.3	91.2	89.2	89.1	89.1	90.1	88.6	85.7	87.1	80.1	83.3	81.1	83.1
16	77.1	79.6	75.3	78.4	78.0	79.1	84.0	80.7	86.2	84.1	90.7	86.6	92.3	89.2	89.8	89.0	90.4	88.5	83.9	87.0	80.6	83.2	81.2	83.0
17	77.8	79.6	75.7	78.4	78.1	79.1	84.2	80.9	85.5	84.1	91.2	86.7	92.0	89.1	90.7	89.1	90.1	88.6	83.2	86.9	80.4	83.2	80.6	83.0
18	79.2	79.6	76.0	78.3	77.9	79.1	84.1	81.1	85.2	84.1	92.4	87.1	93.5	89.2	91.0	89.1	89.3	88.6	83.5	86.7	80.3	83.2	80.8	82.9
19	79.3	79.7	75.4	78.3	77.6	79.1	82.9	81.4	85.7	84.1	92.4	87.1	92.4	89.1	91.2	89.0	88.7	88.7	84.1	86.4	79.9	83.2	81.0	82.8
20	77.7	79.5	75.1	78.4	78.0	79.1	82.9	81.6	85.5	84.1	91.0	87.3	92.1	89.3	90.7	89.0	88.7	88.8	84.9	86.3	79.2	83.1	81.2	82.8
21	76.2	79.8	75.7	78.3	78.7	79.2	83.0	81.7	85.9	84.1	90.0	87.3	92.7	89.3	90.2	89.1	88.3	88.8	85.1	86.1	79.0	83.1	80.4	82.8
22	75.3	79.8	76.1	78.2	78.0	79.3	82.9	81.7	86.8	84.1	89.3	87.5	92.3	89.4	90.3	89.2	87.4	88.7	85.5	86.2	79.1	83.0	79.2	82.6
23	74.9	79.7	76.1	78.3	78.0	79.3	82.8	82.0	87.1	84.2	90.0	87.5	92.7	89.5	90.0	89.2	87.0	88.4	84.8	86.1	79.0	82.9	79.4	82.5
24	74.7	79.5	75.7	78.3	78.0	79.3	82.5	82.0	87.0	84.4	90.0	87.5	92.6	89.4	89.9	89.1	86.8	88.3	83.8	86.1	80.0	82.7	79.2	82.2
25	74.6	79.2	76.7	78.4	79.2	79.3	82.6	82.0	87.1	84.8	90.0	87.6	91.4	89.7	89.9	89.1	86.0	88.2	84.6	86.1	80.7	82.7	79.0	82.2
26	74.6	79.1	76.9	78.4	79.5	79.3	82.6	82.1	86.9	84.7	90.0	87.6	91.9	89.6	89.2	89.1	86.3	88.1	85.0	86.1	80.9	82.7	79.3	82.2
27	74.7	79.1	76.0	78.4	80.0	79.4	82.7	82.1	86.6	84.8	90.1	87.6	92.0	89.7	89.7	89.1	86.2	88.0	84.6	86.1	81.1	82.7	79.2	82.1
28	74.9	78.9	76.0	78.4	79.6	79.7	82.8	82.1	87.1	84.9	89.1	87.7	91.3	89.4	90.0	89.1	87.4	88.0	84.6	86.0	81.7	82.8	79.8	82.0
29	75.7	78.9	-	-	79.2	79.8	82.3	82.1	87.0	85.0	89.2	87.7	91.6	89.5	89.3	89.1	88.8	87.9	83.0	86.0	81.8	82.8	80.2	81.8
30	75.0	78.9	-	-	78.4	79.7	83.0	82.2	87.5	85.0	89.2	87.7	92.0	89.5	88.1	89.1	87.3	87.9	81.5	85.9	81.7	82.9	79.7	81.9
31	75.6	78.8	-	-	78.3	79.9	-	-	87.7	85.1	-	-	92.7	89.5	87.6	89.1	-	-	80.7	85.7	-	-	81.0	82.0
Mean	76.5	79.3	75.7	78.4	77.8	79.0	81.4	80.9	85.9	83.7	89.5	86.6	92.4	89.0	90.2	89.3	88.5	88.5	85.1	86.8	80.1	83.6	81.0	82.7

The initial 2 or 3 of the readings is omitted. i.e., 275.0 degrees absolute is written 75.0.

Year... 83.7 84.0

MINIMUM TEMPERATURE "ON THE GRASS" DURING
THE INTERVAL 18h. to 7h. G.M.T.HEIGHT OF SURFACE OF UNDERGROUND WATER
Zero = 13 cm. above M.S.L.

526. KEW OBSERVATORY. Readings in degrees absolute.

1934.

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Day	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A	°A
1	68.1	74.2	68.6	72.4	79.1	78.5	80.9	82.9	75.3	83.0	87.6	78.2
2	70.7	67.0	66.5	77.4	80.2	82.1	84.2	86.9	74.1	80.7	71.9	80.3
3	76.3	62.9	70.0	75.2	79.1	79.6	82.6	82.6	85.6	79.5	71.8	83.2
4	71.3	73.6	68.4	75.2	75.8	78.6	79.3	76.7	83.0	81.3	73.1	83.1
5	71.4	75.5	76.9	70.2	78.4	80.3	79.7	77.3	77.6	74.1	81.3	
6	66.9	74.8	73.6	77.2	73.6	79.1	80.9	88.1	78.0	76.4	77.8	75.0
7	79.8	68.7	70.9	75.2	76.9	79.1	82.1	82.7	84.7	84.8	74.2	81.3
8	72.9	72.8	68.7	67.4	78.1	75.3	80.1	85.4	85.9	85.2	68.7	79.3
9	67.4	66.9	67.6	74.7	82.6	78.1	85.2	87.6	84.8	75.8	79.4	83.5
10	68.1	72.4	73.4	67.5	82.0	78.1	80.2	84.3	74.8	77.0	79.1	74.1
11	75.4	68.1	76.1	78.7	75.8	80.2	79.7	81.9	78.3	85.3	76.3	75.2
12	80.2	68.5	72.4	79.0	76.4	78.8	84.2	82.5	80.1	78.4	72.9	80.2
13	75.3	69.3	73.5	69.9	82.8	74.7	87.5	80.8	83.9	81.3	70.6	75.2
14	78.8	67.6	75.2	81.5	76.8	83.1	85.8	81.8	84.6	85.8	76.6	76.4
15	73.4	71.3	73.6	79.7	70.4	86.4	78.7	79.2	84.1	77.0	78.3	79.2
16	73.1	70.4	73.0	82.8	79.9	81.3	87.2	83.1	84.9	71.7	79.3	77.8
17	76.2	69.6	73.6	76.5	71.3	79.7	79.8	85.6	81.9	75.4	79.2	72.1
18	81.4	75.1	70.8	75.8	76.1	85.6	84.8	83.0	80.3	75.3	77.3	77.8
19	74.2	67.9	70.8	77.4	73.7	84.6	81.9	84.4	76.1	81.2	71.9	79.9
20	68.7	68.0	75.0	74.1	76.9	83.9	80.7	78.1	85.2	82.5	73.8	78.7
21	61.9	71.2	77.0	76.3	81.9	76.7	88.6	82.4	83.6	83.5	72.7	70.7
22	65.7	68.1	67.4	77.7	86.8	84.8	84.1	85.0	74.7	84.8	77.4	70.9
23	64.1	66.7	68.8	72.4	79.6	82.5	86.9	82.2	79.2	74.6	71.1	76.7
24	63.6	67.4	68.4	76.8	76.1	83.7	83.0	76.3	80.7	72.3	80.6	70.8
25	65.7	77.4	80.1	73.3	73.1	85.7	83.1	76.9	76.8	81.3	80.8	69.7
26	74.8	72.9	70.2	75.2	77.4	84.9	84.7	74.1	79.0	78.1	80.6	77.6
27	73.1	67.6	77.9	76.3	75.2	87.0	83.1	79.4	77.3	80.2	78.2	70.8
28	69.4	73.9	74.2	76.4	75.4	79.2	83.2	79.5	83.7	81.9	81.3	77.7
29	76.2	-	75.2	74.7	74.9	80.9	86.0	81.9	85.2	72.0	80.8	79.2
30	67.3	-	69.7	77.4	80.3	81.9	87.3	75.0	75.8	68.1	79.9	75.2
31	73.2	-	68.1	-	80.7	-	89.1	74.4	-	68.1	-	82.5
Mean	71.8	70.3	72.1	75.5	77.7	81.1	83.4	81.4	80.6	78.7	75.9	77.2

Year 77.2

The initial 2 or 3 of the readings is omitted, i.e., 275.0 degrees absolute is written 75.0.

528. KEW OBSERVATORY.

JANUARY, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).							Visibility.					Precipitation.					Remarks on the Weather of the Day.	
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h		21h
1	St.	St.	St.	10	10	10	10	10	10	C	B	A	A	A	A	...	...	...	...	...	...	F \sqcup a, p and n.
2	St.	St.	St.	10	10	10	10	10	10	G	F	F	F	F	F	...	...	...	...	...	...	•° m a, and n: f m • •° p.
3	St.	Stcu.	St.	10	10	10	10	10	2	G	G	H	G	G	D	...	...	...	...	...	...	•° early a: f \sqcup n.
4	St: Stcu.	Stcu.	Stcu.	9	10	9	10	9	10	J	H	H	H	1	J	•°	...	...	...	...	...	•° a and n.
5	---	Cur: Stcu.	---	0	0	4	7	0	0	1	G	1	1	H	H	...	...	...	...	...	...	\sqcup a and n.
6	Cur: Stcu: Acu.	Stcu: St: Acu.	St: Stcu.	6	9	9	10	10	10	J	1	1	1	J	J	...	...	...	...	...	...	\sqcup a: •° n.
7	Stcu: Ast.	Stcu: Ast.	Stcu.	10	10	10	-	10	8	J	1	1	-	J	J	•°	•°	---	---	---	---	•° a and p: •° •° n.
8	Stcu: Acu.	Acu: Ci: Cicu.	---	1	5	8	9	0	0	1	E	G	G	G	G	...	...	...	...	...	...	•° •° f \oplus a: \sqcup n.
9	St.	St.	---	10	10	10	10	0	0	B	B	X	X	A	1	...	...	...	...	...	...	\sqcup F a, p and early n.
10	St: Stcu.	St.	Stcu.	10	10	10	10	10	10	J	G	1	1	1	J	...	...	...	...	...	...	•° early p.
11	Stcu: Acu.	St.	Stcu.	9	8	10	9	9	10	J	1	H	1	1	J	...	...	...	...	...	...	•° •° ★° a: •° p: •° •° n.
12	Nb.	Acu: Ci: Cicu.	---	10	10	9	10	0	0	1	G	H	H	1	J	•°	•°	---	---	---	---	•° •° a.
13	St: Stcu.	St: Stcu: Ast.	Acu: Ast: Ci.	8	3	9	9	9	9	1	H	1	1	1	1	...	...	...	...	...	...	•° n.
14	Stcu: Nbst.	Stcu: Nbst.	Stcu.	10	10	10	-	9	4	1	J	1	-	J	J	---	---	---	---	---	---	•° •° early a: •° n.
15	St: Stcu.	Stcu: Nb.	Stcu.	10	10	10	2	1	0	J	1	K	J	J	J	...	...	...	...	...	...	•° •° a: •° p.
16	St: Stcu.	Ci: Cist.	St.	1	1	4	10	10	10	J	1	J	1	J	H	...	...	...	...	...	...	\sqcup a: •° •° n.
17	Stcu.	Stcu.	Cur: Stcu.	10	10	8	7	8	8	J	J	1	K	J	K	•°	...	...	...	...	...	•° a.
18	Cur: Stcu.	Stcu.	Ast: Acu.	9	10	10	8	9	4	K	J	J	J	J	K	...	...	...	...	...	...	•° early a: •° n.
19	Acu.	Cur: Ci.	---	2	8	6	7	0	0	1	H	J	1	H	G	...	...	...	...	...	...	•° early a.
20	---	---	---	0	0	0	1	0	0	1	F	H	H	F	C	...	...	...	...	...	...	\sqcup m f a: m \sqcup late p: F \sqcup n.
21	St.	Acu.	St.	10	10	1	-	10	0	A	X	E	-	D	D	...	...	...	---	---	---	F \sqcup f a: f \sqcup p and n.
22	St.	---	---	10	10	0	10	0	0	X	X	F	F	F	G	...	...	...	...	...	...	\sqcup F f a: z p: \sqcup n.
23	---	Ci.	---	0	0	3	0	0	0	C	C	1	1	G	B	...	...	...	...	...	...	\sqcup F z a: F \sqcup n.
24	St.	St.	---	10	10	10	10	0	10	B	A	X	X	A	A	...	...	...	...	...	...	F \sqcup a, p and n.
25	St.	St: Stcu.	St: Stcu.	10	10	10	10	10	9	1	G	G	1	1	H	...	...	...	...	...	...	F \sqcup early a: •° late n.
26	Stcu: Cumb: Ast.	St: Stcu: Ci.	Stcu: Ci.	9	9	9	7	4	8	1	H	1	J	G	G	•°	•°	...	...	...	...	•° •° a.
27	Stcu: Cumb.	Stcu.	---	8	9	8	1	0	10	J	1	G	G	G	F	•°	...	...	...	...	...	p •° a: m n.
28	Stcu.	Stcu.	St: Stcu.	10	9	9	-	10	10	H	F	H	-	G	G	---	---	---	---	---	---	m f a.
29	St: Stcu.	St: Stcu.	Stcu: Ast: Cist.	10	9	10	6	5	0	J	H	G	H	F	B	...	...	...	...	...	...	m F \sqcup n.
30	St: Stcu.	St.	Stcu.	10	10	10	10	10	10	G	G	E	F	F	F	...	...	...	...	...	...	\sqcup m f a: z p: m •° n.
31	Stcu: Frst.	Cur: Ci.	Stcu: St.	9	9	9	9	10	10	1	F	H	1	J	1	...	...	...	...	...	...	•° •° m a.
Mean Cloud Am't.				7.88	0.7	9.7	9.5	9.5	5													

529. KEW OBSERVATORY.

FEBRUARY, 1934.

1	Stcu: Cu.	Stcu.	---	9	6	9	8	0	2	J	J	1	1	1	1	...	...	...	...	...	...	p ° early a: p *° early p.
2	Stcu: Cu: Cist.	Stcu.	---	1	1	8	7	0	0	G	G	J	1	F	G	...	...	...	...	...	...	° a and n: m late p.
3	Cur: Stcu: Acu.	St.	St.	4	10	10	10	10	10	F	E	D	D	D	1	...	...	...	...	...	...	° m f ° a: f ° p and early n.
4	Stcu: Ast.	St: Stcu: Ast.	St: Stcu.	10	10	10	-	10	10	1	1	F	-	G	H	...	...	...	...	...	...	° m a: ° n.
5	Frstu: Ast.	Stcu.	St: Stcu.	10	10	10	10	10	10	1	G	1	1	G	G	...	...	...	...	...	...	° m a: ° n.
6	St: Stcu.	---	---	10	9	0	0	0	0	1	E	1	1	1	F	...	...	...	...	...	...	f a: m n.
7	Stcu.	Stcu.	St.	10	9	9	9	1	2	1	G	1	1	F	G	...	...	...	...	...	...	m ° n.
8	Stcu: Cu: Cist.	Stcu: Ci.	Stcu.	8	10	7	3	1	0	J	1	J	K	G	J	...	...	...	...	...	...	° a.
9	---	---	---	0	0	0	0	0	0	G	F	J	J	G	J	...	...	...	...	...	...	° m a.
10	Stcu: Acu.	Stcu.	Stcu.	10	9	9	9	9	8	G	G	1	1	F	G	...	...	...	...	...	...	p ° m late p.
11	---	---	Acu.	0	10	0	-	2	0	D	D	E	-	E	B	...	...	...	...	...	...	f ° a: f p: F ° n.
12	St.	---	St.	10	10	0	0	10	10	B	E	C	C	A	X	...	...	...	...	...	...	° F a and n: F p.
13	St.	St.	St: Stcu.	10	10	10	10	10	10	B	D	A	G	F	F	...	...	...	...	...	...	° F a: m late p and n.
14	---	---	---	0	10	0	0	0	10	A	A	D	E	F	G	...	...	...	...	...	...	° F a: f m p: ° n.
15	St.	---	St.	10	10	0	0	10	10	F	D	E	D	A	X	...	...	...	...	...	...	m f a: F p and n.
16	St.	---	---	10	10	0	0	0	0	B	A	D	H	E	F	...	...	...	...	...	...	F a: f z p and n.
17	St.	St.	St.	10	10	10	10	10	10	C	C	D	C	F	G	...	...	...	...	...	...	° F a: f m p.
18	St.	St.	St: Stcu.	10	10	10	-	9	0	G	F	E	-	F	F	...	...	...	...	...	...	z f a and p: m ° n.
19	---	Stcu.	Stcu: Cur: Ast.	0	0	7	9	6	0	E	E	G	H	G	F	...	...	...	...	...	...	° f a: m ° n.
20	---	Stcu.	Stcu.	0	0	8	8	1	1	G	E	1	J	F	G	...	...	...	...	...	...	° f a: m ° n.
21	Stcu.	Cur: Stcu.	Cur: Acu.	9	9	6	8	4	0	G	H	J	1	F	F	...	...	...	...	...	...	° a: m ° n.
22	St: Stcu.	---	---	10	10	0	0	0	0	G	G	H	1	G	G	...	...	...	...	...	...	° a and n.
23	St.	St.	---	10	10	10	10	0	0	C	E	F	F	F	A	...	...	...	...	...	...	° ° f m a: m p: m F ° n.
24	St.	St.	Stcu.	10	10	10	9	10	9	C	C	E	H	G	G	...	...	...	...	...	...	° F a: f ° p.
25	Stcu.	St.	St: Stcu: Ast.	10	10	10	-	10	10	J	1	H	-	G	G	...	...	...	...	...	...	° a, p and n.
26	Stcu: Acu.	Cur.	Stcu.	8	9	5	3	6	5	1	1	1	J	1	J	...	...	...	...	...	...	p *° a: ° n.
27	Stcu: Acu.	Stcu: Frstu.	Stcu.	8	2	6	3	10	9	1	1	1	J	H	1	...	...	...	...	...	...	p *° early a.
28	St: Ast.	Stcu.	Nb: Ast.	10	10	10	10	10	10	G	F	H	F	F	G	...	...	...	...	...	...	° ° * ° a and p: ° n.
Mean Cloud Am't.				7.3	8.0	6.2	5.7	5.3	4.9													
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.							

* Mean of 27 days. † Mean of 24 days.

530. KEW OBSERVATORY.

MARCH, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).							Visibility.					Precipitation.						Remarks on the Weather of the Day.
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	
1	Steu.	Steu.	---	2	8	8	0	0	0	F	F	F	E	E	F	...	...	...	...	...	...	p *° early a : m a and n : f p.
2	Steu: Acu: Cist.	Steu.	St: Nb.	7	9	10	10	10	10	G	1	1	1	G	G	...	...	...	...	...	...	early a : °° p : °° n.
3	Cu: Steu.	Freu.	Freu.	1	8	5	4	1	0	G	H	J	1	G	1	...	...	...	...	...	...	early a.
4	Ci: Cist.	Cu: Cist.	St: Steu: Ast.	9	10	10	10	10	9	J	H	K	-	G	K	...	...	...	...	...	...	early a : °° n.
5	Nb: Ast.	Steu: St.	Cu: Steu.	10	10	10	4	7	3	H	1	J	K	G	J	...	...	...	...	...	...	°° a.
6	Ast: Acu: Cist.	St: Nb.	Cu: Steu.	10	9	10	10	8	0	H	H	F	H	H	J	...	...	...	...	...	...	°° a and p.
7	Cist.	Cu.	Cu: Cist.	1	0	9	7	2	0	1	1	K	K	G	J	...	...	...	...	...	...	early a.
8	Ast: Cist.	Cu: Cist.	Steu: Acu.	10	10	9	10	6	0	G	G	J	1	G	1	...	...	...	...	...	...	early a : ⊕ a and p.
9	---	---	Cu: Cist.	0	0	0	5	2	10	B	D	1	1	G	1	...	...	...	...	...	...	F early a.
10	St: Frst: Ast.	Cu: Steu: Cist.	Cu: Cumb: Ci.	10	10	7	9	7	4	G	H	H	G	G	1	...	...	...	...	...	...	°° a, p and n : p °° ▲ p.
11	Nb: Ast.	Cu: Cumb: Acu.	Steu.	10	8	7	-	9	0	1	1	G	-	H	J	...	...	...	...	...	...	°° a : p °° p.
12	Nb: St: Steu.	St: Steu.	St: Steu: Ast.	9	10	9	10	10	10	H	F	G	G	F	G	...	...	...	...	...	...	m °° a and p : °° n.
13	Steu: Cist.	St: Ast.	Steu: Ast.	8	9	10	10	10	10	H	H	H	H	H	G	...	...	...	...	...	...	°° a and n : p °° late p.
14	St: Steu.	Steu: Ast.	Nb: Cumb.	10	9	10	10	10	10	G	G	1	1	1	J	...	...	...	...	...	...	°° early a : °° late p and n.
15	Cu: Steu: Ci.	Cumb: Ci.	Nb: Ast.	6	8	8	9	10	3	K	J	J	H	1	K	...	...	...	...	...	...	p °° ▲ * K a and p : p °° early n.
16	---	Steu: Ast.	Nb: Ast.	0	1	9	10	10	10	J	J	J	K	1	1	...	...	...	...	...	...	early : °° °° n.
17	St: Steu: Ci.	Cu.	Ast.	8	9	9	9	9	4	J	1	J	J	J	G	...	...	...	...	...	...	p °° early p.
18	Ci.	Cumb: Steu.	Cu.	2	3	8	-	2	0	H	1	K	-	1	K	...	...	...	...	...	...	°° a and p.
19	St: Ast.	Steu: Nb.	St: Ast: Cist	10	10	10	9	8	3	H	1	H	1	G	G	...	...	...	...	...	...	°° f a : °° °° p °° n.
20	St.	Nb: St.	Nb: Ast.	10	10	10	10	10	10	E	E	E	G	G	1	...	...	...	...	...	...	°° a and p.
21	St.	Steu.	St: Steu.	10	10	10	9	9	2	1	1	1	1	G	G	...	...	...	...	...	...	F early a.
22	St.	Cu: Ci.	Steu.	10	0	9	8	8	0	B	B	1	J	G	G	...	...	...	...	...	...	F f a.
23	St.	Cu: Cist.	Cu: Acu.	10	10	6	10	8	8	B	D	H	1	F	G	...	...	...	...	...	...	⊕ f m a : °° °° p : °° n.
24	Acu: Ci: Cist.	Steu: Ast.	Steu.	8	5	10	10	10	10	D	F	1	1	1	G	...	...	...	...	...	...	°° m a : m late p and n.
25	St.	---	St: Ci.	10	8	0	-	5	0	F	G	G	-	F	F	...	...	...	...	...	...	F m a.
26	St.	St: Steu.	St: Steu: Acu.	10	10	9	1	8	10	D	C	G	1	G	G	...	...	...	...	...	...	°° a.
27	St: Steu.	Steu.	Steu: Cu.	10	9	8	8	3	0	1	1	1	J	G	H	...	...	...	...	...	...	°° a.
28	Steu.	---	Cu: Cist.	7	6	0	0	2	5	1	1	1	J	G	G	...	...	...	...	...	...	°° a.
29	Steu.	St: Steu.	Cu: Steu: Ci.	9	9	9	9	3	8	G	G	G	H	H	H	...	...	...	...	...	...	°° a.
30	Steu.	Cu: Steu.	Cu: Steu: Acu.	1	8	8	8	3	0	G	H	1	1	G	G	...	...	...	...	...	...	°° a.
31	St: Steu.	Freu.	---	8	9	1	0	0	0	G	H	1	1	H	H	...	...	...	...	...	...	°° a.
Mean Cloud Am't.				7.37	6.7	7.7	4.6	5.4	5													

531. KEW OBSERVATORY.

APRIL, 1934.

1	Steu.	---	St: Ast.	9	9	0	-	10	10	J	1	1	-	G	J	...	...	...	...	...	...	°° p : °° n.
2	St: Ast.	St: Steu.	Acu.	10	10	8	6	1	8	1	G	H	1	1	J	...	...	...	...	...	...	°° a : °° p.
3	Steu: Acu.	Steu.	Freu.	9	10	9	10	1	5	1	1	1	H	H	H	...	...	...	...	...	...	m early a.
4	St.	St.	St.	10	10	10	10	10	10	G	H	H	H	G	G	...	...	...	...	...	...	°° p : °° n.
5	Cu: Steu: Acu.	Acu.	Acu: Ci.	3	0	4	5	3	0	F	F	1	H	H	J	...	...	...	...	...	...	°° a : °° p.
6	St: Steu.	Steu.	Steu: Ast: Acu.	10	10	10	10	10	10	J	H	H	1	G	J	...	...	...	...	...	...	°° early a : f m a n.
7	Steu: St: Ast.	Steu.	---	9	10	9	9	0	0	G	G	G	G	E	F	...	...	...	...	...	...	F f a : ⊕ early p.
8	St.	Cist.	St.	10	10	10	-	10	10	B	C	G	-	G	H	...	...	...	...	...	...	°° n.
9	St: Steu: Ci.	St: Steu.	St: Acu: Cist.	2	9	9	10	8	3	H	1	1	1	G	J	...	...	...	...	...	...	F a : °° °° n.
10	St.	Cu: Steu.	Ci: Cist.	10	0	8	10	6	10	B	E	H	J	G	1	...	...	...	...	...	...	°° a and p.
11	Nb: Ast.	Cu: Ast: Acu.	Steu: Ast: Acu.	10	10	9	10	8	7	J	1	J	J	G	H	...	...	...	...	...	...	°° a : p °° p : °° n.
12	St: Steu: Ast.	Cu.	Cu: Ci.	10	10	4	8	2	0	J	1	J	J	J	J	...	...	...	...	...	...	°° a.
13	Ci.	Cu: Ci: Cist.	Acu.	3	9	7	8	9	10	1	J	K	K	J	J	...	...	...	...	...	...	early : ⊕ a and p.
14	St: Steu: Ast.	Steu.	Steu: Ast: Acu.	9	10	10	10	9	8	J	1	J	J	J	J	...	...	...	...	...	...	°° a and p.
15	Steu: Ast: Acu.	Cu: Ci: Cist.	Ci: Cist: Cist.	9	9	8	-	7	2	J	J	K	-	K	L	...	...	...	...	...	...	°° a and p.
16	Steu.	Steu: Ast: Acu.	Cu: Acu: Ci.	10	10	8	3	5	5	J	J	K	K	K	K	...	...	...	...	...	...	early.
17	Steu.	Cu: Steu.	Cu: Acu: Ci.	1	8	7	7	6	8	1	J	K	K	K	L	...	...	...	...	...	...	°° a and p.
18	Nb: St: Ast.	Cumb: Nb: Ci.	Cu: Steu: Ci.	9	10	9	10	4	2	K	J	J	1	K	K	...	...	...	...	...	...	p °° p °° ▲ a.
19	Cu: Steu: Acu.	Cu: Steu: Ci.	Cu: Cumb: Acu.	9	9	9	6	4	2	K	K	K	K	K	J	...	...	...	...	...	...	early.
20	---	Cu: Steu.	Cu: Steu.	0	6	7	3	4	0	J	K	K	K	J	J	...	...	...	...	...	...	°° a and n.
21	St: Steu: Nb.	Nb.	Nb: Ast.	10	10	10	8	10	10	K	J	J	J	J	1	...	...	...	...	...	...	°° a and n.
22	Acu: Ci.	Cumb: Steu: Acu.	Cu: Ci.	8	7	8	-	4	3	1	1	J	-	J	J	...	...	...	...	...	...	late n.
23	Acu.	Cu: Steu.	Cu: Steu.	9	9	9	8	10	10	H	J	J	J	J	J	...	...	...	...	...	...	°° early a : K p °° ▲ late a : p °° T p.
24	Nb: St: Acu.	Cumb: Steu.	Cumb: Steu.	8	8	9	9	8	8	J	J	J	K	H	G	...	...	...	...	...	...	early : p °° °° late p : °° °° n.
25	Acu.	Cu: Steu.	Nb: Steu: Ast.	3	6	9	10	10	9	G	J	L	K	J	K	...	...	...	...	...	...	°° a : p °° p : K late p : °° n.
26	Steu: Cumb: Acu.	Nb: Ast: Acu.	Cumb: Nb: Ci.	9	8	10	9	9	9	J	1	1	J	K	H	...	...	...	...	...	...	°° a : °° a : °° late p and n.
27	Nb.	Steu.	St.	10	10	9	10	10	0	F	H	F	F	E	C	...	...	...	...	...	...	°° a : °° a : T m i p : f °° n.
28	Steu: Cu: Ast.	St.	St.	10	10	9	9	10	0	F	H	F	F	E	C	...	...	...	...	...	...	F a.
29	St.	Cu: Steu: Cist.	Cu.	10	0	9	-	3	0	B	E	H	-	1	J	...	...	...	...	...	...	°° a.
30	St: Steu.	Freu: Ci.	Ci: Cist.	10	9	7	6	2	0	H	1	1	J	1	J	...	...	...	...	...	...	°° a.
Mean Cloud Am't.				8.08	28	18	18	26	45	6												
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.							

* Mean of 27 days. # Mean of 25 days.

532. KEW OBSERVATORY.

MAY, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.						Remarks on the Weather of the Day.	
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h		21h
1	St.	---	---	10	10	0	0	0	0	H	H	H	G	H	G	...	...	...	...	...	...	f early a : p ●° p : m n.
2	St.	Stou.	St: Stou: Ast.	10	0	10	10	9	8	D	H	H	G	H	F	...	...	...	...	...	...	early.
3	Stou.	Stou: Ci.	Acu.	8	2	8	9	8	10	G	H	J	J	1	J	...	...	...	...	...	...	early.
4	St: Stou: Ast.	Ast.	Acu: Ast: Cist.	10	10	10	7	9	0	1	1	1	J	1	J	...	...	...	...	...	...	●° ● p ●° a : ⊕ late p.
5	Nb: Stou: Ast.	Cu: Stou: Cicu.	Cu: Cist.	10	10	8	3	9	0	J	1	K	L	K	K	●°	●°	●°	...	...	...	...
6	St: Ast: Acu.	Stou.	Stou.	10	10	10	-	9	10	K	K	K	-	K	J	...	...	...	...	...	...	●° a : ●° ● n.
7	Stou.	Cu: Stou: Acu.	Cu: Ci: Cist.	9	8	9	6	6	3	J	J	J	K	K	J	...	...	...	...	...	...	early a.
8	Ast: Acu.	Stou: Ast: Acu.	Nb: Ast.	10	10	10	10	10	10	1	1	J	J	1	J	...	...	...	...	...	...	i ●° p : ●° ● n.
9	St.	St: Stou.	St: Acu.	10	10	10	10	10	10	H	1	1	G	F	G	...	...	...	...	...	...	●° early a : f m p.
10	St.	Cu: Stou.	---	10	5	7	2	0	0	F	G	1	1	1	H	...	...	...	...	...	...	m early.
11	---	---	---	0	0	0	0	0	2	G	G	1	1	J	H	...	...	...	...	...	...	early.
12	Ci: Cist.	Ci: Cist.	Cu: Ci: Cicu.	7	9	9	6	3	2	F	H	H	J	K	J	...	...	...	...	...	...	early a : K early n.
13	Acu: Ci.	---	Cu: Ci.	1	0	0	-	7	1	K	K	K	-	K	K	...	...	...	...	...	...	early a.
14	Cu.	Cu.	Stou: Cumb.	1	3	6	7	7	0	K	K	J	J	K	K	...	...	...	...	...	...	p ●° early n.
15	---	Cu: Stou: Acu.	Stou.	0	2	9	6	9	9	1	J	K	K	K	K	...	...	...	...	...	...	early a.
16	Nb.	Cu: Cumb: Ci.	Stou.	10	9	8	8	7	3	J	J	K	J	K	K	●°	...	...	...	...	...	●° a : p ●° ▲° p.
17	---	Cu: Cumb: Acu.	Cu: Acu.	0	4	8	7	3	2	J	K	K	K	K	J	...	...	...	...	...	...	⊕ a.
18	Stou: Acu: Ast.	Freu: Ci.	Freu.	8	10	6	8	2	1	K	K	K	K	K	K	...	...	...	...	...	...	p ●° late p.
19	St: Ci.	Stou: Ast: Cist.	Cu: Acu: Ci.	7	9	9	10	9	9	J	J	K	K	K	K	...	...	...	...	...	...	early a : p ●° late p.
20	Stou: Ast: Cist.	Stou: Cu.	Stou: Acu: Ci.	10	10	8	-	7	8	K	J	K	-	K	K	...	...	...	...	...	...	early a : p ●° late p.
21	St: Stou.	Stou.	Cu: Stou: Acu.	10	9	9	9	8	9	J	J	K	J	J	J	...	...	...	...	...	...	early a : p ●° late p.
22	Stou.	Stou.	Acu.	9	9	9	6	3	4	K	K	K	K	K	J	...	...	...	...	...	...	early a : p ●° late p.
23	Acu: Ast.	Stou.	Cu: Stou.	10	9	9	9	6	1	1	J	1	K	H	H	...	...	...	...	...	...	early a : p ●° late p.
24	Cist: Cicu.	Cu: Ci.	Ci.	3	1	4	7	4	2	1	K	K	K	K	H	...	...	...	...	...	...	early a : p ●° late p.
25	Acu: Cist: Cicu.	Cumb: Stou: Acu.	Stou: Ast.	4	6	9	10	10	9	J	J	K	J	1	J	...	...	...	...	...	...	early a : p ●° late p.
26	Cu: Acu: Ci.	Cu.	Cu.	7	8	6	6	3	2	J	J	J	J	1	1	...	...	...	...	...	...	early a : p ●° late p.
27	Acu.	Cu: Ci.	Cu: Ci.	8	6	7	-	6	2	J	K	K	-	J	J	...	...	...	...	...	...	early a : p ●° late p.
28	Stou: Cist.	Stou.	Ci: Cist.	10	10	9	4	1	0	1	1	J	J	J	1	...	...	...	...	...	...	early a : p ●° late p.
29	Stou: Ci: Cist.	St: Stou.	Cu: Stou.	6	9	9	9	9	2	1	1	H	G	1	...	...	...	...	...	...	...	early a : p ●° late p.
30	---	Cu: Ci.	Ci: Cist.	0	5	1	0	1	1	H	J	K	K	J	J	...	...	...	...	...	...	early a : p ●° late p.
31	Ci: Cist.	Stou: Ast: Acu.	Acu.	8	8	10	10	9	2	G	H	1	1	1	1	...	...	...	...	...	...	early a : p ●° late p.
Mean Cloud Am't.				7.0	6.8	7.7	3.6	6.6	4.1													

533. KEW OBSERVATORY.

JUNE, 1934.

1	Cu: Acu.	Acu: Ci.	Ci: Cist.	7	7	3	3	9	5	1	J	J	J	J	1	...	...	...	...	...	...	early n.
2	St: Acu: Ci.	Cu: Acu.	Ci: Cist.	2	3	3	2	1	3	J	J	J	J	K	J	...	...	...	...	...	...
3	Cu: Ci: Cist.	Cu: Ci: Cicu.	---	4	8	1	-	0	1	K	K	K	-	K	K	...	...	...	...	...	...
4	Stou.	St: Stou.	Stou.	9	10	10	9	9	10	J	1	1	J	J	J	...	...	...	...	...	...
5	Stou.	Cu: Stou.	St: Stou.	9	9	7	4	10	10	J	J	K	K	J	H	...	...	...	...	...	...
6	Cu: Cist.	Cumb: Stou: Ast.	Cumb: Stou: Ast.	7	5	10	10	10	10	K	J	K	J	1	1	...	...	...	...	...	...	i ●● a, p and n.
7	Cu: Ci: Cist.	Cumb: Stou.	Cu: Stou: Ast.	8	7	9	9	9	8	J	J	K	J	J	J	...	...	...	...	...	...	p ●● early p.
8	Stou: Acu.	Cu: Ci.	Cumb: Freu: Acu.	8	8	10	8	9	8	1	J	J	J	J	J	...	...	...	...	...	...	early a : p ●● late p.
9	Cu.	Stou.	Stou: Cumb: Ast.	6	7	9	8	10	3	1	1	K	K	H	1	...	...	...	...	...	...
10	Cu.	Cu: Stou.	Stou: Acu.	3	3	8	-	4	8	H	H	1	-	J	1	...	...	...	...	...	...
11	St: Stou.	St: Stou.	---	9	9	9	3	0	1	H	H	1	J	J	J	...	...	...	...	...	...
12	Stou.	---	---	10	10	0	0	0	2	1	1	H	J	J	1	...	...	...	...	...	...
13	Cist.	Ci: Cist.	Cu: Stou.	2	4	9	8	6	2	1	1	J	J	J	J	...	...	...	...	...	...	early.
14	Stou.	Cu: Stou.	Stou: Ast: Acu.	8	9	9	9	10	10	J	K	K	K	1	1	...	...	...	...	...	...	●● n.
15	St: Stou: Ast.	Cu: Stou.	Acu.	10	9	8	10	3	2	G	H	G	H	H	H	...	...	...	...	...	...
16	Acu.	Cu: Stou.	Cu: Stou.	0	0	7	8	5	1	G	1	J	J	J	J	...	...	...	...	...	...
17	Ci: Cist.	Cu: Ci.	Cu: Ci: Cicu.	8	8	8	-	7	2	H	J	K	-	J	J	...	...	...	...	...	...
18	Cicu: Ci.	Cu: Ci.	Cu: Ci.	9	6	8	8	3	8	1	1	J	K	K	K	...	...	...	...	...	...
19	Ast: Acu.	St: Stou.	Cumb: Ci: Cicu.	10	9	10	9	8	8	K	K	K	K	L	K	...	...	...	...	...	...	●● a and p.
20	Cu: Acu.	Cumb: Stou.	Cu: Stou: Cist.	8	9	8	8	4	2	K	K	K	K	K	K	...	...	...	...	...	...	p ●●● a.
21	Stou: Acu: Ast.	Nb: Ast: Acu.	Nb.	9	10	10	10	10	10	J	K	K	K	J	K	...	...	...	...	...	...	●●● a, p and n.
22	Cu: Stou.	Cu: Ci.	Cu: Acu: Ci.	7	7	2	2	3	5	L	K	L	L	L	K	...	...	...	...	...	...	K ●● n.
23	St: Stou: Ast.	Acu.	Ast: Cist.	10	9	8	9	9	10	G	1	K	K	J	J	...	...	...	...	...	...	●●● early a : p ●● p.
24	St: Ast.	St.	Stou.	10	10	10	-	8	9	1	1	H	-	G	G	...	...	...	...	...	...	f p ●● a : K ●● n.
25	St.	Cu: Cumb.	Cu: Stou: Acu.	10	10	9	8	7	9	E	G	K	L	K	G	...	...	...	...	...	...
26	St.	Cu: Cist.	Stou: Ast.	10	10	9	9	10	10	G	H	K	K	K	J	...	...	...	...	...	...	f early a : p ●● early p.
27	Nb.	Stou.	Stou: Cist.	10	10	10	10	9	9	1	J	K	G	K	K	...	...	...	...	...	...	●● a and p.
28	Cu: Stou.	Cumb: Acu: Ast.	Cu: Cumb.	4	7	9	7	9	8	1	K	K	K	J	H	...	...	...	...	...	...	p ●● p : K ●●● early n.
29	St: Stou: Ast.	Cu: Stou.	Cu.	10	10	8	8	3	0	1	J	K	K	K	1	...	...	...	...	...	...
30	---	---	Ci.	0	0	0	2	3	4	J	J	J	K	K	K	...	...	...	...	...	...
Mean Cloud Am't.				7.2	7.4	7.7	4.7	6.6	3.5	2												
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).					Visibility.					Precipitation.								

* Mean of 27 days. † Mean of 28 days.

534. KEW OBSERVATORY

JULY, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.					Remarks on the Weather of the Day.		
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h		18h	21h
1	Acu.	Cu: Freu: Ci.	Cu.	1	2	5	-	3	2	1	J	K	-	K	J	...	...	...	...	...	...
2	Cu: Stou.	Cu.	Stou: Cu.	4	2	7	7	2	5	0	1	J	J	1	1	...	...	...	...	...	...
3	Stou: Acu: Ast.	Cu: Stou.	Cu: Stou.	7	7	7	7	4	0	1	1	1	J	J	1	...	...	...	...	...	...
4	---	Cu: Ci.	Cu.	0	2	4	4	3	1	1	1	J	J	K	1	...	...	...	...	...	...	Δ early.
5	---	---	Ci.	0	0	0	0	2	1	J	J	J	J	K	J	...	...	...	...	...	...
6	Ci.	Cu: Ci.	Ci.	2	0	1	0	1	4	G	H	K	K	K	K	...	...	...	...	...	...	Δ early.
7	Acu: Ci.	Ci.	Ci.	1	2	1	2	1	0	G	J	K	K	K	K	...	...	...	...	...	...	Δ early.
8	---	---	Cist.	0	0	0	-	1	2	1	J	K	-	K	J	...	...	...	...	---	---	Δ early.
9	Stou: Cu.	---	---	7	0	0	0	0	1	G	H	K	K	K	K	...	...	...	...	...	...
10	---	---	---	0	0	0	0	0	0	G	H	K	K	K	1	...	...	...	...	...	...
11	---	---	Acu: Ci.	0	2	0	0	2	8	0	1	K	K	K	K	...	...	...	...	...	...	Δ early, < late n.
12	Cu: Stou.	Stou: Ast: Acu.	Ast.	8	8	10	10	10	10	0	0	H	J	J	J	●	...	...	...	...	...	● ● ● a.
13	Stou: Ast.	Cumb: Acu.	Cumb: Acu: Ast.	10	10	10	10	10	10	0	J	J	1	K	H	...	...	...	...	●	...	● ● ● K p and n.
14	Cu: Stou: Acu.	Stou.	Stou.	3	9	9	9	8	2	1	K	K	K	K	K	...	...	...	...	...	...
15	Acu.	Freu.	Cumb: Stou: Acu.	1	1	8	-	6	3	K	K	-	L	K	...	...	...	...	---	---	---
16	Stou: Acu.	Cu: Stou.	Stou.	8	9	9	10	9	10	K	K	K	K	K	K	...	...	...	...	...	...
17	---	Freu.	Ci: Ciou.	0	3	2	2	1	8	J	K	L	L	K	J	...	...	...	...	...	...	Δ early.
18	Cu: Stou.	Cu: Ci.	Cumb: Acu: Ci.	8	6	3	9	9	9	G	1	J	L	J	J	...	...	...	...	●	...	p ● ● ● p. ● ● ● ▲ K early n.
19	---	Cu: Stou.	Cu: Acu: Ci.	0	4	8	8	8	5	K	L	-	L	K	K	...	...	...	...	...	...
20	Acu: Ciou: Ci.	Cu: Acu.	Cu.	6	8	8	6	4	1	J	K	K	K	L	1	...	...	...	...	...	...
21	Nb: Stou: Ast.	Stou: Freu.	Cu: Stou.	10	10	9	5	9	6	G	H	J	J	J	1	●	...	...	...	...	...	● ● ● early a : p ● ● T late p.
22	Stou.	Cu.	Cu: Stou: Cist.	9	0	7	-	9	10	1	1	J	-	J	1	...	...	...	...	---	...	● ● ● K early n.
23	St: Stou: Acu.	Cu.	Ci: Stou.	9	8	6	6	9	6	J	J	K	L	L	K	...	...	...	...	...	...
24	Stou: Acu: Ci.	Cumb: Nb.	Cumb: Acu: Ci.	6	10	10	10	9	9	K	1	H	J	1	...	...	...	...	●	●	●	● K late a and early p.
25	St: Ast.	Cu: Ast.	Stou: Acu: Ci.	10	2	10	10	6	6	E	H	K	K	K	K	...	...	...	...	...	...	Δ f early a.
26	St: Stou.	Cu: Ci.	Cu: Stou.	9	8	8	9	9	8	J	J	K	L	L	L	...	...	...	...	...	...
27	Cu: Ci: Cist.	Cu.	Cu: Stou.	5	9	9	8	8	5	K	K	L	L	L	K	...	...	...	...	...	...
28	St: Stou.	Cu: Ci.	Cu: Stou: Ci.	9	9	8	6	8	8	K	K	K	K	L	K	...	...	...	...	...	...
29	St: Nb: Cist.	Cumb: Ast.	Stou: Cumb: Acu.	9	10	10	-	8	9	K	L	-	L	L	L	...	...	...	...	---	---	p ● ● a and p : T ● ● n.
30	Cu: Ci.	Cu: Stou.	---	1	10	7	3	0	2	K	J	K	L	L	L	...	...	...	...	...	...
31	Ast: Acu.	Cu: Stou: Cist.	Cu: Ci.	9	10	6	5	4	1	K	K	L	L	L	K	...	...	...	...	...	...	● ● p ● a.
Mean Cloud Am't.				4	8	5	2	5	9	5	6	5	3	4	9							

535. KEW OBSERVATORY.

AUGUST, 1934.

1	Acu: Ci: Ciou.	Cu: Cumb: Ast.	Nb: Acu: Ast.	9	9	10	9	9	9	K	K	K	L	K	K	...	...	...	...	...	...	...	p ● ● late p : ● ● ● n.
2	Stou: Cumb: Ast.	Cu: Stou.	Stou.	9	9	9	9	9	8	K	K	K	K	K	K	●	...	...	...	...	...	...	● ● ● a : p ● ● early n.
3	Cu: Acu: Ci.	Cumb: Stou: Ast.	Cumb: Acu: Ci.	4	9	10	8	8	1	K	K	K	K	K	1	...	...	...	...	...	...	...	p ● ● p : p ● ● T early n.
4	Ci: Cist.	Cu: Stou: Ci.	Cu: Stou.	7	1	6	6	6	3	1	1	K	K	L	K	...	...	...	...	...	...	...	Δ early.
5	Stou: Acu.	Cu: Stou.	Cu: Ast: Acu.	8	8	9	-	9	10	K	L	L	-	L	K	...	...	...	...	...	...	...	Δ early : ● ● n.
6	Stou: Nb: Ast.	Stou: Ast.	Cu: Stou: Acu.	10	10	10	9	9	3	K	K	K	K	K	K	...	...	...	...	...	...	...	● ● a.
7	Nb: St.	Frst: Acu: Ast.	Ast: Acu.	10	10	10	10	9	5	H	F	1	K	J	K	●	...	...	...	...	...	...	● ● m a.
8	St.	St.	St: Acu: Cist.	10	10	10	4	8	9	1	H	1	1	1	1	...	...	...	...	...	...	...	...
9	Nb: Ast.	Cu: Stou.	Cu: Stou: Acu.	10	7	7	9	8	6	G	J	K	K	K	K	●	...	...	...	...	...	...	● ● early a.
10	Stou: Frou: Ast.	St.	Stou: Acu: Ci.	9	10	10	9	9	8	K	K	J	J	K	K	...	...	...	...	...	...	...	● ● a : ● ● ● n.
11	St: Stou: Ast.	Cu: Cumb: Ci.	Stou: Cumb.	10	9	7	9	3	3	K	J	K	L	K	K	...	...	...	...	...	...	...	p ● ● a : p ● ● p.
12	St: Stou.	Cu: Nb: Ast.	Cumb: Acu: Cist.	10	10	10	-	7	1	K	K	J	-	K	K	...	...	...	...	...	...	...	● ● ● a : ● ● ● K p.
13	Stou.	Cumb: Acu: Ciou.	Cumb: Acu: Cist.	9	9	9	9	10	10	1	J	J	J	J	J	...	...	...	...	...	...	...	● ● early a : p ● ● p : ● ● ● n.
14	Stou.	Cu: Stou.	Cu: Stou.	1	10	8	9	2	1	1	1	J	J	J	1	...	...	...	...	...	...	...	Δ early.
15	---	Cu: Cumb.	Cu: Ci.	0	1	7	5	1	0	H	1	J	K	K	K	...	...	...	...	...	...	...	Δ early.
16	St: Acu: Ast.	Cu: Stou.	Cu: Cumb.	10	10	9	7	1	1	J	J	K	K	K	J	...	...	...	...	...	...	...	...
17	Acu.	Cumb: Acu: Ast.	Stou.	9	9	9	9	10	9	1	1	J	J	J	J	...	...	...	...	...	...	...	...
18	Ciou.	Cumb: Stou: Ciou.	Cu: Stou: Ciou.	4	4	8	8	7	1	F	H	J	K	K	K	...	...	...	...	...	...	...	Δ m early.
19	Ast.	Cu: Ci: Cist.	Stou: Ci.	10	10	9	-	1	0	1	K	K	-	L	J	...	...	...	...	...	...	...	...
20	Ast: Cist.	St: Stou.	Frou.	7	10	7	7	3	0	K	J	K	K	K	K	...	...	...	...	...	...	...	Δ ● ● ● a.
21	---	Stou.	Frou.	0	7	6	6	4	5	K	K	K	K	K	K	...	...	...	...	...	...	...	...
22	St: Ast: Acu.	Cu: Stou: Acu.	Stou: Ast: Acu.	9	8	6	9	9	10	K	K	L	L	K	K	...	...	...	...	...	...	...	● ● ● early : p ● ● p : ● ● ● n.
23	St: Cist.	Cu: Cumb: Ci.	Cu: Cumb.	1	5	7	5	4	0	K	K	L	L	L	K	...	...	...	...	...	...	...	Δ early : p ● ● p.
24	---	Cumb: Acu: Ci.	Cu: Stou: Acu.	0	1	9	4	7	3	H	1	K	K	K	J	...	...	...	...	...	...	...	Δ early.
25	Stou: Cist.	Cu: Ci.	Cu: Stou: Ci.	10	6	5	4	3	0	H	H	J	J	K	K	...	...	...	...	...	...	...	Δ early.
26	---	Cu.	Cu.	0	1	5	-	1	3	1	J	K	-	K	J	...	...	...	...	...	...	...	f Δ early.
27	St.	Cu: Stou: Ci.	Cu.	10	9	8	5	2	0	E	H	1	K	J	K	...	...	...	...	...	...	...	f Δ early.
28	Acu.	Cumb: Acu: Cist.	Frnb: Nb: St.	3	3	10	10	10	10	H	1	J	K	J	H	...	...	...	...	...	...	...	f Δ early : ● ● ● p and n.
29	St.	Cumb: Ci: Cist.	Cumb: Acu: Ci.	9	8	9	8	4	5	J	J	K	L	L	K	...	...	...	...	...	...	...	● ● ● T a : p ● ● ● p.
30	Ast: Acu: Cist.	Cu: Cumb: Ci.	Cumb.	9	9	8	9	3	0	1	1	K	K	K	J	...	...	...	...	...	...	...	Δ early : p ● ● ● T p.
31	St.	Cu: Cumb.	Cumb: Acu: Ci.	10	0	7	5	8	1	B	H	L	L	L	J	...	...	...	...	...	...	...	F early.
Mean Cloud Am't.				7	0	7	2	6	2	7	4	5	9	4	0								
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.	
	Cloud Forms.			Cloud Amount (All Forms).						Visability.						Precipitation.							

* Mean of 26 days. † Mean of 27 days.

536. KEW OBSERVATORY.

SEPTEMBER, 1934.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.					Precipitation.						Remarks on the Weather of the Day.	
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h		21h
1	St.	Cu: Ci: Cist.	Cu: Acu: Ci.	10	1	6	2	7	3	C	H	K	K	K	K	...	...	...	...	...	...	F early a.
2	Acu: Ast.	Cu: Cist.	St: Stcu: Ast.	1	0	9	-	10	8	K	K	L	-	L	L	...	...	...	...	...	...	early a: ● ● early n.
3	St: Ast: Acu.	Cu: Ci: Cu.	---	9	9	4	6	0	0	K	K	L	K	K	K	...	...	...	...	...	...	● ● early a.
4	Ast: Acu: Ci.	Cu: Ast: Cist.	Cu: Stcu: Acu.	8	9	9	9	8	1	J	K	K	K	L	...	...	...	...	...	...	...	early a: p ● ● early n.
5	Ci.	Cu.	Cu.	3	0	4	4	2	2	J	K	K	K	K	...	...	...	...	...	...	...	early a.
6	Ci: Cist.	Cu: Acu: Ci.	Ci: Cist.	6	9	6	7	9	0	E	H	K	K	H	J	...	...	...	...	...	...	f early a.
7	Acu: Ci: Cist.	Cu: Acu.	Cu: Acu.	8	3	8	5	1	0	H	J	K	K	K	J	...	...	...	...	...	...	early a.
8	Cu: Acu: Cist.	Stcu: Acu.	Stcu: Frnu: Ast.	5	6	9	9	10	9	K	K	L	L	K	K	...	...	...	...	...	...	early a: ● ● n.
9	Cu: Acu.	Cu: Stcu.	Cu: Stcu.	1	7	8	-	2	0	J	J	L	-	L	L	...	...	...	...	...	...	p ● ● early a.
10	Ci.	Cu: Stcu: Ci.	Cu: Stcu: Ci.	7	8	6	6	2	0	H	1	K	K	K	K	...	...	...	...	...	...	early a.
11	---	Cu: Stcu.	Acu: Ci.	0	0	7	4	6	0	E	1	K	K	J	1	...	...	...	...	...	...	f early a.
12	---	Cu: Stcu.	Cu: Stcu.	0	0	8	9	8	0	G	G	1	1	J	K	...	...	...	...	...	...	f early a.
13	St.	---	---	10	10	0	0	0	0	E	H	1	J	1	J	...	...	...	...	...	...	f early a.
14	---	---	Ciou: Ci	0	0	0	0	1	0	F	F	J	J	1	J	...	...	...	...	...	...	m a.
15	Cu.	Cu.	Cumb: Stcu.	2	5	7	5	9	6	E	F	J	J	J	J	...	...	...	...	...	...	f m a: T p: ● ● n.
16	---	Cu: Ci.	Cu: Ast: Ci.	0	9	3	-	5	0	1	J	K	-	K	K	...	...	...	...	...	...	early a.
17	Stcu.	Cu: Stcu: Ci.	Stcu: Ast: Ci.	7	5	9	9	8	8	1	J	K	K	K	K	...	...	...	...	...	...	p ● ● p.
18	Ast: Acu.	Cu: Stcu: Cist.	Stcu: Frnb.	9	9	9	9	9	1	1	K	K	K	K	K	...	...	...	...	...	...	early a: p ● ● early n.
19	Cu: Stcu: Ci.	Cu: Ci.	Frst: Acu: Ast.	5	7	8	9	10	10	J	J	K	K	J	J	...	...	...	...	...	...	early a: ● ● n.
20	St: Stcu: Acu.	Stcu: Cumb.	Cu: Stcu.	8	9	10	10	10	10	J	J	J	K	1	1	...	...	...	...	...	...	p ● late a.
21	Stcu: Ast: Acu.	Cu: Ast: Acu.	Acu: Ci.	9	9	9	9	7	2	J	J	K	K	K	F	...	...	...	...	...	...	z n.
22	St: Stcu.	Frnb: Stcu: Nbst.	Frnb: Nbst.	9	10	10	10	10	2	G	J	J	J	1	J	...	...	...	...	...	...	● ● a and p: ● ● early n.
23	---	Cu: Cist.	Ast: Ci: Cist.	0	0	8	-	9	7	K	K	-	1	1	1	...	...	...	...	...	...	21 h.
24	Acu: Ast.	Stcu.	Cumb: Acu: Cist.	9	10	10	10	9	6	1	H	J	J	J	J	...	...	...	...	...	...	● ● a: ● ● p.
25	Ci: Cist.	Cu: Stcu.	Stcu: Ci: Cicu.	5	1	6	3	6	1	1	J	K	K	1	K	...	...	...	...	...	...	early a.
26	St: Acu: Ast.	St: Stcu.	Frnb: Nbst.	9	10	9	10	10	10	K	J	K	L	K	K	...	...	...	...	...	...	● ● n.
27	Ci: Cist: Ciou.	Cu: Ci: Cist.	St: Stcu.	3	7	8	9	9	10	G	H	K	K	J	K	...	...	...	...	...	...	early a.
28	St: Stcu.	---	---	8	9	0	0	0	0	1	J	K	K	J	L	...	...	...	...	...	...	early a.
29	Stcu: Acu: Ci.	Cu: Stcu: Cist.	Stcu: Cumb.	7	7	9	10	10	3	J	J	J	H	J	H	...	...	...	...	...	...	p ● ● p.
30	---	Cu: Stcu: Ci.	Acu: Ci.	0	1	9	-	5	4	J	K	L	-	K	K	...	...	...	...	...	...	early a.
Mean Cloud Am't.				5-3-5-7-8-2-6-6-4-3-4																		

537. KEW OBSERVATORY.

OCTOBER, 1934.

1	St.	Cu: Stcu.	Stcu: Ast.	10	10	9	10	10	2	J	1	K	L	J	K	...	...	...	...	...	...	● ● early a.
2	Nbst.	Frnb: Nbst.	Stcu: Frst.	10	10	10	10	10	10	G	E	H	G	F	F	...	...	...	...	...	...	f ● ● a: ● p: m ● ● n.
3	St: Ast: Cist.	Stcu: Ast.	Cum: Nb: Acu.	9	9	9	10	8	7	H	1	K	K	J	K	...	...	...	...	...	...	p ● ● a: ● ● late p.
4	Cu: Stcu.	Cum: Stcu.	Cu: Cumb: Acu.	3	5	8	7	3	8	K	K	K	K	H	J	...	...	...	...	...	...	● ● early a and late p: ● ● early n.
5	Stcu: Acu: Ci.	Cu: Acu: Ci.	Cum: Stcu: Ci.	6	9	8	8	8	0	K	J	K	J	1	L	...	...	...	...	...	...	early a: p ● ● a and p.
6	Cu: Acu: Cist.	Frnb: Nbst.	Frnb: Nbst.	8	10	10	10	10	10	G	H	J	J	J	K	...	...	...	...	...	...	early a: ● ● p and n.
7	St: Ast.	St: Stcu.	Stcu: Ast.	10	10	10	-	10	10	J	J	J	-	J	J	...	...	...	...	...	...	● ● a: ● ● n.
8	St: Stcu: Ast.	Cu: Stcu: Acu.	Stcu: Ast.	9	7	9	10	9	1	1	1	1	1	1	1	...	...	...	...	...	...	● ● early a.
9	Stcu: Acu: Cist.	Cu: Stcu: Acu.	Acu.	8	9	7	7	1	6	J	1	K	K	H	1	...	...	...	...	...	...	early a.
10	Stcu: Acu: Ci.	Cu: Acu: Cist.	Stcu: Acu: Cist.	8	8	5	9	9	10	G	1	K	K	1	K	...	...	...	...	...	...	early a: ● ● n.
11	Cu: Stcu: Ci.	Frnu: Acu: Cist.	Stcu.	8	7	7	5	10	9	G	1	K	J	G	G	...	...	...	...	...	...	f till 9 h.
12	---	Cu: Cist.	Stcu.	0	6	8	9	6	9	D	F	J	1	1	1	...	...	...	...	...	...	early a and n.
13	Nbst.	Stcu: Cu: Acu.	St: Stcu.	9	9	9	10	10	10	1	1	K	J	1	K	...	...	...	...	...	...	early a.
14	Frst: Ast.	Stcu: Ast: Acu.	Stcu.	10	10	10	-	9	7	J	K	K	-	J	K	...	...	...	...	...	...	early a: p ● ● p.
15	Cu: Stcu: Acu.	Cu: Stcu.	St.	5	9	9	9	1	0	K	K	J	1	G	G	...	...	...	...	...	...	early a: p ● ● p.
16	Cu: Stcu: Ci.	Cu: Stcu.	Stcu: Acu: Ci.	4	9	8	7	9	4	J	J	J	J	J	K	...	...	...	...	...	...	p ● ● a and p.
17	Frnb: Nbst.	Frnb: Nbst.	St: Ast.	10	5	10	10	10	1	G	H	1	G	G	G	...	...	...	...	...	...	● ● a and p.
18	Frst: Acu.	Stcu.	Stcu: Ci.	9	10	10	9	8	10	G	H	J	J	1	J	...	...	...	...	...	...	early a.
19	Stcu.	Stcu: Acu: Ci.	St: Stcu.	9	9	8	10	10	9	1	K	1	1	1	H	...	...	...	...	...	...	early a.
20	Frst: Nbst: Cist.	Frnb: Ast.	Frnu: Acu.	9	10	10	9	9	10	J	1	1	1	1	K	...	...	...	...	...	...	early a.
21	Stcu.	Stcu.	Stcu.	9	9	9	-	8	10	K	K	-	K	K	...	...	...	...	...	...	...	● ● a: □ n.
22	Frst: Ast.	Cu: Stcu.	St: Ast: Cist.	10	9	3	7	7	10	1	J	K	K	G	G	...	...	...	...	...	...	early a.
23	Stcu: Acu.	Cu: Ci.	Acu: Ci.	2	0	6	7	5	4	G	1	K	K	F	G	...	...	...	...	...	...	early a: z early n.
24	Stcu: Ast: Cist.	Cu: Stcu: Ci.	Ast: Cist.	9	9	9	9	8	7	J	1	K	K	J	K	...	...	...	...	...	...	early a: □ n.
25	St: Ast: Cist.	Stcu: Frst: Acu.	Frnb: Nbst.	9	10	9	9	10	9	1	J	J	J	1	J	...	...	...	...	...	...	late p: ● ● n.
26	St: Ast: Acu.	Cu: Acu: Ci.	Stcu.	2	3	9	9	9	2	K	K	K	J	J	J	...	...	...	...	...	...	● ● 20 h.
27	Stcu: Frnu.	Cu: Stcu.	Stcu.	9	10	9	9	10	8	K	K	K	K	K	K	...	...	...	...	...	...	p ● ● a.
28	Frnb: Nbst.	Cu: Stcu: Acu.	Cu: Stcu: Cist.	9	9	8	-	2	0	K	K	-	G	J	...	...	...	...	...	...	...	early a.
29	Stcu: Acu.	Cu.	Cu: Stcu.	2	0	8	3	1	0	1	1	J	K	H	G	...	...	...	...	...	...	m early a: ● ● 18 h.
30	Stcu: Acu.	Stcu: Ast.	Stcu.	8	7	10	9	10	0	G	F	1	1	G	G	...	...	...	...	...	...	early a.
31	St.	St.	Nbst.	10	10	10	10	10	10	D	F	G	H	G	H	...	...	...	...	...	...	F m a: ● ● ★ p: ● ● n.
Mean Cloud Am't.				7-5-8-0-8-5-8-6-7-8-6-5																		
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						

* Mean of 25 days.

† Mean of 27 days.

538. KEW OBSERVATORY.

Day.	Cloud Forms.			Cloud Amount (All Forms).						Visibility.						Precipitation.						Remarks on the Weather of the Day.
	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	
1	Cu: Acu: Ci.	Cu: Stcu.	Stcu.	3	0	7	7	8	2	G	H	1	1	G	1	...	...	...	...	...	...	early a : p °° n.
2	Stcu.	Cu: Acu.	Stcu.	9	9	5	3	9	9	G	H	K	J	F	F	...	...	...	...	...	...	°° a : m n.
3	Stcu: Acu: Ci.	Cu: Ci.	---	6	8	4	0	0	0	G	H	K	J	H	H	...	...	...	...	...	...	...
4	St: Ast: Cist.	Nbst.	St.	10	10	10	-	10	10	J	1	E	-	E	F	...	...	...	...	...	...	°° °° i a and p : m n.
5	St.	Stcu: Acu.	St.	10	10	9	10	10	10	G	H	H	G	G	H	...	...	...	...	...	...	°° °° n.
6	Frnb: Nbst.	Frnb: Nbst.	Frnb: Nbst.	10	10	10	10	10	9	H	H	1	H	H	H	...	...	...	...	...	...	°° °° a and p.
7	St: Ast.	Cu: Acu: Cist.	---	10	10	8	8	0	9	G	G	1	1	1	G	...	...	...	...	...	...	°° n.
8	Cu: Ast: Acu.	Frnb: Nbst.	St.	9	8	10	10	10	10	G	G	H	H	H	1	...	...	...	...	...	...	early a : °° °° a and p : °° °° n.
9	St: Ast.	Frnb: Nbst.	Frnb: Nbst.	10	10	10	10	10	10	G	1	H	J	J	J	...	...	...	...	...	...	°° °° °° a, p and n.
10	Frnb: Nbst.	Nb: Cumb: Ast.	Nbst.	10	10	9	9	10	7	G	1	G	G	G	G	...	...	...	...	...	...	°° °° °° a, p and n.
11	Cu: Stcu.	Cumb: Stcu.	St.	8	6	9	-	10	0	G	F	G	-	F	J	...	...	...	...	...	...	f m a : p °° m p : a n.
12	St.	Stcu: Acu: Cieu.	Acu: Ast.	10	9	7	5	2	0	E	F	H	H	F	A	...	...	...	...	...	...	a f m a and n.
13	St: Ast.	Frnu: Stcu.	---	10	9	4	3	0	0	D	E	F	H	G	Q	...	...	...	...	...	...	°° f °° m a : a n.
14	St: Stcu: Ast.	St.	Frnb.	10	10	10	10	10	10	F	E	F	F	E	F	...	...	...	...	...	...	°° °° f m a, p and n.
15	Frst: Ast.	Stcu.	St.	10	10	8	9	10	10	F	F	G	F	H	J	...	...	...	...	...	...	f °° °° m a : m p : °° n.
16	Frnb: Nbst.	St.	St.	10	10	10	10	10	10	F	F	E	E	F	F	...	...	...	...	...	...	°° °° m f a : f m p : m n.
17	St.	Nbst.	St.	10	10	10	10	10	9	G	H	G	G	G	J	...	...	...	...	...	...	°° °° p.
18	Stcu.	Stcu: Acu.	Stcu: Cu.	9	9	9	-	8	0	G	H	1	-	F	E	...	...	...	...	...	...	°° °° a : m p : f a n.
19	St.	St.	St.	10	10	10	10	10	10	B	B	B	A	A	A	...	...	...	...	...	...	F a, p and n.
20	St.	Stcu.	---	10	10	10	9	0	0	B	B	E	E	A	X	...	...	...	...	...	...	F i a and p : F a n.
21	St.	St.	St.	10	10	10	10	10	9	B	B	D	D	C	C	...	...	...	...	...	...	F a and n : f p.
22	St.	Stcu.	---	10	9	2	0	0	0	D	D	H	H	F	F	...	...	...	...	...	...	f a : m a n.
23	St.	Stcu.	Stcu.	10	9	10	9	10	10	F	F	H	G	H	G	...	...	...	...	...	...	°° °° m a.
24	St.	St.	St.	10	10	10	10	10	10	F	D	D	D	E	F	...	...	...	...	...	...	m f °° °° a : f p : f m n.
25	St.	Stcu.	St.	10	10	10	-	10	10	C	D	F	-	G	1	...	...	...	...	...	...	F m a : f m p.
26	Stcu.	Stcu.	St: Stcu.	9	9	1	2	9	10	1	1	1	H	1	K	...	...	...	...	...	...	f a.
27	Stcu.	Stcu.	Stcu.	9	9	4	3	9	10	G	E	1	H	H	1	...	...	...	...	...	...	f a : m °° °° p : f °° °° n.
28	Stcu: Ast.	St: Stcu.	Nbst.	10	10	10	10	10	10	G	E	G	F	F	D	...	...	...	...	...	...	F m °° °° °° a : f °° °° p : f n.
29	Frnb: Nbst.	Stcu.	St.	10	10	10	10	10	10	C	E	F	E	E	E	...	...	...	...	...	...	f a.
30	St.	Stcu.	Stcu.	10	10	10	9	10	10	E	G	H	J	G	G	...	...	...	...	...	...	f a.
Mean Cloud Am't.				9.4	9.18	1.7	5.7	8.7	1													

539. KEW OBSERVATORY.

DECEMBER, 1934.

1	Stcu.	Stcu: Ast.	Stcu.	10	10	10	10	10	10	1	H	H	H	J	J	...	...	...	...	...	...	n.
2	Frnb: Nbst.	Nbst.	Stcu.	10	10	10	-	10	9	J	1	1	-	J	K	...	...	...	...	...	...	a and p : n.
3	Cu: Stcu: Ast.	St: Stcu.	St.	10	10	10	10	10	7	J	1	1	J	1	K	...	...	...	...	...	...	n.
4	Frst: Ast.	Frnb: Nbst.	St: Nbst.	10	10	10	9	8	10	J	H	1	H	1	1	...	...	...	...	...	...	a : n.
5	Stcu: Cu: Acu.	Stcu: Acu.	Stcu: Frcu.	8	9	9	10	8	0	J	1	K	H	J	K	...	...	...	...	...	...	a and p.
6	Frnb.	Nbst.	Nbst.	10	10	10	10	10	10	G	1	1	1	1	1	...	...	...	...	...	...	a, p and n.
7	Cu: Stcu: Acu.	Cu: Ci.	Acu: Ci.	8	4	4	7	3	8	J	1	K	H	J	K	...	...	...	...	...	...	early a.
8	Stcu: Frcu: Ast.	Stcu: Ast: Acu.	Stcu.	10	9	9	9	7	8	J	1	J	1	J	J	...	...	...	...	...	...	early a : n.
9	Stcu: Frcu: Ast.	Frnb: Nbst.	Stcu: Frcu: Acu.	9	9	10	-	8	7	K	J	1	-	J	1	...	...	...	...	...	...	a : early n.
10	Stcu.	St: Stcu.	---	3	9	8	3	0	10	D	C	F	F	A	B	...	...	...	...	...	...	f m a and p : F n.
11	Stcu: St: Acu.	Stcu: Ci.	Nbst: Ast.	8	9	9	10	10	10	1	1	1	1	1	1	...	...	...	...	...	...	early a : n.
12	Frnb: Nbst.	Cu: Cist.	Cu: Stcu.	9	10	9	3	2	3	J	H	K	1	1	J	...	...	...	...	...	...	early a : p n.
13	Cu: Stcu.	Cu: Stcu.	Frnb.	4	6	8	3	10	10	1	1	J	1	1	1	...	...	...	...	...	...	a, p and n.
14	Stcu: Acu.	Nbst.	Nbst.	7	9	10	10	10	10	1	H	G	F	H	H	...	...	...	...	...	...	p and n.
15	St: Stcu. Acu.	Frnb: Nbst.	Frnb: Nbst.	9	9	10	10	10	9	K	J	1	H	1	J	...	...	...	...	...	...	a, p and n.
16	Frnb: Ast.	Stcu: St.	---	9	10	10	-	0	7	G	G	F	-	G	G	...	...	...	...	...	...	a : n.
17	---	---	Stcu: Acu.	0	10	0	3	8	10	D	B	G	G	G	1	...	...	...	...	...	...	F i a : n.
18	Stcu: Cumb: Acu.	Frnu: Acu: Ci.	Frst: Acu.	7	7	8	8	3	10	K	1	1	1	J	1	...	...	...	...	...	...	early a and n : p p.
19	Stcu: Cu.	Cu: Stcu: Cist.	St: Stcu.	9	7	9	10	10	10	J	J	1	1	1	1	...	...	...	...	...	...	p a : p and n.
20	Stcu.	Stcu: Acu.	Stcu.	9	9	9	5	9	8	G	G	1	J	1	1	...	...	...	...	...	...	a.
21	Acu.	Acu.	Acu.	3	0	7	7	5	10	G	C	E	E	A	A	...	...	...	...	...	...	f a and p : F n.
22	St.	Stcu.	St.	10	10	10	10	10	10	B	B	E	E	F	G	...	...	...	...	...	...	F i a : f m p.
23	Frnb: Nbst.	Stcu: Acu.	---	10	10	9	-	0	10	G	G	H	-	E	D	...	...	...	...	...	...	a : f n.
24	St: Ast.	St: Stcu.	St.	9	10	10	10	10	10	1	G	G	F	G	G	...	...	...	...	...	...	early a : z p.
25	St.	St.	St.	10	10	10	-	10	10	G	F	E	-	F	1	...	...	...	...	...	...	m f a : m p : n.
26	St: Cist.	Stcu: Ast.	Stcu: Ast.	4	9	10	10	9	9	K	1	1	H	1	H	...	...	...	...	...	...	early a : p n.
27	St: Ast: Cist.	Frnb: Nbst.	---	8	9	10	10	0	7	J	H	1	1	H	1	...	...	...	...	...	...	p and n : 21 h.
28	Frnb: Nbst.	Stcu: Ast.	Frnb: Ast.	10	10	10	10	10	10	J	H	1	1	1	1	...	...	...	...	...	...	a, p and n.
29	Stcu.	Stcu: Acu.	Stcu.	9	10	9	8	7	0	J	J	1	1	1	1	...	...	...	...	...	...	a.
30	St: Stcu: Acu.	St: Stcu.	St: Stcu.	7	10	10	-	9	10	J	J	1	-	1	J	...	...	...	...	...	...	a, p and n.
31	Frnb: Nbst.	Cu: Stcu.	---	10	9	6	7	0	8	J	1	1	1	1	1	...	...	...	...	...	...	early a.
Mean Cloud Am't.				6.08	8.6	8.6	1.6	9.8	4													
Mean Annual Cloud Am't.				7.27	5.7	6.7	2.6	4.5	4													
Day	7h	13h	18h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	7h	9h	13h	15h	18h	21h	Remarks on the Weather of the Day.
	Cloud Forms.			Cloud Amount (All Forms).					Visibility.					Precipitation.								

* Mean of 26 days.

† Mean of 25 days.

ELECTRICAL OBSERVATIONS. UNDERGROUND LABORATORY. WILSON METHOD.

Mean value for periods of 20 min. about 14h.
 F = Potential Gradient; unit 1 volt/cm. $\lambda+$ = Conductivity due to positive ions; unit 10^{-18} ohm/cm.
 i = Air-earth current; unit 10^{-16} amp/cm.²

540. KEW OBSERVATORY:

1954.

Month	January			February			March			April			May			June		
Day	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	4.55	27	124	4.25	14	60	...	...	...	...	...	...	2.30	46	105
2	...	...	...	3.80	30	113	5.10	15	78	...	...	...	...	...	...	...	...	...
3	8.70	13	113	...	...	...	...	...	...	...	...	...	2.80	40	112	...	...	...
4	4.65	15	68	...	...	...	...	...	...	1.85	28	49	2.40	37	89	1.65	140	229
5	...	...	...	5.20	20	105	5.70	29	184	4.90	11	58	...	...	...	...	...	...
6	...	...	...	4.40	16	73	...	...	...	3.60	22	75	...	...	...	...	...	...
7	...	...	...	...	...	...	3.80	29	112	...	...	...	3.25	37	119	2.75	59	162
8	9.30	8	73	3.45	31	105	3.85	30	115	...	...	...	3.05	44	134	1.35	74	99
9	...	...	...	5.00	27	134	2.80	26	71	2.25	33	75	3.25	34	109	...	...	...
10	...	...	...	...	...	...	...	...	...	2.05	52	105	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	4.05	43	175	4.05	27	109	2.05	88	183
12	4.95	13	62	...	...	...	...	...	...	3.80	35	132	...	...	...	3.00	30	90
13	...	...	...	4.60	12	57	5.50	21	116	3.00	61	182	...	...	...	1.45	148	215
14	...	...	...	7.95	10	82	...	...	...	...	...	...	2.30	60	137	1.90	77	144
15	3.85	19	75	8.70	5	42	...	...	...	...	...	...	2.30	49	114	3.55	59	212
16	7.80	14	111	4.50	22	102	3.25	41	133	3.30	60	197	...	...	...	...	...	...
17	3.05	23	69	...	...	...	...	...	...	3.15	77	241	...	...	...	...	...	...
18	2.90	27	79	...	...	...	...	...	...	...	...	...	...	...	...	1.45	68	100
19	3.15	26	81	3.30	25	84	...	...	...	3.55	48	169	...	...	...	...	...	...
20	...	...	...	3.20	29	91	...	...	...	2.45	68	168	...	...	...	1.95	86	168
21	...	...	...	...	...	...	2.80	19	53	...	...	...	...	...	...	...	...	...
22	...	...	...	4.50	29	129	3.45	34	118	...	...	...	2.50	56	140	1.70	85	143
23	4.15	21	89	5.00	18	91	...	...	...	...	...	...	2.40	45	108	...	...	...
24	...	...	...	...	...	...	...	...	...	...	...	...	2.00	57	115	...	...	...
25	1.95	21	40	...	...	...	...	...	...	3.80	49	185	...	...	...	2.05	47	95
26	5.65	17	95	2.30	36	83	3.90	26	100	...	...	...	...	...	...	...	...	...
27	...	...	...	3.75	33	125	4.00	40	159	...	...	...	...	...	...	...	...	...
28	...	...	...	...	...	...	5.80	23	130	...	...	...	2.10	69	146	...	...	...
29	7.40	12	90	...	...	...	...	...	...	...	...	...	2.15	38	80	...	...	...
30	6.10	8	50	...	...	...	2.65	21	55	4.95	29	145	4.50	29	132	...	...	...
31	3.85	19	73	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mean	5.15	17	78	4.65	23	98	4.05	26	104	3.35	44	140	2.80	44	117	2.10	77	150
No. of days used.	15	15	15	16	16	16	14	14	14	14	14	14	14	14	14	13	13	13
Month	July			August			September			October			November			December		
Day	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i	F	$\lambda+$	i
1	...	...	...	2.30	83	193	...	...	...	2.70	38	104	5.90	21	126	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	6.00	27	160	...	...	...
3	1.65	55	90	2.45	70	170	2.30	55	128	2.90	53	155	...	...	...	3.80	19	73
4	1.40	46	64	...	...	...	2.50	80	200	2.15	62	134	...	...	...	3.65	35	127
5	3.85	30	116	...	...	...	2.55	64	163	4.60	36	165	2.50	25	63	...	...	...
6	4.25	30	127	...	...	...	4.15	34	140	...	...	...	...	...	...	...	...	...
7	...	...	...	4.65	22	102	1.85	78	144	...	...	...	4.05	27	110	4.75	19	88
8	...	...	...	2.10	51	107	...	...	...	3.45	30	103	...	...	...	...	...	...
9	4.20	29	123	1.90	74	141	...	...	...	3.45	32	110	...	...	...	...	...	...
10	...	...	...	...	...	...	2.05	84	171	4.55	33	152	...	...	...	...	...	...
11	3.45	31	101	...	...	...	2.55	69	176	3.90	40	158	...	...	...	3.60	21	77
12	...	...	...	...	...	...	3.25	51	168	3.20	28	88	7.15	15	110	5.20	20	105
13	...	...	...	...	...	...	4.10	42	172	...	...	...	3.85	18	70	4.20	29	120
14	...	...	...	2.20	64	140	4.00	42	170	...	...	...	...	...	...	...	...	...
15	...	...	...	2.30	67	163	...	...	...	...	...	...	7.10	9	62	...	...	...
16	1.90	69	131	...	...	...	...	...	...	2.50	35	88	6.25	10	61	...	...	...
17	1.50	75	113	2.35	55	130	...	...	...	...	...	...	...	...	...	...	...	...
18	1.30	73	94	...	...	...	2.05	80	163	4.95	19	93	...	...	...	3.30	18	57
19	...	...	...	...	...	...	2.10	55	117	4.05	35	143	5.70	4	22	3.15	19	60
20	1.35	76	104	1.30	166	216	...	...	...	...	...	...	7.90	8	66	4.15	19	78
21	...	...	...	2.50	64	180	2.40	48	115	...	...	...	5.10	7	33	6.30	7	62
22	...	...	...	2.25	102	229	...	...	...	2.80	44	122	7.00	16	116	...	...	...
23	2.15	66	141	2.40	66	156	...	...	...	5.85	35	205	5.20	11	58	...	...	...
24	...	...	...	2.20	60	132	...	...	...	4.10	42	174	...	...	...	6.20	13	79
25	2.25	36	83	...	...	...	1.65	50	83	2.55	66	170	...	...	...	...	...	...
26	2.05	85	174	...	...	...	...	...	...	...	...	...	5.75	17	99	...	...	...
27	1.65	59	96	1.55	71	110	...	...	...	...	...	...	6.80	18	123	...	...	...
28	...	...	...	...	...	...	...	...	...	...	...	...	3.75	19	73	...	...	...
29	...	...	...	4.25	45	192	...	...	...	2.95	31	91	...	...	...	...	...	...
30	...	...	...	...	...	...	...	...	...	6.20	20	128	2.45	24	59	...	...	...
31	...	...	...	2.35	75	176	...	...	...	...	...	...	...	...	...	6.25	15	96
Mean	2.35	54	111	2.45	71	157	2.70	59	151	3.70	38	132	5.45	16	83	4.70	19	85
No. of Days used.	14	14	14	16	16	16	14	14	14	16	16	16	17	17	17	12	12	12
													The Year.	Mean . . . No. of Days used.		3.65	40	117
																177	177	177

541. KEW OBSERVATORY.

1934.

Month.	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
Day.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.
		Hours		Hours		Hours		Hours		Hours		Hours
1	0	...	2	4-1	0	...	0	...	1	0-6	2	7-0
2	0	...	0	...	1	0-8	2	11-1	1	1-0	2	6-1
3	1	0-2	2	5-8	0	...	2	4-0	0	...	1	1-1
4	1	1-5	1	0-7	1	0-9	2	8-0	0	...	2	3-1
5	0	...	0	...	1	1-6	1	0-1	1	(1-7)	1	0-1
6	0	...	0	...	2	5-3	0	...	1	1-2	2	3-3
7	1	0-1	0	...	0	...	1	0-5	1	1-2	1	0-1
8	1	0-9	1	0-2	0	...	0	...	1	0-1	1	0-1
9	0	...	0	...	0	...	0	...	0	...	0	...
10	0	...	0	...	2	4-3	1	1-7	0	...	0	...
11	2	4-3	0	...	2	5-8	2	5-2	0	...	1	0-1
12	2	3-9	1	0-1	2	5-2	1	0-1	1	1-0	0	...
13	1	0-3	0	...	2	3-0	0	...	1	0-1	0	...
14	2	4-8	1	2-1	2	6-0	1	0-2	1	0-6	1	0-2
15	1	2-4	1	2-8	1	0-6	0	...	0	...	0	...
16	1	2-9	1	2-5	2	3-7	0	...	2	3-2	1	0-1
17	0	...	1	2-0	1	0-4	0	...	1	0-6	1	0-1
18	1	0-9	0	...	1	0-2	2	4-5	0	...	0	...
19	1	0-6	0	...	2	5-0	1	0-5	1	0-4	1	0-1
20	1	0-2	0	...	2	9-5	0	...	0	...	1	0-7
21	1	0-5	0	...	1	0-6	2	4-5	0	...	1	1-9
22	0	...	0	...	0	...	0	...	0	...	0	...
23	0	...	1	0-7	0	...	1	1-3	1	0-3	1	1-0
24	0	...	0	...	1	2-2	2	8-5	1	0-1	1	1-6
25	1	1-8	2	4-2	2	3-7	2	3-4	0	...	1	2-7
26	1	1-6	1	1-8	2	3-0	2	4-4	1	0-1	0	...
27	1	0-6	1	0-4	2	7-0	2	6-2	0	...	0	...
28	0	...	2	3-7	0	...	2	4-9	1	0-3	2	5-5
29	1	1-9	-	---	1	0-3	1	2-3	0	...	1	1-7
30	1	0-6	-	---	0	...	2	7-6	0	...	0	...
31	1	1-6	-	---	0	...	-	---	0	...	-	---
Total	-	31-6	-	31-1	-	69-1	-	79-0	-	12-5	-	36-6
No. of Days Used.	-	31	-	28	-	31	-	30	-	31	-	30
Mean	-	1-0	-	1-1	-	2-2	-	2-6	-	0-4	-	1-2

Month.	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Day.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.	Character	Duration Negative Pot. Grad.
		Hours		Hours		Hours		Hours		Hours		Hours
1	0	...	1	1-9	0	...	0	...	0	...	1	0-3
2	0	...	1	0-3	0	...	1	1-2	0	...	2	5-2
3	0	...	1	2-0	2	...	1	0-2	0	...	0	...
4	0	...	0	...	0	...	1	0-6	2	3-3	2	4-3
5	1	0-1	0	...	1	0-1	0	...	2	5-5	1	2-8
6	0	...	0	...	0	...	1	0-1	1	1-1	2	7-4
7	0	...	2	3-2	0	...	0	...	0	...	1	0-4
8	0	...	1	0-1	1	1-4	1	0-1	2	4-3	1	1-3
9	0	...	0	...	0	...	0	...	2	12-2	2	6-0
10	0	...	0	...	0	...	0	...	2	10-9	0	...
11	0	...	1	0-9	1	1-3	0	...	1	0-8	1	1-5
12	1	2-0	1	2-0	1	0-7	0	...	1	2-0	1	0-3
13	1	2-5	1	0-3	0	...	0	...	1	2-6	2	4-0
14	0	...	0	...	0	...	1	0-5	2	4-7	2	5-2
15	0	...	0	...	1	1-3	1	2-4	2	3-8	2	7-5
16	0	...	0	...	1	0-1	1	1-9	2	3-9	1	1-5
17	0	...	1	0-1	1	0-1	2	6-0	1	1-1	1	0-2
18	1	1-8	0	...	0	...	0	...	1	1-5	2	4-2
19	0	...	0	...	1	0-3	0	...	0	...	2	3-6
20	0	...	1	0-4	1	0-1	0	...	1	0-6	1	0-8
21	2	3-3	0	...	1	0-1	0	...	0	...	0	...
22	1	2-4	1	1-8	1	1-0	0	...	0	...	0	...
23	1	0-4	1	0-7	0	...	0	...	0	...	2	3-9
24	2	3-5	0	...	1	0-4	0	...	1	0-1	1	0-4
25	0	...	1	0-1	0	...	1	0-1	1	0-2	1	0-5
26	0	...	0	...	0	...	0	...	0	...	2	4-5
27	0	...	1	0-1	0	...	0	...	0	...	1	1-0
28	1	0-2	1	2-3	0	...	1	0-1	1	1-8	2	4-9
29	1	0-1	1	1-3	1	1-5	0	...	1	0-3	1	1-4
30	0	...	1	0-5	0	...	0	...	0	...	1	0-3
31	0	...	1	0-2	-	---	2	4-5	-	---	1	1-5
Total	-	16-3	-	18-2	-	11-8	-	17-7	-	60-7	-	74-9
No. of Days Used.	-	31	-	31	-	30	-	31	-	30	-	31
Mean	-	0-5	-	0-6	-	0-4	-	0-6	-	2-0	-	2-4

Annual Values:- Character Frequency 0 1 2 Duration Total No. of Days. Mean.
154 148 63 459-5 365 1-28

POTENTIAL GRADIENT (reduced to level surface, Paddock Site): VOLTS PER METRE.
 KELVIN ELECTROGRAPH STANDARDIZED BY WILSON READINGS, UNDERGROUND LABORATORY.
 Mean Values for periods of sixty minutes, between the exact hours, Greenwich Mean Time.

542. KEW OBSERVATORY.

1934.

Month	JANUARY Factor 2-61				FEBRUARY Factor 2-63				MARCH Factor 2-67			
Hour G. M. T	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m
1	260	1225	1355	1475	-55	395	480	565	215	775	400	345
2	1055	685	535	755	410	145	410	1000	265	655	440	160
3	235	730	810	720	315	725	130	-195	505	840	305	840
4	420	420	405	105	40	235	475	485	585	615	240	415
5	260	795	455	445	315	670	460	160	215	335	480	335
6	520	705	350	260	185	550	420	265	305	600	Z-	455
7	145	130	130	260	225	630	515	195	295	695	440	720
8	260	940	835	655	185	235	315	630	455	855	320	695
9	510	1150	1110	485	500	630	480	685	225	615	255	345
10	115	90	340	535	300	655	330	485	25	160	Z-	505
11	145	365	50	-25	315	685	170	-	-135	265	255	655
12	105	250	520	600	-	-	725	1090	440	775	Z±	65
13	210	430	420	130	935	775	475	750	265	615	505	120
14	-90	90	390	485	370	565	800	265	520	225	215	-15
15	155	-105	260	625	-40	185	840	645	345	415	Z+	335
16	260	600	745	-550	1105	1655	420	130	255	505	345	-145
17	130	235	300	350	25	695	380	185	295	465	295	830
18	115	260	285	365	275	290	300	515	185	305	200	400
19	210	755	300	365	395	790	370	580	375	-375	120	760
20	405	615	690	350	445	655	340	500	455	360	-750	-95
21	350	600	470	585	210	645	355	410	215	135	280	295
22	520	810	745	820	330	655	370	-	425	1095	455	305
23	860	915	420	835	-	-	550	105	175	455	-	265
24	730	1070	1120	1655	1015	330	250	485	335	495	-135	305
25	1735	260	210	365	90	300	-170	540	105	360	360	415
26	90	-250	535	430	80	145	275	380	465	575	400	95
27	350	420	340	495	380	250	355	90	-160	80	465	760
28	365	600	655	360	185	340	-275	90	400	505	615	665
29	340	535	785	470	-	-	-	-	455	545	665	615
30	560	720	720	470	-	-	-	-	465	560	265	710
31	-155	340	390	390	-	-	-	-	400	545	615	695
Means (a)	394	577	538	546	360	532	421	449	333	514	372	468
(b)	360	528	538	492	329	520	362	410	311	486	310	432
Mean for day.	(a) 514		(b) 479		(a) 441		(b) 405		(a) 422		(b) 385	
Month	APRIL Factor 2-67				MAY Factor 2-63				JUNE Factor 2-67			
Hour G. M. T	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m
1	535	345	360	215	130	265	-	-	120	-55	240	15
2	25	-175	105	15	-	-	-	-	-120	55	225	135
3	95	25	-225	80	-	-	-	-	95	225	160	215
4	135	-625	200	-200	-	-	-	-	135	265	200	0
5	360	775	455	815	-	-	250	370	120	225	185	215
6	185	520	345	520	235	185	160	130	135	255	175	-105
7	145	320	440	135	160	475	315	265	185	305	200	160
8	135	240	385	575	250	445	355	170	135	185	145	215
9	240	145	255	175	225	300	370	500	185	295	95	345
10	305	495	215	25	185	340	435	620	185	535	160	295
11	15	-105	415	790	265	620	410	340	65	415	215	345
12	305	240	465	695	120	540	235	120	385	295	320	120
13	425	535	305	295	65	225	130	160	225	345	160	160
14	215	225	280	480	130	275	210	330	120	305	185	280
15	305	240	295	425	315	395	210	235	120	415	385	360
16	215	335	335	495	40	170	525	330	95	225	95	80
17	280	295	305	455	265	330	300	330	80	255	65	145
18	265	0	-120	455	210	210	185	265	135	265	145	160
19	80	335	455	440	120	235	130	265	215	240	120	215
20	240	375	305	320	105	210	105	340	240	215	160	160
21	265	295	360	105	25	55	130	300	175	465	200	120
22	320	295	225	520	130	290	250	265	175	215	145	175
23	255	440	480	375	195	380	290	210	160	505	375	320
24	-175	735	Z±	535	130	380	195	315	Z±	120	200	400
25	375	560	400	225	145	300	130	235	105	400	240	Z±
26	305	480	160	15	185	265	195	120	335	320	240	255
27	425	160	135	-65	105	225	130	145	160	215	305	185
28	185	560	Z-	-80	105	195	185	130	265	280	265	15
29	1030	185	385	80	65	300	160	185	55	280	240	265
30	-55	135	440	-15	275	500	(500)	380	135	265	215	545
31	-	-	-	-	185	525	630	475	-	-	-	-
Means (a)	274	344	327	356	162	320	264	279	162	289	202	211
(b)	265	253	291	302	163	322	264	275	154	279	201	193
Mean for day.	(a) 325		(b) 278		(a) 256		(b) 256		(a) 216		(b) 207	

Note. - The Potential Gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used:- Z+, Indeterminate, positive value; Z-, Indeterminate, negative value; Z±, Indeterminate in magnitude and sign.

(a) Mean from all positive readings.

(b) Mean from all complete days, using both positive and negative readings.

542. KEW OBSERVATORY.

1934.

Month	JULY Factor 2-71				AUGUST Factor 2-66				SEPTEMBER Factor 2-76			
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m
1	230	245	150	110	240	370	225	95	220	415	180	385
2	95	190	135	110	65	240	160	295	165	385	165	165
3	110	245	165	135	225	505	255	225	-440	315	250	375
4	110	270	135	95	265	425	135	265	220	375	275	400
5	55	300	340	405	145	200	120	200	330	580	250	305
6	245	515	460	595	105	105	175	335	205	470	455	360
7	350	625	310	585	215	-370	450	440	195	315	180	375
8	215	490	270	405	120	95	215	280	220	305	250	-30
9	255	515	445	365	145	370	200	265	275	260	165	275
10	215	570	475	420	135	160	135	320	305	580	205	330
11	395	675	325	490	320	360	160	385	165	455	260	165
12	365	215	150	245	200	120	Z+	465	30	360	315	400
13	25	340	Z±	Z±	200	345	Z+	255	250	290	400	-
14	300	405	165	190	240	335	240	320	220	345	385	275
15	190	245	120	310	225	385	320	305	220	415	180	140
16	175	480	205	270	255	370	345	265	70	195	180	250
17	190	340	135	175	145	410	225	200	110	165	220	305
18	190	515	110	40	175	370	120	240	235	385	180	345
19	270	300	175	230	255	185	95	135	305	305	235	385
20	120	285	135	435	160	185	80	465	250	375	360	430
21	Z±	190	310	325	215	240	185	215	180	580	260	180
22	120	150	110	Z±	95	425	240	40	400	330	125	235
23	15	245	215	135	200	490	160	160	140	345	165	305
24	215	475	Z±	Z±	200	690	185	145	165	275	250	470
25	435	570	255	165	135	410	215	305	290	660	220	375
26	325	340	150	215	295	370	185	360	195	-	275	165
27	255	270	190	300	80	425	145	240	290	660	250	110
28	205	285	80	205	185	265	160	160	55	205	195	220
29	110	205	95	150	65	640	480	530	110	140	85	525
30	205	245	215	215	305	560	Z±	400	305	360	180	415
31	150	300	165	245	360	665	225	335				
Means (a)	205	355	213	270	193	357	208	279	211	374	237	309
Means (b)	214	365	214	268	188	333	208	269	187	377	229	303
Mean for Day	(a) 261 (b) 265				(a) 259 (b) 249				(a) 283 (b) 274			
Month	OCTOBER Factor 2-67				NOVEMBER Factor 2-63				DECEMBER Factor 2-62			
Hour G.M.T.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.	2-3h.	8-9h.	14-15h.	20-21h.
Day	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m	v/m
1	135	240	265	215	105	-	485	525	260	355	260	195
2	120	240	295	320	380	670	550	695	65	-80	-120	210
3	440	440	265	535	435	515	340	500	120	315	355	420
4	185	360	215	425	265	210	195	330	145	170	315	130
5	185	545	375	600	195	340	290	-135	105	470	15	760
6	360	680	295	105	130	90	225	445	485	40	0	-315
7	135	240	215	225	235	420	395	445	-40	565	470	525
8	135	160	335	305	225	500	265	-485	120	235	340	250
9	265	375	305	465	-185	-790	-1080	-840	130	155	-80	720
10	320	495	455	345	-235	Z±	-170	750	340	590	500	865
11	185	425	425	415	160	540	370	145	185	355	340	50
12	295	385	360	520	80	500	590	540	130	120	485	605
13	295	505	345	215	235	580	395	590	235	385	420	235
14	95	160	255	240	500	580	525	-1050	290	380	250	-470
15	Z-	455	Z±	335	90	500	710	500	195	-275	50	210
16	185	0	65	345	0	265	685	685	315	340	185	500
17	40	255	-65	425	355	25	185	195	605	670	605	470
18	375	415	640	545	15	185	265	410	120	460	15	-130
19	200	720	415	345	620	855	605	855	120	300	315	-15
20	265	295	305	335	840	195	775	605	105	550	420	640
21	160	200	215	265	1080	1290	485	525	325	705	745	510
22	55	265	335	480	265	445	775	235	880	760	775	630
23	320	535	560	465	210	-	550	370	290	-840	485	565
24	385	415	455	480	475	315	275	645	355	395	575	460
25	185	295	255	240	120	315	420	370	365	315	-	-
26	265	465	400	-	210	410	605	515	-	-	500	145
27	-	175	215	265	420	435	370	590	615	470	185	655
28	135	160	185	585	355	170	435	170	315	-120	510	-210
29	265	535	415	585	170	435	540	515	235	235	405	575
30	385	335	640	535	290	250	290	210	420	290	185	170
31	345	55	-320	375					105	105	825	535
Means (a)	232	349	339	385	302	456	450	475	275	373	376	441
Means (b)	230	347	304	391	295	410	388	297	261	379	339	336
	(a) 326 (b) 318				(a) 421 (b) 347				(a) 366 (b) 304			
Annual Means								(a)	259	403	329	372
								(b)	246	375	304	331
								(a) 341 (b) 314				

Note.- The Potential Gradient is reckoned as positive if the potential increases upwards. For indeterminate potential gradient the following notation is used. Z+, Indeterminate, positive value; Z-, Indeterminate, negative value; Z±, Indeterminate in magnitude and sign.

(a) Mean from all positive readings.

(b) Mean from all complete days, using both positive and negative readings.

POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES (in volts per metre)
The departures from the mean of the day are adjusted for non-cyclic change.†
SELECTED QUIET DAYS.

543. KEW OBSERVATORY.

1934.

Month and Season	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Non † Cyclic Change	Mean Values
Jan.	v/m -85	v/m -128	v/m -176	v/m -212	v/m -182	v/m -85	v/m +6	v/m +13	v/m +115	v/m +123	v/m +120	v/m +117	v/m -6	v/m +21	v/m +36	v/m +39	v/m +74	v/m +90	v/m +73	v/m +77	v/m +40	v/m +19	v/m -16	v/m -70	v/m ...	v/m 647
Feb.	-82	-94	-134	-136	-140	-113	-58	+23	+112	+124	+167	+63	-7	-15	-55	+16	+3	+36	+82	+104	+33	+1	+20	+37	+18	453
Mar.	+4	-69	-108	-116	-146	-81	+2	+121	+217	+129	+108	+79	-32	-80	-75	-81	-57	-47	+18	+40	+56	+53	+50	+22	+52	485
Apr.	-15	-49	-69	-75	-105	-65	-35	+1	+27	+20	-39	-2	-29	+3	+7	+31	+6	+20	+25	+94	+82	+93	+48	+23	...	332
May	-48	-82	-80	-85	-62	-9	+16	+54	+77	+78	+38	-9	-13	+1	-9	-4	+19	+35	+9	+36	+25	+22	+22	+28	+24	265
June	-11	-28	-17	-19	+3	+1	+45	+80	+67	+32	+1	-16	-15	-29	-37	-21	-31	-20	-56	-20	+1	+37	+31	+24	...	239
July	+1	-37	-76	-86	-43	-31	+40	+101	+125	+63	+17	-15	-31	-37	-37	-44	-46	-52	-21	0	+55	+64	+54	+37	+12	290
Aug.	-32	-44	-35	-47	-66	-20	+57	+74	+128	+85	+16	-4	-18	-37	-28	-35	-37	-38	-29	+32	+44	+44	+1	-17	-19	232
Sept.	-26	-52	-64	-79	-88	-75	+5	+121	+137	+62	-7	-35	-48	-65	-37	-18	-19	+17	+46	+68	+62	+64	+28	+14	-25	281
Oct.	-84	-80	-96	-97	-112	-91	-52	-11	+30	+68	+39	+42	+4	+19	+19	+47	+77	+100	+87	+85	+48	+12	+1	-33	-7	329
Nov.	-40	-84	-106	-120	-141	-144	-128	-43	-8	+16	+16	+51	+62	+31	+46	+89	+145	+126	+80	+93	+63	+15	+12	-27	...	471
Dec.	-58	-88	-78	-110	-144	-123	-76	-26	+31	+53	+52	+11	+13	+46	+35	+52	+64	+56	+47	+56	+67	+43	+45	+32	...	461
Year	-40	-70	-87	-99	-101	-70	-15	+42	+88	+79	+44	+23	-10	-12	-11	+6	+17	+27	+30	+53	+48	+39	+25	-5	...	374
Winter	-66	-99	-123	-145	-152	-116	-64	-8	+63	+101	+89	+61	+15	+21	+15	+49	+71	+77	+71	+83	+51	+19	+15	-25	...	508
Eqnx.	-30	-63	-84	-92	-113	-78	-20	+58	+103	+70	+25	+21	-26	-31	-21	-5	+2	+23	+43	+64	+62	+55	+32	+7	...	357
Summer	-23	-48	-52	-59	-39	-15	+39	+77	+99	+65	+18	-11	-19	-25	-28	-26	-24	-19	-24	+12	+31	+42	+27	+4	...	257

AIR POLLUTION: HOURLY MEANS FOR EACH MONTH (milligrams per cubic metre)
COMPLETE DAYS ONLY.

544. KEW OBSERVATORY.

1934.

Month and Season	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	No. of Days Used.
	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³
Jan.	+39	+34	+31	+30	+28	+27	+24	+31	+44	+50	+53	+53	+47	+43	+44	+43	+49	+47	+48	+53	+53	+53	+48	+38	+42	31
Feb.	+42	+37	+29	+21	+19	+21	+23	+34	+51	+61	+56	+48	+46	+40	+41	+45	+50	+55	+59	+63	+67	+71	+64	+51	+46	28
Mar.	+17	+15	+15	+13	+13	+13	+15	+23	+32	+31	+24	+23	+18	+21	+17	+18	+19	+22	+26	+31	+31	+31	+31	+23	+22	31
Apr.	+15	+14	+13	+12	+11	+12	+15	+19	+25	+23	+20	+15	+12	+11	+13	+14	+14	+14	+18	+22	+26	+27	+22	+16	+17	30
May	+09	+09	+09	+09	+10	+11	+13	+15	+15	+12	+10	+09	+08	+08	+08	+08	+09	+08	+08	+11	+14	+13	+13	+12	+11	31
June	+09	+10	+10	+10	+10	+11	+13	+12	+12	+09	+09	+08	+07	+07	+06	+05	+05	+05	+06	+06	+08	+08	+09	+10	+09	30
July	+10	+09	+10	+12	+11	+11	+13	+16	+14	+09	+08	+06	+05	+03	+03	+03	+04	+03	+05	+06	+06	+08	+10	+09	+08	31
Aug.	+08	+07	+07	+08	+09	+10	+14	+13	+11	+09	+08	+07	+06	+05	+05	+04	+04	+05	+05	+07	+09	+09	+09	+09	+08	31
Sept.	+09	+08	+06	+06	+07	+07	+09	+13	+16	+08	+07	+04	+02	+02	+03	+03	+04	+04	+06	+08	+10	+11	+10	+10	+07	30
Oct.	+10	+08	+06	+05	+05	+05	+08	+12	+16	+17	+12	+10	+09	+09	+10	+13	+15	+20	+24	+23	+22	+19	+15	+13	+13	29
Nov.	+40	+40	+33	+30	+29	+31	+34	+34	+43	+50	+45	+49	+41	+37	+36	+39	+46	+53	+63	+60	+57	+63	+59	+46	+44	28
Dec.	+12	+10	+08	+07	+06	+05	+07	+10	+17	+22	+21	+21	+20	+17	+16	+17	+19	+21	+22	+25	+23	+22	+18	+15	+16	31
Year	+18	+17	+15	+13	+13	+14	+16	+19	+25	+25	+23	+21	+19	+17	+17	+18	+20	+21	+24	+26	+27	+28	+26	+21	+20	361
Winter	+33	+30	+25	+22	+21	+21	+22	+27	+39	+46	+44	+43	+39	+34	+34	+36	+41	+44	+48	+50	+50	+52	+47	+37	+37	118
Eqnx. Spring	+16	+14	+14	+13	+12	+12	+15	+21	+28	+27	+22	+19	+15	+16	+15	+16	+17	+18	+22	+27	+29	+29	+26	+20	+19	61
Autumn	+09	+08	+06	+05	+06	+06	+09	+13	+16	+12	+10	+07	+06	+05	+07	+08	+10	+12	+15	+15	+16	+15	+12	+11	+10	59
Summer	+09	+09	+09	+10	+10	+11	+13	+14	+13	+10	+09	+07	+06	+06	+05	+05	+06	+05	+06	+07	+09	+10	+10	+10	+09	123

AIR POLLUTION: DIURNAL INEQUALITIES (milligrams per cubic metre)
The departures from the mean of the day are adjusted for non-cyclic change.†

545. KEW OBSERVATORY.

1934.

Month and Season	Hour 0-1	G.M.T. 1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Non † Cyclic Change	Range
Jan.	mg/m ³ -003	mg/m ³ -009	mg/m ³ -011	mg/m ³ -012	mg/m ³ -014	mg/m ³ -015	mg/m ³ -019	mg/m ³ -011	mg/m ³ -002	mg/m ³ +007	mg/m ³ +011	mg/m ³ +011	mg/m ³ +005	mg/m ³ +001	mg/m ³ +002	mg/m ³ +001	mg/m ³ +007	mg/m ³ +005	mg/m ³ +006	mg/m ³ +012	mg/m ³ +011	mg/m ³ +012	mg/m ³ +006	mg/m ³ -003	mg/m ³ -001	mg/m ³ +011
Feb.	-003	-008	-017	-024	-026	-024	-022	-011	+005	+015	+011	+003	+001	-006	-005	-001	+004	+009	+013	+017	+021	+026	+018	+005	000	-52
Mar.	-005	-007	-007	-008	-009	-009	-007	+002	+010	+010	+002	+001	-003	-001	-004	-004	-003	+000	+004	+010	+010	+009	+009	+002	000	-19
Apr.	-002	-003	-004	-005	-006	-005	-002	+002	+008	+006	+003	-002	-005	-006	-003	-003	-002	-002	+001	+006	+009	+010	+005	000	-001	16
May	-001	-001	-002	-001	000	000	+003	+004	+005	+001	-001	-002	-002	-002	-003	-003	-002	-003	-002	000	+003	+003	+003	+001	+001	008
June	+001	+001	+001	+001	+001	+002	+004	+003	+003	+001	+001	-001	-001	-001	-003	-003	-003	-003	-003	-002	-001	000	000	+002	000	-07
July	+002	+001	+002	+003	+003	+002	+005	+008	+006	+001	-001	-002	-004	-005	-005	-005	-004	-005	-003	-002	-002	000	+002	+001	-001	13
Aug.	+001	000	-001	000	+002	+003	+006	+008	+006	+001	+001	-001	-002	-003	-003	-004	-004	-003	-003	-001	+001	+001	+001	+001	+001	10
Sept.	+002	000	-001	-002	-001	000	+002	+006	+008	000	000	-003	-005	-005	-005	-004	-003	-003	-001	+001	+003	+004	+003	+003	-001	13
Oct.	-002	-004	-006	-008	-008	-007	-005	-001	+003	+004	-001	-002	-003	-004	-003	000	+002	+007	+011	+010	+009	+008	+001	000	+001	19
Nov.	-005	-004	-011	-014	-015	-013	-010	-011	-001	+006	+001	+005	-003	-007	-008	-005	+002	+009	+019	+016	+013	+019	+015	+002	000	34
Dec.	-003	-006	-008	-009	-010	-009	-005	+002	+006	+005	+006	+006	+004	+001	000	+001	+003	+006	+007	+009	+007	+006	+002	-001	000	20
Year	-002	-003	-005	-007	-007	-005	-001	+005	+005	+003	+001	-002	-003	-003	-003	000	+001	+004	+006	+007	+008	+005	+001	000	000	15
Winter	-004	-007	-012	-015	-017	-016	-015	-010	+002	+009	+007	+006	+002	-003	-003	-001	+004	+007	+011	+013	+013	+016	+010	+001	000	33
Eqnx.	-002	-003	-005	-006	-006	-005	-003	+002	+007	+005	+001	-002	-004	-004	-004	-003	-001	000	+004	+007	+008	+007	+005	+001	000	14
Summer	000	000	000	+001	+001	+002	+004	+005	+004	+001	000	-001	-002	-003	-003	-004	-003	-003	-003	-001	000	+001	+001	+001	000	09

SEISMOLOGICAL DIARY.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
			h. m. s.	s.	μ	km.					h. m. s.	s.	μ	km.	
Jan. 1	N	e F	4 59 5 2	...	...	...	Felt in Biarritz. Re- corded only by experi- mental Wood-Anderson instrument.	Jan. 30	NE NE NE ZNE N E N Z	eP eS eSS eSSS eL M M M M F	20 28 38 5 42 (33) 45 12 48 55 29 56 1 58 40 59 29 22 40	...	...	...	Very small. Felt in Nevada. 39° N., 119° W. (U.S.C.G.S.)
2	NE N ZE N	e eL eL M F	21 11 19 23 30 29 22 5	...	...	...	Persia. 33° N., 59° E. (Bombay.)								
3	N E E NE Z	iP iS i eL eL F	9 53 36 10 2 42 3 17 12 20 11 5	...	...	7730	No "Z" record of earlier phases. Sea of Okhotsk. 53° N., 155° E. (U.S.C.G.S.). Surface waves poorly developed.	31	ZN ZNE Z N E	e eL M M M F	11 3 16 23 44 26 12 27 50 12 15	...	...	...	Felt in Samoa. 14° S., 173° W. (Apia.)
12	ZNE N	eL M F	14 11 16 50 40	...	...	...	Confused by micro- seisms. Southern China. 23° N., 103° E. (Chiufeng.)	Feb. 2	Z NE N E Z	e eL M M eL F	15 51 12 16 0 5 9 5 13 8 40	...	...	...	Caroline Islands. 6° N., 146° E. (U.R.S.S.)
15	ZN Z ZN E N E Z N NE Z N E N E ZNE ZNE	eP iP iPP iPP i i i i iS iS i i i i eL M F	8 54 20 54 25 57 12 57 15 58 38 58 50 58 55 9 1 50 3 16 3 18 4 35 4 41 6 37 7 18 9 20 33 13 15	...	...	7530	Disturbed by micro- seisms. Bombay Δ=1630 Km. Epicentre determined from Kew and Bom- bay, 26.8° N., 86.3° E. Near Churia Ghati Hills. Very destruc- tive in North-Eastern India.	2		e F	17 10 30	...	...	...
							Maxima doubtful; traces very faint and passing off lower edge of chart.	2		e F	20 0 35	...	...	...
								3	Z NE NE E ZN N E N Z Z E N	ePP iPKS eSS eL eL M M M M M M M F	14 54 16 55 41 15 12 13 32 37 43 5 46 20 46 58 47 29 50 14 50 15 50 29 17 15	...	...	(14250)	Bismarck Archipelago. 4° S., 152° E. (U.R.S.S.)
16		e F	19 33 20 00	...	...	...	Sea of Celebes. 4° N., 122° E. (Bombay.)	4	N N	iP iS L	9 39 21 43 4 44 44	...	...	2230	P and S phases from experimental Wood- Anderson instrument. Felt in Central Albania.
20	NE NE Z N	e eL eL M F	18 24 29 34 40 3 19 5	...	...	...			NE E	i M F	45 27 48 35 10 15	...	...	...	Large movements.
20/21	NE NE Z	e eL eL F	23 25 38 43 0 5	...	...	...	Felt in Turkey. (Trieste.)	4	ZE NE NE NE Z N N E	iP iS e eL eL M M M F	13 35 17 41 42 44 53 47 50 52 41 54 13 54 24 15 0	...	...	4690	Persia. 35° N., 54° E. (Strasbourg.)
21	NE Z	eL eL F	7 40 48 8 5	...	...	...						
28		e F	14 55 15 25	...	...	...		4		e F	23 5 35	...	...	...	Banda Sea. 5° S., 130° E. (U.R.S.S.)
28	Z NE Z NE E E ZNE E N N Z Z Z E N	iP iP iPP eS eSS eSSS eL M M M M M M M M F	19 22 29 22 31 25 39 32 48 38 10 41 58 49 52 7 52 33 56 3 56 20 56 30 20 1 6 1 21 2 22 22 0	...	...	9170	Compression. Destructive in south- ern and central Mexi- co. 17° N., 100° W. (U.S.C.G.S.)	9	NE Z N	eL eL M F	10 32 37 42 36 11 5	...	...	...	Pacific Ocean. 0°, 155° E. (U.R.S.S.)
								12	NE E N Z	e L M M L F	12 11 14 15 32 16 12 17 13 0	...	...	...	Southern China. 22° N., 109° E. (Chiufeng.)
								13	ZNE ZNE E	eP eL M F	9 56 24 10 1 2 43 20	...	...	...	Greenland Sea. 73° N., 17° W. (U.R.S.S.)

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
Mar. 13	NE NE Z N	e(SS) eL eL M F	h. m. s. 13 52 21 14 17 22 27 3 15 55	s. 24 ...	μ +12 ...	km.	New Hebrides. (St. Louis.)	Apr. 10	ZNE ZNE N	e eL M F	h. m. s. 10 51 43 11 17 33 18 12 00	s. 20 ...	μ + 8 ...	km.	Felt in eastern Java. (Batavia.)
15		e F	12 17 40	... ...	... ...	... ...	Disturbed by wind and microseisms.	11	Z Z Z E E	e(PKP) i i e i F	21 31 21 31 28 32 8 52 44 54 58 22 10	... ... ... ... ... ...	... ... ... ... ... ...	... ... ... ... ... ...	Emergent on hori- zontal components.
20	NE NE Z N	e(SS) eL eL M F	3 16 52 41 47 55 39 4 25	... ... ... 20 ...	... ... ... +11 ...	... ... ... ... ...	Confused by micro- seisms. Bismarck Archipelago. 4° S., 154° E. (U.R.S.S.)	12	NE Z	eL eL F	4 10 18 30	... ... ...	... ... ...	... ... ...	No surface waves. New Hebrides. 19° S., 169° E. (U.R.S.S.)
21		e F	1 40 55	... ...	... ...	... ...		15/16	Z ZNE NE ZNE NE N E Z N E N E N Z Z	eP ePP iSKS ePS eSS L L L M M M M M M M F	22 29 47 34 15 40 27 43 17 49 10 59 23 2 7 6 48 7 11 10 30 19 22 21 57 21 58 22 13 24 50 1 15	... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ...	... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ...	11800	Philippine Islands. 8° N., 127° E. (Strasbourg.)
24	Z ZNE ZNE N NE Z NE E NE Z E N N N Z E	ePKP iPP iPKS ePSKS ePS e i iSS eL eL M M M M M M F	12 23 49 26 57 27 26 36 30 37 10 41 5 42 34 44 36 57 13 9 13 35 13 56 18 31 32 48 32 55 40 4 15 40	... ... ... ... ... ... ... ... ... ... 29 29 25 19 20 20 ...	... ... ... ... ... ... ... ... ... ... +49 -73 +57 +40 -50 -41 ...	(15000)	Solomon Islands. 10° S. 161° E. (U.S.C.G.S.)	16	NE Z	eL eL F	4 51 5 00 30	... ... ...	... ... ...	... ... ...	Mindanao. 7° N., 127° E. (Bombay.)
29	ZE ZE ZE ZN E ZE ZNE NE	eP iP iPP eS iS i i L F	20 10 (59) 11 2 11 35 14 25 14 27 14 45 15 10 15 20 30	... ... ... ... ... ... ... ... ...	... ... ... ... ... ... ... ... ...	2030	In minute break; uncertain to ±1 sec. Destructive in the Balkans. 46° N., 27° E. (Strasbourg.)	16			— — —	... ... ...	... ... ...	... ... ...	roh. 39m. to 13h. 11m. no records.
April 3		e F	8 15 40	... ...	... ...	... ...		16	NE Z	eL eL F	14 26 35 45	... ... ...	... ... ...	... ... ...	Near Formosa. 22° N., 121° E. (Batavia.)
3		e F	18 26 50	... ...	... ...	... ...		17	ZE ZNE E	eP eL M F	2 41 11 45 46 3 55	... ... 25 ...	... ... + 2 ...	... ... ...
3		e F	23 12 50	... ...	... ...	... ...	South-west of Volcano Islands. 23° N., 139° E. (Bombay.)	18		e F	13 00 30	... ...	... ...	... ...	Very small.
4/5			— — —	... ...	... ...	... ...	No records: 4d. 17h. to 5d. 7h.	20	ZNE	eL F	15 20 35	... ...	... ...	... ...
6	Z N ZE Z NE Z E	iP eS e eSPP eL eL M F	19 22 2 32 20 32 29 33 27 49 53 55 43 20 25	... ... ... ... ... ... 30 ...	... ... ... ... ... ... + 6 ...	9150	Pacific Ocean off Japan. 37° 3' N., 141° 7' E. (Batavia.)	24	NE ZNE N	e eL M F	18 47 52 19 2 52 55	... ... 20 ...	... ... - 5 ...	... ... ...
9	Z E ZNE E Z N	e e eL M M M F	15 59 38 16 11 21 27 30 43 31 1 34 6 17 10	... ... ... 27 26 22 ...	... ... ... - 8 +10 - 5 ...	... ... ... ... ... ... ...		26	NE NE	e eL F	14 38 43 55	... ... ...	... ... ...	... ... ...	No "Z" record. Felt in northern Cele- bes. (Batavia.)
9		e F	17 28 35	... ...	... ...	... ...	Very small, possibly not seismic.	26	NE NE N	eSS eL M F	21 41 18 22 10 21 21 23 25	... ... 21 ...	... ... + 4 ...	... ... ...	No "Z" record. Near New Hebrides. (Manila.)
10		e F	6 16 35	... ...	... ...	... ...		27	Z NE N NE Z N	e e e eL eL M F	21 7 13 00 26 40 59 22 5 16 38 45	... ... ... ... ... 23 ...	... ... ... ... ... + 5 ...	... ... ... ... ... ...	South-east of New Hebrides. 23° S., 173° E. (Manila.)
								28		e F	16 17 40	... ...	... ...	... ...
								28		e F	19 9 30	... ...	... ...	... ...

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
May 1		e F	h. m. s. 4 14 20	s. ...	μ ...	km. ...	Sind. 25° N., 69° E. (Bombay.)	May 22		e F	h. m. s. 2 18 30	s. ...	μ ...	km. ...	Very small.
1	Z NE E ZN E	iP eP iSKS eSKS iS F	7 17 53 7 28 12 28 42 33	...	...	(9800)	Compression. Indian Ocean 8° N., 95° E. (Strasbourg.) Probably deep focus.	22	ZN NE ZNE N	e(S) e L M F	11 19 31 25 34 28 29 00 12 00	...	...	...	West of St. Paul's Rock. 1° N., 31° W. (J.S.A.)
3	NE Z	eL eL F	2 22 28 55	...	...	...	North of Bonin Island. 29° N., 141° E. (Bombay.)	30		e F	12 23 40	...	...	...	Very small.
4	ZNE Z ZNE N E ZN N Z E N Z	iP iPP iS iSS L L M M M M M eL ₂ F	4 46 42 49 4 55 20 59 20 5 7 10 5 10 17 10 30 16 6 16 12 7 4 55	...	...	7170	Amplitudes of iP as read in mm.:— Z N E -7.0 +2.2 -1.1 Azimuth=331°. Alaska. 61° N., 148° W. (U.S.C.G.S.)	31		e F	15 7 20	...	...	...
							Via the Antipodes.	June 2	Z ZNE ZNE E ZNE Z	eP ePcP eS e eL M F	6 5 58 6 33 15 20 24 11 33 43 6 7 10	...	...	...
5	Z	e F	16 0 10	...	...	...	Very small.	2	ZNE ZNE E E N Z N E N Z	iP i iS L L L M M M M F	13 46 40 46 49 50 8 50 46 51 16 51 19 51 48 52 19 53 24 53 25 16 5	...	...	2050	Amplitudes as read in mm.: N. E. Z. iP...+0.7 -0.3 -1.2 i ...-5.2 +2.0 +5.3 Azimuth about 337°, giving epicentre near 68° N., 19° W. Felt in Northern Ice- land.
9	ZNE	e eL F	16 55 17 3 30	...	...	...	South of Kurile Is- lands. 45° N., 155° E. (U.R.S.S.)								
11			— — —	...	...	...	5h. 20m. to 9h. 40m. no records.								
11		e F	18 1 10	...	...	...	Very small.	2	Z ZNE	eP eL F	16 56 12 17 18 18 15	...	...	...	Horizontal compon- ents disturbed by wind.
11	E	e F	21 8 12 11	...	...	...	Very small. Felt in La Drôme. (Strasbourg.)								Alaska. 63° N., 150° W. (U.R.S.S.)
13	ZNE NE NE Z N	ePP iPKS eL eL M F	9 23 21 24 34 58 10 4 10 58 11 20	...	...	(14000)	Solomon Islands. 5° S., 154° E. (U.S.C.G.S.)	2	ZNE	eL F	21 27 22 40	...	...	...	Near New Hebrides. (Manila.)
14		e F	13 56 14 15	...	...	...	Lower California. 28° N., 113° W. (J.S.A.)	3	Z	eP F	16 34 59 17 5	...	...	...	Very small.
14	ZNE NE NE E Z	eP iS eL M eL F	22 23 53 32 50 40 46 13 49 23 40	...	...	7550	South of Alaska. 56° N., 151° W. (J.S.A.)	3	NE Z	e eL eL F	22 0 6 11 35	...	...	...	New Guinea. 4° S., 141° E. (U.R.S.S.)
19	NE E ZN	e eL eL F	1 39 44 46 50 2 15	...	...	...		5/6	Z ZNE	e eL F	23 45 49 00 5	...	...	...
20	NE ZNE N E	e L M M F	19 9 49 11 11 49 12 32 25	...	...	...		6	ZNE	eL F	4 30 5 30	...	...	...
21		e F	5 28 40	...	...	...		6	ZNE	eL F	7 9 45	...	...	...
21	ZN NE ZNE E	eP eS L M F	10 11 59 15 47 17 18 44 35	...	...	2290	Greenland Sea. 72° N., 4° W. (Strasbourg.)	8	Z E N NE NE NE N E Z Z	e e e e e e L L L L M F	3 21 35 21 59 22 5 22 19 22 47 22 58 23 14 23 22 23 35 23 46 27	...	...	...	Not very distant.
								8	NE NE Z E	eS eL eL M F	5 9 46 20 25 32 57 6 35	...	...	...	California. 35.8° N., 120.3° W. (Pasadena.)

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Amplitude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Amplitude.	Δ	Remarks.
			h. m. s.	s.	μ	km.					h. m. s.	s.	μ	km.	
June 8	ZNE	eL F	16 44 55	...	...	...		June 23 cont.	N	M F	58 26 6 55	13	+13	...	
9	Z ZNE ZNE NE Z NE ZNE N Z	i i i i e e eL M M F	13 17 37 19 41 20 23 20 58 22 55 36 27 50 14 5 9 11 59 15 45	...	...	...	New Guinea. 7° S., 145° E. (Manila.)	24	Z	eL F	2 26 3 5	...	...	...	Horizontal components disturbed by wind.
								24	Z	e F	4 46 5 40	...	...	...
								24	Z Z Z NE NE Z E ZNE N Z E	iP i iPP iSKS iS iSP iSS eL M M M F	6 12 46 13 13 16 35 23 14 23 49 25 10 30 23 38 48 39 50 9 50 14 9 0	...	...	10110	
13	ZNE ZNE ZNE E N	iP iS eL M M F	2 3 3 13 2 29 34 30 36 (3) 3 55	...	...	8780	Compression. Sea of Okhotsk. 48° N., 148° E. (Strasbourg.)								Dilatation. Emergent on horizontal components. Northern Chile. 23° S., 68° W. (U.S.C.G.S.)
13	ZNE ZNE ZNE E	e e i i L F	9 9 40 9 59 10 43 11 35 13 15	...	...	...	Felt in Northern Italy.	24		e F	14 46 15 10	...	...	...	Very small.
13/14	ZE ZNE Z ZE E NE Z NE ZE ZNE E N Z	eP iP i iPP iS i iSP iScS i eL M M M F	22 19 30 19 32 19 49 22 21 36 26 49 26 51 26 55 29 14 31 34 34 39 53 45 26 51 57 1 30	...	...	5680	Amplitudes of iP as read in mm. N. E. Z. (+0.1) -0.7 +2.0 Azimuth about east. Afghanistan. 29.5° N., 63.5° E. (Strasbourg.)	28	NE N NE Z N	e e eL eL M F	1 21 33 25 21 2 4 13 20 4 3 30	...	...	...	New Hebrides. 17° S., 165° E. (Manila.)
								29	Z Z Z Z NE ZNE Z ZNE ZE ZE ZNE	iPKP iPP epPP esPP e i i i e e e eL F	8 42 45 44 7 46 5 47 6 50 45 52 37 53 50 54 31 56 49 58 5 9 2 41 (12) 10 10	...	...	(13000)	Sunda Sea. 6° S., 123° E. Focal depth 700 km. below normal. (J.S.A.)
14		e F	22 16 25	...	...	...	Very small.								
15	NE Z	eL eL F	3 45 58 4 30	...	...	...		29		e F	13 1 15	...	...	...	Very small.
15	NE Z	eL eL F	6 45 50 7 15	...	...	...		30	Z ZNE	e(P) eL F	10 35 32 40 11 5	...	...	...	Horizontal components disturbed by wind.
16		e F	5 56 6 15	...	...	...	Very small.	30	Z ZNE	e(P) eL F	12 16 0 21 55	...	...	...
17	NE ZNE	e eL F	15 7 27 17 40	...	...	...		30	Z ZNE	e eL F	13 35 40 14 10	...	...	...
18	ZN NE NE ZNE N	iP iS iPS eL M F	9 24 50 33 13 33 47 45 49 8 10 45	...	...	6890	Alaska. 62° N., 150° W. (U.S.C.G.S.)	July 1	ZNE	eL F	20 50 21 40	...	...	...
19	ZE E NE Z N	eP iS L L M F	18 48 44 53 19 56 57 57 35 19 20	...	...	2890	Emergent on "Z" and "N" components. Asia Minor. (Strasbourg.)	3	ZNE	eL F	4 30 5 0	...	...	...
22	ZNE	eL F	19 10 40	...	...	...	Horizontal components disturbed by wind.	4	Z NE Z	e eL eL F	2 1 2 30 36 4 20	...	...	...	Atlantic Ocean. 53° S., 15° W. (U.R.S.S.)
23	ZNE NE E Z	eS eL M eL	5 39 40 50 56 33 57	...	...	...	Tibet. 33° N., 90° E. (Manila.)	6/7	ZNE ZNE NE NE NE NE Z Z E	eP ePP eS iSKS eSS L L L M	23 0 44 4 2 10 24 10 32 15 22 22 26 30 17	...	...	8400	Pacific Ocean off Southern Oregon. 42° N., 126° W. (U.S.C.G.S.)

SEISMOLOGICAL DIARY—continued.
Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
July 6/7 cont.	N Z	M M F	h. m. s. 30 41 35 3 2 55	s. 18 15 ...	μ -61 -69 ...	km.		July 19	Z ZN NE	iPKP ePP iPKS F	h. m. s. 0 26 18 29 5 29 54 — — —	s.	μ	km.	Repetition of preced- ing shock. Later phases obscured by coda of previous shock.
7/12			— — —	...	...	...	No records 7d. 14h. 59m. to 12d. 9h. 27m.	19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
12	NE Z	e eL eL F	10 30 36 40 11 20	... ... ... ...	... ... ... ...	... ... ... ...	Pacific Ocean off Japan. 37° N., 143° E. (U.R.S.S.)	19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
12		e F	15 30 50	... ...	... ...	... ...		19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
13		e F	11 4 15	... ...	... ...	... ...	Very small; possibly not seismic.	19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
13		e F	13 19 25	... ...	... ...	... ...		19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
16	Z ZNE	eP eL F	8 31 30 9 4 40	... ... ...	... ... ...	... ... ...	Mexico. 17° N., 100° W. (J.S.A.)	19	Z Z N NE Z N E N Z	iPP iPS iSS eL eL M M M M F	1 47 18 56 54 2 3 34 15 25 25 34 25 52 27 29 43 3 5 0	... ... ... ... ... 31 30 28 18 ...	... ... ... ... ... +67 +76 +67 -38 ...	(13000) Molucca Islands. 30 S., 129° E. (U.R.S.S.)	
18	ZE ZE ZNE N N ZNE E N Z E Z N	iP iPP iSKS iS i eL M M M M M M M F	1 48 29 51 28 58 41 58 51 2 5 39 13 13 12 17 24 18 29 19 29 20 9 23 31	... ... ... ... ... ... 39 23 15 21 15 19	... ... ... ... ... ... +380 -165 +155 +170 +180 -160	9230	Amplitudes of iP as read in mm. :— N. E. Z. (0.0) +3.0 +7.0 Azimuth about west. Destructive in Chiri- qui Province, Pan- ama. 8° N., 83° W. (U.S.C.G.S.)	19	Z NE NE NE Z E N Z	iPKP ePP eL eL M M M F	7 56 27 59 54 8 17 35 44 50 9 0 57 1 23 3 32 10 55	... ... ... ... ... 20 19 18 ...	... ... ... ... ... +12 +17 +21 ...	(15500) New Hebrides. 13° S., 167° E. (Manila.)	
18	Z NE ZNE E N Z	iP eS eL M M M F	4 12 46 22 40 37 42 9 46 39 54 33 8 0	... ... ... 21 18 17	... ... ... -25 +15 -27	8670	Confused by coda of preceding shock.	19	Z NE NE NE Z E N Z	iPKP ePP eL eL M M M F	7 56 27 59 54 8 17 35 44 50 9 0 57 1 23 3 32 10 55	... ... ... ... ... 20 19 18 ...	... ... ... ... ... +12 +17 +21 ...	(15500) New Hebrides. 13° S., 167° E. (Manila.)	
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Aleutian Islands. 51° N., 175° W. (U.R.S.S.)
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070	Amplitudes of iP as read in mm. :— N. E. Z. 0.0 +0.7 +2.2 Azimuth about west. Repetition from 18d. 1h.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18		eL F	16 45 17 10	... ...	... ...	... ...	Overlapped by next shock.	20	Z ZNE	eP eL F	2 22 38 53 3 50	... ... ...	... ... ...	... ... ...	Very small.
18	ZE Z N NE E E ZNE N E N E Z Z	iP i i iS iPS iSS L M M M M M M F	17 11 45 11 59 21 46 21 59 23 28 27 23 35 35 44 42 4 43 57 43 58 44 2 45 47	... ... ... ... ... ... ... 24 23 19 21 19 19	... ... ... ... ... ... ... -35 +46 +27 +43 +41 +43	9070									

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
July 21 cont.	ZNE N Z E Z	eL M M M M F	h. m. s. 15 19 37 20 2 21 8 33 18 14 50	s. ... 20 21 22 17	μ ... +25 +44 -42 -40	km.		Aug. 2	Z ZNE	e eL F	h. m. s. 7 23 56 50 8 40	s.	μ	km.	Horizontal compon- ents disturbed by wind.
22	Z ZNE NE Z N	ePKP ePKS eL eL M F	3 17 14 20 54 4 3 11 5 8 56 40	... ... ... ... 16 ...	... ... ... ... + 2 ...	... ... ... ... ... ...	Between New Hebrides and Fiji Islands. 13° S., 173° E. (Manila.)	4	Z NE Z	e eL eL F	13 30 14 5 11 15 35	... ... ... ...	... ... ... ...	... ... ... ...	New Guinea. 7° S., 146° E. (Manila.)
22	Z ZNE ZNE NE ZE NE N Z F	iP i i iS i i eL M eL F	20 5 39 6 36 7 2 12 41 14 15 14 28 22 27 46 28 21 10	... ... ... ... ... ... ... 21 ... ...	... ... ... ... ... ... ... - 6	5370	Compression. Emer- gent on horizontal components. West of Pamir. 38° N., 72° E. (U.R.S.S.) Surface waves very poorly developed.	6	Z ZNE	e eL F	12 19 16 46 13 15	... ... ...	... ... ...	... ... ...	Very small.
23	Z ZNE NE Z N	eP eS eL eL M F	18 30 43 38 10 44 46 46 7 19 45	... ... ... ... 14 ...	... ... ... ... - 4 ...	5830	Atlantic Ocean. 3° S., 17° W. (U.R.S.S.)	6		e F	17 34 45	... ...	... ...	... ...	Very small.
24		e F	3 25 50	... ...	... ...	... ...		7	ZNE ZNE N ZNE N NE Z E N Z	ePKP ePP e eSS eSSS eL eL M M M F	3 59 25 4 2 35 18 38 21 18 26 23 43 50 5 1 1 1 45 1 50 7 20	... ... ... ... ... ... ... 22 22 21	... ... ... ... ... ... +19 +30 -29	... ... ... ... ... ... ... ... ... ...	(15500) New Hebrides. 14° S., 167° E. (U.S.C.G.S.)
27		e F	2 52 3 25	... ...	... ...	... ...		7	Z NE Z N Z	eP eL eL M M F	11 59 47 12 17 22 25 10 26 44 13 40	... ... ... 12 12	... ... ... -13 -13	... ... ... ... ...	China. 43° N., 87° E. (U.R.S.S.)
27		e F	13 45 14 50	... ...	... ...	... ...	} Very small.	9		e F	20 39 21 30	... ...	... ...	... ...
28	ZNE ZNE N	e eL M F	2 27 23 35 39 44 3 10	... ... 18 ...	... ... + 3 ...	... ... ... ...	Tibet. 35° N., 87° E. (Bombay.)	10		e F	23 29 55	... ...	... ...	... ...	Very small
28		e F	16 10 35	... ...	... ...	... ...	Very small.	11	Z NE Z N Z	eP eL eL M M F	8 31 18 58 9 6 13 48 16 7 10 20	... ... ... 19 16 ...	... ... ... +21 +16 ...	... ... ... ... ...	Formosa. 25° N., 122° E. (Manila.)
28/29	ZN ZN ZNE E E NZ N E Z Z Z N	iP iPP iS L M L M M M M M M eL ₂ F	21 48 21 51 6 57 41 22 11 12 44 14 16 25 16 32 16 59 22 12 22 34 0 2 1 0	... ... ... ... ... ... ... ... ... ... ... ... ... ...	... ... ... ... ... ... +57 -34 -56 -63 -56	8000	Amplitudes of iP as read in mm.:— N. E. Z. -1.0 (+0.2) +2.7 Azimuth between N. and NNW. Alaska. 56° N., 157° W. (U.S.C.G.S.)	11	ZNE Z ZNE	iPKS eSKKS eL F	12 20 9 25 19 30 — — —	... ... ... ...	... ... ... ...	... ... ... ...	Solomon Islands. 4° S., 155° E. (Manila.) Overlapped by next shock.
							Via the Antipodes.	11	Z ZNE N	eP eL M F	13 3 36 7 15 29 14 30	... ... 22 ...	... ... +14 ...	... ... ... ...
30	ZNE	eL F	2 23 35	... ...	... ...	... ...		11		e F	15 26 40	... ...	... ...	... ...
30	ZNE	eL F	3 13 25	... ...	... ...	... ...		12		e F	14 57 15 10	... ...	... ...	... ...	Very small; possibly not seismic.
30	ZNE	eL F	4 4 20	... ...	... ...	... ...		13	ZNE ZNE ZNE NE Z E N Z	eP ePP ePS eL eL M M M F	0 3 36 7 46 16 48 39 44 53 12 55 46 56 0 2 35	... ... ... ... ... 27 19 20 ...	... ... ... ... ... -56 -36 -39	... ... ... ... ... ... ... ...	(11500) Mindanao. 8° N., 127° E. (Manila.)
30	ZNE	eL F	4 49 5 10	... ...	... ...	... ...		14	ZNE NE Z	i eL eL F	9 9 1 10 1 11 11 5	... ... ... ...	... ... ... ...	... ... ... ...
31	NE Z	eL eL F	6 49 55 7 25	... ... ...	... ... ...	... ... ...	Luzon. 16° N., 121° E. (U.R.S.S.)	15	ZNE	eL F	11 44 12 20	... ...	... ...	... ...
31	ZNE	e(S) F	12 13 17 13 15	... ...	... ...	... ...	Very small.								

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
Aug. 16		i i i i F	h. m. s. 2 16 41 16 56 17 3 17 26 17 49 20	s.	μ	km.	Very small. Felt in northern and central Scotland. Measurements taken from experimental Wood-Anderson instrument.	Sept. 6*			h. m. s. — — —	s.	μ	km.	
18	NE Z	eL eL F	3 23 29 55	... ... ...	... ... ...	... ... ...	Japan. 34° N., 133° E. (U.R.S.S.)	7	ZN NE ZNE E Z	iP eS eL M M F	3 43 2 46 6 47 47 38 50 16 4 10	... ... ... 15 8 ...	— 7 — 4 ...	1790	Algeria. (Strasbourg.)
19/20	ZNE	eL F	23 44 0 5	... ...	... ...	... ...		8	NE Z	e eL eL F	7 7 11 15 30	... ... ... ...	... ... ... ...	...	Repetition from Aug. 31d. 15h.
21	NE Z N	eL eL M F	20 22 26 25 19 21 0	... ... 24 ...	... ... — 5 ...	... ... ... ...	Horizontal components disturbed by wind. West of Sumatra. 1° S., 94° E. (Manila.)	8	Z Z ZNE	e i eL F	11 33 56 34 24 12 34 13 40	... ... ... ...	... ... ... ...	...
22		e F	8 2 10	... ...	... ...	... ...	Very small.	11	ZNE	eL F	1 29 35	... ...	... ...	...
23		e F	23 29 40	... ...	... ...	... ...		12	NE Z E Z	eL eL M M F	15 15 17 24 13 24 15 45	... ... 13 13 ...	... ... + 5 — 5 ...	...
24	ZNE ZNE NE Z Z	e eL eL M F	0 8 7 11 7 56 1 2 12 56 2 20	... ... ... 18 ...	... ... ... + 5 ...	... ... ... ... ...		12		e F	16 32 35	... ...	... ...	...	Very small; possibly not seismic.
26	NE Z Z	eL eL M F	2 6 13 20 11 50	... ... 16 ...	... ... + 4 ...	... ... ... ...		12	NE Z	eL eL F	18 32 39 55	... ... ...	... ... ...	...
28		e F	12 6 20	... ...	... ...	... ...		13		e F	3 52 4 10	... ...	... ...	...
31	ZNE ZNE ZNE ZNE E N N E Z	eP iP ePP iS L M M M M F	5 9 50 9 58 11 27 15 26 20 20 20 20 43 24 35 25 44 26 53 7 5	... ... ... ... ... 27 27 17 13 13 ...	... ... ... ... ... +48 +62 +41 +42 +37 ...	3810	Dilatation. Amplitudes of iP as read in mm.:— N. E. Z. —2.3 +1.0 +2.8 Azimuth about 335°. Baffin Bay. 72° N., 70° W. (J.S.A.)	13		e F	15 9 30	... ...	... ...	...
								15	NE NE NE E N	eP eS eL M M F	7 9 26 19 40 34 45 23 45 48 8 35	... ... ... 18 19 ...	... ... ... +20 + 9 ...	9070	No "Z" record. Mexico. 20° N., 105° W. (U.S.C.G.S.)
								16		e F	14 2 35	... ...	... ...	...
31	ZN NE NE Z N E Z E	eP eSS eL eL M M M M F	15 6 42 17 28 21 26 27 0 27 1 29 51 29 54 16 40	... ... ... ... 16 17 13 17 ...	... ... ... ... —77 +44 +32 +36 ...	(5700)	East of Hissar. 39° N., 71° E. (U.R.S.S.)	21	NE NE NE	eSKS eS ePS F	13 2 34 3 14 3 52 50	... ... ... ...	... ... ... ...	...	Very small; traces on "Z" record. Felt in northern Sumatra. (Batavia.)
								23		e F	1 54 2 5	... ...	... ...	...
								23	Z Z ZNE	ePKP eSKKS eL F	8 18 54 29 9 9 23 10 0	... ... ... ...	... ... ... ...	(16000)	
Sept. 1		e F	7 55 8 15	... ...	... ...	... ...		26	Z NE NE ZNE	eP eS eSS eL F	7 37 10 44 33 47 42 53 8 45	... ... ... ... ...	... ... ... ...	5750	
1	ZNE ZNE	e eL F	11 56 46 12 5 45	... ... ...	... ... ...	... ... ...		27	ZNE	eL F	23 18 35	... ...	... ...	...
4	ZN ZNE	ePKP eL F	16 54 34 17 50 19 5	... ... ...	... ... ...	... ... ...	Loyalty Islands. 21° S., 169° E. (Manila.)								
5*			— — —	...	...	...	*No records during standardisation, etc. 5d. 13h. 10m. — 15h. 31m. 6d. 8h. 28m. — 16h. 33m.	Oct. 5	Z E NE Z E N Z	eP eS eL eL M M M F	20 38 11 48 9 21 8 12 13 28 15 8 20 10 50	... ... ... ... 22 25 17 ...	... ... ... ... —10 + 8 + 4 ...	8750	Pacific Ocean off Japan. 40° N., 145° E. (U.R.S.S.)
6	ZNE NE Z	e eL eL F	2 41 3 12 18 35	... ... ... ...	... ... ... ...	... ... ... ...	Felt in Mindanao. (Manila.)								

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY. Lat 51° 28' 6" N. Long 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
Oct. 5		e F	h. m. s. 22 42 23 25	s.	μ	km.		Nov. 4*	Z NE Z N	e eL eL M F	h. m. s. 3 13 35 42 49 21	s. 19	μ - 7	km.	
6	ZE NE ZNE E N	eP iS eL M M F	0 24 3 27 42 29 30 8 30 46 50	... ... ... 17 14 ...	... ... ... - 4 + 5 ...	2190		4*	NE Z N	eL eL M F	4 25 30 5 9 58 45	... ... 20 ...	... ... +10 ...	... ... ... ...	Overlapped by next shock.
6	ZNE E ZN N E	e eL eL M M F	13 5 57 12 15 15 27 16 17 50	... ... ... 24 16 ...	... ... ... + 7 + 5 ...	... ... ... ... ... ...		5/6	Z N NE NE ZNE N E Z	eP i e e eL M M M F	23 14 16 25 12 33 2 37 0 40 54 9 54 39 58 41 0 50	... ... ... ... ... 19 19 18 ...	... ... ... ... ... - 7 - 7 + 7 ...	... ... ... ... ... ... ... ...	Aleutian Islands. 52° N., 176° W. (U.S.C.G.S.)
7		e F	11 3 15	... ...	... ...	... ...		7		e F	14 40 45	... ...	... ...	... ...
8		e F	7 22 30	... ...	... ...	... ...		9	ZN ZN	iP eL F	13 46 0 54 14 0	... ... ...	... ... ...	... ... ...	Dilatation. No E-W record. Felt in Cairo. (Helwan.)
10	Z Z Z ZN N ZN N E ZN NE E ZNE N	iPKP i i e i e i i e e e eL M F	16 0 57 1 1 1 20 3 5 10 50 14 21 17 2 23 36 24 14 28 0 29 24 32 36 27 18 25	... ... ... ... ... ... ... ... ... ... ... ... 26 ...	... ... ... ... ... ... ... ... ... ... ... ... -22 ...	... ... ... ... ... ... ... ... ... ... ... ... ... ...	Compression. Emer- gent on horizontal components. Between Fiji and Ker- madec Islands. 23° S., 176° W. (U.S.C.G.S.) Deep focus. Irregular.	10	ZE ZNE N Z E	eP L M M M F	15 44 25 49 50 9 50 37 50 42 16 20	... ... 20 20 18 ...	... ... + 7 - 8 + 7 ...	... ... ... ... ... ...
18	Z Z NE Z N Z E	ePKP ePP eL eL M M M F	8 8 41 11 39 52 59 9 19 5 23 22 27 8 10 35	... ... ... ... 19 20 18 ...	... ... ... ... + 7 - 8 + 7 ...	... ... ... ... ... ... ... ...	Pacific Ocean. 4° S., 173° E. (U.R.S.S.)	12	ZNE NE N Z N E Z	e L M L M M F	7 27 34 34 21 36 38 56 38 59 43 3 8 35	... ... 40 ... 19 21 14 ...	... ... (-30) ... -20 +20 + 9 ...	... ... ... ... ... ... ...	Asia Minor. 37° N., 40° E. (Strasbourg.)
19	NE N Z	eL M eL F	21 29 32 4 35 50	... 21 ... ...	... + 7 ... ...	... ... ... ...	Himalayas. 33° N., 78° E. (U.R.S.S.)	16	ZNE	eL F	10 53 11 35	... ...	... ...	... ...
21		e F	18 48 19 10	... ...	... ...	... ...		16	Z NE Z N E	e eL eL M M F	14 16 28 42 47 48 23 48 47 16 15	... ... ... 26 26 ...	... ... ... -10 + 9 ...	... ... ... ... ...
26	Z Z N ZNE E NE Z E N E N Z	iP iPP e(S) iPS e eL eL M M M M M F	17 24 2 27 43 34 49 36 0 45 36 54 59 59 35 59 47 18 8 49 9 9 9 13 50	... ... ... ... ... ... ... 28 28 19 16 17 ...	... ... ... ... ... ... ... +29 +22 +21 +23 -23 ...	(9750)	} Emergent on horizon- tal components. Pacific Ocean off Japan 31° N., 132° E. (Chiufeng.)	18	ZNE ZE ZE E ZN E NE N	iP i i iS iS e e M F	3 30 9 31 22 33 0 37 14 37 16 38 34 41 7 52 17 4 20	... ... ... ... ... ... ... 19 ...	... ... ... ... ... ... ... -10 ...	5430	Compression. Turkestan. 37° N., 66.5° E. (Strasbourg.) Surface waves poorly developed.
27		e F	11 5 35	... ...	... ...	... ...	Possibly not seismic.	18	NE NE Z	e eL eL F	15 36 42 49 16 5	... ... ... ...	... ... ... ...	... ... ... ...
29	NE Z	eL eL F	0 23 30 45	... ... ...	... ... ...	... ... ...	Pacific Ocean. 20° N., 133° E. (U.R.S.S.)	18/19	Z ZNE Z NE NE Z Z N E	iPKP ePP iPKS eSKKS eL eL M M M F	22 59 17 23 1 26 2 32 8 36 36 43 49 17 50 57 53 52 1 0	... ... ... ... ... ... 27 25 25 ...	... ... ... ... ... ... -15 -13 + 6 ...	(14000)	Compression. Emergent on horizon- tal components. North of New Ireland. 1° S., 155° E. (Bombay.)
29	NE NE N Z	e eL M eL F	16 22 33 36 3 38 17 0	... ... 29 ... ...	... ... -20 ... ...	... ... ... ... ...		21	E ZNE	e(S) eL F	22 36 22 43 55	... ... ...	... ... ...	... ... ...

* Confused by wind.

SEISMOLOGICAL DIARY—continued.

Galitzin Seismographs, three components.

546. KEW OBSERVATORY.

Lat. 51° 28' 6" N. Long. 0° 18' 47" W. Height above M.S.L. 5 metres.

1934.

Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.	Date.	Compt.	Phase.	G.M.T.	Period.	Ampli- tude.	Δ	Remarks.
Nov. 24	ZNE N	eL M F	h. m. s. 14 1 8 48 45	s. 19 ...	μ ... + 4 ...	km.		Dec. 15 cont.	NE ZNE E N E N N Z E Z Z	i eL M M M M M M M M M F	h. m. s. 24 40 28 33 53 34 6 36 39 37 24 38 29 39 14 40 1 40 13 42 47 4 (30)	s. ... 28 24 20 15 15 17 14 11 ...	μ ... +210 +320 +145 -270 +230 +120 +155 +105 -63 ...	km.	
26	NE Z N	eL eL M F	13 0 5 10 6 30	... ... 19 ...	... ... - 7 ...	...	Philippine Islands. 14° N., 120° E. (Manila.)								
27	ZNE ZNE ZNE NE Z N E Z	ePP eSKS eSP eL eL M M M F	6 33 22 39 16 42 37 7 3 7 14 18 15 21 26 37 8 0	... ... ... ... ... 27 26 19 ...	... ... ... ... ... -16 -13 - 9 ...	(12200)	Molucca Islands. 1° S., 127° E. (U.S.C.G.S.)	17	NE Z N	eL eL M F	16 49 58 17 7 6 18 0	... ... 23 ...	... ... +13 ...	...	Masked by micro- seisms. New Guinea. 7° N., 145° E. (Bombay.)
30	ZE N ZNE ZN NE NE NE M ZE N E Z	iP eP i e eSKS iS eSS eL eL M M M F	2 17 53 17 53 17 55 19 11 28 14 28 17 33 45 40 42 47 40 49 33 54 3 — — —	... ... ... ... ... ... ... ... ... 27 25 17 ...	... ... ... ... ... ... ... ... ... +99 +93 -74 ...	9280	Amplitudes as read in mm. :— N. E. Z. iP...(+0.2) -0.5 -2.0 i ... -0.6 +2.1 +9.6 giving azimuth about 285°. Large movement. Pacific Ocean off Mexico. 19° N., 105° W. (J.S.A.)	21		e F	13 17 25	... ...	... ...	...	Very small.
								22	ZNE ZNE NE N E ZE E Z N	e e e eL e eL M M M F	14 52 21 57 16 15 0 37 2 2 14 5 10 8 10 13 12 47 16 10	... ... ... ... ... ... 23 23 19 ...	... ... ... ... ... ... -35 -40 +20 ...	...	Pacific Ocean off Central America. 8° N., 89° W. (U.S.C.G.S.)
30	Z NE N NE	iP i i i F	3 1 6 4 12 4 59 6 45 5 5	... ... ... ... ...	... ... ... ... ...	...	Emergent on Galitzin horizontal com- ponents; clearly recorded by experi- mental Wood-Ande- rson seismograph (N-S component). Felt at Ancona, Italy. 43.8° N., 13.3° E. (Strasbourg.)	23	ZNE ZNE N Z NE Z	e i i e eL eL F	10 16 5 16 10 17 7 18 6 30 36 11 0	... ... ... ... ... ... ...	... ... ... ... ... ... ...	...	South America (Pasadena.) Surface waves small.
								23		e F	23 48 0 0	... ...	... ...	...
								24	ZNE N NE NE N	e i i i M F	16 0 45 2 41 2 53 3 16 4 33 10	... ... ... ... 14 ...	... ... ... ... +16 ...	...	Confused by micro- seisms.
Dec. 1		e F	19 53 20 5	... ...	... ...	...		25		e F	7 28 50	... ...	... ...	...	Possibly not seismic.
3	ZN ZNE E	eP eL M F	2 50 27 3 18 28 5 4 5	... ... 18 ...	... ... + 5 ...	...	Central America. 15° N., 89° W. (U.S.C.G.S.)	28		e F	12 50 13 30	... ...	... ...	...
4	NE NE ZNE NE Z E Z N	eSKS eS ePS eL eL M M M F	17 48 8 48 43 49 58 18 8 11 13 50 14 8 14 37 45	... ... ... ... ... 23 23 21 ...	... ... ... ... ... -16 + 7 -12 ...	(10000)	Northern Chile. 19° S., 70° W. (U.S.C.G.S.)	30	Z Z NE Z N E Z	e e L L M M M F	14 20 42 24 52 28 31 36 33 37 21 39 19 15 55	... ... ... ... 17 17 15 ...	... ... ... ... +35 +25 +26 ...	...	Disturbed by wind and microseisms. Lower California. 31° N., 116° W. (U.S.C.G.S.)
8		e F	10 24 45	... ...	... ...	...	Mexico. (Pasadena.)	31	ZNE ZNE NE NE Z Z N E N Z	eP ePP eSKS iS eSP eSS L L M M M M F	18 58 8 19 1 38 7 57 8 2 9 4 12 48 18 25 26 54 29 27 30 28 30 29 23 0	... ... ... ... ... ... ... 20 17 16 15 ...	... ... ... ... ... ... ... -135 -140 +120 -110 ...	8670	Repetition of preced- ing shock. 30° N., 116° W. (U.S.C.G.S.)
15	Z ZNE N NE Z Z N NE Z	eP iP eS iS iSP eSS i i i	2 8 25 8 31 17 11 17 16 17 22 21 53 24 3 24 27 24 34	... ... ... ... ... ... ... ... ...	... ... ... ... ... ... ... ... ...	7330	Amplitudes of iP as read in mm. :— N. E. Z. -0.7 -1.2 +2.0 giving azimuth = 62° ±5°. Tibet. 31.5° N., 89° E. (Strasbourg.)								

547. KEW OBSERVATORY:

1934.

Month	JANUARY								FEBRUARY								MARCH							
Hour G.M.T.	Oh.		6h.		12h.		18h.		Oh.		6h.		12h.		18h.		Oh.		6h.		12h.		18h.	
	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP
Day	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s
1	1.8	7.0	1.7	7.3	1.9	7.5	2.0	7.5	0.3	4.3	0.2	5.6	0.2	5.0	0.4	5.6	1.0	6.3	0.9	6.5	0.8	6.5	1.3	7.0
2	1.8	7.0	2.5	7.0	1.8	6.7	1.7	7.3	1.0	4.5	0.4	5.6	0.7	5.0	1.4	7.0	2.5	8.0	3.0	8.0	1.5	7.7	1.8	7.0
3	1.8	6.7	2.2	6.7	1.8	7.0	1.7	6.5	1.2	5.8	1.4	5.8	1.0	5.8	0.6	5.6	1.7	7.5	2.6	6.7	1.8	7.0	3.4	7.5
4	1.9	6.5	1.9	6.5	2.4	6.7	3.6	7.0	0.6	5.6	0.5	5.2	0.9	6.5	0.6	6.0	2.5	7.5	1.7	7.3	1.9	7.3	1.8	7.0
5	3.4	7.0	4.9	7.5	2.7	7.5	1.8	7.0	1.0	6.0	0.6	5.6	0.7	4.7	1.1	7.0	1.7	6.7	1.6	7.0	2.0	6.7	2.8	8.0
6	2.1	7.0	2.0	6.7	2.2	6.0	2.5	6.3	1.6	7.0	1.7	8.0	1.6	7.0	1.4	7.0	3.7	7.7	2.5	7.5	1.7	7.3	3.4	7.0
7	2.9	6.3	2.0	6.0	2.6	6.0	2.0	6.0	1.2	6.0	1.8	6.0	...	...	2.0	6.0	1.5	6.5	1.6	5.0	1.9	5.6	1.3	5.6
8	1.9	6.3	2.7	7.0	1.9	6.3	3.2	7.0	4.8	6.7	4.8	6.7	4.5	6.5	3.4	6.0	1.2	5.0	0.5	5.0	0.5	5.0	0.5	4.7
9	1.9	6.5	1.6	6.0	2.0	6.0	1.5	5.6	2.5	6.3	1.5	6.7	1.9	6.3	1.9	6.5	0.5	4.8	0.7	5.2	0.4	5.6	0.4	5.6
10	2.0	6.0	1.9	6.5	1.8	6.0	1.6	5.0	1.9	6.3	1.8	7.0	3.2	5.6	4.8	6.0	1.8	5.0	1.7	5.4	1.5	5.4	1.7	6.3
11	1.7	6.7	2.6	6.0	2.1	6.5	2.1	6.5	1.9	7.5	1.7	7.5	1.7	7.3	1.8	7.0	1.9	6.3	1.3	5.2	2.8	5.0	2.2	7.5
12	3.0	7.7	4.2	8.3	5.3	8.3	5.9	8.3	1.5	5.6	0.6	6.0	0.6	5.6	0.6	5.6	3.0	7.0	3.0	8.0	3.2	8.3	4.7	8.7
13	5.1	8.7	6.1	8.0	4.8	7.5	2.3	6.5	1.0	5.8	1.4	5.8	1.3	6.5	1.2	5.8	3.7	9.0	3.0	9.3	2.0	8.0	1.8	6.0
14	2.1	6.3	2.3	5.8	1.9	6.5	2.2	6.0	0.6	6.7	...	...	0.6	6.5	0.8	6.5	1.4	7.5	1.8	5.8	2.0	6.0	2.5	4.7
15	2.6	6.5	2.0	6.0	2.2	6.0	1.8	7.0	0.2	5.6	0.4	6.0	0.2	6.0	0.2	5.6	3.9	5.0	3.6	5.6	3.8	7.5	4.5	7.7
16	1.9	6.5	1.5	6.5	1.8	6.7	2.0	6.0	0.2	6.0	0.4	6.0	0.2	6.0	0.5	7.0	4.6	7.5	4.3	8.0	3.4	7.7	3.8	7.0
17	2.0	6.0	1.5	6.3	2.1	6.5	3.3	6.0	1.1	6.7	1.6	7.3	1.5	6.5	0.9	7.0	5.5	7.0	6.3	7.5	5.5	6.7	4.3	8.3
18	5.0	6.7	3.6	6.0	3.2	6.0	3.0	6.5	1.3	7.0	0.5	7.5	0.6	6.0	0.5	7.5	4.9	8.0	3.1	8.0	3.0	6.0	2.2	6.7
19	2.2	6.0	2.2	6.0	2.2	5.4	2.3	5.6	0.9	6.5	1.8	7.0	2.4	7.5	2.5	7.0	1.6	5.8	2.7	7.5	2.2	8.7	2.1	5.6
20	1.9	6.3	1.5	6.5	2.2	6.0	2.2	6.0	1.7	7.3	2.2	6.0	1.5	6.3	1.4	6.0	1.5	6.3	2.1	5.6	2.3	6.3	1.5	5.6
21	2.0	6.7	2.5	6.3	2.3	7.0	2.4	6.7	1.4	5.8	1.8	5.8	0.4	5.6	0.2	5.4	1.2	7.5	1.2	5.8	0.9	6.0	0.5	4.8
22	2.6	7.3	1.9	7.3	2.0	7.5	3.7	7.7	0.4	5.6	0.2	4.7	0.2	4.8	0.3	4.5	0.4	6.0	0.8	6.0	1.2	7.5	1.7	7.7
23	2.4	7.5	2.3	7.0	1.8	7.0	2.0	8.0	0.2	5.6	0.2	5.2	0.2	5.6	0.5	7.0	1.8	7.0	0.9	7.3	0.5	7.3	0.4	6.0
24	2.6	7.3	3.3	6.3	3.2	6.5	4.3	7.0	1.4	7.0	0.6	5.6	0.2	5.2	0.4	6.0	0.4	6.0	1.3	5.2	0.4	5.8	0.4	5.8
25	3.9	7.5	4.0	7.3	2.3	6.5	2.7	7.0	1.0	6.0	1.9	7.5	2.2	6.7	2.0	6.7	0.4	5.6	0.4	5.8	0.2	5.4	0.2	5.4
26	1.9	6.5	1.9	6.3	0.9	5.2	1.0	6.3	1.8	6.7	2.0	5.2	2.0	6.0	1.7	6.7	0.2	5.8	0.2	5.6	1.4	8.7	1.7	7.7
27	1.2	6.3	1.5	5.6	1.2	4.7	0.9	5.4	1.8	6.0	1.7	6.7	1.6	7.0	1.2	6.3	2.0	8.0	1.7	7.5	0.9	7.3	1.7	7.7
28	0.4	6.5	0.5	4.3	1.1	5.2	1.2	5.0	1.3	6.5	1.0	6.3	1.0	6.0	1.0	6.3	1.3	6.5	1.5	6.7	1.4	7.0	1.8	7.0
29	0.7	5.2	0.9	5.2	0.4	6.5	0.6	6.0	...	...	...	...	...	...	...	...	1.7	6.7	1.3	6.5	1.0	6.3	0.6	5.8
30	0.6	6.5	0.6	6.5	0.4	6.0	0.6	6.0	...	...	...	...	...	...	...	...	0.8	6.5	0.5	4.7	0.3	4.0	0.3	4.3
31	0.4	5.4	0.4	6.0	0.4	6.0	0.2	5.0	...	...	...	...	...	...	...	...	0.4	6.3	0.7	4.8	0.3	4.3	0.3	4.1
Mean	2.2	6.7	2.3	6.5	2.1	6.4	2.2	6.4	1.3	6.2	1.3	6.2	1.2	6.1	1.3	6.3	2.0	6.7	1.9	6.5	1.7	6.6	1.9	6.5
Mean for Days.	A = 2.2 μ ; TP = 6.5s.								A = 1.3 μ ; TP = 6.2s.								A = 1.9 μ ; TP = 6.6s.							
Month	APRIL								MAY								JUNE							
Hour G.M.T.	Oh.		6h.		12h.		18h.		Oh.		6h.		12h.		18h.		Oh.		6h.		12h.		18h.	
	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP	A.	TP
Day	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s
1	0.6	4.0	0.6	4.1	0.3	4.0	0.2	4.7	1.0	6.0	0.8	6.3	1.3	7.0	0.9	7.0	0.0	---	0.0	---	0.0	---	0.0	---
2	0.3	4.2	0.3	4.0	0.3	4.0	0.3	4.0	1.8	7.0	1.2	6.7	2.1	7.0	2.5	7.5	0.0	---	0.2	5.0	0.0	---	0.0	---
3	0.3	3.9	0.3	3.6	0.3	3.3	0.0	---	2.0	7.5	1.7	7.3	0.5	7.0	0.9	6.7	0.0	---	0.0	---	0.2	6.7	0.0	---
4	0.0	---	0.3	3.5	0.3	4.0	0.3	4.3	1.2	7.5	...	...	0.6	6.0	0.6	6.5	0.2	6.7	0.2	4.8	0.0	---	0.3	4.0
5	...	---	...	---	0.2	5.4	0.2	5.6	0.9	7.0	0.2	7.0	0.5	4.8	0.8	6.0	0.3	4.3	0.3	4.3	0.2	5.0	0.0	---
6	0.7	4.8	1.1	5.6	0.6	5.6	0.5	5.0	1.1	7.0	0.7	4.7	1.3	4.3	1.1	5.2	0.0	---	0.0	---	0.0	---	0.0	---
7	0.2	4.7	0.2	4.7	0.2	4.7	0.5	4.3	1.6	6.0	0.9	5.0	1.3	6.7	1.6	6.0	0.0	---	0.0	---	0.2	6.0	0.2	6.0
8	0.7	5.0	0.9	5.0	0.6	5.6	0.2	5.8	1.4	7.0	1.2	5.0	0.6	5.8	0.7	5.0	0.2	5.6	...	---	0.0	---	0.0	---
9	0.6	5.6	0.5	5.2	0.4	5.4	0.5	5.0	0.6	5.6	0.7	7.5	1.0	6.3	1.0	6.3	0.0	---	0.0	---	0.0	---	0.0	---
10	0.2	5.0	0.5	4.8	1.0	4.7	0.8	4.3	0.6	6.0	0.4	5.6	0.2	5.0	0.4	5.4	0.0	---	0.0	---	0.0	---	0.0	---
11	1.2	5.0	0.5	4.8	0.3	4.3	0.5	4.7	0.2	5.8	...	...	0.2	5.0	0.2	5.6	0.0	---	0.0	---	0.0	---	0.0	---
12	0.8	4.5	0.7	4.8	...	---	0.7	4.7	0.4	6.0	0.4	6.5	0.2	6.0	0.2	6.0	0.0	---	0.0	---	0.0	---	0.0	---
13	1.2	5.0	1.8	5.2	0.7	5.0	1.2	4.7	0.4	5.6	0.2	6.0	0.6	6.3	0.6	6.0	0.0	---	0.0	---	0.0	---	0.0	---
14	1.4	5.0	0.9	5.4	0.6	5.6	0.5	5.0	0.6	6.0	0.8	5.8	0.2	6.0	0.5	5.2	0.0	---	0.0					

MICROSEISMS OF NORTH COMPONENT: AMPLITUDE ($\mu = .001$ mm.) AND PERIOD (seconds).
Derived from readings for the period of thirty minutes centring at the exact hours, Greenwich Mean Time.

547. KEW OBSERVATORY:

1934.

Month	JULY	AUGUST	SEPTEMBER																					
Hour G.M.T.	0h.	6h.	12h.	18h.	0h.	6h.	12h.	18h.	0h.	6h.	12h.	18h.												
	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp
Day	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s
1	0.0	---	0.0	---	0.0	---	0.3	4.3	0.2	4.7	0.3	4.3	0.3	4.3	0.3	3.9	0.4	5.4	0.5	5.2	0.2	5.2	0.2	5.0
2	0.2	5.0	0.2	5.0	0.0	---	0.2	4.7	0.3	3.9	0.3	3.9	0.3	4.0	0.3	4.3	0.2	5.0	0.5	5.0	0.2	5.0	0.3	4.3
3	0.0	---	0.0	---	0.0	---	0.0	---	0.3	4.3	0.3	3.7	0.3	4.5	0.3	4.0	0.3	3.3	0.6	3.7	0.4	6.0	0.8	6.0
4	0.0	---	0.0	---	0.0	---	0.0	---	0.2	4.7	0.2	4.7	0.2	4.7	0.0	---	1.4	6.0	0.5	4.7	0.4	5.6	0.5	5.0
5	0.2	5.0	0.2	5.0	0.0	---	0.2	5.2	0.3	4.3	0.3	4.3	0.3	4.0	0.0	---	0.2	5.6	0.2	5.0	0.2	4.7	0.2	5.0
6	0.2	5.2	0.0	---	0.0	---	0.0	---	0.3	3.6	0.3	4.1	0.3	3.6	0.3	3.5	0.2	5.0	0.3	3.7	...	...	0.3	4.0
7	...	...	0.0	---	0.0	---	...	...	0.0	---	0.0	---	0.0	---	0.0	---	0.6	4.0	0.3	4.5	0.7	3.9	0.3	4.5
8	...	...	...	...	...	...	...	...	0.0	---	0.0	---	0.0	---	0.0	---	0.3	4.0	0.3	4.0	0.3	4.0	0.3	4.0
9	...	...	...	...	...	...	...	...	0.0	---	0.2	4.8	0.9	6.7	0.4	6.5	0.3	4.3	0.3	4.1	0.2	4.7	0.0	---
10	...	...	...	...	...	...	...	...	0.2	5.2	0.2	5.8	0.3	4.5	0.3	4.3	0.2	4.7	0.3	4.3	0.3	4.3	0.2	5.4
11	...	...	...	...	...	...	...	...	0.2	4.8	0.3	3.5	0.3	3.9	0.3	4.3	0.9	6.5	1.8	7.0	1.3	7.0	0.6	6.0
12	...	...	...	...	0.0	---	0.0	---	0.2	4.7	0.3	4.5	0.3	4.3	0.3	4.1	1.0	5.8	0.7	5.4	0.6	5.6	0.5	5.0
13	0.0	---	0.0	---	0.0	---	0.0	---	0.2	4.7	0.3	4.3	0.0	---	0.3	4.3	0.5	5.0	0.5	5.0	0.2	5.0	0.4	5.8
14	0.0	---	0.0	---	0.0	---	0.0	---	0.3	4.3	0.3	4.3	0.0	---	0.0	---	0.4	5.8	0.4	5.8	0.2	6.0	0.2	5.0
15	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.2	5.0	0.2	5.0	0.2	4.8	0.0	---
16	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.2	4.7	0.2	5.0	0.0	---	0.0	---	0.0	---	0.3	4.0
17	0.0	---	0.0	---	0.0	---	0.0	---	0.2	4.7	0.2	4.7	0.0	---	0.0	---	0.3	4.3	0.5	4.3	0.3	4.3	0.5	4.7
18	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.0	---	0.3	4.3	0.3	4.5	0.2	4.7	0.3	4.0	0.2	4.8
19	0.0	---	0.0	---	0.0	---	0.0	---	0.2	5.6	1.8	8.0	2.8	8.0	2.0	7.7	0.2	4.7	0.2	4.7	0.2	5.0	0.2	4.7
20	0.0	---	0.0	---	0.2	4.7	0.2	4.7	1.7	7.3	1.4	7.0	0.4	5.8	0.5	4.8	0.2	5.0	0.5	5.0	0.4	5.6	0.5	5.2
21	0.3	4.5	0.3	3.9	0.0	---	0.2	5.0	0.6	4.0	0.6	4.0	0.3	3.6	0.3	4.0	0.4	5.6	0.4	5.4	0.7	5.0	0.4	6.0
22	0.2	5.4	0.2	4.7	0.0	---	0.0	---	0.2	5.6	0.2	5.6	0.2	4.7	0.2	4.7	0.2	6.0	0.2	5.0	0.2	4.7	0.3	3.9
23	0.0	---	0.0	---	0.0	---	0.0	---	0.2	5.0	0.2	5.0	0.2	5.0	0.2	4.8	0.3	4.0	2.0	4.0	0.7	5.0	0.3	4.0
24	0.0	---	0.0	---	0.0	---	0.0	---	0.2	5.0	0.2	4.7	0.0	---	0.0	---	0.6	3.5	0.3	4.0	0.3	4.3	0.3	3.5
25	0.0	---	0.0	---	0.2	4.7	0.2	5.4	0.0	---	0.0	---	0.0	---	0.0	---	0.5	4.7	0.3	4.0	0.2	5.4	0.2	4.7
26	0.2	5.4	0.2	4.7	0.2	5.2	0.2	4.7	0.0	---	0.0	---	0.3	4.0	0.3	4.5	0.5	5.0	0.6	6.0	0.9	7.5	1.4	7.5
27	0.3	3.6	0.3	4.0	0.2	4.7	0.3	3.7	0.2	6.0	0.2	6.0	0.2	5.4	0.2	6.0	1.5	6.5	0.6	6.5	0.8	5.8	0.8	5.6
28	0.2	5.0	0.3	4.3	0.3	3.7	0.3	3.5	0.2	5.8	0.2	5.4	0.2	5.0	0.2	5.0	0.4	6.0	0.7	5.0	0.7	5.2	0.5	5.0
29	0.3	3.5	0.3	4.0	0.2	4.7	0.4	3.2	0.4	6.0	0.5	4.5	0.6	3.6	1.0	4.5	0.4	6.0	0.4	6.0	0.6	5.6	0.6	6.0
30	0.4	3.2	0.3	3.5	0.2	4.7	0.3	4.0	0.8	5.6	0.7	4.8	0.5	5.2	0.5	4.7	0.5	4.5	0.7	5.4	0.2	5.4	0.2	5.2
31	0.2	4.7	0.2	4.7	0.3	4.3	0.3	4.0	0.5	5.0	0.4	5.4	0.6	6.0	0.4	6.0								
Mean	0.1	4.6	0.1	4.4	0.1	4.6	0.1	4.4	0.3	5.0	0.3	4.9	0.3	4.8	0.3	4.8	0.5	5.0	0.5	4.9	0.4	5.2	0.4	5.0
Mean for day.	A = 0.1 μ ; Tp = 4.5s.	A = 0.3 μ ; Tp = 4.9s.	A = 0.5 μ ; Tp = 5.0s.																					
Month	OCTOBER	NOVEMBER	DECEMBER																					
Hour G.M.T.	0h.	6h.	12h.	18h.	0h.	6h.	12h.	18h.	0h.	6h.	12h.	18h.												
	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp	A.	Tp
Day	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s	μ	s
1	0.3	4.3	0.2	4.7	0.2	4.7	0.3	4.7	0.4	6.7	0.6	6.3	0.2	6.0	0.6	6.0	0.6	5.8	1.0	6.0	1.7	6.5	1.8	6.0
2	0.3	4.3	0.3	4.1	0.3	4.3	0.3	4.3	0.6	6.0	0.6	6.0	0.2	6.3	0.7	7.0	1.4	6.3	1.1	6.7	1.7	5.6	2.0	5.4
3	0.3	3.9	0.3	4.3	0.3	4.0	0.2	5.2	0.8	6.0	0.8	5.6	0.5	5.0	0.6	6.0	2.1	5.0	1.4	5.8	2.1	5.0	1.7	4.8
4	0.4	6.7	1.9	6.3	2.0	7.0	2.0	7.0	0.7	7.0	0.6	4.0	0.6	3.7	0.3	4.0	1.3	4.3	1.0	4.5	2.2	4.8	2.2	4.7
5	1.8	7.0	1.9	6.7	0.7	5.2	1.0	6.0	0.3	4.0	0.8	4.3	0.3	4.0	0.3	3.7	2.7	5.2	4.2	6.0	3.2	6.5	2.3	5.6
6	0.8	4.3	0.5	5.0	0.5	4.7	0.7	5.4	0.3	3.7	0.3	3.7	0.3	3.3	0.3	4.3	1.9	5.4	2.2	4.7	1.5	5.4	2.0	4.7
7	0.6	6.3	1.4	5.8	0.6	5.6	1.5	6.7	0.3	4.0	0.5	5.0	0.2	4.7	0.2	5.4	1.1	5.2	0.7	5.2	0.7	4.7	0.7	4.7
8	1.7	7.3	2.0	7.0	1.7	6.5	1.5	6.5	0.2	5.4	0.2	5.4	0.2	4.7	0.3	3.6	0.5	5.0	0.5	5.0	0.6	4.1	1.4	5.0
9	1.2	6.0	0.7	5.4	0.6	6.0	0.4	6.0	0.6	4.0	0.3	4.3	0.5	4.5	1.1	4.3	1.1	5.2	1.6	8.3	3.2	8.3	3.0	8.7
10	0.5	5.2	0.5	5.2	0.5	5.2	0.4	5.6	1.2	5.0	1.2	4.8	0.7	4.7	0.7	4.7	3.8	8.0	2.7	8.3	2.2	8.0	1.7	7.7
11	0.4	6.0	0.6	5.6	0.7	7.3	0.4	6.5	0.5	4.7	0.4	5.6	0.3	3.7	0.2	6.0	2.2	8.0	1.7	7.5	3.2	8.0	2.2	8.0
12	0.4	6.0	0.4	6.3	0.2	4.7	0.3	4.5	0.2	4.8	0.3	4.1	0.2	5.0	0.2	5.0	1.9	7.7	2.1	8.7	3.0	8.7	3.1	8.3
13	0.3	4.5	0.3	4.5	0.2	5.4	0.2	5.2	0.2	6.0	0.2	4.8	1.7	7.3	2.1	7.5	2.3	8.7	2.1	8.3	1.7	8.0	1.5	6.5
14	0.2	4.8	0.3	4.0	0.3	4.5	0.2	4.7	1.9	7.3	1.6	7.0	1.5	6.7	1.5	6.3	0.9	6.5	1.7	7.7	1.5	8.0	1.6	8.3
15	0.8	5.6	1.8	7.0	1.8	7.0	1.4	6.3	1.4	6.0	0.9	6.7	0.3	3.7	0.2	4.7	1.9	6.7	1.7	6.5	3.0	8.0	2.9	7.5
16	1.0	6.0	0.9	5.0	0.5	4.5	0.5	5.0	0.3	4.8	0.4	3.5	0.3	3.6	0.3	4.0	1.9	7.5	2.0	7.7	1.7	8.0	1.6	7.0
17	0.4	5.8	0.2	5.0	0.3	4.5	0.2	4.8	0.3	4.0	0.3	3.9	0.0	---	0.2	7.0	0.9	7.0	1.4	6.0	1.4	6.3	1.0	6.0
18	0.2	5.0	0.2	5.4	0.2	4.7	0.2	5.0	0.4	6.0	0.5	7.0	0.3	7.5	0.2	8.7	1.4	5.0	1.8	5.2	1.9	6.5	3.9	8.7
19	0.6	6.0	0.6	5.8	0.5	5.8	0.4	6.0	0.2	7.0	0.2	6.0	0.4	6.0	1.1	5.6	3.1	8.3	3.0	8.0	3.2	8.3	2.5	8.0
20	0.4	5.4	0.3	4.0	0.2	4.7	0.2	5.0	1.2	7.7	1.7	7.5	1.7	7.7	1.6	7.3	1.7	7.5	1.6	7.0	0.7	6.7	0.7	6.7
21	0.2	5.0	0.2	4.7	0.6	4.0	1.6	5.2	1.7	7.3	2.3	7.0	1.7	7.5	1.7	7.5	0.6	5.6	0.6	6.5	0.4	5.4	0.4	6.7
22	2.0	5.4	1.8	5.4	1.5	6.3	2.2	5.4	1.7	7.7	1.7	7.5	1.4	7.0	0.3	7.5	0.9	6.5	1.5	6.5	1.7	6.5	1.3	6.7
23	1.8	5.2	1.1	5.4	0.4	6.0	0.7	5.0	1.4	7.0	0.4	6.7	0.4	6.5	0.2	5.6	1.3	6.7	1.0	7.7	0.8	6.0	0.9	7.5
24	0.7	5.4	0.6	5.8	0.5	5.2	2.6	5.0	0.2	6.5	0.4	6.3	0.6	6.7	0.9	7.0	1.7	7.7	2.8	8.0	1.7	7.7	2.7	8.3
25	3.																							

M.O. 380

Aerological

Air Ministry
METEOROLOGICAL OFFICE

THE
OBSERVATORIES' YEAR BOOK
1934

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the observatories at Lerwick, Aberdeen, Eskdalemuir, Valentia and Kew and the results of soundings of the upper atmosphere by means of registering balloons.

AEROLOGICAL SECTION

Published by the authority of the
METEOROLOGICAL COMMITTEE



LONDON

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

1936

AEROLOGICAL SECTION.

Station.		Latitude.		Longitude.		Height above Sea Level.
Kew Observatory	..	51° 28' N.	..	0° 19' W.	..	7 metres.
Sealand	..	53° 14' N.	..	3° 0' W.	..	5 metres.

INTRODUCTION.

Notes on the tables of Upper Air Temperatures obtained from soundings with registering balloons at Kew Observatory and Sealand, 1934.

The tables in the Aerological Section are presented in the same form as those appearing in the Observatories' Year Book since 1930. As in that volume geopotential is used in place of geometric height for the vertical coordinate. The units employed are :

1 Leo (symbol l.). = 10^5 c.g.s. units of geopotential.

1 Kiloleo (symbol Kl.). = 10^8 c.g.s. " " "

A table shewing the relation between height and geopotential in latitude 52° 20', the approximate mean latitude of Kew Observatory and Sealand, is given in the Introduction to the Aerological Section of the Observatories' Year Book, 1930. For ordinary purposes it may be taken that if 2.1% be added to the geopotential in kiloleos the corresponding height in kilometres will be obtained.

The Dines pattern meteorograph was employed solely as before, and the method of operation remained the same as in recent years. A full description will be found in "The Dines Balloon Meteorograph and the method of using it."* In the computation of pressure-geopotentials the graphical method was employed, checked as to its main features by an arithmetical process. The effect of humidity on the density of the air was neglected.

A total of 47 soundings were made during the year, 36 from the Aviation Service Station of the Meteorological Office at Sealand Aerodrome and 11 from Kew Observatory. In the cases of 37 of these soundings the instruments were found and returned, the rest being lost. The choice of station from which a sounding was made was generally determined in view of the probable direction and length of the run of the balloon.

The ventilation of the Dines meteorograph is effected solely by the natural draught produced by its vertical velocity. The vertical velocity of the rising balloon near the start is indicated approximately in Table 548, being based on a formula derived from a limited number of observations. It is probable that even when the balloon is known to have burst, this velocity was not always maintained up to the highest point of the sounding. After the balloon had burst the velocity of fall was much higher, ranging from about 15 metres per second at 20 Kl. down to 5 near the ground. The ventilation on the descent was more adequate than on the ascent, especially in the stratosphere.

As regards temperature, unless stated to the contrary the mean of the records on the ascent and descent was employed entirely in computing the published figures. In general the difference between the two records did not exceed 5° A., with a mean of about half that amount. Whenever direct evidence is available it is almost always found that in the troposphere the descending record is the colder of the two. An analysis of a large number of British soundings has led to the conclusion that as far as the troposphere is concerned this effect is mainly due to a temperature lag of the thermograph member, and that the mean of the two records gives in general a close approximation to the true air temperature.† Occasionally in exceptional circumstances it is deemed best to give greater weight to one record than to the other, or to publish

* M.O. 321, H.M. Stationery Office.

† See also :—Memoirs of the Indian Meteorological Department. Vol. XXIV. Part V. By J. H. Field.

the data from one record only. All such occasions are mentioned in the notes, they generally refer either to occasions of strong solar radiation when the less vigorous ventilation of the meteorograph on the ascent makes that record less reliable than that of the descent, or to the lowest layers of the troposphere only.

In the case of high soundings made during the day-time a pronounced rise of temperature is sometimes observed over about a kiloleo at the extreme top. There is good evidence that this is a fictitious effect due to solar radiation and that the ascent is a great deal more affected by it than the descent. The rise of temperature in such cases is therefore usually ignored, and in addition greater weight is given to the descent than to the ascent in the upper parts of such records as show an unusually large difference between them. All occasions on which such selection has been made are specifically mentioned in the notes. An account of this phenomenon is to be found in "Memoirs of the Royal Meteorological Society," Vol. 2, No. 18. By L. H. G. Dines.

In most cases the meteorograph was fitted with a hair hygograph. Only the record of relative humidity on the ascent in each case has been published, except when specific mention to the contrary is made in the notes. The record of the descent appears to be the less reliable for two reasons, first that the previous exposure of the hair to extreme cold and dryness makes it more sluggish in response to changes in the relative humidity, second that the higher velocity at which the meteorograph falls increases the lag in its response reckoned in terms of height. The hygrometer readily shows changes in the relative humidity in the lower part of the troposphere, but the absolute value of its readings may be subject to an uncertain error of five or more on the percentage scale. No difference has been made as concerns this or previous volumes, in the interpretation of the records as between temperatures above and below the freezing point. For purposes of reference it may however be stated that Depegrams supplied to the International Commission for the exploration of the Upper Air were, up to the year 1929, drawn on the assumption that the published figures of relative humidity at temperatures below 273°A . referred to ice; since 1930 it has been presumed that they refer to water in all cases. Below a temperature of 250°A . it seems doubtful if in the ordinary way the record has any meaning, and the figures for the higher parts of the atmosphere have not therefore been published.

In order to ensure as far as possible that the hygograph works under standard conditions, it is normally exposed to a saturated atmosphere for ten minutes about an hour before the sounding is made.

The method employed in calibrating the hygograph is as follows:—It is first immersed in either water or a saturated atmosphere for at least ten minutes, and a mark made by the scribe on the record plate which is taken as corresponding with steady saturated conditions. It is then taken out, roughly dried to remove superfluous water, and placed as soon as possible in a testing chamber through which a current of air flows continually. The relative humidity of the air stream is next reduced in two or more stages to a minimum value of about 20%, plenty of time being allowed at each stage for the conditions to become steady. When in each case steady conditions have been attained a mark is made by the scribe. The object of the test is to obtain two marks at relative humidities near 25%, and in such case the total time taken is about 25 to 30 minutes from the instant when the hygograph is removed from the water in the first place. If the relative humidity is reduced in more than two stages the total time taken is greater, allowing about ten minutes per stage. The calibration is carried out at temperatures above 288°A .

When the contraction of the hair corresponding with a relative humidity of 25% has been determined in the manner described, the contraction throughout the scale under the conditions met with in the sounding is assumed to follow an empirical law, which has been determined from the average behaviour of a large number of hairs. A table expressing this law appeared in the Introduction to the Aerological Section of

the Year Book for 1930 and represented the procedure which had been adopted up to the end of that year. As a result of further experiments made in 1931 it was found desirable to amend the statement of the empirical law of contraction of the hygrograph hairs, and for purposes of tabulation since January, 1931, the following table has been used :

Relative humidity %	110	100	95	90	80	70	60	50	40	30	25
Contraction of hair. Saturated length.	—·07k	00k	·035k	·080k	·185k	·315k	·45k	·59k	·74k	·90k	·99k

Here, the quantity k is defined as the contraction of the hair from its saturated length at the relative humidity of 25% expressed as a fraction of the saturated length, and determined as set out above.

The average value of k has been found to be about ·0099, but individual hairs differ from the mean by anything up to 15% on either side. This figure is based on observations made on about 80 meteorographs, involving 40 or more entirely separate human hairs derived from various sources.

In working up the records the hair has been assumed to have a uniform absolute coefficient of thermal expansion of 34×10^{-6} per degree A. Since the frame of the hygrograph is made of nickel silver having a coefficient of 18×10^{-6} the relative expansion of hair to frame is assumed to be 16×10^{-6} per degree A.

No allowance has been made in computing the published figures for the fact that the results of the calibration are not necessarily valid at low temperatures below the freezing point.

It has been noticed on many occasions that on passing through a cloud the hygrograph hairs expand more than they do when immersed in water or in an artificial saturated atmosphere. This phenomenon is not yet fully understood, but it has been proved that it is not due to errors in calibration or setting of the instrument ; accordingly in this volume its occurrence is indicated by publishing a value of the relative humidity in excess of 100%. The values are determined by extrapolation of the table upwards through 100. If, for example, the hairs are found to have extended by ·035 k beyond their length when immersed in water at the same temperature the relative humidity is tabulated as 105%, but there is not enough evidence to be able to state what exactly is the corresponding physical condition of the atmosphere in regard to water vapour.

Data of well marked inversions and regions of zero lapse rate in the troposphere are included in the notes on the soundings. They are set out in a uniform manner on the principle that corresponding values of geopotential, temperature and relative humidity are given for the salient points in each special case, the sequence being always from lesser geopotentials to greater.

The figures given in the table of lapse rates do not in every case agree with the temperatures appearing in the table of temperature-geopotentials. The reason for this is that both were determined independently from the original data, which can sometimes profitably be read to the nearest half degree, but are rounded off to whole degrees for publication.

The lapse rates given between ground level and 0·5 Kl. are determined from the reading in the thermometer screen at the station and that of the meteorograph at 0·5 Kl. A source of error arises here in that the two standards are independent and are not exposed in the same manner. A small difference is capable of making an appreciable error in the lapse rate, and it is possible that lapse rates apparently greater than 10°A. per Kl. in this layer are sometimes due to this cause.

Whenever possible the meteorograph was briefly calibrated again at one temperature after return, before the record plate had been disturbed, in order to discover whether any shift of zero had taken place since the previous calibration. This provides some check on the behaviour of the instrument, but disturbance is almost inevitable considering the rough treatment experienced in the shock of the fall and after.

All new meteorographs, and all old ones used again after repair, were seasoned in a vacuum chamber before use by being subjected to several slow reductions of pressure. This process has been found greatly to reduce the chance of a systematic difference occurring between the results of a fast and slow calibration. More detail is given in the Introduction to the tables for 1923, and within the limits of accuracy at present attainable in the measurement of upper air pressures, the results of the fast reduction of pressure in the calibration test may be taken as applying to the slow reduction in the actual sounding.

The lag, or difference in pressure reading as between a falling and a rising pressure, is of the order 3 or 4 millibars on the average in the middle region of a high sounding, falling off to lesser values on either side. If a correction be applied to the recorded temperature-pressures to allow for this error, it results, for an average sounding in the troposphere, in an increase in the difference between the temperatures recorded at any pressure on the ascent and descent. The effect is to make the recorded temperatures on the descent too high by about half a degree at a level of 6 or 7 kiloleos, with a tendency for the error to fall off above and below. When the mean of the two records is employed the resultant error is halved and becomes negligible.

In Table 548 occur the entries "Type of Tropopause" and " L_c =Geopotential at Tropopause." These are defined as follows:—Type I. The stratosphere commences with an inversion, and L_c is the geopotential at the first point of zero temperature gradient. Type II. The stratosphere begins with an abrupt transition to a temperature gradient below 2°A. per kiloleo without inversion, and L_c is the geopotential of the abrupt transition. Type III. There is no abrupt change of temperature gradient, and the base of the stratosphere is taken at the point where the mean fall of temperature for the kiloleo next above is 2°A. or less, provided that it does not exceed 2°A. for any subsequent kiloleo. In the Remarks on the Soundings the pressure distribution is classified according to the types defined in "Aids to Forecasting."†

N.B.—The data of one sounding made in June, 1933 will be found at the beginning of the tables. The instrument was retrieved so late that it was impossible to include the results in the volume for 1933.

†—E. Gold, F.R.S., Geophysical Memoir No. 16, M.O. 220f, London, 1920.

548. T . = Temperature in degrees absolute. P . = Pressure in millibars.
 L . = Geopotential Level above M.S.L. in kiloleos (Kl.) RH . = Relative Humidity as percentage. 1934.

No. of Sounding.	933.	957.	958.	959.	961.	962.	963.	965.	966.	971.										
Date.	June 8, 1933.	Jan. 1.	Jan. 3.	Jan. 4.	Jan. 8.	Jan. 10.	Jan. 11.	Jan. 15.	Jan. 16.	Jan. 22.										
Station.	Kew.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Kew.										
Start G.M.T.	13h. 1m.	17h. 41m.	17h. 59m.	7h. 45m.	17h. 47m.	17h. 55m.	7h. 25m.	18h. 8m.	18h. 8m.	17h. 33m.										
L_t =Geopotential at Greatest Height ... (Kl.)	19.15	15.75	24.36	11.61	17.43	18.82	15.89	17.89	16.15	17.36										
T_t =Corresponding Temperature ... (°A)	229	211	218	209	215	216	216	217	210	217										
P_t =Corresponding Pressure ... (mb.)	63	97	25	192	73	59	94	67	89	76										
Place of Fall	Busbridge, Godalming, Surrey.	Allerton, Yorks.	Brockhall, North- ampton.	Dove Holes, Buxton, Derby.	Bagthorpe, Nr. Jacksdale, Notts.	Pateley Bridge, Harrogate, Yorks.	Edmund- byers, Shotley Bridge, Durham.	Hodstock, Blyth, Worksop.	God- manchester, Hunting- don.	Ashurst, Steyning, Sussex.										
Distance (Km.)											38	101	168	72	115	126	193	82	215	58
Bearing. Degrees from N.											210	50	130	84	99	40	20	131	117	180
Type of Balloon	Veedip.	Veedip.	Saul.	Veedip.	Pirelli.	Veedip.	Veedip.	Pirelli.	Pirelli.	Saul.										
Weight of Balloon... .. (Kg.)	0.47	0.43	0.49	0.38	0.74	0.39	0.40	0.73	0.73	0.49										
Weight of Instrument (Kg.)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14										
Net Free Lift (Kg.)	0.35	0.49	0.45	0.49	0.90	0.53	0.52	0.55	0.55	0.40										
Estimated vertical velocity at start ... (m/s.)	3.4	4.5	4.0	4.5	(6.5)	4.5	4.5	4.5	4.5	3.5										
Geostrophic Wind— Speed (m/s.)	7	13	18	18	11	20	31	20	17	5										
Degrees from N.	45	220	235	240	260	190	195	290	220	200										
Wind (Anemograph)— Speed (m/s.)	4	4	3	1	2	10	11	7	5	0										
Degrees from N.	25	160	160	160	235	170	160	280	180	—										
Humidity at surface (%)	38	93	83	81	78	82	89	71	88	82										
Type of Tropopause	I.	I.	I.	I.	I.	I.	I.	I.	I.	I.										
L_c =Geopotential at the tropopause ... (Kl.)	11.24	11.87	11.28	10.93	10.57	10.31	10.56	7.93	10.76	10.71										
T_c =Temp. at (°A)	215	202	207	206	211	209	209	217	210	211										
P_c =Pressure at (mb.)	218	185	204	214	222	237	223	324	216	223										
Mean Temp. in Stratosphere	{ (L_c+2) to (L_c+5) (°A.)	222	—	217	—	216	213	215	222	212	216									
	{ (L_c+5) to (L_c+8) (°A.)	225	—	217	—	—	215	—	221	—	—									
	{ (L_c+8) to (L_c+11) (°A.)	—	—	218	—	—	—	—	—	—	—									
T_m (Mean Temp. 1 to 9 Kl.) (°A.)	261	252	252	252	245	251	250	240	248	247										
P_s (Pressure at M.S.L.) (mb.)	1018	1022	1015	1009	1022	1013	1001	995	1010	1034										

549. 1934.

- No. of Sounding. REMARKS ON THE SOUNDINGS AND THE PREVAILING WEATHER CONDITIONS, 1934.
933. Weather b. Clouds Frcu. 2/10 from NNE. at about 1 Kl. The mean of both records was used for temperature, except above 17 Kl. where more weight was given to the descending one. The usual sudden fall of temperature shewn after the burst was ignored. Isothermal (2.63–3.03 Kl., 739–703 mb., 276°A., 56–40%). Sudden change of lapse rate at (11.78 Kl., 200 mb., 215°A.). Pressure distribution:—Same as No. 932. Type IX or X.
957. Weather c. Clouds St. and Stcu. 9/10 from SW. at about 0.5 Kl. Inversion on ascent (0.55–0.79 Kl., 956–927 mb., 277.2–278.6°A., 102–84%). Inversion on descent (3.38–3.43 Kl., 664–660 mb., 262–263°A.). Inversion on ascent (3.47–3.54 Kl., 656–650 mb., 261–263°A., 98–61%). Pressure distribution:—A belt of high pressure stretching from the Azores across South East England to Southern Scandinavia is moving south-east and a depression south of Iceland is moving north-east. Type Va.
958. Weather c. Clouds St. 8/10 from S. Ast. 1/10, Ci. Trace, from NW'N. moving at 10 r.p.h. Mean of both records used for temperature except for the lowest Kiloleo, where the ascent only was used. Inversion on ascent, upper limit at (0.29 Kl., 977 mb., 281°A., 88%). Pressure distribution:—A depression is centred south west of Iceland whilst pressure is high from the Azores to Central Russia. Type V or. Va.
959. Weather c. Clouds St. and Stcu. from SW. at about 0.6 Kl. Isothermal (1.02–1.18 Kl., 888–870 mb., 277°A., 119–104%). Inversion (1.18–1.30 Kl., 870–857 mb., 277–279°A., 104–68%). Pressure distribution:—A deep depression off South East Iceland. Pressure is high over Russia and to the west of Spain. Type V or. Va.
961. Weather b. Clouds Stcu. 1/10 from W. at about 0.7 Kl. Inversion (2.67–2.91 Kl., 722–700 mb., 260–260.6°A., 53–48%). Pressure distribution:—A region of low pressure extends from north of Norway to west of Ireland, whilst pressure is high over the Continent. Type IV.
962. Weather c. Clouds Nb. and St. 10/10 from S. at about 0.6 Kl. Ci., at 1600 from SW. moving at 10 r.p.h. Inversion (1.26–1.60 Kl., 864–827 mb., 272–273°A., 107–95%); Isothermal (1.60–2.06 Kl., 827–780 mb., 273°A., 96–92%). Change of lapse rate at (11.03 Kl., 210 mb., 211°A.). Pressure distribution:—An anticyclone is centred over Central Europe, and there are depressions west of Ireland and north of Scandinavia. Type VIa.
963. Weather cr. Clouds Nb. and St. 10/10 from S.E. at about 0.5 Kl. Isothermal (1.11–1.61 Kl., 870–816 mb., 273°A., 111–108%). Pressure distribution:—A deep depression south of Iceland is moving north east. Type Va. or VIa.
965. Weather bc. Clouds Cu. 2/10 from W'N. at about 0.8 Kl. Ast. 5/10, Ci. Trace. Pressure distribution:—A deep depression over the north of the North Sea is moving NNE. Pressure is high over Spain and the Mediterranean. Type I.
966. Weather r. Clouds Nbst. 8/10 and Frst. 2/10 from S. at about 0.5 Kl. The hygrograph indicated considerable supersaturation over the first few Kl. on the ascent. It seems to have then become covered with ice and to have read too high in the upper part of the troposphere, the ice evaporating later. On the descent it again indicated supersaturation below 3 Kl. Change of lapse rate at (10.33 Kl., 232 mb., 210°A.). Pressure distribution:—A belt of low pressure extends from west of Ireland to the north of Scandinavia while pressure is high over France and Spain. Type IV.
971. Weather cz. Clouds Stcu. 10/10 from S. cloudy sky but recently developed. Inversion (1.18–1.32 Kl., 889–873 mb., 266–269°A., 83–70%). Pressure distribution:—Pressure is low from Iceland to Spitzbergen, high over the Continent; a small wedge of low pressure is moving east across Ireland. Type VIa.

548. T . = Temperature in degrees absolute. P . = Pressure in millibars.
 L . = Geopotential Level above M.S.L. in kiloleos (Kl.) RH . = Relative Humidity as percentage. 1934.

No. of Sounding.	973.	974.	975.	976.	977.	978.	979.	980.	981.	982.
Date.	Jan. 25.	Jan. 25.	Jan. 29.	Feb. 7.	Feb. 8.	Mar. 15.	Mar. 16.	Apr. 26.	May 14.	May 15.
Station.	Sealand.	Kew.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Kew.	Sealand.	Sealand.
Start G.M.T.	7h. 19m.	12h. 32m.	17h. 42m.	18h. 10m.	13h. 2m.	12h. 35m.	12h. 46m.	12h. 51m.	19h. 3m.	17h. 58m.
L_t = Geopotential at Greatest Height ... (Kl.)	17.43	12.46	24.21	18.63	12.64	13.53	14.75	10.08	15.85	14.97
T_t = Corresponding Temperature ... (°A)	212	215	215	203	211	229	223	232	217	220
P_t = Corresponding Pressure ... (mb.)	74	169	25	60	162	135	111	240	99	113
Place of Fall	Appletree- wick, Hebden, Yorks.	New- market, Cambridge- shire.	Giggetty, Wom- bourne, Staffs.	Duffy Green, Slipdham, Norfolk.	Park Street, St. Albans, Herts.	Mobberley, Cheshire.	Curbar, Derby- shire.	Loughton, Essex.	Wantage Road, Berk- shire.	Mattersay, Yorks.
Distance (Km.)	114	98	94	271	245	46	92	33	208	136
Bearing. Degrees from N.	37	28	145	102	132	77	87	54	148	81
Type of Balloon	Pirelli.	Veedip.	Saul.	Saul.	Veedip.	Pirelli.	Pirelli.	Veedip.	Braid.	Pirelli.
Weight of Balloon (Kg.)	0.34	0.54	0.49	0.49	0.34	0.36	0.34	0.41	0.68	0.72
Weight of Instrument (Kg.)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Net Free Lift (Kg.)	0.50	0.48	0.40	0.40	0.49	1.05	1.20	1.00	0.55	0.55
Estimated vertical velocity at start ... (m/s.)	4.5	4.0	3.5	3.5	4.5	(7.5)	(7.5)	(7.0)	4.5	4.5
Geostrophic Wind— Speed (m/s.)	16	13	2	13	18	15	16	8	16	13
Degrees from N.	180	210	270	280	320	275	210	220	320	225
Wind (Anemograph)— Speed (m/s.)	9	2	0	3	14	6	6	2	13	6
Degrees from N.	145	180	—	235	290	270	215	200	315	215
Humidity at surface (%)	87	81	94	72	64	87	67	86	77	76
Type of Tropopause	I.	I.	I.	I.	I.	II.	I.	I.	I.	I.
L_c = Geopotential at the tropopause ... (Kl.)	11.07	11.05	12.11	11.57	11.47	9.05	9.13	7.00	9.48	10.28
T_c = Temp. at (°A)	207	208	204	208	204	224	217	229	220	215
P_c = Pressure at (mb.)	210	213	180	197	197	343	271	383	270	237
Mean Temp. in Stratosphere	$\left\{ \begin{array}{l} (L_c+2) \text{ to } (L_c+5) \text{ (°A.)} \\ (L_c+5) \text{ to } (L_c+8) \text{ (°A.)} \\ (L_c+8) \text{ to } (L_c+11) \text{ (°A.)} \end{array} \right.$									
	214	—	213	207	—	—	221	—	222	—
	—	—	214	—	—	—	—	—	—	—
	—	—	215	—	—	—	—	—	—	—
T_m (Mean Temp. 1 to 9 Kl.) (°A.)	250	252	251	254	251	242	245	247	249	251
P_s (Pressure at M.S.L.) (mb.)	1020	1024	1036	1023	1023	973	985	993	1017	1003

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1934.

- No. of Sounding. REMARKS ON THE SOUNDINGS AND THE PREVAILING WEATHER CONDITIONS, 1934.
973. Weather cm. Clouds St. 7/10 from SE'S. at about 0.45 Kl. Inversion (0.64–1.24 Kl., 940–871 mb., 269–276.5°A., 103–45%). Pressure distribution:—A large anti-cyclone is centred over South East Europe. A deep depression lies off South West Iceland, whilst a trough of low pressure to the west of the British Isles is moving East. Type VIa.
974. Weather c. Clouds Stcu. 10/10 from S'W. at about 0.5 Kl. Mean of both records employed for the temperature except below 0.8 Kl. where the ascent only was used. Inversion on descent (0.66–0.76 Kl., 942–930 mb., 269–275°A.). Inversion on ascent (0.69–0.91 Kl., 938–913 mb., 270.5–276.5°A., 103–42%). Pressure distribution:—The same as in the foregoing. Type Va or VIa.
975. Weather bfx. Clouds nil. Inversion of about 6°A. near ground with upper limit at about 0.33 Kl. Inversion on descent (0.82–1.06 Kl., 934–905 mb., 272.1–273.5°A.). Inversion on ascent (0.93–1.06 Kl., 920–905 mb., 271.1–273.5°A., 92–75%). Pressure distribution:—A large anticyclone covers the British Isles. Type XI.
976. Weather c. Clouds Stcu. 9/10 from SW. at about 1.1 Kl. Mean of both records used for temperature except below 1.7 Kl. where the ascent only was used. Inversion on descent (0.85–0.91 Kl., 920–912 mb., 274.5–279.8°A.). Inversion on ascent (1.31–1.65 Kl., 867–830 mb., 270.8–277°A., 103–47%). Pressure distribution:—An anticyclone is situated off South West Ireland whilst a deep depression near the Faroes is moving rapidly east. Type II.
977. Weather bc. Clouds Frnu. 1/10 at about 0.8 Kl., Stcu. 5/10 from NW. at about 1.2 Kl. Inversion (2.90–3.35 Kl., 703–663 mb., 261–267°A., 44–38%). Pressure distribution:—An anticyclone lies south-west of the British Isles while a deep depression over southern Scandinavia is moving ESE. Type I.
978. Weather cr. Clouds Frnb. and Nbst. 8/10 from W. at about 0.6 Kl. High Stcu. 1/10, Ci. trace from W. at 8 r.p.n. Pressure distribution:—A deep depression over the south-east of Scotland is moving slowly NE. Type XV.
979. Weather c. Clouds Cu. 4/10 from SW. at about 1.2 Kl., Acu. and Ast. 2/10 from W'S moving at 18 r.p.h., Ci. and Cist. 2/10 from W'N. moving at 16 r.p.h. Mean of both records used for temperature, except at 0.5 Kl., where the ascent only was employed. Pressure distribution:—The depression over the North Sea is moving north east and another deep depression is approaching from the Atlantic. Type V.
980. Weather c. Clouds Stcu. 8/10 from SW. at about 0.7 Kl., Acu. 2/10. The sounding was made just after a heavy shower and the balloon must have ascended inside or close to a Cunb. cloud. Pressure distribution:—A depression over Southern England is filling up while pressure is high over the Atlantic. Type XV.
981. Weather bc. Clouds Cu. 3/10 from NW. at about 0.9 Kl. Pressure distribution:—Pressure is low over Scandinavia, high over Greenland; an anticyclone is approaching from the Atlantic. Type I.
982. Weather cr. Clouds Nbst. 6/10 and Frst. 2/10 from SW. at about 0.8 Kl., Ast. 1/10. Pressure distribution:—An area of low pressure extends from Scandinavia over the British Isles while pressure is high over the Atlantic. Type XV.

548. T .=Temperature in degrees absolute. P .=Pressure in millibars.
 L .=Geopotential Level above M.S.L. in kiloleos (Kl.) RH .=Relative Humidity as percentage. 1934.

No. of Sounding.	983.	984.	985.	986.	987.	988.	989.	991.	992.
Date.	May 16.	May 17.	May 18.	May 19.	May 23.	July 4.	July 6.	Aug. 24.	Sept. 10.
Station.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Kew.	Kew.	Sealand.	Kew.
Start G.M.T.	17h. 40m.	17h. 46m.	17h. 55m.	6h. 26m.	17h. 43m.	15h. 42m.	18h. 2m.	15h. 1m.	17h. 55m.
L_t =Geopotential at Greatest Height ... (Kl.)	20.21	12.65	15.42	18.71	11.53	18.63	22.43	18.24	14.63
T_t =Corresponding Temperature ... (°A)	224	226	223	226	215	224	229	229	214
P_t =Corresponding Pressure ... (mb.)	50	162	108	65	203	69	38	72	127
Place of Fall	Holmes Chapel, Cheshire.	Wardlow, Buxton, Derby.	Potts Shrigley, Macclesfield, Cheshire.	Thornton, Bradford, Yorks.	Nanpantan, Loughborough, Leicester.	New Malden, Surrey.	Aveley, Purfleet, Essex.	Stockport, Cheshire.	Wakering Common, Essex.
Distance ... (Km.)	43	85	62	98	128	11	40	60	77
Bearing. Degrees from N. ...	94	87	82	50	150	154	84	70	82
Type of Balloon	Pirelli.	Pirelli.	Pirelli.	Veedip.	Pirelli.	Veedip.	Saul.	Pirelli.	Veedip.
Weight of Balloon ... (Kg.)	0.73	0.73	0.77	0.41	0.74	0.63	0.50	0.80	0.33
Weight of Instrument ... (Kg.)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.28	0.14
Net Free Lift ... (Kg.)	1.10	1.10	1.10	0.80	0.85	0.70	0.40	0.47	0.40
Estimated vertical velocity at start ... (m/s)	7.0	7.0	7.0	6.5	6.5	5.5	3.5	4.0	4.0
Geostrophic Wind— Speed ... (m/s.)	16	9	5	18	5	2	7	7	7
Degrees from N. ...	315	240	230	190	330	100	120	300	210
Wind (Anemograph)— Speed ... (m/s)	4	3	0	6	6	0	4	6	1
Degrees from N. ...	325	235	—	155	315	—	90	315	200
Humidity at surface ... (%)	86	55	92	84	69	42	47	61	66
Type of Tropopause	II.	I.	I.	I.	I.?	II.	I.	I.	II.
L_c =Geopotential at the tropopause ... (Kl.)	7.55	9.35	10.31	10.27	10.88	11.47	11.90	10.53	12.01
T_c =Temp. at ... (°A)	229	221	218	216	215	217	216	219	212
P_c =Pressure at ... (mb.)	350	271	240	242	226	214	201	237	195
Mean Temp. in Stratosphere	(L_c+2) to (L_c+5) ... (°A.)	229	—	224	225	—	220	218	225
(L_c+5) to (L_c+8) ... (°A.)	226	—	—	225	—	—	221	227	—
(L_c+8) to (L_c+11) ... (°A.)	223	—	—	—	—	—	—	—	—
T_m (Mean Temp. 1 to 9 Kl.) ... (°A.)	244	247	252	254	255	263	264	255	263
P_s (Pressure at M.S.L.) ... (mb.)	1001	1006	1012	1011	1027	1022	1021	1020	1021

549.

1934.

- No. of Sounding. REMARKS ON THE SOUNDINGS AND THE PREVAILING WEATHER CONDITIONS, 1934.
983. Weather c/prq. Clouds Frnb and Cu. 6/10 from NW'N. at about 0.5 Kl., Acu. 1/10 from N. moving at 7 r.p.h., Ci., trace. Mean of both records used for the temperature except above 18 Kl. where greater weight was given to the descending record. Pressure distribution:—A depression is centred between Scotland and Norway, an anticyclone lies to the west of Spain. Type I or XII.
984. Weather bcviyp. Clouds Cu., Cunb. and Stcu. 6/10 from WSW. at about 1.3 Kl., Ci. 1/10 from W. moving at 21 r.p.h. Pressure distribution:—A depression is situated north of Scotland with a shallow trough extending over Ireland to the south-west. An anticyclone is centred west of Spain. Type XIV.
985. Weather odr. Clouds Nbst. and Frst. 10/10 from W. at about 0.3 Kl. Pressure distribution:—A depression is situated north-west of Ireland with a shallow trough extending south-east. Another depression is situated north of Norway with an anticyclone over the Baltic. Type VI or XII.
986. Weather c. Clouds Stcu. and Nbst. 9/10 from SW. at about 1 Kl. Mean of both records used for temperature except above 15 Kl. where more weight was given to the descent. Isothermal (1.48–1.93 Kl., 839–793 mb., 273.5°A., 89–82%). Pressure distribution:—A depression north-west of Ireland extends over the British Isles, while an anticyclone is approaching Spain. Type VII.
987. Weather b. Clouds Cu. and Stcu. 1/10 from NW. at about 1.2 Kl., Acu. 1/10 from WNW. moving at 18 r.p.h. Inversion (2.13–2.45 Kl., 787–755 mb., 270.5–271°A., 80–54%). Pressure distribution:—An anticyclone centred south-west of Ireland extends over the British Isles, France and Germany. Type Ia.
988. Weather bc. Clouds Frcu. 4/10 nearly stationary at about 1 Kl. Ci. observed earlier nearly stationary. Mean of both records used for temperature except below 1 Kl. where greater weight was given to the ascent, and at the top where a rise before and a very rapid fall after the burst were ignored. The apparatus was seen to fall by the finder at 1720 G.M.T. Inversion on descent (1.96–2.13 Kl., 807–790 mb., 280–282°A.), inversion on ascent (2.28–2.38 Kl., 775–765 mb., 277–279.5°A., 82–63%). Pressure distribution:—A large anticyclone over the British Isles is decreasing in intensity. Type VIIb.
989. Weather b. Clouds Ci. 1/10 from WNW. Isothermal (1.95–2.44 Kl., 808–760 mb., 282.5°A., 49–29%), small inversion at (6.79 Kl., 431 mb., 252.5°A., 34%), sudden change of lapse rate at (12.75 Kl., 175 mb., 215°A.). Pressure distribution:—A wedge of high pressure extends southwards over the British Isles whilst shallow depressions are centred over Spain, Russia and Iceland. Type VIIc or VIIb.
991. Weather bc. Clouds Cu. 2/10 from NW. at about 1.2 Kl., Ci. 2/10 from WSW. moving at 6 r.p.h. Two meteorographs were sent up side by side and the means of the records from both of them were used. Isothermal (1.78–2.07 Kl., 818–787 mb., 273°A., 70–57%), small inversion at (5.49 Kl., 502 mb., 253°A., 53%). Pressure distribution:—A belt of high pressure extends from west of Spain to Denmark. A depression over the Atlantic is moving east. Type Ia.
992. Weather b. Clouds Cu. 1/10. Inversion (1.55–1.99 Kl., 844–799 mb., 279–280°A., 79–44%). Pressure distribution:—A depression is centred south-west of Iceland, while a wedge of high pressure extends from Russia to France and South-east England. Type VI.

T.=Temperature in degrees absolute.

P.=Pressure in millibars.

L.=Geopotential Level above M.S.L. in kiloleos (Kl.)

RH.=Relative Humidity as percentage.

548.

1934.

No. of Sounding.	993.	994.	995.	996.	998.	999.	1000.	1002.	1003.
Date.	Sept. 11.	Sept. 12.	Sept. 13.	Sept. 14.	Sept. 27.	Sept. 28.	Oct. 19.	Nov. 9.	Dec. 14.
Station.	Sealand.	Sealand.	Kew.	Kew.	Sealand.	Sealand.	Sealand.	Kew.	Sealand.
Start G.M.T.	17h. 46m.	12h. 58m.	17h. 59m.	18h. 2m.	17h. 43m.	12h. 58m.	16h. 52m.	12h. 13m.	16h. 4m.
L_t =Geopotential at Greatest Height ... (Kl.)	16.71	18.64	17.11	11.42	16.14	21.99	12.84	15.33	14.31
T_t =Corresponding Temperature ... (°A)	215	221	216	218	214	221	216	228	215
P_t =Corresponding Pressure ... (mb.)	90	67	85	210	96	39	165	110	120
Place of Fall	Clover, Ripon, Yorks.	Deane Bolton, Lancs.	Maidenhead Berks.	Hambleden, Henley, Oxon.	Roos, Nr. Withernsea, Yorks.	Muker Common, Ingleton, Yorks.	Hockley Heath, Nr. Birm'ham.	Foulsham, Norfolk.	Howgill, Rimington, Lancs.
Distance ... (Km.)	140	55	29	40	205	118	110	170	87
Bearing. Degrees from N. ...	43	45	280	287	72	20	136	31	30
Type of Balloon	Veedip.	Saul.	Pirelli.	Veedip.	Pirelli.	Saul.	Veedip.	Veedip.	Pirelli.
Weight of Balloon ... (Kg.)	0.38	0.51	0.35	0.31	0.35	0.50	0.35	0.42	0.35
Weight of Instrument ... (Kg.)	0.14	0.27	0.14	0.14	0.14	0.27	0.14	0.14	0.14
Net Free Lift ... (Kg.)	0.35	0.32	0.35	0.36	0.70	0.76	0.45	0.75	1.00
Estimated vertical velocity at start ... (m/s)	3.5	3.0	3.5	3.5	6.0	6.0	4.5	6.0	7.5
Geostrophic Wind— Speed ... (m/s)	5	Indeterminate.	8	7	12	20	9	25	19
Degrees from N. ...	235		90	100	190	200	275	170	190
Wind (Anemograph)— Speed ... (m/s)	2	2	2	4	2	10	2	2	9
Degrees from N. ...	225	135	90	110	170	145	335	160	125
Humidity at surface ... (%)	75	56	57	63	68	57	91	90	89
Type of Tropopause	I.	II.	II.	I.?	I.	I.	I.	I.	I.
L_c =Geopotential at the tropopause ... (Kl.)	11.47	11.21	11.17	10.80	12.17	13.31	11.30	9.40	10.11
T_c =Temp. at ... (°A)	215	217	216	217	207	207	213	225	219
P_c =Pressure at ... (mb.)	210	221	221	232	185	155	212	272	235
Mean Temp. in Stratosphere	(L_c+2) to (L_c+5) ... (°A)	215	217	216	—	216	—	228	—
(L_c+5) to (L_c+8) ... (°A)	—	—	—	—	—	220	—	—	—
(L_c+8) to (L_c+11) ... (°A)	—	—	—	—	—	—	—	—	—
T_m (Mean Temp. 1 to 9 Kl.) ... (°A)	260	261	261	260	259	263	258	253	249
P_s (Pressure at M.S.L.) ... (mb.)	1025	1029	1022	1017	1019	1011	1017	990	977

549.

1934.

No. of Sounding.

REMARKS ON THE SOUNDINGS AND THE PREVAILING WEATHER CONDITIONS, 1934.

993. Weather c. Clouds Stcu. 8/10 from SW. at 1.25 Kl., Ci. 1/10 from SW'S. moving at 9 r.p.h. Inversion (1.52-1.72 Kl., 851-830 mb., 280-281°A., 77-53%). Pressure distribution:—A belt of high pressure extends from the Baltic to the Azores. A depression is centred south-east of Iceland. Type VI or VIIb.
994. Weather bc. Clouds Cu. 6/10 from SW'S. at about 1.1 Kl. Mean used for temperature except that near the top the descent was given rather more weight than the ascent, and at the top the rise in temperature which occurred before the burst and the sudden fall after it were ignored. Two instruments were sent up and the records of both used. Inversion (1.51-1.64 Kl., 857-844 mb., 281.4-283°A., 90-60%). Pressure distribution:—The same as the foregoing, but the depression and associated secondaries extend from Iceland to west of Ireland. Type VIIc or VIIIb.
995. Weather b. Clouds nil. Sudden change of lapse rate at (11.81 Kl., 200 mb., 217°A.). Pressure distribution:—Anticyclones are centred over Scandinavia and south-west of Ireland. A depression to the north-west of Iceland is filling up. Type VIIc.
996. Weather b. Clouds Cicu. 2/10. Isothermal (0.40-0.67 Kl., 970-940 mb., 290°A., 69-59%). Pressure distribution:—Pressure is high over Scandinavia. A trough of low pressure extends from west of Iceland to Spain. Type VIIb.
998. Weather c. Clouds Stcu. trace from S'W. at about 1.1 Kl., Acu. 4/10 from W'S. moving at 14 r.p.h., Ci. 4/10 from WSW. moving at 18 r.p.h. Inversion (1.15-1.46 Kl., 885-850 mb., 277-280°A., 77-66%). Pressure distribution:—A depression centred south of Iceland extends over the British Isles. Type Va or VIa.
999. Weather b. Clouds Cu. trace from SW'S. at about 1.2 Kl., Acu. 1/10. Mean of both records used for temperature except that above 18 Kl. more weight was given to the descent, and a sudden fall after the balloon burst was ignored. Two instruments were sent up and the records of both used. Inversion on ascent (0.77-1.13 Kl., 923-883 mb., 288-290°A., 80-54%). Sudden change of lapse rate at (12.45 Kl., 179 mb., 210°A.). Pressure distribution:—Pressure is low west of Scotland and high from Scandinavia to the Mediterranean. Type Va.
1000. Weather c/d. Clouds St. 7/10 from W'N at about 0.4 Kl., High Stcu. from W. moving at 10 r.p.h. Ascending record only used. Isothermal (0.69-0.99 Kl., 933-900 mb., 281°A., 100-77%) isothermal (4.07-4.42 Kl., 607-580 mb., 263°A., 91-90%). Pressure distribution:—Anticyclones are centred west of Spain and over Southern Europe, while a series of depressions extend from the Atlantic to north of Scandinavia. Type II or XIa.
1002. Weather or. Clouds Nbst. 10/10 from S'E. at about 0.5 Kl. The hygrometer hairs probably covered with ice and unreliable above 1 or 2 Kl. Change of lapse rate at (8.55 Kl., 310 mb., 228°A.). Pressure distribution:—A depression is centred over south-west England with an anticyclone over the Atlantic. Type XIV.
1003. Weather cr. Clouds Frnb. 6/10 and Nbst. 4/10 from SE. at about 0.3 Kl. Change of lapse rate at (8.17 Kl., 318 mb., 225°A., 92%). Pressure distribution:—A deep depression centred west of Ireland extends over the British Isles and is moving east. Type XV.

T . = Temperature in degrees absolute.

$P.$ = Pressure in millibars.

L . = Geopotential Level above M.S.L. in kiloleos (Kl.)

RH. = Relative Humidity as percentage.

No.		933.		957.		958.		959.		961.		962.		963.		965.		966.		971.	
Date.	Station.	June 8, 1933.		Jan. 1.		Jan. 3.		Jan. 4.		Jan. 8.		Jan. 10.		Jan. 11.		Jan. 15.		Jan. 16.		Jan. 22.	
Start.	(G.M.T.)	Kew.		Sealand.		Sealand.		Sealand.		Sealand.		Sealand.		Sealand.		Sealand.		Sealand.		Kew.	
		13h.	1m.	17h.	41m.	17h.	59m.	7h.	45m.	17h.	47m.	17h.	55m.	7h.	25m.	18h.	8m.	18h.	8m.	17h.	33m.

550.

GEOPOTENTIALS, TEMPERATURES AND RELATIVE HUMIDITIES CORRESPONDING
WITH ISOBARIC SURFACES.

1934.

Pressure.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.
Millibars.	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%	Kl.	°A. 200 +	%
100	16·17	22	...	15·57	11	...	15·70	16	...	...	...	...	15·49	14	...	15·56	14	...	15·51	15	...	15·38	19	...	15·45	11	...	15·66	17	...
200	11·78	15	...	11·41	4	...	11·41	8	...	11·33	7	...	11·21	13	...	11·33	10	...	11·22	14	...	10·97	21	...	11·22	12	...	11·37	13	...
300	9·21	30	37	8·95	22	62	8·91	23	86	8·87	21	83	8·73	17	...	8·86	20	63	8·73	21	81	8·41	18	49	8·74	19	95	8·87	20	15
400	7·25	45	41	7·05	38	62	7·01	38	87	6·98	38	93	6·88	32	32	6·97	37	58	6·85	36	87	6·59	26	47	6·86	35	98	7·00	35	16
500	5·63	58	41	5·48	51	54	5·44	51	79	5·41	51	95	5·35	43	32	5·41	50	36	5·29	49	105	5·11	37	39	5·32	47	100	5·45	47	17
600	4·27	66	49	4·14	59	47	4·09	61	73	4·07	61	86	4·05	54	35	4·07	59	38	3·95	59	90	3·83	49	40	4·00	57	104	4·13	55	22
700	3·07	76	38	2·98	65	103	2·93	67	59	2·89	69	84	2·91	61	48	2·91	69	41	2·79	66	81	2·71	58	44	2·85	65	107	2·99	60	36
800	2·00	80	56	1·95	72	84	1·89	73	48	1·85	76	59	1·91	65	68	1·87	73	104	1·77	72	103	1·70	65	64	1·82	68	110	1·99	66	40
900	1·04	89	45	1·02	78	76	·96	77	107	·91	77	118	1·00	70	86	·95	74	102	·85	74	109	·79	72	71	·91	71	110	1·09	66	91
1000	·15	...	...	·17	...	...	·12	...	...	·07	...	...	·17	...	...	·11	...	...	·01	79	...	...	...	...	·08	...	...	·27	73	70

551.

PRESSURES, TEMPERATURES AND HUMIDITIES AT GIVEN GEOPOTENTIALS.

1934.

Geopotentials.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.			
Kiloleos.	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%			
			
24	...	...	...	...	...	...	27	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	31	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	37	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	43	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	50	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	64	29	...	...	...	...	59	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	75	26	...	...	...	...	69	16	...	...	...	...	...	...	...	67	15	...	...	...	...	...	...	...	...	...	...
17	88	22	...	...	...	...	81	16	...	...	...	...	78	13	...	79	15	...	...	...	...	77	17	...	...	...	81	16		
16	103	22	...	...	...	...	95	17	...	...	...	...	92	13	...	93	15	...	...	...	...	91	18	...	91	10	...	95	16	
15	120	22	...	110	12	...	112	17	...	...	...	...	108	15	...	110	14	...	108	15	...	106	20	...	107	12	...	111	16	
14	141	22	...	129	14	...	131	18	...	...	...	...	127	17	...	129	13	...	128	15	...	124	21	...	127	13	...	131	16	
13	165	22	...	153	7	...	154	18	...	...	...	...	149	16	...	152	13	...	150	16	...	145	23	...	149	13	...	153	15	
12	193	16	...	181	3	...	181	13	...	...	...	...	176	15	...	179	9	...	176	17	...	170	22	...	176	12	...	181	15	
11	227	16	...	215	7	...	214	9	...	211	6	...	207	13	...	211	11	...	207	10	...	199	21	...	207	11	...	213	12	
10	267	25	...	254	13	...	252	15	...	250	12	...	244	12	...	250	11	...	245	12	...	233	20	...	245	12	...	250	14	
9	310	32	37	297	22	62	296	23	86	294	20	82	287	15	...	293	19	63	288	19	80	273	18	...	288	17	95	294	20	15
8	359	40	40	347	30	63	345	30	87	343	29	87	337	22	32	342	28	61	336	27	83	320	17	49	337	26	96	344	26	15
7	414	48	41	403	38	62	400	38	87	399	38	93	393	31	32	398	37	57	391	35	87	375	23	48	392	34	98	400	35	16
6	476	55	38	465	47	52	462	46	84	460	46	99	456	38	32	460	45	37	452	43	93	438	31	44	453	41	99	462	43	16
5	544	62	48	534	55	44	531	55	68	529	55	89	526	46	32	528	53	36	520	52	110	508	39	39	522	49	102	533	51	19
4	620	68	48	611	60	51	607	62	76	605	62	85	604	54	36	606	60	38	596	59	90	586	48	40	600	57	104	611	55	22
3	706	76	43	698	65	103	693	67	60	691	68	85	692	61	47	691	68	39	682	64	88	673	56	43	686	64	106	700	60	36
2.5	751	76	56	745	68	92	739	69	53	736	71	74	740	62	56	737	70	89	727	68	99	720	60	42	732	66	108	748	63	32
2	800	80	56	795	72	85	788	72	48	785	74	62	790	64	66	786	73	94	776	71	111	769	63	51	781	68	109	799	66	40
1.5	850	84	52	847	76	75	840	75	61	836	78	61	844	67	75	838	73	94	827	73	110	821	67	73	834	69	110	852	68	57
1	904	89	44	902	78	76	895	76	105	890	77	119	900	70	86	893	74	104	882	73	111	876	70	76	890	71	109	910	67	89
0.5	960	94	38	961	77	100	953	80	99	947	...	...	960	75	76	951	77	89	940	...	...	934	75	69	948	73	99	971	71	76
Ground.	1017	99	38	1021	78	93	1014	79	83	1008	84	81	1021	78	78	1012	81	82	1000	79	80	994	78	71	1010	77	88	1033	74	80

Note.—The temperatures are derived from the original tabulations which are generally made to the nearest half-degree, and are shown to the nearest whole degree. Tables of mean seasonal temperatures and correlation coefficients will be found in the Introduction. Year Book 1929.

552.

LAPSE RATE OF TEMPERATURE BETWEEN GIVEN GEOPOTENTIALS.

Degrees absolute per kiloleo.

1934.

Kiloleos.									
20 to 21	...	...	0	...	...	...	...	...	...
19 to 20	...	...	0	...	...	...	...	...	...
18 to 19	-3	...	-2	...	...	...	...	...	...
17 to 18	-4	...	0	...	...	0	...	...	...
16 to 17	0	...	1	...	0	0	...	1	0
15 to 16	0	...	0	...	2	-1	...	2	-1
14 to 15	0	2	1	...	2	-1	0	1	0
13 to 14	0	-7	0	...	-1	0	1	2	0
12 to 13	-6	-4	-5	...	-1	-4	1	-1	-1
11 to 12	0	4	-4	...	-2	2	-7	-1	-3
10 to 11	8	7	6	6	-1	0	2	-1	2
9 to 10	7	8	8	8	3	8	7	-2	5
8 to 9	8	8	7	9	7	9	8	-2	9
7 to 8	8	8	8	9	8	9	8	7	8
6 to 7	7	9	8	8	8	8	8	7	8
5 to 6	7	7	9	9	8	8	9	8	8
4 to 5	6	6	7	7	8	7	7	10	7
3 to 4	8	5	5	6	6	8	5	8	7
2.5 to 3	1	6	5	5	2	4	6	8	4
2 to 2.5	6	8	5	7	6	5	7	6	7
1.5 to 2	9	8	5	9	6	1	4	8	3
1 to 1.5	10	5	4	-3	6	1	1	6	4
0.5 to 1	10	-3	6	7	8	7	6	10	5
Gd. to 0.5	9	2	-2	6	6	0	7	7	6

Note.—The lapse rates are derived from the original tabulations, which are generally made to the nearest half-degree.

T.=Temperature in degrees absolute.

P.=Pressure in millibars.

L.=Geopotential Level above M.S.L. in kiloleos (Kl.).

RH.=Relative Humidity as percentage.

No. Date. Station. Start. (G.M.T.)	973. Jan. 25. Sealand. 7h. 19m.	974. Jan. 25. Kew. 12h. 32m.	975. Jan. 29. Sealand. 17h. 42m.	976. Feb. 7. Sealand. 18h. 10m.	977. Feb. 8. Sealand. 13h. 2m.	978. Mar. 15. Sealand. 12h. 35m.	979. Mar. 16. Sealand. 12h. 46m.	980. Apr. 26. Kew. 12h. 51m.	981. May 14. Sealand. 19h. 3m.	982. May 15. Sealand. 17h. 58m.																			
550. GEOPOTENTIALS, TEMPERATURES AND RELATIVE HUMIDITIES CORRESPONDING WITH ISOBARIC SURFACES—continued. 1934.																													
Pressure.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.		
Millibars.	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%	Kl.	°A.	%		
100	15.61	13	...	...	...	...	15.67	13	...	15.65	5	...	...	...	...	...	...	...	...	...	...	15.79	17	...	...	...	...
200	11.36	7	...	11.43	9	...	11.48	6	...	11.49	8	...	11.39	4	...	10.94	29	...	11.03	21	...	...	...	...	11.39	23	...		
300	8.87	22	50	8.93	24	30	9.01	22	26	8.99	22	...	8.92	21	...	8.30	25	64	8.49	19	8.61	30	60	8.81	24	34	8.79	24	87
400	6.97	37	48	7.02	40	25	7.11	36	25	7.09	39	25	7.03	38	27	6.44	28	82	6.62	34	6.71	31	76	6.91	38	32	6.89	38	90
500	5.42	47	44	5.46	48	22	5.57	49	21	5.52	51	25	5.45	52	28	4.94	40	94	5.09	46	5.19	45	87	5.35	48	30	5.33	50	94
600	4.10	57	39	4.13	58	24	4.23	60	21	4.17	62	26	4.10	63	33	3.65	51	100	3.78	56	3.88	55	92	4.03	55	34	3.99	60	101
700	2.94	66	30	2.97	66	19	3.07	66	24	3.00	70	28	2.93	61	43	2.53	60	94	2.63	61	2.73	63	98	2.88	61	45	2.82	67	106
800	1.91	73	34	1.95	71	19	2.03	71	38	1.95	76	35	1.92	65	93	1.51	67	98	1.63	67	1.71	70	105	1.87	66	51	1.79	72	103
900	.98	74	64	1.01	76	35	1.11	73	70	1.02	73	92	1.01	70	84	.61	72	...	.71	73	.78	75	112	.97	71	78	.87	75	95
1000	.16	...	...	.19	74	...	.29	77	...	.19	...	...	.19	...	66	...	...	...	...	...	...	...	...	.13	...	...	.03	...	...

551. PRESSURES, TEMPERATURES AND HUMIDITIES AT GIVEN GEOPOTENTIALS—continued.																											1934.		
Geopotentials.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.		
Kiloleos.	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%	mb.	°A. 200 +	%		
		
24	...	...	...	...	...	...	26	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	30	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	36	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	42	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	49	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	58	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	68	15	...	67	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	79	11	...	...	...	...	81	15	...	79	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	94	12	...	...	...	...	95	13	...	94	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	110	14	...	...	...	...	111	13	...	112	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	130	15	...	...	...	...	131	14	...	132	10	...	...	...	...	...	...	...	125	23	...	...	...	...	...	...	...
13	153	15	...	...	...	...	155	13	...	156	11	...	...	...	...	146	29	...	146	20	...	...	...	...	...	...	...
12	180	13	...	182	14	...	183	4	...	184	9	...	181	7	...	170	30	...	171	20	...	...	...	...	...	...	...
11	212	7	...	215	8	...	217	7	...	217	9	...	213	5	...	198	29	...	201	21	...	...	...	...	213	22	...
10	251	13	...	253	15	...	256	14	...	256	14	...	252	12	...	231	27	...	235	17	243	32	...	249	21	...			
9	294	21	...	297	23	30	300	22	26	300	22	...	296	20	...	269	26	58	276	17	283	29	58	291	22	34			
8	343	29	50	346	32	29	350	28	26	350	31	...	346	29	27	314	24	66	324	23	329	30	67	340	30	34			
7	398	37	49	401	40	25	407	37	25	405	40	25	402	38	27	367	26	75	378	32	383	29	76	395	38	32			
6	460	43	46	463	44	21	470	45	23	468	48	25	463	47	27	427	31	86	438	38	444	37	77	455	46	30			
5	530	50	42	533	52	23	540	54	19	537	56	25	532	56	28	495	40	93	506	47	514	46	88	524	50	31			
4	608	58	38	611	59	24	618	61	21	613	62	26	608	63	34	571	48	100	582	54	590	54	92	602	55	34			
3	695	66	30	697	66	20	706	67	25	700	70	28	694	61	40	656	56	96	666	60	676	62	97	689	60	43			
2.5	741	69	26	744	69	16	752	69	26	746	72	29	741	63	57	702	60	94	712	62	722	65	94	736	62	52			
2	790	72	31	794	71	18	803	71	39	795	76	35	792	65	91	750	64	95	760	65	770	68	104	787	65	48			
1.5	842	74	38	846	74	22	856	73	49	847	76	63	845	67	89	801	67	98	813	68	821	72	108	840	68	63			
1	898	75	63	902	76	36	912	72	92	902	73	91	902	70	84	855	70	90	867	71	875	74	111	896	71	80			
0.5	958	71	...	961	72	96	972	75	74	961	77	77	961	75	72	912	73	...	925	76	932	78	88	955	76	...			
Ground.	1019	73	87	1023	76	81	1036	71	94	1022	81	72	1022	81	64	972	78	87	984	84	992	81	86	1016	81	77			

Note.—The temperatures are derived from the original tabulations which are generally made to the nearest half-degree, and are shown to the nearest whole degree. Tables of mean seasonal temperatures and correlation coefficients will be found in the Introduction. Year Book 1929.

552. LAPSE RATE OF TEMPERATURE BETWEEN GIVEN GEOPOTENTIALS—continued. Degrees absolute per kiloleo. 1934.										
Kiloleos	...	...	...	...	...	...	...	...	...	...
20 to 21	...	...	...	...	...	...	...	...	...	...
19 to 20	...	...	...	...	...	...	...	...	...	...
18 to 19	...	...	...	...	...	...	...	...	...	...
17 to 18	...	...	...	...	...	...	...	...	...	...
16 to 17	1	...	...	...	...	...	...	...	...	...
15 to 16	2	...	...	...	...	...	...	...	...	...
14 to 15	1	...	...	...	...	...	...	...	...	...
13 to 14	0	...	...	...	...	...	...	...	...	...
12 to 13	-2	...	...	...	...	...	...	...	...	...
11 to 12	-6	...	...	...	...	...	...	...	...	...
10 to 11	6	7	7	7	7	7	7	7	7	7
9 to 10	8	8	8	8	8	8	8	8	8	8
8 to 9	8	9	9	9	9	9	9	9	9	9
7 to 8	8	8	8	8	8	8	8	8	8	8
6 to 7	6	4	8	8	8	8	8	8	8	8
5 to 6	7	8	9	8	8	8	8	8	8	8
4 to 5	7	7	7	7	7	7	7	7	7	7
3 to 4	8	7	6	8	8	8	8	8	8	8
2.5 to 3	8	5	5	4	8	8	8	8	8	8
2 to 2.5	5	5	3	8	4	4	4	4	4	4
1.5 to 2	5	6	3	0	4	8	6	7	6	6
1 to 1.5	0	4	-1	-6	7	9	6	5	8	4
0.5 to 1	-8	-9	-6	8	9	5	10	10	10	5
Gd. to 0.5	6	9	-7	8	13	10	15	6	11	11

Note.—The lapse rates are derived from the original tabulations, which are generally made to the nearest half-degree.

T.=Temperature in degrees absolute.

P.=Pressure in millibars.

L.=Geopotential Level above M.S.L. in kiloleos (Kl.)

RH.=Relative Humidity as percentage.

No.	983.	984.	985.	986.	987.	988.	989.	991.	992.																			
Date.	May 16.	May 17.	May 18.	May 19.	May 23.	July 4.	July 6.	Aug. 24.	Sept. 10.																			
Station.	Sealand.	Sealand.	Sealand.	Sealand.	Sealand.	Kew.	Kew.	Sealand.	Kew.																			
Start.	17h. 40m.	17h. 46m.	17h. 55m.	6h. 26m.	17h. 43m.	15h. 42m.	18h. 2m.	15h. 1m.	17h. 55m.																			
(G.M.T.)																												
550. GEOPOTENTIALS, TEMPERATURES AND RELATIVE HUMIDITIES CORRESPONDING WITH ISOBARIC SURFACES—continued. 1934.																												
Pressure.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.				
Millibars.	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%				
	200			200			200			200			200			200			200			200						
	+			+			+			+			+			+			+			+						
100	15.76	22	...	...	...	...	15.93	24	...	...	...	...	16.26	20	...	16.26	19	...	16.10	27	...	...	...	...
200	11.24	29	...	11.30	25	...	11.45	21	...	11.46	22	11.90	17	...	11.93	16	...	11.62	23	...	11.87	13	...	
300	8.57	29	51	8.70	24	...	8.89	24	...	8.91	24	69	9.09	26	37	9.31	32	...	9.33	34	33	9.04	26	55	9.27	34	55	
400	6.67	32	54	6.79	38	67	6.97	40	60	7.00	40	73	7.15	42	36	7.31	48	35	7.33	49	34	7.10	41	57	7.27	49	66	
500	5.15	39	67	5.24	45	63	5.39	53	58	5.43	53	82	5.57	54	33	5.69	59	34	5.70	59	30	5.51	53	53	5.64	61	65	
600	3.87	49	90	3.94	51	81	4.05	58	99	4.07	63	71	4.21	63	32	4.31	70	37	4.32	69	27	4.17	62	39	4.25	70	69	
700	2.75	58	86	2.81	59	73	2.89	66	114	2.89	69	61	3.03	68	42	3.09	77	59	3.11	79	25	2.99	67	53	3.05	74	56	
800	1.75	65	87	1.80	66	73	1.87	71	110	1.85	73	82	2.00	71	74	2.03	80	74	2.03	83	46	1.95	73	61	1.99	80	45	
900	.85	71	73	.89	74	60	.94	76	108	.93	76	85	1.07	78	67	1.07	88	51	1.07	89	44	1.03	79	79	1.04	82	77	
1000	.010510	80092319	96	39	.18	...	49	.17	...	70	.17	
551. PRESSURES, TEMPERATURES AND HUMIDITIES AT GIVEN GEOPOTENTIALS—continued. 1934.																												
Geopotentials.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.				
Kiloleos.	mb.	°A	%	mb.	°A	%	mb.	°A	%	mb.	°A	%	mb.	°A	%	mb.	°A	%	mb.	°A	%	mb.	°A	%				
	200			200			200			200			200			200			200			200						
	+			+			+			+			+			+			+			+						
...				
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41	27	...	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	47	25	...	...	...	...
20	52	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55	24	...	...	...	...
19	60	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65	23	...	...	...	...
18	70	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	76	20	...	...	...	...
17	82	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	89	21	...	...	...	...
16	96	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	104	20	...	...	...	...
15	113	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	122	20	...	...	...	...
14	131	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143	19	...	...	...	...
13	153	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	168	18	...	...	...	...
12	178	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	197	17	...	...	...	...
11	207	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	232	20	...	...	...	...
10	241	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	271	27	...	...	...	...
9	281	30	50	286	23	...	295	24	...	296	23	68	304	27	37	314	35	36	315	36	33	302	27
8	326	29	52	334	29	65	344	32	62	345	31	70	354	35	36	363	42	36	364	44	34	351	35	55	361	44	62	
7	380	31	54	388	37	67	398	40	60	400	40	73	409	43	36	418	50	35	419	52	34	405	42	58	415	51	68	
6	441	35	57	449	43	64	459	48	58	461	48	76	471	50	34	479	57	34	480	57	29	467	51	55	476	58	70	
5	511	40	67	517	46	66	527	54	63	530	56	84	540	58	31	548	65	33	549	64	32	536	57	46	544	65	63	
4	589	48	90	594	51	82	604	58	100	606	63	70	616	64	33	624	72	39	625	71	27	613	63	39	619	71	67	
3	677	56	84	682	58	73	690	65	113	690	69	59	703	68	42	708	77	58	710	80	25	700	67	53	704	75	56	
2.5	723	60	87	729	61	72	736	67	112	736	71	64	750	71	53	754	80	56	754	82	27	746	71	57	750	77	53	
2	773	63	89	779	65	74	786	70	110	785	73	82	800	71	74	802	80	74	802	83	48	795	73	59	798	80	43	
1.5	826	66	85	832	68	73	838	73	109	837	73	89	852	75	63	853	84	58	853	85	46	847	75	78	850	79	82	
1	882	70	76	887	72	62	893	76	108	892	75	85	908	78	66	908	88	50	908	89	43	903	79	79	904	82	76	
0.5	940	74	76	945	78	56	952	78	...	949	966	81	70	964	93	43	963	93	48	960	84	81	962	86	69	
Ground.	1001	79	86	1005	84	55	1012	81	92	1010	82	84	1026	86	69	1021	99	42	1021	97	47	1020	89	61	1021	91	66	

Note.—The temperatures are derived from the original tabulations which are generally made to the nearest half-degree, and are shown to the nearest whole degree. Tables of mean seasonal temperatures and correlation coefficients will be found in the Introduction. Year Book 1929.

LAPSE RATE OF TEMPERATURE BETWEEN GIVEN GEOPOTENTIALS—continued.

552	Degrees absolute per kiloleo.										1934.
Kiloleos.	...	...	...	...	...	...	...	...	...	...	...
20 to 21	...	...	...	...	...	...	...	...	...	...	...
19 to 20	0	...	...	...	...	...	...	...	...	...	...
18 to 19	1	...	...	...	...	...	...	...	...	...	...
17 to 18	-2	...	...	...	...	...	...	...	...	...	...
16 to 17	-1	...	...	...	...	...	...	...	...	...	...
15 to 16	2	...	...	...	...	...	...	...	...	...	...
14 to 15	3	...	...	...	...	...	...	...	...	...	...
13 to 14	1	...	...	...	...	...	...	...	...	...	...
12 to 13	1	...	...	...	...	...	...	...	...	...	...
11 to 12	0	...	...	...	...	...	...	...	...	...	...
10 to 11	1	...	...	...	...	...	...	...	...	...	...
9 to 10	0	...	...	...	...	...	...	...	...	...	...
8 to 9	-1	...	...	...	...	...	...	...	...	...	...
7 to 8	2	...	...	...	...	...	...	...	...	...	...
6 to 7	4	...	...	...	...	...	...	...	...	...	...
5 to 6	5	...	...	...	...	...	...	...	...	...	...
4 to 5	8	...	...	...	...	...	...	...	...	...	...
3 to 4	8	...	...	...	...	...	...	...	...	...	...
2.5 to 3	7	...	...	...	...	...	...	...	...	...	...
2 to 2.5	7	...	...	...	...	...	...	...	...	...	...
1.5 to 2	6	...	...	...	...	...	...	...	...	...	...
1 to 1.5	8	...	...	...	...	...	...	...	...	...	...
0.5 to 1	8	...	...	...	...	...	...	...	...	...	...
Gd. to 0.5	11	...	...	...	...	...	...	...	...	...	...

Note.—The lapse rates are derived from the original tabulations, which are generally made to the nearest half-degree.

T.=Temperature in degrees absolute.

P.=Pressure in millibars.

L.=Geopotential level above M.S.L. in kiloleos (Kl.)

RH.=Relative Humidity as percentage.

No. Date. Station. Start. (G.M.T.)	993. Sept. 11. Sealand. 17h. 46m.	994. Sept. 12. Sealand. 12h. 58m.	995. Sept. 13. Kew. 17h. 59m.	996. Sept. 14. Kew. 18h. 2m.	998. Sept. 27. Sealand. 17h. 43m.	999. Sept. 28. Sealand. 12h. 58m.	1000. Oct. 19. Sealand. 16h. 52m.	1002. Nov. 9. Kew. 12h. 13m.	1003. Dec. 14. Sealand. 16h. 4m.															
GEOPOTENTIALS, TEMPERATURES AND RELATIVE HUMIDITIES CORRESPONDING WITH ISOBARIC SURFACES—continued.																								
550.										1934.														
Pressure.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.	L.	T.	RH.
Millibars.	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%	Kl.	°A	%
		200			200			200			200			200			200			200			200	
		+			+			+			+			+			+			+			+	
100	16·07	15	...	16·17	17	...	16·11	16	...	...	...	...	15·89	14	...	16·01	13	...	...	...	...	...	...	...
200	11·77	15	...	11·85	18	...	11·81	17	...	...	...	...	11·71	9	...	11·80	12	...	11·67	14	...	11·42	29	...
300	9·21	30	58	9·27	29	...	9·23	29	52	9·16	28	60	9·15	31	62	9·22	32	...	9·11	29	...	8·77	27	...
400	7·24	46	51	7·31	45	63	7·27	45	58	7·21	45	67	7·17	46	59	7·24	48	27	7·15	45	80	6·84	42	...
500	5·63	57	58	5·70	57	67	5·67	57	60	5·59	56	61	5·57	56	44	5·61	61	31	5·53	57	89	5·25	53	...
600	4·27	65	54	4·32	67	46	4·29	68	41	4·23	66	79	4·19	66	41	4·22	69	37	4·16	63	94	3·90	61	...
700	3·07	73	60	3·13	73	65	3·09	75	51	3·03	73	60	3·00	72	46	3·01	77	41	2·99	70	92	2·73	67	...
800	2·01	79	45	2·07	80	50	2·03	81	47	1·98	80	84	1·95	79	58	1·94	83	53	1·94	75	84	1·70	72	102
900	1·07	83	93	1·12	84	95	1·07	89	60	1·02	87	61	1·01	78	75	·97	87	65	·99	81	77	·77	78	100
1000	·21	90	77	·25	...	...	·19	...	...	·15	...	66	·15	...	68	·09	...	...	·14	...	...	...	...	...

551. PRESSURES, TEMPERATURES AND HUMIDITIES AT GIVEN GEOPOTENTIALS—continued.																									1934.
Geopotentials.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	P.	T.	RH.	
Kiloleos.	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	mb.	°A 200 +	%	
	
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45	21	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53	20	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	62	19	...	...	...	...	...	...	...
18	...	...	...	75	20	...	...	...	...	...	...	...	...	...	...	72	18	...	...	...	...	...	...	...
17	...	...	...	87	18	...	...	87	16	...	...	...	...	...	...	85	16	...	...	...	...	...	...	...
16	101	15	...	103	17	...	...	102	16	...	...	...	98	14	...	100	14	...	...	...	...	...	...	...
15	119	15	...	121	16	...	...	120	15	...	...	...	116	12	...	118	13	...	...	...	116	26	...	...
14	140	15	...	142	17	...	...	141	16	...	...	...	136	12	...	139	12	...	...	...	135	27	...	...
13	164	16	...	166	18	...	...	165	17	...	...	...	161	8	...	164	9	...	...	...	157	29	...	...
12	193	16	...	195	18	...	...	194	18	...	...	...	191	7	...	193	11	...	189	15	...	183	29	...
11	226	16	...	229	18	227	17	...	225	18	63	224	15	...	227	17	...	222	14	...	213	30	...
10	265	23	56	268	24	266	23	...	263	22	66	263	23	...	267	26	...	261	22	...	248	28	...
9	309	32	57	313	32	67	311	30	51	307	30	59	307	32	62	310	33	...	305	30	...	289	27	...	
8	358	40	52	362	40	69	360	38	55	357	38	54	355	39	62	359	43	28	353	38	60	337	32	...	
7	413	47	55	418	48	63	416	47	60	412	46	71	410	47	58	413	50	28	408	46	84	390	40	...	
6	475	54	65	480	56	71	477	55	63	473	54	63	471	54	49	475	58	30	469	54	85	450	48	...	
5	544	62	45	549	63	57	546	62	54	542	60	65	539	60	42	541	65	34	537	61	93	517	54	...	
4	621	67	68	625	69	61	623	70	35	618	67	77	615	68	42	617	70	36	613	64	90	592	60	...	
3	707	73	56	711	73	72	708	75	51	704	73	63	700	72	46	701	77	41	698	70	92	675	66	...	
2.5	752	77	37	758	77	73.	754	77	47	750	76	106	746	75	48	746	79	52	745	72	85	720	68	103	
2	802	79	46	807	81	50	803	81	47	799	80	84	794	78	56	794	82	53	794	75	85	768	71	102	
1.5	853	80	83	858	81	90	853	85	74	849	84	74	846	80	64	844	86	47	844	78	85	820	73	102	
1	908	83	90	913	85	92	907	89	59	903	87	60	901	78	75	897	87	63	898	81	76	873	76	100	
0.5	965	87	76	970	89	71	964	92	66	959	90	70	959	82	69	953	91	...	956	82	97	930	79	99	
Ground.	1024	91	75	1029	96	56	1021	95	57	1016	95	63	1018	87	68	1011	96	57	1016	86	91	989	83	90	

Note.—The temperatures are derived from the original tabulations which are generally made to the nearest half-degree, and are shown to the nearest whole degree.

Tables of mean seasonal temperatures and correlation coefficients will be found in the Introduction. Year Book 1929.

LAPSE RATE OF TEMPERATURE BETWEEN GIVEN GEOPOTENTIALS—continued.

Degrees absolute per kiloleo.

1934.

Kiloleos.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20 to 21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19 to 20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18 to 19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17 to 18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16 to 17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15 to 16	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14 to 15	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13 to 14	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 to 13	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 to 12	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 to 11	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9 to 10	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8 to 9	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 to 8	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 to 7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 to 6	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 to 5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 to 4	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2·5 to 3	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 to 2·5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1·5 to 2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 to 1·5	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
0·5 to 1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gd. to 0·5	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Note.—The lapse rates are derived from the original tabulations, which are generally made to the nearest half-degree.

