M.O.649

AIR MINISTRY
METEOROLOGICAL OFFICE

# THE OBSERVATORIES' YEAR BOOK 1946

Comprising the meteorological and geophysical results obtained from autographic records and eye observations at the Lerwick, Aberdeen, Eskdalemuir, and Kew Observatories

LONDON: HER MAJESTY'S STATIONERY OFFICE
1960

*Universal Decimal Classification*
550.38(058)
551.506.1
551.510.42(058)
551.594(058)

# PREFACE

The *Observatories' Year Book* was published for the years 1922 to 1937 in continuation of Part III Section II and Part IV of the *British Meteorological and Magnetic Year Book* for the period 1908 to 1921.

Publication of the *Observatories' Year Book* was necessarily suspended during the 1939-45 war. Restrictions on supplies and printing since the war resulted in a regrettably long delay in the resumption of publication. In face of the formidable accumulation of arrears, and taking changed requirements into account, it was decided to adopt an abridged form as outlined below.

It was agreed that the General Introduction to the Meteorological Tables and the parts of the Section Introductions which deal with site, instruments, procedure and tabulation included in the volume for 1938 should serve as standards of reference for several years; and that only important departures from these standards, together with any requisite additional information, should be included in the relevant parts of the volumes for the years after 1938. The space devoted to the discussion of observations was reduced. Monthly tables of individual hourly values of meteorological elements were discontinued, but summaries of daily mean values (or totals), monthly means (or totals) of hourly values and some maximum and minimum values are given. The diary of cloud, weather and visibility was also discontinued. No major changes were made in the atmospheric electrical and meteorological tables. The aerological and seismological tables were discontinued after 1939.

The present volume, 1946, presents atmospheric electrical and geomagnetic data for Lerwick Observatory; meteorological data for Aberdeen; meteorological, atmospheric electrical and geomagnetic data for Eskdalemuir; meteorological, atmospheric electrical and atmospheric pollution data for Kew.

Meteorological and geomagnetic data for Velentia Observatory are no longer included in the *Observatories' Year Book*, but are published by the Dublin Department of Industry and Commerce Meteorological Service.

Manuscript tabulations of hourly values of the meteorological elements are available at the observatories. Requests for information from these tabulations should be addressed to the Director- General, Meteorological Office, Air Ministry, Victory House, Kingsway, London, W.C.2.

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NOTES ON THE TABLES: Maximum and minimum values are shown in italics.

## ABERDEEN OBSERVATORY - *continued*



## ESKDALEMUIR OBSERVATORY



### METEOROLOGY

## ESKDALEMUIR OBSERVATORY - *continued*



### ATMOSPHERIC ELECTRICITY



### TERRESTRIAL MAGNETISM



## KEW OBSERVATORY



### METEOROLOGY

KEW OBSERVATORY-*continued*

# LERWICK

# LERWICK OBSERVATORY

| | |
|---|---|
| Latitude .. .. .. .. .. | 60°08′N. |
| Longitude .. .. .. .. .. | 1°11′W. |
| G.M.T. of Local Mean Noon .. .. | 12h. 5m. |
| Height of site above M.S.L. .. | 80 to 90 metres |

## INTRODUCTION

Full details of the site, instruments, procedure and tabulation are given in the *Observatories' Year Book, 1938*. Changes and additions only are mentioned here.

*Atmospheric electricity*

No changes were made in 1946.

*Terrestrial magnetism*

In June small low-temperature thermostatically controlled a.c. electric heaters were placed in the magnetograph chamber to reduce the persistent damp.

The average day-to-day change of temperature in the magnetograph house for each of the twelve months of 1946 and for the year as a whole was as follows (in degrees Absolute):

| *Jan.* | *Feb.* | *Mar.* | *Apr.* | *May* | *June* | *July* | *Aug.* | *Sept.* | *Oct.* | *Nov.* | *Dec.* | *Year* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *0.24* | *0.37* | *0.34* | *0.33* | *0.47* | *0.69* | *0.76* | *0.38* | *0.46* | *0.69* | *0.66* | *0.33* | *0.47* |

There were 38 occasions on which the change reached or succeeded 1°A. As already stated in the *Observatories' Year Book, 1938*, a Smith portable coil magnetometer, which had been reconstructed to operate as a Schuster-Smith coil magnetometer, was brought into use and adopted as the standard instrument in October 1939. The volume for 1938 contains a statement on the corrections arising from the instrumental changes and comparisons, to be applied to the values of *H*, *D* and *V* published for the years 1923-1938. Corresponding corrections have not been applied to the individual values in the four tables for each month given in this volume but are shown in the tables and repeated below. The values of the elements given in Table 64 and elsewhere in the volume have been corrected.

*Corrections*

| | |
|---|---|
| *H* | −6γ throughout |
| *D* | −4·3′ throughout |
| *V* | varies from month to month as below |

| *Jan.* | *Feb.* | *Mar.* | *Apr.* | *May* | *June* | *July* | *Aug.* | *Sept.* | *Oct.* | *Nov.* | *Dec.* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| −3γ | −2γ | −1γ | −1γ | −1γ | −1γ | 0 | 0 | 0 | 0 | 0 | +1γ |

*Notes on the results*

The factor to change variations of *D* exposed in minutes to units of force (γ) perpendicular to the magnetic meridian was approximately 4·18.

Comparing the mean values for all days of 1946 with those for 1945 it is noted that *H* decreased by 13γ, *D* (west) decreased by 9′ and *V* increased by 26γ. The ranges between the extreme values recorded during 1946 were *H*, 3632γ; *D*, 6°17′·5; and *V*, 2307γ. At the assembly of the Association of Terrestrial Magnetism and Electricity at Washington in September 1939, a new measure of magnetic disturbance, the *K* index, was agreed upon. Measurements of *K* are

now given in this volume, replacing the former measure $(HR_H + VR_V)10^{-4}$, in accordance with the International Association of Terrestrial Magnetism and Electricity circular letter dated 20 January 1940.

The *K* index is fully described in *Terrestrial magnetism and atmospheric electricity.** Briefly, a figure is allotted on a scale 0-9 to each 3-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet-day variation. The figures are first allotted from the *H* magnetogram and then increased, if necessary, by inspection of the *D* and *V* curves, so the the most disturbed component determines the final figure.

The scale of ranges in $\gamma$ corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Lerwick is:

| *K* | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| Range in $\gamma$ | 0 | 10 | 20 | 40 | 80 | 140 | 240 | 400 | 660 | 1000 |

Table 1 has been slightly changed in form from previous years owing to the omission of $(HR_H + VR_V)10^{-4}$. *K* figures and their sums have been given for each day in the main tables, but as it is considered that monthly means of *K* figures are not a good measure of activity they are not included. Tables 2, 3, 4 and 5 follow the pattern of previous years.

TABLE 1

| | Magnetic character figures | | | Mean character figures | |
|---|---|---|---|---|---|
| | Number of | | | | |
| | 0 days | 1 days | 2 days | Lerwick | International |
| January | 13 | 16 | 2 | 0·65 | 0·55 |
| February | 8 | 15 | 5 | 0·89 | 0·69 |
| March | 9 | 17 | 5 | 0·87 | 0·84 |
| April | 11 | 16 | 3 | 0·73 | 0·58 |
| May | 10 | 17 | 4 | 0·81 | 0·62 |
| June | 8 | 19 | 3 | 0·83 | 0·63 |
| July | 10 | 17 | 4 | 0·81 | 0·71 |
| August | 10 | 19 | 2 | 0·74 | 0·42 |
| September | 8 | 14 | 8 | 1·00 | 0·82 |
| October | 11 | 18 | 2 | 0·71 | 0·51 |
| November | 11 | 18 | 1 | 0·67 | 0·52 |
| December | 14 | 17 | 0 | 0·55 | 0·39 |
| Year | | | | | |
| 1946 | 123 | 203 | 39 | 0·77 | 0·61 |
| 1945 | 159 | 189 | 17 | 0·61 | 0·47 |
| 1944 | 162 | 189 | 15 | 0·60 | 0·52 |
| 1943 | 145 | 199 | 21 | 0·66 | 0·68 |
| 1942 | 146 | 194 | 25 | 0·67 | 0·64 |
| 1941 | 172 | 169 | 24 | 0·60 | 0·73 |
| 1940 | 178 | 162 | 26 | 0·59 | 0·72 |
| 1939 | 186 | 143 | 36 | 0·59 | 0·77 |
| 1938 | 180 | 133 | 52 | 0·65 | 0·76 |
| 1937 | 119 | 197 | 49 | 0·81 | 0·73 |
| 1936 | 133 | 206 | 27 | 0·71 | 0·65 |

* BARTELS, J., HECK, N.H. and JOHNSTON, H.F.; The three-hour-range index measuring geomagnetic activity. Terrestrial magnetism and atmospheric electricity, Baltimore, 44, 1939, p.411.

TABLE 2 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

| | Mean absolute daily range | | | | | | Mean daily range expressed as percentage of yearly mean | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | | | Mean 1932-42 | | | 1946 | | | Mean 1932-42 | | |
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | γ | γ | γ | γ | γ | % | % | % | % | % | % |
| January | 133 | 100 | 98 | 94 | 96 | 96 | 64 | 73 | 62 | 65 | 92 | 80 |
| February | 207 | 174 | 198 | 110 | 106 | 114 | 99 | 127 | 125 | 76 | 102 | 95 |
| March | 395 | 232 | 276 | 196 | 138 | 165 | 190 | 169 | 174 | 136 | 133 | 137 |
| April | 269 | 160 | 202 | 206 | 123 | 160 | 129 | 117 | 127 | 143 | 118 | 133 |
| May | 198 | 113 | 158 | 181 | 103 | 129 | 95 | 83 | 99 | 126 | 99 | 107 |
| June | 210 | 107 | 152 | 135 | 88 | 100 | 101 | 78 | 96 | 94 | 84 | 83 |
| July | 272 | 136 | 154 | 153 | 90 | 107 | 131 | 99 | 97 | 106 | 86 | 89 |
| August | 139 | 102 | 102 | 151 | 98 | 108 | 67 | 74 | 64 | 105 | 94 | 90 |
| September | 421 | 252 | 282 | 159 | 114 | 138 | 202 | 184 | 177 | 111 | 110 | 115 |
| October | 117 | 99 | 123 | 160 | 119 | 141 | 56 | 72 | 77 | 111 | 114 | 117 |
| November | 78 | 92 | 95 | 93 | 92 | 99 | 38 | 67 | 60 | 65 | 88 | 82 |
| December | 57 | 71 | 62 | 85 | 87 | 88 | 27 | 52 | 39 | 59 | 84 | 73 |
| Winter | 119 | 109 | 114 | 96 | 95 | 100 | 57 | 80 | 72 | 67 | 91 | 83 |
| Equinox | 301 | 186 | 221 | 180 | 124 | 151 | 145 | 136 | 139 | 125 | 119 | 126 |
| Summer | 205 | 115 | 141 | 155 | 95 | 111 | 99 | 84 | 89 | 108 | 91 | 92 |
| Year | 208 | 137 | 159 | 144 | 104 | 120 | .. | .. | .. | .. | .. | .. |

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

TABLE 3 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

| Range | Number of cases, 1946 | | | Percentage distribution | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *H* | | *D* | | *V* | |
| | *H* | *D* | *V* | 1946 | 1932-42 | 1946 | 1932-42 | 1946 | 1932-42 |
| γ | | | | % | % | % | % | % | % |
| 0 - 9 | 0 | 0 | 2 | 0·0 | 0·0 | 0·0 | 0·0 | 0·5 | 0·5 |
| 10 - 19 | 1 | 0 | 17 | 0·3 | 1·8 | 0·0 | 0·5 | 4·7 | 8·2 |
| 20 - 29 | 15 | 8 | 37 | 4·1 | 5·2 | 2·2 | 2·6 | 10·1 | 12·2 |
| 30 - 39 | 21 | 9 | 35 | 5·8 | 7·4 | 2·5 | 4·8 | 9·6 | 9·9 |
| 40 - 49 | 21 | 13 | 25 | 5·8 | 7·7 | 3·6 | 8·6 | 6·9 | 7·4 |
| 50 - 59 | 27 | 31 | 27 | 7·4 | 10·3 | 8·5 | 11·3 | 7·4 | 6·0 |
| 60 - 69 | 31 | 44 | 21 | 8·5 | 10·2 | 12·0 | 13·9 | 5·8 | 5·2 |
| 70 - 79 | 32 | 53 | 12 | 8·8 | 9·7 | 14·5 | 9·8 | 3·3 | 4·8 |
| 80 - 89 | 30 | 39 | 9 | 8·2 | 7·8 | 10·7 | 9·2 | 2·5 | 3·8 |
| 90 - 99 | 21 | 29 | 13 | 5·8 | 5·6 | 7·9 | 6·5 | 3·6 | 3·3 |
| 100 - 109 | 21 | 27 | 16 | 5·8 | 4·1 | 7·4 | 4·8 | 4·4 | 3·6 |
| 110 - 119 | 19 | 16 | 13 | 5·2 | 2·9 | 4·4 | 3·6 | 3·6 | 2·7 |
| 120 - 129 | 16 | 8 | 11 | 4·4 | 2·6 | 2·2 | 3·4 | 3·0 | 2·5 |
| 130 - 139 | 6 | 14 | 13 | 1·6 | 1·7 | 3·8 | 3·3 | 3·6 | 2·2 |
| 140 - 149 | 10 | 13 | 8 | 2·7 | 2·1 | 3·6 | 3·0 | 2·2 | 2·2 |
| 150 - 159 | 6 | 8 | 7 | 1·6 | 1·3 | 2·2 | 1·6 | 1·9 | 1·9 |
| 160 - 169 | 4 | 2 | 6 | 1·1 | 1·5 | 0·5 | 1·5 | 1·6 | 1·8 |
| 170 - 179 | 2 | 4 | 7 | 0·5 | 1·0 | 1·1 | 1·4 | 1·9 | 1·1 |
| 180 - 189 | 0 | 3 | 6 | 0·0 | 0·9 | 0·8 | 1·2 | 1·6 | 1·5 |
| 190 - 199 | 5 | 2 | 3 | 1·4 | 1·0 | 0·5 | 0·9 | 0·8 | 1·5 |
| 200 + | 77 | 42 | 77 | 21·0 | 15·2 | 11·5 | 8·0 | 21·0 | 17·8 |
| Days omitted | 0 | 0 | 0 | .. | .. | .. | .. | .. | .. |

TABLE 4 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-42 WITH 1946 AS PERCENTAGE OF THIS

| | | All days | | | International quiet days | | | International disturbed days | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *V* | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* |
| | | γ | γ | ′ | γ | γ | ′ | γ | γ | ′ |
| Year | 1932-42 | 47·5 | 46·7 | 9·04 | 9·3 | 36·5 | 8·30 | 118·9 | 117·1 | 13·55 |
| | 1946(%) | 103 | 126 | 104 | 114 | 113 | 118 | 106 | 168 | 113 |
| Winter | 1932-42 | 38·0 | 23·4 | 7·60 | 7·3 | 14·7 | 4·32 | 110·2 | 79·3 | 12·83 |
| | 1946(%) | 97 | 100 | 98 | 96 | 127 | 111 | 100 | 129 | 112 |
| Equinox | 1932-42 | 60·0 | 54·3 | 10·60 | 11·6 | 41·4 | 9·25 | 150·3 | 167·2 | 18·61 |
| | 1946(%) | 107 | 141 | 105 | 131 | 110 | 111 | 130 | 215 | 134 |
| Summer | 1932-42 | 47·6 | 69·7 | 12·38 | 15·6 | 55·8 | 12·14 | 124·3 | 140·3 | 14·59 |
| | 1946(%) | 111 | 119 | 109 | 128 | 114 | 121 | 105 | 128 | 106 |

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

TABLE 5 - RATIO OF RANGE OF INEQUALITY AT LERWICK TO THAT AT ESKDALEMUIR 1946

| Type of day | Element | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *q* | *D* | 1·14 | 1·01 | 1·01 | 1·00 | 1·09 | 1·06 | 1·12 | 1·06 | 1·03 | 0·95 | 1·09 | 0·99 |
| *d* | *D* | 1·29 | 1·51 | 1·94 | 1·26 | 1·35 | 1·19 | 1·24 | 1·19 | 1·25 | 1·37 | 1·25 | 1·24 |
| *q* | *H* | 0·76 | 1·03 | 0·98 | 1·11 | 1·23 | 1·18 | 1·08 | 1·10 | 1·05 | 0·93 | 0·84 | 0·88 |
| *d* | *H* | 3·90 | 1·45 | 1·64 | 1·28 | 1·74 | 2·21 | 0·95 | 1·54 | 2·34 | 2·46 | 1·01 | 0·84 |
| *q* | *V* | 1·68 | 0·98 | 0·74 | 0·83 | 0·85 | 0·95 | 0·91 | 0·87 | 1·12 | 2·07 | 1·02 | 0·89 |
| *d* | *V* | 1·37 | 1·31 | 0·93 | 1·00 | 1·68 | 1·65 | 0·83 | 1·47 | 1·17 | 2·65 | 2·15 | 1·79 |

*Magnetic disturbances.*- Particulars of the principal magnetic disturbances recorded at Lerwick during the year are given in Table 6. In the Eskdalemuir Section will be found a similar list which deals with the same disturbances as recorded at that Observatory. Within the limit of accuracy of measurement and registration "sudden commencements" appear to occur simultaneously at the two Observatories.

## TABLE 6 - PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT LERWICK, 1946

| 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 | ′ | d. h. m. | ′ | d. h. m. | ′ | γ | d. h. m. | γ | d. h. m. | γ |
| 1* | Jan. 3 8 9 | Jan. 5 5 | 1093 | 3 16 2 | −755 | 3 21 35 | 1848 | 51·1 | 3 12 9 | −53·6 | 3 21 40 | 104·7 | 1236 | 3 15 29 | 574 | 4 20 26 | 662 |
| 2 | Jan. 23 20 | Jan. 25 3 | 403 | 23 22 19 | 295 | 23 22 53 | 108 | 33·3 | 24 12 57 | −28·3 | 23 22 20 | 61·6 | 1085 | 24 13 59 | 838 | 23 22 50 | 247 |
| 3 | Feb. 7 7 | Feb. 9 0 | 1009 | 7 11 18 | −695 | 7 23 3 | 1704 | 175·1 | 7 22 50 | −134·6 | 8 0 33 | 309·7 | 1651 | 8 0 37 | 144 | 7 22 26 | 1507 |
| 4 | Feb. 14 7 | Feb. 15 2 | 431 | 14 17 38 | 266 | 15 3 56 | 165 | 45·3 | 15 4 19 | 9·4 | 14 8 42 | 35·9 | 1059 | 14 10 53 | 826 | 15 4 42 | 233 |
| 5* | Feb. 19 15 0 | Feb. 20 1 | 708 | 19 20 36 | 139 | 19 22 24 | 569 | 40·9 | 19 20 8 | −8·2 | 19 22 3 | 49·1 | 1174 | 19 19 5 | 797 | 19 22 11 | 377 |
| 6 | Feb. 20 18 | Feb. 24 3 | 809 | 21 14 55 | −42 | 21 1 11 | 851 | 46·3 | 20 21 4 | −34·8 | 20 21 38 | 81·1 | 1219 | 21 14 47 | 713 | 20 22 28 | 506 |
| 7* | Mar. 1 1 37 | Mar. 2 19 | 411 | 1 1 40 | 193 | 1 4 9 | 218 | 39·5 | 2 0 37 | −1·8 | 1 3 33 | 41·3 | 1002 | 1 23 28 | 812 | 1 4 9 | 190 |
| 8 | Mar. 4 7 | Mar. 7 4 | 449 | 5 14 33 | 36 | 5 0 18 | 413 | 54·2 | 4 22 22 | −5·6 | 5 0 42 | 59·8 | 1159 | 5 16 37 | 733 | 4 22 20 | 426 |
| 9 | Mar. 9 13 | Mar. 12 0 | 527 | 10 20 4 | −343 | 11 1 17 | 870 | 59·5 | 10 22 50 | −63·0 | 11 0 12 | 122·5 | 1119 | 9 17 43 | 591 | 11 1 19 | 528 |
| 10* | Mar. 22 5 39 | Mar. 28 6 | 1247 | 24 15 57 | −1181 | 25 1 4 | 2428 | 173·5 | 25 17 29 | −142·2 | 24 2 20 | 315·7 | 1382 | 25 23 15 | 21 | 25 17 7 | 1361 |
| 11* | Mar. 28 6 35 | Mar. 30 4 | 1247 | 28 15 25 | −389 | 28 12 21 | 1636 | 133·7 | 28 22 2 | −131·7 | 28 19 47 | 265·4 | 1476 | 28 22 6 | −140 | 28 15 4 | 1616 |
| 12 | Apr. 9 8 | Apr. 10 17 | 640 | 9 15 8 | 275 | 10 0 54 | 365 | 33·5 | 9 13 18 | −8·6 | 9 22 47 | 42·1 | 1526 | 9 12 13 | 842 | 10 1 8 | 684 |
| 13 | Apr. 12 19 | Apr. 17 4 | 636 | 15 13 13 | 133 | 15 2 27 | 503 | 57·9 | 15 19 14 | −15·7 | 15 2 42 | 73·6 | 1188 | 15 12 53 | 798 | 15 2 59 | 390 |
| 14* | Apr. 22 6 59 | Apr. 25 16 | 1162 | 23 15 51 | −1128 | 23 23 38 | 2290 | 118·7 | 23 16 56 | −186·3 | 23 23 38 | 305·0 | 2167 | 23 23 49 | 529 | 24 3 48 | 1638 |
| 15* | May 6 4 15 | May 12 0 | 739 | 9 15 3 | 80 | 7 6 6 | 659 | 50·9 | 11 9 13 | −25·4 | 6 22 48 | 76·3 | 1200 | 9 15 3 | 748 | 9 4 25 | 452 |
| 16 | May 20 16 | May 27 0 | 575 | 23 17 50 | 68 | 23 1 24 | 507 | 42·2 | 21 20 44 | −10·3 | 22 4 31 | 52·5 | 1109 | 22 16 7 | 680 | 22 4 30 | 429 |
| 17* | June 5 20 10 | June 6 22 | 459 | 5 20 14 | 300 | 6 11 3 | 159 | 27·6 | 6 14 32 | 5·7 | 6 7 55 | 21·9 | 1031 | 6 13 39 | 923 | 6 0 25 | 108 |
| 18* | June 7 7 37 | June 10 0 | 835 | 7 16 45 | 136 | 8 2 8 | 699 | 38·5 | 7 17 34 | 2·9 | 7 9 50 | 35·6 | 1275 | 7 14 42 | 792 | 8 2 47 | 483 |
| 19* | June 12 3 1 | June 14 0 | 563 | 12 15 41 | 257 | 12 22 27 | 306 | 31·0 | 12 22 58 | −0·8 | 12 22 36 | 31·8 | 1164 | 12 15 39 | 818 | 12 22 21 | 346 |
| 20 | June 16 7 | June 23 0 | 470 | 16 19 27 | −267 | 17 0 33 | 737 | 27·6 | 18 20 6 | −53·0 | 17 0 32 | 80·6 | 1089 | 18 18 5 | 667 | 17 0 28 | 422 |
| 21* | June 27 17 27 | June 30 0 | 820 | 29 17 29 | 257 | 29 20 59 | 563 | 74·6 | 29 18 9 | −1·2 | 29 4 52 | 75·8 | 1174 | 29 17 29 | 800 | 29 18 9 | 374 |
| 22 | July 7 2 | July 12 0 | 515 | 7 17 47 | 66 | 8 0 10 | 449 | 32·4 | {7 17 46<br>10 12 34 | −6·3 | 8 1 47 | 38·7 | 1127 | 9 16 30 | 846 | 8 0 25 | 281 |
| 23 | July 18 9 | July 20 4 | 724 | 18 16 24 | 181 | 19 2 19 | 543 | 47·8 | 18 17 10 | −1·6 | 18 22 28 | 49·4 | 1168 | 18 16 25 | 808 | 19 2 27 | 360 |
| 24 | July 25 10 | July 29 4 | 968 | 26 20 35 | −1781 | 27 6 40 | 2749 | 182·8 | 27 6 27 | −114·4 | 27 0 58 | 297·2 | 1468 | 27 3 10 | 698 | 27 7 10 | 770 |
| 25 | July 29 4 | July 30 20 | 625 | 29 16 40 | 140 | 30 3 43 | 485 | 36·8 | 29 17 20 | 0·5 | 30 7 22 | 36·3 | 1076 | 29 17 12 | 872 | 30 1 7 | 204 |
| 26 | Aug. 7 10 | Aug. 8 1 | 617 | 7 15 47 | 318 | 7 10 39 | 299 | 37·4 | 7 16 52 | 3·4 | 7 19 43 | 34·0 | 1216 | 7 15 26 | 1023 | 7 12 20 | 193 |
| 27 | Aug. 14 1 | Aug. 17 24 | 487 | 15 17 2 | 135 | 14 21 1 | 352 | 67·4 | 14 21 54 | −14·7 | 14 20 38 | 82·1 | 1084 | 14 20 27 | 765 | 16 22 11 | 319 |
| 28* | Aug. 30 22 40 | Aug. 31 24 | 522 | 31 16 52 | −99 | 31 5 18 | 621 | 66·0 | 31 5 31 | −19·3 | 31 2 20 | 85·3 | 1155 | 31 17 9 | 588 | 31 5 46 | 567 |
| 29* | Sept. 16 13 47 | Sept. 17 8 | 659 | 16 18 48 | −162 | 17 2 5 | 821 | 79·5 | 16 18 51 | −45·4 | 17 1 50 | 124·9 | 1137 | 16 17 50 | 718 | 17 1 17 | 419 |
| 30 | Sept. 17 14 | Sept. 20 2 | 857 | 19 13 20 | −376 | 18 2 18 | 1233 | 114·6 | 18 18 52 | −194·7 | 18 4 3 | 309·3 | 1336 | 18 18 55 | −109 | 18 3 0 | 1445 |
| 31* | Sept. 21 17 12 | Sept. 24 17 | 1851 | 22 13 18 | −438 | 23 3 55 | 2289 | 144·5 | 22 5 0 | −141·5 | 22 13 50 | 286·0 | 1586 | 22 11 35 | 332 | 22 5 30 | 1254 |
| 32 | Sept. 27 2 | Oct. 1 2 | 1116 | 28 15 36 | −391 | 29 1 9 | 1507 | 112·5 | 28 15 39 | −37·7 | 28 21 35 | 150·2 | 1436 | 29 0 32 | 641 | 29 1 31 | 795 |
| 33* | Oct. 25 21 58 | Oct. 28 2 | 464 | 27 13 5 | −341 | 27 0 28 | 805 | 41·8 | 27 1 22 | −57·2 | 27 2 32 | 99·0 | 1132 | 27 14 29 | 552 | 26 23 50 | 580 |
| 34* | Nov. 24 3 45 | Nov. 26 19 | 443 | 25 20 20 | 287 | 24 13 51 | 156 | 40·8 | 24 13 14 | −12·4 | 25 20 18 | 53·2 | 1070 | 24 13 48 | 908 | 26 3 29 | 162 |

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*, 11°; *V*, 46,000γ.

## REMARKS ON THE AUTOGRAPHIC RECORDS 1946

The Lerwick mean character figure for the month is shown in brackets after the name of the month.

January (average character figure 0·65).- The month opened quietly with only minor disturbance evident, but a "sudden commencement" was recorded at 3d.8h.11m. and a violent storm quickly developed. Variations in *H* were particularly marked and this element ranged from a maximum of 15093γ at 3d.16h.2m. through 1848γ to a minimum of 13245γ at 21h.35m.; ranges for *D* and *V* were 104′·7 and 662γ respectively. The intensity of the storm decreased appreciably about 4d.5h. and after renewed activity during the late afternoon and evening of 4d. when ranges of 744γ, 57′·2 and 564γ were recorded on *H*, *D* and *V* respectively, activity decreased to the minor level evident at the beginning of the month. Evening bays particularly on *D* were slightly enlarged to 8d. and activity increased a little during 11d. Evening bays on *D* were again slightly enlarged on 12d. and 13d. but 14d. and most of 15d. were quiet. Minor disturbance returned during the evening of 15d. and re-occurred each evening to 19d. The 20d. was quiet but minor activity returned again late on 21d. There were enlarged night bays on 23d., that of *D* being some 55′ deep and activity on 24d. was on a moderate level. The disturbance decreased on 25d., however, and minor activity prevailed to the end of the month.

February (average character figure 0·89).- The opening days of the month were quiet or only mildly disturbed and a "sudden commencement" at 3d. 13h. 42m. brought only a slight increase in activity. Moderate disturbance then prevailed to 7d. when a particularly violent storm quickly developed about 9h. Wild fluctuations occurred on all elements particularly between 7d. 21h. and 8d. 5h. Maxima were 15009$\gamma$ and 13°55′·0 and 47651$\gamma$ at 7d. 11h. 18m., 7d. 22h. 50m. and 8d. 0h. 37m., and minima were 13305$\gamma$, 8°45′·3 and 46144$\gamma$ at 7d. 23h. 3m., 8d. 0h. 33m. and 7d. 22h. 26m. on *H*, *D* and *V* respectively, giving ranges of 1704$\gamma$, 5°9′·7 and 1507$\gamma$. Major activity died out during the evening of 9d. although moderate or mild disturbance continued to the afternoon of 13d. and reappeared again about 14d. 6h. A "sudden commencement" was recorded at 14d. 17h. 37m. but brought little increase to the moderate disturbance already prevalent although night bays on *H* and *V* and a hump on *D* were somewhat enlarged. Quiet or only mildly disturbed conditions were restored by 16d. but activity gradually increased on 18d. and a further well marked "sudden commencement" was recorded at 19d. 15h. 1m. This was followed by steady rises and falls to maxima of 14708$\gamma$, 11°40′·8 and 47174$\gamma$ at 19d. 20h. 36m., 19d. 20h. 8m. and 19d. 19h. 5m. to 14139$\gamma$ 10°51′·7 and 46797$\gamma$ at 19d. 22h. 24m., 19d. 22h. 3m. and 19d. 22h. 11m. on *H*, *D* and *V* respectively. All elements recovered by 20d. 1h. and remained quiet to 17h. Further activity then became apparent and soon increased to storm proportions, although changes continued to be unusually steady. All elements first rose to minor maxima and then fell through a series of secondary minima into deep broad bays which reached absolute minima of 13958$\gamma$, 10°25′·1 and 46713$\gamma$ at 21d. 1h. 11m., 20d. 21h. 38m. and 20d. 22h. 28m. for *H*, *D* and *V*. *D* was the first to recover and from about 21d. 5h. varied irregularly about more or less normal values. *H* and more particularly *V* were slower to rise to normal values and having done so continued to rise to broad peaks with absolute maxima 14809$\gamma$ and 47219$\gamma$ at 21d. 14h. 55m. and 21d. 14h. 47m. All elements thereafter fell away into enlarged night bays and moderate disturbance continued to 26d. The 27d. and 28d. were quiet.

March (average character figure 0·87).- A "sudden commencement" at 1d. 1h. 38m. was immediately followed by enlarged night bays on all elements some 165$\gamma$ deep on *H* and *V* and 22′ deep on *D*. Minor disturbance prevailed for the remainder of 1d., increased to moderate proportions just before midnight and died away during the afternoon of 2d. The 3d. was almost quiet and 4d. only mildly disturbed until evening, when enlarged night bays were recorded, those of *H* and *V* being some 200$\gamma$ and 430$\gamma$ deep respectively. The *D* bay was relatively shallow but was marked by a towering peak some 60′ high to a maximum of 11°54′·1 at 4d. 22h. 22m.

Activity continued on a moderate scale throughout 5d. and decreased a little during 6d. The 7d. and 8d. were only mildly disturbed but moderate activity was renewed during the afternoon of 9d. and developed into a minor storm. Each element first formed enlarged humps followed by deep night bays between 10d. 1h. and 6h. A period of erratic variation chiefly characterized by serration then lasted to 19h. when minor maxima on *H* and *V* were immediately followed by deep and extensive multiple bays on all elements. Minima of 13657$\gamma$ 9°56′·9, and 46591$\gamma$ were recorded on *H*, *D* and *V* at 11d. 1h. 7m., 11d. 0h. 12m. and 11d. 1h. 19m. to give ranges of 870$\gamma$, 2°2′·5 and 506$\gamma$. Maxima occurred at widely separated times and were not exceptional. All elements recovered approximately normal values by 11d. 9h. although moderate activity continued to midnight.

The period 12d. to 16d. was quiet or only mildly disturbed but night bays were slightly enlarged and activity on a moderate level on 17d. Thereafter only minor disturbance was recorded to 20d. The disturbance increased to moderate intensity on 21d. and at 22d. 3h. 51m. there was evidence of a sharp onset preceding a larger "sudden commencement" at 22d. 5h. 40m. This was followed by moderate serration and moderate activity culminating in a further stormy sequence. The first major activity took the form of deep and violently fluctuating bays on all elements between 23d. 21h. and 24d. 7h. Very intense serration then characterized the traces to 24d. 13h. when *H* rose to towering pinnacles, *D* executed a series of rapid oscillations and *V* having risen to a moderate maximum fell into a deep double trough before recovering to a further maximum. After about five hours of relative quiet, further deep and

violently fluctuating bays formed on all elements followed by towering peaks and further broad bays throughout 25d. and until about 9h. on 26d. when activity decreased to moderate levels. Maxima of 15247$\gamma$, 13°50′·1 and 47382$\gamma$ at 24d.15h.57m., 25d.17h.29m. and 25d.23h.15m. and minima of 12819$\gamma$, 8°37′·7 and 46021$\gamma$ at 25d.1h.6m., 24d.2h.20m. and 25d.17h.7m. were recorded during this period to give ranges of 2428$\gamma$, 5°12′·4 and 1361$\gamma$. Moderate activity with enlarged night bays continued to late on 27d. when further violent disturbance developed. All elements underwent rapid and complicated changes throughout 28d. when maxima of 15247$\gamma$, 13°13′·2 and 47476$\gamma$ and minima of 13617$\gamma$, 8°52′·6 and 45861$\gamma$ were recorded on *H*, *D* and *V* respectively, the *V* minimum at 28d.15h.3m. being the lowest value of the year. The major disturbance died away early on 29d. although all elements continued to fluctuate and serrations were prominent throughout that day. The 30d. was mildly disturbed and enlarged night bays formed on 31d.

April (average character figure 0·73).- Moderate disturbance with enlarged night bays prevailed to 3d. which together with 4d. was only mildly disturbed. The period 5d. to 8d. was again characterized by moderate disturbance and both *H* and *V* formed considerably enlarged afternoon maxima and night bays on 9d. *D* formed an enlarged night bay but had a minimum instead of a maximum during the afternoon. The 10d.-12d. period was quiet or only mildly disturbed but moderate activity with marked serration reappeared on 13d. and reached minor storm proportions on 14d. and 15d., ranges during this period being 500$\gamma$, 1°13′·6 and 390$\gamma$ for *H*, *D* and *V* respectively.

Night bays were enlarged on 16d. but with this exception all elements were quiet or only mildly disturbed to 22d. when a "sudden commencement" at 22d.6h.58m. brought increasing disturbance in its train. This culminated in major storm activity on 23d. which continued vigourously to about 25d.7h. Maxima of 15162$\gamma$, 12°58′·6 and 48167$\gamma$ at 23d.15h.51m., 23d.16h.56m. and 23d.23h.49m. and minima of 12872$\gamma$, 7°53′·6 and 46529$\gamma$ at 23d.23h.38m., 24d.3h.27m. and 24d.3h.48m. were recorded during this period to give ranges of 2290$\gamma$, 5°5′·0 and 1638$\gamma$ on *H*, *D* and *V* respectively. The *V* maximum was the highest value recorded during the year.

The afternoon of 25d. was almost quiet; night bays were enlarged on 26d. and minor activity during the evening of 28d. continued in evidence to the end of the month.

May (average character figure 0·81).- Mild disturbance with enhanced night bays characterized the first four days of the month and 5d. was almost quiet until the evening when considerable activity developed in what appear to be a series of sudden onsets at 5d.21h.52m., 6d.3h.30m., 6d.4h.17m., 6d.7h.55m., 6d.17h.36m. and 6d.22h.28m. The disturbance produced ranges of 435$\gamma$, 1°12′·5 and 275$\gamma$ on *H*, *D* and *V* respectively and there was renewed activity early on 8d. with evidence of further sudden onsets in the already disturbed conditions. Moderate activity with prominent serration characterized 8d. and particularly large maxima were built up during the afternoon of 9d. Night bays although enlarged were not exceptional however. Serration and moderate disturbance continued to 11d. but activity then decreased and all elements remained only mildly disturbed or quiet to 16d. The level of activity increased slightly on 17d. and 18d. but 19d. and the forenoon of 20d. were quiet. Active disturbance returned late on 20d. and for the next five days afternoon maxima and night bays were considerably enlarged to give daily ranges between 200$\gamma$ and 500$\gamma$ on *H* and *V* and between 20′ and 45′ on *D*. The 26d. brought a return to moderate disturbance levels but only minor activity was evident during the remainder of the month.

June (average character figure 0·83).- The first three days of the month were quiet but a well marked "sudden commencement" at 4d.6h.12m. was followed by minor disturbance for about twelve hours. Further minor disturbance which was evident on the evening of 5d. continued over 6d. Another "sudden commencement" recorded at 7d.7h.39m. brought considerably increased activity. *H* rose to a mountainous maximum of 14835$\gamma$ at 7d.16h.45m. and then fell to a broad bay with minimum of 14136$\gamma$ at 8d.2h.8m. *V* followed a similar course although only ranging through 483$\gamma$ while *D* executed a series of oscillations on considerably smaller

maxima and minima. After recovering from their broad bays early on 8d. all elements continued to show marked activity and pursue irregular courses throughout 8d. The period 9d. to 11d. was a little quieter although still moderately disturbed; 12d. brought greatly enlarged afternoon maxima and evening minima for *H* and *V*, and moderate or mild disturbance characterized the 13d.–15d. Activity again increased late on 16d. and deep night bays to minima of 13733$\gamma$ (*H*), 10°6′·9 (*D*) and 46667$\gamma$ (*V*) formed in the early hours of 17d. Further moderate activity and enlarged night bays were recorded on 17d. and 18d. The record from 19d.12h. to 20d.0h. inclusive was lost and moderate or minor disturbance was recorded from 20d. to 25d. Activity increased somewhat during the next few days and culminated on 29d. in a sharp rapidly fluctuating disturbance with ranges of 563$\gamma$, 1°15′·8 and 374$\gamma$ on *H*, *D* and *V* respectively. The 30d. was quiet.

July (average character figure 0·81).– The month opened quietly and with the exception of moderate disturbance on 3d. quiet or only mildly disturbed conditions prevailed to early on 7d. Moderate activity then developed and afternoon maxima and evening minima on that day were well developed. Bays were again in evidence early on 9d. followed by enlarged afternoon maxima, and similar features characterized 10d. and 11d. Only mild disturbance was recorded on 12d. and 13d. but afternoon maxima on 14d. were again enlarged as were the night bays occurring early on 15d. Serration and minor disturbance prevailed over the remainder of 15d. but moderate activity returned shortly before noon on 16d. A towering peak to 14724$\gamma$ at 16h.24m. formed on *H* on 18d. followed by a bay to 14181$\gamma$ at 19d.2h.19m. *D* and *V* followed similar courses but ranges at 49′·4 and 360$\gamma$ were much smaller. Another but smaller peak formed on *H* on 19d. when afternoon maxima and night bays were again enlarged. The 20d. was almost quiet but moderate disturbance with enhanced maxima and minima characterized the next few days. The 24d. was again almost quiet. Moderate disturbance reappeared on 25d. and violent activity developed suddenly at 26d.18h.44m. *H* and *D* first rose to fluctuating maxima before plunging about midnight, to deep pulsating bays upon which the absolute maximum of the year for *D* (14°2′·7 at 27d.6h.27m.) was superposed and during which the absolute minimum of the year for *H* (12219$\gamma$ at 27d.6h.40m.) was recorded. *V* followed a more complicated course involving about five deep bays and large peaks. Maxima of 14968$\gamma$, 14°2′·7 and 47468$\gamma$ and minima of 12219$\gamma$, 9°5′·5 and 46698$\gamma$ were recorded during this period and it was 27d.9h. before the major activity died away. Active disturbance continued however throughout 27d. and was renewed early on 28d. when evening maxima and night bays early on 29d. were enlarged. Very intense serration characterized the traces from 29d.5h. and there were again notable evening maxima and night minima on 29d. and 30d. The 31d. was only mildly disturbed.

August (average character figure 0·74).– The opening days of the month were quiet or only mildly disturbed and it was not until 7d. when afternoon maxima were greatly enlarged that any appreciable disturbance occurred. Activity although slightly increased then continued on a minor level to 14d. with the exception of 11d. which was moderately disturbed with enhanced peaks and bays. The 14d. was also moderately disturbed and there was a particularly sharp fluctuation on all elements between 20h. and 22h. when values ranged through 346$\gamma$ (*H*), 1°22′·1 (*D*) and 264$\gamma$ (*V*) in about half an hour. Moderate activity with pronounced peaks and bays continued to characterized the next few days but this died down on 18d. and from 18d. to 30d. all elements were calm or only mildly disturbed. The month closed with a minor storm on 31d. when deep night bays on *H* and *V* were followed by broad afternoon maxima. *D* followed a more complicated course and reached a maximum between 5h. and 6h. about the same time as the *H* and *V* minima; ranges were 621$\gamma$ (*H*), 1°25′·3 (*D*) and 567$\gamma$ (*V*).

September (average character figure 1·00).– Once again the month opened quietly and only mild disturbance was recorded on the first three days. Night bays were slightly enlarged on 4d. and activity from 4d. to 15d. was on a slightly increased although still moderate scale with the exception of 6d.7h. to 7d.7h. which was exceptionally quiet. A "sudden commencement" at 16d.13h.43m. brought an abrupt increase in activity and introduced a violently stormy spell which prevailed to 20d. Major fluctuations on all elements were almost continuous and are too complicated for detailed description although the general pattern of afternoon maxima and night minima was followed. Some indication of their magnitude is afforded by the *H* ranges 707$\gamma$ on 16d., 620$\gamma$ on 17d., 1118$\gamma$ on 18d. and 1095$\gamma$ on 19d. The minimum value of *D* for the year, 7°45′·2 was recorded at 18d.4h.3m.

The 20d. was only mildly disturbed with slightly enlarged maxima and minima but another "sudden commencement" at 21d.17h.12m. brought a renewal of the intense stormy activity during which the *H* maximum for the year 15851$\gamma$ at 22d.13h.18m. was recorded and *H* ranges were 2182$\gamma$ on 22d. and 1636$\gamma$ on 23d. Large scale disturbance died away early on 24d. but intense serration continued well into the afternoon. The 25d. and 26d. were only mildly disturbed but stormy conditions were restored on 27d. which had an *H* range of 618$\gamma$ and gave way to even stormier conditions on 28d. which was highly disturbed throughout and had a range of 1467$\gamma$ on *H*. Activity, although still stormy, moderated considerably about 29d.6h. and continued on a high level to the end of the month.

October (average character figure 0·71).- The month opened with strong serration and minor disturbance following the stormy September sequence, and although traces gradually became smoother mild disturbance continued to 4d. Activity increased slightly on 5d. and conditions to 7d. were moderately disturbed. The 8d. was almost quiet but strong serration was evident on 9d. when there were deep though not broad night bays. Minor disturbance then characterized the traces to 11d. The period 12d. to late on 19d. was almost quiet but moderate disturbance then reappeared and night bays were somewhat enlarged. Activity soon died down however and with the exception of small irregular variations quiet conditions were restored from 20d. to 25d. A small "sudden commencement" at 25d.21h.59m. brought an immediate introduction of moderate disturbance which became increasingly active about 26d.20h. when all elements formed deep double troughs separated by towering pinnacles reaching back to about normal values. The violence of the variations decreased about 27d.6h. but active disturbance continued throughout that day. Ranges for the storm were 805$\gamma$ (*H*), 1°39′·0 (*D*) and 580$\gamma$ (*V*). The 28d. to 30d. were quiet or only mildly disturbed and moderate activity reappearing early on 31d. brought the month to a close.

November (average character figure 0·67).- The moderate activity evident on 31d. October increased in scale on 1d. November when there were appreciably enlarged maxima and minima, the latter occurring before midnight. Mild disturbance on 2d. persisted, serrations became prominent on 5d. and maxima and minima were again enlarged on 6d. Disturbance became a little more active on 10d. and 11d. when evening humps and night bays were enhanced and a "sudden commencement" was recorded at 11d.11h.27m., but soon returned to its former mild level on 13d.

A large "sudden commencement" at 15d.7h.52m. brought immediate serration but only moderate activity and with the exception of slightly enlarged night bays only mild disturbance was evident from 16d. to late on 19d. Some sharp oscillations occurred during that evening and moderate disturbance characterized the charts to 23d. which was almost quiet. A further large "sudden commencement" at 23d.3h.46m. also brought immediate serration but only moderate activity. By 27d. conditions were quite calm and continued so to the end of the month.

December (average character figure 0·55).- The calm spell at the end of November was interrupted by mild disturbance on 1d. enlarged night bays on 2d. and gave place to minor disturbance on 5d. when serrations became prominent. This activity faded out on 8d. and only mild disturbance was recorded to 10d. Minor activity reappeared late on 10d., persisted over 12d. and died away again on 13d. The 14d. to 16d. was calm and only mild disturbance was evident to 19d. when prominent peaks and troughs formed during the late afternoon on all elements. Calm and mildly disturbed conditions continued to alternate to the end of the year and even well marked "sudden commencements" at 23d.5h.3m. and 25d.19h.13m. failed to produce any major activity.

## POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

7 LERWICK

| | JANUARY, factor 1·05 | | | | FEBRUARY, factor 1·14 | | | | MARCH, factor 1·23 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | <-212 | 143 | 213 | -380 | <-550 | - | - | 154 | <-480 | 148 | 208 | 320 |
| 2 | 87 | 174 | 202 | 171 | 173 | (132) | 202 | 92 | 97 | 161 | 611 | 362 |
| 3 | 164 | 206 | 272 | -454 | 125 | 206 | 202 | -44 | 121 | 113 | 113 | 36 |
| 4 | <-42 | <-45 | -11 | 28 | 210 | 225 | -59 | 266 | - | - | 69 | 130 |
| 5 | 579 | <-17 | 489 | 401 | 85 | 233 | 215 | 122 | 57 | 167 | 224 | 224 |
| 6 | 304 | 182 | 95 | 392 | 111 | 111 | <-897 | 111 | 114 | 204 | 167 | 200 |
| 7 | >525 | 143 | 182 | 189 | 138 | 86 | <-342 | >804 | 111 | 275 | 176 | 275 |
| 8 | 231 | 262 | 59 | - | 75 | 112 | 119 | -138 | - | - | - | - |
| 9 | - | - | 179 | -558 | 82 | <-748 | 75 | -845 | 29 | >703 | Z± | 194 |
| 10 | - | - | 98 | 123 | 105 | >862 | 94 | 150 | 207 | 236 | 257 | 252 |
| 11 | - | - | -312 | -14 | 68 | 124 | 150 | 83 | 262 | 154 | 141 | 133 |
| 12 | 39 | <-39 | - | - | 56 | 105 | 151 | 306 | 75 | 117 | 132 | -104 |
| 13 | - | - | - | 190 | 98 | 197 | 181 | 178 | 46 | 121 | 121 | 129 |
| 14 | 71 | 96 | 148 | 194 | 114 | 122 | 167 | 87 | 92 | <-460 | 134 | 226 |
| 15 | 163 | 223 | 262 | 390 | 76 | 76 | 76 | 53 | 96 | 113 | 105 | 142 |
| 16 | 216 | 297 | 223 | 318 | 95 | 80 | 92 | 111 | 121 | 147 | 155 | 147 |
| 17 | 319 | 426 | 426 | 312 | 92 | 77 | 126 | 88 | 130 | 188 | 126 | Z- |
| 18 | 132 | 121 | 107 | 110 | 77 | 116 | 123 | 142 | 134 | 193 | 460 | 197 |
| 19 | 77 | 89 | 107 | -36 | 42 | 220 | 309 | 100 | 71 | 100 | 96 | 42 |
| 20 | 68 | 46 | 103 | <-21 | Z± | Z± | 154 | 208 | - | (385) | 96 | 172 |
| 21 | -3 | 71 | 153 | 93 | 727 | Z± | 163 | 1109 | 71 | 167 | 138 | 167 |
| 22 | 75 | 112 | 107 | 104 | 398 | 199 | 187 | 195 | 88 | 172 | 92 | 147 |
| 23 | 83 | 83 | 83 | 230 | 153 | 145 | 274 | 348 | 84 | 25 | - | - |
| 24 | 86 | 119 | 90 | -223 | >330 | 307 | 248 | 244 | - | - | - | - |
| 25 | 101 | 72 | 105 | - | 276 | 236 | 228 | 370 | - | - | - | - |
| 26 | - | - | -469 | 137 | 139 | <-179 | >1070 | 317 | 84 | -46 | 176 | 176 |
| 27 | 242 | 101 | 145 | 109 | 95 | Z± | 286 | 330 | 38 | 71 | 138 | 138 |
| 28 | 83 | 73 | 113 | 113 | 133 | 120 | 160 | 80 | 138 | 305 | 288 | 284 |
| 29 | <-142 | 98 | Z± | 240 | | | | | 509 | 426 | 238 | 296 |
| 30 | 121 | <-256 | <-1094 | 77 | | | | | 88 | 121 | 154 | 167 |
| 31 | 59 | - | - | 117 | | | | | 50 | 134 | - | - |
| (a) | 174 | 149 | 172 | 192 | 157 | 186 | 211 | 242 | 120 | 198 | 185 | 190 |
| (b) | 149 | 114 | 115 | 101 | 135 | 128 | 131 | 134 | 97 | 137 | 197 | 180 |
| Mean | (a) 172 | | (b) 120 | | (a) 199 | | (b) 132 | | (a) 173 | | (b) 153 | |

| | APRIL, factor 1·26 | | | | MAY, factor 1·30 | | | | JUNE, factor 1·32 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | | | | | *volts per metre* | | | | | | | |
| 1 | 295 | 416 | 250 | 624 | 67 | 92 | 154 | 129 | 582 | 428 | 197 | 419 |
| 2 | (203) | 207 | 162 | 141 | 67 | 292 | 79 | 179 | Z± | 184 | 253 | 321 |
| 3 | 87 | 133 | 87 | 344 | 83 | 83 | 83 | 121 | 265 | 248 | 86 | 150 |
| 4 | 133 | 249 | 195 | 116 | 88 | 84 | 125 | 121 | 90 | 103 | 150 | 265 |
| 5 | 116 | Z± | 161 | 120 | 75 | 59 | - | - | 300 | -56 | 218 | Z± |
| 6 | 108 | 385 | 108 | <-236 | (126) | 138 | 163 | 117 | 90 | 150 | 94 | 218 |
| 7 | 145 | -735 | 107 | -37 | - | - | 117 | 122 | 39 | - | 189 | 13 |
| 8 | >392 | >483 | - | 128 | 80 | 206 | 160 | 214 | 150 | 129 | 378 | 365 |
| 9 | 120 | 207 | 112 | 78 | 139 | 160 | 155 | 164 | >1338 | 429 | 219 | 283 |
| 10 | 54 | 70 | 95 | -277 | 88 | 160 | 164 | 139 | 275 | 172 | 210 | 142 |
| 11 | 0 | 49 | 78 | 107 | 118 | 139 | (84) | - | 86 | 245 | (<-995) | 133 |
| 12 | 33 | 115 | 124 | 165 | - | - | (29) | 76 | 159 | 124 | -245 | 39 |
| 13 | 136 | 119 | 161 | 177 | 131 | 160 | (93) | 110 | 94 | 51 | 43 | 107 |
| 14 | 124 | -169 | 119 | 169 | >494 | 190 | -68 | 169 | 90 | 129 | 107 | 167 |
| 15 | 243 | 165 | 54 | 247 | 106 | (-330) | 182 | 157 | 107 | 124 | 159 | 176 |
| 16 | 132 | 115 | 115 | -1240 | 127 | 68 | 127 | 216 | 124 | 142 | 193 | 206 |
| 17 | 227 | 41 | 87 | 136 | 140 | 140 | 114 | 237 | 69 | 34 | -56 | 172 |
| 18 | 128 | 231 | 119 | 115 | 102 | 102 | 127 | 123 | 129 | -146 | 163 | 142 |
| 19 | 62 | 45 | 165 | 173 | 89 | 76 | 47 | 55 | -159 | - | - | - |
| 20 | - | (157) | 145 | 190 | 81 | 119 | 106 | 13 | - | - | (90) | -69 |
| 21 | 128 | 157 | 112 | 190 | 77 | 89 | 30 | 714 | (60) | (137) | 159 | 146 |
| 22 | 78 | 78 | 116 | 198 | 404 | 433 | 535 | 625 | 429 | 403 | 116 | 257 |
| 23 | -190 | 310 | 256 | 586 | 298 | 400 | 234 | 337 | 215 | 103 | 133 | 116 |
| 24 | 368 | 99 | - | 99 | 166 | 183 | 209 | 417 | 468 | 734 | 159 | 223 |
| 25 | Z± | 186 | 161 | 294 | 337 | 175 | 141 | 251 | 223 | 150 | 219 | 99 |
| 26 | 83 | 33 | 83 | 154 | Z± | 124 | 128 | 213 | 150 | 51 | 69 | 112 |
| 27 | 129 | - | (141) | 158 | 17 | 158 | 303 | 209 | 82 | 446 | 347 | 558 |
| 28 | 100 | 95 | 145 | 183 | 115 | 410 | 192 | 354 | 356 | 159 | 519 | 193 |
| 29 | - | 141 | 162 | 162 | 205 | 295 | 346 | 615 | 129 | 163 | 485 | 408 |
| 30 | (125) | (196) | 121 | (-162) | 491 | 512 | 124 | 363 | 124 | (Z±) | 137 | 386 |
| 31 | | | | | 98 | 333 | 581 | 483 | | | | |
| (a) | 144 | 172 | 134 | 202 | 157 | 192 | 170 | 243 | 230 | 210 | 196 | 215 |
| (b) | 111 | 109 | 129 | 85 | 162 | 182 | 173 | 255 | 240 | 196 | 121 | 212 |
| Mean | (a) 163 | | (b) 109 | | (a) 191 | | (b) 193 | | (a) 213 | | (b) 192 | |

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)
Mean values for periods of sixty minutes between exact hours, G.M.T.

7 LERWICK

| | JULY, factor 1·27 | | | | AUGUST, factor 1·25 | | | | SEPTEMBER, factor 1·19 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 82 | 103 | 167 | 219 | 131 | 89 | 114 | 182 | - | - | - | - |
| 2 | 895 | 261 | 39 | 218 | 157 | <-941 | 424 | 250 | - | - | - | - |
| 3 | 94 | 244 | 278 | 312 | 195 | 216 | 199 | 182 | - | 193 | 205 | 330 |
| 4 | 274 | 124 | 94 | - | 127 | 127 | 182 | 207 | 293 | - | - | - |
| 5 | 308 | 253 | 171 | 175 | 296 | 161 | 195 | 465 | (84) | - | - | (100) |
| 6 | 103 | 81 | 86 | 163 | 641 | 266 | - | 907 | - | - | - | (112) |
| 7 | 133 | 81 | 253 | 385 | 422 | 190 | 232 | 350 | 103 | 585 | 398 | 474 |
| 8 | 146 | <-424 | 351 | 265 | 392 | 342 | 338 | 329 | 397 | 417 | 238 | 238 |
| 9 | 163 | 167 | 137 | 124 | <-29 | 109 | 173 | 38 | 63 | (79) | - | 127 |
| 10 | 116 | 146 | 98 | 137 | 160 | 295 | 320 | 253 | - | 111 | (122) | 375 |
| 11 | 141 | 141 | - | 150 | -59 | <-1170 | 211 | 168 | 126 | 118 | 114 | 169 |
| 12 | 338 | (188) | 146 | 107 | 155 | 210 | 193 | 252 | 114 | 200 | (181) | 126 |
| 13 | Z± | 337 | -346 | 483 | 206 | 130 | 126 | 88 | 20 | <227 | 239 | <71 |
| 14 | Z± | 380 | 120 | 158 | 67 | 84 | (96) | 122 | 31 | 78 | 168 | 188 |
| 15 | 107 | 184 | 34 | 145 | 84 | 134 | 96 | 126 | 109 | 137 | 195 | -62 |
| 16 | 209 | 418 | 47 | 303 | 96 | 146 | 297 | 138 | 74 | 128 | 300 | 171 |
| 17 | 213 | 171 | 192 | 491 | 121 | 159 | 163 | 134 | 155 | 147 | 225 | 167 |
| 18 | (243) | - | 171 | 269 | 125 | 209 | 209 | - | 81 | (205) | 155 | 159 |
| 19 | 359 | 376 | 252 | 337 | - | - | 83 | 121 | 112 | 155 | Z± | 387 |
| 20 | 213 | 294 | -204 | 324 | 129 | 158 | 116 | 133 | - | 108 | 115 | 115 |
| 21 | 247 | 298 | 107 | 337 | 203 | 145 | 249 | 295 | 88 | 108 | 104 | 38 |
| 22 | 179 | 153 | 247 | 149 | 232 | 294 | 207 | 207 | 69 | - | (115) | 153 |
| 23 | 115 | 571 | 166 | 294 | 153 | 194 | (149) | 252 | 27 | 111 | >409 | >348 |
| 24 | 175 | -128 | 158 | 319 | 124 | 136 | 318 | 306 | 88 | <183 | - | 88 |
| 25 | 208 | 195 | 217 | 204 | 428 | 165 | -482 | Z± | 57 | (182) | - | - |
| 26 | 187 | 255 | 574 | 501 | 172 | 16 | 61 | -537 | - | - | - | 550 |
| 27 | 272 | 145 | 127 | 378 | 196 | 196 | 29 | 205 | 416 | 457 | 374 | - |
| 28 | 127 | 191 | 200 | 140 | -33 | 200 | 175 | 126 | - | (113) | 98 | 75 |
| 29 | 179 | 208 | 127 | 149 | -102 | 155 | 98 | 179 | 68 | 83 | 109 | 124 |
| 30 | 127 | 119 | 106 | 127 | -20 | 284 | 199 | 215 | 79 | 113 | 176 | 221 |
| 31 | 25 | 165 | 165 | 170 | 296 | - | 203 | - | | | | |
| (a) | 206 | 222 | 173 | 251 | 212 | 178 | 188 | 231 | 121 | 182 | 202 | 204 |
| (b) | 205 | 162 | 163 | 249 | 137 | 79 | 191 | 179 | 105 | 157 | 215 | 174 |
| Mean | (a) 213 | | (b) 195 | | (a) 202 | | (b) 147 | | (a) 177 | | (b) 163 | |

| | OCTOBER, factor 1·07 | | | | NOVEMBER, factor 1·00 | | | | DECEMBER, factor 0·97 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | - | (124) | - | - | - | - | - | - | -301 | 73 | 77 | - |
| 2 | (34) | 224 | - | - | - | 77 | - | 191 | - | - | - | -703 |
| 3 | - | - | (164) | 481 | - | - | - | - | (63) | - | - | (103) |
| 4 | 78 | 104 | 78 | 112 | 430 | 350 | 350 | - | <-316 | 100 | (100) | - |
| 5 | 108 | -163 | 167 | 115 | - | 374 | - | - | 73 | 93 | 110 | Z± |
| 6 | 115 | 122 | 144 | 237 | - | - | -183 | -28 | 3 | 120 | 169 | 166 |
| 7 | 126 | 107 | 111 | 126 | - | - | - | - | 156 | 106 | 70 | 129 |
| 8 | 162 | 151 | 144 | 151 | 62 | 65 | - | 107 | Z± | 83 | 143 | - |
| 9 | 107 | 136 | 177 | 243 | (31) | 58 | 96 | 131 | - | 93 | 113 | >235 |
| 10 | 297 | 125 | 224 | 257 | (34) | - | - | - | - | - | (122) | (106) |
| 11 | - | 143 | 146 | 234 | - | - | - | - | - | 23 | 30 | 10 |
| 12 | 146 | 142 | 168 | 142 | - | - | - | - | -96 | -367 | Z± | 252 |
| 13 | 146 | 106 | 172 | 168 | - | - | (235) | - | -109 | Z± | - | Z± |
| 14 | 113 | 138 | 146 | 120 | 65 | 99 | >286 | 205 | - | - | - | - |
| 15 | 105 | 138 | 160 | 196 | 156 | - | - | - | 33 | 69 | 76 | 96 |
| 16 | 145 | 116 | - | 138 | - | 166 | 136 | 153 | 63 | 56 | 40 | 89 |
| 17 | 105 | 112 | 141 | 166 | 98 | 98 | 260 | -105 | 13 | 20 | 69 | 33 |
| 18 | 108 | 112 | 115 | 126 | -132 | - | - | 7 | - | - | - | 129 |
| 19 | 97 | 130 | 144 | 148 | 88 | 165 | 64 | 162 | 66 | 102 | 182 | 208 |
| 20 | 169 | 147 | 212 | 194 | 121 | 108 | 162 | 145 | 79 | 168 | 139 | 142 |
| 21 | 150 | 143 | 154 | 165 | 199 | -128 | - | 239 | 13 | 109 | 86 | Z± |
| 22 | 100 | 118 | 143 | 164 | - | - | 111 | 195 | 406 | 23 | 56 | - |
| 23 | 110 | 110 | 153 | - | 87 | 101 | -296 | - | 79 | 152 | - | 96 |
| 24 | - | - | - | 213 | - | - | 282 | - | 96 | 129 | 89 | 76 |
| 25 | 25 | -373 | <-57 | 146 | - | - | - | 338 | 122 | 56 | (-314) | - |
| 26 | 152 | 170 | 142 | 145 | (0) | 97 | - | - | Z± | 126 | Z± | 374 |
| 27 | 138 | 138 | -533 | 14 | 97 | 134 | <-1062 | - | 26 | 126 | -13 | 66 |
| 28 | 81 | 109 | 109 | 141 | - | - | 137 | - | 63 | - | 99 | 116 |
| 29 | - | - | - | - | -439 | - | 305 | - | 96 | 185 | 132 | 136 |
| 30 | - | 137 | 179 | 280 | - | - | - | - | (-268) | 20 | - | (142) |
| 31 | 161 | - | - | - | | | | | 70 | - | (169) | 169 |
| (a) | 123 | 132 | 152 | 178 | 113 | 161 | 186 | 170 | 84 | 92 | 104 | 137 |
| (b) | 125 | 91 | 108 | 156 | 81 | 106 | 174 | 108 | 53 | 108 | 95 | 114 |
| Mean | (a) 146 | | (b) 120 | | (a) 157 | | (b) 117 | | (a) 104 | | (b) 93 | |

The factor used for converting the potential at the collector potential gradient in volts per metre in the open is given for each month.

| | | | | | |
|---|---|---|---|---|---|
| Annual means | (a) | 153 | 173 | 173 | 205 |
| | (b) | 133 | 131 | 151 | 162 |
| | | (a) 176 | | (b) 144 | |

## POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

8 LERWICK

| | 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 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *volts per metre* | | | | | | | | | | | | | | | | | | | | | | | | | | v./m. |
| | 0a days only* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | -64 | -70 | -51 | -53 | -51 | -37 | -41 | -12 | +7 | +36 | +40 | +41 | +26 | +42 | -1 | +25 | +34 | +35 | +35 | +37 | +24 | +4 | +10 | -17 | +3 | 5 | 227 |
| Feb. | -34 | -53 | -32 | -69 | -60 | 0 | +6 | +1 | -4 | -2 | -21 | +10 | +10 | +11 | +25 | +25 | +33 | +38 | +24 | +25 | +60 | +15 | +7 | -17 | +31 | 5 | 155 |
| Mar. | -26 | -31 | -42 | -28 | -14 | -10 | -4 | +35 | +8 | -8 | -23 | -18 | -23 | -7 | +58 | +25 | +4 | +7 | +44 | +39 | +39 | +15 | -25 | -16 | +13 | 7 | 275 |
| Apr. | -75 | -64 | -50 | -63 | -10 | +7 | +33 | +52 | +17 | -13 | -51 | -87 | -103 | -93 | -107 | -107 | -67 | +109 | +149 | +233 | +192 | +205 | -19 | -87 | +67 | 2 | 267 |
| May | -9 | -10 | -41 | -51 | -45 | -15 | +11 | +6 | -3 | -28 | -40 | -47 | -46 | -25 | -23 | -8 | +7 | +18 | +65 | +66 | +80 | +51 | +34 | +50 | -53 | 13 | 225 |
| June | -32 | -33 | -10 | +4 | -13 | -26 | -22 | +5 | -2 | -23 | -25 | -23 | -10 | +6 | -12 | +2 | +47 | +45 | +27 | +28 | +22 | +11 | +39 | -5 | +70 | 9 | 198 |
| July | +36 | +5 | -17 | +11 | +63 | +51 | +80 | +21 | +10 | -26 | -47 | -49 | -48 | -61 | -79 | -63 | -41 | -27 | -21 | +20 | +19 | +49 | +58 | +56 | +71 | 8 | 217 |
| Aug. | -3 | +5 | -19 | -39 | -38 | -24 | -2 | -8 | -6 | -15 | -8 | -11 | +4 | +3 | 0 | -3 | -3 | +1 | +6 | +9 | +34 | +37 | +43 | +35 | -19 | 12 | 187 |
| Sept. | -27 | -33 | -35 | -27 | -18 | -15 | -19 | -19 | -20 | -9 | -15 | -15 | +3 | -5 | +13 | +25 | +1 | +33 | +43 | +45 | +34 | +43 | +19 | -5 | +41 | 2 | 124 |
| Oct. | -14 | -13 | -14 | -14 | -17 | -21 | -18 | -20 | -18 | -18 | -18 | -17 | -6 | +2 | +4 | +11 | +22 | +37 | +36 | +24 | +17 | +29 | +24 | +4 | +25 | 11 | 150 |
| Nov. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - |
| Dec. | -13 | -27 | -40 | -39 | -28 | -38 | -14 | -8 | -5 | +16 | +5 | +2 | +23 | +25 | +2 | +26 | +22 | +12 | +33 | +28 | +21 | -8 | +13 | -9 | +1 | 1 | 74 |
| Year | -24 | -29 | -32 | -33 | -21 | -12 | +1 | +5 | -1 | -8 | -18 | -19 | -15 | -9 | -11 | -4 | +5 | +28 | +40 | +50 | +49 | +41 | +18 | -1 | +23 | 75 | 191 |
| Winter | -37 | -50 | -41 | -54 | -46 | -25 | -16 | -6 | -1 | +17 | +8 | +18 | +20 | +26 | +9 | +25 | +30 | +28 | +31 | +30 | +35 | +4 | +10 | -14 | +12 | 11 | 152 |
| Equinox | -35 | -35 | -38 | -33 | -15 | -10 | -2 | +12 | -3 | -12 | -27 | -34 | -32 | -26 | -8 | -11 | -10 | +47 | +68 | +85 | +71 | +73 | 0 | -26 | +37 | 22 | 204 |
| Summer | -2 | -8 | -22 | -19 | -8 | -3 | +17 | +6 | 0 | -23 | -30 | -33 | -25 | -19 | -29 | -18 | +3 | +9 | +19 | +31 | +39 | +37 | +43 | +34 | +17 | 42 | 207 |
| | 1a and 2a days only* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - |
| Feb. | -19 | -21 | -17 | -16 | -21 | -30 | -82 | -58 | +3 | +17 | +24 | +7 | +12 | +37 | +33 | +13 | -5 | +6 | +9 | +49 | +31 | +31 | -11 | +7 | +29 | 3 | 80 |
| Mar. | -13 | +9 | +8 | -8 | +16 | +35 | +66 | -14 | -69 | -118 | +21 | +41 | -3 | +39 | +15 | -3 | 0 | +27 | -28 | +13 | +5 | +4 | -12 | -32 | +2 | 3 | 133 |
| Apr. | -2 | -27 | -8 | -1 | -26 | +4 | -1 | -49 | -31 | +7 | +9 | +25 | -2 | +17 | +7 | +15 | +8 | +15 | +2 | +23 | +16 | +22 | -14 | -9 | +35 | 8 | 123 |
| May | -7 | +3 | -8 | -17 | +1 | +47 | +80 | +80 | +41 | -14 | -25 | -8 | -37 | -25 | -23 | -63 | -38 | -33 | +19 | +39 | +32 | -1 | -12 | -30 | +153 | 9 | 164 |
| June | +21 | +9 | +17 | -4 | -11 | +32 | -39 | +61 | -5 | -40 | -8 | +28 | +4 | +7 | +17 | -37 | -42 | -19 | -57 | -47 | +51 | +23 | +53 | -15 | -63 | 6 | 172 |
| July | +13 | +21 | +8 | -21 | -22 | -54 | -57 | -53 | -43 | -48 | -19 | -33 | -27 | +21 | -9 | +15 | +48 | +19 | +55 | +43 | +44 | +45 | +19 | +35 | +16 | 10 | 172 |
| Aug. | -58 | -72 | -93 | -100 | -48 | -15 | +22 | -12 | -8 | -3 | +13 | +25 | +46 | +28 | +55 | +26 | +12 | +2 | +19 | +26 | +28 | +37 | +41 | +27 | -115 | 4 | 131 |
| Sept. | -47 | -51 | -28 | +4 | -1 | -15 | +13 | +1 | +93 | +70 | +15 | -24 | -36 | -23 | +13 | +12 | -4 | +25 | +22 | +7 | -5 | -7 | +2 | -35 | +27 | 4 | 225 |
| Oct. | -35 | -17 | -10 | -19 | -21 | -39 | -5 | +3 | +7 | -2 | +3 | +22 | +6 | +21 | +9 | +23 | +1 | -9 | +31 | +19 | +10 | +19 | -2 | -18 | -19 | 3 | 140 |
| Nov. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - |
| Dec. | -29 | -11 | -17 | -28 | -5 | -49 | -26 | -26 | -21 | +1 | -13 | -10 | 0 | +2 | -7 | +22 | +17 | +26 | +27 | +43 | +41 | +23 | +37 | +6 | -15 | 3 | 106 |
| Year | -18 | -16 | -15 | -21 | -14 | -8 | -3 | -7 | -3 | -13 | +2 | +7 | -4 | +12 | +11 | +2 | 0 | +6 | +10 | +21 | +25 | +20 | +10 | -6 | +5 | 53 | 145 |
| Winter | -24 | -16 | -17 | -22 | -13 | -39 | -54 | -42 | -9 | +9 | +5 | -1 | +6 | +19 | +13 | +17 | +6 | +16 | +18 | +46 | +36 | +27 | +13 | +7 | +7 | 6 | 93 |
| Equinox | -24 | -21 | -9 | -6 | -8 | -4 | +18 | -15 | 0 | -11 | +12 | +16 | -9 | +13 | +11 | +12 | +1 | +15 | +7 | +15 | +7 | +9 | -7 | -23 | +11 | 18 | 155 |
| Summer | -8 | -10 | -19 | -35 | -20 | +3 | +1 | +19 | -4 | -26 | -10 | +3 | -3 | +8 | +10 | -15 | -5 | -8 | +9 | +15 | +39 | +26 | +25 | +4 | -2 | 29 | 160 |

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

* For explanation of 0a, 1a, 2a days see p.16, *Observatories' Year Book, 1938*

† See p.10, *Observatories' Year Book, 1938*

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | 1b | 1·5 | (1b) | – | 1b | 1·4 | 0a | ··· | 1a | 0·1 | 1b | 2·3 |
| 2 | 1b | 0·3 | (1a) | 0·2 | 0a | ... | (1a) | (0·2) | 1a | 2·1 | 1b | 2·1 |
| 3 | 2b | 3·9 | 1b | 1·1 | 1b | 1·7 | 0a | ··· | 0a | ··· | 1b | 1·4 |
| 4 | 2c | 7·1 | 2c | 5·1 | (1b) | – | (1a) | 0·7 | 2b | 3·0 | 0a | ··· |
| 5 | 1c | 1·3 | 1b | 1·3 | 0a | ··· | 1c | 0·7 | (0a) | – | 2b | 4·6 |
| 6 | 1c | 2·5 | 2b | 3·3 | 1b | 0·5 | 2c | 5·5 | (0a) | (···) | 1b | 1·2 |
| 7 | 1b | 0·1 | 2c | 5·5 | 1c | 2·6 | 1b | 2·3 | (0a) | – | (1b) | – |
| 8 | (1b) | – | 1b | 2·8 | (–) | – | (1c) | – | 0a | ··· | 0a | ··· |
| 9 | (2b) | – | 2b | 5·5 | 2c | 5·1 | 1b | 0·4 | 0a | ··· | 1b | 1·6 |
| 10 | (1a) | – | 1c | 2·0 | 2b | 4·1 | 2b | 8·3 | 0a | ··· | 1a | 1·5 |
| 11 | (2b) | – | 1b | 0·5 | 1a | 0·3 | 2a | 3·4 | (0a) | – | (2c) | – |
| 12 | (1b) | – | 0a | ··· | 1b | 3·0 | 1a | 1·8 | (1b) | – | 2b | 5·5 |
| 13 | (1a) | – | 0a | ··· | 1b | 1·3 | 1a | 0·8 | (1a) | (0·1) | 1b | 2·9 |
| 14 | (0a) | (···) | 0a | ··· | 1b | 0·4 | 1a | 2·3 | 1c | 1·7 | 0a | ··· |
| 15 | 0a | ··· | 1a | 0·3 | 0a | ··· | (1b) | (1·1) | (2c) | (3·7) | 0a | ··· |
| 16 | 0a | ··· | 2b | 3·1 | 0a | ··· | 2b | 4·0 | 1a | 1·0 | 0a | ··· |
| 17 | 0a | ··· | 1a | 1·2 | 2b | 6·4 | 1b | 1·9 | (0a) | (···) | 2a | 3·4 |
| 18 | 0a | ··· | 1a | 0·2 | 0a | ··· | 1b | 0·8 | 0a | ··· | 2a | 8·3 |
| 19 | 2b | 3·6 | 1c | 2·3 | 1b | 1·9 | (1b) | (2·4) | 1a | 0·3 | (1b) | – |
| 20 | 2b | 4·3 | 2c | 3·0 | (1b) | – | (1c) | – | 1a | 2·4 | (1b) | – |
| 21 | (1a) | – | 1c | 2·7 | 1b | 1·4 | 1c | 1·8 | 1a | 2·6 | (1a) | – |
| 22 | 0a | ··· | 1b | 0·3 | 0b | ··· | 1b | 2·8 | 0a | ··· | 0a | ··· |
| 23 | 1b | 0·6 | 1b | 0·3 | (1b) | – | 2c | 3·1 | 0a | ··· | 1a | 0·1 |
| 24 | 2b | 5·4 | 1b | 2·3 | (–) | – | (1c) | – | 0a | ··· | 1a | 0·4 |
| 25 | (0b) | – | 0a | ··· | (–) | – | 1b | 0·5 | 0a | ··· | (0a) | (···) |
| 26 | (2c) | – | 1c | 2·3 | 2a | 3·2 | (1a) | 1·1 | 1b | 1·2 | 0a | ··· |
| 27 | 1b | 0·6 | 1b | 2·1 | 1a | 0·1 | (0a) | – | 1b | 0·9 | 0a | ··· |
| 28 | 1b | 2·5 | 0a | ··· | 0a | ··· | 1a | 0·0 | 1a | 0·3 | (1b) | (1·5) |
| 29 | 1c | 1·4 | | | 0a | ··· | (1a) | – | 0a | ··· | 1a | 2·0 |
| 30 | 2c | 3·9 | | | 0a | ··· | (1b) | – | 0a | ··· | (1c) | – |
| 31 | (1b) | – | | | (0a) | – | | | 1a | 0·3 | | |
| Total | 33 | 39·0 | 29 | 47·4 | 22 | 33·4 | 32 | 45·9 | 17 | 19·7 | 26 | 38·8 |
| No. of days used | 31 | 21 | 28 | 27 | 28 | 24 | 30 | 22 | 31 | 14 | 30 | 15 |
| Mean | 1·06 | 1·9 | 1·04 | 1·8 | 0·79 | 1·4 | 1·07 | 2·08 | 0·55 | 1·41 | 0·87 | 2·59 |

| | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | (1a) | (0·9) | (0a) | (···) | (–) | – | (1a) | – | (–) | – | (2b) | – |
| 2 | 1b | 1·3 | 2b | 3·9 | (–) | – | (1a) | – | (1b) | – | (2c) | – |
| 3 | 0a | ··· | 0a | ··· | (1a) | – | (1b) | – | (–) | – | (2c) | – |
| 4 | (1b) | – | 0a | ··· | (0a) | – | 1b | 1·8 | (1a) | – | (1c) | – |
| 5 | 1a | 2·3 | 1b | 0·2 | (1a) | – | 1b | 1·7 | (0a) | – | (2c) | – |
| 6 | 0a | ··· | (1b) | – | (0a) | – | (0a) | (···) | (2a) | – | (1c) | – |
| 7 | 1a | 0·1 | 0a | ··· | 1a | 0·1 | (0a) | (···) | (–) | – | 1a | 0·7 |
| 8 | 1b | 2·5 | 1b | 0·5 | (1a) | (0·0) | (0a) | (···) | (1a) | – | (–c) | – |
| 9 | 1a | 0·4 | 2b | 5·3 | (1a) | – | 0a | ··· | (1a) | – | (1b) | – |
| 10 | 1a | 0·0 | (0a) | (···) | (1a) | – | (0a) | (···) | (1a) | – | (1b) | – |
| 11 | (1a) | – | 2c | 8·9 | (1a) | – | (0a) | – | (–) | – | (1b) | – |
| 12 | (1b) | (0·4) | 0a | ··· | (1a) | – | 0a | ··· | (–) | – | 2b | 14·6 |
| 13 | (2c) | – | 1a | 0·1 | 2c | 3·5 | (0a) | (···) | (1c) | – | (1c) | – |
| 14 | (2c) | (5·1) | (1a) | (0·1) | 1b | 1·7 | 1a | (0·0) | 1b | 0·5 | (1b) | – |
| 15 | (1a) | 0·1 | 0a | ··· | (1b) | – | 0a | ··· | (0a) | – | 0a | ··· |
| 16 | (0a) | (···) | 1a | 0·6 | (1b) | (0·5) | (0a) | – | (0a) | – | 1a | 0·5 |
| 17 | 0a | ··· | 0a | ··· | (1a) | (0·5) | (0a) | (···) | (2c) | – | 2b | 3·3 |
| 18 | (1a) | – | (1b) | – | (1b) | – | (0a) | (···) | (2a) | – | (–) | – |
| 19 | 1a | 0·3 | (1a) | – | (1c) | – | 0a | ··· | (1b) | – | 1a | 0·1 |
| 20 | 1b | 2·2 | 0a | ··· | (1a) | – | 0a | ··· | 1c | 1·6 | 2b | 3·4 |
| 21 | 0a | ··· | 0a | ··· | 1a | 1·6 | 1a | 0·0 | (2c) | – | 2c | 3·4 |
| 22 | 1a | 0·1 | 0a | ··· | (1c) | – | 0a | ··· | (1b) | – | (1b) | (1·1) |
| 23 | 1b | 1·0 | (0a) | ··· | (2b) | – | (1a) | – | (2b) | – | (1c) | (1·2) |
| 24 | 1b | 1·1 | (1a) | – | (1b) | – | (1b) | – | (1b) | – | (1b) | (0·3) |
| 25 | (0a) | (···) | (2b) | – | (1a) | – | 1b | 2·4 | (–) | – | (1b) | – |
| 26 | 1b | 0·9 | 2b | 4·9 | (1a) | – | 1a | 0·1 | (2a) | – | (1c) | (2·8) |
| 27 | 2a | 6·2 | 1b | 1·7 | (0a) | – | (2b) | – | (2c) | – | (1b) | – |
| 28 | (0a) | (···) | 1a | 0·8 | (0a) | – | 0b | ··· | (1a) | – | (0a) | – |
| 29 | 0a | ··· | 1b | 2·5 | 0a | ··· | (–) | – | (2c) | – | 1b | 1·6 |
| 30 | (0a) | (···) | 1b | 0·7 | (0a) | (···) | (1a) | – | (2b) | – | (2c) | – |
| 31 | 1a | 1·0 | (1a) | – | | | (0a) | – | | | (1b) | – |
| Total | 25 | 25·9 | 24 | 30·2 | 24 | 7·9 | 15 | 6·0 | 36 | 2·1 | 37 | 33·0 |
| No. of days used | 31 | 18 | 31 | 13 | 30 | 7 | 31 | 6 | 30 | 2 | 30 | 12 |
| Mean | 0·81 | 1·44 | 0·77 | 2·32 | 0·80 | 1·15 | 0·48 | 1·00 | 1·20 | 1·05 | 1·23 | 2·75 |

Annual values: Character frequency 0 1 2 — Mean character figure 0·81 (351 days) — Duration: Total 329·3 hr.
No. of days used 99 192 60 — No. of days 181
Mean 1·82 hr.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

10 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — JANUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 379 | 375 | 376 | 378 | 375 | 374 | 381 | 387 | 384 | 369 | 364 | 362 | 366 | 370 | 374 | 373 | 368 | 384 | 372 | 364 | 370 | 373 | 373 | 379 | 374 |
| 2 | 370 | 362 | 364 | 369 | 376 | 381 | 381 | 378 | 376 | 374 | 368 | 361 | 362 | 366 | 365 | 376 | 364 | 367 | 364 | 373 | 377 | 379 | 379 | 379 | 371 |
| 3 *d* | 379 | 380 | 380 | 380 | 382 | 384 | 387 | 384 | 386 | 400 | 397 | 340 | 395 | 357 | 384 | 657 | 700 | 531 | 355 | 120 | -39 | -257 | 136 | 13 | 330 |
| 4 *d* | 13 | 95 | 13 | 225 | 296 | 325 | 358 | 358 | 328 | 342 | 377 | 373 | 357 | 351 | 357 | 408 | 376 | 390 | 403 | 377 | 331 | 341 | 302 | 342 | *310* |
| 5 | 359 | 357 | 346 | 347 | 360 | 370 | 363 | 370 | 369 | 364 | 365 | 368 | 365 | 368 | 371 | 373 | 373 | 374 | 372 | 360 | 360 | 365 | 359 | 360 | 364 |
| 6 | 352 | 373 | 373 | 371 | 375 | 377 | 378 | 374 | 377 | 372 | 367 | 367 | 368 | 373 | 373 | 371 | 361 | 365 | 368 | 364 | 378 | 375 | 375 | 376 | 371 |
| 7 | 376 | 375 | 373 | 371 | 373 | 379 | 379 | 379 | 377 | 376 | 373 | 369 | 360 | 362 | 372 | 374 | 367 | 373 | 392 | 360 | 369 | 375 | 371 | 371 | 373 |
| 8 | 371 | 370 | 371 | 375 | 379 | 376 | 377 | 377 | 374 | 372 | 370 | 368 | 370 | 375 | 375 | 375 | 377 | 377 | 377 | 377 | 377 | 380 | 378 | 377 | 375 |
| 9 *q* | 377 | 375 | 375 | 377 | 381 | 381 | 385 | 383 | 382 | 378 | 375 | 374 | 377 | 383 | 383 | 382 | 383 | 383 | 378 | 373 | 371 | 372 | 374 | 375 | 378 |
| 10 | 374 | 375 | 375 | 377 | 380 | 384 | 392 | 391 | 391 | 391 | 386 | 383 | 387 | 387 | 387 | 385 | 379 | 373 | 379 | 380 | 381 | 385 | 382 | 383 | 383 |
| 11 *d* | 384 | 385 | 386 | 385 | 385 | 343 | 397 | 391 | 387 | 387 | 374 | 372 | 375 | 374 | 372 | 365 | 375 | 368 | 369 | 374 | 367 | 361 | 378 | 376 | 376 |
| 12 | 374 | 375 | 377 | 375 | 379 | 380 | 379 | 380 | 380 | 375 | 356 | 353 | 369 | 369 | 368 | 371 | 373 | 374 | 361 | 370 | 365 | 377 | 375 | 375 | 372 |
| 13 *q* | 374 | 375 | 375 | 377 | 379 | 380 | 379 | 377 | 377 | 376 | 375 | 371 | 373 | 376 | 379 | 379 | 380 | 383 | 382 | 373 | 376 | 380 | 380 | 381 | 377 |
| 14 *q* | 380 | 381 | 382 | 382 | 383 | 390 | 385 | 383 | 381 | 380 | 378 | 376 | 373 | 372 | 373 | 374 | 376 | 377 | 379 | 380 | 380 | 378 | 378 | 381 | 379 |
| 15 | 382 | 383 | 383 | 385 | 389 | 390 | 391 | 387 | 385 | 384 | 384 | 381 | 378 | 376 | 377 | 383 | 388 | 391 | 392 | 394 | 386 | 377 | 370 | 360 | *383* |
| 16 | 358 | 364 | 363 | 368 | 375 | 380 | 392 | 391 | 383 | 380 | 379 | 378 | 375 | 373 | 367 | 369 | 369 | 370 | 374 | 377 | 377 | 375 | 378 | 379 | 375 |
| 17 | 379 | 373 | 374 | 378 | 383 | 392 | 399 | 386 | 372 | 379 | 380 | 380 | 382 | 381 | 376 | 375 | 378 | 367 | 369 | 377 | 378 | 393 | 373 | 365 | 379 |
| 18 | 371 | 373 | 374 | 373 | 372 | 371 | 376 | 380 | 377 | 363 | 365 | 358 | 357 | 362 | 368 | 374 | 377 | 378 | 377 | 394 | 351 | 356 | 362 | 320 | 368 |
| 19 | 308 | 331 | 346 | 363 | 370 | 370 | 375 | 375 | 376 | 377 | 373 | 378 | 378 | 378 | 378 | 379 | 381 | 383 | 381 | 383 | 386 | 374 | 374 | 373 | 370 |
| 20 *q* | 369 | 369 | 368 | 375 | 375 | 378 | 378 | 377 | 374 | 371 | 370 | 370 | 374 | 379 | 384 | 384 | 384 | 383 | 381 | 381 | 380 | 378 | 378 | 378 | 377 |
| 21 *q* | 378 | 378 | 378 | 378 | 379 | 379 | 380 | 379 | 377 | 374 | 374 | 372 | 374 | 382 | 383 | 382 | 384 | 387 | 389 | 387 | 382 | 384 | 382 | 373 | 380 |
| 22 | 370 | 370 | 387 | 373 | 390 | 387 | 393 | 383 | 384 | 384 | 376 | 369 | 361 | 369 | 376 | 376 | 379 | 381 | 382 | 381 | 379 | 377 | 378 | 374 | 378 |
| 23 | 380 | 374 | 370 | 378 | 383 | 387 | 392 | 387 | 385 | 367 | 360 | 352 | 364 | 369 | 367 | 373 | 374 | 373 | 375 | 380 | 376 | 357 | 343 | 369 | 372 |
| 24 *d* | 374 | 354 | 327 | 370 | 388 | 387 | 388 | 371 | 380 | 357 | 357 | 357 | 362 | 358 | 368 | 360 | 357 | 374 | 365 | 339 | 349 | 373 | 376 | 362 | 365 |
| 25 | 370 | 366 | 366 | 369 | 375 | 380 | 383 | 377 | 370 | 366 | 361 | 357 | 353 | 357 | 364 | 375 | 358 | 370 | 361 | 370 | 372 | 376 | 378 | 377 | 369 |
| 26 *d* | 377 | 377 | 374 | 379 | 378 | 378 | 378 | 383 | 366 | 349 | 364 | 360 | 360 | 365 | 370 | 371 | 383 | 347 | 358 | 365 | 370 | 375 | 373 | 372 | 370 |
| 27 | 371 | 370 | 375 | 377 | 370 | 377 | 378 | 378 | 375 | 369 | 365 | 364 | 367 | 370 | 377 | 377 | 378 | 381 | 381 | 378 | 374 | 370 | 375 | 374 | 374 |
| 28 | 377 | 377 | 377 | 378 | 379 | 381 | 381 | 378 | 374 | 365 | 367 | 368 | 371 | 375 | 375 | 378 | 381 | 385 | 386 | 387 | 381 | 373 | 377 | 379 | 377 |
| 29 | 381 | 382 | 383 | 386 | 389 | 384 | 391 | 386 | 380 | 373 | 365 | 364 | 367 | 374 | 362 | 372 | 380 | 382 | 381 | 379 | 376 | 379 | 379 | 383 | 378 |
| 30 | 383 | 380 | 379 | 380 | 385 | 386 | 390 | 389 | 386 | 380 | 373 | 369 | 368 | 370 | 377 | 382 | 386 | 386 | 386 | 386 | 387 | 386 | 390 | 391 | 382 |
| 31 | 383 | 377 | 377 | 380 | 384 | 386 | 382 | 384 | 384 | 384 | 378 | 375 | 375 | 376 | 381 | 379 | 373 | 375 | 376 | 377 | 378 | 377 | 394 | 378 | 380 |
| Mean | 360 | 363 | 360 | 370 | 376 | 378 | 383 | 381 | 377 | 373 | 372 | 367 | 370 | 371 | 374 | 386 | *386* | 382 | 377 | 367 | 360 | *354* | 365 | 360 | 371 |

Corrections to be applied to all values *H*, $-6\gamma$; *D*, $-4'{\cdot}4$; *V*, $-3\gamma$.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

11 LERWICK (D) — 11° + — JANUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 25·2 | 24·8 | 23·6 | 22·8 | 23·3 | 23·7 | 23·4 | 23·6 | 25·6 | 28·2 | 29·2 | 31·6 | 32·6 | 32·2 | 33·7 | 33·7 | 28·7 | 31·2 | 22·9 | 27·4 | 23·8 | 24·5 | 23·5 | 20·4 | *26·7* |
| 2 | 19·5 | 19·4 | 23·9 | 25·6 | 23·6 | 23·9 | 24·9 | 25·0 | 24·7 | 24·5 | 25·6 | 27·0 | 28·0 | 28·6 | 28·7 | 28·6 | 23·8 | 24·5 | 27·8 | 25·4 | 25·4 | 24·8 | 24·9 | 24·8 | 25·1 |
| 3 *d* | 25·6 | 26·3 | 26·2 | 26·9 | 25·5 | 24·8 | 24·8 | 25·4 | 25·8 | 29·6 | 27·8 | 21·9 | 34·9 | 30·4 | 30·1 | 27·8 | 19·4 | 32·4 | 17·0 | 14·0 | 14·0 | -0·7 | 3·6 | -0·4 | 22·2 |
| 4 *d* | 6·7 | 13·6 | 13·7 | 5·6 | 15·0 | 23·8 | 18·9 | 30·3 | 32·3 | 23·4 | 25·6 | 25·6 | 30·7 | 31·2 | 32·2 | 28·4 | 16·8 | 28·3 | 20·5 | 15·1 | 20·5 | 16·6 | 33·3 | 21·3 | *22·1* |
| 5 | 22·6 | 23·6 | 26·7 | 27·4 | 26·5 | 24·8 | 26·3 | 26·7 | 25·8 | 25·7 | 26·6 | 27·6 | 26·4 | 26·7 | 26·5 | 25·8 | 26·5 | 26·0 | 25·7 | 22·3 | 22·2 | 21·4 | 19·9 | 18·7 | 24·9 |
| 6 | 25·6 | 24·4 | 24·4 | 24·7 | 25·7 | 26·8 | 25·6 | 27·1 | 27·7 | 28·3 | 28·4 | 28·2 | 28·9 | 29·7 | 29·3 | 27·4 | 24·8 | 17·3 | 26·7 | 25·4 | 11·0 | 22·2 | 24·5 | 25·3 | 25·4 |
| 7 | 25·7 | 25·7 | 25·5 | 25·4 | 25·9 | 25·1 | 24·9 | 25·1 | 25·4 | 25·7 | 26·6 | 27·9 | 28·6 | 29·9 | 28·8 | 29·4 | 26·4 | 25·9 | 11·8 | 18·0 | 23·8 | 24·7 | 23·2 | 20·9 | 25·0 |
| 8 | 24·4 | 25·8 | 25·9 | 25·7 | 25·6 | 26·7 | 26·3 | 25·2 | 25·7 | 26·0 | 26·5 | 26·8 | 27·3 | 27·7 | 26·9 | 26·4 | 25·8 | 25·8 | 24·8 | 22·7 | 23·5 | 25·0 | 25·0 | 24·7 | 25·7 |
| 9 *q* | 25·5 | 25·9 | 25·8 | 25·5 | 25·4 | 25·7 | 25·5 | 25·7 | 25·7 | 26·1 | 26·0 | 27·3 | 28·2 | 28·3 | 27·4 | 27·5 | 27·2 | 28·3 | 27·7 | 25·7 | 25·7 | 23·3 | 23·8 | 24·7 | 26·2 |
| 10 | 24·8 | 24·6 | 24·6 | 24·7 | 24·7 | 26·5 | 25·0 | 25·8 | 25·8 | 26·6 | 25·8 | 26·8 | 30·3 | 30·5 | 29·1 | 27·6 | 29·3 | 28·8 | 27·7 | 25·8 | 25·5 | 24·8 | 25·0 | 24·8 | 26·5 |
| 11 *d* | 24·2 | 20·8 | 21·6 | 26·6 | 26·5 | 31·8 | 35·9 | 29·4 | 29·6 | 30·6 | 27·9 | 29·8 | 29·8 | 30·5 | 29·0 | 28·5 | 26·2 | 26·8 | 26·5 | 25·9 | 14·8 | 6·8 | 22·9 | 24·4 | 26·1 |
| 12 | 24·0 | 25·7 | 24·8 | 23·9 | 23·8 | 24·9 | 26·2 | 26·0 | 26·3 | 26·7 | 27·4 | 28·7 | 29·2 | 29·0 | 28·3 | 27·2 | 25·8 | 26·5 | 25·7 | 20·6 | 23·8 | 21·6 | 24·9 | 25·4 | 25·7 |
| 13 *q* | 25·0 | 25·0 | 25·4 | 26·1 | 24·4 | 24·9 | 25·2 | 25·1 | 25·1 | 25·7 | 26·6 | 26·9 | 28·4 | 28·4 | 28·1 | 27·1 | 26·4 | 26·3 | 26·2 | 22·0 | 22·8 | 22·6 | 25·4 | 25·7 | 25·6 |
| 14 *q* | 25·7 | 25·7 | 25·8 | 26·1 | 27·0 | 25·0 | 25·2 | 24·9 | 25·1 | 25·7 | 26·4 | 27·6 | 27·7 | 27·8 | 27·5 | 27·3 | 27·6 | 27·5 | 26·4 | 25·8 | 24·7 | 24·5 | 24·2 | 24·7 | 26·1 |
| 15 | 25·2 | 26·2 | 26·2 | 25·9 | 25·4 | 25·5 | 24·9 | 24·9 | 24·9 | 25·8 | 26·4 | 26·5 | 26·4 | 26·6 | 26·9 | 27·7 | 28·1 | 28·1 | 27·9 | 27·2 | 26·6 | 24·3 | 22·7 | 21·1 | 25·9 |
| 16 | 17·0 | 20·8 | 25·0 | 23·9 | 24·8 | 25·7 | 25·9 | 25·7 | 24·8 | 25·4 | 26·0 | 26·9 | 27·5 | 28·3 | 27·8 | 28·9 | 28·2 | 27·4 | 26·8 | 25·4 | 24·3 | 19·4 | 24·7 | 24·5 | 25·2 |
| 17 | 24·0 | 24·3 | 26·4 | 26·3 | 27·3 | 26·9 | 26·4 | 27·4 | 26·4 | 25·7 | 25·8 | 25·3 | 26·4 | 26·6 | 26·5 | 26·1 | 26·7 | 22·3 | 18·5 | 24·5 | 27·4 | 16·1 | 20·4 | 23·4 | 24·9 |
| 18 | 24·9 | 24·6 | 25·6 | 24·8 | 24·0 | 24·6 | 23·6 | 22·8 | 23·3 | 27·0 | 27·2 | 28·6 | 31·4 | 32·4 | 30·7 | 26·6 | 31·6 | 28·6 | 24·5 | 20·7 | 19·6 | 19·9 | 17·8 | 13·3 | 24·9 |
| 19 | 20·5 | 25·7 | 14·0 | 16·2 | 22·3 | 25·5 | 24·5 | 24·4 | 23·5 | 23·9 | 25·2 | 26·9 | 28·4 | 29·3 | 28·9 | 29·7 | 30·6 | 31·4 | 31·3 | 27·0 | 22·5 | 22·4 | 24·3 | 21·4 | 25·0 |
| 20 *q* | 18·9 | 20·6 | 20·6 | 21·5 | 21·9 | 22·7 | 23·8 | 24·3 | 24·4 | 24·4 | 25·0 | 25·8 | 26·5 | 26·7 | 25·7 | 25·4 | 25·5 | 25·4 | 25·1 | 24·9 | 24·7 | 24·6 | 24·6 | 24·6 | 24·1 |
| 21 *q* | 24·8 | 25·1 | 25·0 | 25·1 | 25·2 | 24·9 | 24·5 | 24·3 | 24·2 | 25·1 | 26·3 | 26·9 | 26·8 | 28·3 | 27·8 | 27·6 | 27·6 | 26·8 | 26·9 | 27·6 | 27·4 | 25·7 | 17·1 | 19·8 | 25·5 |
| 22 | 22·0 | 21·7 | 13·0 | 15·1 | 15·9 | 19·2 | 22·5 | 21·9 | 22·8 | 26·7 | 28·8 | 29·8 | 29·3 | 29·5 | 28·8 | 27·3 | 26·4 | 25·9 | 26·3 | 25·8 | 24·9 | 24·5 | 18·4 | 20·5 | 23·6 |
| 23 | 22·8 | 24·6 | 25·8 | 23·5 | 22·4 | 24·7 | 25·6 | 26·4 | 26·4 | 25·7 | 26·9 | 29·5 | 32·9 | 30·2 | 27·9 | 26·3 | 25·3 | 25·7 | 25·5 | 24·6 | 23·0 | 16·3 | -2·4 | 15·6 | 24·0 |
| 24 *d* | 22·3 | 25·9 | 29·1 | 24·7 | 18·6 | 23·7 | 26·5 | 31·8 | 28·6 | 27·4 | 27·0 | 29·9 | 32·9 | 25·5 | 28·4 | 29·6 | 21·3 | 27·6 | 25·8 | 8·2 | 20·2 | 22·5 | 18·8 | 22·9 | 25·0 |
| 25 | 21·4 | 23·2 | 26·6 | 26·9 | 25·7 | 25·7 | 25·6 | 25·5 | 24·4 | 25·1 | 25·7 | 26·8 | 27·6 | 25·5 | 24·5 | 21·9 | 23·6 | 26·9 | 21·5 | 25·7 | 25·3 | 23·9 | 22·5 | 24·4 | 24·8 |
| 26 *d* | 24·7 | 24·1 | 26·8 | 26·5 | 22·6 | 24·6 | 27·1 | 28·1 | 27·7 | 29·4 | 29·5 | 29·4 | 28·4 | 28·4 | 27·6 | 25·7 | 26·4 | 12·0 | 24·3 | 28·2 | 25·7 | 25·4 | 24·4 | 23·3 | 25·8 |
| 27 | 24·0 | 24·0 | 21·7 | 19·6 | 22·9 | 23·5 | 24·9 | 25·4 | 25·4 | 24·9 | 26·1 | 27·6 | 28·6 | 29·2 | 28·9 | 27·4 | 26·8 | 27·0 | 26·4 | 25·6 | 24·5 | 21·6 | 23·7 | 24·8 | 25·2 |
| 28 | 25·8 | 26·0 | 25·3 | 24·7 | 24·5 | 24·1 | 24·1 | 24·3 | 24·3 | 24·4 | 25·5 | 27·1 | 29·0 | 29·8 | 28·5 | 27·3 | 26·9 | 26·8 | 26·8 | 26·8 | 26·5 | 21·0 | 17·7 | 22·9 | 25·4 |
| 29 | 24·8 | 25·7 | 25·5 | 24·4 | 25·7 | 23·7 | 23·5 | 24·0 | 24·1 | 25·6 | 27·4 | 28·5 | 27·7 | 29·8 | 27·9 | 27·5 | 26·7 | 26·5 | 26·7 | 26·4 | 23·4 | 24·8 | 24·2 | 22·5 | 25·7 |
| 30 | 24·5 | 24·8 | 24·6 | 25·2 | 25·0 | 25·1 | 24·5 | 24·8 | 24·5 | 24·3 | 25·9 | 27·4 | 28·6 | 29·1 | 29·6 | 28·1 | 27·2 | 27·5 | 26·9 | 25·0 | 25·2 | 25·6 | 22·9 | 24·6 | 25·9 |
| 31 | 23·1 | 22·9 | 24·7 | 24·6 | 23·9 | 24·4 | 25·2 | 24·9 | 23·7 | 25·1 | 25·9 | 27·6 | 29·9 | 29·8 | 29·8 | 28·0 | 23·3 | 27·6 | 27·6 | 27·5 | 25·9 | 25·5 | 21·1 | 23·2 | 25·6 |
| Mean | 23·1 | 23·9 | 24·0 | 23·7 | 23·9 | 24·9 | 25·2 | 25·7 | 25·6 | 26·1 | 26·7 | 27·6 | *29·0* | 28·9 | 28·4 | 27·5 | 26·0 | 26·4 | 25·0 | 23·8 | 23·2 | *21·5* | 21·5 | 21·9 | 25·1 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

12 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JANUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 978 | 979 | 977 | 977 | 978 | 976 | 971 | 970 | 967 | 968 | 970 | 979 | 979 | 988 | 995 | 1003 | 1012 | 1004 | 1039 | 1028 | 1009 | 993 | 988 | 973 | *988* |
| 2 | 942 | 952 | 969 | 972 | 977 | 976 | 973 | 973 | 974 | 975 | 975 | 977 | 980 | 986 | 991 | 988 | 1005 | 1016 | 1011 | 994 | 984 | 979 | 977 | 976 | 980 |
| 3 *d* | 977 | 977 | 976 | 975 | 974 | 973 | 971 | 971 | 970 | 960 | 961 | 1019 | 1100 | 1019 | 1013 | 1098 | 1080 | 985 | 979 | 962 | 861 | 723 | 776 | 750 | 960 |
| 4 *d* | 643 | 698 | 764 | 762 | 781 | 829 | 886 | 917 | 932 | 955 | 980 | 991 | 999 | 1026 | 1033 | 1054 | 1057 | 1059 | 1032 | 1027 | 976 | 984 | 848 | 928 | *923* |
| 5 | 972 | 982 | 978 | 961 | 969 | 972 | 984 | 986 | 991 | 989 | 984 | 987 | 991 | 990 | 993 | 993 | 992 | 990 | 992 | 998 | 997 | 993 | 984 | 971 | 985 |
| 6 | 925 | 966 | 978 | 981 | 982 | 982 | 982 | 981 | 973 | 971 | 975 | 977 | 979 | 982 | 990 | 991 | 1004 | 1019 | 1002 | 1008 | 997 | 976 | 977 | 979 | 982 |
| 7 | 979 | 980 | 981 | 982 | 981 | 980 | 980 | 980 | 979 | 978 | 981 | 980 | 984 | 985 | 986 | 995 | 1005 | 1003 | 1001 | 995 | 989 | 982 | 981 | 979 | 985 |
| 8 | 974 | 978 | 980 | 981 | 980 | 979 | 978 | 981 | 981 | 979 | 982 | 983 | 982 | 981 | 982 | 984 | 984 | 985 | 987 | 988 | 986 | 982 | 981 | 979 | 982 |
| 9 *q* | 977 | 976 | 977 | 977 | 978 | 978 | 978 | 979 | 978 | 978 | 979 | 978 | 974 | 974 | 977 | 979 | 982 | 983 | 987 | 995 | 996 | 995 | 991 | 984 | 981 |
| 10 | 983 | 981 | 979 | 977 | 976 | 974 | 972 | 974 | 975 | 975 | 979 | 978 | 967 | 971 | 972 | 975 | 981 | 987 | 985 | 986 | 987 | 983 | 980 | 974 | 978 |
| 11 *d* | 962 | 957 | 950 | 932 | 922 | 935 | 898 | 932 | 953 | 957 | 974 | 974 | 976 | 981 | 984 | 993 | 994 | 997 | 1001 | 996 | 999 | 1001 | 979 | 980 | 968 |
| 12 | 979 | 973 | 966 | 967 | 966 | 966 | 969 | 972 | 976 | 980 | 986 | 987 | 985 | 985 | 982 | 981 | 981 | 984 | 999 | 1001 | 998 | 989 | 984 | 980 | 981 |
| 13 *q* | 978 | 977 | 979 | 973 | 971 | 971 | 972 | 974 | 975 | 978 | 981 | 985 | 986 | 983 | 979 | 978 | 976 | 975 | 976 | 984 | 981 | 976 | 976 | 977 | 978 |
| 14 *q* | 978 | 977 | 976 | 974 | 970 | 966 | 969 | 971 | 972 | 974 | 976 | 979 | 981 | 983 | 984 | 982 | 980 | 979 | 978 | 978 | 979 | 980 | 980 | 978 | 977 |
| 15 | 976 | 974 | 974 | 973 | 971 | 969 | 967 | 968 | 969 | 968 | 972 | 977 | 981 | 982 | 981 | 977 | 974 | 972 | 972 | 973 | 984 | 1002 | 1005 | 989 | 977 |
| 16 | 986 | 982 | 979 | 967 | 978 | 981 | 976 | 975 | 976 | 975 | 975 | 978 | 980 | 982 | 986 | 987 | 988 | 987 | 984 | 982 | 980 | 980 | 978 | 978 | 980 |
| 17 | 974 | 974 | 970 | 968 | 967 | 968 | 967 | 967 | 970 | 976 | 976 | 983 | 983 | 982 | 984 | 985 | 986 | 1005 | 1009 | 1004 | 993 | 983 | 978 | 983 | 981 |
| 18 | 980 | 981 | 982 | 984 | 983 | 980 | 975 | 973 | 974 | 973 | 975 | 980 | 984 | 990 | 1004 | 1018 | 1002 | 1001 | 1010 | 964 | 985 | 987 | 978 | 956 | 984 |
| 19 | 945 | 899 | 931 | 945 | 958 | 974 | 978 | 978 | 976 | 971 | 974 | 974 | 975 | 978 | 983 | 984 | 985 | 988 | 996 | 1002 | 1009 | 1002 | 996 | 991 | 975 |
| 20 *q* | 987 | 983 | 982 | 976 | 980 | 981 | 981 | 980 | 980 | 980 | 980 | 979 | 977 | 978 | 979 | 981 | 982 | 983 | 983 | 981 | 980 | 978 | 977 | 977 | 980 |
| 21 *q* | 976 | 977 | 978 | 979 | 980 | 980 | 980 | 981 | 981 | 979 | 977 | 977 | 975 | 973 | 976 | 978 | 979 | 981 | 981 | 985 | 993 | 999 | 1008 | 1005 | 982 |
| 22 | 994 | 992 | 977 | 969 | 956 | 954 | 941 | 949 | 967 | 967 | 968 | 971 | 975 | 975 | 979 | 981 | 983 | 983 | 983 | 986 | 986 | 985 | 982 | 976 | 974 |
| 23 | 966 | 966 | 967 | 954 | 966 | 969 | 970 | 973 | 976 | 984 | 987 | 990 | 988 | 989 | 994 | 990 | 992 | 990 | 990 | 985 | 988 | 990 | 893 | 915 | 974 |
| 24 *d* | 950 | 939 | 873 | 894 | 926 | 952 | 960 | 965 | 967 | 978 | 982 | 988 | 994 | 1057 | 1046 | 1049 | 1041 | 997 | 1011 | 1035 | 1019 | 986 | 923 | 904 | 977 |
| 25 | 937 | 957 | 964 | 963 | 967 | 972 | 975 | 979 | 985 | 987 | 988 | 990 | 991 | 993 | 1005 | 1016 | 1013 | 1004 | 1015 | 994 | 990 | 986 | 983 | 982 | 985 |
| 26 *d* | 978 | 972 | 956 | 937 | 945 | 957 | 958 | 964 | 975 | 993 | 986 | 986 | 988 | 986 | 985 | 986 | 987 | 1026 | 1026 | 1023 | 1003 | 988 | 984 | 983 | 982 |
| 27 | 982 | 976 | 967 | 960 | 966 | 968 | 970 | 974 | 976 | 978 | 978 | 976 | 974 | 974 | 974 | 974 | 975 | 978 | 979 | 982 | 985 | 987 | 983 | 979 | 976 |
| 28 | 975 | 975 | 977 | 977 | 975 | 975 | 975 | 975 | 976 | 980 | 979 | 976 | 975 | 976 | 980 | 981 | 979 | 977 | 977 | 977 | 982 | 993 | 988 | 979 | 978 |
| 29 | 978 | 978 | 978 | 975 | 967 | 967 | 965 | 969 | 974 | 979 | 981 | 979 | 981 | 983 | 989 | 991 | 985 | 982 | 981 | 982 | 986 | 984 | 980 | 975 | 979 |
| 30 | 973 | 975 | 977 | 976 | 973 | 973 | 971 | 971 | 973 | 973 | 973 | 974 | 973 | 973 | 977 | 979 | 977 | 977 | 977 | 979 | 976 | 978 | 971 | 957 | 974 |
| 31 | 962 | 967 | 968 | 968 | 968 | 968 | 970 | 970 | 971 | 968 | 970 | 972 | 973 | 973 | 978 | 983 | 995 | 995 | 993 | 994 | 994 | 993 | 977 | 977 | 977 |
| Mean | 960 | 962 | 962 | *960* | 962 | 966 | 967 | 970 | 973 | 975 | 978 | 981 | 985 | 986 | 989 | 995 | *995* | 993 | 995 | 993 | 986 | 979 | 967 | 965 | 977 |

Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −3γ.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

13 LERWICK — JANUARY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 | 08 15 | 394 | 350 | 16 11 | 44 | 15 02 | 35·2 | 13·8 | 18 41 | 21·4 | 18 38 | 1070 | 960 | 23 59 | 110 | 1, 1, 2, 2, 2, 2, 3, 2 | 15 | 1 | 77·0 |
| 2 | 00 32 | 387 | 352 | 16 33 | 35 | 17 52 | 32·5 | 16·3 | 00 27 | 16·2 | 17 34 | 1020 | 923 | 00 41 | 97 | 3, 1, 1, 1, 1, 3, 2, 0 | 12 | 1 | 77·0 |
| 3 *d* | 16 02 | *1099* | *-749* | 21 35 | *1848* | 12 09 | *55·4* | *-49·3* | 21 40 | *104·7* | 15 29 | *1239* | 611 | 21 29 | *628* | 0, 1, 2, 4, 5, 8, 8, 8 | 36 | 2 | 77·0 |
| 4 *d* | 15 53 | 585 | -159 | 02 42 | 744 | 22 41 | 43·2 | -14·0 | 00 17 | 57·2 | 15 52 | 1141 | *577* | 00 26 | 564 | 6, 6, 4, 4, 3, 5, 5, 5 | 38 | 2 | 77·0 |
| 5 | 17 08 | 384 | 323 | 02 57 | 61 | 02 48 | 30·2 | 14·2 | 23 45 | 16·0 | 19 50 | 1003 | 955 | 03 28 | 48 | 2, 3, 2, 1, 1, 1, 2, 3 | 15 | 1 | 77·6 |
| 6 | 21 01 | 400 | 326 | 00 16 | 74 | 00 12 | 31·7 | -1·3 | 20 37 | 33·0 | 16 56 | 1026 | 908 | 00 28 | 118 | 3, 1, 1, 2, 1, 3, 4, 3 | 18 | 1 | 77·6 |
| 7 | 18 47 | 411 | 343 | 19 31 | 68 | 13 34 | 30·8 | 3·2 | 18 34 | 27·6 | 18 15 | 1011 | 978 | 08 57 | 33 | 0, 0, 0, 0, 1, 2, 4, 2 | 9 | 1 | 77·9 |
| 8 | 19 03 | 384 | 365 | 11 27 | *19* | 13 23 | 28·0 | 18·6 | 19 24 | 9·4 | 19 34 | 993 | 972 | 00 19 | 21 | 1, 1, 1, 1, 0, 0, 2, 0 | 6 | 0 | 78·0 |
| 9 *q* | 14 16 | 390 | 369 | 21 52 | 21 | 13 13 | 29·0 | 22·6 | 21 07 | 6·4 | 20 31 | 998 | 973 | 01 49 | 25 | 0, 0, 0, 1, 1, 1, 1, 1 | 5 | 0 | 77·4 |
| 10 | 08 21 | 394 | 370 | 17 24 | 24 | 12 36 | 31·3 | 23·0 | 23 48 | 8·3 | 19 47 | 989 | 966 | 12 33 | 23 | 0, 1, 0, 1, 2, 2, 1, 1 | 8 | 0 | 78·0 |
| 11 *d* | 06 32 | 417 | 311 | 05 45 | 106 | 06 04 | 47·3 | -1·3 | 21 02 | 48·6 | 21 36 | 1009 | 876 | 06 29 | 133 | 2, 4, 4, 2, 2, 1, 4, 4 | 23 | 1 | 78·0 |
| 12 | 21 48 | 386 | 357 | 10 57 | 29 | 12 48 | 29·7 | 16·5 | 19 09 | 13·2 | 18 51 | 1010 | 963 | 05 00 | 47 | 2, 2, 1, 2, 1, 1, 3, 2 | 14 | 1 | 77·9 |
| 13 *q* | 21 02 | 389 | 367 | 19 33 | 22 | 12 23 | 29·3 | 17·4 | 19 33 | 11·9 | 19 41 | 990 | 968 | 03 51 | 22 | 0, 1, 0, 1, 1, 0, 3, 2 | 8 | 0 | 77·0 |
| 14 *q* | 05 20 | 393 | 369 | 13 50 | 24 | 04 40 | 28·5 | 23·0 | 20 49 | *5·5* | 14 26 | 984 | 963 | 05 13 | 21 | 0, 1, 0, 0, 1, 0, 1, 0 | 3 | 0 | 76·0 |
| 15 | 19 43 | 396 | 343 | 23 50 | 53 | 17 10 | 29·0 | 16·7 | 24 00 | 12·3 | 22 44 | 1011 | 967 | 06 40 | 44 | 0, 0, 0, 1, 1, 1, 2, 3 | 8 | 0 | 76·0 |
| 16 | 06 42 | 400 | 353 | 00 25 | 47 | 15 48 | 29·6 | 13·6 | 21 23 | 16·0 | 16 12 | 989 | 962 | 03 39 | 27 | 3, 2, 1, 1, 2, 0, 1, 3 | 13 | 1 | 75·9 |
| 17 | 21 28 | 417 | 358 | 17 52 | 59 | 19 50 | 29·1 | 7·8 | 21 52 | 21·3 | 17 59 | 1027 | 964 | 06 43 | 63 | 1, 2, 2, 2, 1, 3, 3, 3 | 17 | 1 | 75·6 |
| 18 | 18 59 | 415 | 300 | 24 00 | 115 | 15 03 | 34·5 | 10·2 | 23 37 | 24·3 | 15 07 | 1041 | 941 | 23 23 | 100 | 0, 0, 1, 1, 3, 3, 3, 3 | 14 | 1 | 75·3 |
| 19 | 20 46 | 391 | 283 | 00 12 | 108 | 01 14 | 36·8 | 11·1 | 02 42 | 25·7 | 20 27 | 1013 | 888 | 01 33 | 125 | 4, 3, 1, 1, 1, 1, 3, 3 | 17 | 1 | 76·0 |
| 20 *q* | 16 01 | 387 | 364 | 00 00 | 23 | 13 10 | 27·3 | 16·1 | 00 05 | 11·2 | 00 00 | 990 | 973 | 03 30 | *17* | 2, 2, 0, 0, 0, 0, 0, 0 | 4 | 0 | 76·1 |
| 21 *q* | 22 31 | 396 | 369 | 23 12 | 27 | 13 04 | 29·0 | 11·3 | 22 48 | 17·7 | 22 24 | 1017 | 973 | 13 30 | 44 | 0, 0, 0, 0, 0, 0, 1, 3 | 4 | 0 | 76·5 |
| 22 | 02 22 | 406 | 356 | 12 41 | 50 | 13 05 | 30·7 | 10·8 | 02 20 | 19·9 | 00 00 | 999 | 935 | 05 02 | 64 | 4, 3, 2, 1, 1, 0, 0, 3 | 14 | 1 | 76·9 |
| 23 | 22 19 | 409 | 301 | 22 53 | 108 | 12 30 | 33·8 | -24·0 | 22 20 | 57·8 | 21 34 | 997 | 841 | 22 50 | 156 | 2, 3, 1, 1, 2, 1, 2, 5 | 17 | 1 | 77·1 |
| 24 *d* | 13 45 | 404 | 304 | 02 23 | 100 | 12 57 | 37·6 | 1·2 | 19 50 | 36·4 | 13 59 | 1088 | 854 | 02 33 | 234 | 4, 4, 3, 2, 4, 4, 4, 4 | 29 | 1 | 77·1 |
| 25 | 15 05 | 388 | 344 | 16 39 | 44 | 03 05 | 29·7 | 10·8 | 15 03 | 18·9 | 15 03 | 1035 | 1015 | 00 00 | 20 | 3, 2, 1, 1, 3, 4, 3, 1 | 18 | 1 | 77·0 |
| 26 *d* | 06 00 | 393 | 324 | 17 23 | 69 | 09 29 | 30·0 | 3·0 | 17 38 | 27·0 | 19 13 | 1034 | 931 | 03 22 | 103 | 2, 2, 3, 2, 1, 4, 3, 1 | 18 | 1 | 77·3 |
| 27 | 03 15 | 391 | 361 | 10 49 | 30 | 13 10 | 29·7 | 17·2 | 03 13 | 12·5 | 21 30 | 989 | 955 | 03 18 | 34 | 2, 2, 1, 0, 0, 0, 1, 2 | 8 | 0 | 77·3 |
| 28 | 19 46 | 390 | 360 | 10 06 | 30 | 13 18 | 31·1 | 13·3 | 21 58 | 17·8 | 21 20 | 995 | 974 | 13 01 | 21 | 1, 0, 0, 1, 0, 0, 1, 3 | 6 | 0 | 77·1 |
| 29 | 06 34 | 397 | 356 | 14 21 | 41 | 13 14 | 31·6 | 20·9 | 20 42 | 10·7 | 15 19 | 994 | 959 | 04 00 | 35 | 0, 1, 1, 1, 2, 1, 2, 1 | 9 | 0 | 77·1 |
| 30 | 22 06 | 420 | 362 | 13 03 | 58 | 14 09 | 30·4 | 17·2 | 22 01 | 13·2 | 21 57 | 981 | 949 | 23 36 | 32 | 1, 1, 0, 1, 1, 1, 1, 3 | 9 | 0 | 77·1 |
| 31 | 22 17 | 421 | 366 | 16 12 | 55 | 14 29 | 32·2 | 16·5 | 22 08 | 15·7 | 17 14 | 1000 | 957 | 00 00 | 43 | 1, 0, 1, 0, 1, 2, 1, 3 | 9 | 0 | 77·1 |
| Mean | - - | 427 | 294 | - - | 133 | - - | 32·7 | 8·9 | - - | 23·8 | - - | 1022 | 924 | - - | 98 | - | - | 0·65 | 77·0 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

14,000$\gamma$ (0·14 C.G.S. unit) +

FEBRUARY

14 LERWICK (H)

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 *q* | 379 | 379 | 378 | 378 | 380 | 384 | 383 | 382 | 381 | 374 | 371 | 371 | 374 | 378 | 382 | 382 | 378 | 379 | 383 | 382 | 384 | 384 | 381 | 381 | 380 |
| 2 | 379 | 383 | 369 | 382 | 381 | 381 | 382 | 389 | 387 | 378 | 368 | 361 | 369 | 374 | 378 | 384 | 389 | 387 | 387 | 382 | 379 | 382 | 381 | 374 | 379 |
| 3 | 370 | 372 | 376 | 378 | 378 | 378 | 379 | 378 | 376 | 371 | 366 | 365 | 362 | 377 | 407 | 400 | 403 | 393 | 400 | 401 | 405 | 395 | 373 | 336 | 381 |
| 4 | 361 | 366 | 362 | 361 | 365 | 374 | 377 | 376 | 374 | 364 | 355 | 361 | 381 | 374 | 364 | 386 | 379 | 365 | 370 | 372 | 372 | 370 | 368 | 360 | 369 |
| 5 | 330 | 345 | 340 | 351 | 359 | 357 | 359 | 358 | 357 | 355 | 355 | 356 | 361 | 370 | 374 | 378 | 381 | 380 | 385 | 390 | 385 | 380 | 378 | 388 | 366 |
| 6 | 380 | 370 | 369 | 370 | 369 | 369 | 367 | 365 | 368 | 369 | 369 | 371 | 368 | 359 | 368 | 372 | 373 | 378 | 380 | 385 | 382 | 381 | 382 | 379 | 373 |
| 7 *d* | 376 | 374 | 371 | 372 | 373 | 374 | 371 | 356 | 352 | 324 | 300 | 412 | 428 | 423 | 535 | 589 | 683 | 712 | 667 | 597 | 358 | 163 | 82 | −16 | *399* |
| 8 *d* | −100 | −127 | −89 | 41 | 32 | 180 | 296 | 337 | 369 | 377 | 381 | 459 | 436 | 460 | 468 | 374 | 420 | 377 | 355 | 321 | 311 | 338 | 356 | 351 | *288* |
| 9 | 351 | 352 | 345 | 346 | 345 | 346 | 348 | 346 | 323 | 336 | 358 | 353 | 351 | 348 | 367 | 360 | 355 | 357 | 366 | 382 | 390 | 365 | 357 | 362 | 355 |
| 10 | 357 | 359 | 354 | 350 | 346 | 324 | 327 | 315 | 342 | 332 | 338 | 352 | 355 | 366 | 394 | 390 | 381 | 377 | 376 | 371 | 369 | 357 | 357 | 357 | 356 |
| 11 *q* | 361 | 358 | 347 | 347 | 349 | 356 | 357 | 356 | 352 | 348 | 345 | 347 | 348 | 342 | 353 | 361 | 361 | 364 | 361 | 364 | 363 | 364 | 364 | 365 | 356 |
| 12 | 365 | 365 | 365 | 365 | 365 | 364 | 365 | 363 | 359 | 352 | 345 | 343 | 348 | 359 | 368 | 387 | 383 | 371 | 371 | 361 | 364 | 356 | 351 | 343 | 362 |
| 13 | 354 | 356 | 352 | 348 | 344 | 355 | 352 | 344 | 331 | 326 | 365 | 381 | 395 | 399 | 387 | 369 | 369 | 367 | 366 | 366 | 369 | 369 | 369 | 368 | 363 |
| 14 *d* | 368 | 370 | 370 | 370 | 371 | 371 | 366 | 336 | 309 | 319 | 384 | 380 | 355 | 346 | 348 | 350 | 352 | 368 | 378 | 380 | 387 | 382 | 349 | 356 | 361 |
| 15 | 360 | 363 | 339 | 319 | 326 | 334 | 352 | 366 | 361 | 356 | 351 | 348 | 355 | 368 | 363 | 370 | 368 | 369 | 372 | 374 | 373 | 371 | 371 | 371 | 358 |
| 16 | 369 | 370 | 371 | 371 | 371 | 375 | 377 | 378 | 374 | 365 | 360 | 356 | 356 | 358 | 368 | 369 | 374 | 377 | 378 | 378 | 378 | 378 | 380 | 369 | 371 |
| 17 | 374 | 366 | 370 | 375 | 374 | 365 | 374 | 372 | 368 | 359 | 352 | 348 | 349 | 355 | 362 | 369 | 371 | 375 | 376 | 375 | 375 | 374 | 373 | 374 | 368 |
| 18 | 376 | 372 | 374 | 374 | 377 | 377 | 380 | 379 | 378 | 366 | 360 | 353 | 351 | 357 | 368 | 378 | 390 | 385 | 390 | 390 | 394 | 379 | 378 | 379 | 375 |
| 19 *d* | 382 | 378 | 375 | 378 | 382 | 385 | 388 | 398 | 381 | 361 | 355 | 351 | 351 | 352 | 363 | 386 | 379 | 405 | 449 | 474 | 649 | 448 | 251 | 354 | 391 |
| 20 | 364 | 365 | 361 | 359 | 365 | 371 | 374 | 378 | 376 | 369 | 357 | 358 | 358 | 365 | 361 | 368 | 373 | 387 | 382 | 384 | 396 | 251 | 294 | 121 | 352 |
| 21 *d* | 112 | 41 | 252 | 293 | 304 | 292 | 289 | 297 | 322 | 304 | 336 | 374 | 357 | 374 | 521 | 506 | 460 | 404 | 374 | 352 | 360 | 355 | 357 | 354 | 333 |
| 22 | 352 | 338 | 264 | 297 | 340 | 350 | 363 | 368 | 348 | 336 | 348 | 343 | 347 | 354 | 365 | 354 | 372 | 363 | 371 | 368 | 368 | 380 | 365 | 368 | 351 |
| 23 | 364 | 370 | 360 | 345 | 342 | 348 | 359 | 352 | 322 | 344 | 333 | 335 | 361 | 374 | 373 | 367 | 365 | 369 | 361 | 370 | 370 | 370 | 369 | 369 | 358 |
| 24 | 367 | 365 | 366 | 369 | 371 | 371 | 369 | 371 | 369 | 361 | 359 | 344 | 350 | 354 | 365 | 363 | 367 | 374 | 385 | 364 | 369 | 347 | 310 | 360 | 362 |
| 25 | 355 | 368 | 354 | 342 | 364 | 378 | 374 | 376 | 377 | 368 | 353 | 338 | 349 | 350 | 358 | 360 | 376 | 376 | 374 | 375 | 377 | 375 | 369 | 369 | 365 |
| 26 *q* | 367 | 363 | 365 | 370 | 373 | 373 | 379 | 375 | 373 | 356 | 353 | 348 | 355 | 353 | 357 | 366 | 372 | 374 | 367 | 372 | 376 | 383 | 377 | 374 | 368 |
| 27 *q* | 376 | 374 | 374 | 376 | 378 | 378 | 381 | 380 | 374 | 361 | 353 | 346 | 345 | 351 | 356 | 367 | 372 | 370 | 375 | 378 | 380 | 381 | 381 | 381 | 370 |
| 28 *q* | 385 | 381 | 381 | 383 | 384 | 387 | 387 | 386 | 381 | 370 | 357 | 348 | 349 | 355 | 364 | 370 | 379 | 385 | 387 | 390 | 387 | 386 | 387 | 382 | 377 |
| Mean | 341 | *337* | 340 | 347 | 350 | 357 | 363 | 364 | 360 | 354 | 355 | 361 | 363 | 368 | 384 | 385 | *390* | 389 | 389 | 386 | 385 | 363 | 350 | 344 | 364 |

Corrections to be applied to all values *H*, −6$\gamma$; *D*, −4′·4; *V*, −2$\gamma$.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

15 LERWICK (D)

11° +

FEBRUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 24·3 | 24·3 | 24·3 | 24·1 | 24·4 | 24·7 | 24·4 | 23·9 | 24·1 | 24·6 | 25·8 | 26·8 | 29·1 | 30·9 | 30·6 | 28·8 | 27·5 | 26·5 | 26·6 | 26·5 | 25·7 | 25·0 | 24·8 | 24·6 | 25·9 |
| 2 | 24·6 | 24·2 | 25·1 | 20·9 | 19·3 | 20·5 | 21·5 | 22·9 | 23·8 | 26·3 | 28·1 | 29·5 | 30·9 | 31·4 | 29·7 | 29·0 | 28·7 | 27·7 | 28·6 | 27·4 | 26·4 | 24·7 | 25·0 | 22·9 | 25·8 |
| 3 | 24·0 | 23·8 | 23·6 | 23·6 | 23·0 | 22·8 | 22·9 | 22·8 | 22·7 | 23·7 | 24·7 | 26·0 | 27·3 | 29·9 | 33·9 | 34·4 | 34·4 | 30·6 | 30·1 | 29·1 | 29·5 | 27·9 | 23·4 | 24·7 | 26·6 |
| 4 | 21·7 | 25·1 | 25·7 | 24·7 | 23·7 | 24·2 | 24·0 | 23·2 | 22·0 | 21·6 | 23·4 | 26·4 | 28·9 | 27·7 | 27·9 | 28·5 | 31·5 | 27·1 | 25·6 | 25·2 | 24·8 | 24·2 | 23·4 | 18·9 | 25·0 |
| 5 | 19·0 | 15·9 | 15·8 | 9·8 | 15·2 | 20·5 | 21·6 | 23·7 | 22·9 | 23·7 | 25·3 | 27·6 | 30·0 | 30·6 | 27·2 | 25·7 | 26·1 | 26·5 | 24·8 | 26·2 | 22·8 | 23·4 | 22·7 | 19·2 | 22·8 |
| 6 | 28·9 | 21·6 | 22·1 | 22·4 | 22·7 | 22·7 | 22·7 | 22·8 | 23·6 | 24·8 | 26·4 | 29·1 | 30·6 | 32·9 | 29·7 | 28·3 | 26·6 | 25·2 | 24·6 | 24·5 | 24·3 | 23·2 | 24·3 | 25·1 | 25·4 |
| 7 *d* | 16·1 | 23·2 | 23·7 | 24·4 | 23·0 | 22·6 | 22·4 | 25·3 | 27·6 | 22·3 | −2·4 | −17·0 | 25·7 | 36·0 | 35·0 | 39·1 | 35·1 | 34·2 | 42·8 | 44·5 | 11·4 | −40·9 | 28·1 | 8·8 | 21·3 |
| 8 *d* | −19·2 | 9·9 | −1·5 | 3·3 | −10·2 | 18·2 | 24·5 | 18·9 | 18·5 | 16·5 | 23·8 | 28·6 | 31·5 | 33·1 | 26·9 | 23·4 | 13·6 | 13·1 | 22·7 | 17·9 | 23·0 | 23·6 | 22·6 | 24·8 | *17·0* |
| 9 | 24·9 | 24·8 | 24·4 | 23·7 | 23·2 | 22·6 | 22·9 | 20·8 | 23·7 | 15·7 | 23·6 | 26·6 | 26·7 | 25·2 | 19·7 | 18·3 | 20·8 | 20·8 | 19·9 | 19·7 | 24·0 | 26·6 | 28·8 | 28·3 | 23·2 |
| 10 | 29·4 | 31·5 | 32·0 | 33·9 | 36·5 | 37·3 | 35·5 | 21·6 | 11·6 | 18·5 | 15·4 | 19·2 | 14·8 | 12·3 | 9·7 | 12·4 | 15·6 | 20·9 | 24·1 | 25·9 | 25·5 | 24·8 | 24·2 | 24·1 | 23·2 |
| 11 *q* | 25·7 | 23·5 | 27·6 | 28·2 | 23·9 | 22·5 | 22·3 | 21·6 | 20·2 | 20·7 | 22·5 | 24·5 | 27·5 | 27·8 | 25·6 | 25·0 | 24·3 | 23·7 | 24·6 | 23·9 | 19·7 | 23·7 | 24·4 | 24·3 | 24·1 |
| 12 | 24·4 | 24·7 | 25·2 | 25·1 | 23·1 | 22·8 | 22·7 | 22·6 | 22·5 | 22·8 | 24·7 | 26·5 | 29·9 | 30·3 | 29·6 | 29·3 | 25·5 | 26·0 | 26·2 | 28·1 | 25·8 | 19·6 | 25·8 | 23·1 | 25·3 |
| 13 | 24·7 | 26·8 | 28·7 | 29·2 | 27·6 | 28·8 | 30·9 | 25·6 | 23·3 | 14·4 | 11·0 | 15·7 | 14·4 | 11·2 | 17·9 | 24·4 | 25·7 | 25·8 | 25·5 | 25·4 | 25·2 | 25·1 | 24·7 | 24·5 | 23·2 |
| 14 *d* | 24·2 | 24·0 | 23·4 | 23·5 | 22·5 | 22·5 | 22·7 | 32·1 | 19·3 | 18·8 | 22·4 | 25·8 | 27·6 | 27·1 | 25·7 | 24·7 | 24·5 | 25·0 | 28·5 | 27·1 | 24·5 | 24·8 | 21·3 | 21·5 | 24·3 |
| 15 | 23·7 | 23·6 | 24·6 | 33·5 | 39·0 | 34·3 | 29·6 | 26·1 | 22·7 | 22·7 | 23·8 | 25·6 | 26·8 | 29·6 | 29·1 | 28·7 | 27·7 | 26·9 | 25·7 | 25·9 | 24·8 | 24·4 | 23·7 | 23·6 | *26·9* |
| 16 | 23·5 | 23·6 | 23·7 | 23·5 | 22·9 | 22·6 | 22·3 | 21·8 | 21·5 | 21·3 | 22·6 | 24·7 | 26·1 | 26·7 | 27·5 | 27·4 | 26·8 | 26·5 | 27·7 | 26·4 | 25·5 | 24·9 | 22·0 | 20·5 | 24·3 |
| 17 | 26·3 | 23·8 | 25·0 | 24·3 | 23·7 | 25·5 | 23·6 | 22·3 | 20·9 | 20·7 | 22·4 | 25·7 | 27·8 | 28·6 | 27·5 | 26·0 | 25·3 | 25·3 | 25·2 | 24·5 | 24·0 | 23·7 | 23·3 | 22·7 | 24·5 |
| 18 | 24·4 | 23·6 | 23·7 | 23·3 | 22·7 | 23·5 | 23·0 | 22·7 | 22·6 | 22·2 | 24·0 | 26·8 | 27·6 | 28·9 | 29·2 | 28·6 | 29·2 | 28·3 | 28·0 | 25·3 | 23·4 | 23·4 | 23·3 | 23·5 | 25·1 |
| 19 *d* | 23·6 | 23·9 | 23·3 | 24·5 | 24·0 | 23·2 | 23·7 | 24·8 | 23·5 | 22·4 | 25·0 | 29·9 | 29·6 | 31·4 | 31·3 | 31·8 | 31·4 | 32·6 | 33·0 | 28·1 | 29·1 | 22·5 | 21·7 | 23·3 | 26·6 |
| 20 | 23·6 | 22·4 | 22·4 | 23·7 | 23·8 | 23·9 | 23·7 | 23·7 | 23·7 | 25·8 | 27·7 | 28·8 | 29·4 | 29·5 | 27·6 | 27·2 | 27·2 | 27·3 | 28·6 | 25·8 | 22·0 | 1·2 | 8·7 | −4·0 | 22·7 |
| 21 *d* | −11·2 | −6·3 | 1·6 | −0·9 | 9·7 | 30·5 | 28·5 | 29·7 | 22·2 | 31·4 | 31·6 | 32·3 | 30·7 | 31·6 | 30·4 | 26·7 | 30·6 | 27·0 | 23·8 | 25·7 | 23·7 | 25·6 | 25·1 | 23·8 | 21·8 |
| 22 | 22·8 | 20·8 | 21·6 | 14·3 | 10·6 | 19·0 | 22·9 | 22·3 | 25·8 | 27·7 | 27·6 | 27·4 | 26·5 | 28·4 | 29·6 | 26·8 | 27·5 | 26·6 | 25·9 | 19·2 | 20·8 | 17·9 | 22·5 | 23·1 | 23·2 |
| 23 | 24·5 | 21·9 | 18·4 | 19·3 | 20·5 | 20·4 | 24·3 | 27·6 | 29·9 | 34·2 | 30·4 | 31·4 | 26·2 | 27·9 | 28·7 | 23·1 | 21·5 | 24·7 | 11·2 | 12·2 | 22·2 | 22·4 | 22·7 | 23·9 | 23·7 |
| 24 | 23·6 | 27·6 | 23·9 | 22·7 | 21·7 | 21·6 | 22·6 | 23·0 | 23·9 | 25·7 | 26·3 | 26·6 | 28·4 | 27·6 | 28·4 | 27·2 | 27·1 | 25·5 | 24·0 | 19·6 | 21·7 | 18·5 | 23·2 | 13·8 | 23·5 |
| 25 | 22·5 | 23·3 | 23·5 | 30·1 | 21·7 | 19·7 | 23·3 | 23·0 | 22·9 | 25·0 | 26·4 | 27·3 | 31·0 | 30·8 | 29·7 | 25·7 | 25·0 | 25·3 | 25·7 | 22·5 | 23·7 | 23·7 | 22·6 | 15·9 | 24·6 |
| 26 *q* | 17·3 | 21·3 | 23·8 | 24·2 | 22·9 | 23·3 | 22·7 | 22·3 | 21·9 | 25·8 | 27·0 | 27·5 | 28·5 | 27·7 | 26·5 | 25·7 | 25·4 | 24·5 | 20·9 | 24·5 | 24·7 | 22·7 | 21·9 | 23·2 | 24·1 |
| 27 *q* | 22·8 | 23·6 | 23·6 | 23·5 | 23·0 | 23·9 | 22·9 | 21·9 | 21·5 | 20·7 | 22·6 | 25·7 | 26·5 | 26·9 | 26·7 | 26·4 | 25·5 | 25·6 | 25·6 | 25·4 | 24·7 | 24·5 | 23·8 | 23·9 | 24·2 |
| 28 *q* | 23·5 | 22·6 | 24·2 | 24·8 | 23·9 | 22·9 | 22·5 | 21·7 | 20·6 | 20·5 | 22·4 | 25·7 | 28·5 | 29·5 | 28·7 | 27·7 | 27·4 | 27·5 | 26·9 | 26·6 | 25·8 | 24·9 | 24·2 | 23·5 | 24·9 |
| Mean | 20·8 | 22·1 | 22·3 | 22·4 | 21·7 | 23·8 | 24·2 | 23·6 | 22·5 | 22·9 | 23·4 | 25·0 | 27·5 | *28·3* | 27·5 | 26·8 | 26·3 | 25·0 | 26·0 | 25·1 | 23·9 | *20·6* | 23·2 | 21·3 | 24·0 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

16 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — FEBRUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 975 | 977 | 977 | 977 | 975 | 974 | 972 | 971 | 970 | 968 | 968 | 968 | 972 | 976 | 980 | 982 | 982 | 982 | 981 | 981 | 981 | 982 | 982 | 980 | 976 |
| 2 | 980 | 978 | 980 | 963 | 969 | 969 | 966 | 957 | 961 | 959 | 964 | 971 | 976 | 978 | 982 | 983 | 985 | 989 | 992 | 999 | 1002 | 996 | 991 | 993 | 978 |
| 3 | 987 | 984 | 984 | 982 | 982 | 980 | 977 | 976 | 975 | 964 | 967 | 970 | 964 | 955 | 952 | 955 | 970 | 990 | 987 | 982 | 996 | 1019 | 1014 | 947 | 977 |
| 4 | 949 | 955 | 967 | 976 | 968 | 967 | 973 | 967 | 964 | 977 | 979 | 977 | 990 | 1003 | 1005 | 1014 | 1033 | 1019 | 997 | 989 | 983 | 982 | 981 | 970 | 983 |
| 5 | 931 | 914 | 914 | 915 | 919 | 942 | 966 | 971 | 972 | 978 | 977 | 981 | 988 | 990 | 992 | 1003 | 1001 | 1006 | 1003 | 1001 | 1013 | 1006 | 996 | 990 | 974 |
| 6 | 971 | 978 | 987 | 989 | 988 | 985 | 984 | 982 | 979 | 977 | 975 | 975 | 979 | 984 | 985 | 984 | 989 | 990 | 988 | 986 | 987 | 985 | 982 | 970 | 982 |
| 7 *d* | 950 | 968 | 971 | 975 | 978 | 982 | 978 | 976 | 963 | 967 | 1019 | 1069 | 1019 | 1024 | 1132 | 1156 | 1126 | 1082 | 965 | 1020 | 955 | 778 | 721 | 571 | 973 |
| 8 *d* | 1243 | 923 | 781 | 920 | 723 | 883 | 966 | 1043 | 1062 | 1068 | 1076 | 1109 | 1104 | 1108 | 1134 | 1109 | 1084 | 1073 | 1006 | 980 | 946 | 951 | 966 | 977 | 1010 |
| 9 | 986 | 990 | 994 | 996 | 998 | 998 | 998 | 1000 | 1009 | 1010 | 1003 | 999 | 997 | 1002 | 1008 | 1021 | 1011 | 1005 | 1002 | 996 | 990 | 989 | 987 | 987 | 999 |
| 10 | 990 | 988 | 992 | 995 | 1004 | 1014 | 1023 | 1039 | 1051 | 1040 | 1035 | 1022 | 1017 | 1034 | 1033 | 1032 | 1022 | 1010 | 1002 | 1000 | 1002 | 1005 | 1002 | 996 | *1015* |
| 11 *q* | 988 | 982 | 982 | 981 | 988 | 992 | 994 | 998 | 1002 | 1000 | 1000 | 1001 | 1002 | 1009 | 1012 | 1010 | 1006 | 1002 | 1001 | 997 | 999 | 996 | 996 | 996 | 997 |
| 12 | 995 | 994 | 992 | 987 | 986 | 989 | 988 | 989 | 990 | 990 | 991 | 991 | 994 | 1001 | 1013 | 1030 | 1044 | 1035 | 1030 | 1023 | 1008 | 1012 | 998 | 971 | 1002 |
| 13 | 977 | 984 | 990 | 991 | 996 | 984 | 981 | 987 | 1008 | 1017 | 1019 | 1039 | 1045 | 1040 | 1040 | 1025 | 1011 | 1004 | 1000 | 996 | 994 | 994 | 994 | 995 | 1005 |
| 14 *d* | 995 | 995 | 995 | 994 | 992 | 991 | 990 | 998 | 995 | 1017 | 1038 | 1040 | 1037 | 1021 | 1011 | 1010 | 1006 | 999 | 996 | 997 | 1009 | 1020 | 995 | 994 | 1006 |
| 15 | 995 | 980 | 971 | 957 | 859 | 894 | 939 | 961 | 974 | 980 | 981 | 985 | 988 | 989 | 988 | 987 | 988 | 989 | 990 | 989 | 990 | 991 | 989 | 990 | 973 |
| 16 | 991 | 991 | 992 | 992 | 992 | 990 | 988 | 984 | 985 | 985 | 985 | 985 | 986 | 988 | 988 | 989 | 988 | 988 | 988 | 989 | 989 | 988 | 984 | 985 | 988 |
| 17 | 978 | 965 | 973 | 982 | 986 | 986 | 977 | 982 | 985 | 984 | 982 | 982 | 983 | 986 | 989 | 991 | 991 | 990 | 989 | 988 | 986 | 984 | 984 | 983 | 984 |
| 18 | 981 | 978 | 980 | 984 | 985 | 985 | 984 | 983 | 983 | 983 | 981 | 984 | 984 | 984 | 985 | 988 | 989 | 990 | 988 | 995 | 992 | 995 | 989 | 984 | 986 |
| 19 *d* | 981 | 982 | 983 | 983 | 982 | 975 | 974 | 967 | 974 | 981 | 982 | 985 | 989 | 991 | 996 | 999 | 1002 | 1000 | 1104 | 1136 | 1030 | 1071 | 895 | 953 | 996 |
| 20 | 978 | 986 | 989 | 988 | 988 | 988 | 987 | 986 | 987 | 985 | 984 | 981 | 981 | 981 | 987 | 990 | 991 | 990 | 1008 | 1048 | 1014 | 840 | 799 | 777 | 968 |
| 21 *d* | 778 | 864 | 841 | 791 | 753 | 781 | 812 | 884 | 937 | 958 | 993 | 1017 | 1031 | 1046 | 1114 | 1103 | 1143 | 1130 | 1087 | 1038 | 1010 | 997 | 995 | 992 | *962* |
| 22 | 988 | 967 | 874 | 828 | 840 | 908 | 945 | 964 | 973 | 982 | 983 | 980 | 984 | 986 | 989 | 996 | 1002 | 1005 | 1004 | 1019 | 1000 | 985 | 983 | 982 | 965 |
| 23 | 979 | 939 | 920 | 946 | 956 | 957 | 955 | 964 | 976 | 975 | 989 | 996 | 1005 | 1005 | 1006 | 1027 | 1034 | 1027 | 1030 | 1009 | 991 | 990 | 991 | 988 | 986 |
| 24 | 983 | 974 | 972 | 982 | 985 | 985 | 985 | 982 | 984 | 987 | 989 | 995 | 991 | 986 | 990 | 993 | 989 | 989 | 996 | 1046 | 1036 | 985 | 921 | 957 | 987 |
| 25 | 953 | 963 | 978 | 938 | 914 | 927 | 953 | 970 | 976 | 982 | 989 | 1000 | 1000 | 1005 | 1003 | 1003 | 1003 | 994 | 992 | 995 | 995 | 993 | 993 | 986 | 979 |
| 26 *q* | 980 | 980 | 979 | 976 | 973 | 978 | 979 | 980 | 981 | 983 | 982 | 987 | 990 | 991 | 992 | 989 | 990 | 999 | 1011 | 1002 | 995 | 986 | 976 | 976 | 986 |
| 27 *q* | 979 | 985 | 985 | 985 | 984 | 982 | 980 | 982 | 982 | 983 | 985 | 986 | 988 | 987 | 986 | 984 | 989 | 989 | 987 | 986 | 986 | 986 | 986 | 986 | 985 |
| 28 *q* | 983 | 983 | 983 | 982 | 982 | 981 | 981 | 981 | 981 | 981 | 981 | 982 | 981 | 982 | 984 | 983 | 983 | 982 | 982 | 983 | 985 | 986 | 987 | 988 | 983 |
| Mean | 972 | 963 | 956 | 957 | *947* | 957 | 964 | 972 | 977 | 979 | 984 | 989 | 989 | 991 | 999 | 1001 | *1002* | 998 | 994 | 996 | 986 | 974 | 961 | 954 | 978 |

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −2γ.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

17 LERWICK — FEBRUARY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 *q* | 15 21 | 390 | 367 | 11 16 | *23* | 14 10 | 31·8 | 23·5 | 07 22 | 8·3 | 16 22 | 984 | 966 | 11 34 | 18 | 0,0,0,0,1,2,0,0 | 3 | 0 | 76·9 |
| 2 | 07 09 | 395 | 358 | 11 57 | 37 | 12 48 | 32·2 | 18·3 | 06 13 | 13·9 | 20 40 | 1004 | 954 | 07 13 | 50 | 2,2,2,1,1,0,2,2 | 12 | 0 | 77·0 |
| 3 | 18 12 | 420 | 305 | 23 33 | 115 | 15 26 | 35·5 | 17·8 | 23 02 | 17·7 | 22 00 | 1045 | 923 | 23 33 | 122 | 1,0,0,0,3,2,2,4 | 12 | 1 | 77·0 |
| 4 | 12 28 | 408 | 348 | 14 37 | 60 | 16 40 | 34·2 | 16·2 | 23 47 | 18·0 | 16 50 | 1047 | 935 | 00 02 | 112 | 2,1,1,1,2,3,2,2 | 14 | 1 | 77·0 |
| 5 | 23 48 | 412 | 312 | 00 52 | 100 | 13 34 | 31·6 | 6·7 | 03 27 | 24·9 | 20 23 | 1023 | 899 | 00 42 | 134 | 3,3,2,1,2,3,3,3 | 20 | 1 | 77·0 |
| 6 | 00 23 | 438 | 327 | 00 51 | 111 | 00 39 | 42·3 | 17·1 | 00 20 | 25·2 | 17 07 | 991 | 941 | 24 00 | 50 | 4,0,1,1,2,1,2,3 | 14 | 1 | 76·8 |
| 7 *d* | 11 18 | *1015* | *−689* | *23 03* | *1704* | 22 50 | *179·4* | −91·9 | 11 21 | *271·3* | 11 20 | 1447 | *146* | 22 26 | 1301 | 3,1,3,7,7,7,8 9 | 45 | 2 | 76·5 |
| 8 *d* | 00 35 | 833 | 456 | 01 23 | 377 | 01 48 | 94·7 | *−130·3* | 00 33 | 225·0 | 00 37 | *1653* | 350 | 01 39 | *1303* | 9,8,6,6,5,5,5,3 | 47 | 2 | 76·9 |
| 9 | 20 20 | 398 | 304 | 09 08 | 94 | 22 14 | 29·6 | 15·7 | 09 57 | 13·9 | 15 31 | 1025 | 982 | 22 51 | 43 | 1,0,3,3,3,2,2,3 | 17 | 1 | 77·0 |
| 10 | 14 56 | 412 | 293 | 07 03 | 119 | 05 01 | 40·3 | 6·0 | 08 07 | 34·3 | 08 21 | 1055 | 987 | 02 04 | 68 | 2,3,4,2,3,3,2,1 | 20 | 1 | 76·8 |
| 11 *q* | 17 46 | 373 | 336 | 13 11 | 37 | 13 16 | 29·6 | 14·6 | 20 36 | 15·0 | 14 38 | 1015 | 976 | 01 24 | 39 | 2,2,1,0,2,1,3,1 | 12 | 0 | 77·0 |
| 12 | 15 33 | 403 | 331 | 23 28 | 72 | 13 17 | 31·6 | 13·0 | 21 17 | 18·6 | 16 15 | 1048 | 961 | 23 11 | 87 | 0,1,0,0,2,2,2,3 | 10 | 1 | 77·0 |
| 13 | 13 54 | 412 | 308 | 09 06 | 104 | 06 20 | 31·7 | 8·8 | 13 35 | 22·9 | 11 54 | 1048 | 970 | 00 05 | 78 | 2,2,3,4,3,2,1,0 | 17 | 1 | 76·6 |
| 14 *d* | 17 38 | 437 | 284 | 08 03 | 153 | 07 52 | 45·3 | 13·7 | 08 42 | 31·6 | 10 53 | 1061 | 978 | 08 18 | 83 | 0,1,4 4,2,4,3,3 | 21 | 1 | 77·3 |
| 15 | 07 37 | 379 | 272 | 03 56 | 107 | 04 19 | 49·6 | 18·2 | 02 02 | 31·4 | 00 54 | 999 | 828 | 04 42 | 171 | 3,5,3,1,2,2,1,0 | 17 | 1 | 78·3 |
| 16 | 22 57 | 391 | 348 | 12 32 | 43 | 14 53 | 28·5 | 14·7 | 23 04 | 13·8 | 03 53 | 994 | 974 | 23 06 | 20 | 0,0,0,1,2,1,1,2 | 8 | 0 | 78·9 |
| 17 | 01 01 | 384 | 342 | 12 01 | 42 | 00 45 | 35·5 | 19·1 | 01 17 | 16·4 | 16 27 | 993 | 933 | 01 05 | 60 | 3,2,2,1,1,0,0,0 | 9 | 0 | 78·4 |
| 18 | 20 43 | 404 | 345 | 12 00 | 59 | 16 24 | 30·3 | 17·7 | 20 42 | 12·6 | 19 31 | 999 | 970 | 01 04 | 29 | 2,1,1,1,1,2,3,1 | 12 | 1 | 78·2 |
| 19 *d* | 20 36 | 714 | 145 | 22 24 | 569 | 20 08 | 45·2 | −3·9 | 22 03 | 49·1 | 19 05 | 1176 | 799 | 22 11 | 377 | 1,2,3,2,2,3,6,7 | 26 | 2 | 78·2 |
| 20 | 20 06 | 457 | 25 | 23 26 | 432 | 21 04 | 50·6 | −30·5 | 21 38 | 81·1 | 20 07 | 1095 | 715 | 22 28 | 380 | 2,2,2,1,2,2,5,6 | 22 | 2 | 78·0 |
| 21 *d* | 14 55 | 815 | −36 | 01 11 | 851 | 06 06 | 45·5 | −22·0 | 00 57 | 67·5 | 14 47 | 1221 | 729 | 00 01 | 492 | 6,5,5,4,7,6,5,1 | 39 | 2 | 77·0 |
| 22 | 21 43 | 389 | 199 | 02 55 | 190 | 14 32 | 32·5 | 6·8 | 04 32 | 25·7 | 19 16 | 1032 | 974 | 02 54 | 58 | 5,5,3,2,2,2,3,2 | 24 | 1 | 76·1 |
| 23 | 12 46 | 388 | 309 | 08 35 | 79 | 09 18 | 36·5 | −3·3 | 18 46 | 39·8 | 18 38 | 1043 | 914 | 02 28 | 129 | 3,2,3,3,3,3,4,1 | 22 | 1 | 75·2 |
| 24 | 18 41 | 390 | 274 | 22 23 | 116 | 22 09 | 37·6 | 10·5 | 23 25 | 27·1 | 20 14 | 1061 | 894 | 22 16 | 167 | 2,1,1,2,1,2,3,4 | 16 | 1 | 74·2 |
| 25 | 06 04 | 386 | 330 | 11 16 | 56 | 12 57 | 32·3 | 7·8 | 23 42 | 24·5 | 16 01 | 1007 | 911 | 04 51 | 96 | 3,3,3,2,2,2,2,2 | 19 | 1 | 74·1 |
| 26 *q* | 21 52 | 400 | 347 | 11 09 | 53 | 12 19 | 28·8 | 13·0 | 00 00 | 15·8 | 18 43 | 1012 | 969 | 04 11 | 43 | 3,1,0,1,1,2,2,2 | 12 | 0 | 74·0 |
| 27 *q* | 22 13 | 386 | 342 | 11 52 | 44 | 13 00 | 27·4 | 20·7 | 09 15 | *6·7* | 16 58 | 991 | 976 | 00 20 | 15 | 1,0,1,1,0,1,0,0 | 4 | 0 | 73·5 |
| 28 *q* | 19 42 | 393 | 344 | 11 57 | 49 | 13 54 | 29·9 | 19·7 | 09 02 | 10·2 | 23 46 | 990 | 977 | 00 55 | *13* | 2,1,1,1,1,1,0,1 | 8 | 0 | 73·2 |
| Mean | − − | 465 | 258 | − − | 207 | − − | 42·8 | 1·3 | − − | 41·5 | − − | 1074 | 876 | − − | 198 | − | − | 0·89 | 76·6 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

18 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 383 | 389 | 390 | 325 | 295 | 378 | 378 | 347 | 319 | 342 | 357 | 343 | 343 | 356 | 359 | 365 | 374 | 374 | 378 | 379 | 375 | 378 | 381 | 370 | 362 |
| 2 | 361 | 348 | 326 | 354 | 352 | 327 | 361 | 373 | 360 | 352 | 360 | 353 | 357 | 358 | 363 | 365 | 364 | 367 | 370 | 374 | 374 | 373 | 371 | 374 | 360 |
| 3 q | 370 | 371 | 371 | 370 | 369 | 369 | 373 | 373 | 367 | 358 | 358 | 352 | 352 | 361 | 364 | 369 | 370 | 370 | 383 | 381 | 378 | 378 | 376 | 374 | 369 |
| 4 | 363 | 374 | 370 | 373 | 376 | 387 | 384 | 369 | 351 | 347 | 335 | 323 | 340 | 358 | 387 | 387 | 377 | 377 | 391 | 390 | 386 | 294 | 254 | 272 | 357 |
| 5 | 212 | 356 | 356 | 341 | 348 | 361 | 357 | 361 | 360 | 339 | 338 | 322 | 343 | 381 | 436 | 424 | 411 | 379 | 367 | 373 | 365 | 361 | 369 | 365 | 359 |
| 6 | 361 | 354 | 331 | 344 | 364 | 356 | 347 | 347 | 343 | 335 | 335 | 323 | 329 | 356 | 374 | 387 | 384 | 373 | 386 | 377 | 370 | 375 | 375 | 372 | 358 |
| 7 | 368 | 367 | 370 | 365 | 366 | 370 | 369 | 357 | 344 | 328 | 317 | 324 | 337 | 343 | 349 | 361 | 377 | 373 | 376 | 368 | 369 | 380 | 371 | 374 | 359 |
| 8 | 370 | 370 | 370 | 371 | 374 | 373 | 369 | 364 | 358 | 348 | 342 | 339 | 347 | 360 | 366 | 369 | 377 | 376 | 379 | 383 | 377 | 377 | 371 | 369 | 367 |
| 9 | 371 | 372 | 373 | 372 | 374 | 375 | 373 | 373 | 366 | 356 | 351 | 345 | 351 | 364 | 401 | 405 | 425 | 406 | 380 | 402 | 381 | 363 | 365 | 360 | 375 |
| 10 d | 354 | 338 | 209 | 283 | 340 | 382 | 381 | 383 | 374 | 369 | 356 | 360 | 368 | 416 | 424 | 406 | 410 | 386 | 382 | 425 | 389 | 171 | 10 | −45 | 328 |
| 11 | 123 | −19 | 291 | 315 | 271 | 319 | 323 | 338 | 345 | 351 | 342 | 352 | 366 | 380 | 365 | 392 | 381 | 383 | 390 | 403 | 372 | 373 | 374 | 365 | 329 |
| 12 q | 358 | 363 | 365 | 366 | 364 | 364 | 360 | 360 | 352 | 348 | 346 | 348 | 352 | 360 | 364 | 365 | 365 | 365 | 371 | 374 | 373 | 374 | 374 | 373 | 363 |
| 13 q | 373 | 373 | 373 | 373 | 370 | 374 | 369 | 367 | 357 | 353 | 348 | 348 | 351 | 356 | 363 | 363 | 371 | 382 | 372 | 377 | 375 | 374 | 375 | 374 | 367 |
| 14 q | 377 | 377 | 373 | 369 | 369 | 369 | 371 | 370 | 361 | 351 | 340 | 347 | 347 | 357 | 361 | 369 | 373 | 378 | 382 | 373 | 378 | 380 | 381 | 381 | 368 |
| 15 | 384 | 378 | 375 | 377 | 378 | 378 | 377 | 373 | 367 | 331 | 326 | 334 | 339 | 357 | 351 | 352 | 369 | 369 | 375 | 381 | 385 | 391 | 377 | 382 | 367 |
| 16 q | 378 | 377 | 377 | 377 | 377 | 377 | 374 | 373 | 365 | 349 | 343 | 342 | 347 | 355 | 361 | 373 | 378 | 374 | 378 | 383 | 384 | 387 | 388 | 382 | 371 |
| 17 | 390 | 385 | 348 | 366 | 391 | 396 | 387 | 387 | 374 | 361 | 351 | 355 | 339 | 355 | 356 | 374 | 390 | 383 | 374 | 382 | 374 | 370 | 373 | 373 | 372 |
| 18 | 373 | 377 | 376 | 382 | 381 | 383 | 384 | 376 | 369 | 351 | 349 | 355 | 361 | 367 | 365 | 369 | 370 | 381 | 371 | 378 | 382 | 386 | 383 | 382 | 373 |
| 19 | 377 | 374 | 374 | 370 | 374 | 378 | 380 | 376 | 367 | 361 | 351 | 352 | 352 | 361 | 365 | 375 | 381 | 379 | 390 | 391 | 399 | 400 | 395 | 396 | *376* |
| 20 | 397 | 390 | 383 | 384 | 389 | 390 | 387 | 382 | 373 | 361 | 354 | 353 | 334 | 357 | 369 | 369 | 373 | 378 | 381 | 382 | 388 | 384 | 382 | 375 | 376 |
| 21 | 378 | 382 | 378 | 375 | 392 | 391 | 389 | 381 | 370 | 360 | 348 | 326 | 321 | 343 | 348 | 367 | 379 | 373 | 380 | 382 | 383 | 384 | 383 | 382 | 371 |
| 22 d | 382 | 381 | 380 | 382 | 383 | 387 | 395 | 326 | 323 | 339 | 335 | 342 | 317 | 360 | 335 | 367 | 369 | 383 | 396 | 383 | 384 | 387 | 385 | 394 | 367 |
| 23 | 360 | 354 | 373 | 379 | 379 | 380 | 382 | 374 | 363 | 351 | 342 | 339 | 351 | 365 | 374 | 391 | 390 | 397 | 430 | 397 | 393 | 386 | 346 | 195 | 366 |
| 24 d | 112 | −120 | −32 | −43 | 117 | 356 | 358 | 355 | 344 | 335 | 339 | 361 | 369 | 445 | 603 | 841 | 580 | 345 | 332 | 322 | 339 | 334 | 326 | 265 | 316 |
| 25 d | 156 | −10 | 34 | 73 | 139 | 241 | 155 | 134 | 194 | 190 | 285 | 439 | 543 | 601 | 814 | 738 | 688 | 481 | 253 | 436 | 281 | −115 | 29 | 40 | *284* |
| 26 | −21 | 34 | 150 | 132 | 156 | 181 | 189 | 255 | 282 | 300 | 324 | 352 | 357 | 378 | 408 | 399 | 421 | 436 | 417 | 403 | 332 | 336 | 320 | 296 | 285 |
| 27 | 288 | 208 | 251 | 308 | 303 | 329 | 348 | 343 | 339 | 326 | 321 | 313 | 322 | 358 | 381 | 429 | 401 | 357 | 361 | 382 | 383 | 351 | 218 | 322 | 331 |
| 28 d | 302 | 213 | 155 | 160 | 264 | 257 | 334 | 307 | 128 | 315 | 288 | 475 | 68 | 106 | 233 | 768 | 668 | 552 | 547 | 283 | 156 | 200 | 106 | 145 | 293 |
| 29 | 122 | 191 | 196 | 259 | 282 | 297 | 296 | 296 | 294 | 287 | 297 | 300 | 308 | 304 | 291 | 317 | 341 | 338 | 348 | 348 | 349 | 348 | 347 | 337 | 295 |
| 30 | 336 | 335 | 326 | 335 | 345 | 348 | 350 | 347 | 339 | 331 | 332 | 326 | 326 | 335 | 340 | 347 | 347 | 359 | 357 | 365 | 368 | 368 | 365 | 360 | 366 |
| 31 | 360 | 357 | 352 | 352 | 352 | 358 | 349 | 348 | 343 | 311 | 300 | 315 | 314 | 316 | 330 | 352 | 352 | 358 | 361 | 371 | 376 | 378 | 326 | 252 | 341 |
| Mean | 317 | *301* | 312 | 319 | 330 | 353 | 353 | 349 | 338 | 337 | 336 | 347 | 340 | 360 | 384 | *415* | 405 | 385 | 379 | 379 | 365 | 346 | 329 | 321 | 350 |

Corrections to be applied to all values *H*, −6γ; *D*, −4′·4; *V*, −1γ.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

19 LERWICK (D) — 11° + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 23·2 | 23·6 | 17·5 | 12·0 | 12·1 | 12·5 | 17·4 | 19·5 | 20·8 | 27·2 | 27·1 | 28·3 | 28·7 | 27·6 | 25·7 | 24·5 | 23·1 | 25·4 | 25·7 | 24·6 | 24·1 | 24·6 | 24·2 | 23·6 | 22·6 |
| 2 | 24·9 | 13·9 | 14·7 | 20·0 | 18·9 | 21·2 | 19·1 | 18·2 | 19·0 | 18·7 | 22·5 | 25·7 | 28·9 | 28·3 | 27·7 | 26·1 | 24·2 | 24·5 | 24·3 | 23·8 | 23·7 | 23·6 | 23·7 | 23·8 | 22·5 |
| 3 q | 23·9 | 23·6 | 23·3 | 22·7 | 22·2 | 21·7 | 21·2 | 21·2 | 21·2 | 22·1 | 24·2 | 26·0 | 27·2 | 27·5 | 25·7 | 25·5 | 24·7 | 24·7 | 25·0 | 25·8 | 25·3 | 21·0 | 23·2 | 23·9 | 23·9 |
| 4 | 24·7 | 20·4 | 19·4 | 18·9 | 21·7 | 17·6 | 19·8 | 19·0 | 19·1 | 19·6 | 23·4 | 27·5 | 30·9 | 31·8 | 35·4 | 35·5 | 34·5 | 29·8 | 26·7 | 27·3 | 19·7 | 14·5 | 15·4 | 9·9 | 23·4 |
| 5 | 9·4 | 17·0 | 18·5 | 17·9 | 20·1 | 16·8 | 18·3 | 18·1 | 19·3 | 20·8 | 22·9 | 33·5 | 35·0 | 36·1 | 33·0 | 35·4 | 27·3 | 24·8 | 25·6 | 23·9 | 21·1 | 22·0 | 23·5 | 22·6 | 23·5 |
| 6 | 19·9 | 21·4 | 19·3 | 19·8 | 19·4 | 18·8 | 19·7 | 18·8 | 20·9 | 22·9 | 26·8 | 31·5 | 33·3 | 35·5 | 33·7 | 28·8 | 27·7 | 24·3 | 19·7 | 22·4 | 21·8 | 24·1 | 21·0 | 20·7 | 23·8 |
| 7 | 21·8 | 21·4 | 19·8 | 18·7 | 18·6 | 19·3 | 17·9 | 17·7 | 18·9 | 23·0 | 24·0 | 29·5 | 33·3 | 31·7 | 31·1 | 28·7 | 27·0 | 24·3 | 21·9 | 21·1 | 21·4 | 19·8 | 23·3 | 24·3 | 23·3 |
| 8 | 24·4 | 23·4 | 23·0 | 22·7 | 22·6 | 21·8 | 21·5 | 20·2 | 20·0 | 20·9 | 23·0 | 26·8 | 30·1 | 32·4 | 32·0 | 29·5 | 28·1 | 26·3 | 24·7 | 25·8 | 24·4 | 20·1 | 23·9 | 23·6 | 24·6 |
| 9 | 23·7 | 23·1 | 22·4 | 21·1 | 19·8 | 19·4 | 19·7 | 19·2 | 19·8 | 21·7 | 24·1 | 26·0 | 29·2 | 31·8 | 36·8 | 39·7 | 40·8 | 39·0 | 30·8 | 19·2 | 14·2 | 13·4 | 16·3 | 18·4 | 24·6 |
| 10 d | 21·4 | 25·9 | 24·0 | 12·4 | 23·0 | 21·2 | 19·6 | 22·8 | 20·0 | 25·7 | 23·7 | 25·4 | 27·6 | 31·4 | 36·8 | 35·2 | 31·4 | 26·1 | 26·7 | 26·2 | 0·7 | 15·1 | 24·6 | 17·8 | 23·5 |
| 11 | −9·0 | 19·2 | 15·0 | 22·1 | 25·1 | 23·3 | 24·1 | 23·8 | 22·9 | 21·3 | 21·6 | 26·2 | 29·2 | 26·9 | 26·4 | 27·8 | 21·9 | 22·4 | 22·0 | 16·5 | 25·0 | 24·8 | 23·0 | 17·3 | 21·6 |
| 12 q | 22·9 | 23·8 | 23·3 | 22·9 | 23·2 | 22·6 | 22·4 | 21·5 | 21·0 | 22·8 | 24·6 | 26·5 | 26·5 | 26·6 | 25·2 | 23·8 | 22·8 | 23·3 | 23·8 | 23·8 | 24·3 | 24·5 | 24·5 | 24·5 | 23·8 |
| 13 q | 24·1 | 24·1 | 23·2 | 23·2 | 23·3 | 23·1 | 21·3 | 19·5 | 19·7 | 21·5 | 23·1 | 27·0 | 27·8 | 28·2 | 26·9 | 24·7 | 24·2 | 22·3 | 18·9 | 22·9 | 23·9 | 22·7 | 22·7 | 24·0 | 23·4 |
| 14 q | 24·3 | 24·2 | 24·0 | 22·9 | 21·9 | 21·5 | 20·6 | 19·1 | 19·6 | 22·0 | 24·3 | 27·1 | 29·4 | 30·0 | 27·4 | 26·4 | 24·6 | 23·2 | 19·2 | 20·0 | 23·3 | 23·8 | 23·7 | 23·8 | 23·6 |
| 15 | 23·9 | 23·9 | 23·3 | 22·9 | 22·2 | 21·5 | 20·9 | 19·7 | 19·3 | 24·3 | 26·8 | 30·2 | 33·4 | 31·6 | 31·6 | 27·5 | 24·2 | 23·8 | 22·3 | 18·1 | 20·3 | 20·4 | 22·7 | 24·0 | 24·1 |
| 16 q | 24·1 | 23·4 | 22·9 | 22·8 | 22·4 | 22·0 | 21·1 | 20·3 | 19·4 | 20·4 | 23·5 | 27·5 | 30·7 | 31·5 | 30·2 | 28·4 | 26·9 | 26·4 | 26·6 | 25·8 | 25·5 | 24·9 | 21·4 | 20·8 | 24·5 |
| 17 | 22·7 | 20·6 | 18·9 | 24·6 | 19·5 | 21·2 | 25·6 | 22·9 | 24·4 | 23·0 | 25·3 | 29·9 | 30·4 | 28·7 | 30·5 | 29·8 | 25·9 | 19·0 | 27·4 | 25·6 | 14·3 | 15·7 | 23·8 | 23·6 | 23·9 |
| 18 | 25·4 | 22·7 | 24·7 | 23·2 | 22·2 | 22·4 | 22·0 | 23·5 | 22·8 | 23·5 | 26·2 | 27·9 | 29·9 | 30·9 | 28·7 | 27·4 | 26·4 | 25·7 | 23·3 | 25·5 | 24·7 | 24·2 | 23·9 | 23·5 | 25·0 |
| 19 | 23·5 | 23·4 | 22·7 | 22·7 | 22·8 | 21·7 | 21·6 | 21·4 | 20·9 | 21·9 | 23·0 | 25·0 | 26·7 | 27·6 | 26·8 | 26·4 | 25·7 | 24·8 | 25·6 | 26·4 | 26·6 | 24·8 | 20·8 | 18·0 | 23·8 |
| 20 | 18·8 | 20·4 | 21·7 | 22·2 | 22·1 | 22·5 | 22·3 | 21·5 | 20·0 | 21·9 | 24·8 | 31·3 | 31·5 | 33·4 | 32·8 | 30·5 | 27·5 | 26·4 | 25·1 | 19·6 | 19·6 | 25·4 | 24·4 | 24·8 | 24·6 |
| 21 | 25·7 | 24·0 | 23·6 | 27·5 | 21·7 | 20·8 | 19·2 | 19·9 | 19·7 | 19·3 | 22·0 | 26·8 | 30·4 | 34·5 | 31·9 | 30·5 | 28·4 | 26·1 | 25·7 | 25·5 | 25·6 | 24·9 | 24·2 | 23·8 | 25·1 |
| 22 d | 23·7 | 23·3 | 23·0 | 23·1 | 22·6 | 22·0 | 19·8 | 21·8 | 31·3 | 27·7 | 24·3 | 29·4 | 29·9 | 33·9 | 30·3 | 28·3 | 26·8 | 26·9 | 25·1 | 25·5 | 25·7 | 25·5 | 24·9 | 25·6 | *25·9* |
| 23 | 19·1 | 21·2 | 20·3 | 21·5 | 20·5 | 20·4 | 19·3 | 18·9 | 19·8 | 22·2 | 23·4 | 27·0 | 30·5 | 31·8 | 31·7 | 28·1 | 28·2 | 28·0 | 17·9 | 26·5 | 25·6 | 16·4 | 11·0 | −15·7 | 21·4 |
| 24 d | −19·3 | −16·4 | −5·5 | −25·1 | 1·7 | 16·4 | 17·0 | 19·5 | 23·0 | 26·4 | 27·8 | 27·8 | 28·6 | 28·4 | 26·7 | 22·2 | 33·3 | 26·3 | 24·5 | 24·4 | 23·3 | 22·4 | 25·4 | 15·5 | 16·4 |
| 25 d | 11·8 | −25·8 | 12·6 | −6·3 | −0·5 | 28·9 | 37·0 | 32·9 | 14·0 | 15·5 | 13·4 | 5·8 | 14·9 | 24·7 | 18·3 | 35·7 | 43·7 | 67·6 | 17·0 | 7·0 | 24·9 | −5·5 | 6·1 | −9·1 | 16·0 |
| 26 | −11·3 | −2·6 | −9·2 | −5·5 | −1·2 | 16·2 | 10·9 | 14·0 | 18·8 | 18·5 | 17·5 | 25·9 | 30·5 | 33·3 | 34·0 | 33·3 | 33·8 | 29·2 | 25·6 | 20·0 | 16·0 | 18·9 | 22·2 | 15·2 | 16·8 |
| 27 | 12·9 | 16·9 | 19·9 | 12·2 | 19·5 | 22·7 | 20·6 | 19·7 | 18·7 | 20·5 | 24·2 | 28·8 | 33·1 | 36·7 | 38·8 | 30·0 | 31·8 | 29·2 | 26·7 | 26·5 | 26·2 | 26·3 | 21·7 | 16·6 | 24·2 |
| 28 d | 16·5 | 2·4 | −13·5 | 8·2 | 10·5 | 22·7 | 16·1 | 11·4 | 6·8 | 33·6 | 34·3 | 0·2 | −38·8 | −36·0 | 9·1 | 50·4 | 19·8 | 26·3 | 29·9 | 1·0 | 14·7 | 29·9 | 28·5 | 16·2 | *12·5* |
| 29 | 11·6 | 23·6 | 21·2 | 19·8 | 20·9 | 17·3 | 15·7 | 15·7 | 16·1 | 21·2 | 23·4 | 26·4 | 32·1 | 31·7 | 27·7 | 26·4 | 25·5 | 22·8 | 22·1 | 21·4 | 20·9 | 20·1 | 22·6 | 23·7 | 22·1 |
| 30 | 23·7 | 21·7 | 22·7 | 22·7 | 21·3 | 20·6 | 18·6 | 16·6 | 17·4 | 20·0 | 22·0 | 25·6 | 28·1 | 28·6 | 27·7 | 26·3 | 24·0 | 23·0 | 23·1 | 23·5 | 23·6 | 19·2 | 21·5 | 21·6 | 22·6 |
| 31 | 22·7 | 21·5 | 21·5 | 21·4 | 20·9 | 19·2 | 22·2 | 19·4 | 18·1 | 20·7 | 23·9 | 26·8 | 30·0 | 30·6 | 28·6 | 28·6 | 26·2 | 24·2 | 23·0 | 23·3 | 23·3 | 19·7 | 10·1 | 4·8 | 22·1 |
| Mean | 17·9 | 17·7 | 18·0 | *17·3* | 18·7 | 20·6 | 20·4 | 19·9 | 19·8 | 22·3 | 23·9 | 26·1 | 27·4 | 28·6 | 29·3 | *29·7* | 27·7 | 27·0 | 24·1 | 22·2 | 21·7 | 20·9 | 21·6 | 18·4 | 22·5 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

20 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 988 | 983 | 966 | 932 | 850 | 928 | 954 | 964 | 958 | 952 | 965 | 969 | 980 | 985 | 987 | 994 | 996 | 995 | 993 | 991 | 991 | 992 | 996 | 994 | 971 |
| 2 | 961 | 945 | 918 | 954 | 958 | 949 | 936 | 957 | 974 | 978 | 976 | 977 | 982 | 988 | 994 | 992 | 992 | 991 | 989 | 988 | 987 | 986 | 987 | 989 | 973 |
| 3 *q* | 990 | 991 | 991 | 991 | 991 | 989 | 986 | 985 | 984 | 985 | 985 | 984 | 983 | 985 | 990 | 990 | 988 | 988 | 987 | 988 | 990 | 993 | 987 | 987 | 988 |
| 4 | 982 | 959 | 980 | 985 | 977 | 975 | 981 | 983 | 988 | 982 | 982 | 986 | 981 | 987 | 997 | 1024 | 1044 | 1046 | 1029 | 1038 | 1046 | 993 | 813 | 857 | 984 |
| 5 | 841 | 923 | 972 | 956 | 954 | 968 | 971 | 976 | 985 | 993 | 996 | 1007 | 1011 | 1034 | 1074 | 1081 | 1095 | 1060 | 1020 | 1007 | 1014 | 1005 | 985 | 955 | 995 |
| 6 | 958 | 966 | 937 | 918 | 958 | 968 | 982 | 984 | 992 | 991 | 993 | 999 | 1003 | 999 | 1006 | 1011 | 1011 | 1014 | 1016 | 1016 | 1017 | 1002 | 953 | 961 | 986 |
| 7 | 981 | 977 | 962 | 962 | 977 | 983 | 986 | 989 | 988 | 987 | 985 | 985 | 999 | 1000 | 990 | 988 | 995 | 1007 | 1009 | 1016 | 1010 | 988 | 985 | 981 | 988 |
| 8 | 978 | 977 | 985 | 988 | 990 | 992 | 992 | 992 | 992 | 989 | 987 | 984 | 979 | 981 | 986 | 990 | 993 | 1000 | 1000 | 999 | 1003 | 998 | 993 | 992 | 990 |
| 9 | 988 | 989 | 988 | 989 | 988 | 988 | 989 | 988 | 986 | 985 | 983 | 984 | 984 | 980 | 984 | 1000 | 1032 | 1099 | 1071 | 1055 | 1044 | 994 | 977 | 960 | 1001 |
| 10 *d* | 963 | 931 | 739 | 774 | 840 | 925 | 974 | 980 | 990 | 990 | 998 | 996 | 996 | 1012 | 1027 | 1063 | 1058 | 1044 | 1017 | 1018 | 1037 | 858 | 866 | 744 | 952 |
| 11 | 684 | 702 | 839 | 909 | 902 | 920 | 960 | 988 | 1000 | 1017 | 1026 | 1025 | 1028 | 1036 | 1020 | 1009 | 1030 | 1021 | 1015 | 998 | 996 | 996 | 982 | 967 | 961 |
| 12 *q* | 980 | 987 | 991 | 991 | 992 | 993 | 993 | 995 | 997 | 999 | 995 | 992 | 990 | 989 | 992 | 995 | 996 | 995 | 994 | 995 | 994 | 994 | 995 | 995 | 993 |
| 13 *q* | 994 | 992 | 993 | 991 | 989 | 987 | 989 | 993 | 995 | 994 | 993 | 989 | 992 | 994 | 994 | 993 | 990 | 1001 | 1014 | 1004 | 1000 | 996 | 994 | 992 | 994 |
| 14 *q* | 989 | 985 | 987 | 990 | 989 | 989 | 989 | 989 | 991 | 990 | 990 | 986 | 983 | 984 | 995 | 994 | 996 | 997 | 1001 | 1007 | 995 | 991 | 989 | 987 | 991 |
| 15 | 983 | 987 | 991 | 991 | 991 | 990 | 990 | 990 | 989 | 992 | 988 | 997 | 1006 | 1015 | 1010 | 1015 | 1014 | 1003 | 999 | 996 | 988 | 975 | 978 | 980 | 994 |
| 16 *q* | 982 | 989 | 990 | 990 | 990 | 989 | 989 | 989 | 989 | 987 | 982 | 976 | 976 | 979 | 987 | 996 | 997 | 995 | 991 | 989 | 990 | 989 | 983 | 984 | 987 |
| 17 | 987 | 984 | 975 | 946 | 954 | 970 | 973 | 969 | 974 | 978 | 981 | 984 | 1003 | 1011 | 1008 | 1011 | 1029 | 1052 | 1025 | 1003 | 1012 | 1011 | 991 | 983 | 992 |
| 18 | 976 | 980 | 983 | 975 | 982 | 983 | 983 | 983 | 978 | 980 | 977 | 976 | 980 | 987 | 992 | 996 | 998 | 1007 | 1014 | 1003 | 995 | 988 | 986 | 985 | 987 |
| 19 | 988 | 990 | 990 | 991 | 990 | 990 | 989 | 990 | 991 | 986 | 982 | 981 | 984 | 986 | 990 | 993 | 994 | 995 | 991 | 991 | 988 | 989 | 987 | 971 | 988 |
| 20 | 970 | 978 | 984 | 988 | 987 | 987 | 988 | 988 | 988 | 982 | 981 | 978 | 981 | 984 | 994 | 1005 | 1009 | 1004 | 1004 | 1004 | 990 | 984 | 977 | 962 | 987 |
| 21 | 966 | 967 | 977 | 960 | 954 | 967 | 973 | 982 | 987 | 987 | 983 | 982 | 984 | 981 | 982 | 983 | 996 | 1003 | 996 | 992 | 990 | 987 | 985 | 985 | 981 |
| 22 *d* | 985 | 985 | 985 | 987 | 987 | 986 | 983 | 998 | 972 | 966 | 983 | 988 | 995 | 1004 | 1016 | 1008 | 997 | 988 | 1004 | 1017 | 1003 | 988 | 984 | 966 | 991 |
| 23 | 968 | 946 | 950 | 972 | 983 | 987 | 988 | 989 | 988 | 984 | 983 | 978 | 977 | 979 | 990 | 1005 | 1007 | 1009 | 999 | 1003 | 1020 | 997 | 936 | 803 | 977 |
| 24 *d* | 575 | 900 | 713 | 1062 | 841 | 920 | 995 | 1004 | 1002 | 1017 | 1051 | 1068 | 1081 | 1125 | 1164 | 911 | 1010 | 1088 | 1050 | 1037 | 1035 | 1019 | 954 | 878 | 979 |
| 25 *d* | 769 | 770 | 488 | 529 | 704 | 726 | 824 | 870 | 968 | 1062 | 1090 | 1089 | 1113 | 1086 | 762 | 532 | 700 | 716 | 894 | 999 | 1002 | 900 | 795 | 963 | 848 |
| 26 | 706 | 896 | 971 | 943 | 959 | 925 | 911 | 957 | 986 | 1016 | 1025 | 1018 | 1022 | 1038 | 1058 | 1079 | 1094 | 1102 | 1092 | 1070 | 973 | 997 | 993 | 958 | 991 |
| 27 | 937 | 924 | 889 | 903 | 939 | 941 | 977 | 997 | 1006 | 1009 | 1013 | 1021 | 1024 | 1029 | 1052 | 1088 | 1077 | 1051 | 1029 | 1024 | 1031 | 1015 | 907 | 894 | 991 |
| 28 *d* | 925 | 882 | 847 | 908 | 809 | 841 | 964 | 1001 | 1003 | 812 | 947 | 916 | 640 | 536 | 418 | 311 | 764 | 913 | 1037 | 844 | 747 | 1017 | 975 | 726 | *824* |
| 29 | 812 | 927 | 968 | 1014 | 1015 | 1030 | 1040 | 1042 | 1045 | 1036 | 1035 | 1040 | 1035 | 1046 | 1044 | 1040 | 1040 | 1042 | 1041 | 1040 | 1041 | 1017 | 991 | 1002 | *1016* |
| 30 | 998 | 1009 | 1011 | 1013 | 1015 | 1017 | 1018 | 1017 | 1017 | 1016 | 1014 | 1014 | 1014 | 1015 | 1015 | 1018 | 1019 | 1018 | 1014 | 1014 | 1016 | 1017 | 1010 | 1013 | 1014 |
| 31 | 1009 | 1011 | 1014 | 1010 | 1006 | 1002 | 1004 | 1000 | 1006 | 1017 | 1019 | 1030 | 1027 | 1021 | 1016 | 1016 | 1013 | 1011 | 1009 | 1009 | 1004 | 974 | 866 | 840 | 997 |
| Mean | *929* | 949 | 935 | 952 | 950 | 961 | 976 | 985 | 991 | 989 | 996 | 997 | 991 | 993 | 985 | 972 | 999 | 1008 | *1011* | 1005 | 998 | 989 | 961 | 944 | 978 |

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

21 LERWICK — MARCH

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | Vertical force | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | |
| | h. m. | γ | h. m. | γ | γ | h. m. | ′ | h. m. | ′ | ′ | h. m. | γ | h. m. | γ | γ | | | | °A. |
| 1 | 01 40 | 417 | 04 09 | 199 | 218 | 09 15 | 34·6 | 03 33 | 2·5 | 32·1 | 23 28 | 1003 | 04 09 | 813 | 190 | 3,5,3,3,2,2,0,2 | 20 | 1 | 73·5 |
| 2 | 00 22 | 366 | 00 45 | 266 | 100 | 00 37 | 43·8 | 00 19 | 6·8 | 37·0 | 14 59 | 996 | 02 29 | 899 | 97 | 5,3,3,3,2,1,0,0 | 17 | 1 | 74·0 |
| 3 *q* | 18 27 | 386 | 12 12 | 348 | 38 | 13 37 | 28·7 | 21 15 | 17·9 | 10·8 | 20 59 | 998 | 22 35 | 983 | *15* | 0,0,1,0,1,1,2,2 | 7 | 0 | 74·8 |
| 4 | 20 30 | 408 | 22 24 | 106 | 302 | 22 22 | 58·5 | 22 31 | 1·7 | 56·8 | 20 34 | 1069 | 22 20 | 734 | 335 | 3,2,2,2,3,3,3,6 | 24 | 1 | 75·3 |
| 5 | 14 33 | 455 | 00 18 | 42 | 413 | 13 37 | 40·8 | 00 42 | −1·3 | 42·1 | 16 37 | 1160 | 00 18 | 819 | 341 | 6,3,2,3,4,4,2,3 | 21 | 1 | 75·8 |
| 6 | 15 04 | 401 | 02 47 | 310 | 91 | 13 46 | 36·8 | 07 46 | 15·6 | 21·2 | 17 59 | 1080 | 03 15 | 892 | 188 | 3,4,2,2,3,3,2,4 | 23 | 1 | 76·2 |
| 7 | 21 34 | 391 | 10 08 | 314 | 77 | 12 51 | 34·9 | 21 00 | 14·1 | 20·8 | 19 59 | 1021 | 02 54 | 957 | 64 | 2,2,2,2,2,2,3,3 | 18 | 0 | 76·3 |
| 8 | 21 09 | 397 | 11 31 | 338 | 59 | 13 46 | 33·1 | 21 08 | 15·3 | 17·8 | 20 55 | 1008 | 01 16 | 973 | 35 | 1,0,0,1,1,1,2,3 | 9 | 0 | 76·0 |
| 9 | 16 54 | 460 | 12 00 | 348 | 112 | 16 32 | 43·9 | 19 52 | 4·0 | 39·9 | 17 43 | 1120 | 23 30 | 956 | 164 | 0,0,0,0,3,4,4,3 | 14 | 1 | 75·7 |
| 10 *d* | 20 04 | 533 | 22 51 | −318 | 851 | 22 50 | 63·8 | 23 29 | −23·3 | 87·1 | 20 15 | 1098 | 23 40 | 608 | 490 | 6,6,4,3,4,3,5,8 | 39 | 2 | 75·5 |
| 11 | 19 27 | 429 | 01 17 | −337 | 766 | 00 00 | 40·5 | 00 12 | −58·7 | 99·2 | 13 32 | 1040 | 01 19 | 592 | 448 | 8,4,3,2,3,3,3,3 | 29 | 1 | 76·2 |
| 12 *q* | 19 06 | 377 | 10 08 | 344 | *33* | 12 00 | 28·2 | 07 39 | 20·2 | *8·0* | 08 34 | 1000 | 00 09 | 975 | 25 | 1,0,1,1,1,1,1,0 | 6 | 0 | 76·3 |
| 13 *q* | 17 26 | 393 | 10 53 | 339 | 54 | 13 12 | 30·5 | 18 42 | 17·6 | 12·9 | 18 37 | 1017 | 04 28 | 985 | 32 | 0,1,1,1,1,2,2,1 | 9 | 0 | 76·2 |
| 14 *q* | 18 17 | 387 | 10 29 | 338 | 49 | 13 37 | 30·8 | 18 52 | 12·9 | 17·9 | 19 16 | 1013 | 01 26 | 980 | 33 | 1,0,0,1,1,1,3,0 | 7 | 0 | 76·2 |
| 15 | 21 16 | 401 | 10 22 | 318 | 83 | 12 46 | 35·5 | 19 14 | 13·5 | 22·0 | 15 50 | 1019 | 21 50 | 970 | 49 | 1,0,2,2,2,2,3,2 | 14 | 1 | 76·1 |
| 16 *q* | 22 21 | 397 | 11 37 | 340 | 57 | 13 41 | 32·0 | 22 55 | 16·7 | 15·3 | 16 43 | 998 | 22 35 | 976 | 22 | 1,0,1,1,2,1,1,2 | 9 | 0 | 76·0 |
| 17 | 05 37 | 406 | 02 59 | 293 | 113 | 13 22 | 33·7 | 20 58 | −1·0 | 34·7 | 17 01 | 1063 | 04 01 | 934 | 129 | 4,4,2,2,2,3,4,4 | 25 | 1 | 76·1 |
| 18 | 17 25 | 389 | 09 51 | 343 | 46 | 13 17 | 33·2 | 18 25 | 20·5 | 12·7 | 18 27 | 1017 | 00 51 | 970 | 47 | 2,2,2,2,2,2,2,0 | 14 | 1 | 76·0 |
| 19 | 21 13 | 408 | 10 25 | 347 | 61 | 13 47 | 28·3 | 23 20 | 16·7 | 11·6 | 17 23 | 997 | 23 12 | 966 | 31 | 0,1,1,1,1,1,2,2 | 9 | 0 | 76·9 |
| 20 | 20 12 | 404 | 12 11 | 322 | 82 | 13 21 | 35·7 | 20 09 | 15·3 | 20·4 | 16 05 | 1012 | 23 05 | 956 | 56 | 2,1,1,3,3,2,3,2 | 17 | 1 | 78·1 |
| 21 | 04 42 | 403 | 12 29 | 309 | 94 | 13 21 | 36·7 | 06 35 | 17·8 | 18·9 | 17 09 | 1006 | 03 53 | 944 | 62 | 2,3,2,2,3,2,1,0 | 15 | 1 | 78·5 |
| 22 *d* | 23 05 | 424 | 08 04 | 270 | 154 | 08 36 | 41·1 | 09 09 | 15·9 | 25·2 | 14 10 | 1026 | 08 55 | 949 | 77 | 0,2,4,4,3,2,2,3 | 20 | 1 | 78·9 |
| 23 | 18 28 | 453 | 09 45 | −112 | 565 | 13 48 | 33·2 | 23 44 | −62·4 | 95·6 | 20 36 | 1025 | 23 39 | 666 | 359 | 3,2,2,1,2,2,4,7 | 23 | 1 | 79·1 |
| 24 *d* | 15 57 | 1253 | 01 03 | −900 | 2153 | 02 10 | 64·3 | 02 20 | *−137·9* | 202·2 | 03 51 | 1337 | 02 17 | 290 | 1047 | 9,7,5,3,8,8,3,5 | 48 | 2 | 79·0 |
| 25 *d* | 14 33 | 1131 | 01 04 | *−1175* | *2306* | 17 29 | *177·8* | 03 45 | −119·6 | *297·4* | 23 15 | 1383 | 22 | 17 07 | 1361 | 9,8,6,6,8,9,8,8 | 62 | 2 | 78·7 |
| 26 | 17 57 | 456 | 00 52 | −373 | 829 | 16 20 | 36·2 | 00 36 | −40·8 | 77·0 | 02 00 | 1176 | 00 37 | 710 | 466 | 7,6,5,4,3,3,5,4 | 37 | 2 | 78·6 |
| 27 | 15 43 | 481 | 01 59 | 114 | 367 | 14 39 | 40·4 | 03 46 | 6·8 | 33·6 | 15 40 | 1115 | 23 07 | 838 | 277 | 5,4,3,2,3,5,2,5 | 29 | 1 | 79·1 |
| 28 *d* | 15 25 | *1253* | 12 21 | −383 | 1636 | 22 02 | 138·0 | 19 47 | −127·4 | 265·4 | 22 06 | *1477* | 15 04 | *−139* | *1616* | 6,7,8,9,8,8,8,8 | 62 | 2 | 79·3 |
| 29 | 11 18 | 378 | 00 08 | 77 | 301 | 01 52 | 36·5 | 00 19 | 0·9 | 35·6 | 13 44 | 1068 | 00 21 | 781 | 287 | 6,4,4,4,4,3,3,3 | 31 | 1 | 80·0 |
| 30 | 22 15 | 386 | 02 05 | 315 | 71 | 13 44 | 29·5 | 21 28 | 13·4 | 16·1 | 16 20 | 1021 | 00 26 | 991 | 30 | 2,2,1,2,1,1,1,3 | 13 | 0 | 80·3 |
| 31 | 21 11 | 391 | 23 53 | 228 | 163 | 13 06 | 31·6 | 22 53 | −3·9 | 35·5 | 12 33 | 1035 | 23 36 | 842 | 193 | 1,1,3,3,2,1,2,5 | 18 | 1 | 81·2 |
| Mean | − − | 491 | − − | 96 | 395 | − − | 45·6 | −10·0 | − − | 55·6 | − − | 1077 | − − | 801 | 276 | − | − | 0·87 | 77·1 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

22 LERWICK (H) — 14,000γ (0·14 C.G.S. unit) + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 296 | 327 | 249 | 343 | 357 | 360 | 352 | 336 | 327 | 335 | 330 | 317 | 327 | 335 | 348 | 357 | 367 | 374 | 384 | 391 | 373 | 348 | 330 | 335 | 342 |
| 2 | 337 | 328 | 352 | 343 | 339 | 330 | 352 | 345 | 341 | 322 | 306 | 330 | 316 | 369 | 365 | 378 | 390 | 381 | 371 | 374 | 382 | 324 | 345 | 364 | 349 |
| 3 | 361 | 357 | 357 | 360 | 360 | 361 | 361 | 350 | 339 | 325 | 321 | 316 | 322 | 339 | 360 | 375 | 382 | 404 | 386 | 373 | 369 | 370 | 365 | 356 | 357 |
| 4 | 359 | 360 | 355 | 367 | 361 | 361 | 363 | 356 | 343 | 331 | 322 | 322 | 328 | 339 | 365 | 370 | 369 | 371 | 375 | 377 | 378 | 378 | 361 | 356 | 357 |
| 5 | 364 | 371 | 369 | 367 | 365 | 365 | 363 | 356 | 344 | 328 | 318 | 321 | 330 | 349 | 360 | 384 | 400 | 411 | 406 | 381 | 374 | 374 | 374 | 369 | 364 |
| 6 | 360 | 365 | 369 | 365 | 360 | 358 | 363 | 361 | 348 | 326 | 318 | 309 | 321 | 347 | 352 | 377 | 382 | 395 | 393 | 383 | 382 | 370 | 361 | 365 | 360 |
| 7 | 367 | 367 | 369 | 365 | 365 | 369 | 375 | 370 | 356 | 343 | 331 | 319 | 330 | 359 | 377 | 378 | 352 | 365 | 377 | 380 | 381 | 379 | 378 | 378 | 364 |
| 8 | 374 | 374 | 374 | 374 | 377 | 379 | 362 | 356 | 355 | 325 | 326 | 325 | 339 | 344 | 335 | 356 | 365 | 374 | 377 | 387 | 390 | 386 | 394 | 399 | 364 |
| 9 *d* | 387 | 383 | 383 | 389 | 389 | 387 | 381 | 371 | 365 | 325 | 304 | 300 | 332 | 348 | 408 | 577 | 449 | 400 | 377 | 365 | 370 | 371 | 350 | 341 | *377* |
| 10 | 304 | 342 | 367 | 365 | 365 | 367 | 363 | 350 | 339 | 327 | 321 | 307 | 321 | 327 | 340 | 353 | 361 | 369 | 367 | 370 | 372 | 374 | 382 | 374 | 351 |
| 11 *q* | 373 | 371 | 369 | 367 | 369 | 373 | 371 | 366 | 352 | 335 | 324 | 334 | 339 | 343 | 359 | 361 | 375 | 374 | 377 | 381 | 377 | 377 | 380 | 386 | 364 |
| 12 | 379 | 383 | 374 | 373 | 374 | 376 | 375 | 367 | 355 | 342 | 341 | 331 | 335 | 356 | 361 | 374 | 361 | 378 | 389 | 397 | 400 | 419 | 403 | 390 | 372 |
| 13 | 386 | 384 | 379 | 368 | 374 | 383 | 365 | 365 | 361 | 330 | 328 | 338 | 335 | 360 | 360 | 374 | 400 | 400 | 395 | 432 | 384 | 361 | 378 | 339 | 370 |
| 14 *d* | 358 | 356 | 367 | 370 | 374 | 374 | 374 | 367 | 361 | 350 | 345 | 336 | 319 | 457 | 435 | 395 | 369 | 382 | 382 | 377 | 377 | 377 | 356 | 291 | 369 |
| 15 *d* | 355 | 274 | 208 | 311 | 345 | 337 | 304 | 196 | 231 | 291 | 303 | 336 | 521 | 577 | 499 | 532 | 374 | 392 | 431 | 361 | 355 | 358 | 356 | 353 | 358 |
| 16 | 353 | 353 | 342 | 341 | 345 | 356 | 353 | 347 | 335 | 321 | 315 | 313 | 322 | 339 | 355 | 360 | 365 | 369 | 378 | 382 | 387 | 370 | 333 | 344 | 349 |
| 17 | 334 | 350 | 369 | 369 | 369 | 369 | 365 | 361 | 352 | 339 | 334 | 334 | 339 | 331 | 352 | 365 | 373 | 374 | 377 | 376 | 374 | 377 | 378 | 377 | 360 |
| 18 | 374 | 373 | 372 | 371 | 373 | 377 | 377 | 368 | 351 | 321 | 308 | 322 | 330 | 347 | 354 | 369 | 367 | 378 | 394 | 379 | 382 | 382 | 381 | 381 | 364 |
| 19 *q* | 378 | 378 | 376 | 374 | 373 | 370 | 368 | 363 | 355 | 339 | 334 | 328 | 333 | 342 | 352 | 361 | 372 | 400 | 381 | 386 | 380 | 382 | 382 | 378 | 366 |
| 20 *q* | 373 | 374 | 373 | 374 | 376 | 378 | 376 | 369 | 357 | 341 | 334 | 330 | 331 | 339 | 357 | 386 | 384 | 379 | 386 | 385 | 382 | 382 | 378 | 379 | 368 |
| 21 *q* | 377 | 377 | 377 | 377 | 380 | 378 | 373 | 362 | 351 | 339 | 334 | 331 | 335 | 348 | 343 | 358 | 372 | 389 | 396 | 390 | 390 | 389 | 387 | 386 | 368 |
| 22 | 386 | 381 | 380 | 381 | 382 | 382 | 377 | 378 | 361 | 328 | 314 | 318 | 339 | 356 | 360 | 358 | 377 | 399 | 416 | 409 | 396 | 398 | 395 | 393 | 373 |
| 23 *d* | 384 | 400 | 394 | 396 | 386 | 369 | 355 | 326 | 311 | 245 | 282 | 296 | 334 | 488 | 687 | 1060 | 1008 | 647 | 514 | 336 | 199 | 98 | −60 | −430 | 376 |
| 24 *d* | −504 | −60 | −150 | −58 | −64 | 179 | 304 | 267 | 251 | 315 | 347 | 421 | 391 | 415 | 447 | 434 | 534 | 429 | 400 | 365 | 246 | 303 | 300 | 274 | *241* |
| 25 | 167 | 127 | 284 | 335 | 325 | 304 | 322 | 326 | 310 | 300 | 308 | 308 | 317 | 331 | 339 | 348 | 352 | 361 | 368 | 365 | 363 | 363 | 357 | 356 | 318 |
| 26 | 344 | 341 | 335 | 333 | 327 | 326 | 332 | 339 | 338 | 343 | 339 | 344 | 358 | 364 | 373 | 376 | 384 | 369 | 393 | 396 | 379 | 370 | 361 | 341 | 354 |
| 27 | 309 | 336 | 323 | 345 | 348 | 341 | 337 | 328 | 322 | 313 | 316 | 321 | 327 | 335 | 348 | 355 | 360 | 367 | 372 | 377 | 370 | 369 | 364 | 361 | 343 |
| 28 | 361 | 360 | 356 | 361 | 358 | 354 | 356 | 348 | 339 | 331 | 332 | 339 | 345 | 351 | 381 | 396 | 402 | 381 | 424 | 447 | 381 | 369 | 368 | 369 | 367 |
| 29 | 368 | 365 | 361 | 361 | 364 | 361 | 356 | 334 | 300 | 322 | 331 | 326 | 343 | 347 | 355 | 366 | 378 | 399 | 384 | 389 | 393 | 370 | 360 | 366 | 358 |
| 30 *q* | 368 | 361 | 363 | 369 | 366 | 365 | 360 | 353 | 344 | 335 | 333 | 339 | 352 | 356 | 354 | 380 | 386 | 399 | 397 | 386 | 378 | 374 | 375 | 377 | 365 |
| Mean | 324 | 339 | 337 | 349 | 349 | 356 | 358 | 346 | 337 | 326 | *323* | 327 | 340 | 365 | 379 | *407* | 404 | 394 | 392 | 383 | 369 | 362 | 352 | 335 | 356 |

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

23 LERWICK (D) — 11° + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 14·8 | 15·4 | 17·0 | 16·7 | 18·7 | 17·5 | 16·8 | 17·6 | 23·2 | 21·3 | 25·5 | 29·6 | 32·9 | 32·3 | 30·0 | 27·0 | 23·7 | 23·6 | 18·5 | 18·2 | 17·2 | 9·0 | 11·0 | 13·4 | 20·4 |
| 2 | 18·5 | 25·7 | 20·1 | 18·5 | 21·6 | 17·2 | 16·0 | 17·7 | 18·3 | 19·1 | 22·7 | 28·9 | 30·4 | 32·3 | 31·1 | 30·4 | 27·3 | 19·0 | 23·7 | 24·4 | 23·9 | 24·0 | 12·6 | 17·8 | 22·6 |
| 3 | 20·9 | 22·7 | 21·8 | 21·4 | 20·7 | 19·5 | 18·6 | 18·7 | 19·0 | 20·2 | 23·3 | 28·1 | 30·5 | 29·9 | 30·9 | 29·9 | 27·0 | 21·3 | 21·9 | 23·1 | 23·0 | 20·3 | 19·5 | 20·5 | 23·0 |
| 4 | 19·9 | 18·9 | 21·7 | 20·7 | 18·8 | 19·3 | 17·9 | 15·9 | 15·9 | 18·8 | 24·2 | 28·8 | 31·4 | 31·8 | 31·3 | 27·8 | 25·0 | 23·8 | 23·7 | 23·9 | 24·6 | 20·2 | 18·9 | 20·6 | 22·7 |
| 5 | 16·8 | 16·8 | 19·9 | 20·4 | 19·6 | 19·2 | 17·7 | 15·6 | 15·1 | 16·3 | 19·9 | 25·9 | 31·4 | 34·8 | 35·2 | 35·1 | 32·8 | 33·9 | 26·3 | 24·5 | 24·4 | 23·5 | 22·3 | 18·7 | 23·6 |
| 6 | 20·0 | 17·4 | 17·3 | 19·1 | 19·5 | 20·7 | 17·7 | 16·4 | 17·7 | 20·0 | 24·6 | 29·6 | 32·1 | 35·2 | 32·8 | 32·4 | 28·5 | 26·6 | 26·0 | 25·0 | 25·6 | 22·7 | 15·5 | 18·6 | 23·4 |
| 7 | 17·9 | 19·5 | 19·9 | 11·8 | 15·3 | 14·6 | 16·1 | 15·0 | 16·9 | 18·8 | 22·5 | 27·0 | 31·4 | 35·1 | 36·2 | 36·0 | 31·8 | 25·0 | 24·1 | 23·0 | 20·4 | 22·7 | 24·4 | 23·8 | 22·9 |
| 8 | 23·5 | 23·0 | 22·8 | 22·4 | 22·2 | 21·6 | 23·3 | 22·1 | 21·8 | 22·2 | 24·6 | 26·7 | 31·0 | 32·4 | 29·9 | 27·4 | 24·5 | 22·4 | 22·4 | 22·7 | 24·6 | 24·8 | 24·0 | 24·5 | 24·5 |
| 9 *d* | 22·2 | 22·6 | 22·6 | 21·5 | 20·6 | 18·9 | 18·3 | 17·8 | 16·0 | 20·2 | 26·6 | 33·8 | 34·5 | 36·3 | 31·0 | 25·8 | 26·3 | 25·8 | 23·3 | 22·7 | 23·5 | 23·8 | 14·3 | 12·4 | 23·4 |
| 10 | 23·3 | 20·6 | 20·8 | 20·4 | 19·5 | 17·9 | 16·8 | 15·7 | 16·2 | 17·3 | 21·5 | 24·9 | 27·4 | 28·2 | 27·8 | 25·7 | 24·3 | 22·9 | 22·7 | 23·0 | 23·0 | 22·9 | 22·6 | 20·7 | 21·9 |
| 11 *q* | 22·7 | 22·5 | 22·4 | 22·0 | 21·9 | 21·7 | 21·0 | 17·5 | 17·4 | 20·4 | 24·5 | 27·5 | 31·1 | 30·4 | 28·1 | 25·5 | 23·7 | 22·2 | 22·1 | 23·3 | 23·7 | 23·9 | 24·5 | 22·9 | 23·5 |
| 12 | 22·8 | 22·9 | 20·8 | 20·2 | 19·7 | 19·5 | 17·7 | 16·4 | 16·4 | 19·5 | 23·5 | 27·9 | 29·1 | 31·4 | 30·4 | 28·1 | 26·5 | 24·6 | 23·5 | 25·4 | 25·4 | 25·5 | 19·9 | 21·8 | 23·3 |
| 13 | 23·3 | 24·9 | 16·4 | 12·8 | 15·0 | 17·6 | 24·3 | 20·9 | 20·5 | 20·7 | 23·0 | 25·8 | 28·9 | 31·0 | 29·8 | 27·5 | 24·5 | 23·5 | 21·8 | 7·1 | 13·1 | 18·5 | 14·6 | 18·7 | 21·0 |
| 14 *d* | 26·1 | 29·1 | 23·4 | 20·9 | 19·6 | 18·9 | 17·2 | 15·9 | 17·1 | 21·4 | 23·9 | 28·5 | 31·9 | 31·7 | 27·8 | 33·8 | 28·4 | 24·6 | 24·2 | 21·5 | 18·5 | 15·8 | 19·4 | 24·2 | 23·5 |
| 15 *d* | 23·0 | 25·3 | 0·2 | 11·8 | 17·7 | 20·1 | 24·7 | 37·9 | 37·8 | 23·4 | 32·1 | 32·4 | 20·9 | 23·3 | 25·6 | 31·1 | 27·4 | 25·8 | 27·6 | 24·2 | 23·0 | 24·1 | 23·9 | 24·0 | 24·5 |
| 16 | 22·9 | 22·1 | 22·3 | 22·6 | 22·7 | 20·1 | 17·4 | 16·5 | 16·8 | 19·2 | 22·5 | 26·4 | 29·2 | 29·8 | 28·5 | 26·4 | 24·9 | 24·7 | 23·7 | 23·9 | 18·1 | 15·9 | 13·0 | 19·8 | 22·1 |
| 17 | 26·9 | 21·7 | 20·7 | 20·0 | 20·6 | 19·3 | 18·1 | 16·5 | 16·9 | 18·5 | 21·7 | 25·7 | 29·2 | 30·1 | 29·4 | 27·6 | 25·7 | 24·3 | 23·4 | 23·3 | 23·4 | 22·9 | 23·1 | 22·1 | 23·0 |
| 18 | 21·6 | 22·9 | 22·8 | 22·8 | 22·1 | 20·5 | 18·7 | 17·7 | 17·7 | 20·7 | 24·6 | 29·1 | 30·5 | 30·3 | 28·7 | 27·1 | 26·2 | 25·2 | 24·9 | 24·2 | 23·0 | 23·7 | 23·4 | 23·3 | 23·8 |
| 19 *q* | 22·9 | 22·0 | 21·4 | 21·1 | 20·6 | 20·4 | 19·6 | 19·6 | 19·1 | 19·7 | 20·7 | 22·0 | 24·6 | 26·3 | 26·3 | 26·4 | 26·5 | 26·0 | 23·7 | 24·5 | 25·1 | 24·9 | 22·2 | 16·2 | 22·6 |
| 20 *q* | 18·9 | 22·6 | 22·9 | 22·3 | 22·3 | 21·2 | 19·8 | 18·2 | 18·2 | 19·5 | 21·2 | 23·9 | 26·9 | 28·4 | 28·5 | 28·2 | 26·5 | 25·4 | 25·7 | 25·6 | 24·6 | 23·9 | 23·7 | 23·0 | 23·4 |
| 21 *q* | 22·5 | 21·7 | 21·4 | 21·0 | 20·3 | 19·1 | 18·1 | 17·4 | 18·2 | 18·7 | 21·5 | 24·9 | 27·8 | 30·5 | 28·6 | 28·0 | 27·0 | 25·8 | 25·3 | 24·4 | 24·3 | 24·4 | 24·5 | 24·5 | 23·3 |
| 22 | 23·5 | 22·8 | 22·1 | 21·0 | 19·9 | 19·6 | 18·5 | 16·9 | 16·9 | 24·3 | 30·5 | 30·7 | 31·7 | 32·4 | 32·2 | 30·4 | 28·2 | 28·3 | 26·7 | 26·3 | 25·0 | 24·9 | 24·1 | 22·0 | 25·0 |
| 23 *d* | 21·8 | 23·2 | 25·8 | 25·8 | 29·7 | 28·3 | 31·8 | 35·1 | 28·7 | 27·2 | 25·0 | 26·0 | 26·8 | 25·1 | 21·8 | 35·9 | 60·9 | 57·3 | 58·8 | 50·0 | 22·9 | 18·8 | 2·1 | −20·2 | *28·6* |
| 24 *d* | −20·4 | −23·0 | −3·2 | −57·9 | −25·1 | 21·1 | 14·5 | 15·5 | 10·8 | 21·5 | 16·9 | 18·0 | 26·8 | 29·8 | 26·4 | 30·1 | 20·6 | 28·3 | 27·9 | 24·4 | 32·1 | 18·2 | 19·3 | 13·8 | *11·9* |
| 25 | 15·3 | 4·2 | 14·8 | 16·2 | 14·0 | 17·7 | 16·3 | 13·7 | 17·2 | 21·0 | 23·3 | 25·5 | 25·7 | 25·6 | 25·2 | 23·7 | 23·0 | 22·6 | 21·2 | 20·5 | 21·3 | 22·1 | 21·8 | 20·8 | 19·7 |
| 26 | 20·7 | 18·5 | 16·9 | 15·7 | 15·1 | 15·8 | 17·6 | 18·8 | 20·6 | 22·8 | 25·2 | 27·1 | 29·2 | 30·0 | 30·1 | 28·8 | 26·2 | 23·6 | 23·6 | 24·4 | 21·9 | 23·3 | 19·7 | 13·3 | 22·0 |
| 27 | 4·9 | 2·7 | 15·5 | 19·0 | 18·1 | 18·2 | 18·2 | 18·7 | 19·3 | 20·9 | 22·9 | 25·1 | 26·6 | 26·8 | 27·2 | 26·8 | 25·7 | 25·1 | 24·2 | 22·4 | 21·7 | 22·0 | 22·1 | 21·5 | 20·7 |
| 28 | 18·9 | 18·1 | 16·4 | 16·1 | 17·9 | 16·9 | 16·9 | 15·9 | 15·7 | 18·6 | 20·1 | 24·1 | 28·2 | 29·3 | 29·7 | 30·0 | 28·5 | 25·3 | 27·1 | 27·7 | 14·7 | 17·5 | 20·5 | 20·9 | 21·5 |
| 29 | 20·7 | 20·6 | 20·5 | 19·8 | 18·7 | 16·8 | 14·5 | 12·8 | 19·0 | 20·6 | 24·9 | 29·0 | 30·7 | 28·5 | 26·5 | 25·8 | 24·4 | 24·2 | 21·6 | 21·9 | 22·5 | 18·6 | 17·0 | 20·9 | 21·7 |
| 30 *q* | 24·4 | 25·0 | 23·5 | 19·9 | 18·4 | 16·8 | 14·6 | 13·5 | 14·6 | 18·3 | 21·7 | 25·7 | 30·5 | 30·9 | 29·5 | 28·4 | 26·4 | 25·4 | 23·9 | 22·8 | 22·5 | 22·4 | 21·9 | 21·7 | 22·6 |
| Mean | 19·4 | 19·1 | 19·0 | *16·9* | 18·2 | 19·2 | 18·6 | 18·3 | 18·6 | 20·4 | 23·5 | 27·0 | 29·0 | *30·3* | 29·2 | 28·9 | 27·4 | 25·9 | 25·1 | 23·9 | 22·6 | 21·5 | 19·5 | 18·9 | 22·5 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

24 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 956 | 886 | 949 | 992 | 998 | 999 | 1002 | 1002 | 1013 | 1006 | 1010 | 1018 | 1013 | 1015 | 1022 | 1030 | 1032 | 1025 | 1023 | 1014 | 1015 | 997 | 960 | 945 | 997 |
| 2 | 957 | 933 | 972 | 981 | 972 | 960 | 966 | 976 | 981 | 998 | 1009 | 1014 | 1025 | 1040 | 1048 | 1036 | 1052 | 1056 | 1026 | 1009 | 1004 | 944 | 974 | 982 | 996 |
| 3 | 999 | 1009 | 1014 | 1014 | 1014 | 1013 | 1010 | 1009 | 1009 | 1009 | 1004 | 1008 | 1009 | 1009 | 1014 | 1023 | 1036 | 1041 | 1046 | 1040 | 1030 | 1019 | 1008 | 1003 | 1016 |
| 4 | 1006 | 1006 | 994 | 987 | 1003 | 1005 | 1009 | 1009 | 1004 | 1004 | 1002 | 998 | 1002 | 1003 | 1008 | 1026 | 1031 | 1025 | 1015 | 1013 | 1008 | 1004 | 1009 | 1005 | 1007 |
| 5 | 996 | 993 | 1002 | 1004 | 1009 | 1012 | 1014 | 1014 | 1012 | 1004 | 1003 | 993 | 991 | 994 | 1006 | 1026 | 1052 | 1085 | 1094 | 1074 | 1040 | 1022 | 1012 | 1003 | 1019 |
| 6 | 994 | 968 | 976 | 986 | 996 | 998 | 1001 | 1003 | 998 | 998 | 997 | 998 | 998 | 1002 | 1014 | 1019 | 1031 | 1037 | 1039 | 1041 | 1026 | 1028 | 1015 | 998 | 1007 |
| 7 | 997 | 993 | 982 | 961 | 950 | 966 | 975 | 981 | 987 | 990 | 993 | 997 | 997 | 1004 | 1023 | 1051 | 1057 | 1037 | 1024 | 1017 | 1019 | 1009 | 1004 | 1004 | 1001 |
| 8 | 1002 | 1002 | 1002 | 1002 | 1003 | 1003 | 1007 | 1003 | 998 | 1002 | 1004 | 1003 | 1003 | 1018 | 1016 | 1012 | 1010 | 1012 | 1016 | 1015 | 1011 | 1009 | 1003 | 994 | 1006 |
| 9 *d* | 986 | 997 | 998 | 994 | 997 | 1002 | 1004 | 1008 | 1004 | 1005 | 1009 | 1012 | 1025 | 1042 | 1079 | 1190 | 1159 | 1111 | 1094 | 1063 | 1040 | 1024 | 983 | 935 | 1032 |
| 10 | 916 | 892 | 979 | 1001 | 1008 | 1009 | 1009 | 1014 | 1018 | 1020 | 1020 | 1024 | 1014 | 1013 | 1009 | 1009 | 1008 | 1007 | 1004 | 1004 | 1006 | 1006 | 997 | 988 | 999 |
| 11 *q* | 993 | 997 | 999 | 1001 | 1002 | 998 | 1000 | 1003 | 1004 | 1000 | 1001 | 998 | 1006 | 1010 | 1011 | 1011 | 1004 | 1007 | 1003 | 1003 | 1003 | 1003 | 1003 | 998 | 1002 |
| 12 | 999 | 995 | 998 | 998 | 1000 | 1000 | 1002 | 1003 | 1004 | 1003 | 999 | 1004 | 999 | 997 | 1003 | 1010 | 1007 | 1000 | 1000 | 998 | 998 | 992 | 988 | 999 | 1000 |
| 13 | 994 | 963 | 917 | 949 | 976 | 977 | 977 | 967 | 977 | 989 | 989 | 993 | 1002 | 1003 | 1013 | 1016 | 1031 | 1042 | 1041 | 1009 | 982 | 988 | 955 | 924 | *986* |
| 14 *d* | 912 | 933 | 974 | 993 | 998 | 1002 | 1003 | 1001 | 995 | 990 | 993 | 1003 | 1018 | 1049 | 1116 | 1068 | 1059 | 1052 | 1039 | 1038 | 1025 | 966 | 909 | 907 | 1002 |
| 15 *d* | 903 | 900 | 836 | 844 | 905 | 944 | 959 | 959 | 959 | 1011 | 1061 | 1051 | 1137 | 1153 | 1154 | 1115 | 1083 | 1067 | 1066 | 987 | 1008 | 1008 | 1002 | 997 | 1005 |
| 16 | 1001 | 1007 | 1007 | 1002 | 997 | 1003 | 1012 | 1012 | 1011 | 1010 | 1010 | 1011 | 1013 | 1013 | 1018 | 1019 | 1024 | 1017 | 1013 | 1013 | 1002 | 976 | 944 | 947 | 1003 |
| 17 | 931 | 938 | 983 | 997 | 1002 | 1002 | 1002 | 1002 | 1002 | 997 | 997 | 997 | 1004 | 1014 | 1007 | 1007 | 1007 | 1007 | 1006 | 1003 | 1001 | 998 | 997 | 997 | 996 |
| 18 | 996 | 1000 | 999 | 1002 | 996 | 1000 | 1003 | 1007 | 1003 | 1007 | 1002 | 996 | 994 | 996 | 1002 | 1012 | 1010 | 1006 | 1006 | 1009 | 1008 | 1002 | 997 | 997 | 1002 |
| 19 *q* | 997 | 997 | 1000 | 1002 | 1002 | 1000 | 997 | 994 | 993 | 992 | 992 | 991 | 988 | 989 | 992 | 996 | 997 | 1002 | 1016 | 1009 | 1005 | 999 | 993 | 978 | 997 |
| 20 *q* | 986 | 993 | 996 | 997 | 997 | 996 | 997 | 998 | 999 | 999 | 997 | 993 | 992 | 991 | 992 | 997 | 1018 | 1023 | 1010 | 1004 | 1001 | 997 | 996 | 995 | 999 |
| 21 *q* | 996 | 997 | 997 | 997 | 999 | 1001 | 1002 | 1000 | 997 | 993 | 992 | 987 | 985 | 987 | 994 | 992 | 993 | 997 | 1003 | 1008 | 1003 | 997 | 995 | 992 | 996 |
| 22 | 987 | 991 | 993 | 996 | 997 | 997 | 997 | 992 | 993 | 1001 | 997 | 1001 | 998 | 997 | 1000 | 1002 | 1005 | 1009 | 1011 | 1008 | 1008 | 1002 | 998 | 995 | 999 |
| 23 *d* | 989 | 972 | 952 | 939 | 937 | 946 | 930 | 927 | 953 | 981 | 995 | 1045 | 1101 | 1166 | 1175 | 1024 | 947 | 1060 | 1061 | 1102 | 1156 | 1092 | 1251 | 1510 | *1050* |
| 24 *d* | 1347 | 1143 | 1251 | 899 | 974 | 1001 | 941 | 981 | 998 | 998 | 1037 | 1072 | 1054 | 1061 | 1098 | 1086 | 1083 | 1017 | 1057 | 1033 | 913 | 936 | 947 | 958 | 1037 |
| 25 | 913 | 840 | 861 | 954 | 1002 | 980 | 989 | 1014 | 1027 | 1032 | 1030 | 1034 | 1033 | 1033 | 1033 | 1033 | 1030 | 1029 | 1028 | 1030 | 1028 | 1027 | 1026 | 1027 | 1001 |
| 26 | 1028 | 1027 | 1022 | 1017 | 1016 | 1007 | 998 | 996 | 997 | 997 | 1008 | 1019 | 1019 | 1020 | 1023 | 1022 | 1023 | 1033 | 1026 | 1029 | 1040 | 1030 | 1013 | 955 | 1015 |
| 27 | 896 | 850 | 887 | 971 | 1002 | 1012 | 1010 | 1008 | 1007 | 1012 | 1013 | 1009 | 1008 | 1009 | 1013 | 1018 | 1019 | 1016 | 1015 | 1019 | 1020 | 1018 | 1019 | 1019 | 995 |
| 28 | 1014 | 1006 | 1003 | 1008 | 1013 | 1010 | 1008 | 1008 | 1007 | 1002 | 1003 | 1002 | 1003 | 1010 | 1018 | 1034 | 1057 | 1065 | 1039 | 1062 | 1044 | 1034 | 1028 | 1019 | 1021 |
| 29 | 1015 | 1019 | 1018 | 1015 | 1014 | 1014 | 1012 | 1011 | 1009 | 992 | 998 | 1004 | 1003 | 1004 | 1003 | 1002 | 1004 | 1006 | 1020 | 1014 | 1013 | 1015 | 1017 | 1009 | 1010 |
| 30 *q* | 1003 | 989 | 987 | 1004 | 1009 | 1009 | 1009 | 1005 | 998 | 996 | 993 | 992 | 993 | 999 | 1003 | 1002 | 1004 | 1007 | 1009 | 1013 | 1009 | 1009 | 1006 | 1004 | 1002 |
| Mean | 990 | *975* | 985 | 984 | 993 | 996 | 995 | 997 | 999 | 1001 | 1005 | 1009 | 1014 | 1021 | *1030* | 1030 | 1029 | 1029 | 1028 | 1023 | 1016 | 1005 | 1002 | 1003 | 1007 |

Corrections to be applied to all values, *H*, −6γ; *D*, −4′·4; *V*, −1γ.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

25 LERWICK — APRIL

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 | 19 02 | 403 | 102 | 02 29 | 301 | 12 52 | 34·8 | 6·6 | 21 32 | 28·2 | 15 57 | 1038 | 847 | 02 28 | 191 | 6,2,3,2,2,2,3,3 | 23 | 1 | 81·2 |
| 2 | 20 58 | 406 | 354 | 21 31 | *52* | 21 07 | 38·2 | 6·1 | 21 53 | 32·1 | 17 20 | 1064 | 904 | 21 20 | 160 | 3,3,2,2,3,3,3,5 | 24 | 1 | 81·3 |
| 3 | 17 46 | 421 | 307 | 11 46 | 114 | 13 55 | 31·4 | 16·8 | 08 28 | 14·6 | 18 45 | 1051 | 993 | 00 01 | 58 | 1,0,1,1,2,3,2,2 | 12 | 0 | 81·2 |
| 4 | 21 34 | 385 | 319 | 11 48 | 66 | 12 42 | 32·4 | 13·7 | 21 50 | 18·7 | 16 48 | 1035 | 972 | 03 09 | 63 | 2,2,1,2,2,2,1,3 | 15 | 0 | 81·3 |
| 5 | 17 46 | 421 | 314 | 10 50 | 107 | 17 08 | 37·9 | 14·2 | 08 11 | 23·7 | 18 19 | 1102 | 987 | 12 18 | 115 | 2,1,1,2,3,4,3,3 | 19 | 1 | 81·5 |
| 6 | 18 01 | 400 | 309 | 11 50 | 91 | 13 34 | 36·7 | 13·2 | 22 23 | 23·5 | 19 19 | 1052 | 960 | 01 18 | 92 | 3,2,1,2,2,2,2,3 | 17 | 0 | 81·0 |
| 7 | 14 42 | 396 | 314 | 11 33 | 82 | 14 44 | 38·3 | 8·7 | 03 36 | 29·6 | 16 17 | 1064 | 940 | 04 43 | 124 | 2,3,2,2,3,3,2,2 | 19 | 1 | 80·7 |
| 8 | 23 52 | 409 | 318 | 10 12 | 91 | 12 57 | 33·5 | 19·5 | 08 04 | 14·0 | 13 50 | 1023 | 974 | 24 00 | 49 | 0,0,2,1,2,2,2,2 | 11 | 0 | 80·7 |
| 9 *d* | 15 08 | 646 | 313 | 11 47 | 333 | 13 18 | 37·8 | −4·3 | 22 47 | 42·1 | 15 27 | 1213 | 922 | 23 52 | 291 | 2,1,2,3,5,6,3,4 | 26 | 1 | 80·5 |
| 10 | 22 48 | 394 | 281 | 00 54 | 113 | 00 50 | 30·4 | 15·1 | 07 31 | 15·3 | 11 26 | 1029 | 843 | 01 08 | 186 | 5,1,2,2,1,1,0,2 | 14 | 1 | 79·2 |
| 11 *q* | 23 21 | 390 | 321 | 10 50 | 69 | 12 20 | 32·0 | 15·3 | 07 52 | 16·7 | 15 14 | 1015 | 989 | 00 48 | *26* | 1,0,2,2,1,1,1,1 | 9 | 0 | 78·8 |
| 12 | 21 58 | 443 | 323 | 11 54 | 120 | 13 54 | 35·2 | 13·6 | 22 39 | 21·6 | 15 45 | 1017 | 972 | 22 12 | 45 | 2,2,1,2,3,3,2,3 | 18 | 1 | 79·2 |
| 13 | 19 19 | 459 | 318 | 10 07 | 141 | 13 12 | 32·3 | 0·7 | 19 18 | 31·6 | 18 52 | 1051 | 895 | 23 59 | 156 | 4,3,3,2,2,3,4,4 | 25 | 1 | 79·9 |
| 14 *d* | 13 56 | 563 | 208 | 23 48 | 355 | 13 33 | 38·3 | 12·0 | 21 52 | 26·3 | 14 13 | 1138 | 857 | 23 51 | 281 | 4,2,1,3,6,3,3,5 | 27 | 1 | 80·1 |
| 15 *d* | 13 13 | 642 | 139 | 02 27 | 503 | 19 14 | 62·2 | −11·4 | 02 42 | 73·6 | 12 53 | 1189 | 799 | 02 59 | 390 | 5,4,5,5,5,6,6,1 | 37 | 2 | 80·3 |
| 16 | 20 20 | 385 | 312 | 11 36 | 73 | 13 09 | 30·7 | 7·3 | 22 28 | 23·4 | 16 34 | 1028 | 933 | 23 53 | 95 | 2,2,3,0,2,2,3,3 | 17 | 1 | 81·0 |
| 17 | 23 49 | 382 | 313 | 00 39 | 69 | 00 39 | 33·5 | 15·8 | 07 42 | 17·7 | 13 22 | 1017 | 910 | 01 05 | 107 | 4,1,0,1,2,1,0,0 | 9 | 0 | 81·0 |
| 18 | 18 16 | 400 | 296 | 10 36 | 104 | 12 55 | 31·6 | 15·8 | 08 20 | 15·8 | 15 38 | 1017 | 991 | 12 55 | 26 | 1,2,2,2,2,2,2,0 | 13 | 0 | 80·7 |
| 19 *q* | 17 27 | 412 | 325 | 11 40 | 87 | 17 05 | 27·5 | 14·5 | 23 33 | *13·0* | 18 32 | 1018 | 972 | 23 45 | 46 | 0,0,0,2,1,3,1,3 | 10 | 0 | 80·2 |
| 20 *q* | 16 09 | 395 | 324 | 11 42 | 71 | 14 11 | 29·4 | 16·4 | 00 00 | 13·0 | 17 08 | 1029 | 979 | 00 00 | 50 | 2,0,0,1,2,3,0,0 | 8 | 0 | 80·3 |
| 21 *q* | 18 22 | 400 | 328 | 12 00 | 72 | 13 50 | 31·5 | 16·0 | 07 27 | 15·5 | 19 25 | 1009 | 982 | 12 56 | 27 | 0,1,1,1,2,2,1,0 | 8 | 0 | 80·5 |
| 22 | 18 18 | 439 | 303 | 11 31 | 136 | 10 38 | 34·3 | 11·1 | 07 03 | 23·2 | 18 44 | 1024 | 988 | 08 18 | 36 | 1,2,3,3,2,3,3,1 | 18 | 1 | 80·1 |
| 23 *d* | 15 51 | *1168* | *−1122* | 23 38 | *2290* | 16 56 | *123·0* | *−182·0* | 23 38 | *305·0* | 23 49 | *2168* | 743 | 16 58 | *1425* | 3,3,3,4,7,7,7,9 | 43 | 2 | 80·5 |
| 24 *d* | 16 38 | 642 | −1115 | 00 15 | 1757 | 20 28 | 50·4 | −103·9 | 03 27 | 154·3 | 00 02 | 1871 | *530* | 03 48 | 1341 | 9,7,5,5,4,6,6,4 | 46 | 2 | 80·0 |
| 25 | 18 22 | 374 | 34 | 01 25 | 340 | 12 30 | 26·6 | −14·9 | 01 31 | 41·5 | 11 20 | 1037 | 789 | 02 54 | 248 | 6,4,3,2,0,0,0,1 | 16 | 1 | 79·8 |
| 26 | 18 43 | 405 | 324 | 05 19 | 81 | 14 03 | 30·5 | 9·0 | 23 46 | 21·5 | 20 48 | 1042 | 939 | 23 54 | 103 | 2,2,2,2,1,2,2,4 | 17 | 1 | 78·8 |
| 27 | 19 26 | 381 | 276 | 01 11 | 105 | 13 56 | 27·6 | −0·9 | 01 42 | 28·5 | 20 04 | 1023 | 841 | 01 21 | 182 | 4,1,0,2,1,0,1,1 | 10 | 1 | 79·6 |
| 28 | 19 34 | 470 | 326 | 09 11 | 144 | 15 44 | 33·0 | 8·8 | 20 08 | 24·2 | 19 48 | 1090 | 1001 | 02 00 | 89 | 1,1,0,2,2,3,4,2 | 15 | 1 | 80·0 |
| 29 | 17 38 | 415 | 288 | 08 20 | 127 | 12 34 | 31·8 | 11·3 | 07 19 | 20·5 | 18 41 | 1023 | 992 | 09 25 | 31 | 1,1,3,3,2,3,1,2 | 16 | 1 | 80·0 |
| 30 *q* | 17 44 | 404 | 331 | 10 05 | 73 | 13 07 | 31·9 | 12·6 | 07 17 | 19·3 | 19 39 | 1015 | 979 | 02 10 | 36 | 2,2,1,1,2,1,2,C | 11 | 0 | 81·0 |
| Mean | − − | 462 | 193 | − − | 269 | − − | 37·5 | −0·8 | − − | 38·3 | − − | 1116 | 914 | − − | 202 | − | − | 0·73 | 80·4 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

26 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 373 | 374 | 373 | 372 | 368 | 363 | 339 | 352 | 348 | 329 | 322 | 329 | 339 | 343 | 360 | 381 | 406 | 424 | 435 | 424 | 396 | 365 | 367 | 369 | 369 |
| 2 | 348 | 342 | 355 | 365 | 370 | 371 | 368 | 354 | 343 | 332 | 325 | 317 | 323 | 345 | 357 | 374 | 391 | 415 | 418 | 404 | 395 | 385 | 375 | 379 | 365 |
| 3 | 377 | 367 | 369 | 367 | 370 | 369 | 359 | 346 | 330 | 313 | 312 | 322 | 339 | 355 | 365 | 384 | 395 | 401 | 416 | 417 | 393 | 382 | 377 | 374 | 367 |
| 4 | 382 | 373 | 371 | 377 | 377 | 374 | 375 | 369 | 351 | 325 | 334 | 356 | 352 | 360 | 385 | 396 | 388 | 388 | 417 | 409 | 391 | 381 | 373 | 373 | 374 |
| 5 | 369 | 369 | 370 | 369 | 366 | 371 | 372 | 362 | 348 | 335 | 325 | 323 | 331 | 343 | 357 | 362 | 381 | 388 | 405 | 404 | 418 | 404 | 381 | 381 | 368 |
| 6 *d* | 381 | 375 | 375 | 379 | 397 | 397 | 319 | 353 | 373 | 366 | 353 | 349 | 348 | 349 | 361 | 375 | 404 | 416 | 409 | 396 | 397 | 391 | 417 | 391 | 378 |
| 7 | 409 | 416 | 430 | 403 | 388 | 250 | 148 | 272 | 320 | 314 | 322 | 343 | 313 | 317 | 336 | 362 | 366 | 366 | 378 | 378 | 375 | 379 | 374 | 385 | *348* |
| 8 | 375 | 375 | 359 | 340 | 350 | 314 | 232 | 277 | 332 | 339 | 322 | 318 | 319 | 350 | 353 | 366 | 370 | 379 | 395 | 407 | 409 | 391 | 357 | 351 | 349 |
| 9 *d* | 337 | 332 | 273 | 322 | 249 | 336 | 339 | 294 | 331 | 340 | 329 | 325 | 361 | 447 | 522 | 632 | 580 | 518 | 485 | 394 | 355 | 300 | 225 | 332 | 373 |
| 10 | 348 | 349 | 347 | 353 | 344 | 295 | 296 | 345 | 344 | 322 | 314 | 314 | 331 | 340 | 366 | 390 | 387 | 403 | 403 | 401 | 399 | 396 | 397 | 396 | 357 |
| 11 *d* | 388 | 374 | 303 | 352 | 353 | 361 | 324 | 275 | 206 | 345 | 348 | 354 | 354 | 334 | 368 | 381 | 428 | 478 | 408 | 389 | 380 | 375 | 370 | 375 | 359 |
| 12 | 367 | 366 | 365 | 370 | 372 | 376 | 378 | 369 | 357 | 335 | 323 | 337 | 347 | 349 | 360 | 374 | 383 | 392 | 388 | 398 | 380 | 379 | 374 | 370 | 367 |
| 13 | 358 | 346 | 350 | 337 | 381 | 378 | 374 | 361 | 349 | 346 | 344 | 344 | 351 | 359 | 368 | 368 | 376 | 388 | 387 | 397 | 392 | 388 | 382 | 377 | 367 |
| 14 *q* | 375 | 378 | 379 | 375 | 378 | 376 | 375 | 370 | 364 | 353 | 350 | 353 | 366 | 374 | 381 | 381 | 384 | 388 | 388 | 390 | 394 | 387 | 384 | 383 | 376 |
| 15 *q* | 387 | 385 | 383 | 381 | 376 | 370 | 365 | 354 | 348 | 340 | 329 | 336 | 361 | 361 | 374 | 380 | 389 | 393 | 400 | 403 | 396 | 392 | 392 | 391 | 374 |
| 16 | 387 | 383 | 384 | 383 | 378 | 375 | 381 | 383 | 376 | 362 | 355 | 357 | 379 | 367 | 374 | 388 | 396 | 403 | 420 | 408 | 394 | 389 | 387 | 384 | 383 |
| 17 | 390 | 379 | 388 | 379 | 362 | 388 | 388 | 384 | 372 | 362 | 353 | 349 | 362 | 373 | 393 | 414 | 447 | 449 | 407 | 404 | 391 | 385 | 385 | 384 | *387* |
| 18 | 382 | 383 | 344 | 358 | 374 | 366 | 363 | 353 | 320 | 314 | 331 | 352 | 345 | 357 | 370 | 401 | 403 | 412 | 403 | 396 | 386 | 383 | 381 | 386 | 369 |
| 19 *q* | 383 | 381 | 379 | 379 | 379 | 372 | 366 | 357 | 344 | 331 | 327 | 340 | 348 | 365 | 385 | 390 | 396 | 387 | 394 | 396 | 399 | 394 | 391 | 388 | 374 |
| 20 | 383 | 383 | 382 | 379 | 383 | 383 | 378 | 370 | 359 | 352 | 345 | 344 | 349 | 359 | 372 | 387 | 405 | 413 | 434 | 444 | 435 | 388 | 245 | 335 | 375 |
| 21 | 310 | 266 | 290 | 356 | 368 | 342 | 305 | 306 | 322 | 315 | 317 | 335 | 361 | 359 | 370 | 467 | 462 | 456 | 469 | 452 | 374 | 370 | 374 | 365 | 363 |
| 22 *d* | 366 | 357 | 375 | 308 | 178 | 258 | 229 | 199 | 300 | 332 | 316 | 354 | 370 | 340 | 389 | 434 | 503 | 499 | 450 | 443 | 403 | 369 | 362 | 286 | 351 |
| 23 *d* | 308 | 160 | 310 | 341 | 376 | 372 | 359 | 342 | 316 | 325 | 349 | 349 | 354 | 361 | 364 | 418 | 469 | 525 | 494 | 420 | 400 | 372 | 329 | 303 | 363 |
| 24 | 290 | 342 | 305 | 306 | 306 | 316 | 335 | 346 | 349 | 336 | 331 | 326 | 353 | 369 | 422 | 485 | 483 | 459 | 425 | 415 | 395 | 375 | 350 | 336 | 365 |
| 25 | 356 | 334 | 283 | 344 | 359 | 346 | 350 | 350 | 342 | 339 | 336 | 340 | 347 | 344 | 359 | 409 | 431 | 447 | 440 | 406 | 385 | 381 | 372 | 359 | 365 |
| 26 | 356 | 350 | 330 | 351 | 374 | 369 | 358 | 349 | 340 | 328 | 323 | 340 | 342 | 365 | 382 | 390 | 404 | 403 | 388 | 388 | 391 | 388 | 378 | 372 | 365 |
| 27 *q* | 370 | 372 | 377 | 380 | 379 | 373 | 357 | 349 | 344 | 340 | 337 | 337 | 343 | 351 | 369 | 380 | 385 | 402 | 407 | 411 | 401 | 401 | 375 | 378 | 372 |
| 28 | 375 | 366 | 362 | 365 | 356 | 375 | 366 | 356 | 345 | 332 | 327 | 328 | 348 | 357 | 392 | 418 | 418 | 427 | 418 | 415 | 405 | 384 | 377 | 374 | 374 |
| 29 | 374 | 366 | 362 | 375 | 375 | 361 | 354 | 348 | 336 | 325 | 335 | 353 | 360 | 366 | 371 | 370 | 391 | 409 | 430 | 422 | 412 | 396 | 385 | 381 | 373 |
| 30 *q* | 374 | 378 | 370 | 378 | 378 | 376 | 372 | 365 | 352 | 335 | 331 | 338 | 353 | 370 | 381 | 409 | 406 | 413 | 407 | 409 | 408 | 387 | 370 | 361 | 376 |
| 31 | 344 | 353 | 344 | 348 | 366 | 331 | 359 | 344 | 324 | 340 | 341 | 345 | 354 | 360 | 357 | 372 | 387 | 406 | 426 | 424 | 417 | 400 | 385 | 379 | 367 |
| Mean | 365 | 357 | 354 | 361 | 359 | 355 | 341 | 341 | 339 | 335 | *333* | 339 | 349 | 358 | 376 | 410 | 411 | *412* | 412 | 411 | 396 | 383 | 367 | 368 | 368 |

Corrections to be applied to all values, *H*, $-6\gamma$; *D*, $-4'\cdot4$; *V*, $-1\gamma$.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

27 LERWICK (D) — 11° + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 21·8 | 21·7 | 21·0 | 20·7 | 18·9 | 17·9 | 19·7 | 17·2 | 15·7 | 17·8 | 22·8 | 27·3 | 32·3 | 32·9 | 32·0 | 30·5 | 28·9 | 27·6 | 26·3 | 25·0 | 21·5 | 16·2 | 21·3 | 22·1 | 23·3 |
| 2 | 26·2 | 17·0 | 11·8 | 14·0 | 15·1 | 14·0 | 12·6 | 15·6 | 17·4 | 20·2 | 25·6 | 31·2 | 33·1 | 32·3 | 30·9 | 28·5 | 26·1 | 22·8 | 24·2 | 24·5 | 24·9 | 24·9 | 23·4 | 21·1 | 22·4 |
| 3 | 17·4 | 18·8 | 20·4 | 21·0 | 21·4 | 16·6 | 14·0 | 14·4 | 16·9 | 19·3 | 23·9 | 28·6 | 30·8 | 31·1 | 29·7 | 28·8 | 27·6 | 26·1 | 25·0 | 19·5 | 22·1 | 22·9 | 22·8 | 22·6 | 22·6 |
| 4 | 25·7 | 16·6 | 16·7 | 17·2 | 14·6 | 13·6 | 15·1 | 15·8 | 17·8 | 23·0 | 27·6 | 31·4 | 33·4 | 33·6 | 33·9 | 31·3 | 27·6 | 25·6 | 25·8 | 25·4 | 24·0 | 23·3 | 21·5 | 20·6 | 23·4 |
| 5 | 21·2 | 20·7 | 20·0 | 18·8 | 16·9 | 16·5 | 14·7 | 14·8 | 16·3 | 19·2 | 22·8 | 25·7 | 28·0 | 29·7 | 30·3 | 28·5 | 27·5 | 25·9 | 25·1 | 25·0 | 26·6 | 23·2 | 16·4 | 21·1 | 22·3 |
| 6 *d* | 22·9 | 20·4 | 25·6 | 25·6 | 19·1 | 20·6 | 29·9 | 34·1 | 26·1 | 22·5 | 23·8 | 29·0 | 29·9 | 29·3 | 27·5 | 27·3 | 27·9 | 27·5 | 26·7 | 24·4 | 23·9 | 25·1 | 13·9 | 15·6 | 24·9 |
| 7 | 21·4 | 19·9 | 19·7 | 19·6 | 19·2 | 32·5 | 37·7 | 20·6 | 18·5 | 17·3 | 21·1 | 26·4 | 29·7 | 30·5 | 29·9 | 29·7 | 28·8 | 26·6 | 25·6 | 23·0 | 22·7 | 23·6 | 22·8 | 21·3 | 24·5 |
| 8 | 22·5 | 23·3 | 24·5 | 24·9 | 27·6 | 29·6 | 40·9 | 37·5 | 26·8 | 19·7 | 21·7 | 23·3 | 26·6 | 26·6 | 27·9 | 27·7 | 26·6 | 24·8 | 22·4 | 22·8 | 18·7 | 20·0 | 17·6 | 17·7 | *25·1* |
| 9 *d* | 20·2 | 15·9 | 16·7 | 21·7 | 14·1 | 12·4 | 17·1 | 20·5 | 23·2 | 20·2 | 21·5 | 24·7 | 24·6 | 21·7 | 21·9 | 29·1 | 25·0 | 30·5 | 22·7 | 23·4 | 21·7 | 21·3 | 21·5 | 17·8 | 21·2 |
| 10 | 18·4 | 18·2 | 15·7 | 17·3 | 15·7 | 18·9 | 28·8 | 21·6 | 17·9 | 21·2 | 23·6 | 26·9 | 28·7 | 31·7 | 32·5 | 31·6 | 27·2 | 27·8 | 27·6 | 23·8 | 21·9 | 23·8 | 23·7 | 23·4 | 23·7 |
| 11 *d* | 22·5 | 25·6 | 25·7 | 14·0 | 20·1 | 19·2 | 22·9 | 20·1 | 14·8 | 31·1 | 25·5 | 28·6 | 32·3 | 31·4 | 29·4 | 30·0 | 21·9 | 18·7 | 22·8 | 24·5 | 23·8 | 22·5 | 23·2 | 22·6 | 23·9 |
| 12 | 23·4 | 22·6 | 20·0 | 17·9 | 18·9 | 15·7 | 15·6 | 16·4 | 17·9 | 21·0 | 24·7 | 26·7 | 28·2 | 27·7 | 26·6 | 25·2 | 23·4 | 21·9 | 20·9 | 21·7 | 20·8 | 21·7 | 23·3 | 22·9 | 21·9 |
| 13 | 26·0 | 22·7 | 16·7 | 15·7 | 11·7 | 14·6 | 14·8 | 15·2 | 16·8 | 18·0 | 21·5 | 23·8 | 25·7 | 25·8 | 25·8 | 25·3 | 24·8 | 24·2 | 23·5 | 23·6 | 22·5 | 19·2 | 14·7 | 22·9 | 20·6 |
| 14 *q* | 21·7 | 24·7 | 23·7 | 19·8 | 16·9 | 16·4 | 14·4 | 15·4 | 17·3 | 20·5 | 22·9 | 25·6 | 28·6 | 29·6 | 29·4 | 27·8 | 26·6 | 24·7 | 23·4 | 22·8 | 23·6 | 22·8 | 22·6 | 22·5 | 22·7 |
| 15 *q* | 21·9 | 21·7 | 20·5 | 19·6 | 17·6 | 16·1 | 14·8 | 14·9 | 17·6 | 21·6 | 26·6 | 29·3 | 31·4 | 31·8 | 29·6 | 26·7 | 25·1 | 24·3 | 24·1 | 24·1 | 23·8 | 23·4 | 23·5 | 20·3 | 22·9 |
| 16 | 20·4 | 20·0 | 20·2 | 19·5 | 20·4 | 21·5 | 18·9 | 17·5 | 19·0 | 19·7 | 22·7 | 24·7 | 26·7 | 28·5 | 27·6 | 25·9 | 25·6 | 24·6 | 24·6 | 22·6 | 22·7 | 23·5 | 22·9 | 23·1 | 22·6 |
| 17 | 25·1 | 27·6 | 19·8 | 21·2 | 25·8 | 15·3 | 12·1 | 13·8 | 16·4 | 21·7 | 25·3 | 33·7 | 30·7 | 29·7 | 28·8 | 29·0 | 31·4 | 30·4 | 25·9 | 26·2 | 25·6 | 24·7 | 23·8 | 23·5 | 24·5 |
| 18 | 22·9 | 24·6 | 29·3 | 21·7 | 16·8 | 14·9 | 12·6 | 12·0 | 16·6 | 19·5 | 20·2 | 23·5 | 25·4 | 28·7 | 28·7 | 26·6 | 23·2 | 21·0 | 23·0 | 24·1 | 23·9 | 23·8 | 23·5 | 22·9 | 22·1 |
| 19 *q* | 21·7 | 21·5 | 21·4 | 20·1 | 19·4 | 17·5 | 15·7 | 15·6 | 17·0 | 22·9 | 28·0 | 31·6 | 33·3 | 32·5 | 30·6 | 28·6 | 26·1 | 24·6 | 24·7 | 24·3 | 24·5 | 24·3 | 22·9 | 23·0 | 23·8 |
| 20 | 26·9 | 26·5 | 25·7 | 24·7 | 21·7 | 19·8 | 18·9 | 19·6 | 20·2 | 18·1 | 21·3 | 25·7 | 29·6 | 31·1 | 31·0 | 29·7 | 27·9 | 25·9 | 26·6 | 28·3 | 26·9 | 26·6 | 12·5 | 12·7 | 24·1 |
| 21 | 12·5 | 10·7 | 17·6 | 17·6 | 15·3 | 13·8 | 20·6 | 24·5 | 16·6 | 17·5 | 25·0 | 28·4 | 31·0 | 30·8 | 33·1 | 28·6 | 33·5 | 36·2 | 27·9 | 33·5 | 30·8 | 24·3 | 20·6 | 21·0 | 23·8 |
| 22 *d* | 17·6 | 16·5 | 14·3 | 14·8 | 8·0 | 20·4 | 18·8 | 23·0 | 25·9 | 20·5 | 21·6 | 27·6 | 29·0 | 31·0 | 30·2 | 30·1 | 24·5 | 28·0 | 27·6 | 17·9 | 25·6 | 24·9 | 27·4 | 26·7 | 23·0 |
| 23 *d* | 18·7 | 10·3 | 21·5 | 15·3 | 14·6 | 11·7 | 9·2 | 13·7 | 13·0 | 18·3 | 17·2 | 22·2 | 22·8 | 24·1 | 27·2 | 27·8 | 26·2 | 25·4 | 21·5 | 26·0 | 20·9 | 20·8 | 20·9 | 9·3 | *19·1* |
| 24 | 18·7 | 18·7 | 13·8 | 14·8 | 16·5 | 15·4 | 15·3 | 12·9 | 15·4 | 18·1 | 23·2 | 26·7 | 29·5 | 31·0 | 31·5 | 25·9 | 31·6 | 29·6 | 30·6 | 27·5 | 25·1 | 23·1 | 23·2 | 24·5 | 22·6 |
| 25 | 14·9 | 13·7 | 21·3 | 19·4 | 18·8 | 17·2 | 14·8 | 13·4 | 11·2 | 14·6 | 18·4 | 24·0 | 27·3 | 28·2 | 27·2 | 26·6 | 24·0 | 19·8 | 24·3 | 22·0 | 22·9 | 23·1 | 21·1 | 22·5 | 20·4 |
| 26 | 21·0 | 22·9 | 22·8 | 19·7 | 17·7 | 15·1 | 14·9 | 13·8 | 14·6 | 17·2 | 23·0 | 27·9 | 30·6 | 29·8 | 29·0 | 27·6 | 26·4 | 23·1 | 21·8 | 22·6 | 23·1 | 21·8 | 21·6 | 22·2 | 22·1 |
| 27 *q* | 21·8 | 20·2 | 20·0 | 19·9 | 18·4 | 15·7 | 14·1 | 15·4 | 16·2 | 19·3 | 22·9 | 26·7 | 29·6 | 29·8 | 29·3 | 27·6 | 25·4 | 24·2 | 22·3 | 21·7 | 22·9 | 19·9 | 20·9 | 22·6 | 21·9 |
| 28 | 21·1 | 21·3 | 21·0 | 16·6 | 16·4 | 14·2 | 12·8 | 11·9 | 12·1 | 18·5 | 22·4 | 26·0 | 29·0 | 29·8 | 28·4 | 24·1 | 22·5 | 22·8 | 21·6 | 22·7 | 19·2 | 20·8 | 23·3 | 23·3 | 20·9 |
| 29 | 23·8 | 21·1 | 16·7 | 16·5 | 15·9 | 15·6 | 19·4 | 17·2 | 17·2 | 23·2 | 27·2 | 31·0 | 32·6 | 32·7 | 30·9 | 27·9 | 27·1 | 26·3 | 25·8 | 23·4 | 23·1 | 23·4 | 21·3 | 19·6 | 23·3 |
| 30 *q* | 18·7 | 20·6 | 18·7 | 17·3 | 16·7 | 16·1 | 15·5 | 14·9 | 14·9 | 17·5 | 22·5 | 26·2 | 29·4 | 30·2 | 30·5 | 28·8 | 26·1 | 23·2 | 22·8 | 23·5 | 19·3 | 18·4 | 17·9 | 19·0 | 21·2 |
| 31 | 11·2 | 10·8 | 14·8 | 8·9 | 15·1 | 20·6 | 17·7 | 9·6 | 14·2 | 20·4 | 24·4 | 28·8 | 30·1 | 29·2 | 27·8 | 27·6 | 26·9 | 25·8 | 25·2 | 24·6 | 22·7 | 21·9 | 21·6 | 21·0 | 20·9 |
| Mean | 21·0 | 19·9 | 19·9 | 18·6 | 17·6 | *17·4* | 18·2 | 17·5 | 17·5 | 20·3 | 23·3 | 27·2 | 29·3 | *29·8* | 29·3 | 28·1 | 26·6 | 25·5 | 24·6 | 24·0 | 23·3 | 22·5 | 21·2 | 21·0 | 22·6 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

28 LERWICK (V) — 46,000$\gamma$ (0·46 C.G.S. unit) + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 1007 | 1007 | 1009 | 1009 | 1009 | 1009 | 1007 | 993 | 996 | 996 | 998 | 987 | 990 | 997 | 1003 | 1013 | 1023 | 1033 | 1045 | 1047 | 1032 | 999 | 988 | 987 | *1007* |
| 2 | 976 | 907 | 938 | 972 | 995 | 1002 | 1003 | 1001 | 996 | 997 | 994 | 987 | 987 | 993 | 1003 | 1011 | 1020 | 1029 | 1024 | 1020 | 1014 | 1010 | 1004 | 982 | 994 |
| 3 | 969 | 990 | 1001 | 994 | 983 | 995 | 1003 | 1003 | 998 | 993 | 988 | 982 | 983 | 993 | 999 | 1004 | 1012 | 1022 | 1021 | 1018 | 1015 | 1012 | 1010 | 1005 | 1000 |
| 4 | 973 | 934 | 959 | 976 | 977 | 976 | 979 | 983 | 988 | 988 | 982 | 983 | 990 | 996 | 1010 | 1029 | 1049 | 1048 | 1040 | 1042 | 1043 | 1026 | 1018 | 1010 | 1000 |
| 5 | 1009 | 1005 | 1006 | 1003 | 1003 | 999 | 1002 | 1003 | 997 | 995 | 991 | 983 | 982 | 979 | 983 | 994 | 1001 | 1010 | 1008 | 1006 | 999 | 996 | 1003 | 994 | 998 |
| 6 *d* | 995 | 989 | 989 | 956 | 947 | 972 | 984 | 923 | 943 | 980 | 997 | 1002 | 995 | 1005 | 1010 | 1011 | 1004 | 1009 | 1011 | 1012 | 1014 | 1011 | 950 | 894 | 983 |
| 7 | 978 | 984 | 984 | 984 | 940 | 939 | 798 | 870 | 960 | 986 | 991 | 997 | 1018 | 1005 | 1011 | 1010 | 1007 | 1004 | 1001 | 1009 | 1013 | 1012 | 1006 | 990 | 979 |
| 8 | 989 | 995 | 1000 | 962 | 934 | 938 | 906 | 891 | 922 | 961 | 978 | 990 | 1014 | 1027 | 1021 | 1009 | 1004 | 1006 | 1025 | 1040 | 1031 | 1006 | 941 | 902 | 979 |
| 9 *d* | 917 | 915 | 808 | 858 | 793 | 876 | 917 | 936 | 943 | 977 | 1014 | 1040 | 1065 | 1122 | 1171 | 1139 | 1104 | 1062 | 1017 | 999 | 994 | 986 | 883 | 947 | 978 |
| 10 | 972 | 982 | 998 | 1008 | 1007 | 975 | 917 | 935 | 973 | 986 | 990 | 1001 | 1003 | 1004 | 1000 | 1011 | 1024 | 1021 | 1012 | 1013 | 1007 | 1003 | 1000 | 999 | 993 |
| 11 *d* | 1007 | 992 | 942 | 900 | 901 | 942 | 951 | 961 | 993 | 950 | 980 | 994 | 991 | 1022 | 1032 | 1048 | 1071 | 1061 | 1052 | 1032 | 1015 | 1014 | 1006 | 1000 | 994 |
| 12 | 1000 | 1000 | 1002 | 1001 | 999 | 1000 | 995 | 999 | 1001 | 1002 | 1001 | 997 | 999 | 1009 | 1008 | 1008 | 1013 | 1012 | 1009 | 1004 | 1008 | 1002 | 999 | 1001 | 1003 |
| 13 | 984 | 940 | 934 | 928 | 956 | 979 | 987 | 993 | 996 | 999 | 996 | 996 | 991 | 995 | 999 | 1004 | 1006 | 1006 | 1007 | 1001 | 1003 | 1005 | 1004 | 994 | 988 |
| 14 *q* | 991 | 983 | 981 | 996 | 1003 | 1001 | 1000 | 999 | 993 | 989 | 986 | 981 | 980 | 982 | 984 | 990 | 993 | 999 | 1000 | 998 | 994 | 998 | 998 | 998 | 992 |
| 15 *q* | 998 | 999 | 1000 | 1002 | 1005 | 1002 | 1003 | 1002 | 996 | 992 | 988 | 984 | 984 | 992 | 996 | 1004 | 1007 | 1006 | 1002 | 1000 | 1001 | 998 | 994 | 993 | 998 |
| 16 | 996 | 1000 | 1002 | 1003 | 1000 | 993 | 985 | 986 | 986 | 989 | 990 | 988 | 989 | 1004 | 994 | 997 | 999 | 1005 | 1012 | 1031 | 1025 | 1009 | 1002 | 1000 | 999 |
| 17 | 995 | 978 | 963 | 967 | 942 | 962 | 983 | 984 | 982 | 985 | 987 | 986 | 990 | 1003 | 1015 | 1035 | 1053 | 1084 | 1071 | 1028 | 1014 | 1005 | 1002 | 1001 | 1001 |
| 18 | 1001 | 999 | 974 | 921 | 927 | 960 | 981 | 993 | 1001 | 989 | 984 | 990 | 1015 | 1015 | 1021 | 1036 | 1052 | 1042 | 1024 | 1009 | 1002 | 997 | 995 | 990 | 997 |
| 19 *q* | 994 | 999 | 1002 | 1004 | 1005 | 1003 | 1002 | 999 | 994 | 986 | 982 | 980 | 984 | 994 | 999 | 1006 | 1008 | 1012 | 1007 | 1005 | 1003 | 1002 | 995 | 994 | 998 |
| 20 | 995 | 996 | 999 | 1000 | 1001 | 1003 | 1003 | 1004 | 1000 | 997 | 994 | 988 | 985 | 989 | 991 | 996 | 996 | 1003 | 1005 | 1006 | 1018 | 1009 | 867 | 907 | 990 |
| 21 | 899 | 839 | 907 | 960 | 998 | 992 | 972 | 959 | 975 | 1013 | 1008 | 1000 | 1005 | 1035 | 1061 | 1081 | 1063 | 1059 | 1065 | 1030 | 999 | 999 | 1011 | 983 | 996 |
| 22 *d* | 965 | 979 | 990 | 967 | 744 | 781 | 871 | 915 | 930 | 967 | 1010 | 1020 | 1079 | 1070 | 1044 | 1041 | 1073 | 1050 | 1045 | 1030 | 1028 | 1021 | 970 | 882 | 978 |
| 23 *d* | 890 | 797 | 836 | 899 | 956 | 997 | 1008 | 1007 | 1009 | 1007 | 1013 | 1017 | 1047 | 1039 | 1012 | 1025 | 1047 | 1031 | 998 | 1004 | 1016 | 998 | 917 | 909 | 978 |
| 24 | 889 | 887 | 902 | 897 | 937 | 952 | 972 | 996 | 1003 | 1004 | 1005 | 1009 | 1012 | 1021 | 1040 | 1066 | 1050 | 1055 | 1040 | 1022 | 1019 | 1013 | 986 | 907 | 987 |
| 25 | 881 | 924 | 900 | 923 | 946 | 967 | 987 | 1003 | 1015 | 1013 | 1005 | 1006 | 1009 | 1006 | 999 | 1001 | 1026 | 1044 | 1025 | 1022 | 1013 | 1000 | 953 | 945 | 984 |
| 26 | 955 | 953 | 926 | 901 | 952 | 987 | 998 | 1004 | 1002 | 998 | 994 | 985 | 988 | 998 | 1005 | 1006 | 1007 | 1013 | 1015 | 1004 | 1001 | 995 | 1000 | 1003 | 987 |
| 27 *q* | 1004 | 999 | 1001 | 1001 | 1000 | 1006 | 1009 | 1008 | 1007 | 1004 | 994 | 994 | 995 | 996 | 994 | 1000 | 1008 | 1008 | 1007 | 1009 | 1012 | 995 | 1005 | 1000 | 1003 |
| 28 | 1000 | 999 | 976 | 969 | 966 | 953 | 964 | 969 | 977 | 978 | 982 | 988 | 995 | 1011 | 1023 | 1043 | 1043 | 1027 | 1026 | 1013 | 995 | 993 | 1000 | 1001 | 995 |
| 29 | 986 | 972 | 975 | 985 | 996 | 995 | 985 | 978 | 979 | 981 | 980 | 986 | 993 | 1004 | 1013 | 1016 | 1008 | 1007 | 1010 | 1025 | 1007 | 995 | 998 | 996 | 995 |
| 30 *q* | 1001 | 983 | 975 | 987 | 1001 | 1004 | 1004 | 1005 | 1004 | 997 | 992 | 982 | 981 | 989 | 997 | 1005 | 1016 | 1023 | 1022 | 1009 | 1012 | 1005 | 1005 | 987 | 999 |
| 31 | 949 | 941 | 931 | 899 | 890 | 901 | 909 | 942 | 956 | 958 | 966 | 978 | 981 | 990 | 1006 | 1018 | 1030 | 1036 | 1035 | 1019 | 1012 | 1016 | 1006 | 998 | *974* |
| Mean | 973 | 963 | 962 | 962 | *958* | 970 | 970 | 976 | 984 | 989 | 992 | 994 | 1001 | 1009 | 1014 | 1021 | 1026 | *1027* | 1022 | 1016 | 1012 | 1004 | 984 | 974 | 992 |

Corrections to be applied to all values, *H*, −6$\gamma$; *D*, −4′·4; *V*, −1$\gamma$.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

29 LERWICK — MAY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 14,000$\gamma$ + | | Minimum 14,000$\gamma$ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000$\gamma$ + | | Minimum 46,000$\gamma$ + | | Range | | | | |
| | h. m. | $\gamma$ | $\gamma$ | h. m. | $\gamma$ | h. m. | ′ | ′ | h. m. | ′ | h. m. | $\gamma$ | $\gamma$ | h. m. | $\gamma$ | | | | °A. |
| 1 | 18 55 | 453 | 321 | 10 52 | 132 | 13 08 | 33·8 | 12·4 | 21 41 | 21·4 | 18 48 | 1054 | 981 | 22 26 | 73 | 0,1,2,2,2,3,3,3 | 16 | 0 | 81·0 |
| 2 | 17 40 | 424 | 314 | 11 43 | 110 | 00 57 | 34·5 | 11·0 | 02 04 | 23·5 | 17 30 | 1030 | 893 | 01 17 | 137 | 4,3,2,2,2,3,2,3 | 21 | 1 | 81·0 |
| 3 | 18 53 | 447 | 310 | 10 23 | 137 | 13 19 | 31·6 | 12·8 | 06 58 | 18·8 | 17 53 | 1025 | 965 | 00 26 | 60 | 2,2,2,2,2,2,3,1 | 16 | 0 | 81·0 |
| 4 | 19 00 | 422 | 316 | 09 31 | 106 | 14 05 | 34·7 | 13·0 | 05 33 | 21·7 | 17 16 | 1055 | 927 | 01 11 | 128 | 3,1,1,3,2,2,2,2 | 16 | 1 | 81·3 |
| 5 | 20 20 | 427 | 320 | 11 20 | 107 | 14 10 | 30·6 | 12·9 | 22 19 | 17·7 | 22 08 | 1014 | 924 | 13 40 | 90 | 0,1,0,1,1,2,2,3 | 10 | 0 | 81·2 |
| 6 *d* | 22 46 | 521 | 241 | 06 50 | 280 | 07 47 | 37·5 | *−21·1* | 22 48 | *58·6* | 17 45 | 1018 | 768 | 23 05 | 250 | 3,4,5,3,2,2,2,6 | 27 | 1 | 80·8 |
| 7 | 02 38 | 444 | 86 | 06 06 | 358 | 06 09 | 51·4 | 7·9 | 08 37 | 43·5 | 12 38 | 1032 | 757 | 06 23 | 275 | 3,6,6,4,4,2,1,2 | 28 | 2 | 81·2 |
| 8 | 20 16 | 430 | 126 | 06 20 | 304 | 06 30 | 49·1 | 12·6 | 23 37 | 36·5 | 19 58 | 1055 | 842 | 06 55 | 213 | 2,5,5,3,3,3,3,4 | 28 | 1 | 82·2 |
| 9 *d* | 15 03 | *745* | 154 | 22 16 | *591* | 16 26 | 48·7 | 7·0 | 18 12 | 41·7 | 15 03 | *1201* | 749 | 04 25 | *452* | 5,5,4,4,6,6,5,5 | 40 | 2 | 82·7 |
| 10 | 22 48 | 420 | 250 | 06 11 | 170 | 14 53 | 33·9 | 14·5 | 02 18 | 19·4 | 16 38 | 1027 | 909 | 06 46 | 118 | 3,3,4,2,3,3,3,2 | 23 | 1 | 83·0 |
| 11 *d* | 17 03 | 517 | 163 | 08 38 | 354 | 09 13 | *55·2* | −3·8 | 08 30 | 56·0 | 16 47 | 1101 | 880 | 09 11 | 221 | 4,4,5,5,4,5,3,2 | 32 | 1 | 83·2 |
| 12 | 19 20 | 413 | 315 | 10 10 | 98 | 12 57 | 29·6 | 12·9 | 06 14 | 16·7 | 17 00 | 1014 | 993 | 11 21 | *21* | 2,2,2,2,2,2,2,1 | 15 | 0 | 83·6 |
| 13 | 20 06 | 403 | 313 | 03 08 | 90 | 00 38 | 28·2 | 10·0 | 04 12 | 18·2 | 18 13 | 1009 | 918 | 03 40 | 91 | 3,3,1,1,1,1,2,3 | 15 | 0 | 83·0 |
| 14 *q* | 20 31 | 397 | 348 | 10 37 | *49* | 14 55 | 30·3 | 13·8 | 06 43 | 16·5 | 05 19 | 1004 | 972 | 02 24 | 32 | 2,2,1,0,1,2,1,0 | 9 | 0 | 82·1 |
| 15 *q* | 19 29 | 409 | 323 | 10 26 | 86 | 13 01 | 32·4 | 14·0 | 07 47 | 18·4 | 16 26 | 1009 | 979 | 12 32 | 30 | 1,1,1,2,2,2,1,2 | 12 | 0 | 81·4 |
| 16 | 18 45 | 430 | 341 | 13 52 | 89 | 13 47 | 29·5 | 16·6 | 07 25 | *12·9* | 19 41 | 1040 | 983 | 07 50 | 57 | 1,2,1,1,3,1,2,2 | 13 | 0 | 81·0 |
| 17 | 17 10 | 486 | 341 | 11 06 | 145 | 17 28 | 34·4 | 10·0 | 06 33 | 24·4 | 17 48 | 1108 | 920 | 04 47 | 188 | 3,3,2,2,3,4,4,1 | 22 | 1 | 81·2 |
| 18 | 17 00 | 426 | 306 | 09 15 | 120 | 02 36 | 28·6 | 9·5 | 06 47 | 19·1 | 16 23 | 1055 | 913 | 03 56 | 142 | 3,3,3,3,3,3,2,1 | 21 | 1 | 81·1 |
| 19 *q* | 16 32 | 403 | 324 | 09 54 | 79 | 12 28 | 33·6 | 14·6 | 06 45 | 19·0 | 17 46 | 1013 | 979 | 11 18 | 34 | 0,1,1,2,2,2,1,1 | 10 | 0 | 83·5 |
| 20 | 19 16 | 455 | 133 | 22 29 | 322 | 14 14 | 31·4 | 3·1 | 22 15 | 28·3 | 21 17 | 1037 | 781 | 22 27 | 256 | 0,1,1,1,1,2,2,6 | 14 | 1 | 84·0 |
| 21 | 15 54 | 517 | 146 | 01 18 | 371 | 20 44 | 46·5 | 0·7 | 01 49 | 45·8 | 15 24 | 1104 | 815 | 01 16 | 289 | 4,3,3,3,3,4,5,4 | 29 | 1 | 83·8 |
| 22 *d* | 17 04 | 547 | 125 | 04 17 | 422 | 23 19 | 39·5 | −6·0 | 04 31 | 45·5 | 16 07 | 1110 | *681* | 04 30 | 429 | 3,6,5,4,4,5,4,5 | 36 | 2 | 83·8 |
| 23 *d* | 17 50 | 581 | *74* | 01 24 | 507 | 17 32 | 33·3 | −1·5 | 01 37 | 34·8 | 12 34 | 1065 | 746 | 01 46 | 319 | 6,5,3,3,3,5,5,5 | 35 | 2 | 83·2 |
| 24 | 15 25 | 509 | 262 | 00 35 | 247 | 14 23 | 36·2 | 6·9 | 00 00 | 29·3 | 15 08 | 1085 | 841 | 01 55 | 244 | 4,4,3,3,4,4,3,5 | 30 | 1 | 82·7 |
| 25 | 17 40 | 455 | 241 | 02 27 | 214 | 02 31 | 29·6 | 7·0 | 00 30 | 22·6 | 17 10 | 1052 | 838 | 00 08 | 214 | 4,4,3,2,2,3,3,4 | 25 | 1 | 84·6 |
| 26 | 16 03 | 413 | 300 | 02 56 | 113 | 12 33 | 31·6 | 11·5 | 06 42 | 20·1 | 17 50 | 1020 | 884 | 03 05 | 136 | 3,4,2,2,3,2,1,1 | 18 | 1 | 84·8 |
| 27 *q* | 21 36 | 420 | 332 | 11 29 | 88 | 14 40 | 29·9 | 13·0 | 06 25 | 16·9 | 19 50 | 1015 | 994 | 14 40 | *21* | 1,1,1,1,2,1,1,3 | 11 | 0 | 84·9 |
| 28 | 17 23 | 431 | 321 | 11 36 | 110 | 14 05 | 30·5 | 9·7 | 08 14 | 20·8 | 15 46 | 1048 | 947 | 05 05 | 101 | 2,2,2,2,3,2,3,2 | 18 | 1 | 85·1 |
| 29 | 19 19 | 439 | 323 | 09 49 | 116 | 13 03 | 33·6 | 14·6 | 05 57 | 19·0 | 19 41 | 1032 | 967 | 01 58 | 65 | 2,2,2,2,2,3,3,2 | 18 | 1 | 85·1 |
| 30 *q* | 20 18 | 422 | 327 | 10 37 | 95 | 14 56 | 31·0 | 13·8 | 24 00 | 17·2 | 17 51 | 1025 | 965 | 02 08 | 60 | 3,2,1,2,2,2,2,3 | 17 | 1 | 86·0 |
| 31 | 18 33 | 439 | 306 | 05 44 | 133 | 12 19 | 31·0 | 1·0 | 03 36 | 30·0 | 18 06 | 1040 | 881 | 03 26 | 159 | 3,4,4,2,2,2,2,2 | 21 | 1 | 86·1 |
| Mean | − − | 459 | 261 | − − | 198 | − − | 35·2 | 8·2 | − − | 26·9 | − − | 1048 | 890 | − − | 158 | − | − | 0·81 | 82·9 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

30 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 379 | 378 | 379 | 375 | 372 | 365 | 370 | 376 | 366 | 351 | 344 | 343 | 350 | 356 | 365 | 376 | 398 | 403 | 410 | 412 | 397 | 388 | 387 | 385 | 376 |
| 2 *q* | 387 | 388 | 367 | 377 | 361 | 388 | 388 | 378 | 365 | 352 | 342 | 338 | 336 | 344 | 357 | 373 | 395 | 418 | 430 | 422 | 409 | 396 | 388 | 387 | 379 |
| 3 *q* | 387 | 388 | 388 | 387 | 388 | 387 | 379 | 370 | 359 | 348 | 339 | 345 | 359 | 371 | 380 | 384 | 390 | 402 | 409 | 403 | 400 | 394 | 391 | 391 | 381 |
| 4 | 391 | 391 | 391 | 392 | 391 | 387 | 379 | 375 | 374 | 356 | 352 | 349 | 364 | 371 | 353 | 384 | 410 | 399 | 407 | 405 | 399 | 393 | 393 | 391 | 383 |
| 5 | 388 | 384 | 387 | 389 | 388 | 383 | 375 | 366 | 356 | 345 | 341 | 344 | 348 | 361 | 375 | 391 | 408 | 414 | 411 | 409 | 440 | 426 | 392 | 392 | 384 |
| 6 | 346 | 392 | 391 | 396 | 395 | 392 | 380 | 366 | 342 | 323 | 323 | 323 | 372 | 346 | 334 | 366 | 379 | 392 | 400 | 409 | 406 | 397 | 396 | 395 | 373 |
| 7 *d* | 395 | 388 | 396 | 395 | 392 | 391 | 388 | 387 | 388 | 379 | 361 | 377 | 340 | 437 | 586 | 525 | 707 | 622 | 477 | 436 | 401 | 366 | 357 | 331 | *426* |
| 8 *d* | 297 | 232 | 194 | 327 | 349 | 353 | 349 | 332 | 332 | 336 | 340 | 327 | 344 | 356 | 411 | 345 | 401 | 401 | 413 | 415 | 423 | 413 | 390 | 379 | 352 |
| 9 | 366 | 383 | 351 | 293 | 311 | 323 | 335 | 338 | 347 | 335 | 336 | 344 | 374 | 409 | 403 | 461 | 456 | 431 | 411 | 395 | 386 | 383 | 381 | 374 | 372 |
| 10 | 370 | 371 | 374 | 375 | 375 | 367 | 357 | 350 | 347 | 336 | 334 | 344 | 357 | 350 | 375 | 396 | 455 | 388 | 418 | 412 | 396 | 387 | 379 | 377 | 375 |
| 11 | 379 | 384 | 388 | 382 | 366 | 372 | 364 | 344 | 336 | 336 | 340 | 349 | 335 | 366 | 361 | 377 | 404 | 400 | 407 | 412 | 407 | 404 | 400 | 400 | 375 |
| 12 *d* | 400 | 399 | 400 | 405 | 392 | 387 | 390 | 379 | 366 | 349 | 344 | 359 | 356 | 372 | 476 | 549 | 547 | 539 | 493 | 439 | 392 | 377 | 344 | 353 | 409 |
| 13 | 358 | 332 | 347 | 364 | 366 | 349 | 356 | 366 | 357 | 334 | 315 | 332 | 361 | 333 | 367 | 392 | 419 | 420 | 415 | 417 | 406 | 392 | 384 | 383 | 369 |
| 14 | 383 | 384 | 385 | 383 | 380 | 367 | 362 | 349 | 342 | 352 | 353 | 356 | 369 | 373 | 381 | 409 | 430 | 435 | 441 | 428 | 394 | 381 | 378 | 373 | 383 |
| 15 | 375 | 378 | 380 | 381 | 379 | 379 | 368 | 336 | 349 | 344 | 340 | 349 | 353 | 367 | 380 | 374 | 392 | 408 | 413 | 419 | 422 | 400 | 392 | 389 | 378 |
| 16 | 387 | 387 | 383 | 385 | 392 | 388 | 377 | 353 | 334 | 344 | 324 | 336 | 334 | 369 | 353 | 387 | 415 | 448 | 440 | 468 | 439 | 378 | 340 | 234 | 375 |
| 17 | -121 | 96 | 135 | 330 | 334 | 286 | 353 | 361 | 346 | 339 | 327 | 331 | 328 | 340 | 364 | 376 | 389 | 393 | 409 | 409 | 404 | 400 | 396 | 374 | *321* |
| 18 | 354 | 297 | 318 | 375 | 366 | 362 | 366 | 358 | 337 | 317 | 306 | 327 | 339 | 352 | 375 | 415 | 465 | 508 | 471 | 441 | 417 | 382 | 345 | 273 | 369 |
| 19 *d* | 306 | 199 | 320 | 328 | 339 | 312 | 313 | 325 | 281 | 283 | 284 | 322 | 345 | | | | | | | | | | | | |
| 20 | 327 | 327 | 351 | 343 | 351 | 366 | 359 | 346 | 329 | 321 | 327 | 332 | 344 | 383 | 404 | 404 | 404 | 404 | 409 | 426 | 410 | 388 | 373 | 370 | 367 |
| 21 | 364 | 336 | 343 | 345 | 363 | 359 | 358 | 321 | 327 | 343 | 342 | 342 | 343 | 351 | 362 | 382 | 396 | 395 | 417 | 434 | 426 | 404 | 381 | 351 | 366 |
| 22 | 335 | 343 | 354 | 366 | 373 | 372 | 358 | 354 | 349 | 343 | 343 | 342 | 343 | 366 | 358 | 373 | 404 | 395 | 396 | 432 | 407 | 388 | 375 | 370 | 368 |
| 23 *q* | 366 | 366 | 366 | 373 | 373 | 366 | 351 | 328 | 342 | 343 | 328 | 323 | 335 | 350 | 359 | 373 | 373 | 381 | 381 | 381 | 380 | 376 | 374 | 373 | 361 |
| 24 *q* | 374 | 376 | 381 | 381 | 381 | 374 | 367 | 365 | 362 | 365 | 358 | 357 | 358 | 366 | 373 | 381 | 388 | 395 | 403 | 398 | 397 | 396 | 394 | 388 | 378 |
| 25 | 381 | 388 | 388 | 385 | 381 | 383 | 373 | 366 | 358 | 343 | 351 | 349 | 343 | 343 | 357 | 389 | 440 | 434 | 434 | 395 | 378 | 374 | 380 | 381 | 379 |
| 26 | 381 | 380 | 367 | 373 | 359 | 366 | 364 | 354 | 343 | 335 | 336 | 338 | 350 | 364 | 441 | 470 | 494 | 471 | 426 | 411 | 395 | 388 | 388 | 373 | 386 |
| 27 | 378 | 379 | 382 | 388 | 388 | 388 | 366 | 330 | 325 | 343 | 366 | 367 | 372 | 366 | 377 | 380 | 397 | 412 | 419 | 453 | 434 | 434 | 422 | 396 | 386 |
| 28 | 397 | 402 | 397 | 402 | 398 | 394 | 378 | 365 | 358 | 354 | 350 | 358 | 365 | 381 | 388 | 397 | 410 | 425 | 434 | 427 | 419 | 394 | 381 | 374 | 389 |
| 29 *d* | 387 | 388 | 387 | 379 | 388 | 358 | 351 | 339 | 336 | 335 | 342 | 366 | 402 | 434 | 494 | 591 | 637 | 554 | 456 | 411 | 319 | 291 | 348 | 358 | 402 |
| 30 *q* | 354 | 366 | 366 | 366 | 359 | 365 | 358 | 343 | 336 | 327 | 321 | 329 | 343 | 336 | 365 | 388 | 389 | 403 | 404 | 397 | 402 | 388 | 385 | 381 | 365 |
| Mean | 354 | 359 | 360 | 373 | 373 | 369 | 366 | 355 | 348 | 342 | *339* | 344 | 353 | 366 | 389 | 407 | *434* | 431 | 423 | 418 | 404 | 389 | 381 | 369 | 377 |

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

Corrections to be applied to all values, *H*, $-6\gamma$; *D*, $-4'\cdot4$; *V*, $-1\gamma$.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

31 LERWICK (D) — 11° + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 21·7 | 19·9 | 19·1 | 18·8 | 17·9 | 18·9 | 16·1 | 11·5 | 10·9 | 19·6 | 18·9 | 22·5 | 25·9 | 28·7 | 29·7 | 28·8 | 27·0 | 25·4 | 23·3 | 20·9 | 23·3 | 23·1 | 22·7 | 23·1 | 21·4 |
| 2 *q* | 21·3 | 23·1 | 25·2 | 22·7 | 18·9 | 14·8 | 13·7 | 13·8 | 14·2 | 14·7 | 18·0 | 22·1 | 26·0 | 28·5 | 29·4 | 28·2 | 27·1 | 25·5 | 25·0 | 23·9 | 24·5 | 23·7 | 23·5 | 22·8 | 22·1 |
| 3 *q* | 22·0 | 21·9 | 20·8 | 19·6 | 17·7 | 15·3 | 13·6 | 12·0 | 13·5 | 18·1 | 23·0 | 26·6 | 28·7 | 30·4 | 29·6 | 28·3 | 26·0 | 24·3 | 23·0 | 22·5 | 22·7 | 22·8 | 22·6 | 22·1 | 22·0 |
| 4 | 22·3 | 22·4 | 21·9 | 19·9 | 18·8 | 14·6 | 10·9 | 11·2 | 13·5 | 16·5 | 20·8 | 25·9 | 29·4 | 30·9 | 31·8 | 30·9 | 29·3 | 25·9 | 25·0 | 24·6 | 23·9 | 23·8 | 23·4 | 22·7 | 22·5 |
| 5 | 21·9 | 21·5 | 20·0 | 18·9 | 17·5 | 16·0 | 15·1 | 14·2 | 14·5 | 17·2 | 20·8 | 24·8 | 28·7 | 29·9 | 29·8 | 27·9 | 25·8 | 24·0 | 23·2 | 23·7 | 27·3 | 23·0 | 21·1 | 21·7 | 22·0 |
| 6 | 24·6 | 22·1 | 16·1 | 14·5 | 14·8 | 13·5 | 13·0 | 12·5 | 14·9 | 19·5 | 23·5 | 28·9 | 30·1 | 31·0 | 30·9 | 28·8 | 25·4 | 23·0 | 22·9 | 22·9 | 23·6 | 23·2 | 22·9 | 22·9 | 21·9 |
| 7 *d* | 26·2 | 26·1 | 21·3 | 19·9 | 19·0 | 17·0 | 16·4 | 16·5 | 18·1 | 16·7 | 23·3 | 25·5 | 32·4 | 27·7 | 28·0 | 29·8 | 36·5 | 33·8 | 31·7 | 30·6 | 20·7 | 24·3 | 22·5 | 19·9 | 24·3 |
| 8 *d* | 20·7 | 20·9 | 24·0 | 22·7 | 18·5 | 13·1 | 13·3 | 14·3 | 17·7 | 17·6 | 18·8 | 27·6 | 31·0 | 33·4 | 37·9 | 32·5 | 33·1 | 26·9 | 27·7 | 26·9 | 28·5 | 27·5 | 17·7 | 17·2 | 23·7 |
| 9 | 19·3 | 19·8 | 25·6 | 17·2 | 18·9 | 21·4 | 23·1 | 22·8 | 23·5 | 23·8 | 23·1 | 24·7 | 26·9 | 26·4 | 26·0 | 27·5 | 26·3 | 26·2 | 24·4 | 22·7 | 23·9 | 24·0 | 22·0 | 23·0 | 23·4 |
| 10 | 21·4 | 20·6 | 18·8 | 17·6 | 15·6 | 14·2 | 13·9 | 14·7 | 16·9 | 19·6 | 21·9 | 24·7 | 27·7 | 28·1 | 28·5 | 27·7 | 24·9 | 23·5 | 26·3 | 25·2 | 24·8 | 24·0 | 22·9 | 21·9 | 21·9 |
| 11 | 21·7 | 21·1 | 20·1 | 19·9 | 21·6 | 19·1 | 18·6 | 16·6 | 19·5 | 22·0 | 24·1 | 25·9 | 28·5 | 27·3 | 27·2 | 25·5 | 24·9 | 24·5 | 23·3 | 24·3 | 24·2 | 23·5 | 22·8 | 22·4 | 22·9 |
| 12 *d* | 22·5 | 22·4 | 22·6 | 20·5 | 21·6 | 17·6 | 11·9 | 16·6 | 17·5 | 19·6 | 23·5 | 23·4 | 29·6 | 30·2 | 29·8 | 19·2 | 26·6 | 30·7 | 28·1 | 24·9 | 23·7 | 21·1 | 16·6 | 21·2 | 22·6 |
| 13 | 16·0 | 13·6 | 11·9 | 10·1 | 16·9 | 19·9 | 15·1 | 13·7 | 16·2 | 18·7 | 20·5 | 24·1 | 25·9 | 27·1 | 26·1 | 25·8 | 23·9 | 24·9 | 23·5 | 23·1 | 23·4 | 22·8 | 21·9 | 21·1 | 20·3 |
| 14 | 20·0 | 19·8 | 18·8 | 16·3 | 16·6 | 18·8 | 17·9 | 20·5 | 22·6 | 24·1 | 24·0 | 26·1 | 27·8 | 27·2 | 26·9 | 25·9 | 26·3 | 24·9 | 25·0 | 24·3 | 24·0 | 24·2 | 23·6 | 22·0 | 22·8 |
| 15 | 21·0 | 21·0 | 20·9 | 21·5 | 21·6 | 19·3 | 18·4 | 20·5 | 19·8 | 20·7 | 22·7 | 26·6 | 29·3 | 30·1 | 29·9 | 28·9 | 27·1 | 24·1 | 23·1 | 22·2 | 21·8 | 24·1 | 23·4 | 23·6 | 23·4 |
| 16 | 23·9 | 22·0 | 19·9 | 19·5 | 16·8 | 14·7 | 14·5 | 13·3 | 17·5 | 17·1 | 17·9 | 24·2 | 27·5 | 29·0 | 29·9 | 28·2 | 27·3 | 26·6 | 23·9 | 24·4 | 22·0 | 23·2 | 20·8 | 7·2 | 21·3 |
| 17 | -11·1 | 0·6 | 10·6 | 3·7 | 12·7 | 16·3 | 15·8 | 10·6 | 11·2 | 14·9 | 19·8 | 24·6 | 27·0 | 29·9 | 30·7 | 29·9 | 28·7 | 25·6 | 25·0 | 23·7 | 24·2 | 24·9 | 15·6 | 22·7 | *18·2* |
| 18 | 22·1 | 24·0 | 20·6 | 14·9 | 13·3 | 13·5 | 11·3 | 11·7 | 13·7 | 17·4 | 18·4 | 22·1 | 26·0 | 28·8 | 30·1 | 30·3 | 29·9 | 29·9 | 26·0 | 27·6 | 26·0 | 18·6 | 16·0 | 15·6 | 21·2 |
| 19 *d* | 15·4 | 16·8 | 11·7 | 14·8 | 9·5 | 12·1 | 17·8 | 18·0 | 17·8 | 22·9 | 27·8 | 28·0 | 27·8 | | | | | | | | | | | | |
| 20 | 21·9 | 22·1 | 16·2 | 18·0 | 16·2 | 15·8 | 13·7 | 13·3 | 16·4 | 20·1 | 22·1 | 25·6 | 26·2 | 28·0 | 28·2 | 28·0 | 26·0 | 26·2 | 26·8 | 24·3 | 26·4 | 26·6 | 24·6 | 23·5 | 22·3 |
| 21 | 24·1 | 23·9 | 22·5 | 20·7 | 22·7 | 25·4 | 18·2 | 15·6 | 21·9 | 21·7 | 21·7 | 23·5 | 26·6 | 28·4 | 27·8 | 28·4 | 27·0 | 23·3 | 26·0 | 27·8 | 26·4 | 21·1 | 23·9 | 20·7 | 23·7 |
| 22 | 16·0 | 17·4 | 18·0 | 19·7 | 19·5 | 19·2 | 18·2 | 19·2 | 20·5 | 20·5 | 23·1 | 27·0 | 28·4 | 30·7 | 31·5 | 29·4 | 30·3 | 26·2 | 26·2 | 24·8 | 25·8 | 23·7 | 23·9 | 23·5 | 23·4 |
| 23 *q* | 22·3 | 21·9 | 20·7 | 19·5 | 19·0 | 17·6 | 17·2 | 20·3 | 22·1 | 21·5 | 22·1 | 25·4 | 28·6 | 29·9 | 29·7 | 28·4 | 26·6 | 26·4 | 26·4 | 26·2 | 26·2 | 25·0 | 24·1 | 23·9 | 23·8 |
| 24 *q* | 23·9 | 24·3 | 24·1 | 23·5 | 22·1 | 21·7 | 21·9 | 22·1 | 22·1 | 21·9 | 23·9 | 28·2 | 31·5 | 33·1 | 32·1 | 30·5 | 28·8 | 28·4 | 25·1 | 24·1 | 24·7 | 24·3 | 23·1 | 23·5 | *25·4* |
| 25 | 23·3 | 21·0 | 20·2 | 20·2 | 22·4 | 16·7 | 12·9 | 16·3 | 14·5 | 20·6 | 22·4 | 24·5 | 27·5 | 28·4 | 26·9 | 26·9 | 28·4 | 23·5 | 23·9 | 24·5 | 25·5 | 25·5 | 24·9 | 24·5 | 22·7 |
| 26 | 23·7 | 22·4 | 20·8 | 22·4 | 24·5 | 22·8 | 19·0 | 16·7 | 18·4 | 20·6 | 23·3 | 27·5 | 30·6 | 31·4 | 33·5 | 31·6 | 28·6 | 29·7 | 22·4 | 25·5 | 26·5 | 26·3 | 26·5 | 21·8 | 24·6 |
| 27 | 23·7 | 22·4 | 20·4 | 18·6 | 18·6 | 20·4 | 20·2 | 25·3 | 25·3 | 26·3 | 22·6 | 22·4 | 24·9 | 27·3 | 30·0 | 28·6 | 26·3 | 27·5 | 28·8 | 30·2 | 22·8 | 23·3 | 23·7 | 17·3 | 24·0 |
| 28 | 19·2 | 18·8 | 18·4 | 18·8 | 16·7 | 15·3 | 16·7 | 20·6 | 20·2 | 20·4 | 20·8 | 23·3 | 27·1 | 30·6 | 31·2 | 31·6 | 30·8 | 30·4 | 30·2 | 29·6 | 27·4 | 20·8 | 22·6 | 20·4 | 23·4 |
| 29 *d* | 16·7 | 15·9 | 16·3 | 13·7 | 9·0 | 10·6 | 8·4 | 14·3 | 20·2 | 20·6 | 25·7 | 29·6 | 36·9 | 38·8 | 39·0 | 39·2 | 39·8 | 36·9 | 42·0 | 29·0 | 22·0 | 15·9 | 21·0 | 22·8 | 24·3 |
| 30 *q* | 21·0 | 18·4 | 17·3 | 17·1 | 17·3 | 17·1 | 18·6 | 18·0 | 18·2 | 18·6 | 22·0 | 25·9 | 28·6 | 29·6 | 29·0 | 28·6 | 27·1 | 25·7 | 24·1 | 24·5 | 26·1 | 25·1 | 25·5 | 25·3 | 22·9 |
| Mean | 20·5 | 20·4 | 19·8 | 18·3 | 18·2 | 17·3 | *15·8* | 16·2 | 17·7 | 19·5 | 21·8 | 25·3 | 28·5 | 29·7 | *30·0* | 28·8 | 28·1 | 26·5 | 25·9 | 25·1 | 24·6 | 23·4 | 22·3 | 21·4 | 22·7 |

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

32 LERWICK (V) — 46,000$\gamma$ (0·46 C.G.S. unit) + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 982 | 977 | 990 | 992 | 997 | 1002 | 994 | 990 | 996 | 996 | 996 | 996 | 999 | 999 | 994 | 997 | 1006 | 1017 | 1020 | 1026 | 1017 | 1011 | 1006 | 1003 | 1000 |
| 2 *q* | 1000 | 1003 | 1014 | 1008 | 1023 | 1020 | 1020 | 1020 | 1017 | 997 | 997 | 991 | 989 | 991 | 995 | 998 | 1004 | 1019 | 1022 | 1022 | 1018 | 1012 | 1004 | 1001 | 1008 |
| 3 *q* | 1001 | 1000 | 1004 | 1007 | 1009 | 1010 | 1010 | 1008 | 1003 | 988 | 981 | 977 | 981 | 985 | 995 | 997 | 1001 | 1004 | 1002 | 1000 | 999 | 999 | 994 | 993 | 998 |
| 4 | 993 | 993 | 994 | 997 | 998 | 1000 | 1003 | 994 | 983 | 984 | 979 | 975 | 987 | 999 | 1007 | 1006 | 1015 | 1019 | 1007 | 1001 | 999 | 996 | 995 | 994 | 996 |
| 5 | 994 | 995 | 996 | 998 | 999 | 1000 | 999 | 998 | 994 | 993 | 992 | 989 | 986 | 982 | 984 | 988 | 996 | 1009 | 1012 | 1009 | 993 | 982 | 956 | 957 | 992 |
| 6 | 933 | 946 | 978 | 991 | 998 | 996 | 999 | 1000 | 996 | 988 | 986 | 991 | 999 | 1024 | 1027 | 1015 | 1009 | 1004 | 996 | 999 | 1000 | 1000 | 996 | 994 | 994 |
| 7 *d* | 990 | 969 | 983 | 993 | 997 | 997 | 997 | 991 | 987 | 993 | 993 | 989 | 1007 | 1028 | 1172 | 1136 | 1153 | 1163 | 1116 | 1083 | 1057 | 1015 | 987 | 965 | *1032* |
| 8 *d* | 916 | 842 | 812 | 884 | 942 | 974 | 994 | 994 | 993 | 1001 | 1003 | 999 | 994 | 1001 | 1019 | 1065 | 1041 | 1046 | 1020 | 1011 | 998 | 997 | 897 | 950 | 975 |
| 9 | 980 | 984 | 963 | 908 | 900 | 936 | 958 | 971 | 980 | 993 | 1000 | 1001 | 1003 | 1023 | 1054 | 1067 | 1076 | 1050 | 1045 | 1035 | 1019 | 1007 | 984 | 985 | 997 |
| 10 | 996 | 1004 | 1003 | 1005 | 1005 | 1006 | 1007 | 1002 | 999 | 997 | 996 | 996 | 1003 | 1014 | 1012 | 1026 | 1042 | 1041 | 1008 | 1008 | 1007 | 1005 | 1005 | 1006 | 1008 |
| 11 | 1006 | 1004 | 1002 | 1002 | 992 | 980 | 984 | 992 | 987 | 986 | 988 | 989 | 1001 | 995 | 1007 | 1002 | 1007 | 1021 | 1015 | 1006 | 1000 | 998 | 999 | 999 | 998 |
| 12 *d* | 999 | 997 | 997 | 994 | 992 | 979 | 984 | 983 | 989 | 990 | 995 | 1003 | 1018 | 1028 | 1030 | 1117 | 1142 | 1133 | 1105 | 1082 | 1040 | 997 | 857 | 945 | 1017 |
| 13 | 934 | 899 | 853 | 856 | 863 | 890 | 936 | 968 | 983 | 990 | 999 | 995 | 1010 | 1007 | 1002 | 1007 | 1023 | 1034 | 1032 | 1021 | 1015 | 1012 | 1004 | 1001 | 972 |
| 14 | 1002 | 1002 | 1000 | 1001 | 1001 | 996 | 995 | 992 | 997 | 985 | 990 | 987 | 989 | 1005 | 1013 | 1012 | 1016 | 1018 | 1012 | 1014 | 1013 | 1004 | 1002 | 1002 | 1002 |
| 15 | 1002 | 1002 | 1001 | 1000 | 996 | 995 | 999 | 1000 | 988 | 989 | 989 | 987 | 992 | 1000 | 1008 | 1020 | 1013 | 1013 | 1011 | 1014 | 1013 | 1010 | 1006 | 1001 | 1002 |
| 16 | 999 | 1000 | 1005 | 1002 | 1002 | 1002 | 1000 | 1001 | 988 | 972 | 984 | 975 | 984 | 983 | 1001 | 992 | 992 | 998 | 1016 | 1021 | 1019 | 953 | 947 | 820 | 986 |
| 17 | 772 | 801 | 786 | 823 | 877 | 872 | 900 | 880 | 989 | 998 | 998 | 1002 | 1005 | 998 | 994 | 996 | 999 | 1007 | 1002 | 1005 | 1006 | 1002 | 992 | 984 | *945* |
| 18 | 975 | 872 | 861 | 932 | 961 | 985 | 995 | 1008 | 1005 | 1005 | 995 | 984 | 984 | 989 | 992 | 1005 | 1032 | 1061 | 1030 | 1027 | 1004 | 989 | 932 | 869 | 979 |
| 19 *d* | 826 | 775 | 804 | 835 | 907 | 958 | 975 | 989 | 1007 | 1038 | 1027 | 1030 | | | | | | | | | | | | | |
| 20 | 952 | 941 | 972 | 995 | 1004 | 1004 | 1015 | 1024 | 1027 | 1021 | 1015 | 1010 | 1010 | 1007 | 1007 | 1010 | 1018 | 1018 | 1010 | 1012 | 1018 | 1010 | 1015 | 1015 | 1005 |
| 21 | 1004 | 955 | 949 | 969 | 995 | 975 | 987 | 1010 | 1007 | 1004 | 1007 | 1015 | 1010 | 1004 | 998 | 998 | 1001 | 1007 | 1004 | 1001 | 998 | 1001 | 987 | 952 | 993 |
| 22 | 918 | 895 | 935 | 964 | 981 | 998 | 1004 | 1004 | 1004 | 998 | 998 | 987 | 978 | 975 | 972 | 972 | 975 | 992 | 989 | 995 | 1001 | 1001 | 1004 | 998 | 981 |
| 23 *q* | 995 | 989 | 981 | 987 | 989 | 995 | 995 | 995 | 975 | 975 | 978 | 975 | 975 | 969 | 961 | 958 | 958 | 969 | 975 | 975 | 981 | 984 | 987 | 984 | 979 |
| 24 *q* | 984 | 981 | 984 | 987 | 989 | 995 | 992 | 989 | 984 | 987 | 981 | 975 | 967 | 964 | 961 | 961 | 972 | 975 | 978 | 984 | 984 | 989 | 987 | 989 | 981 |
| 25 | 987 | 978 | 989 | 989 | 964 | 955 | 967 | 975 | 978 | 978 | 978 | 975 | 975 | 981 | 981 | 984 | 995 | 1010 | 1010 | 1007 | 989 | 981 | 978 | 981 | 983 |
| 26 | 969 | 955 | 961 | 972 | 975 | 969 | 975 | 989 | 987 | 992 | 984 | 978 | 975 | 987 | 1004 | 1047 | 1087 | 1090 | 1067 | 1035 | 1018 | 1010 | 998 | 967 | 1000 |
| 27 | 978 | 981 | 995 | 998 | 992 | 987 | 989 | 989 | 978 | 972 | 984 | 995 | 1004 | 1010 | 1010 | 1004 | 1004 | 998 | 992 | 981 | 998 | 1027 | 1007 | 1004 | 995 |
| 28 | 1004 | 1004 | 1004 | 998 | 989 | 995 | 995 | 995 | 992 | 992 | 981 | 978 | 978 | 975 | 972 | 975 | 975 | 978 | 978 | 984 | 987 | 1004 | 995 | 995 | 988 |
| 29 *d* | 978 | 969 | 969 | 967 | 949 | 955 | 955 | 967 | 958 | 955 | 952 | 967 | 989 | 1024 | 1084 | 1095 | 1078 | 1004 | 944 | 932 | 907 | 884 | 944 | 992 | 976 |
| 30 *q* | 984 | 1010 | 1012 | 1015 | 1010 | 1018 | 1024 | 1027 | 1024 | 1024 | 1018 | 1007 | 1007 | 1010 | 1015 | 1027 | 1038 | 1047 | 1047 | 1038 | 1027 | 1027 | 1015 | 1012 | 1020 |
| Mean | 973 | *964* | 965 | 974 | 979 | 982 | 989 | 992 | 993 | 991 | 991 | 989 | 992 | 999 | 1009 | 1016 | 1023 | *1026* | 1016 | 1011 | 1004 | 997 | 982 | 978 | 993 |

Record lost 13h. to 24h. on 19d. Recorded values on 19d. excluded from mean values.

Corrections to be applied to all values, *H*, −6$\gamma$; *D*, −4′·4; *V*, −1$\gamma$.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

33 LERWICK — JUNE

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000$\gamma$ + | | Minimum 14,000$\gamma$ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000$\gamma$ + | | Minimum 46,000$\gamma$ + | | Range | | | | |
| | h. m. | $\gamma$ | $\gamma$ | h. m. | $\gamma$ | h. m. | ′ | ′ | h. m. | ′ | h. m. | $\gamma$ | $\gamma$ | h. m. | $\gamma$ | | | | | °A. |
| 1 | 19 21 | 419 | 337 | 11 10 | 82 | 14 11 | 30·5 | 9·9 | 08 16 | 20·6 | 18 07 | 1046 | 948 | 09 35 | 98 | 1, 2, 3, 2, 2, 2, 2, 1 | 15 | 0 | 86·1 |
| 2 *q* | 18 34 | 432 | 329 | 12 18 | 103 | 14 15 | 29·8 | 12·8 | 09 05 | 17·0 | 17 47 | 1023 | 987 | 13 39 | 36 | 2, 1, 1, 2, 2, 3, 2, 2 | 15 | 0 | 85·6 |
| 3 *q* | 18 22 | 413 | 336 | 10 26 | 77 | 13 26 | 30·8 | 11·3 | 07 35 | 19·5 | 06 08 | 1012 | 977 | 11 28 | *35* | 0, 1, 1, 2, 1, 1, 1, 1 | 8 | 0 | 85·6 |
| 4 | 16 21 | 422 | 341 | 11 44 | 81 | 14 27 | 32·6 | 9·0 | 06 43 | 23·6 | 17 13 | 1026 | 973 | 11 12 | 53 | 0, 2, 2, 2, 3, 3, 1, 1 | 14 | 1 | 86·0 |
| 5 | 20 14 | 465 | 338 | 11 12 | 127 | 13 32 | 30·6 | 13·7 | 07 57 | 16·9 | 18 25 | 1014 | 935 | 22 38 | 79 | 0, 0, 1, 2, 1, 2, 3, 3 | 12 | 1 | 86·0 |
| 6 | 20 04 | 418 | 306 | 11 03 | 112 | 14 32 | 31·9 | 10·0 | 07 55 | 21·9 | 13 39 | 1032 | 924 | 00 25 | 108 | 3, 2, 2, 2, 3, 2, 2, 1 | 17 | 1 | 85·5 |
| 7 *d* | 16 45 | *841* | 271 | 12 17 | 570 | 17 34 | 42·8 | 7·2 | 09 50 | 35·6 | 14 42 | *1276* | 944 | 24 00 | 332 | 3, 1, 3, 4, 6, 6, 5, 4 | 32 | 2 | 85·0 |
| 8 *d* | 14 46 | 469 | 142 | 02 08 | 327 | 14 46 | 42·6 | 7·6 | 22 52 | 35·0 | 15 32 | 1081 | 793 | 02 47 | 288 | 5, 4, 2, 3, 4, 4, 3, 5 | 30 | 1 | 85·1 |
| 9 | 15 49 | 494 | 250 | 03 26 | 244 | 15 10 | 31·0 | 9·0 | 03 31 | 22·0 | 16 38 | 1081 | 862 | 03 57 | 219 | 4, 4, 3, 2, 3, 4, 3, 3 | 26 | 1 | 85·3 |
| 10 | 16 12 | 475 | 331 | 13 40 | 144 | 15 18 | 29·6 | 12·7 | 05 38 | 16·9 | 17 14 | 1059 | 987 | 00 01 | 72 | 1, 1, 1, 2, 3, 4, 2, 1 | 15 | 1 | 86·1 |
| 11 | 17 12 | 421 | 328 | 12 41 | 93 | 12 52 | 29·6 | 14·0 | 08 02 | 15·6 | 17 45 | 1028 | 978 | 05 57 | 50 | 2, 2, 2, 3, 3, 3, 2, 1 | 18 | 1 | 86·7 |
| 12 *d* | 15 41 | 569 | 263 | 22 27 | 306 | 22 58 | 35·3 | 3·5 | 22 36 | 31·8 | 15 39 | 1165 | 819 | 22 21 | 346 | 1, 3, 2, 2, 5, 4, 5, 5 | 27 | 1 | 86·2 |
| 13 | 16 10 | 433 | 309 | 10 12 | 124 | 12 45 | 30·2 | 7·0 | 03 19 | 23·2 | 17 50 | 1041 | 840 | 03 08 | 201 | 4, 3, 3, 3, 3, 3, 2, 1 | 22 | 1 | 85·6 |
| 14 | 18 42 | 450 | 328 | 08 26 | 122 | 12 26 | 28·7 | 14·2 | 04 37 | 14·5 | 16 58 | 1022 | 981 | 09 47 | 41 | 2, 2, 2, 2, 2, 2, 3, 1 | 16 | 0 | 85·0 |
| 15 | 20 21 | 439 | 331 | 07 51 | 108 | 14 43 | 31·3 | 17·7 | 06 44 | *13·6* | 15 36 | 1023 | 985 | 10 55 | 38 | 0, 1, 2, 2, 2, 2, 2, 1 | 14 | 0 | 85·0 |
| 16 | 19 27 | 476 | 2 | 23 50 | 474 | 12 57 | 30·9 | −5·3 | 23 59 | 36·2 | 19 56 | 1048 | 689 | 23 57 | 359 | 2, 2, 2, 3, 3, 3, 4, 6 | 25 | 1 | 85·3 |
| 17 | 19 33 | 421 | *−261* | 00 33 | *682* | 14 12 | 31·6 | *−48·7* | 00 32 | *80·3* | 12 12 | 1010 | *668* | 00 28 | 342 | 7, 5, 4, 1, 2, 2, 2, 3 | 26 | 2 | 85·8 |
| 18 | 16 58 | 538 | 60 | 23 10 | 478 | 20 06 | 31·9 | 6·0 | 23 37 | 25·9 | 18 05 | 1090 | 804 | 23 08 | 286 | 4, 2, 2, 3, 2, 5, 4, 5 | 27 | 1 | 86·2 |
| 19 *d* | 05 21 | 374 | 131 | 01 32 | 243 | 12 09 | 31·1 | 2·5 | 02 07 | 28·6 | 09 50 | 1047 | 741 | 01 35 | 306 | 5, 3, 3, 4, | | 1 | 81·9 |
| 20 | 15 56 | 436 | 290 | 01 08 | 146 | 14 23 | 30·3 | 11·9 | 07 49 | 18·4 | 08 21 | 1030 | 921 | 01 35 | 109 | 4, 3, 2, 3, 3, 3, 3, 1 | 22 | 1 | 82·3 |
| 21 | 19 05 | 457 | 306 | 08 54 | 151 | 21 44 | 32·9 | 13·9 | 07 41 | 19·0 | 07 36 | 1024 | 918 | 24 00 | 106 | 3, 3, 3, 3, 2, 3, 3, 3 | 23 | 1 | 81·9 |
| 22 | 19 51 | 440 | 321 | 00 50 | 119 | 13 42 | 32·3 | 11·7 | 01 51 | 20·6 | 17 48 | 1004 | 875 | 01 30 | 129 | 3, 2, 2, 2, 3, 3, 4, 1 | 20 | 1 | 84·5 |
| 23 *q* | 18 39 | 390 | 313 | 07 46 | 77 | 12 57 | 30·5 | 16·2 | 06 36 | 14·3 | 06 50 | 1007 | 955 | 16 00 | 52 | 1, 1, 3, 3, 2, 2, 1, 1 | 14 | 0 | 85·3 |
| 24 *q* | 18 26 | 414 | 352 | 10 34 | *62* | 13 45 | 32·3 | 10·9 | 05 27 | 21·4 | 05 13 | 1007 | 952 | 14 27 | 55 | 1, 1, 2, 2, 2, 1, 2, 2 | 13 | 0 | 85·2 |
| 25 | 17 58 | 456 | 330 | 09 11 | 126 | 13 23 | 28·8 | 8·6 | 06 20 | 20·2 | 17 25 | 1030 | 935 | 04 56 | 95 | 2, 3, 2, 3, 3, 3, 3, 2 | 21 | 1 | 84·1 |
| 26 | 16 08 | 519 | 323 | 13 11 | 196 | 16 15 | 36·5 | 15·7 | 07 05 | 20·8 | 16 26 | 1104 | 952 | 23 32 | 152 | 1, 2, 2, 2, 4, 4, 2, 2 | 19 | 1 | 85·1 |
| 27 | 19 34 | 474 | 318 | 08 59 | 156 | 19 33 | 32·8 | 15·3 | 23 24 | 17·5 | 21 27 | 1044 | 975 | 09 40 | 69 | 2, 3, 3, 3, 3, 3, 3, 3 | 23 | 1 | – |
| 28 | 18 35 | 450 | 344 | 10 15 | 106 | 15 43 | 32·2 | 8·8 | 06 03 | 23·4 | 21 35 | 1018 | 966 | 14 21 | 52 | 2, 3, 3, 3, 3, 2, 3, 2 | 21 | 1 | – |
| 29 *d* | 17 29 | 826 | 263 | 20 59 | 563 | 18 09 | *78·9* | 3·1 | 04 52 | 75·8 | 17 29 | 1175 | 801 | 18 09 | *374* | 2, 3, 3, 3, 4, 7, 6, 4 | 32 | 2 | – |
| 30 *q* | 18 11 | 418 | 320 | 10 55 | 98 | 14 21 | 29·8 | 14·9 | 05 09 | 14·9 | 18 48 | 1058 | 969 | 00 09 | 89 | 2, 2, 2, 2, 3, 2, 2, 1 | 16 | 0 | – |
| Mean | – – | 475 | 265 | – – | 210 | – – | 33·7 | 8·2 | – – | 25·5 | – – | 1054 | 902 | – – | 152 | – | – | 0·83 | 85·1 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

34 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 *q* | 379 | 374 | 381 | 385 | 381 | 374 | 364 | 351 | 342 | 336 | 335 | 342 | 352 | 358 | 391 | 404 | 404 | 403 | 404 | 404 | 404 | 396 | 393 | 385 | 377 |
| 2 | 382 | 385 | 389 | 388 | 380 | 388 | 372 | 343 | 342 | 331 | 343 | 337 | 339 | 360 | 379 | 388 | 391 | 404 | 406 | 410 | 403 | 394 | 385 | 382 | 376 |
| 3 | 381 | 387 | 388 | 397 | 385 | 385 | 389 | 334 | 315 | 321 | 298 | 345 | 381 | 385 | 400 | 387 | 400 | 403 | 404 | 396 | 396 | 389 | 388 | 382 | 377 |
| 4 *q* | 381 | 377 | 373 | 374 | 373 | 373 | 362 | 351 | 343 | 333 | 328 | 328 | 334 | 350 | 373 | 393 | 397 | 388 | 395 | 396 | 388 | 385 | 380 | 374 | 369 |
| 5 *q* | 373 | 371 | 366 | 373 | 373 | 373 | 366 | 358 | 343 | 334 | 330 | 336 | 354 | 387 | 387 | 396 | 389 | 382 | 388 | 395 | 396 | 391 | 388 | 383 | 372 |
| 6 | 382 | 387 | 388 | 389 | 388 | 385 | 387 | 381 | 366 | 352 | 344 | 345 | 352 | 364 | 358 | 384 | 408 | 405 | 405 | 412 | 411 | 400 | 387 | 384 | 382 |
| 7 *d* | 378 | 380 | 378 | 381 | 384 | 339 | 376 | 370 | 361 | 349 | 337 | 325 | 328 | 356 | 378 | 395 | 417 | 498 | 498 | 468 | 402 | 353 | 270 | 240 | 373 |
| 8 | 165 | 215 | 273 | 293 | 307 | 322 | 331 | 348 | 344 | 340 | 343 | 350 | 369 | 378 | 372 | 393 | 381 | 377 | 385 | 393 | 393 | 406 | 400 | 393 | 345 |
| 9 | 393 | 397 | 318 | 385 | 402 | 390 | 377 | 365 | 358 | 359 | 343 | 349 | 345 | 366 | 404 | 461 | 455 | 398 | 390 | 367 | 370 | 374 | 367 | 363 | 379 |
| 10 | 370 | 369 | 356 | 362 | 369 | 363 | 359 | 351 | 346 | 346 | 335 | 359 | 370 | 377 | 392 | 403 | 431 | 437 | 424 | 402 | 388 | 382 | 385 | 360 | 377 |
| 11 | 374 | 377 | 347 | 351 | 379 | 377 | 365 | 346 | 345 | 334 | 330 | 344 | 364 | 377 | 383 | 395 | 399 | 420 | 455 | 424 | 418 | 405 | 381 | 376 | 378 |
| 12 | 373 | 374 | 370 | 370 | 374 | 362 | 350 | 346 | 342 | 345 | 345 | 352 | 356 | 362 | 375 | 394 | 397 | 406 | 406 | 406 | 398 | 399 | 393 | 391 | 374 |
| 13 *q* | 388 | 388 | 391 | 391 | 392 | 385 | 377 | 372 | 368 | 364 | 362 | 359 | 380 | 398 | 416 | 414 | 409 | 405 | 407 | 407 | 403 | 405 | 402 | 398 | 391 |
| 14 | 395 | 396 | 395 | 400 | 401 | 402 | 391 | 381 | 361 | 366 | 356 | 360 | 370 | 412 | 402 | 409 | 489 | 516 | 441 | 413 | 400 | 401 | 391 | 371 | 401 |
| 15 | 366 | 372 | 383 | 380 | 332 | 342 | 387 | 377 | 362 | 348 | 349 | 339 | 370 | 368 | 385 | 385 | 374 | 376 | 388 | 377 | 377 | 374 | 371 | 370 | 369 |
| 16 | 367 | 366 | 371 | 376 | 377 | 367 | 356 | 348 | 338 | 331 | 303 | 319 | 338 | 363 | 360 | 398 | 413 | 413 | 431 | 424 | 398 | 386 | 383 | 366 | 370 |
| 17 | 360 | 342 | 364 | 370 | 370 | 352 | 349 | 344 | 324 | 318 | 313 | 321 | 341 | 351 | 372 | 413 | 412 | 408 | 396 | 399 | 399 | 388 | 388 | 376 | 365 |
| 18 *d* | 367 | 371 | 373 | 375 | 379 | 370 | 354 | 346 | 345 | 349 | 352 | 339 | 356 | 374 | 464 | 528 | 605 | 559 | 572 | 489 | 427 | 359 | 356 | 345 | *406* |
| 19 | 341 | 288 | 260 | 362 | 368 | 321 | 310 | 310 | 292 | 291 | 299 | 304 | 331 | 424 | 471 | 441 | 435 | 420 | 416 | 403 | 389 | 377 | 362 | 369 | 358 |
| 20 *q* | 356 | 360 | 367 | 369 | 370 | 367 | 358 | 346 | 338 | 332 | 325 | 327 | 339 | 352 | 356 | 373 | 377 | 384 | 399 | 403 | 399 | 392 | 378 | 363 | 364 |
| 21 | 364 | 366 | 366 | 364 | 377 | 377 | 363 | 362 | 350 | 331 | 324 | 324 | 332 | 348 | 388 | 422 | 439 | 399 | 397 | 394 | 399 | 398 | 378 | 377 | 372 |
| 22 | 370 | 374 | 374 | 374 | 342 | 361 | 373 | 360 | 348 | 345 | 331 | 331 | 346 | 367 | 392 | 428 | 456 | 448 | 420 | 421 | 413 | 390 | 384 | 398 | 381 |
| 23 | 363 | 388 | 392 | 389 | 380 | 372 | 363 | 348 | 346 | 373 | 359 | 373 | 322 | 361 | 356 | 384 | 376 | 376 | 403 | 409 | 415 | 404 | 393 | 383 | 376 |
| 24 | 375 | 371 | 371 | 378 | 378 | 371 | 371 | 366 | 357 | 347 | 343 | 350 | 351 | 350 | 373 | 382 | 387 | 387 | 388 | 396 | 402 | 395 | 389 | 387 | 373 |
| 25 | 385 | 375 | 368 | 364 | 377 | 376 | 374 | 370 | 353 | 349 | 346 | 346 | 353 | 360 | 391 | 396 | 383 | 439 | 420 | 456 | 443 | 399 | 378 | 357 | 382 |
| 26 *d* | 323 | 351 | 334 | 322 | 345 | 296 | 336 | 358 | 342 | 313 | 315 | 313 | 336 | 394 | 377 | 439 | 448 | 431 | 515 | 596 | 569 | 562 | 526 | 224 | 390 |
| 27 *d* | 37 | 3 | 120 | −67 | −117 | −47 | −273 | 226 | 388 | 388 | 394 | 402 | 369 | 379 | 374 | 377 | 374 | 379 | 374 | 358 | 357 | 344 | 356 | 342 | *243* |
| 28 | 326 | 319 | 322 | 323 | 318 | 330 | 326 | 323 | 319 | 317 | 315 | 324 | 331 | 352 | 389 | 388 | 374 | 418 | 419 | 423 | 401 | 379 | 348 | 353 | 351 |
| 29 *d* | 333 | 359 | 338 | 330 | 318 | 273 | 280 | 317 | 337 | 319 | 326 | 351 | 365 | 394 | 384 | 380 | 484 | 555 | 456 | 404 | 383 | 366 | 377 | 341 | 365 |
| 30 | 326 | 324 | 278 | 214 | 325 | 327 | 353 | 343 | 319 | 324 | 332 | 347 | 347 | 432 | 391 | 411 | 503 | 453 | 389 | 375 | 365 | 367 | 362 | 361 | 357 |
| 31 | 353 | 339 | 349 | 360 | 360 | 360 | 360 | 353 | 342 | 326 | 331 | 332 | 329 | 346 | 356 | 374 | 388 | 374 | 382 | 377 | 387 | 382 | 378 | 374 | 359 |
| Mean | 349 | 350 | 350 | 349 | 351 | 346 | 339 | 348 | 344 | 339 | *335* | 341 | 350 | 372 | 387 | 404 | 419 | *421* | 419 | 413 | 403 | 392 | 381 | 363 | 369 |

Corrections to be applied to all values, *H*, −6$\gamma$; *D*, −4′·4; *V*, nil.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

35 LERWICK (D) — 11° + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 22·6 | 21·6 | 19·4 | 18·4 | 16·9 | 15·1 | 14·1 | 14·3 | 14·7 | 16·3 | 20·2 | 24·1 | 27·9 | 30·4 | 28·6 | 27·5 | 25·9 | 26·1 | 26·1 | 26·1 | 25·5 | 24·3 | 24·3 | 23·1 | 22·2 |
| 2 | 22·2 | 21·2 | 20·4 | 23·1 | 25·3 | 19·6 | 16·5 | 16·3 | 20·4 | 20·4 | 21·0 | 23·3 | 25·7 | 27·3 | 27·3 | 26·5 | 26·3 | 23·9 | 23·9 | 24·7 | 25·1 | 25·9 | 23·9 | 23·3 | 23·1 |
| 3 | 22·4 | 22·4 | 22·6 | 21·2 | 24·9 | 24·5 | 19·0 | 24·1 | 29·8 | 24·7 | 28·4 | 27·7 | 25·1 | 22·0 | 22·8 | 24·7 | 26·5 | 25·3 | 26·5 | 26·7 | 26·3 | 25·7 | 25·3 | 23·3 | 24·7 |
| 4 *q* | 21·8 | 20·4 | 18·8 | 19·4 | 15·7 | 15·5 | 14·9 | 15·9 | 18·8 | 20·8 | 22·4 | 24·5 | 27·9 | 30·8 | 28·6 | 27·1 | 27·9 | 27·5 | 26·7 | 26·3 | 25·1 | 24·5 | 23·9 | 22·6 | 22·8 |
| 5 *q* | 23·7 | 22·9 | 22·6 | 19·2 | 16·5 | 15·9 | 16·1 | 16·3 | 17·3 | 18·6 | 20·4 | 24·3 | 27·3 | 28·2 | 27·3 | 28·4 | 26·3 | 24·7 | 26·1 | 26·7 | 26·9 | 26·5 | 24·5 | 23·5 | 22·9 |
| 6 | 22·2 | 21·2 | 20·4 | 20·2 | 19·4 | 18·4 | 18·0 | 18·4 | 18·8 | 21·6 | 22·0 | 24·7 | 26·9 | 28·6 | 29·0 | 28·8 | 26·3 | 25·9 | 26·5 | 24·7 | 26·5 | 26·1 | 24·7 | 23·7 | 23·5 |
| 7 *d* | 22·0 | 21·2 | 22·2 | 23·5 | 27·9 | 18·8 | 22·4 | 16·7 | 14·9 | 16·5 | 23·5 | 24·9 | 31·2 | 31·4 | 32·6 | 32·2 | 26·5 | 32·6 | 34·5 | 31·8 | 29·2 | 25·7 | 20·8 | 12·2 | 24·8 |
| 8 | 5·7 | 6·1 | 6·7 | 6·5 | 6·1 | 8·2 | 11·6 | 13·1 | 18·6 | 20·1 | 21·8 | 25·0 | 27·6 | 28·5 | 29·7 | 29·3 | 29·0 | 23·8 | 24·0 | 25·3 | 24·4 | 23·1 | 22·8 | 23·1 | 19·2 |
| 9 | 23·2 | 22·5 | 21·1 | 13·8 | 10·4 | 10·1 | 12·3 | 14·1 | 16·1 | 19·8 | 24·5 | 25·9 | 24·9 | 24·9 | 26·5 | 28·8 | 26·5 | 24·8 | 26·9 | 25·3 | 25·2 | 22·1 | 21·5 | 22·4 | 21·4 |
| 10 | 21·4 | 21·3 | 22·7 | 21·4 | 16·7 | 15·4 | 15·3 | 17·4 | 20·6 | 21·4 | 25·0 | 27·7 | 35·6 | 35·6 | 35·3 | 28·4 | 28·6 | 22·3 | 24·1 | 27·9 | 27·4 | 26·6 | 26·0 | 24·1 | 24·5 |
| 11 | 22·2 | 23·0 | 25·1 | 22·6 | 16·0 | 16·3 | 14·8 | 16·3 | 19·0 | 17·6 | 17·6 | 21·1 | 24·1 | 24·9 | 24·6 | 25·3 | 24·6 | 25·0 | 23·3 | 22·3 | 24·9 | 22·1 | 22·3 | 24·1 | 21·6 |
| 12 | 21·8 | 20·6 | 19·5 | 17·4 | 18·1 | 16·8 | 17·5 | 19·7 | 19·6 | 20·8 | 21·1 | 23·1 | 26·1 | 27·2 | 26·5 | 24·1 | 21·4 | 22·2 | 23·3 | 24·2 | 23·8 | 24·1 | 25·2 | 24·8 | 22·0 |
| 13 *q* | 23·6 | 22·5 | 22·1 | 21·2 | 19·4 | 17·0 | 17·1 | 18·4 | 20·1 | 22·3 | 22·5 | 27·3 | 30·9 | 31·7 | 29·3 | 27·7 | 25·9 | 24·2 | 22·0 | 21·9 | 23·0 | 23·5 | 23·8 | 22·5 | 23·3 |
| 14 | 22·2 | 21·2 | 21·6 | 18·6 | 17·9 | 16·3 | 16·8 | 19·6 | 23·1 | 23·3 | 22·6 | 25·4 | 27·3 | 29·6 | 30·2 | 28·4 | 34·1 | 31·2 | 27·3 | 28·9 | 27·2 | 25·3 | 22·2 | 18·2 | 24·1 |
| 15 | 16·4 | 18·6 | 19·3 | 15·1 | 12·3 | 13·4 | 10·8 | 13·8 | 14·7 | 18·0 | 20·4 | 25·3 | 28·0 | 29·4 | 28·8 | 27·1 | 24·9 | 24·5 | 23·7 | 23·0 | 22·6 | 22·5 | 21·5 | 20·5 | 20·6 |
| 16 | 20·4 | 19·0 | 18·7 | 17·8 | 17·4 | 15·6 | 14·6 | 16·3 | 18·0 | 15·6 | 18·4 | 24·7 | 27·3 | 28·8 | 27·4 | 28·1 | 18·3 | 24·8 | 26·3 | 26·1 | 25·4 | 23·3 | 20·0 | 18·4 | 21·3 |
| 17 | 20·3 | 23·9 | 17·9 | 15·4 | 16·7 | 18·2 | 21·8 | 14·4 | 15·0 | 17·5 | 22·5 | 26·4 | 28·5 | 30·2 | 29·2 | 28·4 | 27·3 | 26·4 | 24·2 | 24·1 | 24·7 | 22·5 | 18·3 | 16·3 | 22·1 |
| 18 *d* | 16·3 | 16·7 | 18·3 | 18·2 | 15·9 | 14·8 | 12·1 | 12·4 | 13·5 | 12·5 | 16·1 | 22·6 | 30·2 | 32·3 | 38·7 | 42·4 | 32·7 | 37·0 | 36·1 | 28·7 | 27·6 | 19·9 | 18·7 | 20·3 | 23·1 |
| 19 | 18·6 | 18·0 | 20·1 | 14·6 | 23·6 | 23·4 | 19·2 | 22·3 | 19·7 | 16·2 | 17·6 | 22·2 | 26·5 | 22·2 | 21·7 | 23·8 | 23·2 | 23·3 | 23·7 | 25·4 | 21·1 | 24·6 | 23·7 | 19·9 | 21·4 |
| 20 *q* | 23·1 | 17·6 | 17·6 | 15·7 | 13·3 | 12·3 | 11·1 | 12·1 | 13·9 | 15·7 | 18·9 | 22·7 | 27·9 | 30·2 | 30·1 | 28·5 | 25·4 | 23·8 | 23·5 | 23·1 | 23·2 | 23·4 | 23·6 | 21·9 | 20·8 |
| 21 | 18·9 | 18·3 | 18·3 | 19·5 | 12·8 | 11·3 | 11·5 | 12·5 | 11·3 | 18·9 | 19·9 | 23·7 | 28·0 | 29·6 | 29·5 | 29·1 | 25·2 | 23·9 | 23·2 | 24·3 | 24·3 | 22·0 | 18·7 | 16·0 | 20·4 |
| 22 | 15·4 | 17·9 | 17·5 | 15·5 | 17·4 | 16·0 | 10·6 | 10·8 | 15·0 | 17·4 | 20·5 | 23·6 | 27·4 | 29·3 | 28·7 | 29·5 | 29·1 | 25·3 | 22·6 | 23·8 | 27·4 | 23·4 | 24·3 | 18·6 | 21·1 |
| 23 | 14·4 | 12·6 | 15·2 | 15·0 | 13·3 | 12·3 | 12·4 | 10·9 | 14·9 | 20·4 | 30·9 | 26·0 | 31·0 | 32·0 | 32·2 | 30·3 | 29·6 | 23·7 | 23·3 | 22·9 | 24·1 | 23·7 | 23·1 | 23·0 | 21·6 |
| 24 | 22·2 | 20·8 | 19·4 | 19·3 | 17·5 | 16·6 | 17·7 | 17·2 | 17·8 | 19·2 | 20·4 | 23·5 | 26·5 | 28·2 | 26·1 | 24·9 | 24·1 | 24·3 | 24·3 | 23·1 | 24·7 | 25·3 | 24·9 | 24·5 | 22·2 |
| 25 | 22·9 | 23·3 | 22·2 | 20·9 | 15·9 | 12·9 | 14·7 | 19·1 | 21·3 | 25·9 | 26·1 | 30·5 | 32·5 | 31·5 | 29·8 | 28·2 | 27·6 | 22·2 | 21·3 | 25·5 | 25·6 | 24·4 | 24·1 | 15·9 | 23·5 |
| 26 *d* | 19·4 | 13·8 | 12·4 | 14·5 | 13·6 | 18·1 | 17·1 | 15·9 | 13·6 | 13·5 | 18·8 | 24·6 | 28·5 | 28·0 | 26·5 | 29·3 | 27·9 | 27·0 | 29·9 | 43·7 | 63·1 | 56·6 | 47·8 | 48·2 | 27·2 |
| 27 *d* | 9·0 | −22·4 | −10·2 | −20·4 | 9·2 | −14·3 | 55·1 | −8·1 | 8·3 | 14·0 | 25·9 | 30·4 | 30·2 | 27·1 | 24·6 | 22·5 | 21·3 | 20·5 | 18·8 | 16·8 | 17·2 | 16·3 | 17·1 | 19·5 | *13·7* |
| 28 | 19·0 | 17·7 | 15·7 | 14·3 | 13·2 | 11·9 | 11·5 | 10·7 | 11·3 | 14·0 | 17·6 | 22·2 | 23·3 | 24·4 | 27·3 | 25·6 | 23·4 | 23·6 | 21·8 | 21·2 | 20·9 | 21·2 | 25·1 | 19·6 | 19·0 |
| 29 *d* | 22·3 | 18·9 | 16·3 | 17·8 | 20·6 | 26·0 | 25·9 | 21·2 | 20·7 | 20·1 | 23·0 | 28·1 | 33·2 | 30·3 | 30·2 | 27·3 | 29·8 | 27·9 | 25·2 | 24·4 | 25·2 | 24·6 | 18·9 | 27·3 | 24·4 |
| 30 | 20·9 | 14·8 | 18·2 | 19·0 | 15·7 | 12·8 | 9·6 | 10·1 | 10·2 | 14·1 | 17·3 | 22·6 | 26·3 | 26·1 | 24·3 | 25·1 | 24·1 | 23·3 | 21·3 | 22·3 | 23·1 | 22·7 | 22·4 | 21·9 | 19·5 |
| 31 | 26·0 | 25·3 | 19·7 | 17·5 | 16·8 | 15·9 | 15·3 | 15·8 | 18·0 | 18·8 | 20·5 | 27·2 | 30·4 | 30·7 | 29·6 | 27·2 | 23·7 | 20·0 | 18·5 | 18·9 | 20·4 | 22·8 | 24·5 | 24·6 | 22·0 |
| Mean | 20·1 | 18·2 | 18·1 | 16·7 | 16·7 | *15·0* | 16·7 | 15·1 | 17·1 | 18·6 | 21·5 | 25·0 | 28·2 | *28·8* | 28·5 | 27·9 | 26·2 | 25·2 | 24·8 | 25·2 | 25·8 | 24·7 | 23·5 | 22·2 | 22·1 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

36 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 1010 | 1012 | 1015 | 1018 | 1018 | 1018 | 1021 | 1018 | 1012 | 1010 | 1007 | 1004 | 1004 | 1001 | 995 | 1007 | 1018 | 1027 | 1027 | 1024 | 1021 | 1018 | 1012 | 1007 | 1013 |
| 2 | 1010 | 1007 | 1007 | 1004 | 995 | 978 | 998 | 1010 | 1001 | 995 | 989 | 992 | 989 | 984 | 984 | 1004 | 1010 | 1012 | 1024 | 1018 | 1012 | 1010 | 1004 | 1004 | 1002 |
| 3 | 1007 | 1007 | 1007 | 1004 | 1007 | 992 | 998 | 1010 | 978 | 987 | 992 | 969 | 981 | 995 | 1010 | 1012 | 995 | 998 | 1001 | 1004 | 1001 | 998 | 1001 | 1001 | 998 |
| 4 *q* | 1007 | 1004 | 1007 | 1007 | 1010 | 1010 | 1010 | 1007 | 1004 | 1004 | 1007 | 1004 | 1004 | 1004 | 1004 | 1010 | 1007 | 1010 | 1010 | 1012 | 1012 | 1010 | 1007 | 1004 | 1007 |
| 5 *q* | 1004 | 1001 | 1004 | 1007 | 1010 | 1012 | 1010 | 1010 | 1010 | 1015 | 1012 | 1007 | 984 | 987 | 1010 | 1012 | 1027 | 1027 | 1024 | 1018 | 1015 | 1012 | 1010 | 1012 | 1010 |
| 6 | 1012 | 1012 | 1010 | 1010 | 1012 | 1012 | 1010 | 1010 | 1007 | 1007 | 1004 | 1007 | 1004 | 1004 | 1010 | 1010 | 1021 | 1032 | 1027 | 1024 | 1021 | 1021 | 1027 | 1018 | 1014 |
| 7 *d* | 1024 | 1024 | 1018 | 998 | 944 | 955 | 952 | 989 | 992 | 995 | 998 | 1007 | 1007 | 1010 | 1035 | 1055 | 1092 | 1084 | 1084 | 1075 | 1061 | 1050 | 1015 | 958 | 1018 |
| 8 | 895 | 918 | 921 | 927 | 944 | 961 | 972 | 995 | 1007 | 1021 | 1021 | 1018 | 1012 | 1021 | 1030 | 1012 | 1004 | 1010 | 1012 | 1012 | 1027 | 1030 | 1027 | 1018 | 992 |
| 9 | 1000 | 1001 | 935 | 935 | 988 | 1008 | 1000 | 999 | 996 | 992 | 1010 | 1021 | 1024 | 1043 | 1064 | 1084 | 1118 | 1098 | 1050 | 1032 | 1014 | 1013 | 1012 | 1001 | 1018 |
| 10 | 999 | 998 | 995 | 986 | 997 | 1007 | 1007 | 1005 | 1001 | 993 | 995 | 981 | 983 | 989 | 1010 | 1018 | 1032 | 1049 | 1064 | 1050 | 1040 | 1025 | 1019 | 988 | 1010 |
| 11 | 1003 | 1008 | 993 | 933 | 944 | 971 | 988 | 998 | 998 | 1003 | 1006 | 1005 | 1002 | 1009 | 1017 | 1034 | 1039 | 1037 | 1036 | 1056 | 1042 | 1032 | 1020 | 1008 | 1008 |
| 12 | 1001 | 1002 | 997 | 991 | 989 | 991 | 991 | 989 | 991 | 995 | 995 | 1005 | 1009 | 1009 | 1008 | 1014 | 1021 | 1024 | 1023 | 1021 | 1014 | 1009 | 1008 | 1005 | 1004 |
| 13 *q* | 1006 | 1009 | 1009 | 1009 | 1008 | 1009 | 1005 | 1000 | 1000 | 995 | 998 | 1004 | 1003 | 1001 | 995 | 1001 | 1008 | 1011 | 1009 | 1011 | 1010 | 1007 | 1005 | 1006 | 1005 |
| 14 | 1008 | 1008 | 1008 | 1005 | 1003 | 1001 | 998 | 998 | 998 | 992 | 992 | 989 | 1001 | 1012 | 1051 | 1087 | 1092 | 1098 | 1078 | 1041 | 1028 | 1011 | 995 | 984 | 1020 |
| 15 | 982 | 996 | 1000 | 995 | 963 | 919 | 961 | 983 | 990 | 985 | 986 | 1010 | 992 | 1007 | 1007 | 1015 | 1018 | 1012 | 1003 | 1006 | 1002 | 998 | 997 | 998 | 993 |
| 16 | 997 | 998 | 999 | 1003 | 1005 | 1006 | 1008 | 1005 | 995 | 983 | 990 | 979 | 983 | 989 | 1000 | 1015 | 1053 | 1034 | 1017 | 1009 | 1005 | 996 | 967 | 972 | 1000 |
| 17 | 958 | 903 | 928 | 969 | 986 | 987 | 961 | 969 | 981 | 984 | 989 | 981 | 981 | 997 | 1000 | 1000 | 1009 | 1010 | 1012 | 1006 | 1001 | 1003 | 988 | 969 | *982* |
| 18 *d* | 983 | 986 | 986 | 983 | 987 | 994 | 1000 | 998 | 987 | 973 | 972 | 975 | 967 | 973 | 967 | 1009 | 1090 | 1082 | 1077 | 1076 | 1050 | 987 | 929 | 920 | 998 |
| 19 | 913 | 898 | 853 | 896 | 925 | 918 | 943 | 964 | 978 | 997 | 1030 | 1049 | 1058 | 1083 | 1103 | 1094 | 1095 | 1086 | 1070 | 1049 | 1030 | 1003 | 992 | 957 | 999 |
| 20 *q* | 954 | 973 | 986 | 999 | 1008 | 1012 | 1011 | 1007 | 1001 | 997 | 995 | 990 | 987 | 988 | 990 | 990 | 998 | 1000 | 1000 | 1005 | 1010 | 1006 | 999 | 987 | 996 |
| 21 | 981 | 983 | 985 | 969 | 973 | 992 | 995 | 991 | 987 | 991 | 992 | 995 | 990 | 990 | 991 | 1000 | 1020 | 1029 | 1020 | 1010 | 998 | 992 | 973 | 945 | 991 |
| 22 | 962 | 978 | 984 | 991 | 983 | 950 | 972 | 986 | 995 | 995 | 993 | 989 | 991 | 998 | 1009 | 1018 | 1028 | 1042 | 1050 | 1027 | 1014 | 1007 | 989 | 925 | 995 |
| 23 | 916 | 950 | 975 | 986 | 994 | 997 | 996 | 993 | 987 | 949 | 980 | 984 | 998 | 983 | 982 | 992 | 1005 | 1009 | 1012 | 1017 | 1011 | 1004 | 1003 | 1003 | 989 |
| 24 | 1003 | 1004 | 1004 | 1003 | 1005 | 1003 | 1004 | 1005 | 1005 | 1000 | 999 | 1000 | 1002 | 1005 | 1002 | 1005 | 1002 | 1000 | 994 | 991 | 991 | 997 | 1001 | 1000 | 1001 |
| 25 | 1000 | 1000 | 990 | 984 | 979 | 986 | 991 | 984 | 983 | 981 | 989 | 989 | 985 | 987 | 995 | 1000 | 1005 | 1010 | 1035 | 1017 | 1017 | 1011 | 1001 | 970 | 995 |
| 26 *d* | 925 | 901 | 930 | 915 | 918 | 925 | 919 | 948 | 972 | 998 | 1002 | 998 | 992 | 1001 | 1023 | 1022 | 1042 | 1047 | 1011 | 987 | 1110 | 1053 | 904 | 1084 | 984 |
| 27 *d* | 1161 | 1075 | 1350 | 1504 | 1110 | 961 | 1104 | 829 | 1008 | 1030 | 1035 | 1048 | 1042 | 1033 | 1031 | 1035 | 1041 | 1039 | 1035 | 1040 | 1034 | 1036 | 1031 | 1029 | *1068* |
| 28 | 1030 | 1029 | 1032 | 1035 | 1033 | 1026 | 1030 | 1034 | 1030 | 1022 | 1023 | 1025 | 1053 | 1047 | 1040 | 1037 | 1035 | 1034 | 1059 | 1041 | 1038 | 1006 | 953 | 958 | 1027 |
| 29 *d* | 951 | 997 | 1009 | 1012 | 1005 | 978 | 975 | 987 | 1011 | 1023 | 1028 | 1028 | 1024 | 1036 | 1031 | 1024 | 1017 | 1022 | 1031 | 1037 | 1026 | 1006 | 979 | 1003 | 1010 |
| 30 | 1065 | 1038 | 1013 | 1005 | 969 | 1001 | 1017 | 1025 | 1036 | 1028 | 1022 | 1011 | 1008 | 1022 | 1047 | 1036 | 1039 | 1056 | 1055 | 1033 | 1019 | 1011 | 1010 | 1010 | 1024 |
| 31 | 1000 | 961 | 975 | 1003 | 1013 | 1013 | 1012 | 1016 | 1011 | 1004 | 1001 | 995 | 993 | 1001 | 1012 | 1021 | 1028 | 1031 | 1029 | 1021 | 1013 | 1011 | 1004 | 992 | 1007 |
| Mean | 992 | 990 | 998 | 1003 | 991 | *987* | 995 | 992 | 998 | 998 | 1002 | 1002 | 1002 | 1007 | 1015 | 1022 | 1033 | *1034* | 1032 | 1025 | 1022 | 1012 | 996 | 991 | 1006 |

Corrections to be applied to all values; *H*,−6γ; *D*, −4′·4; *V*, nil.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

37 LERWICK — JULY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | Minimum 11° + | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | h. m. | ′ | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 *q* | 16 11 | 414 | 332 | 10 09 | 82 | 13 40 | 30·6 | 13·7 | 06 23 | 16·9 | 18 13 | 1035 | 987 | 14 32 | 48 | 1,1,1,2,2,3,2,0 | 12 | 0 | – |
| 2 | 18 37 | 414 | 325 | 09 33 | 89 | 13 50 | 28·4 | 14·7 | 07 15 | 13·7 | 18 08 | 1038 | 978 | 05 05 | 60 | 1,2,2,2,1,2,2,1 | 13 | 0 | – |
| 3 | 14 50 | 422 | 262 | 10 18 | 160 | 10 35 | 33·3 | 15·5 | 06 25 | 17·8 | 15 36 | 1018 | 955 | 11 08 | 63 | 2,3,4,4,2,3,1,1 | 20 | 1 | – |
| 4 *q* | 19 00 | 403 | 324 | 12 05 | 79 | 13 35 | 32·2 | 14·5 | 05 55 | 17·7 | 17 40 | 1021 | 1004 | 00 00 | *17* | 1,0,0,1,2,3,1,0 | 8 | 0 | – |
| 5 *q* | 15 33 | 403 | 329 | 10 08 | 74 | 13 23 | 29·0 | 14·5 | 05 39 | 14·5 | 17 19 | 1041 | 975 | 13 29 | 66 | 0,0,0,0,2,3,2,1 | 8 | 0 | 87·4 |
| 6 | 19 49 | 426 | 340 | 11 10 | 86 | 13 49 | 30·0 | 16·5 | 05 29 | 13·5 | 17 10 | 1041 | 1004 | 12 04 | 37 | 1,1,2,1,3,2,2,2 | 14 | 0 | 87·5 |
| 7 *d* | 17 47 | 521 | 122 | 24 00 | 399 | 17 46 | 36·7 | 6·3 | 23 37 | 30·4 | 16 48 | 1104 | 864 | 24 00 | 240 | 2,3,4,3,3,4,5,6 | 30 | 1 | 87·5 |
| 8 | 15 24 | 415 | 72 | 00 10 | 343 | 14 31 | 32·1 | −2·0 | 01 47 | 34·1 | 13 50 | 1055 | 846 | 00 25 | 209 | 6,3,3,2,4,4,2,1 | 25 | 1 | 90·1 |
| 9 | 16 01 | 482 | 277 | 02 25 | 205 | 02 13 | 34·5 | 7·4 | 05 43 | 27·1 | 16 30 | 1127 | 886 | 02 53 | 241 | 5,3,2,3,5,6,3,2 | 29 | 1 | 89·8 |
| 10 | 17 11 | 450 | 327 | 10 29 | 123 | 12 34 | 36·7 | 19·4 | 17 55 | 17·3 | 18 06 | 1098 | 980 | 23 15 | 118 | 2,2,2,3,2,3,3,3 | 20 | 1 | 87·2 |
| 11 | 18 38 | 473 | 324 | 02 48 | 149 | 02 50 | 30·2 | 13·7 | 06 25 | 16·5 | 19 33 | 1063 | 917 | 03 33 | 146 | 3,3,2,2,3,3,3,3 | 22 | 1 | – |
| 12 | 17 24 | 413 | 338 | 08 29 | 75 | 13 44 | 27·7 | 14·6 | 06 01 | 13·1 | 17 53 | 1028 | 986 | 07 18 | 42 | 1,2,1,2,2,2,1,1 | 12 | 0 | 87·8 |
| 13 *q* | 15 06 | 424 | 348 | 11 09 | 76 | 13 12 | 32·3 | 16·2 | 05 38 | 16·0 | 19 35 | 1013 | 992 | 09 47 | 21 | 1,1,1,2,2,3,1,1 | 12 | 0 | 87·7 |
| 14 | 17 17 | 554 | 350 | 11 06 | 204 | 17 15 | 37·8 | 14·7 | 05 31 | 23·1 | 17 54 | 1118 | 972 | 23 58 | 146 | 1,1,2,2,4,5,4,3 | 22 | 1 | 89·8 |
| 15 | 15 43 | 403 | 310 | 04 55 | 93 | 13 40 | 30·0 | 7·7 | 06 42 | 22·3 | 02 27 | 1032 | 927 | 05 10 | 105 | 2,4,2,2,3,2,2,1 | 18 | 1 | 87·6 |
| 16 | 18 16 | 444 | 331 | 10 48 | 113 | 13 35 | 30·6 | 12·6 | 06 26 | 18·0 | 16 38 | 1060 | 952 | 22 42 | 108 | 1,1,2,4,3,3,3,4 | 21 | 1 | 87·8 |
| 17 | 15 46 | 429 | 305 | 10 38 | 124 | 13 25 | 31·8 | 11·5 | 07 25 | 20·3 | 18 54 | 1014 | 889 | 01 28 | 125 | 3,3,3,2,2,3,2,3 | 21 | 1 | 87·4 |
| 18 *d* | 16 24 | 730 | 313 | 22 58 | 417 | 17 10 | 52·1 | 2·7 | 22 28 | 49·4 | 16 25 | 1168 | 866 | 22 50 | 302 | 2,2,2,3,5,6,5,5 | 30 | 2 | 87·0 |
| 19 | 14 03 | 529 | 187 | 02 19 | 342 | 03 31 | 34·2 | 5·3 | 02 00 | 28·9 | 14 43 | 1112 | 808 | 02 27 | 304 | 5,4,2,3,5,3,2,3 | 27 | 1 | 90·0 |
| 20 *q* | 19 45 | 409 | 321 | 10 55 | 88 | 13 30 | 30·9 | 10·6 | 06 37 | 20·3 | 05 53 | 1014 | 938 | 00 08 | 76 | 3,2,1,1,1,2,2,2 | 14 | 0 | 88·5 |
| 21 | 15 48 | 463 | 318 | 11 38 | 143 | 14 13 | 31·2 | 8·6 | 23 27 | 22·6 | 17 09 | 1035 | 925 | 23 37 | 110 | 1,3,2,1,3,4,3,3 | 20 | 1 | 88·0 |
| 22 | 16 16 | 462 | 325 | 10 19 | 137 | 20 25 | 31·6 | 7·1 | 07 25 | 24·5 | 18 13 | 1059 | 912 | 23 45 | 147 | 2,3,2,2,3,3,3,4 | 22 | 1 | 88·1 |
| 23 | 19 55 | 426 | 301 | 12 10 | 125 | 13 04 | 33·2 | 7·8 | 07 23 | 25·4 | 17 20 | 1035 | 904 | 00 38 | 131 | 4,2,2,4,3,3,2,2 | 22 | 1 | 88·0 |
| 24 | 20 05 | 408 | 343 | 13 05 | *65* | 13 11 | 28·4 | 15·9 | 06 15 | *12·5* | 13 27 | 1005 | 985 | 19 11 | 20 | 2,1,1,0,2,2,2,0 | 10 | 0 | 88·0 |
| 25 | 17 08 | 483 | 331 | 24 00 | 152 | 12 25 | 33·5 | 11·3 | 23 35 | 22·2 | 18 39 | 1042 | 967 | 23 30 | 75 | 2,3,3,2,3,4,3,4 | 24 | 1 | 87·5 |
| 26 *d* | 20 35 | *974* | −95 | 23 57 | 1069 | 20 35 | 81·2 | 6·8 | 18 40 | 74·4 | 23 16 | 1207 | 735 | 22 22 | 472 | 4,3,3,3,4,3,7,7 | 34 | 2 | 88·2 |
| 27 *d* | 09 40 | 527 | *−1775* | 06 40 | *2302* | 06 27 | *187·1* | *−110·1* | 00 58 | *297·2* | 03 10 | *1468* | *698* | 07 10 | *770* | 8,9,9,6,4,3,3,3 | 45 | 2 | 88·3 |
| 28 | 17 35 | 462 | 298 | 08 38 | 164 | 22 28 | 32·8 | 8·7 | 04 52 | 24·1 | 18 49 | 1078 | 937 | 22 18 | 141 | 2,2,2,2,4,4,3,4 | 23 | 1 | 87·0 |
| 29 *d* | 16 40 | 631 | 188 | 05 21 | 443 | 17 20 | 41·1 | 13·9 | 02 05 | 27·2 | 17 12 | 1076 | 897 | 24 00 | 179 | 4,5,5,4,4,6,4,4 | 36 | 2 | 87·2 |
| 30 | 16 52 | 557 | 146 | 03 43 | 411 | 00 00 | 32·5 | 4·8 | 07 22 | 27·7 | 17 37 | 1065 | 872 | 01 07 | 193 | 4,5,3,4,4,5,3,1 | 29 | 1 | 87·2 |
| 31 | 16 04 | 416 | 321 | 10 02 | 95 | 13 45 | 32·4 | 13·5 | 06 58 | 18·9 | 16 59 | 1034 | 951 | 01 50 | 83 | 3,1,1,2,2,3,2,2 | 16 | 0 | 87·0 |
| Mean | – – | 483 | 211 | – – | 272 | – – | 39·5 | 7·0 | – – | 32·5 | – – | 1074 | 920 | – – | 154 | – | – | 0·81 | 88·0 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

38 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 367 | 357 | 343 | 350 | 365 | 365 | 364 | 354 | 351 | 341 | 328 | 318 | 322 | 338 | 375 | 386 | 395 | 393 | 393 | 392 | 388 | 380 | 376 | 375 | 363 |
| 2 | 371 | 369 | 369 | 370 | 367 | 369 | 363 | 356 | 349 | 338 | 339 | 328 | 328 | 348 | 356 | 378 | 391 | 400 | 410 | 400 | 396 | 386 | 382 | 380 | 369 |
| 3 | 377 | 371 | 374 | 371 | 371 | 365 | 356 | 351 | 335 | 326 | 323 | 328 | 342 | 358 | 374 | 381 | 392 | 391 | 388 | 381 | 377 | 378 | 381 | 381 | 366 |
| 4 | 378 | 382 | 380 | 381 | 380 | 378 | 372 | 360 | 351 | 338 | 337 | 342 | 350 | 355 | 353 | 365 | 380 | 390 | 400 | 395 | 392 | 391 | 385 | 382 | 371 |
| 5 | 381 | 380 | 380 | 377 | 380 | 381 | 378 | 366 | 355 | 348 | 344 | 356 | 349 | 349 | 363 | 380 | 384 | 394 | 402 | 407 | 398 | 392 | 395 | 392 | 376 |
| 6 | 390 | 384 | 380 | 381 | 380 | 380 | 376 | 369 | 358 | 340 | 326 | 332 | 360 | 371 | 372 | 384 | 377 | 377 | 394 | 401 | 405 | 394 | 393 | 390 | 376 |
| 7 *d* | 384 | 387 | 383 | 379 | 380 | 383 | 385 | 390 | 353 | 346 | 336 | 340 | 380 | 401 | 505 | 578 | 574 | 567 | 481 | 452 | 395 | 380 | 376 | 375 | *413* |
| 8 | 371 | 368 | 368 | 369 | 371 | 366 | 360 | 347 | 336 | 324 | 322 | 326 | 332 | 352 | 368 | 379 | 385 | 386 | 395 | 401 | 404 | 382 | 368 | 375 | 365 |
| 9 | 379 | 381 | 379 | 378 | 375 | 372 | 367 | 360 | 357 | 350 | 350 | 355 | 360 | 369 | 372 | 375 | 396 | 402 | 407 | 404 | 389 | 385 | 383 | 379 | 376 |
| 10 | 378 | 376 | 375 | 374 | 374 | 371 | 366 | 354 | 343 | 331 | 327 | 329 | 343 | 363 | 379 | 378 | 392 | 409 | 414 | 408 | 399 | 388 | 381 | 372 | 372 |
| 11 *d* | 355 | 341 | 346 | 375 | 368 | 364 | 368 | 378 | 363 | 361 | 352 | 329 | 356 | 404 | 390 | 386 | 437 | 472 | 452 | 424 | 407 | 381 | 339 | 350 | 379 |
| 12 | 258 | 325 | 323 | 351 | 372 | 373 | 351 | 349 | 330 | 326 | 320 | 320 | 334 | 350 | 364 | 376 | 392 | 383 | 383 | 390 | 391 | 395 | 367 | 356 | 353 |
| 13 | 357 | 353 | 361 | 368 | 372 | 369 | 355 | 350 | 348 | 339 | 326 | 322 | 329 | 340 | 351 | 371 | 377 | 380 | 383 | 394 | 387 | 386 | 382 | 379 | 362 |
| 14 *d* | 380 | 379 | 375 | 382 | 390 | 382 | 379 | 321 | 295 | 289 | 295 | 301 | 299 | 389 | 340 | 339 | 363 | 366 | 394 | 436 | 420 | 282 | 348 | 356 | 354 |
| 15 *d* | 323 | 321 | 277 | 267 | 309 | 363 | 365 | 351 | 341 | 330 | 308 | 317 | 337 | 347 | 383 | 375 | 434 | 455 | 428 | 393 | 387 | 375 | 355 | 358 | 354 |
| 16 | 357 | 340 | 310 | 339 | 366 | 357 | 348 | 333 | 322 | 317 | 323 | 328 | 342 | 357 | 352 | 375 | 389 | 414 | 428 | 451 | 410 | 367 | 296 | 354 | 357 |
| 17 | 375 | 374 | 373 | 363 | 358 | 342 | 296 | 279 | 292 | 323 | 325 | 310 | 342 | 360 | 382 | 391 | 395 | 399 | 398 | 406 | 392 | 395 | 375 | 370 | 359 |
| 18 | 367 | 366 | 365 | 367 | 370 | 371 | 368 | 359 | 351 | 331 | 323 | 327 | 342 | 365 | 379 | 384 | 391 | 399 | 392 | 384 | 391 | 394 | 373 | 371 | 368 |
| 19 | 364 | 353 | 364 | 370 | 369 | 365 | 362 | 359 | 347 | 337 | 341 | 340 | 351 | 356 | 359 | 409 | 376 | 382 | 394 | 394 | 394 | 386 | 383 | 376 | 368 |
| 20 | 373 | 375 | 366 | 373 | 369 | 367 | 374 | 371 | 355 | 273 | 337 | 338 | 340 | 352 | 367 | 381 | 386 | 387 | 394 | 402 | 394 | 387 | 383 | 380 | 368 |
| 21 *q* | 382 | 378 | 378 | 376 | 375 | 374 | 370 | 365 | 352 | 334 | 322 | 333 | 344 | 359 | 375 | 386 | 385 | 387 | 384 | 384 | 387 | 386 | 383 | 383 | 370 |
| 22 *q* | 384 | 382 | 379 | 375 | 380 | 375 | 366 | 358 | 348 | 337 | 339 | 343 | 349 | 363 | 372 | 379 | 380 | 379 | 379 | 382 | 385 | 386 | 386 | 387 | 371 |
| 23 *q* | 385 | 385 | 382 | 381 | 379 | 375 | 368 | 357 | 345 | 333 | 335 | 343 | 357 | 373 | 373 | 373 | 375 | 376 | 382 | 389 | 394 | 396 | 398 | 401 | 373 |
| 24 | 400 | 401 | 403 | 399 | 392 | 387 | 374 | 371 | 360 | 352 | 352 | 353 | 358 | 369 | 388 | 388 | 397 | 400 | 397 | 399 | 398 | 389 | 382 | 380 | 383 |
| 25 | 382 | 382 | 387 | 378 | 374 | 367 | 352 | 335 | 324 | 321 | 334 | 338 | 354 | 364 | 374 | 371 | 383 | 370 | 373 | 381 | 381 | 381 | 380 | 378 | 365 |
| 26 *q* | 376 | 376 | 377 | 377 | 375 | 372 | 363 | 351 | 335 | 320 | 321 | 327 | 340 | 356 | 373 | 384 | 385 | 381 | 377 | 391 | 388 | 387 | 384 | 384 | 367 |
| 27 | 384 | 383 | 383 | 381 | 376 | 378 | 379 | 356 | 340 | 323 | 322 | 340 | 341 | 356 | 374 | 381 | 385 | 386 | 387 | 393 | 399 | 395 | 385 | 374 | 371 |
| 28 | 377 | 377 | 372 | 377 | 379 | 375 | 366 | 355 | 339 | 328 | 329 | 334 | 344 | 365 | 357 | 363 | 384 | 399 | 398 | 399 | 392 | 387 | 384 | 383 | 369 |
| 29 *q* | 383 | 382 | 380 | 381 | 380 | 379 | 373 | 365 | 353 | 334 | 327 | 327 | 337 | 351 | 361 | 373 | 391 | 398 | 399 | 396 | 392 | 384 | 384 | 381 | 371 |
| 30 | 378 | 379 | 379 | 379 | 379 | 377 | 372 | 364 | 353 | 342 | 341 | 345 | 351 | 365 | 379 | 385 | 392 | 408 | 409 | 415 | 401 | 390 | 387 | 375 | 377 |
| 31 *d* | 232 | 315 | 329 | 333 | 201 | 73 | 307 | 362 | 360 | 329 | 317 | 317 | 359 | 399 | 423 | 469 | 512 | 466 | 395 | 365 | 358 | 356 | 353 | 353 | *345* |
| Mean | 366 | 369 | 366 | 369 | 367 | 362 | 363 | 355 | 343 | 331 | *330* | 332 | 344 | 363 | 375 | 388 | 399 | *403* | 400 | 400 | 393 | 382 | 375 | 375 | 369 |

Corrections to be applied to all values; *H*, −6$\gamma$: *D*, −4′·4; *V*, nil.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

39 LERWICK (D) — 11° + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 24·4 | 27·2 | 24·8 | 22·7 | 17·5 | 18·2 | 16·9 | 14·1 | 12·5 | 15·3 | 17·8 | 22·2 | 26·2 | 28·9 | 28·2 | 26·8 | 22·2 | 21·1 | 19·1 | 18·7 | 20·8 | 22·0 | 21·0 | 22·1 | 21·3 |
| 2 | 22·7 | 22·2 | 23·0 | 22·3 | 20·7 | 16·8 | 14·8 | 14·2 | 14·9 | 16·6 | 19·4 | 24·6 | 26·4 | 28·1 | 26·3 | 23·9 | 20·9 | 19·3 | 18·9 | 21·0 | 22·2 | 23·3 | 22·0 | 23·7 | 21·2 |
| 3 | 24·2 | 23·1 | 22·6 | 21·6 | 21·0 | 17·8 | 16·8 | 13·7 | 13·2 | 15·8 | 19·6 | 23·9 | 27·2 | 28·6 | 28·0 | 25·0 | 23·2 | 22·7 | 22·1 | 22·0 | 21·1 | 20·6 | 20·7 | 20·4 | 21·5 |
| 4 | 20·4 | 20·4 | 20·2 | 19·5 | 17·8 | 15·5 | 13·9 | 13·3 | 15·0 | 19·1 | 22·1 | 27·0 | 29·2 | 29·1 | 28·2 | 26·4 | 25·5 | 24·0 | 23·9 | 23·5 | 23·7 | 24·0 | 24·6 | 24·1 | 22·1 |
| 5 | 23·2 | 23·0 | 21·4 | 19·8 | 17·4 | 15·0 | 13·8 | 14·5 | 16·9 | 17·7 | 19·8 | 25·0 | 29·4 | 30·1 | 28·3 | 26·1 | 24·7 | 23·7 | 23·7 | 23·4 | 22·4 | 21·2 | 21·6 | 21·9 | 21·8 |
| 6 | 22·5 | 22·2 | 21·4 | 18·4 | 17·1 | 15·3 | 15·6 | 15·6 | 16·9 | 18·8 | 22·0 | 26·5 | 29·1 | 28·9 | 29·8 | 28·4 | 26·4 | 23·5 | 23·4 | 24·1 | 24·8 | 27·8 | 25·5 | 24·5 | 22·9 |
| 7 *d* | 22·1 | 23·5 | 23·3 | 23·9 | 20·3 | 15·4 | 13·4 | 14·0 | 16·3 | 19·7 | 23·7 | 27·8 | 32·6 | 32·9 | 32·6 | 33·2 | 37·5 | 37·0 | 28·8 | 18·9 | 24·5 | 26·5 | 24·0 | 22·5 | *24·7* |
| 8 | 20·2 | 19·3 | 18·7 | 18·3 | 17·0 | 16·6 | 16·6 | 17·1 | 17·0 | 17·2 | 19·5 | 21·8 | 25·5 | 26·1 | 25·9 | 25·0 | 24·5 | 24·0 | 22·7 | 24·5 | 23·9 | 21·3 | 20·8 | 21·6 | 21·0 |
| 9 | 19·9 | 19·6 | 17·9 | 17·4 | 16·3 | 15·1 | 15·8 | 16·1 | 17·2 | 20·3 | 23·4 | 27·7 | 30·8 | 30·1 | 28·6 | 26·0 | 23·7 | 21·6 | 23·0 | 22·4 | 22·1 | 23·7 | 23·1 | 21·9 | 21·8 |
| 10 | 20·8 | 20·2 | 19·3 | 18·2 | 16·7 | 14·5 | 13·2 | 13·0 | 14·1 | 18·4 | 22·5 | 28·0 | 31·1 | 31·4 | 30·2 | 26·3 | 23·5 | 22·2 | 19·7 | 20·7 | 23·5 | 24·7 | 22·0 | 18·9 | 21·4 |
| 11 *d* | 19·7 | 22·1 | 16·0 | 17·2 | 19·2 | 21·6 | 27·9 | 21·1 | 15·1 | 18·6 | 23·4 | 26·4 | 27·1 | 29·8 | 28·9 | 26·8 | 28·9 | 19·8 | 19·4 | 25·8 | 25·9 | 24·5 | 23·0 | 13·2 | 22·6 |
| 12 | 19·2 | 5·4 | 8·8 | 17·3 | 16·8 | 15·5 | 16·3 | 14·6 | 13·7 | 16·8 | 21·0 | 25·0 | 27·6 | 29·7 | 28·4 | 26·1 | 25·1 | 22·7 | 21·3 | 22·7 | 22·9 | 22·5 | 20·6 | 12·1 | 19·7 |
| 13 | 19·0 | 18·7 | 19·5 | 17·5 | 13·2 | 14·3 | 14·5 | 14·2 | 14·6 | 16·1 | 19·6 | 23·6 | 27·3 | 28·9 | 26·8 | 24·6 | 21·8 | 20·6 | 19·5 | 20·8 | 20·9 | 20·9 | 20·6 | 20·1 | 19·9 |
| 14 *d* | 19·9 | 19·6 | 19·6 | 18·0 | 14·9 | 13·6 | 11·5 | 10·4 | 20·1 | 15·6 | 16·9 | 22·7 | 34·2 | 32·7 | 32·3 | 29·2 | 25·8 | 22·3 | 24·0 | 25·1 | 12·6 | 30·2 | 16·1 | 19·9 | 21·1 |
| 15 *d* | 20·9 | 15·9 | 4·0 | 12·5 | 16·1 | 8·7 | 14·6 | 15·1 | 13·3 | 15·3 | 19·0 | 22·9 | 25·6 | 27·4 | 28·7 | 26·5 | 28·6 | 21·8 | 18·6 | 22·7 | 21·1 | 14·0 | 21·0 | 20·7 | 19·0 |
| 16 | 18·9 | 21·8 | 19·3 | 18·3 | 15·8 | 11·5 | 9·8 | 10·3 | 14·1 | 16·9 | 21·2 | 24·4 | 28·3 | 30·1 | 27·3 | 26·6 | 26·5 | 26·5 | 26·8 | 21·0 | 12·1 | 13·7 | 11·5 | 11·7 | 19·4 |
| 17 | 14·1 | 15·1 | 16·7 | 15·9 | 18·8 | 20·9 | 25·7 | 28·1 | 18·9 | 18·9 | 21·3 | 24·8 | 30·8 | 32·0 | 31·2 | 24·6 | 26·4 | 25·1 | 21·2 | 19·8 | 22·3 | 19·6 | 23·7 | 20·3 | 22·3 |
| 18 | 20·4 | 20·2 | 20·0 | 19·1 | 17·7 | 15·3 | 14·3 | 16·0 | 15·8 | 18·8 | 21·8 | 25·1 | 27·2 | 28·4 | 28·1 | 26·1 | 23·9 | 22·6 | 21·4 | 21·2 | 21·0 | 18·8 | 20·5 | 19·1 | 21·0 |
| 19 | 10·2 | 9·6 | 14·5 | 16·6 | 16·3 | 15·9 | 15·0 | 14·3 | 15·1 | 16·4 | 19·8 | 24·6 | 28·3 | 29·5 | 28·5 | 23·4 | 23·9 | 21·9 | 20·7 | 19·9 | 19·8 | 18·5 | 18·9 | 19·0 | 19·2 |
| 20 | 20·6 | 18·5 | 18·9 | 18·0 | 14·7 | 16·1 | 14·6 | 14·2 | 14·2 | 11·3 | 15·2 | 20·1 | 25·9 | 27·3 | 27·0 | 23·4 | 21·3 | 20·2 | 21·5 | 21·4 | 17·8 | 20·3 | 20·6 | 19·7 | 19·3 |
| 21 *q* | 19·8 | 20·0 | 20·6 | 19·9 | 18·2 | 15·3 | 13·1 | 12·0 | 12·9 | 17·0 | 21·1 | 25·8 | 29·4 | 30·3 | 29·6 | 27·0 | 24·2 | 21·8 | 20·8 | 20·8 | 20·6 | 20·7 | 19·7 | 20·8 | 20·9 |
| 22 *q* | 20·2 | 19·9 | 19·5 | 18·9 | 16·6 | 15·1 | 13·5 | 13·4 | 14·2 | 16·2 | 19·1 | 22·8 | 26·1 | 26·8 | 25·8 | 23·5 | 21·2 | 20·4 | 20·8 | 21·3 | 20·9 | 20·6 | 20·6 | 20·4 | 19·9 |
| 23 *q* | 20·0 | 19·6 | 19·4 | 18·2 | 16·4 | 14·9 | 13·4 | 13·4 | 13·7 | 16·6 | 21·9 | 27·2 | 29·1 | 25·4 | 22·4 | 21·8 | 19·7 | 19·2 | 20·7 | 21·8 | 21·4 | 21·3 | 21·3 | 21·4 | 20·0 |
| 24 | 22·0 | 22·4 | 20·8 | 15·9 | 15·3 | 13·6 | 12·4 | 13·2 | 15·3 | 19·4 | 22·8 | 26·3 | 28·6 | 29·5 | 28·4 | 24·8 | 22·7 | 20·8 | 19·8 | 20·2 | 20·8 | 20·7 | 22·6 | 20·4 | 20·8 |
| 25 | 19·7 | 14·0 | 13·5 | 11·3 | 11·6 | 11·4 | 11·9 | 11·2 | 12·7 | 18·1 | 22·5 | 25·4 | 27·7 | 27·0 | 23·7 | 19·8 | 18·2 | 16·8 | 18·8 | 19·1 | 20·5 | 20·9 | 20·6 | 20·1 | *18·2* |
| 26 *q* | 19·0 | 17·9 | 18·0 | 17·7 | 16·2 | 15·0 | 14·2 | 13·8 | 14·4 | 17·9 | 22·0 | 25·4 | 27·3 | 27·4 | 25·6 | 22·3 | 19·9 | 19·8 | 20·9 | 22·7 | 21·8 | 21·8 | 21·4 | 20·0 | 20·1 |
| 27 | 19·6 | 18·7 | 18·0 | 17·7 | 15·5 | 12·1 | 11·4 | 12·5 | 12·8 | 15·7 | 20·2 | 26·3 | 28·1 | 27·5 | 25·8 | 23·8 | 21·8 | 20·8 | 20·8 | 21·4 | 22·1 | 23·4 | 18·8 | 18·7 | 19·7 |
| 28 | 18·5 | 14·3 | 14·9 | 14·6 | 14·3 | 15·8 | 15·1 | 15·2 | 17·6 | 20·9 | 24·7 | 27·7 | 30·4 | 33·2 | 30·5 | 27·2 | 24·0 | 22·1 | 21·5 | 20·1 | 21·8 | 21·0 | 20·2 | 19·0 | 21·0 |
| 29 *q* | 18·8 | 18·3 | 17·7 | 17·8 | 16·9 | 16·2 | 14·9 | 15·0 | 15·3 | 17·8 | 21·4 | 25·9 | 29·7 | 29·8 | 27·7 | 25·6 | 23·7 | 21·8 | 21·8 | 21·9 | 23·0 | 22·0 | 21·1 | 19·7 | 21·0 |
| 30 | 18·0 | 17·5 | 17·1 | 17·0 | 17·0 | 16·5 | 16·0 | 16·0 | 16·4 | 17·8 | 20·1 | 23·6 | 24·9 | 26·4 | 26·5 | 26·4 | 25·4 | 23·7 | 24·0 | 21·8 | 22·0 | 21·1 | 17·0 | 16·9 | 20·4 |
| 31 *d* | 21·5 | 8·3 | −1·4 | 11·0 | 30·3 | 20·3 | 16·5 | 10·6 | 12·4 | 17·5 | 20·2 | 19·9 | 23·8 | 26·4 | 29·7 | 31·7 | 35·4 | 31·9 | 25·8 | 25·2 | 22·2 | 21·3 | 19·5 | 17·9 | 20·7 |
| Mean | 20·0 | 18·7 | 17·7 | 17·8 | 17·2 | 15·5 | 15·1 | *14·5* | 15·1 | 17·4 | 20·8 | 24·9 | 28·2 | *29·0* | 28·0 | 25·8 | 24·5 | 22·6 | 21·8 | 21·8 | 21·4 | 21·7 | 20·8 | 19·7 | 20·8 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

40 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 993 | 986 | 986 | 995 | 1009 | 1017 | 1017 | 1024 | 1026 | 1024 | 1021 | 1019 | 1015 | 1011 | 1017 | 1032 | 1042 | 1041 | 1033 | 1029 | 1022 | 1015 | 1012 | 1009 | 1016 |
| 2 | 1009 | 1010 | 1009 | 1012 | 1015 | 1015 | 1018 | 1013 | 1005 | 1000 | 1000 | 1000 | 1004 | 1000 | 1008 | 1012 | 1019 | 1023 | 1030 | 1030 | 1025 | 1022 | 1014 | 1010 | 1013 |
| 3 | 1005 | 1005 | 995 | 990 | 990 | 1001 | 1009 | 1016 | 1019 | 1012 | 1000 | 997 | 993 | 997 | 998 | 998 | 1003 | 1008 | 1011 | 1011 | 1011 | 1009 | 1006 | 1005 | 1004 |
| 4 | 1004 | 1002 | 1003 | 1005 | 1006 | 1006 | 1006 | 1008 | 1006 | 994 | 983 | 975 | 979 | 990 | 998 | 999 | 1002 | 1006 | 1009 | 1011 | 1010 | 1009 | 1006 | 1005 | 1001 |
| 5 | 1003 | 1003 | 1003 | 1005 | 1006 | 1008 | 1010 | 1013 | 1009 | 1003 | 1005 | 998 | 997 | 995 | 992 | 995 | 1004 | 1005 | 1005 | 1004 | 1011 | 1011 | 1005 | 997 | 1004 |
| 6 | 992 | 998 | 1003 | 1005 | 1008 | 1009 | 1008 | 1005 | 1002 | 997 | 993 | 983 | 980 | 998 | 1009 | 1017 | 1025 | 1023 | 1015 | 1014 | 1016 | 1011 | 1006 | 1005 | 1005 |
| 7 *d* | 1007 | 1003 | 992 | 952 | 956 | 970 | 988 | 997 | 998 | 998 | 1001 | 995 | 989 | 1013 | 1085 | 1175 | 1131 | 1127 | 1109 | 1080 | 1038 | 1020 | 1014 | 1018 | *1027* |
| 8 | 1020 | 1021 | 1017 | 1015 | 1016 | 1019 | 1018 | 1017 | 1012 | 1014 | 1014 | 1010 | 1004 | 1005 | 1007 | 1011 | 1010 | 1009 | 1012 | 1009 | 1013 | 1017 | 1017 | 1004 | 1013 |
| 9 | 1008 | 1007 | 1008 | 1007 | 1008 | 1006 | 1005 | 1002 | 1000 | 996 | 989 | 987 | 986 | 986 | 995 | 1005 | 1012 | 1025 | 1023 | 1023 | 1020 | 1008 | 1005 | 1005 | 1005 |
| 10 | 1005 | 1005 | 1005 | 1007 | 1008 | 1007 | 1009 | 1009 | 1005 | 998 | 992 | 986 | 981 | 986 | 993 | 1005 | 1006 | 1014 | 1023 | 1024 | 1017 | 1008 | 999 | 996 | 1004 |
| 11 *d* | 984 | 939 | 944 | 975 | 976 | 942 | 926 | 950 | 982 | 992 | 998 | 1002 | 992 | 996 | 1015 | 1026 | 1024 | 1072 | 1070 | 1036 | 1032 | 972 | 912 | 918 | 986 |
| 12 | 853 | 862 | 884 | 929 | 975 | 995 | 994 | 1002 | 1005 | 1005 | 1003 | 998 | 992 | 994 | 999 | 1006 | 1006 | 1011 | 1004 | 998 | 998 | 1001 | 931 | 945 | 975 |
| 13 | 967 | 975 | 987 | 992 | 989 | 997 | 1003 | 999 | 997 | 996 | 995 | 988 | 988 | 993 | 997 | 998 | 1003 | 1001 | 1002 | 997 | 998 | 994 | 993 | 994 | 993 |
| 14 *d* | 996 | 997 | 995 | 986 | 983 | 994 | 992 | 1005 | 990 | 991 | 994 | 1005 | 1034 | 1028 | 1017 | 1026 | 1041 | 1047 | 1028 | 1023 | 1052 | 905 | 955 | 979 | 1003 |
| 15 *d* | 936 | 872 | 861 | 900 | 918 | 972 | 995 | 1009 | 1017 | 1015 | 1017 | 1004 | 992 | 989 | 995 | 1021 | 1015 | 1059 | 1070 | 1040 | 1025 | 1014 | 998 | 954 | 987 |
| 16 | 965 | 953 | 950 | 969 | 987 | 992 | 998 | 1005 | 1001 | 996 | 997 | 992 | 986 | 989 | 998 | 998 | 1002 | 1003 | 1009 | 1028 | 995 | 961 | 811 | 888 | 978 |
| 17 | 945 | 983 | 992 | 986 | 987 | 981 | 959 | 948 | 958 | 989 | 987 | 992 | 983 | 1008 | 1035 | 1056 | 1034 | 1026 | 1025 | 1020 | 1011 | 986 | 960 | 977 | 993 |
| 18 | 990 | 990 | 991 | 990 | 995 | 1005 | 1006 | 1011 | 1006 | 1004 | 1000 | 995 | 990 | 984 | 994 | 999 | 1003 | 1008 | 1012 | 1011 | 1008 | 993 | 986 | 980 | 998 |
| 19 | 950 | 952 | 969 | 982 | 992 | 1001 | 1005 | 1006 | 1005 | 998 | 995 | 992 | 990 | 996 | 997 | 997 | 998 | 1000 | 1003 | 1011 | 1006 | 1003 | 998 | 993 | 993 |
| 20 | 987 | 983 | 981 | 985 | 984 | 993 | 995 | 998 | 1003 | 1009 | 1000 | 991 | 992 | 989 | 987 | 979 | 982 | 1006 | 1004 | 1001 | 1011 | 1005 | 1003 | 1000 | 995 |
| 21 *q* | 998 | 997 | 993 | 994 | 998 | 1003 | 1005 | 1006 | 1005 | 1003 | 992 | 983 | 983 | 986 | 991 | 997 | 1000 | 998 | 998 | 998 | 998 | 998 | 1000 | 992 | 997 |
| 22 *q* | 987 | 989 | 992 | 995 | 996 | 1000 | 1000 | 1000 | 1000 | 998 | 992 | 983 | 981 | 986 | 993 | 997 | 997 | 994 | 993 | 992 | 994 | 997 | 998 | 997 | 994 |
| 23 *q* | 998 | 997 | 997 | 998 | 1000 | 1001 | 1004 | 1004 | 1003 | 987 | 978 | 978 | 984 | 993 | 995 | 997 | 994 | 990 | 987 | 986 | 989 | 991 | 992 | 992 | 993 |
| 24 | 991 | 987 | 972 | 976 | 986 | 989 | 993 | 992 | 989 | 986 | 978 | 975 | 975 | 979 | 987 | 1002 | 1005 | 1005 | 1004 | 999 | 998 | 996 | 992 | 995 | 990 |
| 25 | 984 | 980 | 975 | 978 | 985 | 992 | 994 | 992 | 987 | 980 | 975 | 974 | 978 | 987 | 994 | 998 | 998 | 1003 | 993 | 989 | 990 | 990 | 992 | 993 | 988 |
| 26 *q* | 994 | 997 | 998 | 998 | 999 | 998 | 998 | 998 | 1000 | 995 | 986 | 980 | 975 | 981 | 991 | 995 | 998 | 993 | 987 | 985 | 991 | 990 | 991 | 992 | 992 |
| 27 | 993 | 994 | 997 | 997 | 997 | 992 | 986 | 989 | 992 | 987 | 982 | 975 | 980 | 984 | 989 | 993 | 998 | 998 | 998 | 995 | 992 | 992 | 993 | 994 | 991 |
| 28 | 986 | 982 | 987 | 987 | 989 | 989 | 993 | 997 | 994 | 987 | 981 | 975 | 974 | 980 | 992 | 994 | 995 | 1002 | 1010 | 1011 | 1000 | 996 | 992 | 992 | 991 |
| 29 *q* | 992 | 993 | 995 | 995 | 997 | 998 | 998 | 998 | 997 | 995 | 986 | 975 | 972 | 975 | 981 | 987 | 992 | 1001 | 1004 | 1003 | 998 | 995 | 992 | 987 | 992 |
| 30 | 992 | 992 | 994 | 995 | 997 | 998 | 997 | 996 | 993 | 992 | 991 | 980 | 979 | 981 | 986 | 992 | 994 | 998 | 1001 | 994 | 988 | 998 | 992 | 961 | 991 |
| 31 *d* | 804 | 840 | 820 | 818 | 820 | 738 | 784 | 937 | 976 | 995 | 1004 | 1004 | 998 | 1030 | 1056 | 1081 | 1104 | 1107 | 1081 | 1041 | 1018 | 995 | 998 | 998 | *960* |
| Mean | 979 | *977* | 977 | 981 | 986 | 988 | 991 | 998 | 999 | 998 | 995 | 990 | 989 | 994 | 1003 | 1012 | 1014 | *1019* | 1018 | 1013 | 1009 | 997 | 986 | 986 | 996 |

Correctiona to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

41 LERWICK — AUGUST

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | Vertical force | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 17 02 | 401 | 315 | 11 31 | 86 | 13 57 | 29·6 | 11·9 | 08 07 | 17·7 | 17 12 | 1047 | 980 | 02 00 | 67 | 2,2,2,2,3,2,2,1 | 16 | 1 | 87·0 |
| 2 | 18 21 | 421 | 323 | 12 13 | 98 | 13 45 | 28·8 | 13·3 | 08 00 | 15·5 | 18 47 | 1035 | 998 | 13 21 | 37 | 1,2,1,2,2,2,2,2 | 14 | 0 | 87·0 |
| 3 | 16 39 | 401 | 315 | 10 59 | 86 | 13 09 | 29·6 | 12·4 | 08 35 | 17·2 | 08 40 | 1023 | 987 | 04 19 | 36 | 1,2,2,2,2,2,1,1 | 13 | 0 | 86·7 |
| 4 | 18 38 | 405 | 334 | 10 13 | 71 | 13 12 | 29·9 | 12·8 | 07 28 | 17·1 | 19 27 | 1014 | 974 | 11 40 | 40 | 1,1,1,2,2,2,2,1 | 12 | 0 | 86·3 |
| 5 | 19 41 | 413 | 340 | 10 59 | 73 | 13 23 | 31·4 | 13·4 | 06 48 | 18·0 | 21 08 | 1015 | 989 | 14 52 | 26 | 1,2,1,2,2,2,2,2 | 14 | 1 | 86·8 |
| 6 | 20 47 | 411 | 320 | 10 46 | 91 | 14 40 | 30·2 | 14·3 | 05 19 | 15·9 | 17 03 | 1030 | 975 | 12 08 | 55 | 1,1,1,2,3,2,2,2 | 14 | 1 | 87·5 |
| 7 *d* | 15 47 | *623* | 324 | 10 39 | 299 | 16 52 | 41·7 | 7·7 | 19 43 | 34·0 | 15 26 | *1216* | 926 | 03 34 | 290 | 3,3,2,2,5,6,4,2 | 27 | 1 | 87·5 |
| 8 | 19 55 | 421 | 320 | 10 07 | 101 | 13 35 | 26·7 | 15·3 | 05 37 | *11·4* | 01 03 | 1026 | 999 | 16 53 | 27 | 1,1,1,1,2,2,3,2 | 13 | 1 | 87·8 |
| 9 | 18 59 | 425 | 343 | 10 15 | 82 | 12 37 | 31·4 | 14·5 | 05 20 | 16·9 | 19 57 | 1033 | 983 | 12 37 | 50 | 2,1,1,2,2,2,2,1 | 13 | 1 | 88·3 |
| 10 | 18 13 | 433 | 317 | 10 52 | 116 | 13 05 | 32·0 | 12·3 | 07 41 | 19·7 | 18 58 | 1033 | 979 | 12 20 | 54 | 1,1,1,2,2,2,2,4 | 15 | 1 | 88·3 |
| 11 *d* | 17 47 | 498 | 308 | 22 42 | 190 | 22 03 | 33·0 | 8·5 | 08 31 | 24·5 | 17 54 | 1094 | 883 | 22 41 | 211 | 3,4,4,3,4,4,4,5 | 31 | 1 | 88·4 |
| 12 | 22 01 | 438 | 183 | 00 37 | 255 | 22 17 | 31·1 | 1·2 | 01 27 | 29·9 | 17 23 | 1014 | 811 | 00 36 | 203 | 5,4,3,2,2,3,2,4 | 25 | 1 | 87·7 |
| 13 | 19 22 | 402 | 317 | 12 00 | 85 | 13 30 | 29·4 | 10·5 | 07 49 | 18·9 | 06 28 | 1006 | 954 | 00 00 | 52 | 2,2,2,2,2,2,2,1 | 15 | 1 | 87·8 |
| 14 *d* | 20 29 | 487 | 141 | 21 01 | 346 | 21 54 | *71·7* | −10·4 | 20 38 | 82·1 | 20 27 | 1084 | 820 | 21 00 | 264 | 2,2,4,3,5,3,6,5 | 30 | 2 | 87·9 |
| 15 *d* | 17 02 | 493 | 248 | 03 19 | 245 | 14 29 | 27·8 | −0·1 | 02 33 | 27·9 | 17 37 | 1082 | 850 | 02 04 | 232 | 4,4,3,3,3,4,4,4 | 29 | 1 | 87·0 |
| 16 | 19 41 | 469 | 245 | 22 49 | 224 | 13 44 | 31·3 | −5·5 | 21 58 | 36·8 | 19 42 | 1053 | 765 | 22 11 | 288 | 3,3,2,2,3,3,4,5 | 25 | 1 | 86·3 |
| 17 | 21 43 | 441 | 265 | 07 21 | 176 | 13 57 | 35·6 | 7·5 | 21 41 | 28·1 | 14 57 | 1062 | 915 | 01 03 | 147 | 3,3,3,3,4,3,3,4 | 26 | 1 | 86·2 |
| 18 | 17 04 | 406 | 318 | 10 37 | 88 | 14 02 | 29·2 | 13·4 | 06 36 | 15·8 | 19 05 | 1016 | 976 | 24 00 | 40 | 1,1,1,1,2,2,2,2 | 12 | 0 | 85·9 |
| 19 | 18 18 | 406 | 329 | 09 40 | 77 | 13 08 | 31·3 | 3·0 | 00 47 | 28·3 | 20 05 | 1014 | 938 | 00 35 | 76 | 3,2,2,2,2,2,2,1 | 16 | 1 | 84·9 |
| 20 | 19 40 | 406 | 330 | 10 10 | 76 | 13 38 | 28·2 | 10·7 | 07 57 | 17·5 | 20 35 | 1014 | 979 | 04 03 | 35 | 2,2,1,1,2,1,2,1 | 12 | 0 | 85·8 |
| 21 *q* | 21 04 | 391 | 318 | 10 36 | 73 | 13 24 | 30·5 | 11·3 | 07 14 | 19·2 | 07 57 | 1007 | 979 | 11 59 | 28 | 1,2,1,2,2,2,1,2 | 13 | 0 | 86·4 |
| 22 *q* | 24 00 | 390 | 336 | 09 10 | *54* | 13 17 | 27·2 | 12·5 | 07 11 | 14·7 | 06 31 | 1004 | 981 | 12 20 | *23* | 1,1,1,1,1,2,1,1 | 9 | 0 | 86·0 |
| 23 *q* | 23 59 | 406 | 325 | 09 32 | 81 | 12 20 | 29·4 | 12·8 | 06 51 | 16·6 | 07 13 | 1005 | 977 | 10 35 | 28 | 1,1,1,2,2,1,2,1 | 11 | 0 | 86·9 |
| 24 | 02 46 | 410 | 347 | 09 16 | 63 | 13 16 | 30·3 | 9·7 | 06 57 | 20·6 | 17 42 | 1009 | 965 | 02 53 | 44 | 2,2,2,1,2,2,1,2 | 14 | 1 | 87·1 |
| 25 | 16 30 | 392 | 315 | 09 25 | 77 | 12 59 | 28·7 | 8·5 | 03 00 | 20·2 | 17 20 | 1006 | 972 | 02 58 | 34 | 3,2,2,2,2,2,1,0 | 14 | 1 | 87·0 |
| 26 *q* | 19 30 | 397 | 317 | 09 45 | 80 | 13 26 | 27·7 | 13·2 | 07 55 | 14·5 | 16 29 | 1003 | 974 | 12 46 | 29 | 1,0,2,2,2,2,2,0 | 11 | 0 | 86·9 |
| 27 | 20 37 | 400 | 319 | 09 39 | 81 | 12 03 | 29·1 | 10·2 | 06 05 | 18·9 | 18 14 | 1000 | 973 | 11 56 | 27 | 0,2,2,3,2,2,2,3 | 16 | 1 | 86·4 |
| 28 | 17 57 | 410 | 327 | 09 46 | 83 | 13 28 | 34·1 | 12·5 | 04 08 | 21·6 | 19 06 | 1014 | 973 | 12 10 | 41 | 2,2,2,1,2,2,2,1 | 14 | 1 | 86·2 |
| 29 *q* | 17 24 | 403 | 326 | 10 31 | 77 | 12 54 | 30·4 | 14·2 | 07 19 | 16·2 | 17 57 | 1005 | 969 | 12 06 | 36 | 0,0,1,2,1,2,1,1 | 8 | 0 | 86·6 |
| 30 | 18 52 | 434 | 275 | 23 59 | 159 | 24 00 | 32·3 | 15·0 | 19 42 | 17·3 | 18 27 | 1006 | 923 | 24 00 | 83 | 0,0,1,1,1,2,2,5 | 12 | 1 | 86·8 |
| 31 *d* | 16 52 | 528 | *−93* | 05 18 | *621* | 05 31 | 70·3 | *−15·0* | 02 20 | *85·3* | 17 09 | 1155 | *588* | 05 46 | *567* | 5,7,4,3,4,4,3,0 | 30 | 2 | 86·9 |
| Mean | − − | 431 | 292 | − − | 139 | − − | 33·2 | 8·8 | − − | 24·5 | − − | 1036 | 934 | − − | 102 | − | − | 0·74 | 86·9 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

42 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 *q* | 362 | 361 | 360 | 360 | 360 | 360 | 357 | 352 | 342 | 333 | 325 | 328 | 333 | 338 | 342 | 356 | 367 | 381 | 386 | 382 | 378 | 378 | 378 | 385 | 359 |
| 2 | 382 | 369 | 371 | 372 | 372 | 369 | 351 | 353 | 364 | 354 | 350 | 346 | 346 | 341 | 349 | 360 | 376 | 383 | 398 | 397 | 382 | 380 | 376 | 372 | 367 |
| 3 | 366 | 368 | 371 | 374 | 374 | 376 | 377 | 375 | 362 | 346 | 333 | 321 | 337 | 358 | 369 | 391 | 405 | 393 | 374 | 380 | 381 | 378 | 371 | 380 | 369 |
| 4 | 389 | 389 | 387 | 389 | 390 | 386 | 356 | 374 | 343 | 324 | 314 | 324 | 339 | 352 | 384 | 400 | 407 | 404 | 403 | 389 | 383 | 375 | 377 | 352 | 372 |
| 5 | 363 | 367 | 370 | 371 | 373 | 371 | 369 | 349 | 324 | 319 | 320 | 329 | 338 | 359 | 363 | 376 | 414 | 419 | 399 | 388 | 378 | 385 | 390 | 380 | 367 |
| 6 *q* | 377 | 359 | 367 | 352 | 353 | 378 | 378 | 374 | 364 | 346 | 329 | 325 | 335 | 349 | 360 | 368 | 374 | 380 | 382 | 383 | 383 | 383 | 383 | 383 | 365 |
| 7 | 383 | 385 | 386 | 386 | 382 | 383 | 380 | 376 | 346 | 310 | 325 | 339 | 345 | 372 | 350 | 349 | 368 | 363 | 386 | 384 | 383 | 368 | 378 | 382 | 367 |
| 8 | 363 | 367 | 370 | 371 | 371 | 368 | 376 | 358 | 352 | 327 | 325 | 334 | 319 | 334 | 343 | 343 | 357 | 365 | 374 | 374 | 357 | 357 | 359 | 354 | 355 |
| 9 | 359 | 362 | 365 | 365 | 364 | 358 | 350 | 350 | 348 | 344 | 339 | 348 | 359 | 370 | 405 | 398 | 431 | 443 | 421 | 380 | 372 | 372 | 383 | 367 | *373* |
| 10 | 372 | 375 | 376 | 374 | 372 | 370 | 365 | 356 | 321 | 300 | 335 | 351 | 361 | 353 | 362 | 357 | 373 | 381 | 380 | 379 | 378 | 385 | 347 | 321 | 360 |
| 11 | 374 | 372 | 371 | 374 | 378 | 383 | 374 | 367 | 356 | 343 | 334 | 332 | 351 | 350 | 361 | 392 | 381 | 404 | 392 | 389 | 389 | 381 | 376 | 383 | 371 |
| 12 | 378 | 373 | 373 | 372 | 377 | 374 | 361 | 332 | 327 | 339 | 336 | 335 | 341 | 355 | 345 | 357 | 376 | 381 | 384 | 382 | 386 | 378 | 376 | 372 | 363 |
| 13 | 376 | 375 | 374 | 376 | 370 | 364 | 380 | 368 | 351 | 335 | 325 | 325 | 331 | 346 | 371 | 359 | 372 | 377 | 387 | 387 | 386 | 385 | 389 | 397 | 367 |
| 14 | 373 | 362 | 373 | 374 | 377 | 377 | 376 | 369 | 354 | 342 | 338 | 332 | 328 | 338 | 349 | 361 | 371 | 381 | 389 | 392 | 390 | 388 | 378 | 383 | 366 |
| 15 *q* | 377 | 378 | 377 | 377 | 377 | 379 | 377 | 365 | 350 | 338 | 325 | 323 | 330 | 340 | 364 | 391 | 372 | 384 | 392 | 386 | 388 | 385 | 387 | 388 | 369 |
| 16 | 386 | 382 | 380 | 380 | 380 | 381 | 380 | 373 | 360 | 338 | 327 | 329 | 336 | 357 | 377 | 394 | 451 | 510 | 608 | 227 | 307 | 378 | 333 | 230 | 371 |
| 17 | 196 | 10 | 141 | 332 | 335 | 332 | 363 | 358 | 350 | 342 | 337 | 342 | 341 | 343 | 362 | 367 | 389 | 403 | 396 | 407 | 374 | 351 | 334 | 251 | 323 |
| 18 *d* | 47 | 114 | -218 | -193 | -193 | -32 | 25 | 143 | 148 | 257 | 319 | 373 | 494 | 530 | 605 | 705 | 650 | 516 | 546 | 161 | 331 | 316 | 295 | 288 | 259 |
| 19 *d* | 59 | 49 | 42 | -75 | 186 | 303 | 303 | 319 | 332 | 325 | 310 | 316 | 364 | 615 | 556 | 468 | 361 | 342 | 343 | 353 | 347 | 359 | 347 | 327 | 302 |
| 20 | 337 | 342 | 349 | 349 | 349 | 344 | 328 | 320 | 336 | 332 | 328 | 318 | 315 | 316 | 323 | 342 | 354 | 360 | 389 | 368 | 368 | 362 | 357 | 349 | 343 |
| 21 | 333 | 357 | 352 | 353 | 355 | 353 | 355 | 358 | 354 | 341 | 334 | 311 | 327 | 341 | 348 | 362 | 360 | 422 | 415 | 406 | 392 | 406 | 390 | 392 | 363 |
| 22 *d* | 360 | 305 | 339 | 306 | 107 | -172 | -225 | 132 | 253 | 265 | 234 | 527 | 426 | 893 | 833 | 527 | 766 | 693 | 553 | 336 | 310 | 265 | 269 | 295 | 358 |
| 23 *d* | 261 | 39 | -33 | -72 | -112 | -87 | -267 | -43 | 173 | 276 | 313 | 389 | 558 | 651 | 689 | 699 | 686 | 458 | 355 | 356 | 352 | 172 | 145 | 134 | *254* |
| 24 | 253 | 276 | 292 | 272 | 334 | 341 | 348 | 339 | 337 | 326 | 320 | 338 | 334 | 340 | 344 | 338 | 343 | 352 | 358 | 358 | 357 | 358 | 358 | 358 | 332 |
| 25 *q* | 358 | 359 | 355 | 359 | 359 | 360 | 359 | 350 | 338 | 323 | 319 | 319 | 320 | 334 | 337 | 334 | 352 | 370 | 370 | 369 | 366 | 366 | 368 | 370 | 351 |
| 26 *q* | 368 | 363 | 363 | 363 | 366 | 366 | 359 | 350 | 345 | 336 | 327 | 323 | 334 | 349 | 353 | 359 | 349 | 363 | 370 | 373 | 376 | 373 | 372 | 370 | 357 |
| 27 | 370 | 364 | 360 | 371 | 368 | 365 | 354 | 299 | 280 | 314 | 333 | 329 | 341 | 347 | 363 | 429 | 511 | 485 | 414 | 374 | 357 | 274 | 262 | 339 | 358 |
| 28 *d* | 342 | 336 | 266 | 258 | 346 | 370 | 295 | 244 | 292 | 313 | 293 | 324 | 492 | 586 | 574 | 706 | 659 | 707 | 374 | 249 | 201 | -98 | -28 | -38 | 336 |
| 29 | -98 | -16 | 140 | 261 | 309 | 336 | 345 | 347 | 345 | 340 | 328 | 333 | 345 | 393 | 423 | 447 | 502 | 466 | 387 | 353 | 349 | 365 | 345 | 306 | 319 |
| 30 | 282 | 272 | 270 | 257 | 301 | 297 | 321 | 335 | 336 | 331 | 316 | 322 | 343 | 354 | 361 | 377 | 403 | 383 | 387 | 368 | 354 | 353 | 356 | 351 | 335 |
| Mean | 315 | 304 | *300* | 304 | 313 | 315 | 306 | 321 | 326 | 325 | 323 | 339 | 359 | 400 | 409 | 414 | *429* | 422 | 404 | 361 | 362 | 343 | 338 | 331 | 348 |

Corrections to be applied to all values; *H*, -6$\gamma$; *D*, -4′·4; *V*, nil.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

43 LERWICK (D) — 11° + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 16·4 | 17·5 | 17·5 | 17·3 | 16·2 | 15·4 | 15·4 | 15·2 | 16·6 | 17·2 | 18·0 | 20·1 | 23·5 | 25·3 | 25·6 | 24·6 | 22·8 | 22·3 | 21·6 | 21·0 | 20·0 | 19·6 | 18·8 | 19·0 | 19·5 |
| 2 | 19·6 | 19·2 | 18·9 | 19·0 | 17·9 | 14·2 | 13·4 | 15·4 | 15·3 | 17·0 | 17·8 | 22·3 | 25·4 | 26·5 | 27·7 | 27·2 | 24·9 | 22·3 | 17·8 | 21·2 | 20·6 | 20·0 | 19·3 | 19·9 | 20·1 |
| 3 | 20·8 | 19·5 | 22·4 | 20·8 | 18·0 | 16·8 | 15·2 | 14·1 | 13·4 | 15·7 | 18·9 | 22·7 | 27·2 | 30·6 | 30·6 | 31·8 | 32·2 | 23·9 | 20·2 | 21·0 | 20·8 | 16·3 | 17·8 | 20·9 | 21·3 |
| 4 | 20·1 | 18·8 | 16·4 | 17·0 | 17·5 | 17·7 | 19·9 | 21·0 | 18·0 | 17·8 | 18·4 | 24·6 | 27·5 | 29·2 | 30·1 | 28·8 | 24·9 | 18·2 | 21·8 | 18·0 | 16·8 | 17·8 | 20·8 | 20·8 | 20·9 |
| 5 | 11·2 | 16·9 | 18·2 | 18·0 | 17·5 | 15·2 | 14·0 | 15·2 | 17·9 | 19·7 | 22·6 | 24·8 | 25·4 | 29·1 | 28·8 | 28·3 | 26·2 | 22·8 | 23·2 | 22·3 | 22·1 | 21·6 | 18·8 | 17·4 | 20·7 |
| 6 *q* | 14·1 | 12·0 | 15·1 | 20·4 | 23·5 | 18·9 | 13·7 | 11·6 | 13·1 | 15·3 | 17·9 | 22·0 | 25·7 | 26·9 | 25·9 | 24·7 | 23·2 | 21·8 | 20·9 | 20·9 | 20·9 | 20·7 | 20·1 | 19·7 | 19·5 |
| 7 | 19·5 | 18·9 | 18·9 | 18·8 | 18·3 | 17·5 | 18·4 | 18·2 | 14·4 | 20·8 | 29·5 | 31·3 | 29·2 | 32·5 | 29·7 | 23·4 | 21·5 | 19·2 | 19·8 | 17·1 | 18·9 | 19·6 | 20·0 | 19·8 | *21·5* |
| 8 | 19·6 | 20·0 | 16·3 | 15·4 | 16·0 | 15·0 | 14·4 | 16·6 | 17·4 | 20·9 | 22·6 | 25·2 | 26·9 | 25·8 | 24·6 | 22·8 | 21·2 | 21·8 | 20·9 | 17·1 | 19·3 | 18·5 | 17·7 | 10·7 | 19·5 |
| 9 | 18·9 | 17·1 | 16·5 | 14·6 | 15·0 | 14·8 | 16·2 | 15·8 | 15·5 | 17·2 | 20·2 | 23·0 | 25·3 | 26·5 | 27·8 | 29·2 | 29·9 | 27·2 | 19·4 | 19·5 | 20·7 | 20·7 | 18·2 | 18·5 | 20·3 |
| 10 | 18·6 | 16·1 | 17·7 | 17·1 | 16·2 | 15·2 | 14·5 | 13·6 | 15·3 | 23·3 | 22·8 | 24·5 | 26·9 | 28·0 | 28·6 | 24·0 | 23·6 | 22·7 | 22·4 | 20·8 | 20·9 | 20·6 | 27·0 | 20·2 | 20·9 |
| 11 | 14·4 | 14·2 | 15·8 | 17·1 | 15·8 | 16·3 | 16·3 | 15·7 | 15·4 | 17·3 | 20·3 | 23·3 | 26·1 | 27·5 | 26·1 | 28·2 | 25·4 | 25·1 | 22·0 | 17·1 | 21·2 | 20·6 | 18·8 | 16·8 | 19·9 |
| 12 | 19·1 | 17·1 | 16·4 | 17·2 | 17·8 | 16·4 | 14·7 | 18·4 | 20·5 | 18·6 | 20·1 | 24·1 | 27·3 | 28·3 | 25·4 | 25·0 | 24·1 | 22·3 | 21·7 | 20·8 | 19·2 | 16·4 | 9·7 | 17·7 | 19·9 |
| 13 | 18·9 | 18·7 | 17·2 | 17·7 | 17·4 | 20·2 | 14·5 | 14·4 | 15·4 | 16·4 | 18·2 | 21·9 | 25·3 | 27·6 | 28·3 | 25·7 | 23·4 | 22·3 | 21·6 | 20·5 | 19·8 | 19·9 | 18·9 | 15·2 | 20·0 |
| 14 | 9·8 | 14·6 | 16·6 | 17·7 | 17·2 | 17·1 | 15·9 | 13·8 | 13·0 | 14·3 | 17·1 | 22·7 | 25·0 | 26·4 | 26·6 | 25·3 | 23·1 | 21·0 | 20·9 | 20·4 | 19·7 | 16·9 | 15·0 | 15·5 | 18·6 |
| 15 *q* | 17·2 | 17·9 | 17·1 | 17·4 | 16·2 | 15·7 | 14·2 | 12·4 | 13·1 | 14·4 | 18·2 | 22·8 | 27·3 | 27·9 | 28·3 | 27·4 | 23·2 | 21·5 | 21·3 | 20·4 | 20·8 | 20·7 | 20·1 | 19·6 | 19·8 |
| 16 | 18·6 | 17·1 | 17·3 | 17·1 | 17·2 | 16·8 | 16·5 | 15·8 | 15·1 | 15·9 | 19·0 | 21·2 | 24·8 | 27·6 | 28·3 | 26·5 | 29·8 | 32·7 | 35·0 | 16·4 | 15·3 | 19·4 | 17·7 | 19·2 | 20·8 |
| 17 | -0·1 | -11·7 | 2·3 | 13·9 | 14·4 | 20·2 | 14·7 | 11·6 | 13·1 | 16·0 | 20·1 | 24·2 | 25·3 | 26·4 | 24·8 | 23·8 | 19·1 | 22·0 | 20·4 | 17·4 | 15·6 | 14·8 | 14·3 | 22·7 | 16·1 |
| 18 *d* | 12·9 | 8·2 | -18·3 | 8·7 | -35·3 | 12·6 | 13·4 | 7·5 | 12·4 | 22·7 | 23·1 | 20·8 | 15·7 | 19·0 | 27·7 | 35·5 | 34·8 | 29·2 | 40·4 | 26·5 | 20·8 | 20·7 | 7·6 | 6·2 | 15·5 |
| 19 *d* | 7·9 | 1·4 | -6·3 | 4·1 | 6·6 | 6·8 | 8·7 | 8·7 | 10·7 | 14·2 | 18·5 | 23·8 | 28·9 | 22·4 | 28·5 | 22·8 | 21·9 | 21·2 | 20·5 | 20·9 | 18·3 | 18·9 | 18·9 | 18·8 | 15·3 |
| 20 | 14·0 | 15·5 | 15·3 | 15·8 | 15·9 | 13·4 | 15·2 | 20·7 | 18·1 | 15·4 | 15·0 | 17·7 | 20·0 | 21·5 | 21·8 | 22·7 | 22·4 | 21·5 | 21·9 | 20·6 | 18·8 | 17·1 | 16·2 | 16·9 | 18·1 |
| 21 | 20·9 | 15·1 | 15·6 | 15·1 | 15·1 | 15·1 | 14·2 | 14·0 | 13·3 | 15·2 | 18·0 | 22·8 | 27·3 | 28·5 | 27·5 | 24·9 | 23·5 | 13·6 | 18·9 | 25·4 | 23·7 | 23·6 | 21·7 | 18·5 | 19·7 |
| 22 *d* | 15·1 | 14·9 | 11·3 | 6·6 | 24·9 | 18·8 | -9·0 | -13·0 | 0·9 | 14·5 | 17·4 | -26·0 | 32·9 | -21·4 | 24·9 | 40·6 | 24·1 | 22·7 | 24·9 | 9·8 | 19·8 | 19·9 | 10·4 | 15·6 | *12·5* |
| 23 *d* | 29·1 | 16·7 | 23·2 | 10·0 | 24·4 | 23·7 | 21·2 | 1·9 | 7·1 | 15·4 | 15·0 | 16·4 | 12·9 | 22·3 | 17·5 | 29·3 | 37·9 | 28·6 | 22·0 | 20·6 | 30·3 | 16·8 | 2·8 | 0·0 | 18·6 |
| 24 | 0·7 | 7·9 | 5·9 | 15·8 | 14·8 | 12·7 | 13·3 | 12·3 | 11·9 | 14·2 | 17·8 | 20·7 | 21·7 | 24·0 | 24·7 | 21·3 | 18·4 | 17·8 | 18·4 | 18·0 | 18·9 | 18·5 | 18·5 | 18·6 | 16·1 |
| 25 *q* | 18·3 | 18·7 | 18·3 | 18·0 | 17·7 | 17·0 | 15·9 | 14·6 | 15·7 | 17·1 | 18·9 | 22·3 | 23·8 | 24·5 | 22·8 | 21·8 | 20·1 | 18·1 | 17·9 | 18·1 | 17·1 | 18·6 | 18·5 | 17·1 | 18·8 |
| 26 *q* | 18·1 | 18·9 | 17·9 | 17·6 | 17·4 | 16·9 | 15·6 | 15·9 | 15·6 | 16·2 | 18·9 | 22·4 | 24·7 | 27·6 | 26·6 | 25·6 | 24·3 | 21·7 | 19·9 | 19·1 | 18·6 | 13·2 | 16·1 | 17·1 | 19·4 |
| 27 | 16·8 | 17·0 | 19·1 | 17·4 | 16·5 | 15·7 | 16·9 | 19·6 | 20·0 | 24·1 | 21·6 | 22·1 | 25·0 | 23·7 | 24·3 | 23·5 | 25·0 | 18·7 | 16·9 | 8·1 | 12·3 | 10·3 | -1·4 | 11·7 | 17·7 |
| 28 *d* | 15·1 | 15·7 | 20·3 | 10·6 | 8·4 | 17·0 | 25·2 | 42·1 | 27·5 | 19·3 | 24·2 | 23·2 | 19·8 | 22·6 | 28·1 | 31·3 | 29·8 | 33·8 | 28·4 | 27·3 | 26·5 | 1·5 | 3·5 | -1·9 | 20·8 |
| 29 | 21·8 | 33·2 | -5·3 | 6·6 | 10·8 | 10·1 | 10·6 | 10·5 | 11·9 | 15·3 | 18·7 | 22·7 | 24·3 | 25·1 | 27·0 | 29·9 | 27·0 | 19·8 | 17·8 | 10·9 | 11·4 | 14·5 | 14·9 | 4·0 | 16·4 |
| 30 | 4·5 | 2·4 | 11·3 | 12·4 | 19·9 | 26·5 | 29·2 | 27·3 | 22·5 | 18·9 | 20·2 | 24·5 | 25·3 | 24·3 | 24·2 | 18·6 | 15·4 | 17·9 | 15·4 | 2·8 | 10·2 | 11·5 | 17·5 | 18·8 | 17·6 |
| Mean | 15·7 | 15·0 | *13·6* | 15·2 | 15·0 | 16·3 | 15·1 | 14·7 | 15·0 | 17·3 | 19·6 | 21·1 | 24·9 | 24·5 | 26·4 | *26·5* | 24·8 | 22·5 | 21·8 | 18·7 | 19·3 | 17·6 | 15·9 | 15·8 | 18·9 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

44 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 998 | 1001 | 1001 | 1010 | 1010 | 1001 | 1010 | 1013 | 1010 | 1000 | 1006 | 1004 | 994 | 995 | 1003 | 1009 | 1016 | 1011 | 1005 | 1004 | 1003 | 999 | 998 | 991 | 1004 |
| 2 | 986 | 973 | 962 | 975 | 991 | 997 | 992 | 981 | 979 | 980 | 980 | 986 | 984 | 982 | 983 | 984 | 992 | 1005 | 1016 | 1012 | 1013 | 1011 | 999 | 987 | 990 |
| 3 | 963 | 962 | 967 | 967 | 979 | 987 | 991 | 993 | 995 | 994 | 997 | 994 | 980 | 980 | 992 | 1005 | 1026 | 1053 | 1041 | 1019 | 1006 | 994 | 967 | 981 | 993 |
| 4 | 986 | 991 | 989 | 992 | 990 | 991 | 993 | 979 | 991 | 993 | 1004 | 1017 | 1006 | 1017 | 1024 | 1040 | 1052 | 1059 | 1034 | 1037 | 1030 | 1022 | 1006 | 929 | 1007 |
| 5 | 928 | 962 | 983 | 991 | 992 | 997 | 1000 | 1000 | 1001 | 999 | 994 | 997 | 1009 | 1000 | 1006 | 1005 | 1024 | 1045 | 1047 | 1035 | 1020 | 1005 | 981 | 961 | 999 |
| 6 *q* | 942 | 941 | 957 | 961 | 936 | 944 | 973 | 986 | 987 | 993 | 993 | 988 | 982 | 980 | 980 | 984 | 986 | 987 | 987 | 987 | 987 | 989 | 990 | 991 | 976 |
| 7 | 991 | 990 | 989 | 988 | 990 | 987 | 987 | 983 | 984 | 990 | 975 | 975 | 993 | 1030 | 1063 | 1049 | 1017 | 1006 | 1001 | 1019 | 1017 | 971 | 959 | 979 | 997 |
| 8 | 964 | 947 | 978 | 990 | 1004 | 1007 | 998 | 1010 | 1010 | 1004 | 996 | 981 | 990 | 990 | 984 | 981 | 978 | 978 | 984 | 1013 | 1001 | 981 | 950 | 947 | 986 |
| 9 | 973 | 981 | 1001 | 1007 | 1004 | 1010 | 1010 | 1007 | 994 | 991 | 990 | 986 | 986 | 989 | 1003 | 1019 | 1045 | 1073 | 1076 | 1037 | 1010 | 1000 | 991 | 996 | 1007 |
| 10 | 993 | 997 | 996 | 996 | 995 | 994 | 994 | 991 | 993 | 993 | 981 | 982 | 983 | 995 | 1005 | 1004 | 997 | 1000 | 999 | 998 | 994 | 990 | 939 | 853 | 986 |
| 11 | 925 | 968 | 984 | 992 | 992 | 989 | 988 | 987 | 990 | 991 | 987 | 987 | 986 | 988 | 992 | 995 | 1009 | 1012 | 1021 | 1015 | 999 | 995 | 995 | 987 | 991 |
| 12 | 983 | 987 | 991 | 992 | 992 | 991 | 992 | 992 | 981 | 978 | 981 | 983 | 993 | 1010 | 1010 | 995 | 989 | 992 | 993 | 992 | 991 | 995 | 987 | 986 | 991 |
| 13 | 986 | 988 | 991 | 992 | 991 | 981 | 980 | 986 | 986 | 990 | 987 | 985 | 986 | 986 | 993 | 994 | 992 | 990 | 987 | 988 | 989 | 988 | 980 | 991 | 988 |
| 14 | 936 | 949 | 972 | 983 | 987 | 989 | 990 | 987 | 986 | 981 | 980 | 979 | 978 | 976 | 976 | 981 | 986 | 987 | 987 | 988 | 990 | 990 | 980 | 950 | 979 |
| 15 *q* | 969 | 978 | 984 | 987 | 987 | 990 | 988 | 989 | 988 | 986 | 981 | 974 | 972 | 971 | 975 | 985 | 994 | 989 | 989 | 992 | 987 | 986 | 983 | 981 | 984 |
| 16 | 979 | 979 | 981 | 983 | 985 | 986 | 986 | 987 | 986 | 983 | 978 | 969 | 967 | 970 | 970 | 976 | 981 | 1059 | 1075 | 939 | 927 | 1011 | 983 | 800 | 977 |
| 17 | 828 | 794 | 853 | 885 | 913 | 925 | 956 | 979 | 980 | 986 | 987 | 988 | 992 | 997 | 1005 | 1012 | 1023 | 1011 | 1023 | 1028 | 937 | 976 | 961 | 919 | 957 |
| 18 *d* | 712 | 630 | 365 | 846 | 781 | 737 | 834 | 937 | 1030 | 1047 | 1041 | 1063 | 1175 | 1191 | 1148 | 1089 | 1126 | 1139 | 1054 | 980 | 1065 | 1035 | 961 | 987 | 957 |
| 19 *d* | 943 | 849 | 703 | 721 | 782 | 907 | 950 | 958 | 980 | 992 | 1005 | 1022 | 1032 | 1114 | 1127 | 1142 | 1078 | 1034 | 1012 | 1006 | 1023 | 1028 | 1017 | 998 | 976 |
| 20 | 961 | 973 | 992 | 997 | 996 | 995 | 992 | 974 | 968 | 978 | 991 | 997 | 1001 | 1005 | 1003 | 1000 | 1004 | 1004 | 1018 | 1034 | 1020 | 1015 | 1005 | 994 | 997 |
| 21 | 950 | 959 | 981 | 991 | 992 | 992 | 992 | 991 | 993 | 998 | 995 | 993 | 992 | 992 | 1005 | 1011 | 1011 | 1005 | 1023 | 1029 | 1036 | 1031 | 1017 | 1028 | 1000 |
| 22 *d* | 1005 | 1038 | 1020 | 1017 | 865 | 725 | 821 | 791 | 931 | 992 | 1011 | 1172 | 1132 | 1019 | 1114 | 1062 | 1059 | 1072 | 1090 | 917 | 986 | 922 | 840 | 795 | 975 |
| 23 *d* | 773 | 689 | 620 | 840 | 646 | 751 | 853 | 969 | 1023 | 1047 | 1050 | 1120 | 1169 | 1090 | 998 | 967 | 884 | 1021 | 1005 | 1042 | 1026 | 854 | 893 | 824 | *923* |
| 24 | 913 | 892 | 911 | 922 | 938 | 979 | 989 | 1005 | 1011 | 1017 | 1017 | 1023 | 1017 | 1011 | 1008 | 1011 | 1011 | 1011 | 1005 | 1004 | 999 | 999 | 998 | 999 | 987 |
| 25 *q* | 998 | 998 | 998 | 1000 | 1003 | 1004 | 1005 | 1005 | 1005 | 1000 | 996 | 992 | 992 | 998 | 1008 | 1008 | 1004 | 1006 | 1011 | 1005 | 1009 | 1004 | 996 | 992 | 1002 |
| 26 *q* | 986 | 986 | 992 | 998 | 999 | 1001 | 1002 | 999 | 993 | 994 | 999 | 1004 | 1004 | 1005 | 1016 | 1023 | 1017 | 1011 | 1007 | 1004 | 998 | 995 | 992 | 988 | 1001 |
| 27 | 987 | 987 | 959 | 956 | 979 | 992 | 997 | 1003 | 998 | 994 | 1017 | 1015 | 1020 | 1046 | 1059 | 1087 | 1125 | 1062 | 1030 | 1028 | 1058 | 951 | 924 | 936 | 1009 |
| 28 *d* | 973 | 983 | 920 | 846 | 846 | 901 | 938 | 930 | 939 | 993 | 1036 | 1081 | 1125 | 1116 | 1126 | 934 | 1034 | 893 | 1055 | 1055 | 1109 | 993 | 871 | 1041 | 989 |
| 29 | 1243 | 890 | 877 | 909 | 956 | 993 | 1005 | 1013 | 1017 | 1018 | 1018 | 1019 | 1030 | 1063 | 1096 | 1123 | 1164 | 1152 | 1098 | 1031 | 977 | 999 | 971 | 920 | *1024* |
| 30 | 896 | 885 | 924 | 917 | 902 | 926 | 900 | 944 | 968 | 994 | 1018 | 1028 | 1048 | 1047 | 1030 | 1054 | 1079 | 1063 | 1049 | 1041 | 1006 | 1012 | 1007 | 998 | 989 |
| Mean | 956 | 938 | *928* | 955 | 947 | 956 | 970 | 979 | 990 | 997 | 1000 | 1010 | 1017 | 1018 | 1023 | 1018 | 1023 | *1024* | 1024 | 1009 | 1007 | 991 | 971 | 958 | 987 |

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

45 LERWICK — SEPTEMBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 *q* | 18 02 | 389 | 323 | 10 15 | 66 | 13 36 | 26·7 | 14·2 | 06 54 | 12·5 | 03 41 | 1013 | 995 | 00 05 | *18* | 0,0,1,2,2,2,1,1 | 9 | 0 | 87·6 |
| 2 | 18 46 | 410 | 336 | 06 41 | 74 | 14 32 | 28·5 | 11·0 | 05 56 | 17·5 | 18 42 | 1022 | 957 | 02 23 | 65 | 2,2,3,1,2,2,3,3 | 18 | 0 | 87·0 |
| 3 | 16 57 | 412 | 320 | 11 41 | 92 | 16 23 | 33·3 | 11·9 | 21 54 | 21·4 | 17 41 | 1058 | 949 | 22 07 | 109 | 2,2,1,2,2,3,2,3 | 17 | 1 | 87·1 |
| 4 | 17 51 | 418 | 298 | 10 30 | 120 | 14 47 | 31·1 | 6·1 | 24 00 | 25·0 | 17 16 | 1077 | 896 | 23 53 | 181 | 2,2,3,3,3,3,3,4 | 23 | 1 | 87·0 |
| 5 | 17 13 | 433 | 310 | 09 00 | 123 | 13 58 | 32·0 | 2·9 | 00 05 | 29·1 | 18 13 | 1050 | 913 | 00 00 | 137 | 3,2,3,3,3,3,3,3 | 23 | 1 | 87·0 |
| 6 *q* | 20 30 | 385 | 321 | 10 56 | 64 | 13 30 | 27·2 | 9·8 | 01 27 | 17·4 | 10 12 | 997 | 929 | 04 23 | 68 | 2,3,2,2,2,1,0,0 | 12 | 0 | 86·9 |
| 7 | 18 27 | 399 | 293 | 09 10 | 106 | 13 28 | 34·4 | 11·3 | 19 56 | 23·1 | 14 30 | 1067 | 929 | 21 54 | 138 | 1,1,3,3,4,3,3,4 | 22 | 1 | 86·8 |
| 8 | 18 40 | 388 | 319 | 10 53 | 69 | 11 51 | 28·3 | 5·0 | 23 17 | 23·3 | 19 31 | 1024 | 941 | 22 55 | 83 | 3,2,2,2,2,3,2,2 | 18 | 1 | 87·0 |
| 9 | 17 57 | 459 | 336 | 10 24 | 123 | 16 29 | 32·3 | 11·8 | 18 30 | 20·5 | 18 25 | 1130 | 956 | 00 06 | 174 | 1,1,3,2,3,3,4,2 | 19 | 1 | 87·3 |
| 10 | 21 48 | 393 | 270 | 23 41 | 123 | 22 41 | 38·6 | 6·3 | 23 55 | 32·3 | 14 30 | 1009 | 822 | 23 32 | 187 | 2,1,3,4,3,2,1,5 | 21 | 1 | 87·0 |
| 11 | 15 44 | 414 | 318 | 11 10 | 96 | 15 35 | 29·2 | 7·7 | 00 00 | 21·5 | 19 09 | 1025 | 911 | 00 00 | 114 | 3,1,2,2,2,3,3,2 | 18 | 1 | 86·7 |
| 12 | 22 07 | 400 | 312 | 08 06 | 88 | 13 17 | 29·1 | 5·6 | 22 29 | 23·5 | 14 10 | 1016 | 974 | 09 00 | 42 | 2,1,3,2,2,2,2,3 | 17 | 1 | 86·5 |
| 13 | 23 25 | 405 | 321 | 11 22 | 84 | 14 09 | 29·8 | 12·6 | 24 00 | 17·2 | 14 59 | 998 | 943 | 23 59 | 55 | 1,2,2,1,3,2,2,3 | 16 | 0 | 86·2 |
| 14 | 20 27 | 398 | 323 | 12 05 | 75 | 14 04 | 27·2 | 7·7 | 00 31 | 19·5 | 21 08 | 999 | 931 | 01 00 | 68 | 3,1,2,2,2,2,2,3 | 17 | 0 | 86·0 |
| 15 *q* | 15 33 | 407 | 321 | 10 50 | 86 | 14 04 | 29·7 | 10·5 | 07 58 | 19·2 | 16 10 | 997 | 962 | 00 00 | 35 | 2,1,2,2,2,3,1,1 | 14 | 0 | 85·3 |
| 16 | 18 48 | 665 | −42 | 19 48 | 707 | 18 51 | 83·8 | −11·5 | 19 37 | 95·3 | 17 50 | 1137 | 740 | 23 50 | 397 | 1,1,2,2,3,6,7,6 | 28 | 2 | 85·1 |
| 17 | 19 55 | 464 | −156 | 02 05 | 620 | 23 57 | 49·3 | −41·1 | 01 50 | 90·4 | 19 08 | 1041 | 729 | 24 00 | 312 | 6,5,3,2,2,3,5,6 | 32 | 2 | 85·0 |
| 18 *d* | 15 28 | 748 | −370 | 02 18 | 1118 | 18 52 | 118·9 | *−190·4* | 04 03 | *309·3* | 18 55 | 1336 | *−109* | 03 00 | *1445* | 7,6,6,6,6,6,8,6 | 51 | 2 | 87·6 |
| 19 *d* | 13 20 | 863 | −232 | 03 35 | 1095 | 14 48 | 39·9 | −20·2 | 02 06 | 60·1 | 13 20 | 1191 | 651 | 03 21 | 540 | 6,7,3,3,7,7,2,3 | 38 | 2 | 85·9 |
| 20 | 18 15 | 404 | 306 | 07 10 | 98 | 07 15 | 26·1 | 8·6 | 00 18 | 17·5 | 18 55 | 1041 | 937 | 00 35 | 104 | 3,2,3,2,2,3,3,2 | 20 | 1 | 85·0 |
| 21 | 17 15 | 460 | 298 | 11 20 | 162 | 00 08 | 31·4 | 1·4 | 17 40 | 30·0 | 21 50 | 1056 | 919 | 00 35 | 137 | 3,1,1,3,3,4,3,4 | 22 | 1 | 84·2 |
| 22 *d* | 13 18 | *1857* | −325 | 05 34 | *2182* | 05 00 | *148·8* | −137·2 | 13 50 | 286·0 | 11 35 | *1586* | 332 | 05 30 | 1254 | 5,9,9,9,9,7,7,5 | 60 | 2 | 84·0 |
| 23 *d* | 16 22 | 1204 | *−432* | 03 55 | 1636 | 16 24 | 100·6 | −30·2 | 07 35 | 130·8 | 12 38 | 1206 | 466 | 02 40 | 740 | 7,7,7,5,6,7,5,7 | 51 | 2 | 84·0 |
| 24 | 11 53 | 374 | 108 | 00 01 | 266 | 13 09 | 26·5 | −9·5 | 00 37 | 36·0 | 11 42 | 1031 | 873 | 00 01 | 158 | 5,5,3,3,3,3,1,1 | 24 | 1 | 83·7 |
| 25 *q* | 17 43 | 375 | 312 | 12 05 | *63* | 12 56 | 25·6 | 13·3 | 06 21 | *12·3* | 20 45 | 1012 | 987 | 23 55 | 25 | 1,1,2,2,2,3,2,2 | 15 | 0 | 83·5 |
| 26 *q* | 20 50 | 380 | 316 | 11 41 | 64 | 13 44 | 30·3 | 9·5 | 21 38 | 20·8 | 15 29 | 1028 | 982 | 01 35 | 46 | 1,1,2,2,2,2,1,2 | 13 | 0 | 83·9 |
| 27 | 17 15 | 770 | 152 | 21 55 | 618 | 17 24 | 45·5 | −11·5 | 17 39 | 57·0 | 17 17 | 1216 | 870 | 21 57 | 346 | 3,3,4,3,3,6,6,5 | 33 | 1 | 83·2 |
| 28 *d* | 15 36 | 1122 | −345 | 20 52 | 1467 | 15 39 | 116·8 | −33·4 | 21 35 | 150·2 | 24 00 | 1165 | 700 | 15 39 | 465 | 4,5,5,4,6,7,8,7 | 46 | 2 | 84·6 |
| 29 | 16 05 | 551 | −385 | 01 09 | 936 | 01 15 | 106·3 | −28·5 | 00 14 | 134·8 | 00 32 | 1436 | 641 | 01 31 | 795 | 7,5,2,2,4,5,5,4 | 34 | 2 | 84·4 |
| 30 | 16 20 | 413 | 216 | 03 35 | 197 | 06 05 | 38·5 | −13·1 | 19 24 | 51·6 | 15 52 | 1091 | 865 | 01 41 | 226 | 4,5,4,3,3,3,5 3 | 30 | 1 | 84·2 |
| Mean | − − | 559 | 138 | − − | 421 | − − | 48·2 | −12·0 | − − | 60·2 | − − | 1102 | 820 | − − | 282 | − | − | 1·00 | 85·7 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

46 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 342 | 344 | 344 | 359 | 364 | 356 | 366 | 343 | 317 | 344 | 335 | 336 | 331 | 343 | 366 | 363 | 350 | 362 | 368 | 368 | 354 | 361 | 367 | 361 | 352 |
| 2 | 360 | 356 | 352 | 339 | 353 | 363 | 364 | 357 | 334 | 327 | 314 | 311 | 326 | 345 | 348 | 349 | 363 | 355 | 362 | 362 | 367 | 368 | 368 | 370 | 351 |
| 3 | 364 | 362 | 370 | 369 | 370 | 343 | 369 | 366 | 348 | 333 | 325 | 323 | 341 | 359 | 362 | 369 | 356 | 353 | 363 | 364 | 365 | 367 | 369 | 369 | 357 |
| 4 | 367 | 365 | 349 | 349 | 370 | 377 | 371 | 364 | 350 | 333 | 325 | 331 | 334 | 340 | 357 | 367 | 367 | 367 | 371 | 375 | 374 | 366 | 369 | 372 | 359 |
| 5 | 370 | 373 | 371 | 364 | 370 | 373 | 369 | 374 | 359 | 348 | 346 | 333 | 350 | 387 | 404 | 386 | 361 | 387 | 387 | 368 | 371 | 371 | 374 | 372 | 369 |
| 6 | 370 | 367 | 354 | 346 | 364 | 373 | 372 | 365 | 344 | 321 | 329 | 331 | 337 | 351 | 354 | 363 | 361 | 364 | 368 | 358 | 356 | 360 | 346 | 335 | 354 |
| 7 | 357 | 365 | 364 | 363 | 373 | 379 | 377 | 370 | 358 | 346 | 344 | 335 | 331 | 337 | 357 | 378 | 366 | 355 | 370 | 373 | 375 | 378 | 378 | 377 | 363 |
| 8 *q* | 374 | 369 | 370 | 370 | 373 | 371 | 372 | 372 | 363 | 350 | 340 | 336 | 335 | 346 | 356 | 368 | 376 | 381 | 390 | 392 | 396 | 391 | 393 | 391 | 370 |
| 9 *d* | 386 | 381 | 376 | 357 | 366 | 366 | 356 | 360 | 359 | 350 | 330 | 340 | 343 | 351 | 354 | 372 | 375 | 373 | 374 | 366 | 368 | 373 | 273 | 284 | 356 |
| 10 | 360 | 367 | 366 | 364 | 367 | 367 | 367 | 367 | 356 | 341 | 334 | 334 | 347 | 342 | 356 | 363 | 365 | 370 | 374 | 382 | 370 | 358 | 367 | 367 | 360 |
| 11 | 364 | 371 | 371 | 369 | 367 | 368 | 369 | 364 | 360 | 351 | 348 | 348 | 351 | 367 | 381 | 366 | 361 | 369 | 374 | 375 | 370 | 376 | 377 | 380 | 367 |
| 12 | 377 | 370 | 356 | 380 | 384 | 368 | 366 | 371 | 359 | 341 | 332 | 331 | 338 | 345 | 355 | 363 | 373 | 373 | 373 | 374 | 374 | 378 | 377 | 374 | 364 |
| 13 *q* | 372 | 372 | 376 | 377 | 380 | 380 | 379 | 372 | 359 | 347 | 336 | 336 | 336 | 345 | 358 | 367 | 372 | 373 | 379 | 383 | 384 | 385 | 385 | 376 | 368 |
| 14 | 378 | 380 | 378 | 377 | 376 | 381 | 384 | 370 | 349 | 338 | 331 | 324 | 330 | 344 | 357 | 363 | 373 | 379 | 385 | 384 | 378 | 376 | 374 | 377 | 366 |
| 15 | 378 | 378 | 378 | 378 | 378 | 377 | 376 | 372 | 358 | 333 | 326 | 332 | 345 | 357 | 363 | 370 | 373 | 379 | 380 | 388 | 381 | 381 | 378 | 378 | 368 |
| 16 | 375 | 374 | 374 | 375 | 377 | 379 | 367 | 366 | 364 | 340 | 337 | 342 | 348 | 347 | 359 | 358 | 373 | 378 | 380 | 373 | 383 | 386 | 373 | 376 | 367 |
| 17 *q* | 375 | 375 | 374 | 373 | 376 | 373 | 372 | 371 | 356 | 344 | 338 | 334 | 338 | 347 | 359 | 367 | 373 | 374 | 378 | 384 | 387 | 385 | 385 | 385 | 368 |
| 18 *q* | 383 | 382 | 381 | 379 | 378 | 377 | 375 | 370 | 360 | 351 | 348 | 349 | 350 | 356 | 364 | 369 | 371 | 376 | 378 | 377 | 378 | 382 | 382 | 385 | *371* |
| 19 | 374 | 373 | 372 | 374 | 376 | 377 | 373 | 368 | 359 | 348 | 345 | 347 | 348 | 351 | 359 | 363 | 375 | 383 | 376 | 363 | 369 | 383 | 358 | 301 | 363 |
| 20 *d* | 318 | 333 | 359 | 370 | 388 | 372 | 363 | 367 | 362 | 345 | 333 | 345 | 344 | 348 | 362 | 377 | 376 | 376 | 383 | 371 | 365 | 357 | 363 | 369 | 360 |
| 21 | 370 | 366 | 367 | 367 | 368 | 366 | 369 | 368 | 360 | 347 | 334 | 330 | 338 | 345 | 352 | 362 | 365 | 371 | 379 | 374 | 374 | 380 | 382 | 381 | 363 |
| 22 | 380 | 376 | 374 | 375 | 377 | 378 | 379 | 377 | 365 | 347 | 337 | 336 | 335 | 336 | 352 | 360 | 363 | 367 | 373 | 372 | 376 | 377 | 378 | 372 | 365 |
| 23 | 380 | 380 | 377 | 380 | 379 | 373 | 373 | 373 | 365 | 351 | 349 | 349 | 344 | 350 | 354 | 365 | 371 | 378 | 377 | 379 | 377 | 375 | 373 | 371 | 368 |
| 24 | 373 | 372 | 372 | 371 | 373 | 376 | 372 | 364 | 355 | 339 | 332 | 328 | 340 | 342 | 357 | 353 | 366 | 367 | 369 | 371 | 375 | 375 | 373 | 375 | 362 |
| 25 | 357 | 362 | 368 | 375 | 376 | 379 | 381 | 368 | 355 | 332 | 331 | 326 | 330 | 340 | 350 | 365 | 372 | 371 | 363 | 365 | 368 | 366 | 349 | 337 | 358 |
| 26 *d* | 342 | 339 | 362 | 368 | 361 | 360 | 362 | 375 | 360 | 336 | 333 | 322 | 334 | 352 | 369 | 381 | 372 | 375 | 368 | 353 | 323 | 283 | 202 | 105 | 335 |
| 27 *d* | 7 | 59 | 108 | 224 | 303 | 321 | 357 | 336 | 313 | 321 | 335 | 341 | 390 | 458 | 433 | 379 | 419 | 354 | 350 | 361 | 364 | 365 | 328 | 320 | *314* |
| 28 | 335 | 360 | 357 | 357 | 357 | 353 | 350 | 357 | 342 | 331 | 332 | 336 | 337 | 342 | 348 | 362 | 357 | 365 | 360 | 364 | 368 | 369 | 369 | 374 | 353 |
| 29 | 366 | 354 | 354 | 358 | 371 | 375 | 379 | 369 | 357 | 339 | 336 | 342 | 351 | 350 | 351 | 354 | 356 | 362 | 368 | 364 | 357 | 359 | 361 | 364 | 358 |
| 30 *q* | 368 | 370 | 368 | 371 | 371 | 374 | 365 | 368 | 362 | 346 | 338 | 339 | 343 | 350 | 354 | 356 | 364 | 365 | 371 | 374 | 375 | 374 | 372 | 371 | 362 |
| 31 *d* | 371 | 372 | 374 | 373 | 375 | 375 | 372 | 370 | 350 | 340 | 346 | 350 | 351 | 363 | 361 | 367 | 379 | 390 | 386 | 375 | 357 | 349 | 332 | 332 | 363 |
| Mean | 355 | 357 | 359 | 363 | 370 | 369 | 370 | 366 | 353 | 341 | 336 | *335* | 342 | 353 | 362 | 366 | 369 | 371 | *373* | 372 | 370 | 369 | 361 | 355 | 360 |

Corrections to be applied to all values; *H*, $-6\gamma$; *D*, $-4'{\cdot}4$; *V*, nil.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

47 LERWICK (D) — 11° + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 16·1 | 14·2 | 16·9 | 17·2 | 17·8 | 19·8 | 19·0 | 20·6 | 18·0 | 16·8 | 19·2 | 22·7 | 24·2 | 26·3 | 27·7 | 22·5 | 22·1 | 21·2 | 15·7 | 8·2 | 15·1 | 19·3 | 16·3 | 14·9 | 18·8 |
| 2 | 18·7 | 18·8 | 17·7 | 19·0 | 17·1 | 16·3 | 15·1 | 14·9 | 15·8 | 16·0 | 18·9 | 22·5 | 25·2 | 25·7 | 24·5 | 21·9 | 21·4 | 18·2 | 17·7 | 19·2 | 20·2 | 20·1 | 19·9 | 19·2 | 19·3 |
| 3 | 17·1 | 17·9 | 15·1 | 16·0 | 17·2 | 23·5 | 22·9 | 16·9 | 15·8 | 16·7 | 18·8 | 23·3 | 28·3 | 28·9 | 27·6 | 23·9 | 21·1 | 21·0 | 19·9 | 19·3 | 19·2 | 19·0 | 18·5 | 18·9 | 20·3 |
| 4 | 19·4 | 18·9 | 19·0 | 18·3 | 13·6 | 17·1 | 17·7 | 15·6 | 17·8 | 19·6 | 20·9 | 25·0 | 26·4 | 26·1 | 25·1 | 22·3 | 18·5 | 18·2 | 20·2 | 20·1 | 18·9 | 18·6 | 18·2 | 18·2 | 19·7 |
| 5 | 18·8 | 18·6 | 17·7 | 21·5 | 20·5 | 15·8 | 15·1 | 15·2 | 15·5 | 17·9 | 22·5 | 23·7 | 26·0 | 28·7 | 32·0 | 30·3 | 25·7 | 25·3 | 12·6 | 18·9 | 19·9 | 19·7 | 19·8 | 19·4 | *20·9* |
| 6 | 18·5 | 18·2 | 20·3 | 21·5 | 18·9 | 16·5 | 15·6 | 16·2 | 16·8 | 18·4 | 20·9 | 22·8 | 24·2 | 24·9 | 23·1 | 21·5 | 19·5 | 17·3 | 17·8 | 14·0 | 5·4 | 12·4 | 12·9 | 8·2 | 17·7 |
| 7 | 14·1 | 16·0 | 16·1 | 18·9 | 19·0 | 18·1 | 17·5 | 16·3 | 17·1 | 17·8 | 19·0 | 22·6 | 22·1 | 26·9 | 27·2 | 26·4 | 26·1 | 25·0 | 21·3 | 20·1 | 19·3 | 17·3 | 17·9 | 18·1 | 20·0 |
| 8 *q* | 18·1 | 17·7 | 18·1 | 17·6 | 17·3 | 17·1 | 16·8 | 15·8 | 15·0 | 15·3 | 17·1 | 19·6 | 22·4 | 23·7 | 23·4 | 22·6 | 21·7 | 21·8 | 22·3 | 22·0 | 21·7 | 19·9 | 19·7 | 19·2 | 19·4 |
| 9 *d* | 18·1 | 16·2 | 13·4 | 7·5 | 11·8 | 12·9 | 10·7 | 19·7 | 16·8 | 17·5 | 18·3 | 21·1 | 24·6 | 25·6 | 21·6 | 21·4 | 20·9 | 20·9 | 20·9 | 20·6 | 15·1 | 13·3 | 18·3 | 16·3 | 17·6 |
| 10 | 16·4 | 15·9 | 13·6 | 17·3 | 17·8 | 17·2 | 16·1 | 15·1 | 15·3 | 15·9 | 18·9 | 22·0 | 27·5 | 27·0 | 27·1 | 23·8 | 21·2 | 20·9 | 20·4 | 20·4 | 10·4 | 9·0 | 14·5 | 17·7 | 18·4 |
| 11 | 18·9 | 20·7 | 16·8 | 16·1 | 16·5 | 16·8 | 16·8 | 15·9 | 16·1 | 17·9 | 21·1 | 23·7 | 24·4 | 26·4 | 26·5 | 25·1 | 21·8 | 20·8 | 19·9 | 14·9 | 13·3 | 16·4 | 18·7 | 18·9 | 19·3 |
| 12 | 18·9 | 17·1 | 20·9 | 13·4 | 15·1 | 16·9 | 18·0 | 12·2 | 12·5 | 15·1 | 18·0 | 21·1 | 22·6 | 22·2 | 20·9 | 19·7 | 19·3 | 19·7 | 19·7 | 19·5 | 18·9 | 17·4 | 17·1 | 21·4 | 18·2 |
| 13 *q* | 22·7 | 18·0 | 17·5 | 17·5 | 17·3 | 16·9 | 16·0 | 15·4 | 15·1 | 16·7 | 18·6 | 21·8 | 23·5 | 24·1 | 23·0 | 21·2 | 20·3 | 20·5 | 20·6 | 20·2 | 20·1 | 19·3 | 18·9 | 17·1 | 19·3 |
| 14 | 15·7 | 15·6 | 16·0 | 17·1 | 17·5 | 16·8 | 14·8 | 14·0 | 15·0 | 14·0 | 18·3 | 23·1 | 26·5 | 27·2 | 25·8 | 22·7 | 20·1 | 20·4 | 21·3 | 21·0 | 18·5 | 19·6 | 19·1 | 18·0 | 19·1 |
| 15 | 19·1 | 18·1 | 18·0 | 17·3 | 17·1 | 16·9 | 15·2 | 14·1 | 12·6 | 14·2 | 17·9 | 21·8 | 25·7 | 28·1 | 25·1 | 21·9 | 20·7 | 21·0 | 19·9 | 18·9 | 18·9 | 18·9 | 17·4 | 11·8 | 18·8 |
| 16 | 15·6 | 17·2 | 17·1 | 17·1 | 16·7 | 16·1 | 16·6 | 18·0 | 15·3 | 15·6 | 18·9 | 24·3 | 27·0 | 26·2 | 25·3 | 22·3 | 21·3 | 20·3 | 20·9 | 20·3 | 17·6 | 10·1 | 17·1 | 18·7 | 19·0 |
| 17 *q* | 18·9 | 18·2 | 17·5 | 17·7 | 16·8 | 15·7 | 16·3 | 14·9 | 13·3 | 13·9 | 17·1 | 20·9 | 24·4 | 25·1 | 24·5 | 22·7 | 21·8 | 21·7 | 20·8 | 20·9 | 20·4 | 19·6 | 19·2 | 19·1 | 19·2 |
| 18 *q* | 18·8 | 18·8 | 18·9 | 17·8 | 17·3 | 17·1 | 16·9 | 16·4 | 16·0 | 17·8 | 20·5 | 22·7 | 24·6 | 24·6 | 22·8 | 21·2 | 20·7 | 20·4 | 20·5 | 20·2 | 19·8 | 18·7 | 19·7 | 16·4 | 19·5 |
| 19 | 17·0 | 17·1 | 17·1 | 17·7 | 17·1 | 16·6 | 16·1 | 15·7 | 15·1 | 16·9 | 18·9 | 22·1 | 23·8 | 24·4 | 23·5 | 21·5 | 20·9 | 20·9 | 17·9 | 18·9 | 17·9 | 15·3 | 16·3 | 6·6 | 18·1 |
| 20 *d* | 8·7 | 14·1 | 15·7 | 15·4 | 13·9 | 13·9 | 20·0 | 21·1 | 15·8 | 14·9 | 18·0 | 19·1 | 23·9 | 26·3 | 25·8 | 26·3 | 25·4 | 22·7 | 20·9 | 18·3 | 15·7 | 9·3 | 13·9 | 17·7 | 18·2 |
| 21 | 17·5 | 18·9 | 18·3 | 17·5 | 17·1 | 17·3 | 17·1 | 15·6 | 15·0 | 15·2 | 18·2 | 20·2 | 22·0 | 22·5 | 21·2 | 20·1 | 19·8 | 19·9 | 20·4 | 19·4 | 18·9 | 19·0 | 18·8 | 18·4 | 18·7 |
| 22 | 17·8 | 18·3 | 17·4 | 17·9 | 17·6 | 17·5 | 17·8 | 17·3 | 16·1 | 17·2 | 19·9 | 23·6 | 24·5 | 23·7 | 21·7 | 20·5 | 19·7 | 19·0 | 19·0 | 18·9 | 18·9 | 18·8 | 17·2 | 17·0 | 19·1 |
| 23 | 19·7 | 16·8 | 14·0 | 15·8 | 17·1 | 20·0 | 20·6 | 22·1 | 19·0 | 20·5 | 21·6 | 25·1 | 23·7 | 23·5 | 20·8 | 19·1 | 19·6 | 19·6 | 19·6 | 19·1 | 18·7 | 15·9 | 16·1 | 17·1 | 19·4 |
| 24 | 17·8 | 18·8 | 17·8 | 17·1 | 17·0 | 16·7 | 16·1 | 15·2 | 14·3 | 16·4 | 20·0 | 22·7 | 26·8 | 24·7 | 24·8 | 26·2 | 23·2 | 22·2 | 21·6 | 18·9 | 18·1 | 17·0 | 17·6 | 13·2 | 19·3 |
| 25 | 12·6 | 14·5 | 15·0 | 16·1 | 15·8 | 15·8 | 15·3 | 17·1 | 16·3 | 17·0 | 19·9 | 22·7 | 25·0 | 24·6 | 22·8 | 20·6 | 18·9 | 20·5 | 18·2 | 17·0 | 17·9 | 16·9 | 12·0 | 13·0 | 17·7 |
| 26 *d* | 5·4 | 13·0 | 13·0 | 8·5 | 13·0 | 23·0 | 23·4 | 20·6 | 21·0 | 18·1 | 22·1 | 24·7 | 25·9 | 24·9 | 24·7 | 25·3 | 21·4 | 21·3 | 16·8 | 17·1 | 13·3 | −4·8 | 2·7 | −11·5 | 16·0 |
| 27 *d* | −9·5 | 6·6 | −35·2 | −9·0 | 3·1 | 23·4 | 18·9 | 15·4 | 17·9 | 22·7 | 24·9 | 28·4 | 26·5 | 24·6 | 33·8 | 26·3 | 20·5 | 20·8 | 20·4 | 11·4 | 11·9 | 10·6 | 8·0 | 20·2 | *14·3* |
| 28 | 17·1 | 17·1 | 17·0 | 18·0 | 17·6 | 18·2 | 19·8 | 18·8 | 16·1 | 15·0 | 18·0 | 22·7 | 23·6 | 23·6 | 22·3 | 21·0 | 18·7 | 12·7 | 19·8 | 19·8 | 18·9 | 18·5 | 17·0 | 16·2 | 18·6 |
| 29 | 15·8 | 13·9 | 17·9 | 20·0 | 16·4 | 16·3 | 16·3 | 16·8 | 17·2 | 19·0 | 21·5 | 21·8 | 24·3 | 24·9 | 23·8 | 22·5 | 20·9 | 20·8 | 19·8 | 17·2 | 10·9 | 15·2 | 17·2 | 17·5 | 18·7 |
| 30 *q* | 16·5 | 17·2 | 16·5 | 16·0 | 16·0 | 16·0 | 18·9 | 17·3 | 16·8 | 18·0 | 19·7 | 21·9 | 23·1 | 23·6 | 23·8 | 22·4 | 20·2 | 20·5 | 19·6 | 18·9 | 18·9 | 18·9 | 18·1 | 17·9 | 19·0 |
| 31 *d* | 18·0 | 18·0 | 17·5 | 17·2 | 17·1 | 17·1 | 16·9 | 16·0 | 15·9 | 21·7 | 22·8 | 25·6 | 26·8 | 29·5 | 25·6 | 26·5 | 24·7 | 19·8 | 25·7 | 17·5 | 14·2 | 17·0 | 19·0 | 16·1 | 20·3 |
| Mean | 16·1 | 16·8 | *15·3* | 16·0 | 16·3 | 17·4 | 17·2 | 16·7 | 16·0 | 17·1 | 19·7 | 22·7 | 24·8 | *25·4* | 24·8 | 23·0 | 21·2 | 20·5 | 19·7 | 18·4 | 17·0 | 16·0 | 16·7 | 15·8 | 18·8 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

48 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 968 | 966 | 990 | 991 | 987 | 982 | 977 | 990 | 1004 | 1024 | 1017 | 1027 | 1035 | 1046 | 1067 | 1073 | 1036 | 1035 | 1051 | 1040 | 1018 | 1006 | 987 | 989 | 1013 |
| 2 | 993 | 998 | 998 | 978 | 973 | 992 | 1006 | 1010 | 1015 | 1017 | 1015 | 1010 | 1008 | 1022 | 1043 | 1037 | 1026 | 1035 | 1030 | 1018 | 1007 | 1006 | 1001 | 996 | 1010 |
| 3 | 975 | 961 | 964 | 966 | 971 | 969 | 954 | 974 | 992 | 1000 | 1000 | 995 | 999 | 1013 | 1031 | 1053 | 1055 | 1022 | 1007 | 1002 | 1002 | 1003 | 1002 | 1000 | 997 |
| 4 | 1000 | 994 | 977 | 931 | 949 | 964 | 970 | 980 | 988 | 1000 | 1000 | 997 | 1000 | 1003 | 1007 | 1013 | 1039 | 1044 | 1019 | 1007 | 1011 | 1018 | 1007 | 1000 | 997 |
| 5 | 997 | 989 | 994 | 983 | 964 | 980 | 989 | 988 | 996 | 995 | 994 | 1000 | 999 | 1006 | 1044 | 1101 | 1055 | 1050 | 1092 | 1030 | 1013 | 1005 | 999 | 1000 | 1011 |
| 6 | 996 | 995 | 980 | 956 | 940 | 955 | 977 | 988 | 994 | 1003 | 994 | 995 | 994 | 996 | 1002 | 1009 | 1017 | 1019 | 1025 | 1031 | 989 | 945 | 939 | 933 | 986 |
| 7 | 953 | 975 | 982 | 989 | 985 | 987 | 986 | 990 | 995 | 995 | 1000 | 1002 | 1019 | 1013 | 1020 | 1052 | 1071 | 1054 | 1024 | 1019 | 1008 | 997 | 988 | 988 | 1004 |
| 8 *q* | 991 | 995 | 995 | 995 | 995 | 995 | 996 | 996 | 995 | 995 | 995 | 995 | 993 | 993 | 995 | 994 | 992 | 989 | 987 | 989 | 990 | 994 | 994 | 995 | 993 |
| 9 *d* | 995 | 993 | 979 | 957 | 971 | 962 | 956 | 957 | 969 | 983 | 997 | 1003 | 1014 | 1020 | 1024 | 1013 | 1007 | 1003 | 1015 | 1032 | 1025 | 1009 | 961 | 824 | 986 |
| 10 | 929 | 979 | 985 | 991 | 993 | 993 | 991 | 990 | 994 | 994 | 996 | 995 | 996 | 1001 | 1002 | 1007 | 1002 | 999 | 994 | 990 | 1019 | 1002 | 991 | 991 | 993 |
| 11 | 974 | 973 | 982 | 985 | 990 | 991 | 991 | 991 | 990 | 986 | 985 | 985 | 985 | 990 | 999 | 1015 | 1007 | 1001 | 997 | 1002 | 999 | 990 | 988 | 985 | 991 |
| 12 | 988 | 990 | 973 | 949 | 961 | 961 | 947 | 965 | 983 | 990 | 990 | 990 | 990 | 994 | 996 | 996 | 994 | 993 | 994 | 991 | 991 | 988 | 989 | 983 | 983 |
| 13 *q* | 941 | 966 | 984 | 991 | 992 | 992 | 995 | 998 | 999 | 995 | 992 | 989 | 986 | 988 | 991 | 991 | 991 | 990 | 990 | 990 | 988 | 987 | 986 | 990 | 988 |
| 14 | 991 | 981 | 985 | 991 | 994 | 995 | 995 | 999 | 1003 | 997 | 992 | 985 | 984 | 985 | 991 | 997 | 996 | 992 | 993 | 991 | 1002 | 1000 | 997 | 997 | 993 |
| 15 | 992 | 992 | 992 | 992 | 994 | 995 | 997 | 999 | 999 | 999 | 992 | 984 | 979 | 984 | 989 | 990 | 990 | 991 | 992 | 991 | 992 | 991 | 988 | 985 | 991 |
| 16 | 981 | 986 | 990 | 992 | 992 | 992 | 994 | 986 | 987 | 992 | 991 | 986 | 984 | 991 | 992 | 995 | 996 | 1001 | 1000 | 1006 | 1014 | 990 | 989 | 991 | 992 |
| 17 *q* | 989 | 989 | 990 | 991 | 991 | 992 | 991 | 987 | 992 | 992 | 992 | 987 | 986 | 985 | 986 | 987 | 986 | 987 | 987 | 987 | 987 | 990 | 990 | 990 | 989 |
| 18 *q* | 989 | 988 | 986 | 987 | 988 | 988 | 989 | 993 | 994 | 991 | 986 | 981 | 981 | 985 | 985 | 983 | 983 | 987 | 988 | 990 | 991 | 988 | 988 | 976 | 987 |
| 19 | 985 | 986 | 988 | 988 | 988 | 987 | 988 | 991 | 993 | 990 | 988 | 987 | 983 | 981 | 985 | 988 | 987 | 991 | 1002 | 1012 | 1005 | 993 | 976 | 900 | 986 |
| 20 *d* | 892 | 948 | 964 | 983 | 975 | 970 | 964 | 953 | 964 | 976 | 978 | 982 | 988 | 992 | 990 | 989 | 994 | 995 | 994 | 1000 | 1010 | 1017 | 998 | 989 | 979 |
| 21 | 987 | 988 | 977 | 983 | 987 | 988 | 987 | 988 | 990 | 994 | 994 | 995 | 995 | 998 | 996 | 994 | 991 | 989 | 987 | 989 | 989 | 989 | 989 | 989 | 990 |
| 22 | 990 | 993 | 992 | 994 | 990 | 990 | 988 | 984 | 987 | 988 | 988 | 990 | 995 | 997 | 995 | 995 | 994 | 993 | 988 | 989 | 987 | 984 | 983 | 987 | 990 |
| 23 | 976 | 966 | 974 | 973 | 971 | 971 | 970 | 970 | 976 | 983 | 983 | 986 | 995 | 1000 | 1007 | 1012 | 1001 | 995 | 995 | 990 | 990 | 995 | 995 | 995 | 986 |
| 24 | 992 | 993 | 995 | 995 | 995 | 993 | 995 | 995 | 995 | 995 | 994 | 995 | 995 | 1006 | 1013 | 1011 | 1002 | 1005 | 999 | 1001 | 994 | 988 | 983 | 977 | 996 |
| 25 | 966 | 950 | 958 | 966 | 972 | 975 | 978 | 982 | 984 | 989 | 986 | 985 | 985 | 986 | 990 | 996 | 1002 | 1007 | 1022 | 1025 | 1010 | 998 | 996 | 940 | 984 |
| 26 *d* | 926 | 945 | 923 | 936 | 951 | 944 | 917 | 935 | 953 | 970 | 979 | 991 | 996 | 995 | 997 | 1008 | 1034 | 1036 | 1050 | 1039 | 1015 | 892 | 714 | 649 | *950* |
| 27 *d* | 879 | 723 | 717 | 851 | 900 | 936 | 918 | 973 | 989 | 1020 | 1035 | 1026 | 1058 | 1096 | 1098 | 1097 | 1101 | 1083 | 1033 | 1010 | 929 | 956 | 955 | 924 | 971 |
| 28 | 906 | 965 | 984 | 990 | 991 | 984 | 979 | 984 | 990 | 997 | 997 | 992 | 997 | 1003 | 1005 | 1011 | 1021 | 1016 | 1009 | 998 | 992 | 991 | 988 | 978 | 990 |
| 29 | 955 | 957 | 971 | 973 | 979 | 982 | 981 | 986 | 987 | 986 | 986 | 991 | 992 | 1000 | 1009 | 1013 | 1012 | 1009 | 1007 | 1016 | 1018 | 1007 | 993 | 942 | 990 |
| 30 *q* | 963 | 978 | 987 | 991 | 992 | 989 | 987 | 985 | 990 | 995 | 998 | 997 | 998 | 999 | 1004 | 1004 | 1010 | 1010 | 1001 | 998 | 994 | 993 | 992 | 992 | 994 |
| 31 *d* | 992 | 993 | 993 | 996 | 995 | 998 | 998 | 998 | 1003 | 991 | 991 | 993 | 999 | 1023 | 1053 | 1034 | 1044 | 1096 | 1096 | 1077 | 1059 | 1024 | 1013 | 962 | *1018* |
| Mean | 969 | 971 | 973 | 975 | 978 | 980 | 979 | 984 | 990 | 994 | 994 | 994 | 997 | 1003 | 1010 | *1015* | 1014 | 1013 | 1012 | 1008 | 1001 | 991 | 978 | *962* | 991 |

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

49 LERWICK — OCTOBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | Minimum 11° + | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | |
| | h. m. | γ | h. m. | γ | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | γ | | | | °A. |
| 1 | 19 15 | 399 | 304 | 08 44 | 95 | 14 21 | 29·0 | −5·7 | 19 11 | 34·7 | 14 58 | 1079 | 952 | 01 19 | 127 | 2,1,3,2,3,2,4,2 | 19 | 1 | 84·2 |
| 2 | 24 00 | 391 | 304 | 11 08 | 87 | 12 25 | 27·6 | 13·0 | 06 37 | 14·6 | 14 48 | 1052 | 961 | 03 47 | 91 | 1,2,2,2,3,2,2,2 | 16 | 1 | 84·3 |
| 3 | 14 57 | 378 | 318 | 10 54 | 60 | 13 34 | 29·8 | 13·3 | 00 40 | 16·5 | 16 05 | 1073 | 945 | 06 21 | 128 | 3,3,3,2,3,3,1,1 | 19 | 1 | 84·5 |
| 4 | 20 25 | 386 | 317 | 09 58 | 69 | 12 22 | 28·6 | 12·7 | 04 33 | 15 9 | 17 08 | 1050 | 914 | 03 34 | 136 | 3,3,2,2,2,3,3,2 | 20 | 1 | 84·1 |
| 5 | 14 50 | 443 | 325 | 11 25 | 118 | 14 50 | 35·5 | −1·9 | 18 45 | 37·4 | 18 32 | *1134* | 958 | 04 15 | 176 | 1,3,2,2,4,3,4,1 | 20 | 1 | 83·9 |
| 6 | 05 21 | 379 | 313 | 09 21 | 66 | 13 47 | 26·5 | −8·7 | 20 48 | 35·2 | 19 32 | 1039 | 927 | 23 20 | 112 | 2,3,2,2,2,2,4,4 | 21 | 1 | 83·5 |
| 7 | 16 24 | 395 | 318 | 13 15 | 77 | 16 47 | 29·8 | 8·6 | 00 00 | 21·2 | 16 19 | 1074 | 940 | 00 00 | 134 | 3,2,2,2,3,3,2,2 | 29 | 1 | 83·0 |
| 8 *q* | 20 24 | 400 | 332 | 11 47 | 68 | 13 45 | 23·8 | 14·4 | 09 04 | 9·4 | 03 29 | 1001 | 983 | 18 55 | 18 | 1,1,1,1,1,1,2,1 | 9 | 0 | 82·9 |
| 9 *d* | 21 05 | 394 | 96 | 22 55 | 298 | 13 10 | 29·4 | 5·2 | 03 50 | 24·2 | 19 51 | 1042 | 761 | 23 10 | 281 | 2,3,4,3,3,2,3,6 | 26 | 1 | 83·0 |
| 10 | 19 39 | 389 | 320 | 10 59 | 69 | 12 12 | 30·3 | −1·0 | 20 54 | 31·3 | 20 38 | 1026 | 868 | 00 00 | 158 | 4,1,2,2,2,1,4,3 | 19 | 1 | 83·2 |
| 11 | 14 44 | 396 | 344 | 11 10 | 52 | 14 40 | 28·5 | 8·4 | 19 48 | 20·1 | 15 35 | 1016 | 966 | 00 25 | 50 | 3,2,1,1,2,2,3,2 | 16 | 1 | 83·1 |
| 12 | 04 43 | 391 | 327 | 11 11 | 64 | 24 00 | 27·8 | 8·5 | 07 28 | 19·3 | 14 45 | 999 | 935 | 06 34 | 64 | 3,3,3,1,1,1,1,3 | 16 | 1 | 82·5 |
| 13 *q* | 22 30 | 389 | 332 | 11 02 | 57 | 00 01 | 27·8 | 14·2 | 08 28 | 13·6 | 08 30 | 1005 | 930 | 00 32 | 75 | 3,1,2,1,1,1,1,2 | 12 | 0 | 82·9 |
| 14 | 18 45 | 390 | 320 | 11 09 | 70 | 12 45 | 29·1 | 12·5 | 09 23 | 16·6 | 21 00 | 1004 | 977 | 01 50 | 27 | 2,1,2,2,2,1,2,1 | 13 | 0 | 82·4 |
| 15 | 19 27 | 392 | 324 | 10 33 | 68 | 13 50 | 28·9 | 9·7 | 23 35 | 19·2 | 07 40 | 1002 | 978 | 12 55 | 24 | 0,0,1,2,2,1,1,3 | 10 | 0 | 84·2 |
| 16 | 21 13 | 410 | 333 | 09 57 | 77 | 11 40 | 28·6 | 7·9 | 21 38 | 20·7 | 20 13 | 1021 | 976 | 00 22 | 45 | 2,1,2,2,2,1,3,3 | 16 | 1 | 85·0 |
| 17 *q* | 20 40 | 394 | 334 | 12 20 | 60 | 13 40 | 25·5 | 12·5 | 09 11 | 13·0 | 09 43 | 993 | 983 | 12 40 | *10* | 0,1,1,1,1,1,1,1 | 7 | 0 | 85·1 |
| 18 *q* | 23 00 | 399 | 345 | 10 26 | 54 | 13 40 | 25·5 | 15·2 | 23 22 | 10·3 | 08 28 | 996 | 969 | 23 09 | 27 | 1,1,0,1,1,1,0,2 | 7 | 0 | 85·8 |
| 19 | 21 25 | 394 | 251 | 23 54 | 143 | 13 19 | 24·9 | 3·1 | 23 54 | 21·8 | 19 15 | 1016 | 853 | 23 54 | 163 | 1,1,1,1,1,2,3,5 | 15 | 1 | 85·9 |
| 20 *d* | 04 18 | 406 | 272 | 00 01 | 134 | 15 07 | 28·9 | 3·8 | 00 14 | 25·1 | 21 08 | 1030 | 856 | 00 00 | 174 | 4,3,3,2,2,2,3,3 | 22 | 1 | 86·0 |
| 21 | 21 20 | 391 | 327 | 11 35 | 64 | 01 57 | 23·7 | 13·6 | 09 25 | 10·1 | 13 41 | 1000 | 972 | 02 30 | 28 | 2,1,1,1,1,1,2,1 | 10 | 0 | 86·8 |
| 22 | 00 33 | 383 | 329 | 13 19 | 54 | 11 55 | 25·7 | 13·8 | 08 54 | 11·9 | 13 20 | 1000 | 981 | 22 48 | 19 | 1,0,1,1,2,1,1,2 | 9 | 0 | 86·9 |
| 23 | 00 55 | 391 | 339 | 12 09 | 52 | 11 57 | 26·8 | 12·4 | 02 39 | 14·4 | 15 17 | 1015 | 963 | 01 03 | 52 | 3,2,2,2,2,2,0,2 | 15 | 0 | 84·0 |
| 24 | 20 35 | 382 | 322 | 11 00 | 60 | 12 50 | 27·5 | 10·2 | 23 23 | 17·3 | 14 05 | 1014 | 968 | 24 00 | 46 | 1,1,1,1,2,2,1,2 | 11 | 0 | 84·4 |
| 25 | 06 48 | 383 | 319 | 23 02 | 64 | 12 52 | 25·4 | 4·0 | 24 00 | 21·4 | 19 18 | 1032 | 894 | 23 59 | 138 | 3,1,2,1,1,2,2,3 | 15 | 1 | 83·1 |
| 26 *d* | 22 00 | 411 | −27 | 24 00 | 438 | 22 12 | 39·6 | −33·6 | 23 50 | 73·2 | 18 13 | 1068 | *552* | 23 50 | 516 | 3,4,3,2,3,2,4,7 | 28 | 2 | 81·2 |
| 27 *d* | 13 05 | *470* | *−355* | 00 28 | *805* | 01 22 | *46·1* | *−52·9* | 02 32 | *99·0* | 14 29 | 1132 | 601 | 02 17 | *531* | 8,6,3,3,4,4,5,4 | 37 | 2 | 81·5 |
| 28 | 23 51 | 381 | 289 | 00 01 | 92 | 13 17 | 24·6 | 8·3 | 17 12 | 16·3 | 16 21 | 1023 | 884 | 00 01 | 139 | 4,2,2,2,2,3,2,2 | 19 | 1 | 81·1 |
| 29 | 06 28 | 380 | 325 | 11 06 | 55 | 12 58 | 26·1 | 8·5 | 20 34 | 17·6 | 20 16 | 1023 | 932 | 23 20 | 91 | 3,2,2,2,2,1,3,3 | 18 | 1 | 80·0 |
| 30 *q* | 05 49 | 376 | 333 | 10 28 | *43* | 14 23 | 24·3 | 15·1 | 07 50 | *9·2* | 17 01 | 1015 | 949 | 00 00 | 66 | 1,1,2,1,1,1,1,0 | 8 | 0 | 83·1 |
| 31 *d* | 18 15 | 406 | 284 | 03 27 | 122 | 13 48 | 32·3 | 6·6 | 22 18 | 25·7 | 17 22 | 1132 | 955 | 23 40 | 177 | 0,0,2,2,3,4,4,3 | 18 | 1 | 84·5 |
| Mean | − − | 396 | 279 | − − | 117 | − − | 28·6 | 4·9 | − − | 23·7 | − − | 1036 | 912 | − − | 123 | − | − | 0·71 | 83·7 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

50 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 *d* | 325 | 308 | 311 | 321 | 332 | 351 | 353 | 335 | 322 | 311 | 295 | 314 | 354 | 355 | 370 | 390 | 453 | 385 | 363 | 356 | 350 | 278 | 353 | 357 | *343* |
| 2 | 366 | 363 | 363 | 364 | 368 | 373 | 353 | 346 | 350 | 341 | 335 | 331 | 337 | 346 | 354 | 360 | 364 | 367 | 369 | 375 | 364 | 358 | 365 | 365 | 357 |
| 3 | 354 | 368 | 371 | 371 | 376 | 380 | 376 | 370 | 363 | 354 | 353 | 353 | 353 | 355 | 363 | 364 | 367 | 371 | 375 | 375 | 378 | 375 | 376 | 372 | 367 |
| 4 | 367 | 373 | 371 | 375 | 380 | 381 | 380 | 377 | 371 | 360 | 352 | 338 | 343 | 357 | 352 | 362 | 368 | 372 | 375 | 376 | 376 | 374 | 371 | 369 | 367 |
| 5 | 371 | 371 | 370 | 372 | 378 | 384 | 385 | 377 | 364 | 361 | 351 | 349 | 350 | 364 | 367 | 375 | 379 | 383 | 386 | 396 | 390 | 396 | 385 | 382 | 374 |
| 6 *d* | 375 | 376 | 368 | 368 | 379 | 379 | 375 | 367 | 369 | 345 | 324 | 329 | 350 | 350 | 349 | 340 | 374 | 398 | 360 | 360 | 361 | 359 | 357 | 376 | 362 |
| 7 | 346 | 354 | 355 | 350 | 355 | 360 | 364 | 365 | 358 | 346 | 340 | 335 | 336 | 344 | 352 | 355 | 364 | 362 | 366 | 370 | 371 | 371 | 369 | 368 | 357 |
| 8 | 367 | 365 | 367 | 368 | 370 | 371 | 370 | 369 | 364 | 350 | 346 | 346 | 342 | 354 | 359 | 364 | 367 | 375 | 377 | 368 | 375 | 376 | 375 | 370 | 365 |
| 9 | 359 | 350 | 358 | 362 | 362 | 368 | 371 | 367 | 362 | 348 | 343 | 346 | 356 | 362 | 359 | 359 | 366 | 373 | 378 | 380 | 381 | 383 | 374 | 368 | 364 |
| 10 | 368 | 366 | 356 | 368 | 372 | 375 | 377 | 374 | 369 | 356 | 355 | 355 | 359 | 360 | 364 | 370 | 366 | 371 | 380 | 373 | 360 | 342 | 358 | 370 | 365 |
| 11 | 366 | 359 | 360 | 324 | 352 | 359 | 371 | 362 | 349 | 348 | 348 | 352 | 358 | 359 | 364 | 367 | 376 | 374 | 377 | 380 | 382 | 391 | 365 | 370 | 363 |
| 12 | 368 | 375 | 356 | 338 | 319 | 341 | 350 | 357 | 356 | 356 | 353 | 344 | 346 | 350 | 355 | 355 | 359 | 363 | 366 | 366 | 369 | 369 | 370 | 368 | 356 |
| 13 | 367 | 369 | 368 | 368 | 369 | 371 | 368 | 366 | 362 | 354 | 351 | 348 | 349 | 354 | 355 | 366 | 369 | 378 | 364 | 370 | 375 | 367 | 364 | 362 | 364 |
| 14 *q* | 369 | 370 | 369 | 370 | 371 | 372 | 372 | 370 | 366 | 359 | 355 | 354 | 349 | 351 | 362 | 366 | 370 | 375 | 376 | 378 | 379 | 381 | 378 | 373 | 368 |
| 15 | 375 | 374 | 373 | 373 | 375 | 376 | 376 | 374 | 374 | 359 | 371 | 371 | 372 | 381 | 378 | 388 | 391 | 393 | 396 | 406 | 426 | 408 | 391 | 386 | *383* |
| 16 | 365 | 346 | 341 | 342 | 374 | 375 | 369 | 358 | 352 | 352 | 349 | 348 | 351 | 355 | 359 | 366 | 371 | 377 | 373 | 354 | 355 | 359 | 363 | 366 | 359 |
| 17 | 371 | 370 | 367 | 353 | 373 | 372 | 370 | 370 | 367 | 357 | 353 | 354 | 355 | 357 | 363 | 366 | 370 | 374 | 378 | 379 | 378 | 370 | 359 | 354 | 366 |
| 18 | 370 | 366 | 370 | 371 | 374 | 375 | 375 | 374 | 370 | 359 | 358 | 357 | 355 | 362 | 370 | 372 | 380 | 381 | 381 | 380 | 380 | 380 | 379 | 366 | 371 |
| 19 | 350 | 345 | 357 | 369 | 369 | 371 | 389 | 384 | 357 | 336 | 337 | 350 | 356 | 358 | 370 | 359 | 370 | 377 | 379 | 381 | 370 | 350 | 349 | 350 | 362 |
| 20 | 354 | 365 | 363 | 364 | 355 | 360 | 367 | 369 | 368 | 363 | 364 | 366 | 367 | 375 | 349 | 366 | 377 | 376 | 376 | 375 | 376 | 375 | 374 | 384 | 368 |
| 21 *d* | 369 | 366 | 369 | 368 | 371 | 375 | 381 | 380 | 383 | 357 | 342 | 327 | 353 | 358 | 380 | 371 | 360 | 362 | 353 | 357 | 364 | 361 | 360 | 332 | 362 |
| 22 | 332 | 340 | 353 | 346 | 362 | 367 | 371 | 359 | 341 | 356 | 352 | 354 | 355 | 357 | 353 | 357 | 358 | 369 | 368 | 371 | 369 | 367 | 370 | 364 | 358 |
| 23 | 367 | 352 | 366 | 371 | 372 | 369 | 370 | 374 | 367 | 345 | 349 | 341 | 345 | 349 | 355 | 362 | 368 | 372 | 373 | 375 | 376 | 378 | 378 | 376 | 365 |
| 24 *d* | 375 | 372 | 374 | 379 | 403 | 398 | 385 | 384 | 379 | 360 | 360 | 361 | 367 | 350 | 349 | 364 | 367 | 357 | 356 | 357 | 360 | 361 | 361 | 360 | 368 |
| 25 *d* | 357 | 355 | 353 | 350 | 357 | 364 | 374 | 370 | 359 | 338 | 346 | 342 | 341 | 349 | 348 | 352 | 361 | 365 | 364 | 365 | 386 | 367 | 364 | 353 | 358 |
| 26 | 365 | 363 | 344 | 339 | 371 | 376 | 366 | 363 | 358 | 350 | 345 | 339 | 346 | 352 | 353 | 359 | 370 | 368 | 372 | 375 | 374 | 372 | 371 | 373 | 361 |
| 27 *q* | 374 | 374 | 372 | 373 | 375 | 374 | 374 | 372 | 366 | 357 | 356 | 357 | 361 | 363 | 367 | 371 | 378 | 378 | 379 | 379 | 378 | 377 | 376 | 376 | 371 |
| 28 *q* | 374 | 375 | 378 | 379 | 380 | 380 | 380 | 382 | 379 | 372 | 362 | 357 | 358 | 361 | 370 | 374 | 375 | 376 | 378 | 378 | 378 | 378 | 378 | 379 | 374 |
| 29 *q* | 378 | 378 | 379 | 381 | 382 | 382 | 383 | 381 | 375 | 366 | 361 | 358 | 364 | 368 | 372 | 375 | 378 | 380 | 381 | 381 | 379 | 378 | 381 | 376 | 376 |
| 30 *q* | 375 | 375 | 375 | 375 | 379 | 382 | 382 | 383 | 378 | 368 | 364 | 363 | 364 | 362 | 365 | 375 | 378 | 378 | 378 | 380 | 380 | 375 | 364 | 363 | 373 |
| Mean | 364 | 363 | 363 | 362 | 369 | 372 | 373 | 369 | 363 | 353 | 349 | *348* | 353 | 357 | 361 | 366 | 373 | 374 | 373 | 374 | *375* | 369 | 369 | 368 | 365 |

Corrections to be applied to all values; *H*, −6$\gamma$; *D*, −4′·4; *V*, nil.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

51 LERWICK (D) — 11° + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *d* | 10·9 | 10·2 | 15·2 | 11·4 | 19·7 | 19·2 | 21·7 | 18·9 | 18·0 | 20·7 | 22·6 | 23·3 | 25·1 | 23·3 | 24·9 | 23·0 | 27·8 | 20·8 | 12·5 | 15·4 | 11·3 | 9·7 | 4·9 | 14·7 | 17·7 |
| 2 | 18·2 | 17·3 | 17·5 | 17·2 | 17·5 | 17·4 | 21·3 | 25·6 | 17·8 | 17·5 | 19·3 | 22·0 | 23·0 | 22·5 | 21·4 | 20·4 | 19·0 | 18·7 | 16·9 | 8·7 | 9·7 | 12·1 | 15·0 | 19·2 | 18·1 |
| 3 | 20·5 | 19·0 | 16·4 | 16·9 | 17·1 | 17·2 | 17·5 | 17·3 | 15·8 | 15·4 | 16·5 | 18·0 | 19·1 | 19·4 | 19·4 | 18·8 | 19·2 | 19·7 | 19·4 | 18·6 | 18·4 | 17·4 | 13·7 | 15·7 | 17·8 |
| 4 | 18·8 | 16·4 | 17·5 | 17·7 | 17·8 | 17·7 | 17·4 | 16·6 | 15·7 | 16·3 | 18·2 | 20·7 | 23·1 | 24·2 | 22·3 | 21·9 | 20·9 | 19·9 | 19·1 | 18·2 | 18·1 | 17·5 | 17·0 | 16·0 | 18·7 |
| 5 | 17·2 | 17·1 | 16·3 | 16·2 | 15·9 | 16·0 | 17·5 | 18·0 | 16·3 | 17·6 | 20·9 | 22·7 | 23·7 | 24·1 | 25·1 | 24·7 | 23·2 | 22·3 | 21·3 | 21·6 | 19·4 | 19·0 | 18·1 | 17·5 | 19·7 |
| 6 *d* | 16·2 | 13·8 | 15·9 | 16·6 | 14·6 | 14·7 | 14·6 | 17·5 | 20·6 | 17·8 | 16·6 | 20·4 | 22·2 | 27·5 | 30·4 | 26·2 | 27·9 | 25·1 | 21·0 | 19·4 | 16·6 | 15·6 | 13·7 | 12·1 | 19·0 |
| 7 | 13·2 | 14·7 | 13·6 | 14·8 | 17·1 | 15·5 | 15·6 | 15·5 | 13·8 | 13·8 | 15·2 | 17·5 | 19·8 | 21·2 | 21·8 | 21·0 | 20·8 | 20·8 | 20·5 | 19·5 | 18·3 | 17·5 | 16·6 | 17·0 | 17·3 |
| 8 | 17·5 | 17·4 | 17·2 | 17·5 | 17·4 | 17·1 | 17·0 | 16·6 | 15·6 | 14·7 | 16·4 | 20·4 | 21·0 | 23·2 | 21·5 | 20·9 | 20·2 | 20·4 | 20·9 | 18·5 | 18·6 | 18·3 | 16·6 | 10·5 | 18·1 |
| 9 | 6·2 | 8·8 | 14·4 | 14·8 | 16·9 | 15·6 | 16·0 | 15·6 | 16·0 | 17·1 | 19·1 | 23·1 | 24·2 | 25·7 | 24·4 | 23·6 | 20·5 | 19·9 | 19·7 | 19·4 | 19·7 | 18·3 | 13·6 | 12·1 | 17·7 |
| 10 | 17·5 | 18·4 | 17·0 | 14·9 | 15·5 | 16·5 | 16·9 | 16·6 | 16·7 | 16·8 | 18·2 | 20·1 | 22·0 | 22·3 | 22·6 | 22·7 | 22·2 | 21·8 | 22·6 | 12·2 | 5·7 | 5·0 | 11·6 | 17·0 | 17·2 |
| 11 | 15·6 | 15·2 | 17·4 | 9·4 | 12·9 | 14·6 | 15·0 | 15·6 | 15·4 | 17·0 | 19·8 | 20·2 | 20·0 | 22·3 | 22·6 | 21·3 | 22·0 | 21·0 | 20·9 | 19·8 | 17·6 | 8·7 | 13·7 | 15·9 | 17·2 |
| 12 | 16·3 | 19·0 | 11·1 | 6·3 | 12·1 | 12·3 | 12·6 | 14·3 | 14·2 | 14·7 | 15·3 | 18·0 | 20·2 | 20·9 | 21·7 | 20·2 | 19·8 | 21·1 | 14·9 | 11·6 | 16·5 | 17·4 | 16·2 | 17·1 | 16·0 |
| 13 | 17·5 | 16·6 | 17·1 | 17·3 | 17·5 | 16·6 | 16·7 | 16·3 | 16·0 | 16·8 | 17·0 | 19·1 | 20·6 | 21·7 | 21·5 | 21·1 | 20·4 | 21·2 | 20·6 | 18·8 | 18·3 | 15·2 | 14·7 | 18·8 | 18·2 |
| 14 *q* | 16·9 | 16·8 | 16·9 | 17·0 | 17·1 | 16·8 | 16·4 | 16·1 | 16·1 | 16·5 | 17·9 | 21·5 | 22·1 | 21·7 | 22·2 | 21·1 | 20·4 | 20·2 | 19·8 | 19·4 | 19·3 | 17·1 | 17·2 | 17·1 | 18·5 |
| 15 | 17·6 | 17·5 | 17·1 | 17·0 | 16·9 | 16·9 | 16·4 | 15·7 | 16·0 | 17·9 | 18·0 | 20·7 | 21·8 | 25·5 | 25·6 | 27·0 | 27·0 | 32·0 | 26·6 | 27·4 | 22·9 | 17·6 | 15·6 | 10·5 | *20·3* |
| 16 | 2·0 | 7·7 | 11·4 | 13·6 | 15·3 | 14·3 | 15·2 | 15·3 | 17·1 | 16·3 | 18·7 | 20·1 | 22·6 | 21·5 | 20·9 | 20·1 | 20·4 | 21·3 | 20·2 | 13·5 | 16·5 | 6·6 | 12·9 | 15·8 | 15·8 |
| 17 | 16·0 | 16·6 | 16·1 | 20·0 | 17·2 | 15·6 | 15·6 | 15·6 | 15·4 | 16·1 | 16·5 | 19·0 | 20·2 | 20·8 | 20·9 | 20·0 | 19·0 | 19·6 | 19·4 | 18·9 | 19·3 | 14·2 | 10·4 | 13·2 | 17·3 |
| 18 | 12·1 | 14·1 | 16·1 | 15·9 | 17·0 | 16·8 | 16·4 | 16·2 | 16·0 | 16·2 | 16·4 | 18·9 | 20·6 | 21·1 | 21·8 | 20·4 | 19·5 | 19·5 | 18·9 | 18·6 | 17·7 | 17·5 | 17·2 | 12·4 | 17·4 |
| 19 | 2·7 | 6·7 | 10·9 | 14·5 | 13·0 | 13·7 | 17·0 | 19·6 | 16·8 | 19·1 | 17·5 | 17·9 | 20·4 | 22·5 | 23·2 | 21·3 | 18·0 | 19·3 | 20·6 | 23·1 | 15·6 | 11·4 | 3·9 | 7·9 | *15·7* |
| 20 | 7·5 | 13·1 | 15·1 | 12·6 | 18·0 | 17·7 | 14·8 | 15·7 | 16·1 | 17·0 | 18·0 | 20·7 | 21·3 | 23·2 | 24·8 | 20·9 | 21·2 | 20·1 | 21·9 | 19·8 | 19·2 | 18·9 | 17·4 | 16·8 | 18·0 |
| 21 *d* | 15·0 | 16·3 | 15·0 | 14·9 | 14·5 | 15·5 | 15·0 | 16·1 | 16·6 | 16·1 | 19·3 | 24·5 | 27·7 | 30·2 | 18·9 | 22·3 | 19·0 | 18·3 | 13·4 | 15·4 | 17·5 | 14·2 | −0·2 | 1·3 | 16·5 |
| 22 | 11·4 | 15·2 | 16·2 | 19·6 | 18·1 | 19·8 | 20·3 | 19·8 | 20·0 | 21·5 | 20·0 | 20·8 | 20·2 | 21·5 | 19·4 | 19·0 | 10·2 | 13·7 | 18·2 | 17·5 | 15·1 | 16·0 | 16·4 | 15·3 | 17·7 |
| 23 | 16·0 | 20·8 | 17·7 | 17·5 | 17·0 | 16·8 | 19·6 | 18·4 | 17·4 | 17·2 | 19·6 | 21·1 | 22·1 | 23·4 | 22·8 | 20·8 | 19·8 | 19·0 | 17·9 | 17·7 | 17·3 | 17·2 | 17·0 | 16·6 | 18·8 |
| 24 *d* | 15·5 | 15·4 | 17·3 | 18·9 | 20·4 | 19·0 | 20·4 | 28·2 | 23·7 | 19·5 | 20·6 | 24·6 | 27·3 | 26·8 | 23·7 | 22·7 | 19·9 | 18·9 | 17·9 | 17·0 | 16·0 | 15·6 | 15·5 | 15·6 | 20·0 |
| 25 *d* | 16·0 | 15·9 | 15·6 | 16·8 | 16·3 | 15·5 | 16·3 | 17·5 | 16·4 | 20·2 | 20·8 | 21·5 | 23·6 | 23·9 | 21·3 | 10·6 | 19·4 | 18·5 | 17·8 | 11·6 | 13·7 | 15·1 | 12·1 | 9·8 | 16·9 |
| 26 | 13·8 | 14·2 | 16·5 | 21·0 | 15·2 | 16·6 | 16·8 | 15·6 | 15·5 | 16·3 | 17·1 | 19·0 | 21·4 | 21·7 | 20·9 | 20·7 | 13·9 | 19·0 | 19·3 | 18·4 | 17·6 | 17·1 | 16·7 | 16·5 | 17·5 |
| 27 *q* | 16·9 | 17·1 | 16·5 | 17·4 | 17·0 | 16·7 | 16·4 | 16·9 | 16·9 | 17·1 | 18·1 | 19·8 | 20·7 | 20·9 | 20·9 | 19·9 | 19·4 | 19·3 | 18·9 | 18·6 | 17·9 | 17·2 | 16·5 | 16·5 | 18·1 |
| 28 *q* | 16·4 | 17·2 | 17·3 | 17·7 | 17·4 | 17·0 | 17·0 | 17·5 | 18·9 | 18·1 | 18·2 | 19·2 | 21·6 | 21·0 | 21·4 | 20·6 | 19·2 | 18·7 | 18·2 | 18·0 | 17·3 | 16·9 | 17·2 | 17·2 | 18·3 |
| 29 *q* | 17·2 | 17·6 | 17·6 | 18·0 | 17·8 | 17·6 | 16·6 | 16·2 | 15·8 | 16·2 | 17·3 | 18·9 | 20·7 | 20·9 | 19·9 | 19·1 | 19·0 | 18·6 | 18·3 | 18·2 | 18·0 | 17·4 | 17·0 | 15·5 | 17·9 |
| 30 *q* | 13·0 | 15·5 | 16·5 | 17·0 | 17·1 | 17·0 | 16·5 | 16·4 | 16·3 | 16·0 | 17·1 | 18·2 | 20·0 | 20·9 | 20·0 | 19·7 | 18·9 | 19·0 | 18·8 | 17·8 | 17·9 | 12·8 | 11·3 | 11·4 | 16·9 |
| Mean | 14·4 | 15·4 | 15·9 | 16·0 | 16·6 | 16·5 | 16·9 | 17·4 | 16·8 | 17·1 | 18·2 | 20·4 | 21·9 | *22·9* | 22·3 | 21·1 | 20·3 | 20·3 | 19·2 | 17·7 | 16·9 | 15·1 | *14·0* | 14·4 | 17·8 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

52 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *d* | 960 | 935 | 913 | 912 | 939 | 942 | 962 | 981 | 999 | 1008 | 1023 | 1036 | 1059 | 1063 | 1067 | 1097 | 1165 | 1134 | 1065 | 1041 | 1029 | 937 | 926 | 959 | 1006 |
| 2 | 974 | 989 | 993 | 994 | 994 | 993 | 994 | 980 | 981 | 990 | 994 | 999 | 1004 | 1005 | 1005 | 1000 | 999 | 999 | 1000 | 999 | 993 | 985 | 982 | 981 | 993 |
| 3 | 957 | 949 | 969 | 985 | 988 | 988 | 989 | 992 | 996 | 998 | 997 | 995 | 994 | 992 | 992 | 995 | 996 | 994 | 993 | 993 | 992 | 995 | 995 | 994 | 989 |
| 4 | 984 | 982 | 989 | 989 | 988 | 989 | 989 | 993 | 998 | 1000 | 1000 | 1003 | 997 | 999 | 1001 | 997 | 996 | 995 | 998 | 1001 | 1005 | 1003 | 995 | 999 | 995 |
| 5 | 1001 | 1001 | 1001 | 1000 | 995 | 990 | 984 | 988 | 994 | 994 | 994 | 994 | 994 | 994 | 998 | 994 | 993 | 991 | 990 | 988 | 994 | 994 | 1000 | 1000 | 994 |
| 6 *d* | 1005 | 1005 | 1006 | 1001 | 995 | 994 | 994 | 988 | 983 | 998 | 1006 | 1012 | 1011 | 1013 | 1037 | 1069 | 1055 | 1102 | 1038 | 1019 | 1013 | 1013 | 1013 | 976 | *1014* |
| 7 | 946 | 982 | 988 | 990 | 970 | 971 | 984 | 993 | 1000 | 1001 | 1006 | 1006 | 1005 | 1001 | 1003 | 1006 | 1006 | 1004 | 1000 | 1000 | 998 | 998 | 995 | 999 | 994 |
| 8 | 1001 | 1001 | 1001 | 1001 | 996 | 995 | 995 | 994 | 995 | 996 | 995 | 990 | 996 | 995 | 995 | 995 | 996 | 995 | 995 | 1002 | 997 | 995 | 998 | 1001 | 998 |
| 9 | 989 | 980 | 977 | 993 | 1001 | 999 | 996 | 995 | 994 | 996 | 996 | 995 | 996 | 998 | 996 | 999 | 1000 | 996 | 994 | 990 | 991 | 995 | 1019 | 1017 | 998 |
| 10 | 1007 | 996 | 963 | 985 | 991 | 990 | 989 | 990 | 991 | 995 | 996 | 996 | 996 | 997 | 998 | 1001 | 1002 | 1000 | 998 | 1021 | 988 | 1007 | 1007 | 998 | 998 |
| 11 | 996 | 995 | 953 | 890 | 950 | 986 | 988 | 989 | 996 | 995 | 995 | 993 | 991 | 990 | 994 | 996 | 996 | 998 | 997 | 996 | 1001 | 996 | 996 | 995 | 986 |
| 12 | 996 | 984 | 937 | 888 | 925 | 922 | 968 | 983 | 995 | 995 | 996 | 997 | 996 | 997 | 1002 | 1006 | 1008 | 1012 | 1020 | 1020 | 1007 | 996 | 995 | 990 | 985 |
| 13 | 988 | 989 | 994 | 995 | 996 | 995 | 996 | 996 | 995 | 996 | 996 | 995 | 995 | 993 | 994 | 995 | 995 | 995 | 1002 | 1004 | 997 | 1001 | 1000 | 984 | 995 |
| 14 *q* | 982 | 989 | 990 | 990 | 990 | 991 | 991 | 991 | 993 | 990 | 990 | 990 | 994 | 990 | 989 | 991 | 990 | 990 | 992 | 993 | 995 | 995 | 994 | 995 | 991 |
| 15 | 990 | 989 | 989 | 989 | 989 | 989 | 989 | 990 | 990 | 985 | 977 | 976 | 976 | 971 | 978 | 995 | 1001 | 1015 | 1056 | 1052 | 1102 | 1094 | 1057 | 1028 | 1007 |
| 16 | 1007 | 1000 | 965 | 956 | 966 | 983 | 988 | 991 | 995 | 995 | 995 | 997 | 998 | 998 | 994 | 991 | 990 | 991 | 1000 | 1021 | 1013 | 953 | 969 | 982 | 989 |
| 17 | 984 | 986 | 983 | 977 | 971 | 983 | 987 | 988 | 995 | 996 | 995 | 995 | 990 | 989 | 988 | 987 | 984 | 987 | 983 | 985 | 989 | 1002 | 990 | 989 | 988 |
| 18 | 949 | 966 | 979 | 982 | 982 | 982 | 983 | 984 | 987 | 988 | 990 | 989 | 988 | 988 | 988 | 988 | 984 | 984 | 985 | 984 | 985 | 988 | 989 | 992 | 983 |
| 19 | 990 | 967 | 960 | 970 | 980 | 977 | 968 | 969 | 983 | 989 | 990 | 1000 | 1001 | 1000 | 1001 | 1008 | 1007 | 1001 | 1005 | 1032 | 1060 | 1037 | 947 | 953 | 991 |
| 20 | 964 | 988 | 995 | 991 | 976 | 960 | 978 | 984 | 988 | 989 | 990 | 990 | 989 | 995 | 1007 | 996 | 986 | 984 | 1001 | 1002 | 1001 | 1007 | 1001 | 987 | 989 |
| 21 *d* | 982 | 977 | 982 | 984 | 983 | 984 | 983 | 982 | 978 | 989 | 990 | 1004 | 1007 | 1029 | 1065 | 1039 | 1019 | 1013 | 1020 | 1012 | 998 | 995 | 961 | 930 | 996 |
| 22 | 926 | 922 | 947 | 949 | 957 | 966 | 965 | 976 | 982 | 983 | 986 | 994 | 998 | 1004 | 1009 | 1008 | 1026 | 1019 | 1002 | 1001 | 1001 | 996 | 980 | 966 | *982* |
| 23 | 976 | 977 | 969 | 978 | 982 | 984 | 982 | 983 | 990 | 990 | 991 | 996 | 1000 | 1008 | 1014 | 1008 | 1007 | 1001 | 995 | 990 | 989 | 987 | 988 | 990 | 991 |
| 24 *d* | 989 | 990 | 988 | 985 | 965 | 969 | 972 | 961 | 969 | 979 | 978 | 983 | 1000 | 1042 | 1043 | 1037 | 1018 | 1008 | 1001 | 999 | 998 | 996 | 995 | 997 | 994 |
| 25 *d* | 997 | 1001 | 1000 | 999 | 996 | 995 | 990 | 989 | 993 | 995 | 989 | 995 | 1002 | 1025 | 1027 | 1049 | 1025 | 1018 | 1042 | 1026 | 971 | 985 | 987 | 929 | 1001 |
| 26 | 951 | 977 | 972 | 917 | 950 | 969 | 980 | 987 | 990 | 987 | 987 | 986 | 988 | 988 | 995 | 1000 | 1007 | 1002 | 999 | 995 | 995 | 994 | 992 | 990 | 983 |
| 27 *q* | 989 | 987 | 989 | 990 | 990 | 990 | 990 | 991 | 993 | 990 | 990 | 990 | 987 | 985 | 988 | 990 | 990 | 990 | 990 | 989 | 989 | 988 | 990 | 988 | 989 |
| 28 *q* | 988 | 987 | 984 | 987 | 985 | 986 | 984 | 983 | 983 | 983 | 988 | 987 | 988 | 987 | 988 | 989 | 989 | 990 | 990 | 989 | 989 | 989 | 987 | 983 | 987 |
| 29 *q* | 983 | 983 | 983 | 983 | 984 | 986 | 988 | 989 | 989 | 989 | 988 | 988 | 989 | 984 | 988 | 989 | 989 | 989 | 989 | 989 | 989 | 989 | 988 | 983 | 987 |
| 30 *q* | 980 | 980 | 980 | 982 | 983 | 983 | 988 | 988 | 989 | 990 | 991 | 990 | 988 | 987 | 988 | 989 | 990 | 990 | 990 | 990 | 990 | 992 | 986 | 988 | 987 |
| Mean | 981 | 982 | 978 | *974* | 979 | 981 | 985 | 986 | 990 | 992 | 993 | 995 | 997 | 1000 | 1004 | 1007 | *1007* | 1006 | 1004 | 1004 | 1002 | 997 | 991 | 985 | 993 |

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, nil.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

53 LERWICK — NOVEMBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 *d* | 16 20 | *496* | *192* | 21 53 | *304* | 16 20 | 37·1 | *−17·8* | 22 03 | *54·9* | 16 26 | *1192* | *809* | 21 53 | *383* | 3,3,3,3,4,5,4,5 | 30 | 2 | 84·1 |
| 2 | 19 07 | 386 | 326 | 11 29 | 60 | 07 08 | 30·2 | 6·8 | 19 57 | 23·4 | 12 55 | 1007 | 969 | 07 38 | 38 | 2,2,3,1,2,1,3,3 | 17 | 1 | – |
| 3 | 22 00 | 383 | 346 | 00 48 | 37 | 00 00 | 24·2 | 11·9 | 22 39 | 12·3 | 22 18 | 999 | 940 | 01 21 | 59 | 3,1,2,0,1,1,1,2 | 11 | 0 | 81·4 |
| 4 | 00 55 | 383 | 334 | 11 10 | 49 | 13 27 | 25·6 | 14·0 | 23 26 | 11·6 | 20 15 | 1007 | 968 | 00 53 | 39 | 2,0,1,2,2,1,1,2 | 11 | 0 | 81·4 |
| 5 | 19 00 | 404 | 332 | 11 43 | 72 | 12 13 | 29·1 | 13·8 | 08 44 | 15·3 | 02 30 | 1004 | 981 | 06 18 | 23 | 1,1,2,3,3,2,2,2 | 16 | 1 | 84·8 |
| 6 *d* | 17 22 | 453 | 306 | 10 48 | 147 | 14 43 | 36·6 | 4·6 | 23 46 | 32·0 | 17 26 | 1141 | 915 | 23 56 | 226 | 2,2,3,3,4,4,3,4 | 25 | 1 | 86·0 |
| 7 | 21 55 | 374 | 317 | 00 18 | 57 | 14 48 | 22·5 | 6·2 | 00 29 | 16·3 | 16 00 | 1010 | 914 | 00 03 | 96 | 3,3,2,1,2,1,1,1 | 14 | 1 | 86·7 |
| 8 | 18 37 | 382 | 336 | 12 28 | 46 | 13 32 | 25·1 | 4·6 | 24 00 | 20·5 | 19 45 | 1007 | 989 | 11 35 | 18 | 1,0,1,2,2,1,1,3 | 11 | 0 | 86·0 |
| 9 | 21 30 | 387 | 339 | 10 00 | 48 | 13 27 | 27·4 | 3·1 | 00 15 | 24·3 | 22 31 | 1033 | 976 | 02 30 | 57 | 3,2,2,2,2,2,1,4 | 18 | 1 | 85·6 |
| 10 | 19 59 | 401 | 320 | 20 54 | 81 | 13 54 | 25·5 | 0·7 | 19 57 | 24·8 | 19 44 | 1038 | 953 | 02 32 | 85 | 3,2,1,1,2,2,4,3 | 18 | 1 | 85·1 |
| 11 | 21 10 | 412 | 304 | 03 15 | 108 | 14 08 | 23·6 | −1·3 | 21 07 | 24·9 | 21 04 | 1018 | 868 | 03 25 | 150 | 4,4,2,2,2,2,4,3 | 23 | 1 | 85·0 |
| 12 | 01 36 | 390 | 285 | 04 35 | 105 | 04 45 | 27·0 | 0·2 | 04 25 | 26·8 | 18 58 | 1031 | 854 | 03 45 | 177 | 4,4,3,2,2,2,3,1 | 21 | 1 | 84·9 |
| 13 | 17 49 | 386 | 343 | 12 19 | 43 | 17 55 | 23·1 | 10·7 | 22 03 | 12·4 | 19 03 | 1011 | 974 | 24 00 | 37 | 1,1,1,1,1,2,2,3 | 12 | 0 | 85·4 |
| 14 *q* | 21 34 | 393 | 345 | 12 48 | 48 | 12 18 | 23·3 | 12·9 | 21 30 | 10·4 | 22 05 | 997 | 976 | 00 00 | 21 | 1,1,1,1,1,1,1,2 | 9 | 0 | 84·4 |
| 15 | 20 14 | 444 | 340 | 08 00 | 104 | 17 43 | 33·6 | −2·4 | 24 00 | 36·0 | 20 40 | 1129 | 966 | 13 43 | 163 | 0,0,3,2,3,3,4,4 | 19 | 1 | 83·0 |
| 16 | 00 01 | 416 | 320 | 03 03 | 96 | 13 15 | 24·4 | −2·3 | 21 31 | 26·7 | 19 30 | 1030 | 930 | 21 16 | 100 | 4,3,3,1,2,1,3,4 | 21 | 1 | 82·1 |
| 17 | 21 51 | 398 | 342 | 03 17 | 56 | 03 48 | 22·3 | 6·2 | 22 05 | 16·1 | 21 39 | 1019 | 961 | 04 07 | 58 | 2,2,1,1,1,2,1,3 | 13 | 1 | 82·0 |
| 18 | 18 04 | 384 | 349 | 23 55 | 35 | 13 57 | 23·2 | 6·6 | 23 55 | 16·6 | 23 59 | 1000 | 941 | 00 45 | 59 | 3,1,1,1,1,1,0,3 | 11 | 0 | 82·7 |
| 19 | 22 12 | 433 | 285 | 22 37 | 148 | 19 44 | 28·1 | −15·7 | 22 29 | 43·8 | 21 11 | 1079 | 879 | 22 35 | 200 | 3,2,3,2,2,2,4,5 | 23 | 1 | 83·0 |
| 20 | 17 51 | 401 | 344 | 04 27 | 57 | 14 15 | 26·3 | 4·1 | 00 13 | 22·2 | 18 54 | 1031 | 952 | 05 08 | 79 | 3,3,2,2,3,3,3,2 | 21 | 1 | 83·0 |
| 21 *d* | 15 00 | 397 | 314 | 11 09 | 83 | 13 43 | 32·8 | −12·1 | 22 40 | 44·9 | 14 30 | 1086 | 920 | 23 46 | 166 | 3,1,2,3,4,3,2,4 | 22 | 1 | 82·3 |
| 22 | 16 56 | 393 | 318 | 00 03 | 75 | 05 52 | 24·9 | −0·4 | 16 44 | 25·3 | 16 42 | 1040 | 908 | 01 02 | 132 | 3,3,3,2,2,4,2,2 | 21 | 1 | 83·1 |
| 23 | 22 15 | 380 | 336 | 11 27 | 44 | 14 08 | 25·9 | 15·3 | 00 52 | 10·6 | 14 13 | 1018 | 959 | 02 05 | 59 | 3,2,2,1,2,1,1,0 | 12 | 0 | 83·0 |
| 24 *d* | 13 14 | 419 | 293 | 13 51 | 126 | 13 14 | *45·1* | 13·7 | 01 13 | 31·4 | 13 48 | 1070 | 953 | 07 40 | 117 | 1,3,3,3,4,3,1,1 | 19 | 1 | 83·0 |
| 25 *d* | 20 20 | 449 | 331 | 11 48 | 118 | 13 10 | 27·0 | −8·1 | 20 18 | 35·1 | 15 44 | 1062 | 915 | 23 33 | 147 | 1,2,2,2,3,4,5,3 | 22 | 1 | 83·5 |
| 26 | 16 31 | 385 | 325 | 03 00 | 60 | 03 20 | 25·1 | 18·0 | 16 35 | 7·1 | 16 32 | 1008 | 908 | 03 29 | 100 | 3,3,1,1,2,3,1,0 | 14 | 1 | 84·2 |
| 27 *q* | 16 22 | 382 | 354 | 10 22 | 28 | 14 25 | 21·0 | 15·8 | 02 08 | 5·2 | 08 35 | 995 | 983 | 01 47 | 12 | 1,0,1,0,0,1,0,0 | 3 | 0 | 84·0 |
| 28 *q* | 07 06 | 390 | 354 | 11 50 | 36 | 12 39 | 22·2 | 15·7 | 21 13 | 6·5 | 18 03 | 995 | 980 | 08 26 | 15 | 1,1,1,1,1,1,1,1 | 8 | 0 | 84·1 |
| 29 *q* | 22 59 | 386 | 357 | 11 28 | 29 | 13 28 | 21·4 | 14·3 | 23 44 | 7·1 | 09 22 | 990 | 982 | 23 08 | *8* | 0,0,1,1,1,0,0,2 | 5 | 0 | 83·4 |
| 30 *q* | 05 56 | 384 | 357 | 23 15 | *27* | 12 40 | 23·3 | 9·4 | 22 47 | 13·9 | 21 27 | 995 | 976 | 00 36 | 19 | 2,0,0,1,2,1,1,2 | 9 | 0 | 84·0 |
| Mean | – – | 402 | 325 | – – | 78 | – – | 26·9 | 4·9 | – – | 21·9 | – – | 1035 | 940 | – – | 95 | – | – | 0·67 | 83·8 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

54 LERWICK (H) — 14,000$\gamma$ (0·14 C.G.S. unit) + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 368 | 374 | 377 | 380 | 381 | 380 | 378 | 375 | 372 | 364 | 361 | 357 | 360 | 364 | 372 | 375 | 381 | 366 | 364 | 364 | 362 | 368 | 371 | 371 | 370 |
| 2 | 368 | 375 | 375 | 379 | 380 | 380 | 380 | 375 | 375 | 368 | 364 | 357 | 357 | 360 | 354 | 355 | 368 | 371 | 372 | 368 | 369 | 368 | 371 | 369 | 369 |
| 3 | 360 | 353 | 353 | 368 | 366 | 379 | 381 | 376 | 374 | 360 | 348 | 347 | 348 | 351 | 357 | 361 | 368 | 375 | 376 | 377 | 372 | 372 | 372 | 372 | 365 |
| 4 | 373 | 374 | 372 | 371 | 376 | 383 | 382 | 374 | 372 | 364 | 360 | 361 | 364 | 367 | 371 | 372 | 378 | 383 | 389 | 390 | 386 | 384 | 383 | 383 | 375 |
| 5 *d* | 383 | 382 | 378 | 375 | 382 | 386 | 382 | 377 | 373 | 378 | 368 | 363 | 359 | 370 | 379 | 389 | 372 | 375 | 382 | 386 | 385 | 371 | 368 | 377 | 377 |
| 6 | 379 | 374 | 373 | 369 | 366 | 375 | 373 | 373 | 368 | 364 | 361 | 364 | 367 | 372 | 375 | 378 | 382 | 382 | 385 | 382 | 378 | 371 | 365 | 364 | 373 |
| 7 | 371 | 374 | 371 | 386 | 390 | 393 | 386 | 378 | 372 | 364 | 363 | 362 | 364 | 368 | 371 | 377 | 357 | 356 | 365 | 372 | 375 | 379 | 379 | 372 | 373 |
| 8 | 375 | 372 | 369 | 364 | 383 | 382 | 379 | 379 | 375 | 364 | 358 | 358 | 368 | 368 | 371 | 375 | 382 | 386 | 386 | 386 | 381 | 381 | 379 | 379 | 375 |
| 9 *q* | 382 | 375 | 378 | 378 | 375 | 378 | 379 | 377 | 378 | 374 | 368 | 370 | 373 | 377 | 375 | 377 | 379 | 380 | 386 | 387 | 383 | 379 | 381 | 381 | 378 |
| 10 *d* | 378 | 374 | 375 | 378 | 376 | 382 | 386 | 384 | 382 | 371 | 364 | 363 | 364 | 369 | 375 | 363 | 371 | 383 | 386 | 386 | 378 | 375 | 386 | 379 | 376 |
| 11 *d* | 375 | 375 | 377 | 380 | 382 | 382 | 382 | 384 | 381 | 372 | 364 | 364 | 363 | 360 | 364 | 368 | 368 | 375 | 382 | 382 | 343 | 358 | 347 | 372 | 371 |
| 12 *d* | 364 | 376 | 367 | 364 | 366 | 371 | 375 | 375 | 376 | 370 | 365 | 343 | 329 | 354 | 368 | 371 | 370 | 364 | 368 | 371 | 369 | 372 | 373 | 383 | 367 |
| 13 | 368 | 370 | 372 | 372 | 375 | 378 | 376 | 375 | 365 | 372 | 365 | 358 | 357 | 363 | 361 | 365 | 372 | 375 | 378 | 379 | 379 | 377 | 378 | 377 | 371 |
| 14 *q* | 376 | 375 | 375 | 375 | 375 | 375 | 375 | 371 | 368 | 365 | 364 | 363 | 362 | 364 | 371 | 374 | 379 | 381 | 383 | 384 | 385 | 383 | 382 | 378 | 374 |
| 15 *q* | 378 | 379 | 377 | 377 | 379 | 380 | 380 | 379 | 375 | 368 | 361 | 355 | 360 | 365 | 373 | 378 | 383 | 386 | 386 | 386 | 386 | 385 | 382 | 382 | 377 |
| 16 | 382 | 379 | 379 | 379 | 379 | 380 | 382 | 378 | 375 | 372 | 370 | 370 | 372 | 375 | 379 | 386 | 386 | 389 | 390 | 390 | 389 | 383 | 386 | 375 | *380* |
| 17 | 374 | 375 | 375 | 375 | 378 | 393 | 393 | 382 | 370 | 358 | 354 | 350 | 347 | 355 | 366 | 375 | 380 | 382 | 382 | 379 | 368 | 368 | 382 | 374 | 372 |
| 18 | 376 | 375 | 372 | 379 | 384 | 382 | 379 | 379 | 381 | 375 | 372 | 371 | 375 | 378 | 378 | 381 | 386 | 390 | 390 | 389 | 385 | 383 | 382 | 382 | *380* |
| 19 *d* | 382 | 379 | 388 | 387 | 386 | 390 | 398 | 365 | 337 | 332 | 353 | 354 | 340 | 343 | 382 | 394 | 457 | 398 | 361 | 350 | 356 | 358 | 357 | 357 | 371 |
| 20 *q* | 357 | 358 | 363 | 356 | 355 | 354 | 358 | 357 | 350 | 346 | 346 | 346 | 346 | 349 | 353 | 358 | 365 | 370 | 370 | 370 | 370 | 368 | 370 | 368 | *358* |
| 21 | 367 | 368 | 371 | 372 | 372 | 378 | 375 | 374 | 364 | 318 | 348 | 358 | 360 | 364 | 358 | 372 | 375 | 377 | 375 | 375 | 375 | 375 | 382 | 370 | 368 |
| 22 | 362 | 372 | 364 | 368 | 370 | 372 | 374 | 372 | 364 | 355 | 355 | 355 | 346 | 350 | 358 | 371 | 374 | 376 | 375 | 371 | 372 | 374 | 378 | 376 | 367 |
| 23 | 375 | 372 | 374 | 374 | 374 | 381 | 382 | 381 | 382 | 370 | 365 | 357 | 354 | 356 | 365 | 376 | 377 | 379 | 378 | 375 | 374 | 372 | 375 | 365 | 372 |
| 24 | 359 | 346 | 352 | 359 | 359 | 371 | 370 | 370 | 370 | 367 | 366 | 362 | 361 | 362 | 361 | 366 | 370 | 373 | 377 | 378 | 379 | 376 | 374 | 372 | 367 |
| 25 | 370 | 368 | 375 | 372 | 372 | 373 | 374 | 374 | 373 | 369 | 364 | 364 | 360 | 363 | 367 | 372 | 377 | 379 | 382 | 387 | 384 | 388 | 374 | 377 | 373 |
| 26 | 378 | 374 | 368 | 369 | 375 | 375 | 375 | 369 | 362 | 363 | 368 | 355 | 339 | 352 | 365 | 378 | 373 | 367 | 363 | 364 | 359 | 354 | 354 | 354 | 365 |
| 27 | 355 | 355 | 358 | 356 | 363 | 370 | 362 | 372 | 359 | 351 | 352 | 352 | 354 | 358 | 362 | 364 | 364 | 368 | 366 | 367 | 359 | 359 | 341 | 343 | 359 |
| 28 | 351 | 333 | 366 | 361 | 367 | 367 | 374 | 374 | 365 | 363 | 360 | 358 | 359 | 351 | 353 | 360 | 365 | 367 | 367 | 370 | 370 | 369 | 370 | 369 | 363 |
| 29 | 370 | 369 | 366 | 371 | 377 | 381 | 379 | 371 | 363 | 362 | 360 | 355 | 355 | 349 | 354 | 364 | 366 | 371 | 370 | 371 | 373 | 371 | 369 | 374 | 367 |
| 30 *q* | 370 | 373 | 371 | 372 | 373 | 374 | 371 | 372 | 369 | 364 | 362 | 360 | 360 | 365 | 370 | 370 | 375 | 375 | 378 | 378 | 378 | 377 | 378 | 379 | 371 |
| 31 | 378 | 378 | 383 | 381 | 381 | 383 | 385 | 381 | 378 | 373 | 370 | 367 | 366 | 367 | 365 | 365 | 371 | 372 | 375 | 377 | 374 | 375 | 377 | 380 | 375 |
| Mean | 371 | 370 | 371 | 372 | 375 | *378* | *378* | 375 | 370 | 363 | 361 | 359 | *358* | 362 | 367 | 372 | 377 | 377 | 377 | 377 | 374 | 373 | 373 | 373 | 371 |

374 at 0-1h. January 1, 1947.

Corrections to be applied to all values; *H*, −6$\gamma$; *D*, −4′·4; *V*, +1$\gamma$.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

55 LERWICK (D) — 11° + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 14·5 | 13·7 | 14·6 | 15·5 | 15·6 | 16·1 | 16·1 | 15·9 | 15·5 | 15·7 | 16·8 | 18·0 | 19·4 | 20·2 | 20·4 | 19·7 | 19·3 | 19·1 | 19·5 | 16·6 | 16·6 | 15·4 | 13·8 | 7·0 | 16·5 |
| 2 | 11·4 | 15·6 | 17·0 | 18·0 | 17·9 | 18·4 | 18·2 | 16·7 | 16·3 | 15·7 | 17·7 | 18·7 | 20·4 | 22·3 | 22·8 | 22·3 | 20·4 | 18·6 | 19·5 | 15·7 | 17·0 | 14·5 | 11·8 | 2·8 | 17·1 |
| 3 | 2·3 | 7·1 | 18·2 | 14·6 | 18·1 | 20·5 | 17·2 | 17·1 | 16·5 | 16·5 | 17·9 | 20·8 | 20·5 | 20·8 | 19·6 | 22·5 | 17·2 | 17·7 | 17·7 | 17·7 | 16·0 | 15·6 | 16·5 | 16·6 | 16·9 |
| 4 | 16·5 | 17·0 | 17·4 | 17·4 | 17·1 | 15·8 | 16·6 | 18·1 | 17·7 | 16·7 | 17·6 | 19·6 | 20·8 | 20·4 | 19·6 | 19·4 | 18·9 | 18·6 | 18·6 | 18·5 | 18·0 | 17·2 | 17·6 | 17·6 | 18·0 |
| 5 *d* | 18·1 | 17·1 | 16·6 | 17·0 | 17·1 | 16·7 | 15·9 | 16·3 | 17·2 | 17·2 | 18·8 | 21·5 | 22·9 | 22·4 | 23·4 | 25·6 | 23·4 | 26·0 | 19·1 | 18·6 | 18·1 | 15·8 | 13·2 | 15·3 | 18·9 |
| 6 | 17·7 | 15·7 | 15·3 | 14·7 | 12·5 | 14·3 | 14·6 | 15·5 | 15·6 | 15·9 | 18·1 | 19·2 | 20·9 | 22·4 | 21·5 | 19·6 | 19·4 | 18·6 | 18·5 | 18·0 | 16·9 | 14·8 | 10·5 | 14·9 | 16·9 |
| 7 | 15·8 | 16·8 | 11·8 | 10·7 | 14·3 | 13·1 | 17·7 | 16·5 | 13·9 | 15·8 | 17·2 | 19·4 | 21·1 | 21·0 | 20·4 | 21·1 | 19·6 | 18·1 | 21·0 | 19·1 | 17·0 | 15·7 | 11·5 | 13·4 | 16·7 |
| 8 | 14·2 | 14·8 | 17·6 | 20·0 | 21·9 | 16·6 | 16·5 | 16·2 | 16·1 | 17·6 | 17·7 | 18·6 | 19·6 | 21·4 | 21·0 | 19·9 | 19·6 | 19·6 | 18·9 | 19·1 | 18·3 | 16·2 | 15·8 | 15·3 | 18·0 |
| 9 *q* | 13·4 | 14·6 | 15·5 | 16·2 | 17·6 | 16·7 | 16·3 | 15·8 | 15·4 | 15·8 | 17·7 | 19·6 | 20·1 | 20·4 | 20·0 | 20·0 | 20·5 | 20·9 | 19·6 | 19·1 | 15·8 | 17·6 | 15·9 | 14·9 | 17·5 |
| 10 *d* | 12·8 | 12·9 | 16·1 | 17·5 | 17·7 | 17·0 | 16·8 | 16·7 | 16·6 | 16·7 | 17·6 | 20·9 | 20·2 | 22·2 | 21·4 | 14·3 | 21·3 | 21·3 | 18·9 | 18·8 | 17·1 | 10·9 | 3·4 | 11·7 | 16·7 |
| 11 *d* | 15·8 | 16·7 | 17·6 | 17·6 | 17·5 | 16·7 | 16·8 | 16·7 | 16·2 | 15·8 | 16·2 | 18·6 | 18·7 | 20·2 | 21·4 | 22·5 | 23·4 | 17·1 | 18·7 | 4·4 | 10·5 | 9·9 | 10·0 | 13·8 | 16·4 |
| 12 *d* | 12·3 | 15·8 | 13·0 | 15·7 | 17·3 | 16·7 | 16·6 | 16·2 | 15·8 | 15·7 | 18·2 | 20·1 | 22·9 | 22·8 | 22·5 | 16·8 | 15·8 | 18·6 | 18·6 | 13·7 | 16·8 | 16·2 | 13·0 | 9·2 | 16·7 |
| 13 | 12·5 | 16·7 | 16·6 | 16·8 | 16·9 | 15·9 | 17·3 | 16·8 | 17·3 | 17·7 | 17·8 | 20·5 | 20·5 | 22·1 | 20·7 | 20·4 | 20·6 | 19·7 | 17·6 | 17·0 | 15·9 | 16·7 | 15·9 | 16·3 | 17·8 |
| 14 *q* | 16·1 | 16·2 | 16·2 | 16·1 | 16·5 | 16·6 | 16·7 | 15·9 | 15·9 | 16·6 | 17·7 | 18·7 | 19·7 | 20·4 | 20·6 | 20·0 | 19·1 | 18·6 | 18·1 | 17·8 | 17·7 | 17·3 | 16·8 | 16·6 | 17·6 |
| 15 *q* | 15·9 | 15·9 | 16·1 | 16·2 | 16·6 | 16·7 | 16·6 | 16·3 | 15·9 | 16·7 | 17·7 | 20·1 | 21·6 | 22·3 | 21·7 | 20·6 | 19·7 | 19·7 | 19·4 | 18·8 | 18·7 | 18·5 | 18·7 | 17·6 | 18·3 |
| 16 | 16·8 | 16·6 | 14·9 | 15·9 | 16·1 | 16·8 | 16·3 | 16·9 | 17·6 | 18·2 | 18·8 | 20·7 | 21·9 | 20·6 | 20·8 | 21·1 | 20·5 | 19·7 | 19·7 | 19·7 | 20·4 | 18·6 | 13·1 | 9·3 | 18·0 |
| 17 | 12·2 | 14·1 | 14·4 | 14·4 | 14·6 | 14·8 | 16·9 | 16·8 | 16·3 | 17·7 | 18·7 | 21·5 | 21·5 | 22·5 | 21·6 | 19·7 | 18·7 | 18·2 | 18·6 | 18·7 | 16·7 | 15·0 | 12·0 | 15·0 | 17·1 |
| 18 | 15·0 | 14·0 | 17·8 | 15·3 | 11·6 | 14·0 | 15·1 | 16·7 | 15·9 | 15·9 | 17·3 | 19·7 | 21·6 | 24·5 | 22·6 | 21·5 | 19·7 | 19·2 | 18·7 | 18·4 | 17·3 | 16·9 | 17·3 | 17·4 | 17·6 |
| 19 *d* | 17·3 | 18·5 | 20·7 | 18·4 | 16·9 | 19·6 | 21·6 | 24·9 | 23·7 | 24·3 | 26·2 | 26·3 | 26·7 | 27·7 | 29·2 | 30·0 | 25·2 | 13·4 | 14·7 | 13·8 | 14·4 | 15·0 | 15·9 | 16·0 | *20·9* |
| 20 *q* | 16·3 | 16·7 | 18·2 | 21·6 | 18·2 | 15·7 | 14·4 | 13·4 | 13·4 | 12·7 | 13·5 | 14·0 | 15·9 | 16·7 | 16·8 | 16·4 | 16·3 | 16·8 | 17·3 | 17·4 | 17·8 | 18·2 | 17·8 | 18·2 | 16·4 |
| 21 | 18·2 | 17·8 | 17·7 | 17·7 | 17·6 | 16·6 | 15·7 | 15·6 | 16·8 | 17·3 | 24·0 | 20·6 | 23·5 | 22·6 | 22·7 | 21·5 | 20·1 | 17·8 | 16·9 | 16·7 | 16·4 | 15·9 | 14·0 | 14·1 | 18·2 |
| 22 | 13·1 | 11·8 | 10·6 | 14·7 | 15·0 | 15·7 | 22·5 | 18·7 | 17·1 | 15·9 | 18·4 | 20·7 | 21·6 | 22·7 | 20·5 | 19·1 | 16·7 | 15·0 | 18·7 | 17·7 | 16·7 | 16·4 | 15·7 | 15·9 | 17·1 |
| 23 | 16·8 | 16·9 | 17·1 | 16·8 | 16·7 | 16·9 | 16·1 | 15·7 | 15·4 | 15·0 | 16·8 | 20·1 | 20·8 | 21·6 | 22·5 | 22·0 | 21·6 | 19·7 | 19·9 | 18·3 | 17·3 | 15·4 | 14·8 | 13·5 | 17·8 |
| 24 | 12·2 | 8·3 | 12·0 | 12·4 | 12·2 | 13·5 | 15·2 | 14·8 | 14·8 | 15·9 | 17·7 | 18·7 | 19·8 | 21·6 | 20·9 | 18·7 | 17·7 | 17·7 | 17·4 | 17·0 | 16·8 | 16·7 | 16·7 | 16·7 | 16·1 |
| 25 | 16·7 | 15·0 | 12·7 | 12·8 | 14·7 | 15·2 | 15·1 | 15·1 | 15·2 | 15·0 | 16·3 | 17·3 | 18·8 | 20·6 | 21·0 | 19·1 | 18·7 | 19·0 | 18·7 | 20·5 | 17·7 | 19·1 | 13·5 | 12·8 | 16·7 |
| 26 | 16·7 | 15·9 | 18·5 | 19·8 | 18·4 | 17·8 | 17·6 | 17·8 | 19·1 | 19·7 | 17·8 | 19·7 | 21·6 | 21·6 | 22·9 | 24·7 | 26·0 | 21·8 | 21·6 | 17·5 | 15·9 | 13·7 | 13·6 | 12·4 | 18·8 |
| 27 | 12·2 | 13·9 | 11·3 | 8·2 | 13·7 | 17·5 | 22·5 | 18·5 | 18·2 | 17·7 | 17·7 | 19·5 | 19·7 | 19·5 | 19·7 | 19·0 | 18·3 | 18·5 | 15·1 | 9·1 | 13·9 | 11·5 | 9·1 | 14·9 | *15·8* |
| 28 | 11·6 | 17·0 | 12·2 | 13·0 | 14·0 | 14·8 | 15·8 | 16·2 | 15·2 | 16·3 | 17·3 | 18·9 | 19·2 | 20·1 | 21·9 | 19·9 | 19·1 | 18·3 | 18·9 | 17·7 | 16·4 | 14·8 | 14·2 | 15·5 | 16·6 |
| 29 | 15·9 | 15·8 | 17·1 | 18·6 | 17·0 | 15·5 | 16·1 | 16·8 | 15·9 | 15·9 | 16·8 | 19·1 | 20·6 | 22·0 | 21·6 | 19·4 | 15·1 | 17·9 | 17·4 | 17·7 | 16·3 | 14·4 | 15·5 | 15·3 | 17·2 |
| 30 *q* | 16·0 | 16·7 | 16·8 | 16·9 | 17·3 | 16·8 | 16·3 | 16·0 | 15·9 | 16·3 | 16·8 | 17·0 | 18·9 | 20·3 | 19·7 | 18·4 | 17·7 | 18·2 | 17·8 | 17·6 | 17·3 | 17·0 | 16·7 | 16·3 | 17·3 |
| 31 | 16·8 | 18·3 | 16·8 | 15·2 | 16·2 | 16·3 | 16·1 | 16·1 | 15·9 | 16·4 | 17·2 | 18·8 | 19·7 | 21·3 | 22·0 | 20·1 | 19·7 | 18·4 | 17·8 | 17·7 | 16·8 | 13·7 | 15·9 | 16·1 | 17·5 |
| Mean | 14·6 | 15·3 | 15·7 | 16·0 | 16·3 | 16·3 | 16·9 | 16·7 | 16·4 | 16·7 | 17·9 | 19·6 | 20·7 | *21·5* | 21·4 | 20·5 | 19·7 | 18·8 | 18·5 | 17·1 | 16·7 | 15·6 | *14·2* | 14·3 | 17·4 |

17·5 at 0-1h. January 1, 1947.

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

56 LERWICK (V) — 46,000γ (0·46 C.G.S. unit) + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 988 | 984 | 983 | 980 | 980 | 981 | 983 | 988 | 989 | 990 | 990 | 988 | 983 | 983 | 983 | 988 | 989 | 1003 | 1020 | 1030 | 1020 | 1003 | 988 | 971 | 991 |
| 2 | 968 | 971 | 972 | 972 | 977 | 978 | 980 | 983 | 988 | 990 | 989 | 988 | 987 | 988 | 995 | 999 | 998 | 998 | 1001 | 1007 | 1001 | 1001 | 983 | 963 | 987 |
| 3 | 958 | 947 | 897 | 909 | 941 | 947 | 964 | 977 | 983 | 990 | 997 | 1000 | 1001 | 999 | 1001 | 999 | 995 | 990 | 989 | 990 | 994 | 993 | 990 | 989 | 977 |
| 4 | 988 | 983 | 983 | 982 | 976 | 976 | 977 | 982 | 983 | 988 | 989 | 989 | 990 | 989 | 989 | 989 | 984 | 983 | 983 | 982 | 984 | 989 | 989 | 988 | 985 |
| 5 *d* | 988 | 985 | 985 | 983 | 980 | 978 | 980 | 981 | 982 | 977 | 983 | 987 | 989 | 985 | 988 | 990 | 1013 | 1019 | 1007 | 997 | 1006 | 1024 | 1025 | 1010 | 993 |
| 6 | 996 | 995 | 990 | 984 | 977 | 978 | 983 | 985 | 989 | 990 | 991 | 992 | 990 | 988 | 989 | 989 | 985 | 985 | 983 | 985 | 992 | 1001 | 1003 | 1000 | 989 |
| 7 | 995 | 995 | 983 | 945 | 928 | 927 | 940 | 952 | 969 | 975 | 977 | 979 | 979 | 980 | 983 | 987 | 1002 | 1009 | 1001 | 996 | 989 | 983 | 983 | 985 | 977 |
| 8 | 979 | 982 | 976 | 957 | 924 | 952 | 964 | 971 | 974 | 976 | 977 | 976 | 976 | 976 | 982 | 983 | 982 | 980 | 977 | 978 | 982 | 983 | 983 | 986 | *974* |
| 9 *q* | 983 | 984 | 983 | 983 | 983 | 982 | 972 | 981 | 977 | 976 | 976 | 977 | 980 | 982 | 988 | 990 | 990 | 990 | 987 | 984 | 992 | 989 | 988 | 984 | 983 |
| 10 *d* | 983 | 986 | 984 | 984 | 988 | 985 | 982 | 979 | 978 | 977 | 977 | 978 | 979 | 981 | 990 | 1009 | 1001 | 992 | 988 | 989 | 995 | 1001 | 982 | 968 | 986 |
| 11 *d* | 976 | 977 | 980 | 982 | 983 | 982 | 982 | 979 | 977 | 976 | 977 | 977 | 980 | 983 | 993 | 995 | 1003 | 1009 | 1002 | 995 | 1002 | 934 | 936 | 969 | 981 |
| 12 *d* | 976 | 953 | 963 | 979 | 985 | 988 | 988 | 987 | 985 | 984 | 983 | 989 | 995 | 997 | 1012 | 1034 | 1026 | 1020 | 1013 | 1014 | 1010 | 1003 | 999 | 983 | 994 |
| 13 | 982 | 982 | 985 | 988 | 988 | 988 | 988 | 987 | 989 | 988 | 988 | 984 | 978 | 982 | 989 | 994 | 990 | 995 | 995 | 994 | 993 | 990 | 986 | 983 | 988 |
| 14 *q* | 982 | 982 | 982 | 982 | 983 | 983 | 983 | 984 | 985 | 983 | 983 | 983 | 978 | 977 | 978 | 981 | 982 | 982 | 983 | 983 | 983 | 983 | 983 | 983 | 982 |
| 15 *q* | 982 | 982 | 981 | 980 | 978 | 978 | 979 | 982 | 983 | 983 | 985 | 985 | 982 | 976 | 977 | 981 | 981 | 982 | 983 | 983 | 986 | 987 | 988 | 987 | 982 |
| 16 | 983 | 982 | 979 | 977 | 977 | 977 | 977 | 978 | 977 | 977 | 978 | 978 | 976 | 976 | 978 | 977 | 978 | 977 | 978 | 982 | 987 | 999 | 1004 | 1001 | 981 |
| 17 | 994 | 987 | 983 | 982 | 981 | 972 | 971 | 974 | 982 | 986 | 991 | 995 | 994 | 999 | 998 | 995 | 995 | 990 | 990 | 995 | 1002 | 1001 | 982 | 982 | 988 |
| 18 | 982 | 979 | 971 | 952 | 964 | 971 | 974 | 978 | 983 | 983 | 982 | 977 | 976 | 977 | 982 | 982 | 980 | 979 | 979 | 982 | 983 | 985 | 987 | 985 | 978 |
| 19 *d* | 984 | 983 | 974 | 970 | 974 | 970 | 959 | 961 | 971 | 971 | 969 | 983 | 1007 | 1033 | 1028 | 1046 | 1110 | 1037 | 1034 | 1036 | 1014 | 1001 | 996 | 996 | 1000 |
| 20 *q* | 996 | 996 | 994 | 990 | 986 | 989 | 990 | 995 | 998 | 998 | 1000 | 1003 | 1003 | 998 | 1000 | 1000 | 995 | 993 | 989 | 989 | 989 | 988 | 988 | 989 | 994 |
| 21 | 991 | 990 | 990 | 990 | 988 | 983 | 983 | 982 | 983 | 998 | 980 | 988 | 996 | 1001 | 1005 | 1005 | 1002 | 1001 | 998 | 996 | 993 | 993 | 987 | 983 | 992 |
| 22 | 991 | 995 | 989 | 988 | 989 | 984 | 968 | 975 | 986 | 996 | 995 | 996 | 1001 | 1007 | 1002 | 1000 | 1004 | 1003 | 995 | 998 | 996 | 993 | 989 | 989 | 993 |
| 23 | 989 | 989 | 989 | 990 | 990 | 984 | 983 | 983 | 982 | 983 | 989 | 990 | 993 | 990 | 991 | 996 | 999 | 1002 | 1001 | 1001 | 1001 | 997 | 983 | 978 | 991 |
| 24 | 985 | 988 | 983 | 990 | 989 | 985 | 988 | 993 | 988 | 989 | 988 | 985 | 984 | 983 | 992 | 994 | 985 | 988 | 989 | 988 | 988 | 988 | 988 | 987 | 988 |
| 25 | 987 | 989 | 986 | 987 | 983 | 983 | 983 | 982 | 980 | 979 | 977 | 976 | 976 | 977 | 983 | 988 | 988 | 988 | 988 | 988 | 1001 | 1014 | 1040 | 1023 | 989 |
| 26 | 1007 | 999 | 990 | 976 | 966 | 971 | 977 | 982 | 981 | 972 | 971 | 979 | 989 | 996 | 1014 | 1044 | 1052 | 1047 | 1058 | 1063 | 1040 | 1026 | 1010 | 997 | *1004* |
| 27 | 991 | 982 | 958 | 952 | 957 | 964 | 964 | 964 | 977 | 985 | 988 | 989 | 990 | 988 | 990 | 995 | 995 | 996 | 1007 | 1009 | 1006 | 996 | 995 | 958 | 983 |
| 28 | 955 | 919 | 941 | 961 | 976 | 983 | 983 | 985 | 990 | 990 | 990 | 991 | 991 | 995 | 999 | 1001 | 1006 | 1006 | 1002 | 1001 | 997 | 994 | 993 | 988 | 985 |
| 29 | 980 | 971 | 973 | 970 | 976 | 979 | 983 | 987 | 990 | 991 | 990 | 988 | 987 | 984 | 987 | 993 | 1001 | 995 | 996 | 996 | 992 | 990 | 988 | 977 | 986 |
| 30 *q* | 977 | 977 | 982 | 983 | 983 | 983 | 987 | 988 | 990 | 989 | 988 | 983 | 983 | 979 | 982 | 984 | 988 | 989 | 989 | 989 | 988 | 989 | 987 | 983 | 985 |
| 31 | 979 | 975 | 964 | 965 | 967 | 971 | 973 | 977 | 981 | 983 | 980 | 976 | 975 | 976 | 983 | 985 | 986 | 988 | 988 | 989 | 993 | 995 | 987 | 983 | 980 |
| Mean | 984 | 980 | 977 | *975* | 975 | 976 | 977 | 980 | 983 | 984 | 984 | 985 | 987 | 988 | 992 | 997 | *1000* | 997 | 997 | 997 | 997 | 994 | 991 | 985 | 987 |

981 at 0-1h. January 1, 1947.

Corrections to be applied to all values; *H*, −6γ; *D*, −4′·4; *V*, +1γ.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

57 LERWICK — DECEMBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | Vertical force | | | | | | | | | |
| | Maximum 14,000γ + | | Minimum 14,000γ + | | Range | Maximum 11° + | | Minimum 11° + | | Range | Maximum 46,000γ + | | Minimum 46,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 16 15 | 386 | 354 | 20 05 | 32 | 14 55 | 21·4 | 0·4 | 23 43 | 21·0 | 19 39 | 1035 | 958 | 23 40 | 77 | 1,1,0,0,1,2,2,3 | 10 | 0 | 84·1 |
| 2 | 23 21 | 384 | 346 | 15 04 | 38 | 13 08 | 23·3 | −0·8 | 23 28 | 24·1 | 19 21 | 1014 | 953 | 24 00 | 61 | 3,1,1.1.2.2,2,3 | 15 | 1 | 83·8 |
| 3 | 05 59 | 390 | 327 | 02 08 | 63 | 02 18 | 25·4 | 0·2 | 00 09 | 25·2 | 11 00 | 1002 | *860* | 02 39 | 142 | 4,3,1,2,2,1,1,1 | 15 | 1 | 83·9 |
| 4 | 20 31 | 393 | 357 | 10 16 | 36 | 12 19 | 22·2 | 14·8 | 06 05 | 7·4 | 20 49 | 993 | 971 | 04 40 | 22 | 1,2,2,1,1,1,2,1 | 11 | 0 | 83·1 |
| 5 *d* | 15 52 | 397 | 354 | 12 44 | 43 | 17 26 | 30 0 | 10·4 | 22 27 | 19·6 | 16 56 | 1032 | 976 | 09 30 | 56 | 1,1,2,2,2,3,2,2 | 15 | 1 | 82·5 |
| 6 | 18 49 | 389 | 350 | 23 18 | 39 | 13 55 | 24·7 | 8·6 | 22 24 | 16·1 | 23 18 | 1011 | 971 | 04 45 | 40 | 2,2,1,1,2,1,2,3 | 14 | 1 | 82·2 |
| 7 | 04 49 | 401 | 350 | 02 49 | 51 | 16 07 | 22·7 | 7·5 | 03 45 | 15·2 | 17 27 | 1017 | 915 | 04 50 | 102 | 2,3,2,1,1,2,2,2 | 15 | 1 | 82·2 |
| 8 | 04 29 | 393 | 350 | 11 20 | 43 | 04 06 | 28·2 | 11·9 | 00 39 | 16·3 | 23 35 | 988 | 909 | 04 26 | 79 | 2,3,2,2,1,1,2,1 | 14 | 1 | 81·0 |
| 9 *q* | 20 45 | 400 | 367 | 10 39 | 33 | 13 38 | 21·5 | 10·7 | 20 38 | 10·8 | 20 24 | 998 | 974 | 09 50 | 24 | 1,1,1,1,1,1,3,1 | 10 | 0 | 81·8 |
| 10 *d* | 22 55 | 402 | 350 | 11 55 | 52 | 11 30 | 23·6 | −0·2 | 22 52 | 23·8 | 15 54 | 1015 | 962 | 23 08 | 53 | 2,1,1,2,2,3,2,3 | 16 | 1 | 82·0 |
| 11 *d* | 19 11 | 415 | 334 | 20 25 | 81 | 16 27 | 25·3 | *−7·1* | 19 27 | 32·4 | 19 08 | 1027 | 912 | 21 21 | 115 | 2,1,1,1,2,3,4,4 | 18 | 1 | 82·8 |
| 12 *d* | 23 32 | 411 | 315 | 12 11 | 96 | 14 07 | 27·0 | 1·5 | 23 30 | 25·5 | 15 40 | 1053 | 939 | 01 45 | 114 | 3,2,1,3,3,4,3,3 | 22 | 1 | 82·6 |
| 13 | 19 03 | 383 | 352 | 12 24 | 31 | 13 30 | 23·5 | 10·7 | 00 05 | 12·8 | 17 46 | 997 | 977 | 12 39 | 20 | 2,2,2,2,2,2,2,1 | 15 | 0 | 82·6 |
| 14 *q* | 21 18 | 386 | 360 | 13 10 | 26 | 14 11 | 21·4 | 15·4 | 07 55 | 6·0 | 07 55 | 986 | 977 | 13 30 | *9* | 0,0,1,1,1,1,0,0 | 4 | 0 | 82·1 |
| 15 *q* | 17 02 | 388 | 353 | 11 51 | 35 | 14 02 | 22·5 | 15·5 | 00 33 | 7·0 | 10 40 | 988 | 976 | 13 45 | 12 | 1,0,0,1,1,1,0,1 | 5 | 0 | 82·3 |
| 16 | 20 16 | 397 | 364 | 24 00 | 33 | 20 30 | 23·5 | 6·3 | 22 58 | 17·2 | 22 42 | 1010 | 975 | 13 18 | 35 | 1,0,1,1,1,1,2,3 | 10 | 0 | 82·0 |
| 17 | 22 06 | 404 | 343 | 12 18 | 61 | 13 55 | 24·4 | 6·3 | 22 04 | 18·1 | 20 40 | 1006 | 969 | 06 40 | 37 | 2,2,2,1,2,1,2,3 | 15 | 0 | 82·1 |
| 18 | 18 32 | 394 | 363 | 02 39 | 31 | 13 32 | 26·3 | 10·3 | 04 25 | 16·0 | 20 18 | 987 | 946 | 03 20 | 41 | 3,2,1,1,2,1,1,1 | 12 | 0 | 82·3 |
| 19 *d* | 16 59 | *657* | 313 | 17 30 | *344* | 17 28 | *35·8* | 3·1 | 17 10 | *32·7* | 16 58 | *1193* | 956 | 07 07 | *237* | 2,2,3,3,3,6,4,1 | 24 | 1 | 83·0 |
| 20 *q* | 21 11 | 372 | 343 | 11 05 | 29 | 03 40 | 22·9 | 12·0 | 09 54 | 10·9 | 11 55 | 1005 | 983 | 04 25 | 22 | 2,2,1,1,1,1,0,0 | 8 | 0 | 83·2 |
| 21 | 22 28 | 397 | *303* | 09 34 | 94 | 12 16 | 27·3 | 9·8 | 22 43 | 17·5 | 15 03 | 1007 | 971 | 10 36 | 36 | 1,1,2,3,2,2,1,2 | 14 | 1 | 83·0 |
| 22 | 06 55 | 388 | 344 | 12 50 | 44 | 06 15 | 25·4 | 7·3 | 01 36 | 18·1 | 17 01 | 1014 | 959 | 06 45 | 55 | 3,2,3,2,2,2,1,1 | 16 | 1 | 83·0 |
| 23 | 17 37 | 381 | 344 | 13 05 | 37 | 16 10 | 23·5 | 12·0 | 23 34 | 11·5 | 17 35 | 1006 | 971 | 22 58 | 35 | 0,1,1,2,1,2,2,2 | 11 | 1 | 83·2 |
| 24 | 19 58 | 381 | 343 | 01 56 | 38 | 14 19 | 22·5 | 6·7 | 01 24 | 15·8 | 03 50 | 996 | 982 | 03 15 | 14 | 2,2,1,1,1,1,0,1 | 9 | 0 | 83·0 |
| 25 | 22 11 | 422 | 343 | 22 26 | 79 | 19 45 | 23·1 | 4·4 | 22 36 | 18·7 | 22 33 | 1059 | 976 | 12 05 | 83 | 2,2,0,0,2,1,3,4 | 14 | 1 | 82·1 |
| 26 | 15 13 | 390 | 332 | 12 11 | 58 | 16 29 | 28·0 | 11·3 | 23 48 | 16·7 | 19 13 | 1070 | 963 | 04 11 | 107 | 2,2,2,2,3,2,3,2 | 18 | 1 | 82·1 |
| 27 | 05 46 | 382 | 304 | 23 10 | 78 | 06 49 | 24·2 | −1·1 | 18 55 | 25·3 | 18 53 | 1030 | 936 | 23 31 | 94 | 3,3,2,1,2,1,4,3 | 19 | 1 | 82·2 |
| 28 | 06 58 | 381 | 324 | 01 17 | 57 | 14 24 | 23·1 | 8·9 | 00 30 | 14·2 | 18 00 | 1007 | 891 | 01 33 | 116 | 3,3,1,1,2,1,1,1 | 13 | 1 | 82·0 |
| 29 | 06 00 | 384 | 347 | 13 32 | 37 | 13 47 | 23·4 | 13·5 | 16 19 | 9·9 | 16 24 | 1003 | 965 | 03 49 | 38 | 1,2,2,1,2,2,1,2 | 13 | 0 | 82·1 |
| 30 *q* | 18 41 | 381 | 360 | 11 39 | *21* | 13 50 | 20·6 | 15·2 | 00 00 | *5·4* | 08 30 | 991 | 977 | 01 10 | 14 | 1,0,0,1,1,0,0,0 | 3 | 0 | 82·2 |
| 31 | 06 00 | 390 | 361 | 15 08 | 29 | 14 48 | 22·4 | 8·8 | 21 28 | 13·6 | 21 35 | 997 | 958 | 02 32 | 39 | 2,1,1,1,1,1,1,3 | 11 | 0 | 82·5 |
| Mean | − − | 401 | 344 | − − | 57 | − − | 24·5 | 7·6 | − − | 16·9 | − − | 1017 | 955 | − − | 62 | − | − | 0·55 | 82·5 |

*q* denotes an international quiet day and *d* an international disturbed day.

# DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

## ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

58 LERWICK

### HORIZONTAL FORCE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | −10·9 | −8·4 | −11·0 | −1·0 | +5·1 | +6·7 | +11·2 | +9·4 | +6·1 | +2·2 | +0·2 | −3·9 | −1·5 | −0·4 | +2·4 | +14·2 | *+14·6* | +10·4 | +5·0 | −4·2 | −11·7 | *−17·6* | −6·1 | −10·8 |
| Feb. | −22·9 | *−26·5* | −23·6 | −16·6 | −13·1 | −6·5 | 0·0 | +0·1 | −3·3 | −9·9 | −8·9 | −2·6 | −0·4 | +4·2 | +20·1 | +21·4 | *+26·8* | +25·4 | +25·4 | +22·6 | +21·3 | −0·5 | −13·0 | −19·5 |
| Mar. | −33·3 | *−48·7* | −38·3 | −31·0 | −19·9 | +2·6 | +3·2 | −1·1 | −11·6 | −13·4 | −14·2 | −2·9 | −9·6 | +10·3 | +33·9 | *+64·7* | +55·0 | +34·9 | +29·3 | +28·9 | +15·1 | −4·0 | −21·1 | −28·8 |
| Apr. | −31·9 | −17·8 | −19·8 | −7·9 | −6·9 | −0·1 | +1·5 | −10·4 | −19·8 | −30·8 | *−33·0* | −29·4 | −15·9 | +8·2 | +23·1 | *+50·7* | +47·4 | +37·3 | +35·9 | +26·8 | +12·5 | +5·7 | −3·9 | −21·5 |
| May | −2·8 | −10·7 | −13·6 | −6·9 | −9·0 | −12·9 | −26·6 | −27·4 | −29·8 | −32·4 | *−35·5* | −29·0 | −19·5 | −10·2 | +8·2 | +42·2 | +43·3 | *+44·2* | +43·8 | +43·0 | +27·7 | +14·6 | −0·5 | −0·2 |
| June | −22·8 | −18·2 | −17·0 | −4·0 | −3·4 | −7·3 | −10·6 | −21·9 | −28·3 | −34·5 | *−38·1* | −32·9 | −24·5 | −10·9 | +11·9 | +30·4 | *+57·3* | +53·8 | +45·8 | +40·9 | +26·7 | +12·1 | +3·6 | −8·1 |
| July | −20·2 | −19·7 | −19·6 | −20·4 | −18·2 | −23·3 | −30·5 | −21·3 | −25·0 | −30·4 | *−34·4* | −28·4 | −19·4 | +2·9 | +17·3 | +34·9 | +49·8 | *+51·8* | +49·1 | +43·3 | +33·6 | +22·2 | +11·8 | −5·9 |
| Aug. | −2·6 | −0·2 | −3·0 | −0·2 | −1·7 | −7·0 | −6·0 | −14·0 | −25·5 | −37·7 | *−39·0* | −37·0 | −24·4 | −6·0 | +6·5 | +19·1 | +30·5 | *+34·3* | +31·6 | +31·6 | +24·5 | +13·3 | +6·4 | +6·5 |
| Sept. | −33·5 | −44·6 | *−48·8* | −44·9 | −35·7 | −33·3 | −42·7 | −27·0 | −22·3 | −23·1 | −25·4 | −9·0 | +10·4 | +51·7 | +60·4 | +65·3 | *+80·9* | +73·9 | +55·3 | +12·5 | +13·4 | −5·8 | −10·0 | −17·7 |
| Oct. | −5·2 | −2·9 | −1·2 | +3·0 | +9·9 | +9·5 | +10·1 | +6·4 | −6·3 | −19·3 | −24·3 | *−24·5* | −18·0 | −7·1 | +1·9 | +6·1 | +9·4 | +10·8 | *+13·7* | +12·1 | +10·5 | +9·6 | +0·7 | −4·9 |
| Nov. | −1·0 | −2·2 | −2·3 | −3·3 | +3·6 | +7·0 | +7·7 | +4·3 | −1·6 | −12·2 | −15·9 | *−17·1* | −11·8 | −7·7 | −4·0 | +0·7 | +8·2 | +9·3 | +8·3 | +8·9 | *+9·8* | +4·2 | +4·4 | +2·7 |
| Dec. | +0·2 | −0·8 | +0·5 | +1·5 | +3·8 | *+7·3* | +7·3 | +3·9 | −1·0 | −7·9 | −9·6 | −12·3 | *−13·2* | −9·4 | −4·0 | +0·9 | +5·6 | +5·5 | +6·1 | +6·1 | +3·2 | +2·3 | +2·2 | +1·8 |
| Year | −15·6 | −16·7 | −16·5 | −11·0 | −7·1 | −4·8 | −6·3 | −8·3 | −14·0 | −20·8 | *−23·2* | −19·1 | −12·3 | +2·1 | +14·8 | +29·2 | *+35·7* | +32·6 | +29·1 | +22·7 | +15·5 | +4·7 | −2·1 | −8·9 |
| Winter | −8·7 | *−9·5* | −9·1 | −4·9 | −0·1 | +3·6 | +6·5 | +4·4 | +0·1 | −6·9 | −8·5 | −9·0 | −6·7 | −3·3 | +3·6 | +9·3 | *+13·8* | +12·7 | +11·2 | +8·3 | +5·7 | −2·9 | −3·1 | −6·5 |
| Equinox | −26·0 | *−28·5* | −27·0 | −20·2 | −13·1 | −5·3 | 7·0 | −8·0 | −15·0 | −21·7 | −24·2 | −16·5 | −8·3 | +15·8 | +29·8 | +46·7 | *+48·2* | +39·2 | +33·5 | +20·1 | +12·9 | +1·4 | −8·6 | −18·2 |
| Summer | −12·1 | −12·2 | −13·3 | −7·9 | −8·1 | −12·6 | −18·4 | −21·1 | −27·1 | −33·7 | *−36·7* | −31·8 | −21·9 | −6·1 | +11·0 | +31·7 | +45·2 | *+46·0* | +42·6 | +39·7 | +28·1 | +15·5 | +5·3 | −1·9 |

### DECLINATION

| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −2·08 | −1·23 | −1·16 | −1·41 | −1·25 | −0·21 | +0·05 | +0·53 | +0·46 | +0·94 | +1·53 | +2·40 | *+3·86* | +3·75 | +3·30 | +2·39 | +0·88 | +1·28 | −0·11 | −1·37 | −1·97 | *−3·68* | −3·63 | −3·27 |
| Feb. | −3·21 | −1·93 | −1·78 | −1·64 | −2·33 | −0·22 | +0·11 | −0·44 | −1·56 | −1·18 | −0·67 | +0·98 | +3·41 | *+4·22* | +3·46 | +2·76 | +2·29 | +1·91 | +1·92 | +1·06 | −0·16 | *−3·47* | −0·76 | −2·77 |
| Mar. | −4·64 | −4·84 | −4·54 | *−5·30* | −3·81 | −1·94 | −2·15 | −2·63 | −2·79 | −0·28 | +1·36 | +3·55 | +4·84 | +6·08 | +6·78 | *+7·16* | +5·20 | +4·41 | +1·51 | −0·34 | −0·82 | −1·68 | −1·00 | −4·13 |
| Apr. | −3·15 | −3·43 | −3·48 | *−5·65* | −4·32 | −3·31 | −3·90 | −4·25 | −3·88 | −2·15 | +0·99 | +4·43 | +6·47 | *+7·81* | +6·71 | +6·39 | +4·89 | +3·37 | +2·61 | +1·42 | +0·06 | −1·00 | −2·99 | −3·64 |
| May | −1·68 | −2·74 | −2·70 | −4·08 | −5·06 | *−5·24* | −4·45 | −5·14 | −5·18 | −2·33 | +0·60 | +4·55 | +6·70 | *+7·13* | +6·68 | +5·43 | +3·91 | +2·84 | +1·94 | +1·36 | +0·63 | −0·09 | −1·44 | −1·64 |
| June | −2·25 | −2·31 | −2·95 | −4·41 | −4·54 | −5·45 | *−6·92* | −6·54 | −4·97 | −3·20 | −0·89 | +2·55 | +5·75 | +6·98 | *+7·33* | +6·09 | +5·43 | +3·80 | +3·24 | +2·43 | +1·85 | +0·73 | −0·44 | −1·31 |
| July | −1·99 | −3·90 | −3·94 | −5·42 | −5·40 | *−7·06* | −5·38 | −6·96 | −5·00 | −3·49 | −0·52 | +2·95 | +6·13 | *+6·69* | +6·42 | +5·82 | +4·18 | +3·13 | +2·73 | +3·10 | +3·78 | +2·60 | +1·42 | +0·11 |
| Aug. | −0·82 | −2·17 | −3·15 | −3·00 | −3·62 | −5·35 | −5·75 | *−6·31* | −5·78 | −3·46 | −0·02 | +4·03 | +7·39 | *+8·19* | +7·20 | +4·92 | +3·70 | +1·81 | +0·96 | +0·98 | +0·54 | +0·88 | −0·04 | −1·13 |
| Sept. | −3·12 | −3·88 | *−5·22* | −3·68 | −3·88 | −2·53 | −3·78 | −4·15 | −3·85 | −1·51 | +0·78 | +2·28 | +6·03 | +5·69 | +7·58 | *+7·63* | +5·91 | +3·61 | +2·96 | −0·18 | +0·46 | −1·22 | −2·91 | −3·02 |
| Oct. | −2·70 | −1·99 | *−3·53* | −2·74 | −2·52 | −1·38 | −1·53 | −2·13 | −2·77 | −1·68 | +0·91 | +3·97 | +6·05 | *+6·66* | +5·99 | +4·19 | +2·45 | +1·71 | +0·98 | −0·36 | −1·78 | −2·76 | −2·10 | −2·94 |
| Nov. | −3·42 | −2·43 | −1·93 | −1·81 | −1·23 | −1·36 | −0·93 | −0·45 | −1·05 | −0·70 | +0·40 | +2·58 | +4·13 | *+5·04* | +4·46 | +3·25 | +2·46 | +2·44 | +1·40 | −0·07 | −0·91 | −2·67 | *−3·83* | −3·37 |
| Dec. | −2·77 | −2·09 | −1·64 | −1·39 | −1·10 | −1·09 | −0·50 | −0·71 | −0·99 | −0·73 | +0·55 | +2·20 | +3·29 | *+4·14* | +4·01 | +3·11 | +2·27 | +1·38 | +1·10 | −0·33 | −0·66 | −1·75 | *−3·19* | −3·11 |
| Year | −2·65 | −2·75 | −3·00 | *−3·38* | −3·25 | −2·93 | −2·93 | −3·27 | −3·11 | −1·65 | +0·42 | +3·04 | +5·34 | *+6·03* | +5·83 | +4·93 | +3·63 | +2·64 | +1·77 | +0·64 | +0·09 | −1·18 | −1·74 | −2·52 |
| Winter | −2·87 | −1·92 | −1·63 | −1·56 | −1·48 | −0·72 | −0·32 | −0·27 | −0·79 | −0·42 | +0·45 | +2·04 | +3·67 | *+4·29* | +3·81 | +2·88 | +1·97 | +1·75 | +1·08 | −0·18 | −0·93 | −2·89 | −2·85 | *−3·13* |
| Equinox | −3·40 | −3·54 | −4·19 | *−4·34* | −3·63 | −2·29 | −2·84 | −3·29 | −3·32 | −1·40 | +1·01 | +3·56 | +5·85 | +6·56 | *+6·77* | +6·34 | +4·61 | +3·27 | +2·01 | +0·13 | −0·52 | −1·67 | −2·25 | −3·43 |
| Summer | −1·69 | −2·78 | −3·19 | −4·23 | −4·65 | −5·77 | −5·63 | *−6·24* | −5·23 | −3·12 | −0·21 | +3·52 | +6·49 | *+7·25* | +6·91 | +5·57 | +4·31 | +2·89 | +2·22 | +1·97 | +1·70 | +1·03 | −0·13 | −0·99 |

### VERTICAL FORCE

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −16·7 | −14·9 | −14·5 | *−17·0* | −14·5 | −10·8 | −10·4 | −6·7 | −3·8 | −1·9 | +0·7 | +4·6 | +7·9 | +9·6 | +12·3 | +17·7 | *+18·6* | +16·5 | +17·8 | +15·7 | +9·4 | +1·7 | −9·5 | −11·8 |
| Feb. | −5·7 | −16·3 | −24·3 | −23·1 | *−34·2* | −22·8 | −14·5 | −6·4 | −0·9 | +2·1 | +6·9 | +12·6 | +12·9 | +15·3 | +24·0 | +26·2 | *+26·8* | +23·0 | +18·0 | +20·3 | +9·2 | −3·9 | −18·8 | −26·4 |
| Mar. | *−48·4* | −28·4 | −43·3 | −25·8 | −27·4 | −16·4 | −1·3 | +7·0 | +12·7 | +11·2 | +18·5 | +18·9 | +13·5 | +15·0 | +7·1 | −5·8 | +21·4 | +30·3 | *+33·3* | +27·2 | +20·4 | +10·9 | −16·5 | −34·1 |
| Apr. | −16·3 | *−32·0* | −21·7 | −23·0 | −13·7 | −11·0 | −11·8 | −9·7 | −8·0 | −5·2 | −1·3 | +2·3 | +7·6 | +14·9 | *+23·6* | +23·0 | +22·5 | +23·4 | +21·7 | +16·1 | +9·0 | −1·6 | −5·0 | −3·8 |
| May | −18·7 | −28·4 | −30·3 | −29·5 | *−33·4* | −22·2 | −21·3 | −16·3 | −7·5 | −2·9 | 0·0 | +1·8 | +8·7 | +17·4 | +22·4 | +29·3 | +34·6 | *+34·8* | +30·1 | +24·6 | +19·7 | +12·3 | −7·4 | −17·8 |
| June | −19·9 | *−29·4* | −27·9 | −19·5 | −14·2 | −10·9 | −4·4 | −1·5 | −0·5 | −2·0 | −2·3 | −3·9 | −0·4 | +5·4 | +16·1 | +23·3 | +29·9 | *+32·5* | +22·9 | +18·2 | +11·1 | +3·7 | −11·1 | −15·2 |
| July | −13·2 | −16·1 | −8·2 | −2·9 | −14·7 | *−18·9* | −10·2 | −13·5 | −7·3 | −7·5 | −4·1 | −3·9 | −4·0 | +0·9 | +8·8 | +16·0 | +26·7 | *+28·4* | +25·9 | +19·0 | +16·4 | +6·3 | −9·6 | −14·3 |
| Aug. | −17·2 | *−18·6* | −18·5 | −14·6 | −9·6 | −7·8 | −5·1 | +2·5 | +3·6 | +2·1 | −1·3 | −5·7 | −7·2 | −2·0 | +7·1 | +16·7 | +18·3 | *+23·7* | +22·0 | +16·9 | +13·1 | +1·0 | −9·9 | −9·5 |
| Sept. | −32·3 | −49·7 | *−60·0* | −32·9 | −40·5 | −32·4 | −17·7 | −8·9 | +1·9 | +8·6 | +11·7 | +22·2 | +29·3 | +30·5 | +35·4 | +29·7 | +35·5 | *+36·3* | +36·2 | +21·4 | +19·1 | +3·5 | −16·6 | −30·3 |
| Oct. | −21·7 | −20·4 | −18·7 | −15·8 | −13·3 | −10·8 | −12·1 | −7 2 | −1·2 | +3·2 | +3·2 | +3·0 | +5·8 | +11·8 | +18·7 | *+23·6* | +23·0 | +22·3 | +20·7 | +17·0 | +10·0 | +0·3 | −12·7 | *−28·7* |
| Nov. | −11·6 | −10·7 | −14·6 | *−18·2* | −14·0 | −11·5 | −8·1 | −6·3 | −2·5 | −0·2 | +0·7 | +2·8 | +4·6 | +7·7 | +11·8 | +14·2 | *+14·4* | +13·7 | +11·7 | +11·5 | +9·4 | +4·2 | −1·8 | −7·2 |
| Dec. | −3·0 | −6·3 | −10·2 | *−12·1* | −12·0 | −10·7 | −9·7 | −6·6 | −3·8 | −2·3 | −2·2 | −1·2 | 0·0 | +1·3 | +5·3 | +9·8 | *+12·8* | +10·7 | +9·8 | +10·4 | +10·0 | +7·4 | +3·9 | −1·3 |
| Year | −18·7 | −22·6 | *−24·3* | −19·5 | −20·1 | −15·5 | −10·5 | −6·1 | −1·4 | +0·4 | +2·5 | +4·5 | +6·6 | +10·6 | +16·1 | +18·6 | +23·7 | *+24·6* | +22·5 | +18·2 | +13·1 | +3·8 | −9·6 | −16·7 |
| Winter | −9·3 | −12·1 | −15·9 | −17·6 | *−18·7* | −13·9 | −10·7 | −6·5 | −2·7 | −0·6 | +1·5 | +4·7 | +6·3 | +8·5 | +13·3 | +17·0 | *+18·1* | +16·0 | +14·3 | +14·5 | +9·5 | +2·3 | −6·5 | −11·7 |
| Equinox | −29·7 | −32·6 | *−35·9* | −24·4 | −23·7 | −17·7 | −10·7 | −4·7 | +1·3 | +4·5 | +8·0 | +11·6 | +14·1 | +18·1 | +21·2 | +17·6 | +25·6 | *+28·1* | +28·0 | +20·4 | +14·6 | +3·3 | −12·7 | −24·2 |
| Summer | −17·3 | *−23·1* | −21·2 | −16·6 | −18·0 | −14·9 | −10·3 | −7·2 | −2·9 | −2·6 | −1·9 | −2·9 | −0·7 | +5·4 | +13·6 | +21·3 | +27·4 | *+29·9* | +25·2 | +19·7 | +15·1 | +5·8 | −9·5 | −14·2 |

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

## INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

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### HORIZONTAL FORCE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | −2·7 | −2·6 | −2·7 | −0·4 | +1·2 | +3·3 | +3·2 | +1·6 | −0·1 | −2·4 | −3·9 | *−5·6* | −4·1 | +0·2 | +2·1 | +2·0 | +3·2 | *+4·3* | +3·6 | +0·6 | −0·5 | +0·2 | +0·1 | −0·6 |
| Feb. | +3·6 | +1·0 | −1·0 | +0·8 | +2·8 | +5·5 | +7·4 | +5·8 | +2·2 | −8·2 | −14·2 | *−18·0* | −15·8 | −14·2 | −7·6 | −0·8 | +2·4 | +4·3 | +4·6 | +7·2 | +8·0 | *+9·6* | +8·0 | +6·6 |
| Mar. | +3·6 | +4·7 | +4·2 | +3·5 | +2·3 | +3·0 | +1·9 | +1·1 | −7·2 | −15·7 | *−20·6* | −20·1 | −17·8 | −9·7 | −5·0 | +0·3 | +3·9 | +6·2 | +9·7 | +10·1 | +10·0 | +11·1 | *+11·2* | +9·3 |
| Apr. | +7·5 | +6·0 | +5·3 | +6·0 | +6·5 | +6·6 | +3·3 | −3·6 | −14·5 | −28·4 | *−34·5* | −33·8 | −28·3 | −20·6 | −13·3 | +3·0 | +11·5 | *+22·0* | +21·1 | +19·4 | +15·1 | +14·6 | +14·1 | +15·0 |
| May | +3·4 | +4·5 | +3·2 | +4·3 | +3·6 | −0·9 | −7·4 | −15·3 | −24·0 | −34·5 | *−39·6* | −33·5 | −20·2 | −10·1 | +3·6 | +13·7 | +17·6 | +22·3 | +24·8 | *+27·5* | +25·2 | +17·9 | +8·0 | +5·9 |
| June | +0·7 | +3·8 | +0·7 | +3·8 | +3·4 | +3·1 | −4·4 | −16·2 | −20·1 | −26·0 | *−35·3* | −34·6 | −26·7 | −19·6 | −6·1 | +6·8 | +14·0 | +26·9 | *+32·4* | +27·2 | +24·7 | +17·0 | +13·5 | +11·0 |
| July | +0·9 | −0·4 | +1·1 | +4·0 | +3·4 | −0·1 | −9·0 | −18·8 | −27·7 | −34·6 | −38·5 | *−36·0* | −22·9 | −5·4 | +10·1 | +21·6 | +20·8 | +17·9 | +24·2 | +26·6 | *+23·5* | +19·4 | +13·7 | +6·2 |
| Aug. | +11·6 | +10·3 | +8·8 | +7·7 | +7·5 | +4·6 | −2·3 | −11·1 | −23·8 | −38·7 | *−41·6* | −35·7 | −25·0 | −9·9 | +0·4 | +8·7 | +12·9 | +13·8 | +13·9 | +18·1 | *+18·8* | +17·5 | +16·6 | +16·9 |
| Sept. | +8·4 | +3·9 | +4·4 | +2·2 | +3·0 | +8·5 | +6·0 | −1·8 | −12·2 | −24·9 | −35·0 | *−36·4* | −29·6 | −18·1 | −8·8 | +1·6 | +2·8 | +15·5 | *+20·0* | +18·6 | +18·2 | +16·9 | +17·6 | +19·2 |
| Oct. | +6·6 | +5·8 | +6·0 | +6·2 | +7·8 | +7·1 | +4·8 | +2·8 | −7·8 | −20·2 | −27·8 | *−29·0* | −27·4 | −19·0 | −9·6 | −2·4 | +3·4 | +5·9 | +11·4 | +14·2 | *+16·2* | +15·6 | +15·6 | +13·8 |
| Nov. | +1·5 | +1·9 | +2·1 | +3·1 | +4·9 | +5·4 | +5·7 | +5·1 | +0·3 | −8·1 | −12·9 | *−14·7* | −13·3 | −11·5 | −5·3 | −0·3 | +3·3 | +4·8 | +5·9 | *+6·7* | +6·3 | +5·3 | +2·9 | +0·9 |
| Dec. | +0·8 | +0·3 | +1·0 | −0·1 | −0·4 | +0·5 | +0·8 | −0·5 | −3·8 | −8·3 | −11·6 | *−12·9* | −11·6 | −7·7 | −3·4 | −0·3 | +4·4 | +6·7 | +8·8 | *+9·3* | +8·6 | +6·7 | +6·8 | +5·9 |
| Year | +3·8 | +3·3 | +2·6 | +3·4 | +3·8 | +3·9 | +0·8 | −4·2 | −11·6 | −20·8 | −26·3 | *−25·9* | −20·2 | −12·1 | −3·6 | +4·5 | +8·3 | +12·5 | +15·0 | *+15·5* | +14·5 | +12·7 | +10·7 | +9·2 |
| Winter | +0·8 | +0·1 | −0·1 | +0·9 | +2·1 | +3·7 | +4·3 | +3·0 | −0·3 | −6·7 | −10·7 | *−12·8* | −11·2 | −8·3 | −3·5 | +0·1 | +3·3 | +5·0 | +5·7 | *+5·9* | +5·6 | +5·5 | +4·5 | +3·2 |
| Equinox | +6·5 | +5·1 | +5·0 | +4·5 | +4·9 | +6·3 | +4·0 | −0·4 | −10·4 | −22·3 | −29·5 | *−29·8* | −25·8 | −16·9 | −9·2 | +0·6 | +5·4 | +12·4 | +15·5 | *+15·6* | +14·9 | +14·5 | +14·6 | +14·3 |
| Summer | +4·1 | +4·5 | +3·5 | +4·9 | +4·5 | +1·7 | −5·8 | −15·3 | −23·9 | −33·5 | *−38·7* | −34·9 | −23·7 | −11·3 | +2·0 | +12·7 | +16·3 | +20·2 | +23·8 | *+24·9* | +23·1 | +17·9 | +12·9 | +10·0 |

### DECLINATION

| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −1·50 | −1·01 | −0·96 | −0·61 | −0·70 | −0·83 | −0·64 | −0·61 | −0·58 | −0·07 | +0·58 | +1·43 | +2·04 | *+2·43* | +1·82 | +1·51 | +1·38 | +1·39 | +0·98 | −0·27 | −0·42 | −1·33 | *−2·46* | −1·57 |
| Feb. | −1·89 | −1·56 | +0·09 | +0·34 | −1·00 | −1·15 | −1·66 | −2·34 | *−2·95* | −2·16 | −0·55 | +1·42 | +3·41 | *+3·94* | +3·01 | +2·10 | +1·40 | +0·95 | +0·30 | +0·76 | −0·49 | −0·46 | −0·79 | −0·72 |
| Mar. | +0·01 | −0·02 | −0·51 | −0·94 | −1·25 | −1·66 | −2·53 | −3·52 | *−3·67* | −2·08 | +0·09 | +2·98 | +4·47 | *+4·92* | +3·23 | +1·92 | +0·79 | +0·14 | −1·15 | −0·18 | +0·61 | −0·46 | −0·75 | −0·44 |
| Apr. | −0·79 | −0·32 | −0·75 | −1·81 | −2·37 | −3·24 | −4·45 | *−5·83* | −5·57 | −3·76 | −1·15 | +1·73 | +5·11 | *+6·22* | +5·13 | +4·23 | +2·95 | +1·88 | +1·07 | +1·05 | +0·97 | +0·82 | +0·29 | −1·14 |
| May | −1·35 | −0·77 | −1·65 | −3·17 | −4·71 | −6·16 | *−7·61* | −7·27 | −5·91 | −2·15 | +2·07 | +5·37 | +7·95 | *+8·27* | +7·37 | +5·39 | +3·35 | +1·68 | +0·95 | +0·77 | +0·31 | −0·75 | −0·95 | −1·03 |
| June | −1·12 | −1·30 | −1·60 | −2·74 | −4·22 | −5·91 | *−6·22* | −5·98 | −5·20 | −4·26 | −1·42 | +2·42 | +5·46 | *+7·08* | +6·74 | +5·58 | +3·90 | +2·85 | +1·50 | +1·02 | +1·62 | +0·96 | +0·54 | +0·30 |
| July | +0·55 | −1·42 | −2·32 | −3·63 | −6·06 | −7·26 | *−7·75* | −7·02 | −5·46 | −3·67 | −1·54 | +2·16 | +5·97 | *+7·84* | +6·36 | +5·43 | +3·86 | +2·84 | +2·47 | +2·40 | +2·32 | +2·03 | +1·60 | +0·30 |
| Aug. | −0·82 | −1·24 | −1·34 | −1·88 | −3·52 | −5·08 | −6·56 | *−6·86* | −6·28 | −3·28 | +0·72 | +5·04 | *+7·94* | +7·56 | +5·84 | +3·66 | +1·36 | +0·22 | +0·62 | +1·32 | +1·16 | +0·90 | +0·44 | +0·08 |
| Sept. | −2·58 | −2·40 | −2·21 | −1·26 | −1·20 | −2·62 | −4·44 | *−5·46* | −4·57 | −3·36 | −1·02 | +2·52 | +5·60 | *+7·04* | +6·45 | +5·42 | +3·32 | +1·68 | +0·92 | +0·50 | +0·09 | −0·84 | −0·68 | −0·90 |
| Oct. | −0·29 | −1·31 | −1·59 | −1·97 | −2·35 | −2·74 | −2·31 | −3·33 | *−4·05* | −2·95 | −0·69 | +2·09 | +4·31 | *+4·93* | +4·21 | +2·73 | +1·65 | +1·68 | +1·47 | +1·15 | +0·89 | −0·01 | −0·17 | −1·35 |
| Nov. | −1·85 | −1·08 | −0·96 | −0·51 | −0·64 | −0·90 | −1·35 | −1·30 | −1·12 | −1·15 | −0·20 | +1·60 | +3·09 | *+3·16* | +2·96 | +2·15 | +1·46 | +1·24 | +0·87 | +0·48 | +0·16 | −1·65 | −2·08 | *−2·38* |
| Dec. | −1·86 | −1·37 | −0·84 | 0·00 | −0·16 | −0·89 | −1·34 | −1·92 | *−2·10* | −1·77 | −0·72 | +0·48 | +1·84 | *+2·63* | +2·36 | +1·68 | +1·26 | +1·45 | +1·04 | +0·74 | +0·06 | +0·33 | −0·22 | −0·68 |
| Year | −1·12 | −1·15 | −1·22 | −1·51 | −2·35 | −3·20 | −3·91 | *−4·29* | −3·95 | −2·55 | −0·32 | +2·44 | +4·77 | *+5·50* | +4·62 | +3·48 | +2·22 | +1·50 | +0·92 | +0·81 | +0·61 | −0·04 | −0·44 | −0·82 |
| Winter | *−1·77* | −1·25 | −0·67 | −0·19 | −0·63 | −0·94 | −1·25 | −1·54 | −1·69 | −1·29 | −0·22 | +1·23 | +2·59 | *+3·04* | +2·54 | +1·86 | +1·37 | +1·26 | +0·80 | +0·43 | −0·17 | −0·78 | −1·39 | −1·34 |
| Equinox | −0·91 | −1·01 | −1·27 | −1·49 | −1·79 | −2·57 | −3·43 | *−4·53* | −4·47 | −3·04 | −0·69 | +2·33 | +4·87 | *+5·78* | +4·75 | +3·57 | +2·18 | +1·35 | +0·58 | +0·63 | +0·64 | −0·12 | −0·33 | −1·03 |
| Summer | −0·69 | −1·18 | −1·74 | −2·85 | −4·63 | −6·10 | *−7·03* | −6·78 | −5·71 | −3·34 | −0·04 | +3·75 | +6·83 | *+7·69* | +6·58 | +5·01 | +3·12 | +1·90 | +1·39 | +1·38 | +1·35 | +0·79 | +0·41 | −0·09 |

### VERTICAL FORCE

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −0·5 | −1·6 | −1·3 | −3·8 | −3·9 | *−4·4* | −3·7 | −2·6 | −2·5 | −1·8 | −1·1 | 0·0 | −1·1 | −1·4 | −0·7 | 0·0 | +0·1 | +0·6 | +1·3 | +5·0 | +6·1 | +6·0 | *+6·7* | +4·6 |
| Feb. | −4·4 | −4·0 | −4·2 | *−5·2* | −5·0 | −3·9 | −4·2 | −3·0 | −2·2 | −2·4 | −2·2 | −0·6 | +1·2 | +3·6 | +5·4 | +4·2 | +4·6 | +5·5 | *+7·0* | +4·4 | +3·8 | +1·8 | 0·0 | −0·2 |
| Mar. | −3·7 | −1·8 | −0·3 | −0·1 | −0·5 | −1·2 | −1·5 | −0·5 | +0·5 | +0·4 | −1·7 | −5·3 | *−5·9* | −4·4 | +0·9 | +2·9 | +2·7 | +4·6 | +6·7 | +5·9 | +3·1 | +2·0 | −1·1 | −1·7 |
| Apr. | −4·1 | −4·6 | −3·3 | +1·0 | +2·6 | +1·7 | +1·8 | +0·8 | −0·9 | −3·2 | −4·1 | *−7·0* | −6·3 | −4·0 | −0·7 | +0·4 | +4·0 | +8·1 | *+9·0* | +8·2 | +5·1 | +1·8 | −0·5 | −5·8 |
| May | −0·5 | −5·4 | −6·3 | 0·0 | +4·7 | +5·2 | +5·5 | +4·6 | +0·7 | −4·4 | −9·7 | *−13·8* | −13·3 | −7·4 | −4·1 | +3·0 | +8·3 | *+11·6* | +9·5 | +6·2 | +6·3 | +1·6 | +1·3 | −3·6 |
| June | −4·3 | −0·6 | +1·8 | +3·7 | +6·8 | +10·4 | *+11·1* | +10·6 | +3·4 | −2·9 | −6·2 | −12·2 | −13·3 | *−13·4* | −11·8 | −8·9 | −2·6 | +5·6 | +7·7 | +6·6 | +4·6 | +5·1 | +0·2 | −1·4 |
| July | −10·0 | −6·5 | −2·0 | +1·7 | +4·5 | +6·0 | +5·1 | +2·1 | −0·8 | −2·1 | −2·4 | −4·5 | −9·8 | *−10·1* | −7·4 | −2·3 | +5·3 | *+8·8* | +7·7 | +7·7 | +7·4 | +4·3 | +0·4 | −3·1 |
| Aug. | +0·3 | +1·1 | +1·6 | +2·5 | +4·5 | +6·5 | +7·5 | +7·7 | +7·6 | +2·1 | −6·7 | −13·7 | *−14·5* | −9·3 | −3·2 | +1·1 | +2·7 | +1·7 | +0·3 | −0·7 | +0·6 | +0·7 | +1·1 | −1·5 |
| Sept. | *−14·6* | −12·3 | −6·8 | −1·9 | −6·2 | −5·1 | +2·4 | +5·3 | +3·4 | +1·5 | +1·8 | −0·7 | −4·4 | −3·3 | +3·2 | +8·7 | *+10·2* | +7·7 | +6·6 | +5·3 | +3·6 | +1·5 | −1·4 | −4·5 |
| Oct. | *−15·4* | −6·9 | −1·7 | +1·0 | +1·5 | +1·1 | +1·4 | +1·7 | *+4·1* | +3·6 | +2·5 | −0·3 | −1·2 | −0·1 | +2·1 | +1·8 | +2·3 | +2·5 | +0·6 | +0·7 | −0·1 | +0·4 | −0·1 | −1·5 |
| Nov. | *−3·8* | −3·1 | −3·0 | −1·9 | −1·9 | −1·0 | −0·1 | +0·1 | +1·2 | +0·1 | +1·2 | +0·7 | +1·0 | −1·7 | 0·0 | +1·3 | +1·3 | +1·6 | +1·9 | +1·7 | +2·2 | *+2·3* | +0·8 | −0·9 |
| Dec. | −1·3 | −1·2 | −0·9 | −1·7 | −2·7 | −2·4 | *+3·1* | +0·7 | +1·3 | +0·4 | +1·1 | +0·9 | −0·1 | −3·0 | −0·3 | +1·9 | +1·9 | +1·8 | +0·9 | +0·3 | *+2·3* | +1·8 | +1·5 | −0·1 |
| Year | −5·2 | −3·9 | −2·2 | −0·4 | +0·4 | +1·1 | +1·9 | +2·3 | +1·3 | −0·7 | −2·3 | −4·7 | *−5·6* | −4·5 | −1·4 | +1·2 | +3·4 | *+5·0* | +4·9 | +4·3 | +3·7 | +2·4 | +0·7 | −1·6 |
| Winter | −2·5 | −2·5 | −2·3 | −3·1 | *−3·4* | −2·9 | −2·8 | −1·2 | −0·5 | −0·9 | −0·3 | +0·3 | +0·3 | −0·6 | +1·1 | +1·9 | +2·0 | +2·4 | +2·8 | +2·9 | *+3·6* | +3·0 | +2·3 | +0·9 |
| Equinox | *−9·5* | −6·4 | −3·0 | 0·0 | −0·7 | −0·9 | +1·0 | +1·8 | +1·8 | +0·6 | −0·4 | −3·3 | −4·5 | −2·9 | +1·4 | +3·5 | +4·8 | *+5·7* | *+5·7* | +5·0 | +2·9 | +1·4 | −0·8 | −3·4 |
| Summer | −3·6 | −2·9 | −1·2 | +2·0 | +5·1 | +7·0 | *+7·3* | +6·3 | +2·7 | −1·8 | −6·3 | −11·1 | *−12·7* | −10·1 | −6·6 | −1·8 | +3·4 | +6·9 | +6·3 | +4·9 | +4·7 | +2·9 | +0·7 | −2·4 |

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

# DIURNAL INEQUALITIES OF THE TERRESTRIAL MAGNETIC ELEMENTS

## INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

60 LERWICK

### HORIZONTAL FORCE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | -44·8 | -32·0 | -54·2 | -2·4 | +15·6 | +13·2 | +31·4 | +27·2 | +19·2 | +16·8 | +23·6 | +10·2 | +19·6 | +10·8 | +20·0 | +82·0 | *+88·0* | +51·8 | +19·8 | -35·2 | -74·6 | *-111·6* | -37·2 | -57·2 |
| Feb. | -125·2 | *-145·5* | -97·0 | -61·9 | -60·3 | -32·4 | -10·7 | -7·9 | -6·2 | -15·7 | -1·6 | +42·5 | +32·6 | +38·3 | +94·2 | +88·3 | *+106·1* | +100·4 | +91·9 | +72·1 | +60·2 | -15·5 | -73·8 | -72·9 |
| Mar. | -56·5 | -157·2 | *-168·5* | -146·6 | -69·1 | +7·0 | +6·9 | -16·6 | -45·1 | -8·0 | +2·9 | +77·8 | +15·3 | +68·0 | +164·1 | *+306·4* | +225·3 | +111·8 | +64·3 | +52·2 | -7·9 | -122·2 | -146·5 | -157·8 |
| Apr. | -148·2 | -73·7 | -103·9 | -62·6 | -58·3 | -15·1 | -0·6 | -38·9 | -40·5 | -39·0 | -28·1 | -6·5 | +35·2 | +112·7 | +150·9 | *+255·4* | +202·5 | +105·7 | +76·6 | +16·5 | -34·9 | -42·8 | -83·9 | *-178·5* |
| May | -8·9 | -45·3 | -37·7 | -24·5 | -54·3 | -20·1 | -50·9 | *-72·3* | -59·7 | -23·3 | -25·9 | -18·7 | -7·5 | +1·3 | +35·9 | +83·1 | +111·9 | *+122·3* | +84·3 | +43·5 | +22·1 | -3·5 | -24·3 | -27·5 |
| June | -27·6 | -45·5 | *-53·0* | -20·8 | -17·0 | -24·9 | -27·8 | -38·0 | -41·8 | -47·5 | -50·6 | -40·0 | -36·8 | +2·5 | +94·4 | +105·2 | *+175·7* | +131·8 | +62·4 | +28·0 | -13·6 | -35·5 | -37·6 | -42·0 |
| July | -68·1 | -63·0 | -47·1 | -87·5 | -93·9 | -109·6 | *-141·1* | -32·3 | -1·1 | -12·2 | -10·9 | -9·7 | -4·9 | +23·6 | +39·7 | +68·1 | +109·9 | *+128·6* | +127·3 | +107·3 | +71·9 | +41·0 | +21·3 | -57·3 |
| Aug. | -34·3 | -20·5 | -27·0 | -21·9 | -39·5 | *-56·1* | -8·3 | -8·7 | -26·6 | -38·1 | -47·5 | -48·3 | -22·9 | +18·9 | +39·2 | +60·3 | +94·9 | *+96·1* | +60·9 | +44·9 | +24·4 | -14·3 | -14·9 | -10·7 |
| Sept. | -88·1 | -133·3 | -222·7 | -257·1 | -235·1 | -225·5 | *-275·7* | -142·9 | -62·3 | -14·7 | -8·1 | +83·9 | +164·9 | *+353·1* | +349·5 | +319·1 | +322·1 | +241·3 | +132·3 | -10·9 | +6·3 | -99·1 | -96·3 | -100·7 |
| Oct. | -60·8 | -48·8 | -29·8 | -7·2 | +13·0 | +13·2 | +16·4 | +16·0 | +3·2 | -7·2 | -10·2 | -6·0 | +6·8 | +28·8 | +30·2 | +29·6 | *+38·6* | +28·0 | +26·6 | +19·6 | +9·8 | -0·2 | -46·0 | *-63·6* |
| Nov. | +1·4 | -3·3 | -3·7 | -1·6 | +9·7 | +14·7 | +14·8 | +8·5 | +3·7 | -16·6 | *-25·3* | -24·1 | -5·8 | -6·3 | +0·5 | +4·6 | *+24·3* | +14·7 | +0·4 | +0·3 | +5·5 | -13·6 | +0·3 | -3·1 |
| Dec. | +4·1 | +4·9 | +4·7 | +4·5 | +6·1 | +9·9 | *+12·3* | +4·7 | -2·5 | -7·7 | -9·5 | -14·9 | *-21·3* | -13·1 | +1·3 | +4·7 | +15·3 | +6·7 | +3·5 | +2·7 | -6·1 | -5·5 | -6·1 | +1·3 |
| Year | -54·7 | -63·6 | *-70·0* | -57·5 | -48·6 | -35·5 | -36·1 | -25·1 | -21·6 | -17·8 | -15·9 | +3·9 | +14·6 | +53·2 | +85·0 | +117·2 | *+126·2* | +94·9 | +62·5 | +28·4 | +5·3 | -35·2 | -45·4 | -64·2 |
| Winter | -41·1 | *-44·0* | -37·5 | -15·3 | -7·2 | +1·3 | +11·9 | +8·1 | +3·5 | -5·8 | -3·2 | +3·4 | +6·3 | +7·4 | +29·0 | +44·9 | *+58·4* | +43·4 | +28·9 | +10·0 | -3·7 | -36·5 | -29·2 | -33·0 |
| Equinox | -88·4 | -103·3 | *-131·2* | -118·4 | -87·4 | -55·1 | -63·3 | -45·6 | -36·2 | -17·2 | -10·9 | +37·3 | +55·5 | +140·7 | +173·7 | *+227·6* | +197·1 | +121·7 | +74·9 | +19·3 | -6·7 | -66·1 | -93·2 | -125·1 |
| Summer | -34·7 | -43·6 | -41·2 | -38·7 | -51·2 | -52·7 | *-57·0* | -37·8 | -32·3 | -30·3 | -33·7 | -29·2 | -18·0 | +11·6 | +52·3 | +79·2 | *+123·1* | +119·7 | +83·7 | +55·9 | +26·2 | -3·1 | -13·9 | -34·4 |

### DECLINATION

| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -3·54 | -2·10 | -0·76 | -2·18 | -2·60 | +1·50 | +2·40 | +4·76 | +4·56 | +3·84 | +3·32 | +3·08 | *+7·10* | +4·96 | +5·22 | +3·76 | -2·22 | +1·18 | -1·42 | -5·96 | -5·20 | *-10·12* | -3·64 | -5·94 |
| Feb. | *-15·50* | -7·25 | -8·10 | -7·23 | -8·40 | +1·21 | +2·16 | +3·97 | +0·02 | +0·09 | -2·12 | -2·27 | +6·82 | *+9·65* | +7·66 | +6·95 | +4·84 | +4·19 | +7·96 | +6·47 | +0·14 | -11·07 | +1·56 | -1·75 |
| Mar. | -8·05 | *-16·99* | -10·74 | -16·41 | -7·41 | +3·37 | +3·03 | +2·81 | +0·16 | +6·91 | +5·83 | -1·15 | -6·43 | -2·39 | +5·38 | +15·49 | +12·13 | *+15·77* | +5·77 | -2·05 | -1·00 | -1·39 | +3·03 | -5·67 |
| Apr. | -7·85 | -6·95 | -8·63 | *-17·97* | -9·89 | -0·94 | -1·09 | +2·05 | -0·31 | +0·35 | +2·51 | +5·35 | +5·79 | +6·85 | +4·13 | +8·95 | *+10·33* | +9·96 | +9·97 | +6·17 | +1·61 | -2·25 | -6·59 | -11·55 |
| May | -2·05 | -4·69 | -1·66 | -4·15 | *-7·25* | -5·57 | -2·85 | -0·15 | -1·84 | +0·09 | -0·51 | +3·99 | +5·29 | +5·07 | +4·80 | *+6·43* | +2·67 | +3·59 | +1·83 | +0·81 | +0·74 | +0·49 | -1·05 | -4·03 |
| June | -2·21 | -2·41 | -2·69 | -4·54 | -6·71 | -9·18 | *-11·24* | -8·31 | -5·37 | -5·11 | -0·91 | +2·79 | +8·73 | +8·79 | +9·93 | +6·43 | *+10·26* | +8·32 | +8·63 | +4·11 | -0·01 | -1·54 | -4·29 | -3·47 |
| July | -2·90 | *-13·07* | -10·90 | -11·99 | -5·26 | -10·03 | +3·82 | -11·09 | -8·50 | -7·39 | -1·24 | +3·41 | +7·96 | +7·11 | +7·82 | +8·03 | +4·94 | +6·29 | +6·20 | +6·37 | *+9·76* | +5·91 | +1·96 | +2·79 |
| Aug. | -0·81 | -3·76 | *-9·33* | -5·11 | -1·47 | -5·72 | -4·85 | -7·39 | -6·19 | -4·30 | -0·99 | +2·31 | +7·03 | +8·20 | +8·81 | +7·85 | *+9·61* | +4·92 | +1·69 | +1·91 | -0·37 | +1·66 | -0·91 | -2·79 |
| Sept. | -0·52 | -5·16 | -10·50 | -8·54 | *-10·74* | -0·77 | -4·64 | -7·10 | -4·82 | +0·68 | +3·10 | -4·90 | +5·50 | -3·56 | +8·80 | *+15·36* | +13·16 | +10·55 | +10·70 | +4·48 | +6·60 | -0·98 | -7·90 | -8·80 |
| Oct. | -9·12 | -3·69 | *-12·39* | -9·34 | -5·99 | +0·79 | +0·72 | +1·29 | +0·21 | +1·72 | +3·95 | +6·51 | +8·28 | +8·91 | *+9·03* | +7·90 | +5·31 | +3·83 | +3·68 | -0·29 | -3·23 | -8·18 | -4·89 | -5·51 |
| Nov. | -3·32 | -3·73 | -2·25 | -2·32 | -0·95 | -1·27 | -0·44 | +1·59 | +1·01 | +0·82 | +1·93 | +4·81 | +7·14 | *+8·29* | +5·79 | +2·92 | +4·75 | +2·27 | -1·52 | -2·29 | -3·03 | -4·00 | *-8·85* | -7·35 |
| Dec. | -2·63 | -1·70 | -1·10 | -0·65 | -0·60 | -0·56 | -0·35 | +0·26 | 0·00 | +0·05 | +1·50 | +3·58 | +4·39 | +5·16 | *+5·68* | +3·95 | +3·92 | +1·38 | +0·11 | -4·04 | -2·52 | -4·33 | *-6·80* | -4·70 |
| Year | -4·87 | -5·96 | -6·59 | *-7·54* | -5·56 | -2·26 | -1·11 | -1·44 | -1·76 | -0·19 | +1·36 | +2·29 | +5·63 | +5·59 | +6·92 | *+7·83* | +6·64 | +6·02 | +4·47 | +1·31 | +0·29 | -2·98 | -3·20 | -4·90 |
| Winter | -6·25 | -3·69 | -3·05 | -3·09 | -3·14 | +0·22 | +0·94 | +2·65 | +1·40 | +1·20 | +1·16 | +2·30 | +6·36 | *+7·01* | +6·09 | +4·39 | +2·82 | +2·25 | +1·28 | -1·45 | -2·65 | *-7·38* | -4·43 | -4·93 |
| Equinox | -6·39 | -8·20 | -10·57 | *-13·07* | -8·38 | +0·61 | -0·49 | -0·24 | -1·19 | +2·41 | +3·85 | +1·45 | +3·29 | +2·45 | +6·83 | *+11·93* | +10·23 | +10·03 | +7·53 | +2·08 | +0·99 | -3·20 | -4·09 | -7·88 |
| Summer | -1·99 | -5·98 | -6·15 | -6·45 | -5·17 | *-7·63* | -3·78 | -6·73 | -5·47 | -4·18 | -0·91 | +3·13 | +7·25 | +7·29 | *+7·84* | +7·19 | +6·87 | +5·78 | +4·59 | +3·30 | +2·53 | +1·63 | -1·07 | -1·87 |

### VERTICAL FORCE

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -60·1 | -53·4 | -58·3 | *-62·0* | -52·5 | -32·8 | -27·5 | -12·2 | -2·7 | +6·6 | +14·5 | +29·6 | +49·3 | +51·8 | +50·1 | *+74·0* | +69·7 | +50·8 | +47·7 | +46·6 | +9·5 | -25·6 | -60·1 | -53·0 |
| Feb. | 0·0 | -42·9 | -75·2 | -56·8 | *-103·8* | -66·9 | -45·4 | -15·8 | -3·2 | +8·9 | +32·2 | +54·6 | +46·6 | +48·7 | *+88·0* | +86·0 | +82·8 | +67·5 | +42·2 | +44·8 | +0·6 | -25·9 | -75·0 | -92·0 |
| Mar. | -75·4 | -25·1 | *-164·4* | -66·7 | -82·5 | -39·2 | +29·3 | +51·9 | +68·2 | +50·7 | *+95·0* | +92·7 | +46·2 | +33·9 | -41·4 | -153·7 | -12·9 | +31·0 | +81·7 | +64·3 | +46·0 | +37·7 | -4·0 | -63·3 |
| Apr. | +2·3 | -36·0 | -22·9 | *-91·3* | -62·9 | -46·0 | -57·7 | -49·9 | -43·3 | -28·0 | -6·1 | +11·5 | +41·9 | +69·2 | *+99·3* | +71·5 | +41·1 | +36·4 | +38·3 | +19·5 | +3·3 | -19·8 | -6·7 | +36·3 |
| May | -27·7 | -48·0 | -69·5 | -66·4 | *-114·3* | -68·8 | -36·3 | -34·0 | -18·9 | -6·2 | +20·3 | +32·2 | +52·9 | +69·2 | +71·3 | +70·4 | *+77·3* | +60·2 | +42·1 | +33·0 | +30·9 | +23·6 | -37·3 | -56·0 |
| June | -28·9 | -55·4 | -59·4 | -40·2 | -29·7 | -23·3 | -17·2 | -16·0 | -18·0 | -14·9 | -14·0 | -10·2 | +2·3 | +20·7 | +76·6 | +103·6 | *+103·8* | +86·9 | +46·6 | +27·3 | +0·8 | -26·3 | *-78·4* | -36·7 |
| July | -6·9 | -19·0 | +42·9 | *+66·7* | -22·9 | -53·0 | -25·7 | *-65·5* | -21·7 | -11·8 | -8·7 | -4·5 | -9·3 | -5·0 | +1·7 | +13·3 | +40·7 | +39·2 | +31·9 | +27·3 | +40·5 | +10·8 | -44·1 | -16·9 |
| Aug. | -47·4 | -62·5 | *-70·4* | -66·5 | -62·1 | -69·6 | -55·7 | -13·1 | -0·2 | +5·5 | +10·0 | +9·3 | +8·2 | +18·5 | +40·8 | +73·1 | +70·3 | *+89·6* | +78·9 | +51·3 | +40·2 | -11·5 | -17·4 | -19·3 |
| Sept. | -82·9 | -126·2 | *-238·4* | -110·1 | -180·0 | -159·8 | -84·9 | -47·0 | +16·6 | +50·1 | +64·6 | +127·6 | *+162·5* | +142·0 | +138·6 | +74·7 | +72·2 | +67·8 | +79·1 | +36·0 | +77·8 | +2·3 | -47·6 | -35·0 |
| Oct. | -44·0 | -60·4 | -65·6 | -36·2 | -22·4 | -18·9 | -30·2 | -17·6 | -5·2 | +7·2 | +15·2 | +18·2 | +30·2 | +44·4 | +51·6 | +47·4 | +55·2 | *+61·7* | +56·8 | +50·8 | +26·8 | -1·2 | -52·6 | *-111·2* |
| Nov. | -15·9 | -20·8 | -24·6 | -26·3 | -26·8 | -25·6 | -22·3 | -22·2 | -18·0 | -8·7 | -5·2 | +3·6 | +13·3 | +32·0 | +45·4 | *+55·7* | +54·0 | +52·6 | +30·7 | +17·0 | -0·6 | -17·3 | -25·8 | *-44·2* |
| Dec. | -9·6 | *-14·2* | -13·8 | -11·4 | -9·0 | -10·4 | -12·8 | -13·6 | -12·4 | -14·0 | -13·2 | -8·2 | -1·0 | +4·8 | +11·2 | +23·8 | *+39·6* | +24·4 | +17·8 | +15·2 | +14·4 | +1·6 | -3·4 | -5·8 |
| Year | -33·0 | -47·0 | *-68·3* | -47·3 | -64·1 | -51·2 | -32·2 | -21·3 | -4·9 | +3·8 | +17·1 | +29·7 | +36·9 | +44·2 | +52·8 | +45·0 | *+57·8* | +55·7 | +49·5 | +36·1 | +24·2 | -4·3 | -37·7 | -41·4 |
| Winter | -21·4 | -32·8 | -43·0 | -39·1 | -48·0 | -33·9 | -27·0 | -15·9 | -9·1 | -1·8 | +7·1 | +19·9 | +27·1 | +34·3 | +48·7 | +59·9 | *+61·5* | +48·8 | +34·6 | +30·9 | +6·0 | -16·8 | -41·1 | *-48·7* |
| Equinox | -50·0 | -61·9 | *-122·8* | -76·1 | -86·9 | -66·0 | -35·9 | -15·7 | +9·1 | +20·0 | +42·2 | +62·5 | +70·2 | *+72·4* | +62·0 | +10·0 | +38·9 | +49·2 | +64·0 | +42·7 | +38·5 | +4·7 | -27·7 | -43·3 |
| Summer | -27·7 | -46·2 | -39·1 | -26·6 | *-57·3* | -53·7 | -33·7 | -32·1 | -14·7 | -6·9 | +1·9 | +6·7 | +13·5 | +25·9 | +47·6 | +65·1 | *+73·0* | +69·0 | +49·9 | +34·7 | +28·1 | -0·9 | -44·3 | -32·2 |

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

## RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1946

The ranges are derived from the diurnal inequalities printed in Tables 58 to 60

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| | All days | | | Quiet days | | | Disturbed days | | |
|---|---|---|---|---|---|---|---|---|---|
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | ′ | γ | γ | ′ | γ | γ | ′ | γ |
| Jan. | 32·2 | 7·54 | 35·6 | 9·9 | 4·89 | 11·1 | 199·6 | 17·22 | 136·0 |
| Feb. | 53·3 | 7·69 | 55·0 | 27·6 | 6·89 | 12·2 | 251·6 | 25·15 | 191·8 |
| Mar. | 113·4 | 12·46 | 81·7 | 31·8 | 8·59 | 12·6 | 474·9 | 32·76 | 259·4 |
| Apr. | 83·7 | 13·46 | 55·6 | 56·5 | 12·05 | 16·0 | 433·9 | 28·30 | 190·6 |
| May | 79·7 | 12·37 | 68·2 | 67·1 | 15·88 | 25·4 | 194·6 | 13·68 | 191·6 |
| June | 95·4 | 14·25 | 61·9 | 67·7 | 13·30 | 24·5 | 228·7 | 21·50 | 182·2 |
| July | 86·2 | 13·75 | 47·3 | 65·1 | 15·59 | 18·9 | 269·7 | 22·83 | 132·2 |
| Aug. | 73·3 | 14·50 | 42·3 | 60·4 | 14·80 | 22·2 | 152·2 | 18·94 | 160·0 |
| Sept. | 129·7 | 12·85 | 96·3 | 56·4 | 12·50 | 24·8 | 628·8 | 26·10 | 400·9 |
| Oct. | 38·2 | 10·19 | 52·3 | 45·2 | 8·98 | 19·5 | 102·2 | 21·42 | 172·9 |
| Nov. | 26·9 | 8·87 | 32·6 | 21·4 | 5·54 | 6·1 | 49·6 | 17·14 | 99·9 |
| Dec. | 20·5 | 7·34 | 24·9 | 22·2 | 4·73 | 5·4 | 33·6 | 12·48 | 53·8 |
| Year | 58·9 | 9·41 | 48·9 | 41·4 | 9·79 | 10·6 | 196·2 | 15·37 | 126·1 |
| Winter | 23·3 | 7·42 | 36·8 | 18·7 | 4·81 | 7·0 | 102·4 | 14·39 | 110·2 |
| Equinox | 76·7 | 11·11 | 64·0 | 45·4 | 10·31 | 15·2 | 358·8 | 25·00 | 195·2 |
| Summer | 82·7 | 13·49 | 53·0 | 63·6 | 14·72 | 20·0 | 180·1 | 15·47 | 130·3 |

## AVERAGE DEPARTURE

Arithmetical average of diurnal inequalities in Tables 58 to 60 taken regardless of sign

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| | All days | | | Quiet days | | | Disturbed days | | |
|---|---|---|---|---|---|---|---|---|---|
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | ′ | γ | γ | ′ | γ | γ | ′ | γ |
| Jan. | 7·3 | 1·78 | 11·0 | 2·1 | 1·13 | 2·5 | 37·4 | 3·81 | 41·7 |
| Feb. | 13·9 | 1·84 | 14·9 | 6·7 | 1·47 | 3·5 | 60·5 | 5·31 | 50·2 |
| Mar. | 23·2 | 3·41 | 20·6 | 8·0 | 1·60 | 2·5 | 91·8 | 6·64 | 60·7 |
| Apr. | 20·8 | 3·76 | 13·7 | 14·7 | 2·62 | 3·7 | 79·6 | 6·17 | 39·3 |
| May | 22·3 | 3·48 | 19·6 | 15·5 | 3·62 | 5·7 | 42·0 | 2·98 | 48·6 |
| June | 23·5 | 3·85 | 13·6 | 15·7 | 3·33 | 6·5 | 50·0 | 5·67 | 39·1 |
| July | 26·4 | 4·09 | 12·4 | 16·1 | 3·84 | 5·1 | 61·5 | 6·86 | 26·3 |
| Aug. | 17·0 | 3·38 | 10·6 | 15·7 | 3·07 | 4·1 | 36·6 | 4·50 | 41·3 |
| Sept. | 35·3 | 3·58 | 26·8 | 13·9 | 2·80 | 5·1 | 164·4 | 6·58 | 92·7 |
| Oct. | 9·5 | 2·74 | 13·5 | 11·9 | 2·09 | 2·3 | 23·3 | 5·18 | 38·8 |
| Nov. | 6·6 | 2·18 | 8·9 | 5·5 | 1·43 | 1·5 | 8·6 | 3·44 | 25·4 |
| Dec. | 4·9 | 1·83 | 6·8 | 5·1 | 1·15 | 1·4 | 7·2 | 2·50 | 12·7 |
| Year | 15·5 | 2·86 | 13·8 | 10·4 | 2·24 | 2·7 | 49·3 | 4·03 | 37·7 |
| Winter | 6·6 | 1·83 | 10·5 | 4·5 | 1·26 | 1·9 | 21·4 | 3·34 | 31·6 |
| Equinox | 20·6 | 3·34 | 18·0 | 12·0 | 2·22 | 3·0 | 87·3 | 5·31 | 48·9 |
| Summer | 22·1 | 3·65 | 13·6 | 15·6 | 3·35 | 5·0 | 46·0 | 4·78 | 34·6 |

## NON-CYCLIC CHANGE

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| | All days | | | Quiet days | | | Disturbed days | | |
|---|---|---|---|---|---|---|---|---|---|
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | ′ | γ | γ | ′ | γ | γ | ′ | γ |
| Jan. | −0·1 | −0·05 | −0·1 | +1·0 | +0·03 | +2·7 | −9·6 | −0·25 | −4·9 |
| Feb. | +0·1 | −0·01 | +0·5 | +4·4 | +1·41 | +2·5 | +35·7 | +6·66 | +43·3 |
| Mar. | −3·5 | −0·44 | −2·9 | +4·7 | +0·38 | +2·2 | −129·1 | −2·45 | −52·1 |
| Apr. | +3·3 | +0·40 | +3·6 | +4·7 | +0·23 | 0·0 | −46·8 | −2·36 | −8·0 |
| May | +0·1 | −0·01 | −2·1 | −1·1 | −0·74 | −5·9 | −14·9 | −1·92 | −17·3 |
| June | 0·0 | +0·09 | +0·7 | +9·2 | +0·51 | +1·2 | −12·9 | −1·70 | −21·3 |
| July | −0·3 | +0·02 | −0·6 | +2·5 | −0·79 | +7·1 | −44·5 | −2·20 | +1·5 |
| Aug. | −0·4 | −0·24 | +0·3 | +4·6 | +0·43 | −2·2 | −8·3 | −1·46 | −2·2 |
| Sept. | −0·4 | +0·01 | −0·5 | +9·9 | +1·45 | +7·9 | −81·6 | −4·26 | +40·7 |
| Oct. | −0·6 | −0·13 | −0·2 | +5·2 | −1·25 | +12·8 | −12·2 | +2·53 | −15·1 |
| Nov. | +1·2 | −0·02 | +0·9 | +0·1 | −0·86 | +1·6 | −9·1 | −3·01 | −28·4 |
| Dec. | +0·4 | +0·12 | −0·2 | +4·3 | +0·76 | −0·1 | −6·8 | −1·11 | +5·1 |
| Year | 0·0 | −0·02 | −0·1 | +4·1 | +0·13 | +2·5 | −28·3 | −0·96 | −4·9 |
| Winter | +0·4 | +0·01 | +0·3 | +2·5 | +0·33 | +1·7 | +2·5 | +0·57 | +3·8 |
| Equinox | −0·2 | −0·04 | 0·0 | +6·1 | +0·20 | +5·7 | −67·4 | −1·63 | −8·6 |
| Summer | −0·1 | −0·03 | −0·4 | +3·8 | −0·15 | +0·1 | −20·1 | −1·82 | −9·8 |

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

## MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

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| | Horizontal force | | | Declination (west) | | | Vertical force | | | North component all days | West component all days | Inclination (north) all days | Total force all days |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *a* | *q* | *d* | *a* | *q* | *d* | *a* | *q* | *d* | | | | |
| | 14,000γ + | | | 11° + | | | 46,000γ + | | | | | | |
| | γ | γ | γ | ′ | ′ | ′ | γ | γ | γ | γ | γ | ° ′ | γ |
| Jan. | 365 | 372 | 344 | 20·8 | 21·2 | 19·9 | 974 | 977 | 959 | 14084 | 2826 | 72 59·8 | 49121 |
| Feb. | 357 | 364 | 347 | 19·7 | 20·3 | 17·9 | 976 | 983 | 987 | 14077 | 2820 | 73 00·3 | 49121 |
| Mar. | 344 | 361 | 312 | 18·2 | 19·5 | 14·6 | 977 | 990 | 918 | 14066 | 2811 | 73 01·2 | 49118 |
| Apr. | 350 | 360 | 338 | 18·2 | 18·8 | 18·1 | 1006 | 998 | 1024 | 14072 | 2813 | 73 01·4 | 49158 |
| May | 362 | 368 | 359 | 18·2 | 18·2 | 18·1 | 991 | 997 | 981 | 14083 | 2815 | 73 00·3 | 49137 |
| June | 371 | 367 | 391 | 18·4 | 18·9 | 19·4 | 992 | 996 | 999 | 14092 | 2818 | 72 59·7 | 49140 |
| July | 363 | 368 | 350 | 17·8 | 18·1 | 18·4 | 1006 | 1006 | 1016 | 14085 | 2814 | 73 00·5 | 49151 |
| Aug. | 363 | 364 | 363 | 16·5 | 16·1 | 17·3 | 996 | 993 | 993 | 14086 | 2808 | 73 00·3 | 49132 |
| Sept. | 342 | 354 | 296 | 14·6 | 15·1 | 12·2 | 987 | 993 | 964 | 14070 | 2796 | 73 01·6 | 49127 |
| Oct. | 354 | 362 | 340 | 14·5 | 15·0 | 13·0 | 991 | 990 | 981 | 14079 | 2798 | 73 00·8 | 49134 |
| Nov. | 359 | 367 | 353 | 13·5 | 13·6 | 13·8 | 993 | 988 | 1002 | 14084 | 2795 | 73 00·6 | 49138 |
| Dec. | 365 | 366 | 366 | 13·1 | 13·1 | 13·6 | 988 | 986 | 992 | 14090 | 2795 | 73 00·0 | 49145 |
| Year | 358 | 364 | 347 | 17·0 | 17·3 | 16·4 | 989 | 991 | 984 | 14081 | 2809 | 73 00·5 | 49134 |

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| Night commencing | | | |
|---|---|---|---|
| | | | JANUARY |
| 1 | | ⌀ | Variable sky. Aurora suspended behind cloud |
| 2 | a | .. | Fine |
| 3 | | ⌀ | Very cloudy until 01h. Then clear and bundles of rays observed until 04h. Glow until 06h. |
| 4 | | ⌀ | Variable sky. Slight activity with faint rays until 23h. |
| 5 | | ⌀ | Variable sky. Slight activity 22h.40m.-23h.40m. |
| 6 | c | .. | Variable sky |
| 7 | a-ca | .. | Fine, cloud increasing 02h. |
| 8 | ca-a | .. | Cloudy becoming variable |
| 10 | b-a | ⌀ | Moonlight Slight activity 02h.-05h. |
| 12 | b-a | .. | Moonlight. Variable sky |
| 13 | b | .. | Fine moonlight |
| 14 | b | .. | Fine moonlight |
| 15 | b | .. | Fine moonlight |
| 16 | b | .. | Fine moonlight |
| 17 | b-c | .. | Variable sky then cloudy |
| 18 | c | .. | Cloudy |
| 20 | c | .. | Cloudy |
| 21 | c | .. | Cloudy |
| 23 | b | ⌀ | Variable sky. Diffuse surface all night. Faint rays at 22h. Moonlight |
| 24 | c-a | .. | Cloudy becoming clear |
| 27 | a | .. | Variable sky |
| 28 | c-a | .. | Variable sky |
| 29 | c-a | .. | Variable sky |
| 30 | a | .. | Variable sky |
| 31 | c | .. | Mainly cloudy |
| | | | FEBRUARY |
| 1 | | ⌀ | Variable sky. Aurora suspected |
| 2 | a | ⌀ | Fine. Faint diffuse surface with rays 22h.-02h.30m. |
| 3 | | ⌀ | Auroral light seen through breaks in cloud |
| 4 | | ⌀ | 02h.-03h.40m. Diffuse surface with a few faint rays 04h.-06h. Glow |
| 5 | a | .. | Fine |
| 6 | c | .. | Variable sky |
| 7 | | ⌀ | Variable sky. Intense auroral activity all night |
| 8 | b | .. | Variable sky. Moonlight |
| 9 | c | .. | Cloudy |
| 10 | b | .. | Variable sky. Moonlight |
| 11 | b | .. | Cloudy moonlight |
| 12 | c | .. | Mainly cloudy |
| 13 | c | .. | Mainly cloudy |
| 14 | c | .. | Mainly cloudy |
| 15 | c | .. | Mainly cloudy |
| 17 | c | .. | Variable sky |
| 19 | | ⌀ | Variable sky. Moderate aurora 19h.30m.-24h. Rayed bands predominant 19h.30m.-20h.15m. Homogeneous arcs from 20h.15m. to 21h. Activity decreased until 21h.50m. when rayed bands reappeared developing into pulsating arc at 21h.57m. |
| 20 | | ⌀ | Variable sky. Moderate activity 18h.45m.-03h. Rays 20h.-21h.20m. Homogeneous arcs, rayed bands and arcs with rayed structure from 23h.-01h.20m. with flaming aurora until 01h.45m. Activity decreased at 02h. |
| 21 | c-ca | .. | Cloudy becoming variable |
| 23 | | ⌀ | Variable sky. Faint diffuse surface at 04h.30m. |
| 24 | | ⌀ | Fair mainly diffuse surface 19h.30m.-03h.45m. with occassional appearance of rayed bands and homogeneous arcs |
| 25 | | ⌀ | Variable sky. Homogeneous arc 23h.50m. Faint diffuse surface midnight to 01h. |
| 26 | | ⌀ | Variable sky. Faint auroral light |

| Night commencing | | | |
|---|---|---|---|
| | | | FEBRUARY (contd.) |
| 27 | c | .. | Variable sky - mainly cloudy |
| 28 | | ⌀ | Fine. Faint auroral light |
| | | | MARCH |
| 1 | | ⌀ | Homogeneous arc at 24h. Rayed arc at 01h. with rays from 02h.-04h. diffuse surface becoming a faint glow |
| 2 | a | .. | Variable sky |
| 3 | c | .. | Mainly cloudy |
| 4 | | ⌀ | Cloudy. Faint auroral light |
| 5 | | ⌀ | Mainly fine. 20h.-24h. diffuse surface. 01h.-02h. homogeneous arc 02h.15m.-03h. rayed bands. Homogeneous band developed at 03h. Activity decreased and ceased at 05h. |
| 6 | | ⌀ | Variable sky. Faint diffuse surface and glow all night |
| 7 | a | .. | Fair |
| 8 | c | .. | Variable sky |
| 9 | c | .. | Cloudy |
| 13 | c | .. | Cloudy moonlight |
| 14 | b | .. | Variable sky, moonlight |
| 15 | b | .. | Cloudy moonlight |
| 16 | b | .. | Cloudy moonlight |
| 19 | b | .. | Cloudy moonlight |
| 20 | b | .. | Variable then cloudy |
| 21 | b | .. | Bright moonlight sky variable |
| 22 | | ⌀ | Glow from 23h.30m.-24h.20m. Brighter rays at 24h.20m. then diffuse surface until 03h. |
| 23 | | ⌀ | Variable sky becoming cloudy. Diffuse surface seen between clouds Rays at 02h. Sky covered with cloud at 02h.15m. until daybreak |
| 24 | | ⌀ | Variable. Moderate auroral activity. Rays predominating all night with intermittent occurences of coronas at 00h.55m., 03h.38m., 03h.50m., 03h.54m. Rays persisting after dawn |
| 27 | | ⌀ | Fine. 20h.40m. Glow until 21h.40m. when arcs with rayed structure developed. At 22h.11m. flaming aurora with pulsating rays across most of northern sky. Until 04h. a pulsating surface was the predominant feature |
| 28 | | ⌀ | Variable sky. Homogeneous arc 21h.20m.-22h. Pulsating surface 22h.10m.-24h. when activity decreased |
| 29 | c | .. | Cloudy |
| 30 | | ⌀ | Faint diffuse surface |
| | | | APRIL |
| 1 | c-ca | .. | Cloudy |
| 3 | | ⌀ | Fine becoming cloudy. Faint diffuse surface seen while sky was clear |
| 4 | | ⌀ | Variable sky. Very slight activity |
| 5 | | ⌀ | Mainly cloudy very slight activity |
| 7 | c | .. | Cloudy |
| 8 | b | .. | Variable sky. Moonlight |
| 9 | b | .. | Variable sky. Moonlight |
| 14 | b | ⌀ | Fine. Bright moonlight. Homogeneous arcs followed by homogeneous bands (23h.40m.-02h.40m.) which developed into a feeble glow |
| 15 | ca | .. | Variable sky |
| 17 | c | .. | Variable sky |
| 18 | a | .. | Fine |
| 10 | a | .. | Variable sky |
| 20 | .. | .. | Variable sky |
| 21 | ca | .. | Partly cloudy |
| 23 | | ⌀ | Variable sky. Complete corona 00h.40m. with rays from all directions. 00h.55m. rays 02h.-03h. diffuse surface |

| Night commencing | | | |
|---|---|---|---|
| | | | APRIL (contd.) |
| 24 | | ⌀ | Fair. Diffuse surface developing into homogeneous bands and pulsating surface which obtained for 01h.-02h. 03h. Diffuse surface |
| 25 | c | .. | Variable sky |
| 26 | a | .. | Fine |
| 27 | c | .. | Partly cloudy |
| 28 | a | .. | Fine |
| 29 | a-ca | .. | Fine becoming cloudy |
| 30 | c | .. | Cloudy |
| | | | MAY |
| 6 | b | ⌀ | Variable sky. Bright moonlight and almost continuous daylight |
| | | | JULY |
| 29 | | ⌀ | Cloudy. Bright auroral light. Form not recognisable because of cloud |
| | | | AUGUST |
| 16 | b | ⌀ | Variable sky. Rayed bands and rays 21h.45m.-23h. |
| | | | SEPTEMBER |
| 3 | c-a | .. | Cloudy becoming fine |
| 4 | c | ⌀ | Mainly cloudy. Faint light seen through clouds |
| 5 | c | .. | Cloudy |
| 6 | c-b | .. | Cloudy then clear with slight fog |
| 7 | ca | .. | Variable sky moonlight |
| 8 | | ⌀ | Variable sky. Homogeneous arcs from 00h.30m.-02h. Sky clouded over but activity observed until 03h. |
| 9 | cb | .. | Moonlight. Very cloudy |
| 10 | b-cb | .. | Fine becoming cloudy moonlight |
| 14 | c | .. | Variable sky |
| 16 | b | ⌀ | Fine becoming cloudy. Moonlight. Extensive diffuse surface from 20h.-23h., faint. Thereafter rayed and homogeneous bands, rays and flaming aurora until 02h.30m. |
| 17 | b | ⌀ | Fine becoming cloudy. Moonlight Rays 19h.50m.-20h.10m. Diffuse surface until 01h.30m. 03h.-03h.20m. rays |
| 18 | b | ⌀ | Variable sky, bright moonlight. Moderate aurora of which rays and arcs with rayed structure were prominent |
| 19 | | ⌀ | Variable sky 20h.30m.-23h.30m. Diffuse surface |
| 20 | a | .. | Mainly fine |
| 22 | | ⌀ | Variable sky. Moderate activity until dawn. Bright flaming aurora from 02h. following faint diffuse surface and rayed bands |
| 23 | | ⌀ | Cloudy becoming fine 24h. Rays and parallel bands, 24h.10m. Flaming aurora until dawn |
| 27 | | ⌀ | Cloudy becoming variable sky 03h.40m. faint diffuse surface until 04h.15m. Observation difficult then because of cloud and dawn |
| 28 | | ⌀ | Cloudy. 22h.-04h.30m. Occassional glimpses of auroral light |
| 29 | | ⌀ | Fair 19h.30m.-02h.45m. Diffuse surface of moderate intensity with occassional rays 02h.45m.-03h.30m. Flaming aurora |
| 30 | | ⌀ | Cloudy becoming fair. Faint diffuse surface at 01h.50m. |

65 LERWICK (contd.)

| Night commencing | | | | Night commencing | | | | Night commencing | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | OCTOBER | | | | NOVEMBER | | | | NOVEMBER (contd.) |
| 3 | c | .. | Cloudy | 1 | c | .. | Variable sky | 22 | | ϕ | Variable sky. Faint diffuse surface |
| 4 | c-ca | .. | Cloudy | 2 | c-a | .. | Cloudy then fine | | | | |
| 5 | b | ϕ | Faint diffuse surface. Moonlight | 4 | c | .. | Mainly cloudy | 25 | a | ϕ | Fair. Faint diffuse surface |
| 6 | | ϕ | Fine. Moonlight. Faint diffuse surface 22h.45m.-04h.30m. with homogeneous arc at 23h.45m. | 5 | c | .. | Mainly cloudy | 26 | ca | .. | Variable sky |
| | | | | 6 | b | ϕ | Very cloudy then fair with bright moonlight. Faint diffuse surface | 27 | | ϕ | Very cloudy. Faint diffuse surface observed through gaps in cloud |
| 7 | cb | .. | Variable sky becoming fair. Moonlight | 7 | b | .. | Variable sky. Bright moonlight | 30 | a-ca | .. | Variable sky then cloudy |
| 8 | b | .. | Fair. Moonlight | 9 | cb | .. | Mainly cloudy. Bright moonlight | | | | |
| 9 | b | .. | Fine. Moonlight | 10 | c-cb | .. | Very cloudy then variable sky with bright moonlight | | | | |
| 10 | b | ϕ | Fine. Moonlight. Faint diffuse surface 02h.-04h. | 12 | cb | .. | Mainly cloudy. Bright moonlight | | | | DECEMBER |
| 17 | c | .. | Cloudy | 13 | c | .. | Mainly cloudy | | | | |
| 21 | a | .. | Variable sky | 14 | a | .. | Variable sky | 1 | b | .. | Variable sky. Moonlight |
| 22 | c | .. | Mainly cloudy | 15 | c | .. | Cloudy | 3 | b | .. | Fair. Moonlight |
| 23 | c-a | .. | Cloudy then fine | 16 | | ϕ | Fine. Mainly diffuse surface. Homogeneous arcs 20h.40m.-21h. | 4 | b | .. | Fine. Bright moonlight |
| 24 | a-ca | .. | Fine then cloudy | | | | | 6 | b | ϕ | Fine. Faint diffuse surface. Moonlight |
| 27 | | ϕ | Faint diffuse surface 20h.45m.-00h.30m. | 19 | | ϕ | Variable sky, as above | 12 | b-cb | .. | Fair then cloudy |
| 28 | c | .. | Variable sky | 20 | ca | .. | Mainly cloudy | 13 | a | .. | Variable sky |
| 30 | a-c | .. | Fine becoming cloudy | 21 | | ϕ | Cloudy with clear intervals. Faint light | 19 | | ϕ | Variable sky. Faint auroral light seen through breaks in cloud |
| 31 | c | .. | Mainly cloudy | | | | | | | | |

In the interests of brevity there have been omitted from Table 64 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 ϕ. 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 ..; 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 = Conditions favourable for seeing aurora
b = Unfavourable for faint aurora (moonlight, mist, Cs, etc.) but not such as to mask bright aurora
c = Cloudy, but aurora not seen in clear intervals
ca, cb = Have been used for "Cloudy, with conditions a or b in the intervals"
Changing conditions have been indicated by a hypen, e.g., a-c

66 OTHER SCOTTISH STATIONS

| Night commencing | |
|---|---|
| | JANUARY |
| 4 | Gordon Castle; Nairn |
| 5 | Lossiemouth |
| 6 | Stornoway; Lossiemouth |
| 12 | Stornoway |
| 13 | Fort William |
| 23 | Stornoway; Gordon Castle; Wick |
| 26 | Stornoway |
| | FEBRUARY |
| 5 | Alness |
| 7 | Kettins; Montrose; Gordon Castle; Nairn; Perth; Aberdeen; Stornoway; Fortrose; Alness; Tiree; Leuchars; Wick (23h.00m.) Bell Rock; Benbecula (23h.00m.) Lossiemouth |
| 8 | Buddon Ness; Kettins; Aberdeen; Stornoway; Alness |
| 9 | Buddon Ness |
| 19 | Paisley; Kettins; Nairn; Edinburgh; West Linton; Aberdeen; Alness |
| 20 | Paisley; Gordon Castle; Nairn; Stornoway (20h.00m.) Alness; Eskdalemuir; Crail |
| 21 | Kettins; Stornoway; Eskdalemuir |
| 24 | Buddon Ness; Kettins; Gordon Castle; Nairn; Aberdeen; Stornoway |
| 25 | Stornoway |
| | MARCH |
| 2 | Benbecula |
| 4 | Benbecula (22h.00m.) Alness |
| 6 | Benbecula |
| 10 | Gordon Castle |
| 22 | Nairn |
| 23 | Montrose; Oxenfoord Castle Gardens; Fencastle House; Gordon Castle; Nairn; Buddon Ness; Dunfermline Tiree; Balerno; Edinburgh; Dyce; Baltasound; Stornoway Wick; Donsbristle; West Linton; Wolflee; Paisley; Prestwick; St. Abbs Head; Bell Rock; Alness |
| 24 | Tiree; Aberdeen; Dyce (brilliant) Alness; Benbecula; Kettins; West Linton; Leuchars (03h.-04h. very bright) Lossiemouth (02h.45m.) |
| 25 | Nairn; Leuchars (02h.45m.) |
| 26 | Tiree (19h.50m.) Edinburgh; Alness; Benbecula; Leuchars (21h.00m.) Kinloss (00h.-01h.) Eskdalemuir |
| 27 | Nairn; Wick; Lossiemouth (23h.00m.) Kinloss (22h.-02h.) |
| 28 | Aberdeen; Benbecula |

| Night commencing | |
|---|---|
| | MARCH (contd.) |
| 29 | Stornoway; Alness |
| 31 | Stornoway |
| | APRIL |
| 1 | Stornoway |
| 3 | Stornoway |
| 4 | Duntuilm |
| 5 | Stornoway; Fincastle; Pitlochry |
| 19 | Benbecula |
| 23 | Leuchars; Prestwick (23h.35m.-02h.00m.) Stornoway (23h.15m.-02h.45m.) Tiree (23h.50m. bright); Charterhall; Lossiemouth (23h.50m.-04h.00m.) West Freugh (23h.00m.-02h.00m.) Paisley; Fortrose; Edinburgh; Dunfermline Aberdeen; Buddon Ness Turnberry; Benbecula; Longforgan; Donibristle Kirkaldy; West Linton; Leuchars (22h.-24h. moderate to bright) |
| 24 | Stornoway (23h.15m.-02h.45m.) Fincastle; Pitlochry; Kettins; Benbecula |
| 25 | Stornoway; Wick |
| 26 | Stornoway; Tiree (03h.00m.), Wick; Benbecula |
| 27 | Stornoway; Alness (02h.00m.) |
| 28 | Stornoway |
| 29 | Stornoway |
| 30 | Benbecula |
| | MAY |
| 6 | Fortrose |
| | JUNE |
| | Nil |
| | JULY |
| 26 | Prestwick RAF; Stornoway |
| 27 | Benbecula (02h.00m.) Port Ellen Stornoway (02h.50m.) |
| 28 | Benbecula (01h.00m.) Stornoway(01h.50m. very bright) |
| | AUGUST |
| 30 | Baltasound |
| | SEPTEMBER |
| 17 | Edinburgh; Stornoway (23h.-03h. very bright) |

| Night commencing | |
|---|---|
| | SEPTEMBER (contd.) |
| 18 | Dalry (Templand); Paisley; Edinburgh; Turnberry; Greenock; Nairn; Tiree; Baltasound; Benbecula (02h.-03h.) Wick (03h.00m.) Kinloss (00h.01m.) Alness Stornoway (21h.-03h.) |
| 19 | Nairn; Dyce; Tiree Stornoway |
| 20 | Stornoway |
| 22 | Edinburgh; Aberdeen Montrose; Duntuilm |
| 23 | Edinburgh; Aberdeen (21h.00m.) Nairn; Dyce (21h.00m.) Eskdalemuir; Duntuilm; Stornoway; Tiree; Wick (21h.00m.) |
| 25 | Edinburgh |
| 27 | Aberdeen; Montrose |
| 28 | Polnish (Lochailoch (22h.00m.) Dalry (Templand); Oban Fincastle (Pitlochry) Edinburgh; Carluke Kilmarnock; Gordon Castle Eskdalemuir; Penicuik Auchincruive; Stornoway (21h.-23h. very bright) Tiree Benbecula (22h.00m.) Banff; Pitreavie (21h.00m. very bright) |
| 29 | Alness (02h.00m.) Nairn Eskdalemuir; Stornoway (23h.05m.) Tiree; Hatston Benbecula (01h.00m.) Kinloss |
| 30 | Kinloss (02h.00m.) Stornoway |
| | OCTOBER |
| 3 | Stornoway (04h.05m.) |
| 4 | Stornoway |
| 6 | Stornoway; Baltasound |
| 19 | Fortrose |
| 25 | Duntuilm |
| 26 | Duntuilm; Fortrose Benbecula |
| 27 | Duntuilm; Stornoway Benbecula |
| | NOVEMBER |
| 1 | Buddon Ness; Hatston Duntuilm |
| 12 | Nairn |
| 15 | Nairn; Benbecula; Tiree |
| 16 | Benbecula |
| 19 | Duntuilm; Baltasound |
| 25 | Benbecula |
| 26 | Benbecula |
| 29 | Edinburgh |
| | DECEMBER |
| 19 | Stenness; Orkney; Nairn |
| 21 | Edinburgh |
| 25 | Aberdeen; Fortrose |

# ABERDEEN

# ABERDEEN OBSERVATORY

| | |
|---|---|
| Latitude .. .. .. .. .. | 57°10′N. |
| Longitude .. .. .. .. .. | 2°06′W. |
| G.M.T. of Local Mean Noon .. .. | 12h. 8m. |

| *Heights of instruments* | *above M.S.L.* | *above ground* |
|---|---|---|
| | m. | m. |
| Barometer .. .. .. .. .. .. | 26·0 | .. |
| Thermometer bulbs, north-wall screen | .. | 12·5 |
| Rain-gauge site .. .. .. .. .. | 24·1 | .. |
| Dines tilting-siphon rain recorder rim | .. | 0·5 |
| Sunshine recorder .. .. .. .. | .. | 20·7 |
| Pressure-tube anemograph .. .. .. | 37 | 13 |
| Robinson cup anemograph .. .. .. | 36 | 23 |

## INTRODUCTION

A description of the site and instruments is given in the *Observatories' Year Book* for 1938, and no noteworthy changes have occurred.

### *Review of the meteorological results*

The mean temperature for the year was 281·6°A., a little higher than the normal. The extremes recorded in the north-wall screen were 297·2°A. on 22 June and 265·9°A. on 17 January. The lowest reading of the grass minimum thermometer was 260·2°A. on 17 January.

The total rainfall for the year was 756 mm., that is slightly above the normal.

The sunshine total, 1228 hr., was a little below the normal.

The highest wind speed recorded in a gust was 29 m./sec. on 20 February.

The results of the harmonic analysis of the diurnal inequalities of pressure are set out in the accompanying table. Average values of the various coefficients for the period 1871-1926 computed by Dr. A. Crichton Mitchell* are given for comparison. Dr. Mitchell gave the phase angles in local apparent time and in volumes of the *Observatories' Year Book* earlier than 1935 they were so quoted; the angles have now been converted to local mean time.

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* MITCHELL, A.C.: Diurnal variation of pressure and temperature at Aberdeen 1871-1926. *Quart, J.R. met. Soc., London*, **55**, 1929, p.197.

TABLE 67 - HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

Values of $c_n$, $\alpha_n$ in the series $\sum c_n \sin(15nt + \alpha_n)$, $t$ being local mean time reckoned in hours from midnight

| | $c_1$ | | $\alpha_1$ | | $c_2$ | | $\alpha_2$ | | $c_3$ | | $\alpha_3$ | | $c_4$ | | $\alpha_4$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 |
| | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° |
| January | 0.38 | 0.09 | 281 | 169 | 0.31 | 0.23 | 158 | 146 | 0.19 | 0.13 | 336 | 348 | 0.06 | 0.05 | 211 | 211 |
| February | 0.66 | 0.16 | 192 | 173 | 0.24 | 0.27 | 147 | 143 | 0.18 | 0.10 | 352 | 346 | 0.02 | 0.03 | 114 | 84 |
| March | 0.10 | 0.16 | 114 | 156 | 0.32 | 0.29 | 154 | 147 | 0.05 | 0.05 | 313 | 330 | 0.04 | 0.03 | 21 | 27 |
| April | 0.13 | 0.15 | 50 | 155 | 0.37 | 0.28 | 150 | 151 | 0.03 | 0.02 | 233 | 188 | 0.05 | 0.04 | 340 | 359 |
| May | 0.20 | 0.10 | 251 | 136 | 0.23 | 0.24 | 141 | 145 | 0.05 | 0.06 | 174 | 166 | 0.03 | 0.02 | 352 | 333 |
| June | 0.12 | 0.06 | 59 | 104 | 0.23 | 0.22 | 137 | 141 | 0.05 | 0.07 | 142 | 155 | 0.01 | 0.01 | 18 | 331 |
| July | 0.36 | 0.09 | 123 | 135 | 0.23 | 0.21 | 150 | 142 | 0.05 | 0.07 | 155 | 155 | 0.02 | 0.01 | 359 | 339 |
| August | 0.18 | 0.11 | 96 | 161 | 0.23 | 0.23 | 152 | 144 | 0.03 | 0.04 | 150 | 165 | 0.01 | 0.03 | 338 | 333 |
| September | 0.22 | 0.12 | 178 | 147 | 0.20 | 0.29 | 148 | 151 | 0.03 | 0.03 | 30 | 346 | 0.05 | 0.05 | 353 | 345 |
| October | 0.21 | 0.15 | 248 | 187 | 0.31 | 0.27 | 161 | 156 | 0.09 | 0.07 | 346 | 0 | 0.02 | 0.03 | 16 | 34 |
| November | 0.36 | 0.13 | 354 | 201 | 0.21 | 0.23 | 131 | 159 | 0.13 | 0.10 | 1 | 4 | 0.02 | 0.01 | 154 | 186 |
| December | 0.37 | 0.16 | 139 | 169 | 0.20 | 0.21 | 162 | 147 | 0.12 | 0.12 | 348 | 357 | 0.03 | 0.05 | 181 | 205 |
| Arithmetic mean | 0.27 | | | | 0.26 | | | | 0.08 | | | | 0.03 | | | |
| Year | 0.08 | 0.12 | 174 | 162 | 0.25 | 0.25 | 150 | 148 | 0.05 | 0.03 | 358 | 359 | 0.01 | 0.01 | 352 | 338 |
| Winter | 0.14 | 0.13 | 212 | 178 | 0.23 | 0.23 | 150 | 149 | 0.16 | 0.11 | 357 | 353 | 0.03 | 0.03 | 182 | 194 |
| Equinox | 0.06 | 0.14 | 179 | 162 | 0.30 | 0.28 | 153 | 151 | 0.04 | 0.03 | 333 | 345 | 0.04 | 0.04 | 358 | 6 |
| Summer | 0.11 | 0.09 | 119 | 139 | 0.23 | 0.22 | 145 | 143 | 0.04 | 0.06 | 157 | 159 | 0.02 | 0.02 | 355 | 334 |

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

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 05·61

68 ABERDEEN: $h_b$ (height of barometer cistern above M.S.L.) = 26·0 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 26·8 | 18·9 | 21·9 | 80·9 | 77·9 | 78·9 | 12·8 | 07·2 | 10·0 | 22·9 | 18·0 | 20·5 | 16·5 | 15·2 | 15·9 | 87·0 | 81·9 | *83·1* |
| 2 | 30·5 | 26·8 | 29·1 | 86·2 | *74·8* | *78·1* | 13·5 | 11·6 | 12·8 | 18·0 | 15·3 | 16·7 | 17·1 | 14·3 | 15·1 | 90·8 | 81·9 | 85·7 |
| 3 | 29·4 | 09·2 | 21·5 | 87·0 | 75·9 | 82·0 | 11·6 | 04·7 | 07·0 | 16·9 | 12·0 | 15·0 | 25·7 | 17·1 | 21·7 | 04·3 | 90·8 | 97·0 |
| 4 | 09·2 | 94·4 | 02·4 | 84·6 | 76·9 | 81·5 | 15·0 | 06·4 | 10·5 | 12·0 | 05·3 | 08·5 | 25·8 | 24·1 | 24·9 | 04·6 | 93·7 | 00·2 |
| 5 | 07·3 | 98·6 | 04·1 | 07·1 | 84·6 | 95·9 | 21·3 | 15·0 | 18·2 | 23·9 | 11·7 | 17·3 | 28·5 | 24·9 | 27·3 | 93·7 | *77·6* | 83·7 |
| 6 | 12·8 | 05·2 | 08·6 | 07·1 | 00·6 | 03·4 | 22·1 | 19·7 | 20·9 | 27·0 | 17·7 | 23·7 | *29·6* | 28·1 | *28·9* | 05·7 | 83·7 | 96·1 |
| 7 | 12·5 | 04·7 | 08·2 | 03·2 | 90·2 | 95·1 | 19·7 | 08·1 | 15·0 | 17·8 | 07·7 | 12·5 | 28·2 | 25·3 | 26·6 | 13·6 | 05·7 | 09·9 |
| 8 | 04·8 | 86·2 | 94·7 | 97·2 | 90·8 | 92·3 | 08·1 | 04·8 | 05·7 | 16·6 | 05·7 | 09·1 | 27·2 | 25·9 | 26·7 | 13·6 | 06·8 | 10·9 |
| 9 | 94·6 | *66·0* | *81·5* | 11·0 | 97·2 | 06·5 | 09·8 | 05·1 | 06·9 | 28·0 | 16·6 | 22·9 | 27·0 | 23·3 | 25·2 | 06·8 | 00·7 | 04·3 |
| 10 | 92·1 | 66·8 | 81·6 | 05·9 | 03·1 | 04·6 | 16·9 | 09·8 | 13·2 | *28·3* | 18·6 | *25·4* | 24·3 | 22·9 | 23·7 | 00·7 | 96·1 | 97·6 |
| 11 | 91·1 | 83·3 | 86·4 | 18·1 | 04·1 | 11·9 | 17·2 | 10·8 | 15·4 | 18·6 | 05·5 | 09·4 | 23·8 | 16·9 | 21·0 | 07·0 | 99·4 | 02·8 |
| 12 | 18·3 | 84·4 | 01·2 | 22·5 | 18·1 | 20·9 | 10·8 | 04·9 | 06·9 | 08·6 | 04·2 | 06·0 | 17·1 | 15·9 | 16·5 | 18·6 | 07·0 | 12·9 |
| 13 | 36·6 | 18·3 | 29·6 | 28·9 | 22·2 | 25·3 | 13·6 | 07·5 | 11·3 | 13·2 | 08·2 | 10·2 | 16·2 | 12·6 | 14·5 | 22·8 | 18·6 | 21·6 |
| 14 | 38·9 | 36·6 | 37·9 | *33·4* | 28·9 | *31·4* | 16·1 | 12·6 | 14·1 | 13·2 | 08·6 | 10·5 | 12·6 | 08·9 | 10·1 | 22·3 | 15·4 | 18·7 |
| 15 | *39·9* | 38·0 | *38·8* | 33·3 | 22·9 | 30·2 | 23·0 | 16·1 | 19·4 | 11·3 | 06·6 | 08·0 | 10·3 | 07·0 | 08·6 | 15·4 | 08·8 | 12·2 |
| 16 | 39·0 | 36·3 | 37·5 | 28·0 | 18·9 | 24·0 | 25·8 | 23·0 | 24·7 | 13·7 | 94·3 | 07·5 | 08·3 | 05·8 | 06·9 | 08·8 | 03·3 | 05·7 |
| 17 | 36·4 | 28·5 | 33·1 | 27·7 | 16·5 | 22·3 | 23·8 | 11·0 | 17·3 | 15·7 | *91·8* | 03·2 | 18·6 | 08·3 | 15·1 | 03·3 | 01·7 | 02·4 |
| 18 | 28·5 | 17·6 | 21·7 | 17·9 | 10·0 | 15·9 | 11·1 | 06·5 | 08·9 | 24·5 | 15·7 | 19·8 | 23·0 | 18·6 | 21·6 | 02·5 | 00·7 | 01·5 |
| 19 | 18·9 | 13·5 | 15·7 | 10·0 | 94·3 | 01·6 | 10·6 | 06·0 | 07·5 | 24·6 | 17·5 | 21·0 | 22·3 | 18·0 | 20·1 | 07·3 | 02·0 | 04·2 |
| 20 | 22·1 | 18·9 | 21·0 | 10·7 | 90·5 | 00·3 | 10·2 | 97·3 | 02·4 | 20·8 | 18·8 | 19·7 | 18·0 | 10·8 | 13·5 | 17·6 | 07·2 | 10·9 |
| 21 | 25·4 | 20·7 | 23·4 | 17·4 | 10·7 | 14·8 | 05·5 | 98·8 | 02·9 | 27·7 | 20·4 | 23·5 | 11·4 | 08·0 | 09·1 | *24·4* | 17·6 | 22·2 |
| 22 | 20·7 | 09·0 | 15·1 | 13·4 | 86·1 | 04·5 | 02·6 | *94·7* | *97·5* | 27·6 | 13·7 | 22·5 | 20·2 | 09·5 | 15·0 | 23·5 | 20·5 | *22·3* |
| 23 | 14·4 | 05·8 | 08·9 | 00·8 | 76·6 | 89·3 | 07·0 | 99·2 | 02·6 | 13·7 | 00·1 | 05·8 | 23·1 | 20·2 | 22·1 | 20·5 | 11·9 | 16·4 |
| 24 | 14·9 | 03·4 | 09·7 | 07·8 | 00·8 | 04·6 | 07·8 | 05·4 | 06·6 | 00·1 | 96·3 | 98·1 | 21·8 | 18·7 | 20·1 | 11·9 | 06·2 | 08·2 |
| 25 | 09·3 | 03·7 | 06·8 | 10·4 | 07·7 | 08·8 | 14·0 | 07·4 | 12·1 | 96·5 | 95·5 | *96·0* | 18·7 | 12·7 | 16·1 | 09·7 | 05·3 | 08·2 |
| 26 | 05·8 | 00·7 | 03·6 | 11·6 | 09·4 | 10·9 | 22·3 | 14·0 | 18·2 | 11·3 | 96·3 | 02·5 | 12·7 | 09·5 | 11·1 | 07·1 | 02·7 | 03·9 |
| 27 | 06·2 | 01·6 | 04·9 | 09·4 | 01·7 | 04·4 | 24·9 | 21·4 | 22·7 | 14·5 | 11·3 | 13·6 | 09·5 | 02·7 | 05·1 | 09·2 | 99·0 | 05·9 |
| 28 | 01·6 | 83·3 | 92·9 | 07·2 | 01·1 | 03·4 | 24·7 | 19·2 | 22·6 | 13·8 | 04·1 | 08·7 | 07·8 | 05·2 | 06·5 | 06·4 | 98·9 | 01·8 |
| 29 | 84·1 | 78·2 | 82·4 | | | | 22·6 | 17·2 | 18·5 | 12·1 | 03·1 | 06·9 | 07·1 | 05·5 | 06·2 | 07·3 | 99·6 | 04·5 |
| 30 | 92·6 | 77·7 | 82·5 | | | | *29·5* | 22·6 | *27·3* | 16·5 | 12·1 | 14·5 | 06·3 | 92·9 | 02·2 | 15·9 | 03·3 | 10·2 |
| 31 | 99·2 | 80·9 | 94·1 | | | | 28·4 | 22·5 | 24·7 | | | | 93·3 | *87·0* | *90·0* | | | |
| Mean | 14·96 | 03·78 | 09·70 | 09·95 | 99·73 | 05·10 | 16·20 | 10·02 | 13·02 | 16·98 | 08·42 | 12·63 | 17·81 | 13·41 | 15·72 | 09·41 | 01·60 | 05·50 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 17·6 | 13·0 | 15·8 | 13·4 | 08·5 | 12·0 | 03·9 | 02·5 | 03·3 | 17·3 | 15·2 | 16·0 | 24·2 | 13·2 | 18·4 | 97·4 | 80·2 | 92·0 |
| 2 | 13·0 | 07·9 | 09·5 | 08·6 | 98·4 | 02·3 | 02·5 | 98·4 | 00·3 | 17·3 | 14·2 | 16·2 | 13·2 | 09·3 | 10·5 | 88·3 | 78·6 | *82·9* |
| 3 | 11·0 | 09·6 | 10·4 | 08·3 | 01·9 | 04·0 | 98·4 | 96·2 | 97·5 | 14·2 | 00·3 | 06·4 | 12·1 | 09·8 | 10·6 | 95·1 | 86·2 | 88·3 |
| 4 | 09·7 | 97·2 | 01·3 | 08·3 | 04·5 | 06·8 | 96·2 | 93·2 | 94·0 | 06·3 | *99·8* | 04·7 | 20·3 | 12·1 | 15·2 | 10·0 | 95·1 | 04·3 |
| 5 | 09·1 | 96·6 | 02·0 | 07·5 | 04·6 | 06·7 | 96·7 | 92·3 | 94·3 | 11·5 | 03·4 | 06·4 | 29·0 | 20·1 | 24·6 | 10·0 | 01·8 | 05·0 |
| 6 | 26·6 | 09·1 | 17·9 | 05·1 | 01·9 | 03·0 | 00·5 | 96·4 | 98·1 | 18·9 | 11·5 | 15·9 | *29·1* | 21·6 | *26·7* | 07·4 | 02·7 | 05·6 |
| 7 | 27·7 | 26·3 | *27·0* | 02·4 | 00·1 | 01·2 | 03·6 | 00·2 | 02·1 | 24·1 | 18·7 | 20·8 | 25·9 | 22·3 | 24·0 | 04·9 | 90·0 | 97·2 |
| 8 | 26·7 | 24·6 | 25·5 | 01·1 | 95·5 | 98·3 | 06·3 | 03·3 | 04·6 | 32·5 | 24·1 | 28·7 | 26·2 | 24·6 | 25·6 | 90·0 | 80·2 | 83·7 |
| 9 | *29·1* | 23·9 | 26·7 | 96·4 | 94·4 | 95·1 | 10·6 | 06·3 | 07·7 | 36·4 | 32·5 | 34·4 | 24·6 | 19·0 | 20·6 | 01·6 | 86·4 | 93·4 |
| 10 | 28·9 | 21·2 | 25·6 | 96·8 | 93·1 | 95·2 | 10·6 | 98·8 | 07·8 | *38·4* | 36·4 | *37·4* | 21·3 | 18·1 | 19·7 | 09·9 | 01·6 | 07·6 |
| 11 | 21·2 | 13·8 | 16·7 | 07·6 | 94·9 | 02·6 | 14·1 | 97·1 | 05·6 | 36·7 | 30·9 | 34·4 | 19·5 | 09·8 | 17·1 | 08·2 | 96·3 | 00·3 |
| 12 | 14·3 | 10·4 | 13·1 | 07·4 | 03·0 | 05·5 | 14·8 | 98·9 | 10·6 | 30·9 | 24·7 | 27·5 | 09·8 | 88·8 | 96·2 | 16·2 | 98·7 | 09·1 |
| 13 | 10·4 | 02·1 | 05·9 | 07·8 | 02·2 | 04·8 | 98·9 | *86·9* | *91·9* | 24·7 | 21·7 | 23·0 | 03·5 | 91·8 | 98·5 | 25·3 | 16·0 | 20·1 |
| 14 | 02·1 | 98·7 | 99·7 | 10·9 | 07·2 | 08·6 | 97·1 | 87·8 | 93·5 | 21·7 | 18·5 | 19·8 | 09·9 | 03·5 | 07·9 | 35·4 | 25·1 | 29·6 |
| 15 | 03·1 | 98·0 | 00·9 | 11·6 | 10·7 | 11·2 | 04·1 | 90·1 | 98·8 | 22·2 | 18·1 | 20·1 | 08·7 | 04·2 | 05·9 | 42·6 | 35·4 | 39·6 |
| 16 | 02·8 | 01·1 | 02·1 | 11·0 | 08·3 | 09·3 | 03·8 | 98·7 | 01·0 | 23·3 | 21·8 | 22·5 | 06·9 | 97·3 | 04·5 | 43·2 | 42·4 | *42·7* |
| 17 | 03·7 | 99·3 | 01·4 | 10·9 | 08·4 | 10·0 | 00·8 | 93·2 | 96·0 | 23·4 | 21·8 | 22·8 | 97·3 | *69·3* | 79·8 | *43·3* | 41·9 | 42·7 |
| 18 | 03·7 | 99·6 | 01·2 | 10·0 | 02·7 | 05·3 | 96·1 | 91·6 | 94·2 | 21·8 | 15·0 | 18·8 | 85·4 | 70·4 | 78·9 | 41·9 | 33·3 | 38·4 |
| 19 | 00·2 | 98·4 | 98·8 | 09·6 | 02·8 | 06·2 | 96·6 | 94·0 | 95·7 | 15·0 | 05·9 | 10·5 | 93·6 | 85·4 | 90·8 | 33·3 | 26·0 | 29·2 |
| 20 | 04·7 | 99·6 | 02·1 | 13·3 | 09·4 | 11·1 | 02·1 | 91·5 | 94·8 | 05·9 | 02·2 | *03·3* | 93·4 | 74·4 | 87·3 | 26·0 | 16·7 | 21·5 |
| 21 | 06·2 | 04·3 | 05·3 | 14·0 | 11·1 | *13·0* | 10·8 | 02·1 | 08·0 | 13·2 | 03·4 | 07·9 | 74·4 | 71·4 | *72·8* | 16·7 | 02·9 | 08·7 |
| 22 | 04·4 | 02·1 | 03·5 | *15·4* | 09·6 | 12·2 | 04·2 | 94·3 | 97·6 | 18·3 | 12·9 | 15·6 | 03·8 | 74·4 | 87·5 | 02·9 | 89·4 | 95·1 |
| 23 | 06·4 | 02·7 | 04·7 | 15·2 | 07·9 | 12·6 | 99·0 | 96·2 | 97·5 | 22·6 | 18·1 | 20·6 | 04·8 | 89·3 | 97·3 | 03·4 | 94·6 | 98·4 |
| 24 | 06·3 | 00·4 | 02·9 | 07·9 | 03·7 | 04·9 | 06·2 | 99·0 | 03·7 | 23·5 | 22·2 | 22·9 | 90·7 | 78·5 | 84·9 | 07·8 | 00·0 | 05·5 |
| 25 | 13·6 | 06·1 | 09·3 | 06·6 | 05·3 | 05·8 | 09·6 | 02·2 | 05·6 | 22·6 | 18·3 | 20·4 | 84·5 | 76·3 | 81·4 | 00·1 | *76·1* | 85·2 |
| 26 | 13·6 | 03·0 | 10·1 | 07·0 | 06·2 | 06·6 | 10·7 | 08·9 | 09·7 | 18·3 | 10·9 | 14·7 | 95·4 | 78·3 | 88·7 | 86·6 | 83·0 | 84·4 |
| 27 | 08·5 | 97·5 | 01·8 | 06·2 | 01·8 | 04·6 | 16·6 | 09·1 | 10·7 | 10·9 | 04·7 | 07·3 | 95·1 | 88·4 | 90·5 | 03·8 | 86·6 | 94·5 |
| 28 | 09·3 | 00·8 | 06·5 | 01·8 | 86·0 | 94·0 | *23·1* | 16·6 | 21·0 | 18·8 | 05·7 | 13·7 | 96·9 | 92·1 | 94·5 | 19·0 | 03·8 | 10·7 |
| 29 | 04·4 | 00·7 | 02·0 | 87·1 | *81·5* | *83·8* | 22·9 | 19·4 | *21·3* | 21·7 | 18·5 | 20·4 | 93·4 | 92·0 | 92·7 | 18·8 | 04·2 | 12·9 |
| 30 | 03·9 | *91·7* | *97·7* | 94·7 | 87·1 | 90·8 | 19·5 | 16·9 | 17·8 | 22·9 | 21·2 | 21·8 | 91·8 | 86·1 | 88·5 | 09·1 | 00·5 | 06·0 |
| 31 | 11·4 | 01·2 | 06·5 | 03·8 | 94·7 | 99·7 | | | | 26·8 | 22·9 | 25·4 | | | | 00·8 | 91·5 | 95·1 |
| Mean | 11·41 | 05·19 | 08·18 | 06·70 | 01·53 | 04·10 | 06·01 | 99·40 | 02·82 | 21·36 | 15·98 | 18·72 | 06·16 | 96·39 | 01·38 | 12·87 | 02·17 | 07·41 |
| | | | | | | | | | Annual | 12·54 | 04·88 | 08·69 | | | | | | |

## PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

69 ABERDEEN: $h_b$ = 26 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millibars* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 10·09 | 09·96 | 09·86 | 09·83 | 09·75 | 09·65 | 09·69 | 09·99 | 10·26 | 10·57 | *10·71* | 10·66 | 10·14 | 09·76 | 09·47 | 09·46 | 09·43 | 09·34 | 09·33 | 09·36 | 09·18 | 09·08 | 09·00 | 08·90 | *08·86* | 09·70 |
| Feb. | 04·68 | 04·54 | 04·33 | 04·11 | 04·00 | 03·91 | *03·85* | 04·12 | 04·48 | 04·86 | 05·18 | 05·43 | 05·39 | 05·37 | 05·29 | 05·37 | 05·63 | 05·79 | 06·04 | *06·12* | 06·04 | 05·90 | 05·76 | 05·65 | 05·62 | 05·10 |
| Mar. | 12·96 | 12·92 | 12·77 | 12·60 | 12·57 | *12·56* | 12·68 | 12·83 | 13·00 | 13·10 | 13·18 | 13·22 | 13·12 | 12·99 | 12·83 | 12·74 | 12·69 | 12·82 | 13·04 | 13·31 | 13·48 | *13·59* | 13·55 | 13·56 | 13·47 | 13·02 |
| Apr. | *13·01* | 12·86 | 12·75 | 12·55 | 12·44 | 12·45 | 12·59 | 12·72 | 12·87 | 12·96 | 12·95 | 12·83 | 12·71 | 12·63 | 12·39 | 12·15 | *12·06* | 12·08 | 12·23 | 12·46 | 12·78 | 12·92 | 12·92 | 12·89 | 12·79 | 12·63 |
| May | *16·15* | 16·01 | 15·84 | 15·69 | 15·60 | 15·64 | 15·83 | 15·88 | 16·01 | 16·07 | 16·08 | 16·07 | 16·05 | 15·96 | 15·89 | 15·67 | 15·47 | 15·38 | 15·31 | 15·39 | 15·47 | 15·48 | 15·46 | 15·35 | *15·20* | 15·72 |
| June | 05·31 | 05·31 | 05·12 | *05·04* | *05·04* | 05·09 | 05·17 | 05·35 | 05·45 | 05·48 | 05·54 | 05·58 | 05·54 | 05·49 | 05·44 | 05·43 | 05·35 | 05·40 | 05·48 | 05·62 | 05·83 | 06·09 | 06·21 | 06·26 | *06·27* | 05·50 |
| July | 08·73 | 08·52 | 08·33 | 08·06 | 07·96 | 07·89 | 07·99 | 07·98 | 08·04 | 08·00 | 08·02 | 08·01 | 07·96 | 07·94 | 07·98 | 07·98 | *07·88* | 08·07 | 08·15 | 08·36 | 08·52 | 08·73 | *08·75* | 08·66 | 08·59 | 08·18 |
| Aug. | *04·53* | 04·39 | 04·27 | 04·10 | 03·98 | 04·00 | 04·07 | 04·12 | 04·19 | 04·18 | 04·15 | 04·11 | 04·02 | 03·95 | 03·86 | *03·77* | 03·78 | 03·82 | 03·88 | 04·03 | 04·25 | 04·35 | 04·42 | 04·39 | 04·28 | 04·10 |
| Sept. | 02·71 | 02·66 | 02·52 | 02·38 | 02·25 | *02·23* | 02·36 | 02·48 | 02·70 | 02·82 | 02·84 | 02·86 | 02·92 | 02·89 | 02·91 | 02·86 | 02·86 | 02·91 | 03·04 | 03·21 | *03·30* | 03·27 | 03·25 | 03·25 | 03·17 | 02·82 |
| Oct. | 18·49 | 18·40 | 18·36 | 18·25 | *18·17* | 18·19 | 18·40 | 18·61 | 18·87 | 19·09 | *19·18* | *19·18* | 19·05 | 18·89 | 18·73 | 18·57 | 18·53 | 18·68 | 18·85 | 18·94 | 18·98 | 18·95 | 18·93 | 18·82 | 18·72 | 18·72 |
| Nov. | 02·13 | *02·13* | 02·07 | 02·00 | 01·85 | 01·83 | 01·73 | 01·75 | 01·95 | 02·01 | 02·02 | 01·93 | 01·62 | 01·26 | 00·99 | 00·77 | 00·71 | 00·70 | 00·72 | *00·66* | 00·69 | 00·75 | 00·72 | 00·77 | 00·97 | 01·38 |
| Dec. | 07·55 | 07·41 | 07·30 | 07·19 | 07·06 | *06·90* | *06·90* | 06·94 | 07·01 | 07·22 | 07·36 | 07·41 | 07·26 | 07·15 | 07·05 | 07·20 | 07·39 | 07·61 | 07·74 | 07·98 | 08·03 | *08·06* | 08·00 | 07·95 | 07·92 | 07·41 |
| Annual | 08·86 | 08·76 | 08·63 | 08·48 | 08·39 | *08·36* | 08·44 | 08·56 | 08·73 | 08·86 | 08·94 | *08·95* | 08·81 | 08·69 | 08·57 | 08·50 | 08·48 | 08·55 | 08·65 | 08·79 | 08·88 | 08·93 | 08·91 | 08·87 | 08·82 | 08·69 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

## PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

70 ABERDEEN: $h_b$ = 26 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millibars* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 13·34 | 13·22 | 13·12 | 13·08 | 13·01 | 12·91 | 12·95 | 13·25 | 13·52 | 13·83 | *13·96* | 13·91 | 13·38 | 13·00 | 12·71 | 12·70 | 12·67 | 12·59 | 12·58 | 12·61 | 12·43 | 12·32 | 12·25 | 12·15 | *12·11* | 12·95 |
| Feb. | 07·91 | 07·77 | 07·56 | 07·34 | 07·23 | 07·14 | *07·08* | 07·35 | 07·71 | 08·09 | 08·41 | 08·65 | 08·60 | 08·58 | 08·50 | 08·58 | 08·84 | 09·01 | 09·27 | *09·35* | 09·27 | 09·14 | 09·00 | 08·88 | 08·85 | 08·32 |
| Mar. | 16·21 | 16·17 | 16·03 | 15·86 | 15·83 | *15·82* | 15·94 | 16·08 | 16·25 | 16·35 | 16·42 | 16·45 | 16·35 | 16·21 | 16·05 | 15·96 | 15·91 | 16·05 | 16·28 | 16·55 | 16·73 | *16·84* | 16·80 | 16·82 | 16·72 | 16·26 |
| Apr. | *16·23* | 16·08 | 15·97 | 15·78 | 15·67 | 15·68 | 15·81 | 15·93 | 16·07 | 16·16 | 16·14 | 16·02 | 15·88 | 15·80 | 15·56 | 15·32 | *15·23* | 15·26 | 15·41 | 15·65 | 15·98 | 16·13 | 16·13 | 16·10 | 16·01 | 15·83 |
| May | *19·38* | 19·24 | 19·07 | 18·93 | 18·84 | 18·87 | 19·06 | 19·10 | 19·22 | 19·28 | 19·28 | 19·27 | 19·24 | 19·16 | 19·09 | 18·87 | 18·67 | 18·58 | 18·51 | 18·60 | 18·69 | 18·70 | 18·68 | 18·58 | *18·43* | 18·93 |
| June | 08·47 | 08·46 | 08·28 | *08·20* | 08·20 | 08·25 | 08·32 | 08·49 | 08·59 | 08·60 | 08·66 | 08·70 | 08·66 | 08·61 | 08·55 | 08·55 | 08·47 | 08·52 | 08·61 | 08·75 | 08·97 | 09·23 | 09·36 | 09·41 | *09·43* | 08·64 |
| July | 11·87 | 11·66 | 11·48 | 11·21 | 11·10 | 11·03 | 11·13 | 11·11 | 11·16 | 11·12 | 11·14 | 11·12 | 11·07 | 11·04 | 11·08 | 11·08 | *10·98* | 11·17 | 11·25 | 11·47 | 11·64 | 11·85 | *11·89* | 11·80 | 11·73 | 11·31 |
| Aug. | *07·67* | 07·54 | 07·42 | 07·25 | 07·13 | 07·15 | 07·22 | 07·26 | 07·32 | 07·30 | 07·27 | 07·22 | 07·12 | 07·05 | 06·97 | *06·88* | 06·89 | 06·93 | 06·99 | 07·14 | 07·37 | 07·48 | 07·55 | 07·53 | 07·42 | 07·23 |
| Sept. | 05·85 | 05·81 | 05·66 | 05·52 | 05·39 | *05·37* | 05·51 | 05·62 | 05·84 | 05·94 | 05·96 | 05·97 | 06·03 | 06·00 | 06·02 | 05·97 | 05·97 | 06·03 | 06·16 | 06·34 | *06·43* | 06·41 | 06·39 | 06·39 | 06·31 | 05·95 |
| Oct. | 21·71 | 21·62 | 21·59 | 21·47 | *21·40* | 21·41 | 21·63 | 21·84 | 22·10 | 22·31 | *22·40* | 22·39 | 22·26 | 22·09 | 21·93 | 21·77 | 21·73 | 21·89 | 22·07 | 22·15 | 22·19 | 22·17 | 22·15 | 22·04 | 21·94 | 21·93 |
| Nov. | 05·32 | *05·32* | 05·26 | 05·19 | 05·04 | 05·02 | 04·92 | 04·93 | 05·14 | 05·20 | 05·20 | 05·11 | 04·79 | 04·43 | 04·16 | 03·94 | 03·88 | 03·88 | 03·90 | *03·84* | 03·87 | 03·93 | 03·90 | 03·95 | 04·16 | 04·56 |
| Dec. | 10·79 | 10·65 | 10·54 | 10·43 | 10·30 | *10·14* | 10·14 | 10·18 | 10·25 | 10·47 | 10·60 | 10·64 | 10·49 | 10·37 | 10·28 | 10·43 | 10·63 | 10·85 | 10·97 | 11·21 | 11·27 | *11·30* | 11·24 | 11·19 | 11·16 | 10·65 |
| Annual | 12·06 | 11·96 | 11·83 | 11·69 | 11·59 | *11·57* | 11·64 | 11·76 | 11·93 | 12·05 | 12·12 | *12·13* | 11·99 | 11·86 | 11·74 | 11·67 | 11·65 | 11·73 | 11·83 | 11·97 | 12·07 | 12·12 | 12·11 | 12·07 | 12·02 | 11·88 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

## TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

71 ABERDEEN: North-wall screen on tower: $h_t$ = 12·5 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *degrees Absolute* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 76·36 | 76·27 | 76·14 | 76·06 | 75·97 | *75·95* | 76·00 | 76·04 | 75·97 | 75·99 | 76·45 | 77·00 | 77·51 | 77·85 | *78·02* | 77·75 | 77·40 | 77·11 | 77·05 | 76·86 | 76·79 | 76·82 | 76·75 | 76·53 | 76·40 | 76·69 |
| Feb. | 77·03 | 77·04 | 76·91 | 76·94 | 76·90 | 76·77 | 76·87 | 76·55 | *76·53* | 76·95 | 77·42 | 78·07 | 78·68 | 78·90 | 78·99 | *79·04* | 78·71 | 78·17 | 77·75 | 77·44 | 77·09 | 77·05 | 76·81 | 76·77 | 76·74 | 77·47 |
| Mar. | 77·41 | 77·28 | 77·14 | 76·97 | 76·99 | *76·83* | 76·83 | 76·94 | 77·45 | 78·17 | 78·87 | 79·22 | 79·66 | *79·91* | 79·82 | 79·84 | 79·80 | 79·59 | 79·07 | 78·40 | 78·14 | 77·89 | 77·79 | 77·68 | 77·61 | 78·24 |
| Apr. | 80·28 | 79·97 | 79·72 | 79·52 | 79·30 | *79·19* | 79·59 | 80·44 | 81·29 | 82·20 | 82·87 | 83·39 | 84·16 | 84·25 | *84·42* | 84·32 | 84·31 | 83·94 | 83·39 | 82·61 | 81·88 | 81·33 | 80·90 | 80·56 | 80·28 | 81·83 |
| May | 80·25 | 79·98 | 79·87 | 79·64 | *79·45* | 79·62 | 80·41 | 81·29 | 81·90 | 82·32 | 82·74 | 82·66 | 82·84 | *83·00* | 82·85 | 82·88 | 82·79 | 82·55 | 82·33 | 81·84 | 81·35 | 81·03 | 80·77 | 80·61 | 80·44 | 81·46 |
| June | 83·76 | 83·51 | 83·22 | 82·84 | *82·79* | 83·33 | 84·37 | 85·36 | 85·77 | 86·40 | 86·66 | 86·79 | 87·04 | 87·01 | *87·24* | 86·77 | 86·68 | 86·28 | 85·95 | 85·79 | 85·32 | 84·86 | 84·39 | 83·89 | 83·82 | 85·26 |
| July | 86·05 | 85·89 | 85·72 | 85·64 | *85·46* | 85·79 | 86·37 | 86·93 | 87·45 | 88·06 | 88·43 | 88·63 | 89·00 | 89·39 | 89·48 | 89·49 | *89·52* | 89·24 | 89·03 | 88·56 | 88·03 | 87·31 | 86·70 | 86·37 | 86·05 | 87·61 |
| Aug. | 84·64 | 84·40 | 84·14 | 83·84 | *83·59* | 83·65 | 84·18 | 84·90 | 85·79 | 86·71 | 87·17 | 87·68 | 87·98 | 88·07 | 88·09 | *88·15* | 88·04 | 87·81 | 87·63 | 87·08 | 86·35 | 85·77 | 85·38 | 84·95 | 84·70 | 86·08 |
| Sept. | 84·39 | 84·17 | 84·12 | 84·02 | 83·92 | *83·79* | 83·85 | 84·25 | 84·87 | 85·64 | 86·30 | 86·78 | 87·24 | *87·48* | 87·44 | 87·45 | 87·16 | 86·64 | 86·12 | 85·59 | 85·15 | 84·91 | 84·77 | 84·56 | 84·36 | 85·44 |
| Oct. | 81·69 | 81·59 | 81·48 | 81·28 | 81·19 | 81·16 | *81·11* | 81·15 | 81·40 | 82·01 | 82·54 | 82·97 | 83·23 | 83·44 | *83·49* | 83·41 | 83·24 | 82·94 | 82·62 | 82·35 | 82·20 | 82·03 | 81·90 | 81·75 | 81·61 | 82·17 |
| Nov. | 80·05 | 79·79 | 79·89 | 79·84 | 79·70 | 79·73 | *79·59* | 79·86 | 79·80 | 80·02 | 80·47 | 80·77 | 81·13 | 81·23 | *81·32* | 81·21 | 80·88 | 80·64 | 80·47 | 80·25 | 80·40 | 80·13 | 80·06 | 79·99 | 79·84 | 80·30 |
| Dec. | 77·15 | 77·03 | 76·83 | 76·70 | 76·43 | 76·65 | *76·40* | 76·45 | 76·53 | 76·67 | 76·95 | 77·49 | 77·89 | *78·08* | 78·05 | 77·86 | 77·62 | 77·52 | 77·51 | 77·41 | 77·31 | 77·26 | 77·26 | 77·14 | 77·08 | 77·17 |
| Annual | 80·75 | 80·58 | 80·43 | 80·27 | *80·14* | 80·21 | 80·46 | 80·85 | 81·23 | 81·76 | 82·24 | 82·62 | 83·03 | 83·22 | *83·26* | 83·19 | 83·01 | 82·70 | 82·41 | 82·01 | 81·67 | 81·37 | 81·12 | 80·90 | 80·74 | 81·64 |

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0°. Add 0·16° to obtain temperature
in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

72 ABERDEEN: North-wall screen on tower: $h_t$ (height of thermometer bulb above ground) = 12·5 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | *degrees Absolute* | | | | | | | | | | | | | | | | | |
| 1 | 78·3 | 75·2 | 77·2 | 80·9 | 77·4 | 79·2 | 76·3 | 69·0 | 72·8 | 81·0 | 76·0 | 78·2 | 82·5 | 76·0 | 79·7 | 85·0 | 81·8 | 83·5 |
| 2 | 76·0 | 74·2 | 75·2 | 80·3 | 77·6 | 79·0 | 76·8 | *66·9* | *71·7* | *93·6* | 77·1 | 85·7 | 84·3 | 78·2 | 81·2 | 86·3 | 79·1 | 83·6 |
| 3 | 77·7 | 71·5 | 73·8 | 79·9 | 76·3 | 78·4 | 77·1 | 72·2 | 75·5 | 91·9 | 82·0 | *86·8* | 84·2 | 77·6 | 81·3 | 87·1 | 82·2 | 84·6 |
| 4 | *85·1* | 77·7 | *81·1* | 80·0 | 76·3 | 78·3 | 77·8 | 76·5 | 77·2 | 90·7 | 80·9 | 86·0 | 86·1 | 79·9 | 82·2 | 85·7 | 81·4 | 84·0 |
| 5 | 82·7 | 78·1 | 79·7 | 81·2 | 75·0 | 77·7 | 77·9 | 76·2 | 77·2 | 83·9 | 77·2 | 80·3 | 80·0 | 76·9 | 78·9 | 88·9 | 83·5 | 85·8 |
| 6 | 80·9 | 76·2 | 78·5 | 81·5 | 75·9 | 78·3 | 78·5 | 73·9 | 77·0 | 86·9 | 76·3 | 81·6 | 82·2 | 76·7 | 80·3 | 89·8 | 82·2 | 85·8 |
| 7 | 78·2 | 74·3 | 77·1 | 83·8 | 77·5 | 80·2 | 77·9 | 73·3 | 74·6 | 89·7 | 82·1 | 85·5 | 86·1 | 78·6 | 82·9 | 88·9 | 81·1 | 84·8 |
| 8 | 81·1 | 76·7 | 78·8 | 80·2 | 76·3 | 78·6 | 76·5 | 71·0 | 74·3 | 84·7 | 77·6 | 81·0 | 82·3 | 77·0 | 80·5 | 88·2 | 81·6 | 84·7 |
| 9 | 81·8 | 76·8 | 80·0 | 80·3 | 74·8 | 77·1 | 78·5 | 74·5 | 76·6 | 81·2 | 73·8 | *77·4* | 86·1 | 74·8 | 81·2 | 87·8 | 81·9 | 84·6 |
| 10 | 81·0 | 76·7 | 79·1 | 83·1 | 79·7 | 81·6 | 80·0 | 74·4 | 77·1 | 82·2 | *73·3* | 78·6 | 83·1 | 75·9 | 80·6 | 85·1 | 81·1 | 83·2 |
| 11 | 81·5 | 77·3 | 79·2 | 81·9 | 76·4 | 79·1 | 77·9 | 75·7 | 77·2 | 87·2 | 79·2 | 84·0 | 83·4 | 80·4 | 81·7 | 85·9 | 80·5 | 83·2 |
| 12 | 79·2 | 74·3 | 76·7 | 79·0 | 74·9 | 77·1 | 78·3 | 76·3 | 77·3 | 88·1 | 82·4 | 84·8 | 84·6 | 77·5 | 81·2 | 85·6 | 79·7 | 83·2 |
| 13 | 76·2 | 71·5 | 74·3 | 84·2 | 78·0 | 81·1 | 77·6 | 74·7 | 76·3 | 85·9 | 79·5 | 83·3 | 81·3 | 74·9 | 78·5 | 85·3 | 79·1 | 82·4 |
| 14 | 75·4 | 72·4 | 73·8 | 82·7 | 77·3 | 80·6 | 76·3 | 73·3 | 75·1 | 93·2 | 77·4 | 85·5 | 82·3 | *74·2* | *77·9* | 84·1 | *77·6* | *81·9* |
| 15 | 74·7 | 71·3 | 72·8 | 82·8 | 74·2 | 79·1 | 75·2 | 72·4 | 74·5 | 89·9 | 82·2 | 85·9 | 82·2 | 75·7 | 78·6 | 85·0 | 79·4 | 82·7 |
| 16 | 75·2 | 67·5 | 72·1 | *84·6* | 78·2 | 81·0 | 76·8 | 74·1 | 75·7 | 84·1 | 78·9 | 82·1 | 82·7 | 77·6 | 79·8 | 86·9 | 81·2 | 84·4 |
| 17 | 78·2 | *65·9* | *72·0* | 84·4 | 78·2 | 81·5 | 79·0 | 74·7 | 76·3 | 84·0 | 76·8 | 81·5 | 82·3 | 78·0 | 80·6 | 87·7 | 83·0 | 84·3 |
| 18 | 78·4 | 76·9 | 77·7 | 83·8 | 81·1 | *82·4* | 84·0 | 78·9 | 81·1 | 84·7 | 74·0 | 79·7 | 82·5 | 79·8 | 81·2 | 86·7 | 81·0 | 83·8 |
| 19 | 79·1 | 74·7 | 77·7 | 82·3 | 74·0 | 79·0 | 86·0 | 81·3 | 83·5 | 86·7 | 76·9 | 82·5 | 85·0 | 78·7 | 81·6 | 87·5 | 81·7 | 84·2 |
| 20 | 78·2 | 74·3 | 75·4 | 78·3 | 73·9 | 75·6 | 84·1 | 79·7 | 81·3 | 85·3 | 79·4 | 82·5 | 82·0 | 78·9 | 80·7 | 88·6 | 81·1 | 85·0 |
| 21 | 78·1 | 73·7 | 76·1 | 75·8 | 72·9 | 74·0 | 84·6 | 76·3 | 80·7 | 82·5 | 78·0 | 80·1 | 84·4 | 79·8 | 81·6 | 89·6 | 83·2 | 86·1 |
| 22 | 78·6 | 76·3 | 77·6 | 77·5 | 74·0 | 75·5 | 81·9 | 76·0 | 78·8 | 87·4 | 77·4 | 82·7 | 86·6 | 79·7 | 83·7 | *97·2* | 85·1 | 90·8 |
| 23 | 76·9 | 72·9 | 75·4 | 78·0 | 72·0 | 74·9 | 82·5 | 75·7 | 78·3 | 84·8 | 77·6 | 81·7 | 85·2 | 78·4 | 82·2 | 96·4 | 88·1 | *92·3* |
| 24 | 80·1 | 71·8 | 76·2 | 74·9 | 70·8 | 72·3 | 83·2 | 75·4 | 79·2 | 84·8 | 76·4 | 80·2 | 85·2 | 81·4 | 83·2 | 92·9 | 84·2 | 88·8 |
| 25 | 80·7 | 77·4 | 79·5 | 73·9 | 69·8 | 71·7 | 85·9 | 80·2 | 82·7 | 80·8 | 76·3 | 79·0 | 85·2 | 79·9 | 82·2 | 88·9 | 81·8 | 85·9 |
| 26 | 79·1 | 75·0 | 77·2 | 74·5 | 69·1 | *71·6* | *88·1* | 82·1 | *84·5* | 81·1 | 78·0 | 79·6 | 85·0 | 82·0 | 83·3 | 89·0 | 85·4 | 86·5 |
| 27 | 77·6 | 72·4 | 74·8 | 74·4 | *68·7* | 71·8 | 87·1 | 79·5 | 83·3 | 81·1 | 78·6 | 80·1 | 84·9 | 82·0 | 83·3 | 88·9 | 83·4 | 86·5 |
| 28 | 79·9 | 75·7 | 77·8 | 75·8 | 69·1 | 72·4 | 86·2 | 76·5 | 81·9 | 80·2 | 77·1 | 79·0 | 86·3 | 81·8 | 83·9 | 91·1 | 83·6 | 87·2 |
| 29 | 80·2 | 75·0 | 77·1 | | | | 86·7 | 80·3 | 82·7 | 81·5 | 76·4 | 79·7 | 86·2 | 81·8 | 83·1 | 87·9 | 83·2 | 85·6 |
| 30 | 80·0 | 75·8 | 77·2 | | | | 83·5 | 78·4 | 81·4 | 81·4 | 77·1 | 79·8 | 86·5 | 81·6 | 83·2 | 92·0 | 84·6 | 88·2 |
| 31 | 79·2 | 72·6 | 76·4 | | | | 83·7 | 77·2 | 79·5 | | | | *88·6* | 82·9 | *85·0* | | | |
| Mean | 79·0 | 74·3 | 76·7 | 80·0 | 75·0 | 77·5 | 80·8 | 75·7 | 78·2 | 85·3 | 77·9 | 81·8 | 84·2 | 78·7 | 81·5 | 88·3 | 82·1 | 85·3 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | *degrees Absolute* | | | | | | | | | | | | | | | | | |
| 1 | 94·6 | *82·5* | 88·4 | 89·7 | 83·5 | 87·1 | 87·3 | 85·0 | 86·3 | 86·3 | 83·1 | 84·9 | 82·7 | 80·1 | 81·5 | 80·0 | 74·5 | 77·2 |
| 2 | 94·2 | 85·0 | 90·0 | *93·4* | 85·1 | 88·1 | 88·1 | 82·8 | 85·8 | 86·0 | 83·8 | 85·2 | 81·5 | 75·4 | 79·7 | 80·0 | 75·8 | 78·2 |
| 3 | 91·1 | 82·9 | 87·8 | 91·8 | 84·0 | 88·2 | 88·2 | 80·1 | 85·0 | *87·9* | 84·7 | *85·9* | 84·6 | 73·9 | 80·6 | 78·9 | 73·2 | 76·3 |
| 4 | 90·3 | 85·0 | 87·0 | 91·9 | 82·1 | 86·4 | 87·9 | 85·7 | 86·7 | 85·8 | 81·1 | 83·5 | *88·4* | 84·3 | 86·2 | 79·4 | 75·8 | 77·6 |
| 5 | 90·1 | 84·8 | 87·2 | 92·9 | 86·3 | *89·1* | 86·9 | 86·0 | 86·5 | 85·5 | 81·6 | 83·5 | 88·2 | 86·1 | *87·0* | 78·0 | 73·0 | 76·0 |
| 6 | 89·1 | 84·4 | 86·5 | 92·4 | 86·2 | 88·8 | 89·3 | 84·0 | 86·6 | 83·8 | 77·5 | 81·5 | 88·0 | 84·3 | 86·3 | 78·4 | 72·9 | 76·3 |
| 7 | 93·8 | 83·9 | 88·5 | 92·1 | 84·1 | 88·0 | 89·1 | 84·1 | 86·4 | 85·0 | 75·9 | 81·4 | 84·3 | 79·4 | 81·3 | 80·2 | *71·4* | 76·9 |
| 8 | 93·1 | 85·6 | 88·8 | 89·7 | 84·0 | 86·9 | 88·1 | 82·6 | 85·3 | 86·1 | 82·8 | 84·3 | 80·8 | 78·7 | 79·5 | 80·3 | 77·8 | 79·2 |
| 9 | 89·4 | 86·6 | 87·7 | 90·0 | 82·9 | 86·3 | 89·0 | 82·4 | 85·6 | 85·0 | 82·9 | 84·1 | 81·9 | 79·0 | 80·7 | 79·8 | 76·1 | 78·0 |
| 10 | 89·7 | 85·9 | 87·4 | 87·6 | 80·1 | 84·7 | 88·3 | 82·9 | 85·3 | 84·9 | 78·4 | 81·8 | 82·6 | 79·0 | 81·1 | 80·8 | 76·1 | 77·9 |
| 11 | *97·1* | 84·0 | 90·9 | 91·7 | 83·3 | 86·9 | 88·0 | 82·1 | 85·3 | 83·4 | 77·2 | 80·6 | 82·2 | 79·8 | 80·7 | 80·9 | 79·7 | 80·3 |
| 12 | 95·3 | 87·8 | *91·1* | 87·4 | 82·6 | 84·9 | 86·3 | 80·7 | 84·5 | 83·0 | 81·8 | 82·4 | 84·9 | 78·9 | 81·5 | 80·0 | 72·2 | 76·7 |
| 13 | 93·1 | 84·4 | 88·8 | 89·0 | 84·0 | 85·7 | 88·3 | 82·2 | 84·9 | 83·2 | 81·1 | 82·2 | 79·0 | 75·1 | 77·2 | 76·2 | *71·4* | *74·0* |
| 14 | 88·4 | 83·3 | 85·6 | 87·4 | 82·6 | 84·8 | 88·3 | 83·0 | 85·3 | 81·0 | 79·7 | 80·6 | 78·1 | 73·2 | 74·8 | 80·8 | 72·1 | 77·0 |
| 15 | 87·0 | 82·9 | *84·9* | 86·8 | 81·0 | *83·9* | 89·1 | 81·3 | 85·3 | 82·4 | 80·6 | 81·4 | 76·9 | *73·0* | *74·7* | 79·1 | 77·2 | 77·8 |
| 16 | 87·0 | 83·0 | 85·4 | 87·1 | 81·7 | 84·5 | 87·1 | 83·0 | 84·9 | 82·3 | 80·6 | 81·3 | 80·4 | 75·6 | 77·7 | 77·8 | 75·7 | 76·8 |
| 17 | 87·7 | 84·8 | 86·2 | 87·5 | 82·3 | 84·8 | 87·9 | 83·1 | 85·3 | 82·6 | 79·7 | 81·2 | 81·6 | 79·8 | 80·8 | 77·2 | 75·9 | 76·5 |
| 18 | 87·3 | 85·3 | 86·3 | 87·1 | 82·4 | 85·3 | 86·9 | 81·2 | 83·6 | 83·6 | 82·4 | 83·0 | 82·0 | 80·3 | 81·1 | 77·0 | 72·0 | 74·4 |
| 19 | 88·0 | 85·6 | 86·3 | 86·2 | 82·1 | 84·8 | 87·6 | 79·9 | 83·7 | 84·7 | 82·5 | 83·7 | 81·0 | 79·3 | 80·3 | 78·7 | 77·0 | 77·7 |
| 20 | 89·2 | 85·0 | 87·0 | 88·0 | 80·1 | 84·7 | 87·0 | *78·7* | *83·1* | 84·9 | 83·8 | 84·4 | 82·8 | 79·0 | 80·0 | 78·2 | 74·8 | 76·5 |
| 21 | 89·5 | 84·4 | 87·1 | 88·7 | 83·3 | 85·9 | 86·8 | 81·5 | 84·4 | 84·3 | 82·7 | 83·8 | 82·8 | 79·0 | 81·3 | 80·0 | 75·5 | 77·8 |
| 22 | 90·9 | 84·4 | 87·7 | 89·6 | 80·4 | 86·7 | *91·9* | 82·4 | 86·6 | 83·0 | 79·7 | 81·8 | 79·9 | 74·9 | 78·0 | *82·6* | 79·2 | *81·0* |
| 23 | 95·2 | 87·0 | 90·5 | 88·3 | *78·6* | 84·6 | 87·4 | 80·5 | 83·8 | 83·8 | 78·7 | 81·5 | 83·6 | 74·0 | 79·3 | 79·3 | 74·7 | 77·2 |
| 24 | 93·6 | 86·6 | 90·0 | 89·9 | 85·6 | 87·6 | 88·1 | 81·1 | 84·1 | 83·5 | 80·5 | 81·7 | 83·8 | 80·0 | 82·0 | 75·8 | 72·7 | 74·2 |
| 25 | 93·1 | 84·8 | 88·8 | 88·0 | 83·6 | 86·0 | 89·5 | 83·4 | 86·8 | 82·1 | 81·3 | 81·7 | 82·9 | 80·7 | 81·8 | 81·6 | 75·8 | 78·6 |
| 26 | 91·0 | 86·0 | 87·8 | 87·9 | 80·4 | 84·3 | 89·6 | 86·2 | 87·4 | 82·5 | 80·5 | 81·9 | 81·1 | 77·6 | 79·7 | 78·1 | 74·0 | 76·4 |
| 27 | 90·8 | 84·6 | 87·2 | 90·0 | 82·0 | 85·7 | 91·0 | 86·4 | *88·4* | 81·8 | 78·1 | 80·1 | 81·4 | 77·3 | 80·2 | 79·4 | 73·2 | 76·9 |
| 28 | 91·1 | 84·5 | 86·9 | 87·1 | 78·7 | 84·6 | 90·2 | 84·3 | 86·3 | 79·9 | 76·1 | *78·3* | 82·0 | 75·1 | 78·6 | 80·1 | 77·0 | 78·4 |
| 29 | 88·2 | 84·2 | 86·5 | 87·7 | 85·0 | 86·3 | 85·3 | 83·7 | 84·7 | 82·9 | 75·2 | 78·8 | 80·0 | 74·4 | 78·1 | 79·4 | 73·8 | 76·6 |
| 30 | 89·2 | 83·0 | 85·3 | 88·8 | 84·9 | 86·4 | 85·7 | 84·8 | 85·3 | 82·2 | *73·4* | 78·6 | 78·9 | 74·7 | 77·3 | 79·7 | 75·7 | 77·7 |
| 31 | 88·8 | 84·3 | 86·5 | 87·7 | 85·4 | 86·5 | | | | 83·7 | 80·2 | 82·3 | | | | 79·4 | 74·1 | 76·3 |
| Mean | 90·9 | 84·7 | 87·6 | 89·1 | 82·8 | 86·1 | 88·1 | 82·8 | 85·4 | 83·8 | 80·2 | 82·2 | 83·8 | 80·2 | 80·3 | 79·3 | 74·8 | 77·2 |
| | | | | | | | | | Annual | 84·3 | 78·9 | 81·6 | | | | | | |

## MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

73 ABERDEEN: North-wall screen on tower; $h_t$ = 12·5 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. |
| | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. |
| 1 | 73·4 | 6·1 | 75·9 | 7·2 | 69·0 | *4·2* | *95·5* | 8·5 | 77·8 | 7·6 | 80·7 | 10·2 | 68·1 | 11·9 | 71·5 | 11·5 | 94·7 | 14·5 | *99·3* | 13·8 | 75·1 | 8·3 | 81·4 | 6·7 |
| 2 | 72·7 | 5·2 | 79·6 | 7·4 | 77·6 | 4·3 | 67·3 | 9·9 | 71·5 | 7·8 | 81·5 | 10·4 | 74·7 | 14·5 | 74·6 | 12·8 | 86·4 | 12·8 | 98·1 | 13·9 | 85·5 | 8·4 | 73·4 | 6·5 |
| 3 | 80·5 | 5·2 | 83·2 | 7·5 | 78·9 | 5·8 | 63·3 | *10·0* | 82·9 | 9·1 | 72·5 | 9·9 | 68·6 | 11·6 | 67·7 | 11·7 | 87·3 | 12·2 | 94·1 | *14·0* | 92·6 | 9·7 | 78·6 | 6·1 |
| 4 | 82·4 | *8·9* | 70·2 | 6·3 | 85·3 | 7·0 | 64·9 | 9·7 | 80·1 | 9·3 | 81·5 | 10·7 | 88·1 | 14·1 | 82·9 | 12·7 | 95·5 | 15·0 | 72·3 | 9·2 | 91·1 | 13·8 | 84·6 | 7·2 |
| 5 | 70·4 | 6·9 | 80·5 | 6·9 | 78·9 | 6·5 | *53·9* | *5·5* | 64·4 | *6·0* | 73·7 | 10·9 | 69·4 | 11·2 | 84·3 | *15·4* | *97·3* | *15·1* | 73·8 | 9·4 | 91·0 | *14·5* | 88·0 | 6·7 |
| 6 | 78·1 | 7·1 | 81·4 | 7·3 | 68·8 | 5·6 | 54·4 | 6·1 | 74·8 | 7·7 | 53·6 | 7·9 | 72·4 | 11·2 | 81·3 | 14·6 | 90·0 | 14·0 | 75·5 | 8·4 | 90·4 | 13·8 | 79·5 | 6·2 |
| 7 | 83·5 | 6·8 | 73·1 | 7·4 | 86·4 | 5·9 | 64·5 | 9·4 | 74·0 | 9·0 | 66·6 | 9·2 | 74·1 | 13·1 | *65·7* | 11·2 | 84·4 | 13·0 | 77·4 | 8·5 | 81·6 | 8·9 | 76·9 | 6·2 |
| 8 | 81·1 | 7·5 | 72·0 | 6·6 | 79·2 | 5·3 | 58·0 | 6·2 | 74·4 | 7·7 | 79·0 | 10·9 | 83·6 | 15·0 | 70·6 | 11·2 | 90·0 | 12·9 | 82·0 | 11·0 | 79·0 | 7·6 | 77·9 | 7·4 |
| 9 | 83·7 | 8·4 | 74·5 | 6·1 | 83·6 | 6·6 | 68·9 | 5·8 | *63·2* | 6·9 | 85·0 | 11·6 | 77·5 | 13·0 | 71·2 | 10·9 | 68·3 | 10·0 | 71·0 | 9·4 | *74·8* | 7·9 | 83·8 | 7·3 |
| 10 | 73·6 | 6·9 | *63·1* | 7·1 | 75·4 | 6·2 | 62·9 | 5·7 | 79·9 | 8·3 | 90·6 | 11·3 | 80·7 | 13·2 | 78·5 | 10·8 | 77·3 | 11·1 | 86·0 | 9·7 | 78·5 | 8·5 | 88·0 | 7·6 |
| 11 | 79·4 | 7·5 | 75·9 | 7·1 | 74·2 | 6·1 | 64·8 | 8·5 | 73·9 | 8·3 | 75·7 | 9·4 | 71·4 | 14·6 | 71·9 | 11·4 | 86·9 | 12·4 | 84·6 | 8·8 | 81·1 | 8·5 | 78·8 | 8·1 |
| 12 | 78·0 | 6·2 | 76·4 | 6·3 | 83·7 | 7·0 | 65·0 | 9·0 | 68·0 | 7·4 | 78·7 | 9·8 | 69·5 | 14·4 | *93·5* | 13·0 | 88·6 | 12·0 | 82·0 | 9·7 | 75·1 | 8·3 | 83·5 | 6·7 |
| 13 | 78·2 | 5·2 | *86·6* | *9·4* | 72·8 | 5·6 | 73·4 | 9·2 | 74·1 | 6·7 | 75·7 | 8·9 | 79·2 | 14·2 | 81·5 | 12·0 | 76·9 | 10·7 | 78·4 | 9·1 | 79·5 | 6·6 | *90·2* | 5·9 |
| 14 | 70·6 | *4·5* | 78·6 | 8·2 | 69·1 | 4·9 | 66·6 | 9·7 | 74·5 | 6·4 | 68·4 | *7·8* | 78·6 | 11·5 | 84·0 | 11·6 | 78·7 | 11·3 | 76·1 | 8·0 | 82·5 | *5·7* | 86·4 | 7·0 |
| 15 | 76·9 | 4·6 | 81·4 | 7·7 | 64·6 | 4·4 | 62·8 | 9·3 | 69·1 | 6·3 | 67·2 | 8·1 | 79·1 | *11·0* | 73·8 | *9·6* | 65·2 | 9·3 | 76·1 | 8·4 | 87·1 | 6·0 | *61·4* | *5·3* |
| 16 | 80·7 | 4·6 | 71·5 | 7·7 | *61·3* | 4·5 | 72·0 | 8·3 | 77·7 | 7·7 | 80·9 | 10·9 | 91·7 | 13·2 | 78·4 | 10·6 | 72·4 | 10·1 | 74·6 | 8·2 | 90·6 | 7·7 | 66·6 | 5·3 |
| 17 | 81·6 | 4·6 | 68·3 | 7·6 | 83·8 | 6·5 | 68·9 | 7·6 | 81·6 | 8·5 | *91·2* | 12·2 | 90·5 | 13·7 | 82·3 | 11·4 | 71·4 | 10·2 | 66·6 | 7·2 | 84·5 | 8·9 | 81·2 | 6·4 |
| 18 | 66·5 | 5·7 | 77·2 | 9·1 | 91·3 | 9·9 | 68·7 | 6·7 | 84·9 | 9·2 | 80·1 | 10·4 | *93·7* | 14·3 | 77·7 | 11·1 | 77·8 | 9·9 | 69·5 | 8·5 | 86·2 | 9·3 | 85·5 | 5·8 |
| 19 | 75·5 | 6·5 | 70·0 | 6·5 | 78·1 | 9·9 | 63·8 | 7·6 | 78·6 | 8·8 | 74·3 | 9·9 | 93·3 | 14·2 | 87·6 | 12·1 | *60·9* | *7·8* | 75·7 | 9·7 | 83·0 | 8·5 | 87·4 | 7·5 |
| 20 | *90·9* | 6·6 | 76·4 | 5·6 | 84·2 | 9·2 | 62·7 | 7·4 | 89·4 | 9·4 | 71·4 | 10·0 | 86·9 | 13·9 | 79·7 | 11·0 | 68·1 | 8·4 | 86·4 | 11·6 | 80·3 | 8·0 | 80·0 | 6·3 |
| 21 | 80·1 | 6·1 | 74·1 | 4·9 | 67·0 | 7·0 | 66·7 | 6·7 | 93·3 | 10·4 | 71·1 | 10·7 | 76·0 | 12·2 | 90·6 | 13·5 | 72·0 | 9·7 | 81·7 | 10·6 | 88·2 | 9·7 | 83·8 | 7·2 |
| 22 | 73·8 | 6·3 | 82·9 | 6·1 | 81·4 | 7·5 | 69·1 | 8·3 | 76·6 | 9·9 | 75·8 | *15·5* | 81·0 | 13·6 | 74·6 | 11·7 | 72·1 | 11·3 | 78·0 | 8·8 | 76·1 | 6·6 | 81·8 | *8·8* |
| 23 | 83·6 | 6·1 | 80·5 | 5·6 | 69·9 | 6·2 | 56·8 | 6·4 | 86·6 | 10·1 | 67·1 | 15·0 | 82·1 | *16·4* | 81·2 | 11·1 | 62·0 | 8·1 | 84·6 | 9·4 | 83·7 | 8·0 | 76·4 | 6·3 |
| 24 | 83·5 | 6·4 | 79·5 | 4·6 | 68·2 | 6·5 | 54·8 | 5·6 | 83·0 | 10·3 | 73·9 | 13·3 | 67·9 | 13·2 | 87·4 | 14·5 | 66·9 | 8·8 | 76·3 | 8·6 | 89·5 | 10·3 | 80·6 | 5·4 |
| 25 | 88·4 | 8·6 | 72·7 | 4·0 | 67·0 | 8·1 | 76·9 | 7·2 | 82·7 | 9·6 | 70·9 | 10·5 | *63·9* | 11·5 | 87·4 | 13·1 | 79·7 | 12·6 | *55·1* | *6·2* | 85·5 | 9·7 | 84·1 | 7·7 |
| 26 | 90·5 | 7·5 | 68·7 | 3·7 | 81·3 | *11·0* | 91·0 | 8·9 | 93·2 | 11·7 | 85·9 | 13·3 | 80·1 | 13·5 | 90·9 | 12·2 | 88·0 | 14·4 | 58·8 | 6·7 | 84·6 | 8·3 | 78·0 | 6·1 |
| 27 | 83·5 | 5·8 | 67·3 | *3·7* | 77·1 | 9·7 | 80·4 | 8·1 | 92·6 | 11·6 | 77·6 | 12·0 | 84·4 | 13·7 | 79·3 | 11·6 | 85·8 | 15·0 | 73·0 | 7·4 | 87·9 | 8·9 | 78·8 | 6·4 |
| 28 | 83·2 | 7·2 | 78·7 | 4·6 | 74·2 | 8·5 | 64·6 | 6·0 | 93·1 | *12·1* | 64·4 | 10·4 | 81·2 | 12·9 | 92·3 | 12·6 | 95·7 | 14·6 | 71·5 | 6·4 | 93·4 | 8·5 | 80·1 | 7·2 |
| 29 | 70·5 | 5·8 | | | 80·9 | 9·7 | 77·5 | 7·6 | 95·8 | 11·8 | 80·3 | 11·7 | 73·8 | 11·4 | 92·0 | 14·1 | 95·4 | 13·1 | 78·5 | 7·2 | *97·1* | 8·6 | 85·4 | 6·8 |
| 30 | *61·7* | 5·1 | | | 91·7 | 10·1 | 75·7 | 7·5 | *97·3* | 12·1 | *50·7* | 8·8 | 85·6 | 12·2 | 88·6 | 13·6 | 94·1 | 13·5 | 82·0 | 7·5 | 88·7 | 7·4 | 77·6 | 6·6 |
| 31 | 76·8 | 6·0 | | | *93·7* | 9·1 | | | 81·3 | 11·4 | | | 75·0 | 11·6 | 92·0 | 14·2 | | | 78·0 | 9·1 | | | 84·6 | 6·6 |
| Mean* | 78·5 | 6·3 | 75·7 | 6·5 | 77·4 | 7·1 | 67·9 | 7·7 | 80·3 | 9·0 | 74·9 | 10·7 | 78·8 | 13·1 | 81·1 | 12·2 | 81·0 | 11·8 | 78·0 | 9·2 | 84·8 | 8·8 | 80·8 | 6·7 |

* Mean of the column.

## RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

74 ABERDEEN: $h_t$ = 12·5 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | per cent. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 79·3 | 78·9 | 79·2 | 79·9 | 80·1 | 81·3 | *81·5* | 80·9 | 79·9 | 79·6 | 78·0 | 75·9 | 74·5 | 74·6 | *74·3* | 75·6 | 76·3 | 77·8 | 78·6 | 79·2 | 79·8 | 79·5 | 79·3 | 79·8 | 79·7 | 78·5 |
| Feb. | 78·5 | 77·9 | 77·0 | 77·1 | 76·8 | 79·0 | 78·7 | *80·3* | 80·3 | 79·7 | 78·0 | 74·4 | 71·3 | 69·0 | 69·3 | *68·9* | 70·6 | 72·5 | 74·5 | 75·9 | 76·8 | 76·1 | 77·4 | 77·8 | 77·7 | 75·7 |
| Mar. | 80·2 | 80·6 | 80·9 | 80·6 | 80·9 | *81·5* | 81·2 | 80·2 | 79·3 | 77·3 | 75·0 | 74·0 | 72·3 | 71·9 | 71·7 | *71·3* | 72·2 | 72·1 | 75·5 | 78·8 | 79·4 | 79·9 | 80·3 | 79·7 | 81·0 | 77·4 |
| Apr. | 74·6 | 75·8 | *75·9* | 75·0 | 75·1 | 75·1 | 75·3 | 72·5 | 69·5 | 65·7 | 63·5 | 61·6 | 58·1 | 58·9 | *57·0* | 58·5 | 58·4 | 60·7 | 63·1 | 66·2 | 69·2 | 71·6 | 73·2 | 74·4 | 74·2 | 67·9 |
| May | 84·9 | 86·0 | 86·6 | 87·2 | 87·4 | *87·5* | 85·2 | 81·7 | 79·3 | 77·2 | 74·8 | 76·9 | 74·5 | *72·9* | 73·5 | 73·3 | *72·9* | 74·4 | 75·7 | 79·0 | 82·2 | 84·0 | 85·3 | 85·1 | 85·2 | 80·3 |
| June | 81·2 | 81·9 | 82·9 | *83·9* | 83·7 | 82·5 | 78·1 | 74·1 | 71·1 | 68·0 | 67·6 | 67·6 | *66·5* | 68·4 | 67·2 | 69·4 | 70·7 | 71·9 | 73·1 | 73·5 | 75·8 | 77·7 | 79·3 | 81·3 | 80·1 | 74·9 |
| July | 84·7 | 85·8 | 86·1 | 85·9 | *87·0* | 85·4 | 84·1 | 81·8 | 79·5 | 76·4 | 74·9 | 75·1 | 74·2 | 71·6 | *71·3* | 71·9 | *71·3* | 72·8 | 73·2 | 74·4 | 76·6 | 79·0 | 82·7 | 84·5 | 85·5 | 78·8 |
| Aug. | 87·1 | 86·9 | 87·1 | 87·8 | *88·7* | 88·6 | 87·1 | 84·4 | 81·7 | 78·0 | 76·2 | 74·4 | 74·5 | 74·6 | 73·4 | *72·8* | 73·8 | 75·4 | 76·3 | 78·6 | 82·3 | 85·4 | 85·7 | 86·4 | 87·4 | 81·1 |
| Sept. | 85·3 | *86·5* | 85·7 | 86·1 | 86·2 | 86·4 | 86·5 | 85·0 | 83·4 | 81·0 | 78·2 | 75·4 | 72·4 | *71·3* | 71·6 | 71·6 | 73·8 | 75·8 | 78·7 | 82·4 | 84·1 | 85·4 | 85·2 | 85·7 | 85·4 | 81·0 |
| Oct. | 80·3 | 80·5 | 80·7 | 81·0 | 81·5 | 81·9 | *82·8* | 82·0 | 81·2 | 78·8 | 77·5 | 76·0 | 74·6 | 73·2 | 73·4 | *72·9* | 74·0 | 74·3 | 75·8 | 77·4 | 77·3 | 78·3 | 77·7 | 78·5 | 79·1 | 78·0 |
| Nov. | 85·0 | 85·7 | 85·1 | 84·5 | 85·4 | 85·7 | 85·3 | 84·5 | 86·0 | *86·9* | 84·1 | 83·1 | *82·1* | 82·6 | 82·5 | 82·8 | 83·5 | 85·0 | 85·1 | 85·5 | 84·8 | 86·6 | 86·6 | 86·8 | 85·6 | 84·8 |
| Dec. | 82·6 | 82·7 | 82·8 | 82·2 | *83·4* | 82·1 | 82·6 | 82·3 | 81·3 | 80·7 | 79·9 | 79·5 | 77·5 | *77·4* | 77·9 | 78·9 | 79·2 | 79·6 | 79·3 | 79·8 | 80·5 | 81·2 | 82·1 | 83·4 | 82·6 | 80·8 |
| Annual | 82·0 | 82·4 | 82·5 | 82·6 | 83·0 | *83·1* | 82·4 | 80·8 | 79·4 | 77·4 | 75·6 | 74·5 | 72·7 | 72·2 | *71·9* | 72·3 | 73·1 | 74·4 | 75·7 | 77·6 | 79·1 | 80·4 | 81·2 | 82·0 | 82·0 | 78·3 |

## VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

75 ABERDEEN: $h_t$ = 12·5 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | millibars | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 6·2 | 6·1 | 6·1 | 6·1 | 6·1 | 6·1 | 6·2 | 6·1 | 6·0 | *6·0* | 6·1 | 6·2 | 6·3 | 6·4 | *6·5* | 6·5 | 6·4 | 6·4 | 6·4 | 6·4 | 6·4 | 6·4 | 6·3 | 6·3 | 6·2 | 6·2 |
| Feb. | 6·3 | 6·3 | 6·2 | 6·2 | *6·2* | 6·3 | 6·3 | 6·3 | 6·3 | 6·5 | *6·5* | 6·5 | 6·5 | 6·4 | 6·5 | 6·5 | 6·5 | 6·4 | 6·4 | 6·4 | 6·3 | 6·2 | 6·2 | 6·2 | 6·2 | 6·4 |
| Mar. | 6·9 | 6·7 | 6·6 | 6·5 | 6·6 | 6·5 | 6·5 | *6·5* | 6·7 | 6·8 | 6·9 | 7·0 | 7·1 | *7·2* | 7·1 | 7·1 | 7·1 | 7·0 | 7·1 | 7·1 | 7·0 | 6·9 | 6·9 | 6·8 | 6·9 | 6·9 |
| Apr. | 7·6 | 7·6 | 7·5 | 7·3 | 7·2 | *7·1* | 7·3 | 7·5 | 7·6 | 7·6 | 7·7 | 7·8 | 7·7 | 7·9 | 7·7 | 7·8 | 7·8 | 7·9 | *8·0* | 7·9 | 7·9 | 7·9 | 7·8 | 7·7 | 7·6 | 7·7 |
| May | 8·7 | 8·6 | 8·6 | 8·5 | *8·4* | 8·5 | 8·8 | 8·9 | 9·0 | 9·1 | 9·0 | *9·2* | 9·1 | 9·0 | 8·9 | 8·9 | 8·8 | 8·9 | 8·9 | 9·0 | 9·0 | 9·0 | 9·0 | 8·9 | 8·8 | 8·9 |
| June | 10·4 | 10·4 | 10·3 | 10·2 | *10·1* | 10·4 | 10·5 | 10·6 | 10·5 | 10·5 | 10·6 | 10·7 | 10·7 | 10·9 | 10·9 | 11·0 | *11·1* | 11·0 | 10·9 | 10·9 | 10·9 | 10·8 | 10·7 | 10·6 | 10·4 | 10·7 |
| July | 13·0 | 12·8 | 12·7 | *12·6* | 12·6 | 12·6 | 12·9 | 13·0 | 13·1 | 13·1 | 13·1 | 13·3 | 13·5 | 13·4 | 13·4 | *13·5* | 13·4 | 13·5 | 13·3 | 13·2 | 13·1 | 12·9 | 13·0 | 13·0 | 12·9 | 13·1 |
| Aug. | 11·9 | 11·7 | 11·5 | 11·4 | *11·3* | 11·4 | 11·6 | 11·7 | 12·1 | 12·2 | 12·3 | 12·4 | 12·7 | *12·8* | 12·6 | 12·5 | 12·6 | 12·7 | 12·7 | 12·6 | 12·6 | 12·6 | 12·3 | 12·1 | 12·0 | 12·2 |
| Sept. | 11·6 | 11·5 | 11·3 | 11·3 | 11·3 | *11·2* | 11·2 | 11·4 | 11·6 | 11·8 | 11·9 | 11·9 | 11·8 | 11·8 | 11·8 | 11·8 | 11·9 | 11·8 | 11·9 | *12·0* | 11·9 | 11·9 | 11·8 | 11·7 | 11·5 | 11·7 |
| Oct. | 9·0 | 9·0 | 9·0 | 8·9 | 8·9 | 8·9 | 9·0 | 8·9 | 9·0 | 9·1 | 9·2 | *9·3* | 9·3 | 9·3 | 9·3 | 9·2 | 9·2 | 9·1 | 9·1 | 9·1 | 9·0 | 9·0 | 8·9 | 8·9 | *8·9* | 9·1 |
| Nov. | 8·6 | 8·5 | 8·5 | 8·4 | 8·4 | 8·4 | *8·3* | 8·4 | 8·5 | 8·7 | 8·7 | 8·8 | 8·9 | 9·0 | *9·1* | 9·0 | 8·9 | 8·9 | 8·8 | 8·7 | 8·7 | 8·8 | 8·7 | 8·7 | 8·5 | 8·7 |
| Dec. | 6·7 | 6·7 | 6·7 | 6·6 | 6·5 | 6·5 | 6·4 | 6·4 | *6·4* | 6·4 | 6·5 | 6·7 | 6·7 | 6·8 | 6·8 | 6·8 | 6·7 | 6·7 | 6·7 | *6·7* | 6·7 | 6·7 | 6·8 | *6·8* | 6·8 | 6·6 |
| Annual | 8·6 | 8·6 | 8·5 | 8·4 | *8·4* | 8·4 | 8·5 | 8·6 | 8·7 | 8·8 | 8·8 | 8·9 | 8·9 | *9·0* | 9·0 | 9·0 | 9·0 | 9·0 | 8·9 | 8·9 | 8·9 | 8·9 | 8·8 | 8·7 | 8·6 | 8·8 |

* Mean of values, 1,2,.....23, ½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

76 ABERDEEN: $h_r$ (height of receiving surface above M.S.L.) = height of station above M.S.L. + height of receiving surface above ground = 24·1 m. + 0·6 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6·7 | 3·6 | 11 |
| 2 | ... | ... | ... | 1 6 | 1 5 | 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·0 | 0·9 | 12 |
| 3 | 0·8 | 0·6 | 9 | 0·7 | 0·4 | 12 | *6·5* | 8·6 | 11 | ... | ... | ... | ... | ... | ... | 1·3 | 1·3 | 18 |
| 4 | ... | ... | ... | ... | ... | ... | 3·7 | *9·2* | 1 | ... | ... | ... | 0·2 | 0·1 | 8 | 0·2 | 0·1 | 2 |
| 5 | ... | ... | ... | 0·2 | 0·4 | 1 | 0·6 | 1·0 | 1 | ... | ... | ... | 0·2 | 0·3 | 2 | 2·4 | 2·3 | 24 |
| 6 | ... | ... | ... | 4·1 | 2·9 | *14* | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·1 | 0·1 | 3 |
| 7 | ... | ... | ... | ... | ... | ... | 4·7 | 2·9 | 8 | 1·5 | 1·7 | 4 | ... | ... | ... | ... | ... | ... |
| 8 | 1·6 | 1·0 | 4 | 0·5 | 0·5 | 4 | 1·6 | 2·1 | 4 | 0·6 | 0·5 | 6 | ... | ... | ... | 1·2 | 1·6 | 5 |
| 9 | 3·3 | 6·0 | 2 | 2·1 | 2·4 | 10 | 0·4 | 0·4 | 2 | 0·4 | 0·4 | 6 | ... | ... | ... | 0·8 | 3·3 | 2 |
| 10 | 0·1 | 0·1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 10·0 | *13·6* | 20 |
| 11 | ... | ... | ... | 0·2 | 1·9 | ... | 0·5 | 0·4 | 3 | 0·4 | 0·7 | 4 | ... | ... | ... | 2·4 | 0·8 | 15 |
| 12 | 0·6 | 1·1 | 2 | ... | ... | ... | 4·3 | 8·4 | 7 | 0·2 | 0·2 | 6 | 0·5 | 0·2 | 13 | 2·0 | 0·9 | 34 |
| 13 | 0·3 | 0·4 | (2) | 0·2 | 0·3 | 2 | 0·5 | 1·7 | 2 | 0·8 | 1·5 | 2 | 0·7 | 0·8 | 3 | 0·8 | 1·1 | 2 |
| 14 | ... | ... | ... | ... | ... | ... | 1·3 | 1·4 | 6 | ... | ... | ... | 0·8 | 0·5 | 5 | ... | ... | ... |
| 15 | ... | ... | ... | ... | ... | ... | 0·5 | 0·6 | 2 | ... | ... | ... | 4·8 | 2·5 | 13 | ... | ... | ... |
| 16 | ... | ... | ... | 0·8 | 1·1 | 9 | ... | ... | ... | 0·8 | 0·7 | 2 | 3·3 | 2·0 | 17 | 0·5 | 2·5 | 1 |
| 17 | ... | ... | ... | ... | ... | ... | 3·4 | 3·2 | 3 | 0·3 | 0·4 | 1 | 2·9 | 1·4 | 48 | 8·5 | 10·4 | 4 |
| 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·2 | 0·2 | 2 | 0·2 | 0·3 | 4 | *14·9* | 1·9 | 62 |
| 19 | 2·2 | 2·5 | 11 | 2·5 | 2·5 | 3 | ... | ... | ... | ... | ... | ... | 0·6 | 0·6 | 2 | 3·5 | 1·5 | 18 |
| 20 | *7·0* | *9·9* | 10 | 2·9 | 3·1 | 6 | 0·3 | 1·1 | 1 | ... | ... | ... | 0·4 | 1·1 | 1 | 4·3 | 0·6 | *99* |
| 21 | ... | ... | ... | 0·4 | 0·7 | 1 | ... | ... | ... | 1·0 | 0·7 | *10* | 4·8 | 2·7 | 8 | ... | ... | ... |
| 22 | ... | ... | ... | *9·1* | *11·8* | 3 | 5·8 | 2·1 | *35* | 0·2 | 0·4 | 3 | ... | ... | ... | ... | ... | ... |
| 23 | 2·6 | 3·3 | 3 | 4·6 | 5·8 | 4 | 1·2 | 1·0 | 2 | 0·5 | 0·6 | 2 | ... | ... | ... | ... | ... | ... |
| 24 | 0·1 | 0·2 | ... | 5·6 | 4·6 | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 25 | 2·8 | 5·6 | 11 | ... | ... | ... | 0·7 | 1·4 | 3 | 0·5 | 2·8 | 1 | 0·5 | 0·5 | 8 | ... | ... | ... |
| 26 | 3·1 | 7·2 | 3 | ... | ... | ... | 0·7 | 1·9 | 1 | *2·0* | *6·8* | 3 | 8·1 | 2·8 | 30 | 7·7 | 1·9 | 34 |
| 27 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3·9 | 2·9 | 22 | 0·2 | 0·3 | 1 |
| 28 | 0·3 | 0·3 | 8 | 0·6 | 1·1 | 1 | ... | ... | ... | ... | ... | ... | 1·9 | 0·5 | 48 | 0·5 | 0·2 | 38 |
| 29 | ... | ... | ... | | | | ... | ... | ... | 0·1 | 0·1 | 5 | ... | ... | ... | 1·9 | 3·0 | 1 |
| 30 | ... | ... | ... | | | | ... | ... | ... | ... | ... | ... | *22·2* | *6·8* | *54* | ... | ... | ... |
| 31 | 3·5 | 1·6 | *18* | | | | ... | ... | ... | | | | 6·8 | 5·0 | 16 | | | |
| Total | 28·3 | 39·8 | - | 36·1 | 41·0 | - | 36·7 | 47·4 | - | 9·5 | 17·7 | - | 62·8 | 31·0 | - | 70·9 | 51·9 | - |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·7 | *4·1* | ... | 1·6 | 1·2 | 9 | 5·6 | 3·3 | 8 |
| 2 | ... | ... | ... | 2·7 | 1·9 | 12 | 4·8 | 1·6 | 31 | *2·9* | 1·8 | 16 | 1·0 | 0·6 | 2 | 1·3 | 1·1 | 5 |
| 3 | ... | ... | ... | 0·8 | 0·2 | 27 | 0·6 | 1·1 | 1 | 0·6 | 1·6 | 2 | ... | ... | ... | 1·9 | 1·2 | 10 |
| 4 | *25·1* | 5·3 | *82* | 2·8 | 2·3 | 5 | *13·2* | *9·8* | *44* | 1·7 | 2·9 | 6 | ... | ... | ... | 0·1 | 0·2 | 2 |
| 5 | ... | ... | ... | 0·4 | 0·7 | 1 | 9·7 | 4·7 | 34 | 0·1 | 0·1 | 5 | ... | ... | ... | 7·0 | 6·4 | 7 |
| 6 | 0·8 | 1·5 | 5 | 2·6 | 1·4 | 8 | 1·1 | 0·4 | 40 | ... | ... | ... | 6·9 | 1·3 | 25 | ... | ... | ... |
| 7 | ... | ... | ... | ... | ... | ... | 0·1 | 0·5 | ... | ... | ... | ... | 2·2 | 1·8 | 15 | 2·9 | 0·7 | 27 |
| 8 | ... | ... | ... | ... | ... | ... | 10·3 | 4·5 | 28 | ... | ... | ... | 0·8 | 1·4 | 2 | 9·8 | 4·0 | 30 |
| 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8·9 | 4·7 | 22 |
| 10 | ... | ... | ... | ... | ... | ... | 6·6 | 4·6 | 13 | ... | ... | ... | 0·1 | 0·1 | ... | 5·2 | 1·9 | 17 |
| 11 | ... | ... | ... | 3·2 | 1·6 | 23 | 10·7 | 5·7 | 14 | ... | ... | ... | 0·1 | 0·2 | ... | *13·9* | *9·4* | 10 |
| 12 | 0·1 | 0·3 | 1 | *14·8* | *10·2* | *49* | 6·3 | 3·8 | 15 | ... | ... | ... | 3·6 | 2·0 | 48 | 0·7 | 1·4 | 2 |
| 13 | 10·1 | 4·8 | 12 | 5·8 | 6·6 | 6 | 9·7 | 5·5 | 39 | ... | ... | ... | 3·2 | 2·9 | 9 | 0·7 | 0·5 | 5 |
| 14 | 10·4 | *11·9* | 20 | 7·6 | 3·1 | 24 | 6·0 | 4·1 | 5 | ... | ... | ... | 0·1 | 0·2 | ... | 3·3 | 3·4 | 14 |
| 15 | 0·3 | 1·7 | 1 | 0·1 | 0·1 | 1 | ... | ... | ... | ... | ... | ... | 4·8 | 3·8 | 7 | ... | ... | ... |
| 16 | 2·7 | 5·3 | 7 | 3·2 | 1·7 | 7 | ... | ... | ... | ... | ... | ... | 10·4 | 7·5 | 15 | 0·2 | 0·1 | 1 |
| 17 | 8·1 | 2·8 | 12 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 13·3 | *10·6* | 29 | 0·1 | 0·1 | ... |
| 18 | 9·2 | 3·8 | 36 | ... | ... | ... | 1·8 | 0·6 | 28 | ... | ... | ... | 14·0 | 9·9 | 47 | ... | ... | ... |
| 19 | 8·6 | 2·9 | 68 | 7·8 | 7·0 | 13 | ... | ... | ... | ... | ... | ... | 8·0 | 8·0 | 21 | 1·1 | 2·2 | 1 |
| 20 | 9·9 | 4·7 | 17 | ... | ... | ... | ... | ... | ... | ... | ... | ... | *20·7* | 8·7 | 26 | ... | ... | ... |
| 21 | ... | ... | ... | ... | ... | ... | 0·8 | 1·1 | 4 | 0·1 | 0·2 | ... | 4·2 | 2·6 | 7 | 0·5 | 1·0 | 1 |
| 22 | 1·8 | 1·1 | 12 | 0·5 | 0·2 | 15 | 3·5 | 2·9 | 10 | ... | ... | ... | 0·1 | 0·3 | ... | ... | ... | ... |
| 23 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·5 | 2·2 | 10 | 4·0 | 6·4 | 4 | ... | ... | ... |
| 24 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·1 | 0·6 | *102* | 5·6 | 2·2 | *68* | ... | ... | ... |
| 25 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14·2 | 6·6 | 25 | 3·2 | 5·8 | 5 |
| 26 | 0·5 | 1·5 | 12 | ... | ... | ... | 0·3 | 0·7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 27 | 6·7 | 2·9 | 58 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 16·2 | 8·4 | 42 | ... | ... | ... |
| 28 | 2·1 | 2·5 | 52 | 12·0 | 4·7 | 23 | ... | ... | ... | 2·1 | 1·1 | 11 | 12·5 | 8·5 | 8 | 0·8 | 0·7 | 6 |
| 29 | 2·9 | 1·0 | 52 | 11·8 | 3·8 | 40 | 0·4 | 0·6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 30 | 3·7 | 2·6 | 9 | 0·1 | 0·1 | ... | 6·4 | 6·1 | 9 | ... | ... | ... | 4·3 | 4·2 | 3 | ... | ... | ... |
| 31 | 1·1 | 0·6 | 7 | ... | ... | ... | | | | 0·6 | 0·5 | 2 | | | | 5·5 | 5·2 | 5 |
| Total | 104·1 | 57·2 | - | 76·2 | 45·6 | - | 92·3 | 58·3 | - | 14·4 | 15·1 | - | 151·9 | 99·4 | - | 72·7 | 53·3 | - |

## RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

77 ABERDEEN: $h_r$ = 24·1 m. + 0·6 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millimetres* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 0·6 | 0·9 | 0·8 | 0·7 | 2·1 | 2·5 | 2·2 | 0·6 | 0·5 | 0·4 | 0·9 | 1·2 | 1·3 | 1·9 | 1·4 | 0·2 | 0·9 | 0·5 | 1·5 | 1·7 | 0·8 | 0·3 | 1·6 | *2·8* | 28·3 |
| Feb. | 0·6 | 0·2 | 0·7 | 0·5 | 2·7 | 1·2 | 1·6 | 1·2 | *4·3* | 4·0 | 2·8 | 0·7 | 0·6 | 1·1 | 0·7 | 0·3 | 0·9 | 0·7 | 1·5 | 2·3 | 1·1 | 2·8 | 2·2 | 1·4 | 36·1 |
| Mar. | 0·9 | 0·5 | 0·9 | 0·9 | 1·0 | 1·3 | 0·4 | 2·4 | 1·6 | 0·5 | 1·2 | 1·9 | 0·9 | 1·5 | 1·6 | 2·7 | 2·3 | *5·4* | 1·7 | 1·8 | 1·6 | 1·9 | 0·9 | 0·9 | 36·7 |
| Apr. | 0·1 | 0·7 | 0·3 | 0·1 | 0·1 | 0·3 | 0·4 | 0·5 | 0·7 | 0·7 | 0·4 | 0·5 | 0·7 | 0·1 | ··· | 0·3 | 0·7 | 0·4 | *1·4* | 0·1 | ··· | 0·3 | 0·6 | 0·1 | 9·5 |
| May | 3·7 | 0·8 | 1·4 | 1·0 | 4·4 | 5·1 | 6·6 | 2·3 | 3·6 | 1·9 | 1·6 | 0·9 | ··· | 0·5 | 0·2 | 0·1 | ··· | 0·6 | ··· | 0·8 | 1·5 | 4·6 | 10·0 | *11·2* | 62·8 |
| June | 0·6 | 0·8 | 2·2 | 3·8 | 3·3 | 0·9 | 1·1 | 2·0 | 1·0 | 0·6 | 5·9 | 5·5 | 3·3 | 3·7 | *12·5* | 5·2 | 9·1 | 4·7 | 1·0 | 0·4 | 1·0 | 1·5 | 0·2 | 0·6 | 70·9 |
| July | 2·1 | 1·5 | 2·1 | 1·4 | 3·1 | 8·2 | *16·5* | 9·8 | 4·0 | 3·9 | 4·4 | 6·0 | 3·4 | 2·1 | 1·1 | 5·4 | 1·7 | 1·7 | 4·5 | 1·5 | 6·1 | 3·6 | 3·1 | 6·9 | 104·1 |
| Aug. | 2·3 | 1·6 | 9·0 | 1·8 | 4·3 | 2·1 | 3·4 | 2·6 | 2·7 | 1·6 | 0·9 | 4·2 | 5·7 | *9·9* | 4·0 | 7·7 | 0·8 | 2·3 | 1·5 | 2·4 | 0·8 | 1·0 | 1·4 | 2·2 | 76·2 |
| Sept. | 3·1 | 1·3 | 4·8 | 3·9 | 7·8 | 5·0 | 2·1 | 0·9 | 4·0 | 3·4 | 3·0 | 0·2 | 3·5 | 2·8 | 1·8 | 7·3 | 3·6 | 3·3 | 3·5 | *8·6* | 6·3 | 4·0 | 3·8 | 4·3 | 92·3 |
| Oct. | 1·5 | *3·0* | 0·8 | 0·2 | 0·7 | 0·9 | 0·5 | 1·6 | 0·2 | 0·5 | 0·2 | ··· | 0·1 | ··· | ··· | ··· | ··· | 1·8 | 0·4 | 1·3 | 0·6 | 0·1 | ··· | ··· | 14·4 |
| Nov. | 4·6 | 6·1 | 6·1 | 6·0 | 2·7 | 4·5 | 0·8 | 0·8 | 2·1 | 5·8 | 6·1 | 3·5 | 4·7 | 8·5 | 6·2 | 12·4 | 6·8 | 7·1 | 11·2 | 8·8 | 9·1 | *12·7* | 6·5 | 8·8 | 151·9 |
| Dec. | 1·2 | 3·5 | 0·9 | 4·9 | 3·2 | 3·5 | 2·4 | 3·8 | 0·6 | 1·6 | 2·0 | 3·1 | 1·0 | 2·0 | 1·8 | 2·7 | 3·3 | *7·0* | 4·4 | 4·6 | 5·1 | 5·5 | 1·8 | 2·8 | 72·7 |
| Annual | 21·3 | *20·9* | 30·0 | 25·2 | 35·4 | 35·5 | 38·0 | 28·5 | 25·3 | 24·9 | 29·4 | 27·7 | 25·2 | 34·1 | 31·3 | *44·3* | 30·1 | 35·5 | 32·6 | 34·3 | 34·0 | 38·3 | 32·1 | 42·0 | 755·9 |

## RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours, G.M.T.

78 ABERDEEN: $h_r$ = 24·1 m. + 0·6 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 1·0 | 1·2 | 1·3 | 1·4 | 3·3 | *3·4* | 2·8 | 1·9 | 1·5 | 1·0 | 1·5 | 1·3 | 0·9 | 2·0 | 1·5 | 0·5 | 0·8 | 1·5 | 2·3 | 2·0 | 2·0 | 1·0 | 2·0 | 1·7 | 39·8 |
| Feb. | 1·0 | 0·2 | 1·1 | 0·5 | 2·7 | 2·0 | 2·5 | 1·7 | 2·9 | *2·9* | *2·9* | 1·0 | 1·2 | 1·6 | 1·7 | 0·4 | 1·4 | 1·3 | 1·7 | 2·0 | 1·6 | 2·6 | 1·9 | 2·2 | 41·0 |
| Mar. | 1·6 | 1·1 | 1·3 | 1·8 | 2·3 | 2·5 | 1·5 | 2·6 | *2·6* | 2·0 | 2·5 | 2·4 | 2·6 | 0·8 | 2·3 | *3·2* | 2·3 | 1·8 | 2·8 | 1·9 | 2·0 | 1·2 | 1·0 | 1·3 | 47·4 |
| Apr. | 1·0 | 1·2 | 0·6 | 0·1 | 0·1 | 0·4 | 0·3 | 0·6 | 0·8 | 0·6 | 0·7 | 0·9 | 1·3 | 0·1 | ··· | 0·5 | 1·3 | 0·8 | 2·2 | 1·0 | ··· | 1·0 | 1·2 | 1·0 | 17·7 |
| May | 1·1 | 1·0 | 2·0 | 1·8 | 2·7 | *3·1* | 2·0 | 2·1 | 2·2 | 1·3 | 0·9 | 0·6 | ··· | 0·6 | 0·5 | 0·1 | ··· | 0·6 | ··· | 0·6 | 1·0 | 1·7 | 2·4 | 2·7 | 31·0 |
| June | 1·9 | 1·8 | 2·7 | 2·9 | 3·2 | 1·0 | 1·0 | 2·0 | 1·8 | 1·3 | 1·1 | 2·6 | 2·0 | 3·1 | 3·4 | 2·7 | *3·8* | 2·6 | 1·6 | 0·5 | 2·8 | 3·5 | 1·4 | 1·2 | 51·9 |
| July | 2·1 | 2·5 | 2·7 | 1·5 | 2·8 | 3·2 | 4·0 | 2·9 | 2·5 | 1·9 | 2·7 | 2·7 | 1·4 | 0·9 | 0·8 | 1·9 | 1·7 | 0·7 | 2·4 | 2·1 | 2·7 | *4·1* | 3·4 | 3·6 | 57·2 |
| Aug. | 2·2 | 1·3 | 1·7 | 2·5 | 2·6 | 1·9 | 2·3 | 2·8 | 2·7 | 1·9 | 0·8 | 1·9 | 2·3 | 2·6 | 2·2 | *3·1* | 0·9 | 1·4 | 1·7 | 1·6 | 1·0 | 1·0 | 1·5 | 1·7 | 45·6 |
| Sept. | 2·6 | 1·7 | 3·0 | 3·0 | 3·5 | 2·0 | 1·5 | 2·2 | 2·5 | 1·3 | 1·2 | 0·3 | 0·5 | 1·9 | 1·6 | 2·0 | 1·9 | 3·1 | 3·5 | *4·9* | 3·7 | 2·5 | 3·4 | 4·5 | 58·3 |
| Oct. | 1·4 | *1·9* | 1·6 | 0·4 | 1·0 | 0·9 | 1·3 | 0·9 | 0·3 | 1·1 | 0·6 | ··· | 0·1 | ··· | ··· | ··· | ··· | 0·5 | 0·3 | 1·1 | 1·3 | 0·4 | ··· | ··· | 15·1 |
| Nov. | 2·8 | 4·0 | 3·8 | 2·8 | 1·8 | 3·0 | 2·0 | 1·2 | 2·6 | 4·1 | 4·8 | 3·7 | 3·8 | 5·5 | 5·6 | 5·3 | 4·8 | 4·9 | 5·8 | 5·6 | 5·8 | *7·6* | 4·9 | 3·2 | 99·4 |
| Dec. | 0·8 | 1·5 | 1·4 | 2·4 | 3·0 | 1·7 | 1·8 | 2·1 | 0·2 | 1·8 | 2·4 | 2·5 | 1·5 | 1·8 | 1·7 | 1·6 | 2·1 | 3·7 | 3·6 | 3·3 | 4·0 | *4·7* | 2·3 | 1·4 | 53·3 |
| Annual | 19·5 | 19·4 | 23·2 | 21·1 | 29·0 | 25·1 | 23·0 | 23·0 | 22·6 | 21·2 | 22·1 | 19·9 | *17·6* | 20·9 | 21·3 | 21·3 | 21·0 | 22·9 | 27·9 | 26·6 | 27·9 | *31·3* | 25·4 | 24·5 | 557·7 |

## NOTES ON RAINFALL

79 ABERDEEN

**Dry Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more
"Absolute drought": October 5–22
"Partial drought": No occasions
"Dry spells": April 27–May 14; October 5–22

**Wet Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more
"Rain spells": No occasions
"wet spells": No occasions

**Rainfall Duration**

| Hours | 0·1–1·0 | 1·1–2·0 | 2·1–6·0 | 6·1–12·0 | >12·0 |
|---|---|---|---|---|---|
| Number of days | 73 | 45 | 62 | 26 | 1 |

**Continuous or Heavy Falls**

On the night of May 30–31 a fall of 25 mm. was recorded: of this amount, 14 mm. fell in 2hr. On July 4, 22 mm. fell in 3hr. 30m.

**Heavy Falls in short periods**

On July 4, 3 mm. fell in 2m.

**Rate of Rainfall (Jardi recorder)**

The highest instantaneous rate of rainfall was 102 mm./hr. on October 24.

80 ABERDEEN: $h_s$ (height of recorder above ground) + 20·7 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible |
| | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % |
| 1 | ··· | ··· | 3·2 | 39 | 7·5 | 71 | 2·9 | 22 | 0·5 | 3 | 5·5 | 32 | 11·1 | 63 | 5·5 | 34 | 1·8 | 13 | ··· | ··· | 0·1 | 1 | 3·8 | 54 |
| 2 | ··· | ··· | 0·3 | 4 | 6·7 | 63 | 6·3 | 48 | 2·4 | 15 | 3·3 | 19 | 4·0 | 23 | 7·3 | 45 | 3·3 | 24 | ··· | ··· | 1·1 | 12 | ··· | ··· |
| 3 | ··· | ··· | 0·2 | 2 | ··· | ··· | 6·1 | 46 | 0·1 | 1 | 6·8 | 39 | *12·4* | 70 | 9·3 | 58 | 6·9 | 50 | 0·8 | 7 | ··· | ··· | 3·3 | 47 |
| 4 | ··· | ··· | ··· | ··· | ··· | ··· | 5·1 | 38 | 0·3 | 2 | 0·5 | 3 | 4·1 | 23 | 1·9 | 12 | 0·1 | 1 | 3·4 | 30 | 3·2 | 36 | 3·5 | 50 |
| 5 | 2·4 | 35 | 6·0 | 70 | ··· | ··· | 9·1 | 68 | 1·4 | 9 | 6·2 | 35 | 2·6 | 15 | 7·1 | 44 | ··· | ··· | 1·7 | 15 | ··· | ··· | ··· | ··· |
| 6 | 3·6 | 52 | 2·2 | 25 | 5·8 | 53 | 7·0 | 52 | 8·1 | 51 | 9·4 | 53 | 4·7 | 27 | 3·4 | 21 | 4·0 | 30 | 1·8 | 16 | 0·5 | 6 | *5·2* | *75* |
| 7 | 2·8 | 41 | 4·1 | 47 | 5·1 | 46 | 2·6 | 19 | 8·6 | 54 | 4·3 | 24 | 1·9 | 11 | *11·8* | *75* | 6·8 | 50 | 3·0 | 27 | 3·0 | 35 | 0·4 | 6 |
| 8 | 0·1 | 1 | ··· | ··· | 5·3 | 48 | 6·4 | 47 | 14·3 | *90* | 4·3 | 24 | 2·4 | 14 | 8·6 | 55 | 0·4 | 3 | 5·0 | 45 | 0·1 | 1 | 0·1 | 1 |
| 9 | ··· | ··· | 6·2 | 70 | 2·7 | 24 | 4·7 | 34 | 14·0 | 87 | 6·5 | 37 | 6·1 | 35 | 7·5 | 48 | 7·0 | 53 | 5·4 | 50 | ··· | ··· | ··· | ··· |
| 10 | *5·9* | *84* | 4·4 | 49 | 8·5 | *75* | 0·1 | 1 | 7·9 | 49 | 1·0 | 6 | 1·0 | 6 | 6·0 | 38 | 1·7 | 13 | 9·2 | 85 | 0·7 | 8 | ··· | ··· |
| 11 | 0·7 | 10 | ··· | ··· | ··· | ··· | 0·1 | 1 | 2·3 | 14 | 4·7 | 27 | 12·3 | *71* | 7·5 | 48 | 1·9 | 15 | *9·5* | *89* | 3·1 | 37 | ··· | ··· |
| 12 | 3·8 | 54 | ··· | ··· | 0·1 | 1 | 2·8 | 20 | 7·0 | 43 | 5·9 | 33 | 4·6 | 26 | 0·0 | 0 | 0·9 | 7 | ··· | ··· | 1·5 | 18 | 4·7 | 70 |
| 13 | 1·0 | 14 | ··· | ··· | ··· | ··· | 1·2 | 9 | 4·0 | 25 | 6·0 | 34 | 0·5 | 3 | 6·2 | 40 | 4·6 | 35 | ··· | ··· | 3·0 | 37 | ··· | ··· |
| 14 | 4·8 | 67 | 1·4 | 15 | 0·8 | 7 | *13·1* | *93* | 10·5 | 64 | 4·9 | 28 | 5·4 | 31 | 1·3 | 8 | 2·4 | 19 | ··· | ··· | *5·8* | *72* | ··· | ··· |
| 15 | 4·1 | 56 | 7·4 | 79 | 2·9 | 25 | 10·3 | 73 | 7·7 | 47 | 3·5 | 20 | 10·5 | 61 | 8·1 | 53 | 8·9 | 70 | ··· | ··· | 2·7 | 34 | ··· | ··· |
| 16 | 3·0 | 41 | 2·1 | 22 | 1·0 | 9 | 7·2 | 50 | 5·9 | 36 | 1·6 | 9 | 0·0 | 0 | 2·2 | 14 | 0·9 | 7 | ··· | ··· | ··· | ··· | ··· | ··· |
| 17 | ··· | ··· | 3·7 | 39 | ··· | ··· | 3·4 | 24 | 6·2 | 38 | 0·3 | 2 | 2·6 | 15 | 3·1 | 21 | 7·2 | 57 | ··· | ··· | ··· | ··· | ··· | ··· |
| 18 | ··· | ··· | 0·5 | 5 | ··· | ··· | 7·0 | 49 | 8·5 | 51 | 2·6 | 15 | 4·0 | 23 | 1·0 | 7 | 3·3 | 26 | ··· | ··· | ··· | ··· | ··· | ··· |
| 19 | ··· | ··· | 3·8 | 39 | 2·3 | 19 | 6·7 | 46 | 12·3 | 74 | 4·1 | 23 | 0·5 | 3 | 0·5 | 3 | 8·7 | 70 | ··· | ··· | ··· | ··· | ··· | ··· |
| 20 | ··· | ··· | 2·1 | 21 | 0·5 | 4 | 0·2 | 1 | ··· | ··· | 1·4 | 8 | 1·2 | 7 | 3·0 | 20 | 7·7 | 62 | ··· | ··· | ··· | ··· | 2·1 | 3·2 |
| 21 | 3·6 | 47 | 4·7 | 47 | *8·6* | 71 | 7·2 | 49 | 1·4 | 8 | 6·6 | 37 | 1·2 | 7 | 1·8 | 12 | 0·1 | 1 | ··· | ··· | 2·7 | 35 | ··· | ··· |
| 22 | ··· | ··· | ··· | ··· | 2·1 | 17 | 1·0 | 7 | 13·5 | 80 | *11·1* | *62* | 1·4 | 8 | 3·5 | 24 | 6·9 | 56 | ··· | ··· | 1·4 | 18 | ··· | ··· |
| 23 | ··· | ··· | 2·3 | 23 | 3·7 | 30 | 4·7 | 32 | 7·8 | 46 | 9·2 | 52 | 7·0 | 42 | 7·6 | 52 | *10·7* | *88* | ··· | ··· | ··· | ··· | ··· | ··· |
| 24 | ··· | ··· | 4·7 | 47 | 2·7 | 22 | 6·6 | 44 | *14·8* | 87 | 3·9 | 22 | 10·3 | 62 | 1·4 | 10 | 3·7 | 31 | 2·0 | 21 | 2·0 | 27 | 1·2 | 18 |
| 25 | 0·2 | 3 | 8·9 | 87 | 0·3 | 2 | 6·0 | 40 | 10·1 | 59 | 5·6 | 31 | 9·9 | 59 | 2·1 | 14 | 5·5 | 46 | ··· | ··· | ··· | ··· | ··· | ··· |
| 26 | ··· | ··· | *9·2* | *89* | 1·5 | 12 | ··· | ··· | 4·6 | 27 | 0·5 | 3 | 2·4 | 14 | 8·6 | 60 | 0·5 | 4 | ··· | ··· | 0·6 | 8 | 4·7 | 71 |
| 27 | 5·8 | 73 | 8·9 | 86 | 8·4 | 67 | ··· | ··· | ··· | ··· | 4·4 | 25 | 1·2 | 7 | 6·8 | 48 | 1·3 | 11 | 1·7 | 18 | ··· | ··· | 4·9 | 74 |
| 28 | ··· | ··· | 7·6 | 73 | 5·7 | 45 | 1·4 | 9 | 8·3 | 48 | 9·0 | 51 | 2·7 | 16 | 0·8 | 6 | 4·2 | 36 | 0·4 | 4 | ··· | ··· | 1·9 | 29 |
| 29 | 4·3 | 53 | | | 1·4 | 11 | 1·4 | 9 | 2·9 | 17 | 1·6 | 9 | 4·7 | 29 | 0·7 | 5 | 0·6 | 5 | 6·1 | 66 | ··· | ··· | ··· | ··· |
| 30 | 3·6 | 44 | | | ··· | ··· | 1·3 | 8 | 0·5 | 3 | 10·8 | 61 | 1·7 | 10 | 4·3 | 30 | ··· | ··· | 4·9 | 53 | ··· | ··· | 2·1 | 32 |
| 31 | 2·7 | 33 | | | 7·2 | 55 | | | 9·3 | 54 | | | 2·8 | 17 | 3·1 | 22 | | | 2·5 | 27 | | | 0·1 | 1 |
| Mean | 1·69 | 23 | 3·35 | 36 | 2·93 | 25 | 4·40 | 31 | 6·30 | 38 | 4·85 | 27 | 4·43 | 26 | 4·58 | 30 | 3·73 | 29 | 1·85 | 18 | 1·05 | 13 | 1·23 | 18 |
| | | | | | | | | | | | Annual mean | | 3·36 | | | | | | | | | | | |

## DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

81 ABERDEEN: $h_s$ = 20·7 m.

| | 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 | per cent. of possible |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | % |
| Jan. | – | – | – | – | ··· | 0·8 | 5·5 | 8·6 | *11·9* | 10·9 | 9·8 | 4·8 | 0·1 | ··· | – | – | – | – | 52·4 | 23 |
| Feb. | – | – | – | ··· | 2·1 | 6·7 | 10·1 | 13·1 | *14·1* | 11·9 | 12·7 | 12·2 | 8·3 | 2·7 | ··· | – | – | – | 93·9 | 36 |
| Mar. | – | – | ··· | 0·4 | 3·9 | 7·1 | 9·8 | 10·9 | 11·5 | *12·9* | 10·5 | 10·5 | 7·4 | 4·8 | 1·1 | ··· | – | – | 90·8 | 25 |
| Apr. | – | ··· | 3·1 | 9·4 | 10·6 | 12·8 | 11·3 | *15·1* | 13·5 | 12·5 | 12·1 | 11·5 | 8·0 | 5·8 | 4·8 | 1·4 | ··· | – | 131·9 | 31 |
| May | ··· | 1·9 | 11·3 | 12·7 | 12·8 | 14·4 | 15·5 | 13·0 | 15·9 | *17·4* | 16·5 | 17·3 | 14·7 | 12·2 | 9·4 | 7·6 | 2·6 | ··· | 195·2 | 38 |
| June | 0·5 | 5·7 | 9·4 | 11·2 | 12·1 | *13·6* | 11·8 | 11·7 | 7·3 | 8·9 | 11·1 | 8·6 | 9·8 | 8·7 | 5·4 | 6·1 | 3·0 | 0·6 | 145·5 | 27 |
| July | 0·1 | 3·7 | 5·2 | 5·3 | 6·3 | 6·9 | 9·6 | 11·1 | 12·6 | *13·9* | 11·4 | 12·7 | 11·4 | 9·2 | 7·8 | 5·9 | 3·9 | 0·2 | 137·2 | 26 |
| Aug. | ··· | 1·6 | 5·9 | 7·9 | 10·2 | *12·6* | 10·9 | 10·5 | 12·2 | 12·4 | 11·4 | 11·4 | *12·6* | 9·6 | 7·7 | 4·2 | 0·9 | ··· | 142·0 | 30 |
| Sept. | – | – | ··· | 3·5 | 6·9 | 6·9 | 9·4 | 11·9 | 12·1 | 12·1 | *13·6* | 13·0 | 10·6 | 8·5 | 3·5 | ··· | – | – | 112·0 | 29 |
| Oct. | – | – | – | 0·1 | 2·5 | 4·3 | 7·2 | 6·6 | 8·2 | *8·4* | 7·5 | 6·1 | 4·6 | 1·8 | 0·1 | – | – | – | 57·4 | 18 |
| Nov. | – | – | – | – | ··· | ··· | 3·1 | *6·8* | *6·8* | 5·5 | 5·1 | 3·1 | 1·1 | ··· | – | – | – | – | 31·5 | 13 |
| Dec. | – | – | – | – | – | ··· | 2·1 | 8·5 | *8·6* | 8·3 | 7·5 | 3·0 | ··· | – | – | – | – | – | 38·0 | 18 |
| Annual | 0·6 | 12·9 | 34·9 | 50·5 | 67·4 | 86·1 | 106·3 | 127·8 | 134·7 | *135·1* | 129·2 | 114·2 | 88·6 | 63·3 | 39·8 | 25·2 | 10·4 | 0·8 | 1227·8 | 27 |

## WIND

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

82 ABERDEEN: $h_a$ (height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 24 m. + 13 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust |
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4·6 | 14 | 5·4 | 20 | 1·9 | 7 | *1·0* | 7 | 1·4 | 6 | 3·3 | 12 | 3·1 | 12 | 2·2 | 8 | 1·8 | 6 | 1·1 | 5 | 3·7 | 14 | 2·4 | 17 |
| 2 | 2·7 | 11 | 4·7 | 18 | 1·7 | 6 | 1·6 | 9 | 1·6 | 7 | 1·7 | 8 | 3·5 | 16 | 3·9 | 17 | 1·5 | 5 | 2·4 | 9 | 1·2 | 11 | 5·4 | *23* |
| 3 | 5·4 | 23 | 2·9 | 14 | 4·1 | 14 | 2·3 | 10 | 0·6 | 5 | 3·6 | 14 | 2·1 | 9 | 3·5 | 15 | 2·5 | 12 | 2·3 | 8 | 2·0 | 10 | 3·5 | 14 |
| 4 | 6·7 | 22 | 2·7 | 13 | 4·4 | 13 | 3·9 | 17 | 2·5 | 10 | 3·5 | 16 | 3·0 | 14 | 2·2 | 11 | 4·8 | 13 | 2·8 | 14 | 3·2 | 15 | 5·0 | 13 |
| 5 | 3·1 | 13 | 2·6 | 13 | 3·0 | 13 | 4·9 | 20 | 5·0 | 17 | *7·0* | *23* | 3·4 | 14 | 2·7 | 10 | 3·7 | 14 | 4·2 | 13 | 1·8 | 9 | 1·8 | 9 |
| 6 | 2·7 | 11 | 2·6 | 14 | 2·2 | 11 | 3·4 | 13 | 2·9 | 11 | 5·0 | 16 | 4·5 | *19* | 2·9 | 12 | 1·7 | 8 | 3·1 | 13 | 1·1 | 11 | 2·2 | 8 |
| 7 | 1·8 | 9 | 5·0 | 24 | 2·9 | 9 | 4·2 | 19 | 3·7 | 16 | 2·3 | 10 | 1·3 | 6 | 3·4 | 12 | 2·0 | 8 | 2·4 | 9 | 5·3 | 17 | 3·5 | 17 |
| 8 | 6·0 | *25* | 5·9 | 23 | 1·9 | 9 | *7·0* | 24 | 2·4 | 9 | 2·3 | 10 | *0·6* | 5 | 3·1 | 12 | 1·0 | 7 | 2·9 | 10 | 4·8 | 18 | 6·3 | 21 |
| 9 | 6·4 | 21 | 5·8 | 22 | 2·7 | 9 | 4·8 | 17 | 2·2 | 7 | 1·9 | 9 | 1·6 | 9 | 2·3 | 11 | 3·2 | 13 | 2·1 | 7 | 4·7 | 15 | 2·7 | 12 |
| 10 | 2·5 | 15 | 6·4 | 21 | 2·7 | 11 | 2·6 | 11 | 1·5 | 6 | 2·3 | 12 | 1·8 | 11 | 2·6 | 9 | 2·6 | 11 | 2·3 | 6 | 5·1 | 15 | 2·2 | 14 |
| 11 | 2·9 | 18 | 5·3 | 21 | 3·9 | 15 | 5·4 | 19 | 3·2 | 12 | 1·5 | 7 | 1·9 | 13 | 2·7 | 14 | 3·6 | 13 | 4·5 | 11 | 2·8 | 10 | 7·7 | 22 |
| 12 | 3·6 | 15 | 2·2 | 7 | 6·1 | *19* | 2·7 | 14 | 4·0 | 14 | 1·7 | 7 | 2·4 | 13 | 2·1 | 10 | 3·2 | 15 | 2·9 | 9 | 3·6 | 18 | 1·0 | 5 |
| 13 | 2·0 | 12 | *0·5* | 5 | *7·0* | 18 | 1·3 | 8 | 4·0 | 14 | 2·5 | 11 | 1·9 | 9 | *5·2* | 16 | 4·3 | 16 | 2·6 | 10 | 5·1 | *21* | 1·4 | 4 |
| 14 | 3·7 | 14 | 1·2 | 6 | 4·6 | 15 | 2·2 | 10 | 4·7 | 18 | 2·1 | 8 | 3·6 | 12 | 1·5 | 7 | 3·9 | 13 | 2·9 | 9 | 2·9 | 11 | 3·4 | 15 |
| 15 | 4·3 | 13 | 1·4 | 9 | 3·8 | 11 | 4·3 | 15 | *6·2* | 17 | 1·5 | 5 | 2·4 | 9 | 2·5 | 10 | 4·3 | 17 | 2·8 | 8 | 3·3 | 7 | 6·8 | 17 |
| 16 | 1·4 | 12 | 6·0 | 21 | 3·6 | 13 | 3·6 | 18 | 4·6 | 15 | 2·8 | 10 | 2·5 | 11 | 1·3 | 7 | 4·8 | 17 | 1·6 | 5 | 1·7 | 10 | 2·8 | 13 |
| 17 | *1·1* | 7 | 4·6 | 15 | 4·7 | 16 | 5·8 | *25* | 3·9 | 13 | *1·1* | 7 | 4·2 | 17 | 1·7 | 7 | *5·2* | *20* | 1·8 | 7 | 5·5 | 19 | *0·6* | 4 |
| 18 | 6·0 | 19 | 4·2 | 15 | 3·3 | 15 | 3·3 | 17 | 3·1 | 11 | 1·7 | 7 | 2·6 | 8 | 3·2 | 13 | 2·9 | 10 | 3·9 | 11 | 5·1 | 17 | 1·1 | 5 |
| 19 | 4·4 | 16 | 6·5 | 23 | 5·1 | 18 | 3·5 | 15 | 3·5 | 14 | 2·6 | 9 | 1·3 | 7 | 1·4 | 9 | 3·1 | 14 | 3·5 | 10 | 5·5 | 15 | 3·0 | 8 |
| 20 | 1·5 | 10 | *9·4* | *29* | 2·7 | 10 | 2·1 | 9 | 2·1 | 9 | 3·2 | 11 | 1·3 | 9 | 1·1 | 7 | 3·9 | 14 | 2·8 | 7 | *7·0* | 19 | 2·9 | 11 |
| 21 | 3·7 | 19 | 8·0 | 21 | 2·3 | 15 | 4·7 | 19 | 1·6 | 7 | 3·1 | 13 | 3·0 | 10 | 2·2 | 7 | 2·8 | 13 | 1·9 | 7 | 3·3 | 13 | 5·2 | 16 |
| 22 | *8·3* | 21 | 3·9 | 18 | 1·4 | 13 | 2·2 | 12 | 2·6 | 12 | 1·3 | 7 | 2·2 | 10 | 1·7 | 9 | 5·0 | 18 | 1·4 | 8 | 3·8 | 14 | 5·0 | 20 |
| 23 | 3·6 | 19 | 7·3 | 25 | 2·5 | 13 | 4·2 | 15 | 1·5 | 7 | 3·0 | 14 | 4·0 | 14 | 2·5 | 9 | 4·4 | 16 | 1·2 | 8 | 4·8 | 16 | 1·5 | 5 |
| 24 | 5·5 | 21 | 6·2 | 18 | 2·8 | 12 | 2·6 | 12 | 2·0 | 8 | 3·2 | 16 | *4·6* | 18 | 2·7 | 10 | 2·7 | 10 | 2·3 | 13 | 3·3 | 18 | 1·8 | 10 |
| 25 | 2·4 | 13 | 4·0 | 11 | 3·3 | 11 | 2·1 | 9 | 2·8 | 11 | 2·6 | 11 | 3·4 | 11 | *0·8* | 4 | 3·8 | 18 | *5·3* | 15 | 4·3 | 17 | 4·9 | 16 |
| 26 | 1·1 | 7 | 3·8 | 11 | *0·7* | 7 | 4·0 | 13 | 2·1 | 7 | 2·3 | 11 | 2·4 | 11 | 1·0 | 5 | 3·8 | 13 | 3·8 | 13 | 2·7 | 13 | 3·7 | 15 |
| 27 | 1·6 | 10 | 3·5 | 11 | 0·7 | 6 | 3·7 | 13 | 2·5 | 9 | 3·7 | 15 | 2·4 | 11 | 1·8 | 7 | 2·8 | 11 | 3·2 | 13 | 2·7 | 12 | 2·4 | 10 |
| 28 | 4·2 | 20 | 3·2 | 15 | 2·0 | 11 | 1·9 | 6 | 2·4 | 13 | 4·6 | 17 | 2·8 | 13 | 3·7 | 20 | *0·7* | 4 | 3·6 | *17* | 2·4 | 15 | 3·1 | 18 |
| 29 | 2·7 | 14 | | | 1·7 | 9 | 2·2 | 7 | 2·1 | 8 | 3·8 | 17 | 2·5 | 11 | 2·9 | 16 | 2·0 | 7 | *0·9* | 4 | *0·9* | 5 | 3·7 | 15 |
| 30 | 3·8 | 16 | | | 1·7 | 6 | 2·2 | 9 | *0·5* | 5 | 3·5 | 12 | 2·7 | 12 | 2·2 | 9 | 3·3 | 10 | 1·3 | 8 | 1·6 | 9 | 2·6 | 12 |
| 31 | 3·2 | 18 | | | 1·1 | 5 | | | 3·6 | 13 | | | 3·1 | 12 | 2·2 | 8 | | | 1·3 | 7 | | | 3·6 | 19 |

## WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

83 ABERDEEN: $h_a$ = 24 m. + 13 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 3·2 | *3·0* | 3·3 | 3·1 | 3·3 | 3·3 | 3·5 | 3·4 | 3·7 | 3·5 | 3·9 | 4·0 | 4·3 | *4·5* | 4·3 | 3·8 | 4·1 | 4·0 | 3·7 | 3·7 | 3·7 | 3·6 | 3·4 | 3·3 | 3·6 |
| Feb. | 4·1 | 4·2 | 4·9 | 4·6 | 4·5 | 4·5 | 4·7 | 4·6 | 4·6 | 4·9 | 4·9 | *5·2* | 5·2 | 5·1 | 5·0 | 4·8 | 4·1 | 3·8 | *3·8* | 3·8 | 3·9 | 4·0 | 4·0 | 3·9 | 4·5 |
| Mar. | 2·8 | 2·9 | 2·8 | 2·7 | 2·6 | 2·6 | *2·3* | 2·5 | 3·0 | 3·4 | 3·6 | 3·8 | 3·7 | *3·8* | 3·7 | 3·5 | 3·2 | 3·0 | 2·7 | 2·7 | 2·5 | 2·5 | 2·5 | 2·6 | 3·0 |
| Apr. | 2·4 | 2·3 | *2·2* | 2·5 | 2·3 | 2·3 | 2·5 | 3·1 | 3·7 | 4·2 | 4·5 | *4·7* | 4·5 | 4·5 | 4·5 | 4·5 | 4·3 | 4·1 | 3·4 | 2·9 | 2·7 | 2·7 | 2·5 | 2·3 | 3·3 |
| May | *1·8* | 1·8 | 2·0 | 2·1 | 2·1 | 2·2 | 2·5 | 2·9 | 3·1 | 3·3 | 3·5 | 3·5 | 3·7 | *3·8* | 3·6 | 3·8 | 3·7 | 3·4 | 3·2 | 2·7 | 2·3 | 2·1 | 2·2 | 2·0 | 2·8 |
| June | 1·9 | *1·6* | 1·9 | 1·8 | 1·7 | 1·8 | 2·3 | 3·0 | 3·4 | 3·7 | 3·8 | 3·8 | 3·7 | *4·0* | 4·0 | 3·8 | 3·9 | 3·6 | 3·3 | 2·6 | 2·2 | 2·2 | 1·9 | 1·9 | 2·8 |
| July | 1·7 | 1·7 | 1·7 | *1·6* | 1·7 | 1·9 | 2·5 | 2·9 | 3·2 | 3·3 | 3·6 | *3·8* | 3·8 | 3·6 | 3·5 | 3·6 | 3·5 | 3·1 | 2·7 | 2·5 | 2·3 | 2·2 | 1·8 | 1·6 | 2·7 |
| Aug. | 1·5 | 1·7 | 1·8 | 1·9 | 1·8 | 1·9 | 2·1 | 2·5 | 2·9 | 3·1 | 3·1 | 3·3 | 3·5 | *3·6* | 3·5 | 3·4 | 3·2 | 2·7 | 2·3 | 2·0 | 1·8 | 1·6 | 1·5 | *1·4* | 2·4 |
| Sept. | 2·7 | 2·6 | 2·9 | 2·9 | 2·8 | *2·5* | 2·9 | 2·8 | 3·0 | 3·5 | 3·8 | 4·2 | *4·3* | 4·2 | 4·0 | 3·7 | 3·5 | 2·9 | 2·7 | 2·6 | 2·7 | 3·0 | 3·0 | 2·8 | 3·2 |
| Oct. | 2·4 | 2·4 | 2·5 | 2·3 | 2·4 | 2·3 | 2·4 | 2·7 | 2·8 | 2·8 | 3·2 | 3·3 | *3·3* | 3·2 | 3·0 | 2·8 | 2·5 | 2·3 | 2·4 | 2·5 | 2·5 | 2·4 | 2·3 | *2·3* | 2·6 |
| Nov. | 3·2 | 3·0 | 3·0 | 3·0 | *3·0* | 3·2 | 3·3 | 3·5 | 3·8 | 3·9 | 4·2 | *4·2* | 4·2 | 4·1 | 3·9 | 3·9 | 3·7 | 3·6 | 3·3 | 3·2 | 3·0 | 3·0 | 3·1 | 3·3 | 3·5 |
| Dec. | 3·0 | *2·8* | 3·0 | 2·9 | 3·1 | 3·0 | 2·9 | 3·1 | 3·1 | 3·5 | 3·8 | 4·0 | *4·0* | 3·9 | 3·9 | 3·6 | 3·6 | 3·5 | 3·3 | 3·3 | 3·2 | 3·1 | 3·1 | 2·9 | 3·3 |
| Annual | 2·5 | *2·5* | 2·7 | 2·6 | 2·6 | 2·6 | 2·8 | 3·1 | 3·3 | 3·6 | 3·8 | 4·0 | 4·0 | *4·0* | 3·9 | 3·8 | 3·6 | 3·3 | 3·1 | 2·9 | 2·7 | 2·7 | 2·6 | 2·5 | 3·1 |

## DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

84 ABERDEEN: $h_a$ = 24 m. + 13 m.

| | DISTRUBTION OF WIND SPEED | | | | | | | | EXTREME VELOCITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | More than 17·1 m./sec. | | 10·8 to 17·1 m./sec. | | 5·5 to 10·7 m./sec. | 1·6 to 5·4 m./sec. | Less than 1·6 m./sec. | No record | Highest hourly wind | | | Highest gust | |
| | Dates of occurrence | Duration | No. of days | Duration | Duration | Duration | Duration | Duration | Veer from N. | Speed | Hour ended | Speed | Date |
| | | hr. | | hr. | hr. | hr. | hr. | hr. | ° | m./sec. | day h. | m./sec. | day h. m. |
| Jan. | – | 0 | 2 | 3 | 168 | 401 | 172 | 0 | 170 | 12 | 8 13 | 25 | 8 13 15 |
| Feb. | – | 0 | 4 | 8 | 215 | 343 | 106 | 0 | 320 | 14 | 20 07 | 29 | 20 06 05 |
| Mar. | – | 0 | – | 0 | 80 | 466 | 198 | 0 | 130 | 09 | 13 02 | 19 | 12 21 45 |
| Apr. | – | 0 | 2 | 5 | 115 | 448 | 152 | 0 | 310 | 13 | 17 08 | 25 | 17 07 15 |
| May | – | 0 | – | 0 | 62 | 484 | 198 | 0 | 320 | 08 | 15 16 | 18 | 14 13 05 |
| June | – | 0 | – | 0 | 75 | 445 | 200 | 0 | 190) 210) | 10 | 5 14) 19) | 23 | 5 13 00 |
| July | – | 0 | – | 0 | 46 | 484 | 214 | 0 | 300 | 10 | 6 13 | 19 | 6 11 40 |
| Aug. | – | 0 | – | 0 | 35 | 458 | 251 | 0 | 100 | 09 | 28 16 | 20 | 28 15 40 |
| Sept. | – | 0 | – | 0 | 77 | 497 | 146 | 0 | 210 | 09 | 17 08 | 20 | 17 07 30 |
| Oct. | – | 0 | – | 0 | 28 | 539 | 177 | 0 | 150) 320) | 06 | (25 12 (28 1 | 17 | 28 06 00 |
| Nov. | – | 0 | – | 0 | 156 | 407 | 157 | 0 | 160 | 09 | 17 12 | 21 | 13 07 40 |
| Dec. | – | 0 | – | 0 | 161 | 352 | 231 | 0 | 150 | 10 | 11 12 | 23 | 2 11 00 |
| Year | – | 0 | 8 | 16 | 1218 | 5324 | 2202 | 0 | 320 | 14 | Feb. 20 07 | 29 | Feb. 20 06 05 |

## TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM. (1ft.) AND 122 CM. (4ft.) AT 9h., G.M.T.

85 ABERDEEN

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. |
| | *degrees Absolute* | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 76·9 | 79·7 | 75·2 | 77·4 | 74·9 | 77·5 | 80·7 | 78·7 | 81·3 | 80·8 | 85·4 | 83·0 | 86·9 | 85·1 | 87·8 | 86·7 | 87·3 | 86·5 | 85·8 | 85·5 | 81·0 | 83·1 | 78·4 | 80·9 |
| 2 | 76·7 | 79·5 | 75·7 | 77·4 | 74·7 | 77·4 | 80·3 | 78·9 | 81·1 | 80·8 | 85·1 | 83·1 | 87·4 | 85·1 | 87·8 | 86·7 | 87·5 | 86·5 | 85·8 | 85·5 | 81·1 | 83·0 | 78·0 | 80·9 |
| 3 | 76·4 | 79·4 | 75·8 | 77·4 | 74·7 | 77·5 | 80·9 | 79·1 | 81·4 | 80·8 | 85·2 | 83·1 | 87·5 | 85·2 | 87·9 | 86·6 | 87·3 | 86·4 | 85·8 | 85·5 | 80·7 | 83·0 | 77·9 | 80·8 |
| 4 | 76·3 | 79·3 | 76·1 | 77·4 | 74·5 | 77·3 | 81·3 | 79·1 | 81·9 | 80·8 | 85·1 | 83·3 | 87·6 | 85·3 | 87·9 | 86·7 | 87·5 | 86·5 | 85·7 | 85·5 | 80·9 | 82·9 | 77·5 | 80·7 |
| 5 | 77·0 | 79·2 | 75·8 | 77·4 | 74·5 | 77·3 | 81·4 | 79·2 | 81·9 | 80·9 | 85·1 | 83·3 | 87·1 | 85·4 | 87·6 | 86·7 | 87·3 | 86·5 | 85·1 | 85·5 | 82·0 | 82·9 | 77·1 | 80·5 |
| 6 | 77·0 | 79·1 | 75·7 | 77·4 | 74·6 | 77·1 | 80·5 | 79·5 | 81·7 | 80·9 | 84·9 | 83·5 | 87·1 | 85·5 | 88·4 | 86·7 | 87·1 | 86·5 | 84·6 | 85·5 | 82·6 | 82·8 | 77·0 | 80·3 |
| 7 | 76·7 | 79·0 | 75·8 | 77·4 | 75·1 | 77·0 | 80·8 | 79·5 | 82·0 | 80·9 | 84·9 | 83·4 | 86·9 | 85·5 | 88·5 | 86·5 | 87·0 | 86·5 | 84·1 | 85·4 | 83·0 | 82·9 | 76·5 | 80·2 |
| 8 | 76·4 | 79·0 | 76·1 | 77·4 | 75·1 | 76·9 | 81·2 | 79·7 | 82·6 | 81·1 | 84·9 | 83·5 | 87·4 | 85·5 | 88·4 | 86·5 | 87·0 | 86·5 | 83·9 | 85·3 | 82·4 | 82·9 | 76·8 | 80·1 |
| 9 | 76·7 | 79·0 | 76·1 | 77·4 | 75·1 | 76·9 | 80·7 | 79·7 | 82·5 | 81·1 | 85·1 | 83·5 | 87·9 | 85·5 | 88·1 | 86·7 | 87·0 | 86·5 | 84·1 | 85·2 | 81·7 | 82·9 | 77·2 | 79·9 |
| 10 | 77·3 | 79·0 | 76·1 | 77·4 | 75·3 | 76·9 | 80·0 | 79·8 | 82·8 | 81·2 | 85·1 | 83·5 | 88·1 | 85·6 | 87·9 | 86·8 | 86·9 | 86·5 | 84·0 | 85·1 | 81·5 | 82·9 | 77·4 | 79·7 |
| 11 | 76·9 | 78·9 | 76·2 | 77·4 | 75·5 | 76·9 | 79·9 | 79·8 | 83·4 | 81·3 | 85·5 | 83·7 | 88·2 | 85·7 | 87·9 | 86·8 | 86·8 | 86·4 | 83·6 | 85·1 | 81·3 | 82·9 | 77·5 | 79·7 |
| 12 | 76·9 | 78·9 | 76·7 | 77·5 | 75·8 | 76·9 | 80·4 | 79·9 | 83·1 | 81·4 | 85·3 | 83·7 | 88·7 | 85·8 | 87·9 | 86·8 | 86·4 | 86·3 | 83·5 | 84·9 | 81·2 | 82·8 | 77·9 | 79·5 |
| 13 | 76·5 | 78·8 | 76·6 | 77·5 | 76·1 | 76·8 | 81·1 | 79·9 | 82·7 | 81·4 | 85·5 | 83·8 | 88·9 | 85·8 | 87·4 | 86·8 | 86·3 | 86·4 | 83·5 | 84·7 | 80·9 | 82·9 | 77·1 | 79·5 |
| 14 | 76·0 | 78·8 | 77·4 | 77·6 | 75·8 | 76·9 | 81·2 | 79·9 | 82·1 | 81·5 | 85·2 | 83·9 | 88·5 | 85·9 | 87·2 | 86·8 | 86·1 | 86·4 | 83·5 | 84·7 | 80·2 | 82·7 | 76·3 | 79·5 |
| 15 | 75·6 | 78·7 | 77·2 | 77·6 | 75·7 | 76·9 | 82·0 | 80·1 | 82·0 | 81·6 | 85·3 | 83·9 | 88·1 | 86·1 | 87·1 | 86·7 | 85·9 | 86·4 | 83·1 | 84·7 | 79·2 | 82·5 | 76·4 | 79·5 |
| 16 | 75·3 | 78·6 | 77·2 | 77·7 | 75·5 | 77·0 | 82·1 | 80·1 | 81·9 | 81·5 | 85·5 | 83·9 | 88·3 | 86·1 | 86·9 | 86·6 | 85·8 | 86·3 | 82·9 | 84·5 | 78·5 | 82·5 | 76·5 | 79·3 |
| 17 | 75·1 | 78·5 | 77·4 | 77·9 | 75·5 | 76·9 | 82·0 | 80·3 | 82·0 | 81·6 | 85·7 | 83·9 | 87·9 | 86·2 | 86·9 | 86·6 | 85·5 | 86·1 | 82·9 | 84·6 | 79·1 | 82·1 | 76·5 | 79·1 |
| 18 | 74·9 | 78·4 | 78·0 | 77·9 | 75·9 | 76·9 | 81·3 | 80·3 | 82·5 | 81·7 | 85·7 | 84·1 | 87·5 | 86·2 | 86·9 | 86·6 | 85·4 | 86·1 | 82·8 | 84·4 | 79·6 | 81·9 | 76·4 | 79·1 |
| 19 | 74·8 | 78·2 | 78·2 | 77·9 | 76·9 | 77·0 | 81·0 | 80·5 | 83·1 | 81·7 | 85·8 | 84·1 | 88·0 | 86·3 | 86·7 | 86·5 | 85·2 | 86·1 | 82·9 | 84·2 | 79·9 | 81·7 | 75·9 | 79·1 |
| 20 | 74·7 | 78·1 | 77·8 | 78·0 | 77·6 | 77·0 | 81·1 | 80·5 | 83·4 | 81·7 | 85·8 | 84·1 | 88·1 | 86·3 | 86·6 | 86·5 | 84·8 | 85·9 | 83·0 | 84·1 | 79·9 | 81·7 | 76·5 | 79·1 |
| 21 | 74·7 | 78·0 | 77·0 | 78·0 | 77·8 | 77·3 | 81·3 | 80·5 | 83·0 | 81·9 | 85·9 | 84·1 | 88·0 | 86·3 | 86·9 | 86·5 | 84·5 | 85·9 | 83·2 | 84·1 | 80·1 | 81·5 | 76·1 | 78·9 |
| 22 | 74·6 | 77·9 | 76·3 | 78·1 | 77·6 | 77·4 | 80·9 | 80·6 | 83·4 | 81·9 | 86·1 | 84·3 | 87·9 | 86·3 | 87·1 | 86·4 | 84·7 | 85·8 | 83·1 | 84·1 | 80·1 | 81·5 | 76·7 | 78·9 |
| 23 | 74·7 | 77·8 | 76·3 | 78·0 | 77·8 | 77·4 | 81·3 | 80·6 | 83·7 | 81·9 | 87·5 | 84·4 | 88·3 | 86·3 | 86·9 | 86·5 | 84·9 | 85·7 | 82·9 | 84·1 | 79·4 | 81·5 | 76·7 | 78·7 |
| 24 | 74·7 | 77·7 | 76·0 | 78·0 | 77·3 | 77·5 | 81·1 | 80·7 | 84·0 | 82·0 | 87·9 | 84·4 | 88·8 | 86·5 | 86·9 | 86·5 | 84·5 | 85·5 | 82·9 | 84·1 | 79·5 | 81·5 | 76·7 | 78·7 |
| 25 | 74·8 | 77·6 | 75·7 | 78·0 | 77·5 | 77·7 | 80·9 | 80·6 | 84·9 | 82·0 | 87·6 | 84·6 | 88·9 | 86·5 | 87·2 | 86·4 | 84·5 | 85·5 | 82·5 | 84·1 | 79·7 | 81·4 | 75·9 | 78·8 |
| 26 | 75·6 | 77·5 | 75·3 | 77·9 | 78·4 | 77·6 | 81·4 | 80·6 | 84·5 | 82·1 | 87·2 | 84·7 | 88·5 | 86·5 | 87·5 | 86·5 | 85·1 | 85·5 | 82·1 | 84·0 | 80·1 | 81·3 | 76·3 | 78·7 |
| 27 | 75·7 | 77·5 | 75·1 | 77·9 | 79·6 | 77·8 | 81·2 | 80·7 | 84·8 | 82·4 | 87·0 | 84·8 | 88·5 | 86·6 | 87·5 | 86·4 | 85·4 | 85·4 | 81·9 | 83·8 | 79·7 | 81·2 | 75·9 | 78·6 |
| 28 | 75·3 | 77·5 | 75·0 | 77·7 | 79·9 | 78·0 | 81·1 | 80·8 | 84·6 | 82·5 | 87·1 | 84·9 | 88·3 | 86·7 | 87·5 | 86·5 | 85·8 | 85·4 | 81·4 | 83·7 | 79·5 | 81·3 | 75·8 | 78·5 |
| 29 | 75·3 | 77·5 | | | 80·0 | 78·0 | 81·0 | 80·7 | 85·3 | 82·6 | 86·9 | 85·1 | 88·2 | 86·7 | 86·9 | 86·5 | 86·1 | 85·3 | 81·2 | 84·1 | 79·1 | 81·2 | 75·7 | 78·5 |
| 30 | 75·2 | 77·4 | | | 80·3 | 78·4 | 81·4 | 80·7 | 85·3 | 82·7 | 86·9 | 85·1 | 87·9 | 86·7 | 87·0 | 86·5 | 85·9 | 85·4 | 80·6 | 83·5 | 78·9 | 81·0 | 75·8 | 78·5 |
| 31 | 75·2 | 77·4 | | | 80·3 | 77·9 | | | 85·2 | 82·9 | | | 87·7 | 86·7 | 87·1 | 86·4 | | | 80·5 | 83·5 | | | 75·8 | 78·5 |
| Mean | 75·8 | 78·4 | 76·4 | 77·7 | 76·6 | 77·3 | 81·1 | 80·0 | 83·0 | 81·6 | 85·9 | 84·0 | 88·0 | 86·0 | 87·4 | 86·6 | 86·1 | 86·1 | 83·3 | 84·6 | 80·4 | 82·2 | 76·7 | 79·4 |
| | | | | | | | | | | | Year | | 81·7 | 82·0 | | | | | | | | | | |

## MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

86 ABERDEEN

| | JANUARY | FEBRUARY | MARCH | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOVEMBER | DECEMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *degrees Absolute* | | | | | | | | | | | |
| 1 | 72·6 | 73·6 | 65·3 | 76·3 | 72·4 | 81·5 | *75·3* | 78·5 | 84·1 | 85·1 | 76·6 | 68·1 |
| 2 | 72·4 | 74·5 | *63·8* | 73·6 | 75·0 | 73·0 | 85·5 | 78·4 | 81·3 | 83·5 | 75·1 | 72·2 |
| 3 | 68·4 | 69·1 | 69·2 | 74·5 | 71·4 | 80·3 | 76·5 | 82·5 | 77·5 | 84·9 | 69·1 | 66·9 |
| 4 | 73·1 | 72·4 | 73·4 | 76·3 | 74·0 | 75·1 | 84·3 | 76·3 | 85·0 | 76·2 | 82·1 | 72·5 |
| 5 | 72·6 | 67·5 | 74·9 | 69·0 | 76·5 | 82·4 | 80·9 | 83·2 | 86·0 | 80·5 | 84·1 | 67·5 |
| 6 | 73·0 | 69·6 | 72·5 | 71·9 | 74·1 | 79·6 | 79·1 | 81·9 | 79·6 | 78·0 | 82·5 | 69·1 |
| 7 | 69·4 | 70·7 | 68·8 | 78·6 | 75·9 | 75·9 | 79·1 | 79·6 | 79·1 | 71·7 | 77·9 | 65·9 |
| 8 | 70·3 | 74·1 | 68·0 | 77·5 | 73·6 | 75·8 | 80·2 | 80·3 | 80·2 | 76·9 | 75·3 | 74·8 |
| 9 | 72·0 | 72·4 | 70·9 | 72·9 | *70·2* | 79·0 | 82·5 | 78·9 | 77·1 | 77·5 | 76·3 | 74·1 |
| 10 | 72·1 | 75·4 | 69·5 | 69·1 | 71·9 | 81·9 | 84·5 | 75·2 | 78·6 | 74·2 | 75·7 | 72·9 |
| 11 | 69·4 | 78·2 | 71·2 | 77·5 | 80·2 | 76·3 | 78·4 | 80·5 | 83·9 | 73·8 | 77·5 | 76·9 |
| 12 | 70·8 | 71·5 | 74·5 | 78·5 | 75·6 | *72·9* | 83·1 | 79·1 | 75·3 | 80·5 | 76·8 | 70·8 |
| 13 | 68·2 | 74·8 | 74·6 | 77·0 | 74·1 | 75·9 | 84·9 | 83·5 | 78·8 | 80·6 | 73·5 | *65·3* |
| 14 | 65·1 | 73·0 | 71·9 | 72·5 | 71·4 | 74·3 | 83·3 | 80·1 | 80·5 | 79·1 | 68·2 | 67·5 |
| 15 | 67·8 | 68·6 | 70·4 | 78·1 | 72·0 | 75·7 | 80·2 | 78·5 | 77·0 | 79·3 | 68·2 | 75·8 |
| 16 | 63·6 | 73·1 | 70·2 | 70·3 | 75·8 | 73·5 | 81·1 | 76·2 | 80·3 | 79·1 | 72·5 | 73·9 |
| 17 | *60·2* | 75·9 | 72·5 | 79·7 | 75·1 | 82·1 | 81·9 | 81·9 | 79·9 | 78·2 | 76·5 | 73·5 |
| 18 | 73·0 | 79·7 | 74·9 | *67·8* | 78·0 | 75·3 | 82·3 | 74·5 | * | 79·5 | 77·5 | 66·2 |
| 19 | 75·5 | 75·8 | 80·8 | 70·9 | 75·8 | 78·9 | 85·1 | 82·1 | *73·1* | 81·1 | 78·5 | 71·9 |
| 20 | 70·4 | 72·3 | 73·5 | 76·3 | 76·4 | 77·7 | 84·1 | *74·1* | 73·9 | 81·5 | 77·1 | 71·8 |
| 21 | 69·9 | 70·6 | 71·0 | 70·3 | 79·7 | 81·0 | 82·8 | 81·7 | 75·0 | 82·9 | 78·1 | 71·2 |
| 22 | 74·8 | 69·9 | 69·9 | 71·9 | 75·2 | 83·5 | 79·7 | 84·5 | 82·3 | 74·7 | 72·9 | 75·9 |
| 23 | 74·5 | 73·0 | 70·9 | 74·7 | 73·1 | 82·7 | 85·7 | 75·4 | 76·3 | 72·9 | *66·6* | 72·2 |
| 24 | 65·4 | 69·6 | 70·4 | 70·5 | 75·8 | 84·6 | 85·7 | 84·1 | 74·3 | 74·6 | 72·5 | 65·9 |
| 25 | 74·1 | 66·0 | 75·4 | 71·0 | 74·2 | 76·9 | 79·1 | 79·1 | 79·7 | 78·1 | 76·9 | 68·0 |
| 26 | 75·9 | *64·5* | 79·1 | 77·2 | 81·0 | 83·5 | 81·9 | 78·5 | 83·5 | 79·4 | 75·5 | 71·7 |
| 27 | 66·3 | 66·0 | 79·1 | 78·4 | 82·7 | 80·0 | 84·5 | 77·7 | 84·1 | 74·7 | 71·3 | 66·5 |
| 28 | 70·1 | 64·6 | 71·8 | 74·9 | 81·9 | 80·7 | 79·5 | 75·1 | 79·3 | 73·5 | 69·1 | 71·8 |
| 29 | 68·0 | | 74·9 | 74·4 | 83·0 | 79·1 | 79·0 | 84·0 | 83·5 | 69·9 | 72·1 | 66·9 |
| 30 | 71·8 | | 78·5 | 74·7 | 81·7 | 79·5 | 78·9 | 82·3 | 79·3 | *69·7* | 69·1 | 69·1 |
| 31 | 65·1 | | 76·4 | | 82·7 | | 81·9 | 82·1 | | 78·5 | | 71·1 |
| Mean | 70·2 | 71·7 | 72·5 | 74·2 | 76·1 | 78·6 | 81·6 | 79·7 | †79·6 | 77·7 | 74·8 | 70·6 |
| | | | | | | Year | 74·8 | | | | | |

* Spirit column broken. † Mean of 29 days

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

# ESKDALEMUIR

# ESKDALEMUIR OBSERVATORY

| | |
|---|---|
| Latitude .. .. .. .. .. | 55°19′N. |
| Longitude .. .. .. .. .. | 3°12′W. |
| G.M.T. of Local Mean Noon .. .. | 12h.13m. |

| *Heights of instruments* | *above M.S.L.* | *above ground* |
|---|---|---|
| | m. | m. |
| Barometer .. .. .. .. .. .. | 237·3 | .. |
| Thermometer bulbs .. .. .. .. | .. | 0·9 |
| Rain-gauge .. .. .. .. .. | 242·0 | .. |
| Dines tilting-siphon recorder .. | .. | .. |
| Sunshine recorder .. .. .. .. | .. | 1·5 |
| Pressure-tube anemograph .. .. | 250 | 15 |

## INTRODUCTION

Reference should be made to the 1938 volume for details of site and meteorological instruments. The only important change since that date was the replacement of the Beckley rain-gauge by the Dines tilting-siphon recorder in September 1940.

*Notes on the meteorological summaries*

The extreme temperatures during the year were 297·7°A. (76·5°F.) on 22 June and 259·8°A. (8·2°F.) on 27 February. With a mean temperature of 265·9°A. (19·2°F.), 16 January was the coldest day of the year and 22 June, with 290·4°A. (63·3°F.), was the hottest. There was one ice day, i.e. day with maximum temperature below 273°A., which occurred in January.

The total rainfall for the, 1652·0 mm. (65·04 in.), was greater than normal. Snow fell on 40 days. The total duration of bright sunshine, 1201·8 hours, was nearly normal.

The highest gust of wind during the year, 29·2 m./sec. (65 m.p.h.), was on 4 January. The highest hourly speed, over 19 m./sec. (43 m.p.h.), occurred on 5 June.

The results of the harmonic analysis of the diurnal inequalities of pressure are set out in the accompanying Table 87. For purposes of comparison the corresponding data are also given derived from the mean inequalities for the period 1911-20 by Dr. A. Crichton Mitchell.*

* MITCHELL, A.C.; On the diurnal variation of atmospheric pressure at Eskdalemuir and Castle O'er, Dumfriesshire. *Quart. J.R. met. Soc., London*, 50, 1924, p.127.

TABLE 87 - HARMONIC COEFFICIENTS OF THE DIURNAL INEQUALITY OF ATMOSPHERIC PRESSURE

Values of $c_n$, $\alpha_n$ in the series $\sum c_n \sin(15nt + \alpha_n)$, $t$ being local mean time reckoned in hours from midnight

| | $c_1$ | | $\alpha_1$ | | $c_2$ | | $\alpha_2$ | | $c_3$ | | $\alpha_3$ | | $c_4$ | | $\alpha_4$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 | 1946 | 1911-1920 |
| | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° |
| January | 0.39 | 0.09 | 318 | 346 | 0.24 | 0.23 | 164 | 152 | 0.15 | 0.13 | 0 | 345 | 0.07 | 0.05 | 232 | 214 |
| February | 0.63 | 0.12 | 153 | 215 | 0.17 | 0.27 | 135 | 138 | 0.09 | 0.08 | 337 | 341 | 0.04 | 0.04 | 320 | 68 |
| March | 0.15 | 0.13 | 95 | 185 | 0.32 | 0.30 | 152 | 145 | 0.04 | 0.05 | 328 | 335 | 0.04 | 0.05 | 19 | 25 |
| April | 0.22 | 0.21 | 23 | 92 | 0.37 | 0.30 | 149 | 155 | 0.04 | 0.02 | 149 | 156 | 0.06 | 0.05 | 341 | 356 |
| May | 0.44 | 0.23 | 50 | 53 | 0.37 | 0.27 | 157 | 147 | 0.06 | 0.07 | 166 | 160 | 0.04 | 0.03 | 320 | 330 |
| June | 0.27 | 0.15 | 99 | 54 | 0.22 | 0.23 | 154 | 146 | 0.08 | 0.08 | 141 | 161 | 0.03 | 0.02 | 1 | 326 |
| July | 0.20 | 0.17 | 138 | 69 | 0.22 | 0.21 | 149 | 141 | 0.11 | 0.08 | 148 | 156 | 0.03 | 0.02 | 343 | 300 |
| August | 0.29 | 0.11 | 128 | 115 | 0.19 | 0.24 | 155 | 148 | 0.07 | 0.06 | 135 | 157 | 0.05 | 0.05 | 343 | 331 |
| September | 0.09 | 0.12 | 93 | 88 | 0.23 | 0.31 | 129 | 152 | 0.02 | 0.01 | 73 | 111 | 0.07 | 0.05 | 338 | 345 |
| October | 0.07 | 0.11 | 274 | 76 | 0.34 | 0.31 | 174 | 159 | 0.09 | 0.06 | 1 | 8 | 0.03 | 0.04 | 11 | 33 |
| November | 0.50 | 0.13 | 58 | 183 | 0.34 | 0.24 | 175 | 168 | 0.11 | 0.10 | 47 | 9 | 0.01 | 0.01 | 181 | 146 |
| December | 0.23 | 0.14 | 133 | 97 | 0.23 | 0.21 | 169 | 147 | 0.12 | 0.12 | 13 | 4 | 0.03 | 0.07 | 235 | 213 |
| Arithmetic Mean | 0.29 | 0.14 | | | 0.27 | 0.26 | | | 0.08 | 0.07 | | | 0.04 | 0.04 | | |
| Year | 0.15 | 0.09 | 100 | 91 | 0.27 | 0.26 | 157 | 150 | 0.03 | 0.02 | 48 | 42 | 0.03 | 0.02 | 327 | 342 |
| Winter | 0.15 | 0.04 | 102 | 165 | 0.24 | 0.24 | 165 | 151 | 0.11 | 0.11 | 10 | 355 | 0.03 | 0.02 | 250 | 189 |
| Equinox | 0.08 | 0.11 | 54 | 104 | 0.31 | 0.31 | 153 | 153 | 0.02 | 0.02 | 12 | 4 | 0.05 | 0.04 | 349 | 9 |
| Summer | 0.24 | 0.15 | 95 | 67 | 0.25 | 0.24 | 154 | 146 | 0.08 | 0.07 | 147 | 159 | 0.03 | 0.03 | 340 | 324 |

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

*Atmospheric electricity*

The disposition of the instruments and the arrangement of the tables recording the results remain substantially the same as described in the 1938 volume. The Wulf quartz-thread electrometer (N.3040) was calibrated in July. No material change had taken place since the previous year.

*Terrestrial magnetism*

Reference should be made to the 1938 volume for notes on the instruments and tables.

Notes on the results

Comparing mean values on all days of 1946 with those for 1945 it is noted that $H$ decreased by $10\gamma$, $D$(west) decreased by $8'{\cdot}6$ and $V$ increased by $27\gamma$. The changes in the deduced quantities $N$, $W$, $I$, and $T$ are $-1\gamma$, $-43\gamma$, $+1'{\cdot}3$, $+22\gamma$. If these changes are compared with those for previous years the discontinuities introduced on 1 January 1934 in $H$ and $V$ and the components derived from them must be kept in mind.

The ranges between the extreme values recorded during 1946 were $H$, $2746\gamma$; $D$, $3°54'{\cdot}6$; $V$, $1314\gamma$.

Table 88 summarizes the magnetic character figures assigned locally and the international mean character figures. At the Assembly of the Association of Terrestrial Magnetism and Electricity at Washington in September 1939, a new measure of magnetic disturbance, the $K$ index, was agreed upon. Measurements of $K$ are now given in this volume replacing the former measure $(HR_H + VR_V)10^{-4}$ in accordance with International Association of Terrestrial Magnetism and Electricity circular letter dated 20 January 1940. The $K$ index is fully described in *Terrestrial magnetism and atmospheric electricity.**

*BARTELS, J., HECK, N.H. and JOHNSTON, H.F.: The three-hour-range index measuring geomagnetic activity. *Terr. Magn. atmos. Elect., Baltimore, Ma. 44, 1939, p.411.*

Briefly, a figure is allotted, on a scale 0-9, to each three-hour interval. The figure is a measure of the range of magnetic force during that period, measured from a curved line which represents the normal quiet-day variation. The figures are first allotted from the *H* magnetogram and then increased, if necessary, by inspection of the *D* and *V* curves, so that the most disturbed component determines the final figure. The scale of ranges in $\gamma$ corresponding to the figures 0-9 varies from observatory to observatory. The lower limit of each number for Eskdalemuir is:

| *K* | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| Range in $\gamma$ | 0 | 8 | 15 | 30 | 60 | 105 | 180 | 300 | 500 | 750 |

Table 88 has been slightly changed in form from years before 1940 owing to the omission of $(HR_H + VR_V)10^{-4}$. *K* figures and their sums have been given for each day in the main tables but as it is considered that monthly means of *K* figures are not a good measure of activity they are not included.

TABLE 88

| | Magnetic character figures | | | Mean character figures | |
|---|---|---|---|---|---|
| | Number of 0 days | 1 days | 2 days | Eskdale-muir | Inter-national |
| January | 10 | 19 | 2 | 0·74 | 0·55 |
| February | 8 | 15 | 5 | 0·89 | 0·69 |
| March | 9 | 17 | 5 | 0·87 | 0·84 |
| April | 10 | 17 | 3 | 0·77 | 0·58 |
| May | 11 | 16 | 4 | 0·77 | 0·62 |
| June | 6 | 22 | 2 | 0·87 | 0·63 |
| July | 10 | 17 | 4 | 0·81 | 0·71 |
| August | 10 | 19 | 2 | 0·74 | 0·42 |
| September | 8 | 14 | 8 | 1·00 | 0·82 |
| October | 10 | 19 | 2 | 0·74 | 0·51 |
| November | 11 | 19 | 0 | 0·63 | 0·52 |
| December | 13 | 18 | 0 | 0·58 | 0·39 |
| Year | | | | | |
| 1946 | 116 | 212 | 37 | 0·78 | 0·61 |
| 1945 | 150 | 200 | 15 | 0·63 | 0·47 |
| 1944 | 161 | 190 | 15 | 0·60 | 0·52 |
| 1943 | 146 | 197 | 22 | 0·66 | 0·68 |
| 1942 | 151 | 191 | 23 | 0·65 | 0·64 |
| 1941 | 172 | 168 | 25 | 0·60 | 0·73 |
| 1940 | 156 | 184 | 26 | 0·65 | 0·72 |
| 1939 | 167 | 172 | 26 | 0·61 | 0·77 |
| 1938 | 183 | 135 | 47 | 0·63 | 0·76 |
| 1937 | 116 | 205 | 44 | 0·81 | 0·73 |
| 1936 | 144 | 198 | 24 | 0·67 | 0·65 |

The values of mean absolute daily range for the months and seasons are brought together in Table 89 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.

The frequency distribution of absolute daily ranges recorded in 1946 is shown in Table 90 which contains also the percentage distribution for 1946 and for the period 1932-1942.

TABLE 89 - ABSOLUTE DAILY RANGE AND MEAN MONTHLY VALUES

| | Mean absolute daily range | | | | | | Mean daily range expressed as percentage of yearly mean | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | | | Mean 1932-42 | | | 1946 | | | Mean 1932-42 | | |
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | γ | γ | γ | γ | γ | % | % | % | % | % | % |
| January | 66 | 77 | 54 | 78 | 79 | 44 | 47 | 73 | 67 | 81 | 91 | 77 |
| February | 153 | 125 | 94 | 76 | 86 | 50 | 110 | 118 | 116 | 79 | 99 | 88 |
| March | 241 | 160 | 145 | 122 | 113 | 82 | 173 | 151 | 179 | 127 | 130 | 144 |
| April | 206 | 132 | 97 | 125 | 103 | 79 | 148 | 125 | 120 | 130 | 118 | 139 |
| May | 126 | 98 | 78 | 111 | 86 | 66 | 91 | 92 | 96 | 116 | 99 | 116 |
| June | 129 | 90 | 71 | 100 | 81 | 50 | 93 | 85 | 88 | 104 | 93 | 88 |
| July | 203 | 116 | 88 | 106 | 82 | 53 | 146 | 109 | 109 | 110 | 94 | 93 |
| August | 105 | 94 | 55 | 102 | 85 | 57 | 76 | 89 | 68 | 106 | 98 | 100 |
| September | 238 | 157 | 169 | 102 | 95 | 64 | 171 | 148 | 209 | 106 | 109 | 112 |
| October | 85 | 86 | 51 | 97 | 94 | 65 | 61 | 81 | 63 | 101 | 108 | 114 |
| November | 68 | 79 | 37 | 67 | 75 | 41 | 49 | 75 | 46 | 70 | 86 | 72 |
| December | 54 | 61 | 30 | 61 | 69 | 40 | 39 | 58 | 37 | 64 | 79 | 70 |
| Winter | 85 | 85 | 54 | 70 | 77 | 44 | 61 | 80 | 67 | 73 | 89 | 77 |
| Equinox | 193 | 134 | 115 | 111 | 101 | 72 | 139 | 126 | 142 | 116 | 116 | 126 |
| Summer | 141 | 99 | 73 | 105 | 84 | 57 | 101 | 93 | 90 | 109 | 97 | 100 |
| Year | 139 | 106 | 81 | 96 | 87 | 57 | .. | .. | .. | .. | .. | .. |

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

TABLE 90 - FREQUENCY DISTRIBUTION OF ABSOLUTE DAILY RANGE

| Range | Number of cases, 1946 | | | Percentage distribution | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *H* | | *D* | | *V* | |
| | *H* | *D* | *V* | 1946 | 1932-42 | 1946 | 1932-42 | 1946 | 1932-42 |
| γ | | | | % | % | % | % | % | % |
| 0 - 9 | 0 | 0 | 4 | 0·0 | 0·0 | 0·0 | 0·0 | 1·1 | 3·0 |
| 10 - 19 | 1 | 0 | 47 | 0·3 | 1·0 | 0·0 | 0·4 | 12·9 | 15·8 |
| 20 - 29 | 13 | 8 | 63 | 3·6 | 4·2 | 2·2 | 2·9 | 17·3 | 22·1 |
| 30 - 39 | 20 | 12 | 65 | 5·5 | 6·6 | 3·3 | 5·7 | 17·8 | 16·8 |
| 40 - 49 | 21 | 21 | 40 | 5·8 | 8·7 | 5·8 | 8·1 | 11·0 | 9·5 |
| 50 - 59 | 31 | 38 | 32 | 8·5 | 11·4 | 10·4 | 13·2 | 8·8 | 6·9 |
| 60 - 69 | 39 | 49 | 24 | 10·7 | 13·2 | 13·4 | 14·0 | 6·6 | 5·1 |
| 70 - 79 | 50 | 47 | 10 | 13·7 | 10·6 | 12·9 | 12·5 | 2·7 | 3·4 |
| 80 - 89 | 24 | 50 | 7 | 6·6 | 9·3 | 13·7 | 10·3 | 1·9 | 2·7 |
| 90 - 99 | 28 | 28 | 10 | 7·7 | 6·9 | 7·7 | 7·8 | 2·7 | 2·3 |
| 100 - 109 | 25 | 26 | 10 | 6·8 | 5·3 | 7·1 | 5·3 | 2·7 | 1·8 |
| 110 - 119 | 16 | 15 | 9 | 4·4 | 4·5 | 4·1 | 3·8 | 2·5 | 1·4 |
| 120 - 129 | 7 | 15 | 3 | 1·9 | 2·9 | 4·1 | 3·3 | 0·8 | 1·4 |
| 130 - 139 | 9 | 7 | 4 | 2·5 | 2·7 | 1·9 | 2·5 | 1·1 | 0·9 |
| 140 - 149 | 12 | 5 | 3 | 3·3 | 1·8 | 1·4 | 1·8 | 0·8 | 0·8 |
| 150 - 159 | 11 | 8 | 1 | 3·0 | 1·9 | 2·2 | 1·7 | 0·3 | 0·5 |
| 160 - 169 | 8 | 2 | 1 | 2·2 | 1·3 | 0·5 | 1·4 | 0·3 | 0·5 |
| 170 - 179 | 6 | 4 | 1 | 1·6 | 1·0 | 1·1 | 0·8 | 0·3 | 0·2 |
| 180 - 189 | 4 | 5 | 2 | 1·1 | 0·8 | 1·4 | 0·8 | 0·5 | 0·5 |
| 190 - 199 | 1 | 3 | 1 | 0·3 | 0·7 | 0·8 | 0·7 | 0·3 | 0·4 |
| 200 + | 39 | 22 | 28 | 10·7 | 5·2 | 6·0 | 3·1 | 7·7 | 4·0 |
| Days omitted | 0 | 0 | 0 | .. | .. | .. | .. | .. | .. |

The average values of the diurnal inequality ranges for the year and seasons for the period 1932-1942 (not the values of the range of the representative mean diurnal inequalities for this period) are given in Table 91 along with the 1946 values expressed as a percentage of the average values. The units employed are 1$\gamma$ for force and 1′ for declination.

TABLE 91 - AVERAGE RANGE OF DIURNAL INEQUALITY 1932-42 WITH 1946 VALUE AS PERCENTAGE

| | | All days | | | | | International quiet days | | | | | International disturbed days | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | W | V | H | D | N | W | V | H | D | N | W | V | H | D |
| | | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | ′ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | ′ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | ′ |
| Year | 1932-42 | 37.5 | 40.1 | 25.4 | 36.9 | 8.54 | 34.2 | 37.9 | 12.8 | 33.6 | 8.17 | 51.6 | 55.2 | 71.7 | 52.1 | 11.47 |
| | 1946(%) | 118 | 113 | 135 | 118 | 108 | 114 | 116 | 116 | 117 | 116 | 141 | 119 | 173 | 149 | 103 |
| Winter | 1932-42 | 21.0 | 30.2 | 19.5 | 18.5 | 6.70 | 17.6 | 19.1 | 5.6 | 15.7 | 4.23 | 29.2 | 51.9 | 61.0 | 28.8 | 10.86 |
| | 1946(%) | 112 | 96 | 114 | 118 | 98 | 127 | 117 | 100 | 134 | 114 | 147 | 99 | 126 | 169 | 103 |
| Equinox | 1932-42 | 44.6 | 46.4 | 32.1 | 42.6 | 10.02 | 40.1 | 43.8 | 13.9 | 38.8 | 9.56 | 71.2 | 72.4 | 94.5 | 72.8 | 14.56 |
| | 1946(%) | 111 | 115 | 161 | 122 | 107 | 114 | 110 | 118 | 115 | 110 | 227 | 151 | 220 | 249 | 105 |
| Summer | 1932-42 | 55.6 | 56.7 | 29.8 | 58.0 | 11.66 | 47.7 | 53.8 | 20.8 | 49.2 | 11.37 | 77.3 | 65.8 | 71.6 | 82.2 | 12.51 |
| | 1946(%) | 116 | 110 | 126 | 116 | 108 | 113 | 120 | 116 | 115 | 119 | 128 | 110 | 155 | 127 | 108 |

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

*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′. The range is less than 5′ in about 85 per cent of the hourly periods. The actual frequencies of occurrence in the last three of the four divisions mentioned are set out below. A range of 30′ is equivalent to a change of 144$\gamma$ in the component of horizontal force perpendicular to the magnetic meridian.

*Number of cases per month 1946 .*

| *Range interval* | *Jan.* | *Feb.* | *Mar.* | *Apr.* | *May* | *June* | *July* | *Aug.* | *Sept.* | *Oct.* | *Nov.* | *Dec.* | *Year* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5′ to 15′ | 66 | 83 | 140 | 114 | 155 | 98 | 107 | 84 | 132 | 106 | 102 | 47 | 1234 |
| 15′ to 30′ | 16 | 25 | 32 | 14 | 8 | 3 | 12 | 5 | 29 | 7 | 6 | 2 | 159 |
| >30′ | 3 | 10 | 32 | 7 | 1 | 0 | 9 | 1 | 32 | 1 | 0 | 0 | 96 |

*Hourly distribution, 1946*

| *Range* | *Hour ending at (G.M.T.)* | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *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′ | 60 | 55 | 65 | 52 | 52 | 47 | 45 | 47 | 42 | 42 | 71 | 74 | 37 | 31 | 39 | 38 | 38 | 48 | 43 | 47 | 56 | 71 | 63 | 71 |
| 15′ to 30′ | 8 | 8 | 7 | 9 | 7 | 5 | 6 | 8 | 5 | 3 | 2 | 2 | 1 | 3 | 4 | 4 | 7 | 9 | 12 | 9 | 12 | 7 | 14 | 7 |
| >30′ | 6 | 6 | 8 | 6 | 5 | 3 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 7 | 5 | 5 | 3 | 4 | 5 | 5 | 7 | 4 |

*Principal disturbances.-* Particulars of the principal magnetic disturbances recorded during the year are given in Table 92. Corresponding information for the same disturbances is given in the Lerwick section Table 6. 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-General, Meteorological Office, Air Ministry, Kingsway, London, W.C.2.

TABLE 92 - PRINCIPAL MAGNETIC DISTURBANCES RECORDED AT ESKDALEMUIR, 1946

| 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 | ′ | d. h. m. | ′ | d. h. m. | ′ | γ | d. h. m. | γ | d. h. m. | γ |
| 1* | Jan. 3 8 8 | Jan. 5 5 | 579 | 3 10 20 | 325 | 3 21 36 | 254 | 34·8 | 3 16 10 | -21·8 | 3 18 31 | 56·6 | 1501 | 3 16 13 | 918 | 3 22 2 | 583 |
| 2, | Jan. 23 20 | Jan. 25 3 | 597 | 23 22 30 | 415 | 24 13 23 | 182 | 19·6 | 24 12 58 | -24·2 | 23 22 21 | 43·8 | 1161 | 24 16 0 | 1070 | 24 2 40 | 91 |
| 3 | Feb. 7 7 | Feb. 9 0 | 826 | 7 22 28 | -1372 | 8 0 33 | 2198 | 58·2 | 8 0 42 | -88·8 | 8 0 31 | 147·0 | 1424 | 7 18 34 | 695 | 8 1 15 | 729 |
| 4 | Feb. 14 7 | Feb. 15 22 | 616 | 14 17 39 | 444 | 14 9 8 | 172 | 26·3 | 15 3 58 | 3·6 | 14 8 50 | 22·7 | 1154 | 14 11 12 | 1059 | 15 4 40 | 95 |
| 5* | Feb. 19 15 0 | Feb. 20 1 | 619 | 19 22 12 | 458 | 19 22 36 | 161 | 20·6 | 19 18 1 | -17·1 | 19 22 6 | 37·7 | 1274 | 19 20 35 | 1095 | 19 22 25 | 179 |
| 6 | Feb. 20 18 | Feb. 24 3 | 623 | 21 14 58 | 384 | 21 1 19 | 239 | 31·7 | 21 14 58 | -25·0 | 20 21 36 | 56·7 | 1279 | 21 15 4 | 1010 | 21 1 40 | 269 |
| 7* | Mar. 1 1 | Mar. 2 19 | 631 | 2 0 26 | 455 | 1 8 39 | 176 | 17·3 | 2 0 35 | -5·4 | 1 3 33 | 22·7 | 1132 | 1 23 28 | 1052 | 1 4 17 | 80 |
| 8 | Mar. 4 7 | Mar. 7 4 | 588 | 4 22 11 | 391 | 5 11 36 | 197 | 22·9 | 5 13 42 | -8·3 | 5 0 47 | 31·2 | 1187 | 5 16 45 | 1064 | 5 0 35 | 123 |
| 9 | Mar. 9 13 | Mar. 12 0 | 595 | 10 14 38 | 341 | 10 23 26 | 254 | 31·5 | 10 2 7 | -27·0 | 11 0 17 | 58·5 | 1201 | 10 20 13 | 934 | 11 1 19 | 267 |
| 10* | Mar. 22 5 39 | Mar. 28 6 | 1353 | 25 15 34 | -129 | 24 3 50 | 1482 | 89·3 | 25 17 10 | -58·7 | 24 2 8 | 148·0 | 1489 | 24 16 3 | 728 | 24 3 48 | 761 |
| 11* | Mar. 28 6 34 | Mar. 30 4 | 1528 | 28 15 1 | -383 | 28 22 9 | 1711 | 72·7 | 28 22 1 | -115·9 | 28 12 20 | 188·6 | 1417 | 28 16 51 | 393 | 28 13 50 | 1024 |
| 12 | Apr. 9 8 | Apr. 10 17 | 615 | 9 15 10 | 437 | 10 11 25 | 178 | 21·4 | 9 13 17 | -9·2 | 9 22 45 | 30·6 | 1240 | 9 15 50 | 1090 | 10 1 2 | 150 |
| 13 | Apr. 12 19 | Apr. 17 4 | 634 | 15 18 52 | 386 | 15 7 34 | 248 | 26·7 | 15 7 50 | -11·7 | 15 19 25 | 38·4 | 1281 | 15 15 23 | 1055 | 15 2 42 | 226 |
| 14* | Apr. 22 6 59 | Apr. 25 16 | 933 | 23 16 53 | -1320 | 23 23 25 | 2253 | 62·6 | 23 16 58 | -145·3 | 23 23 38 | 207·9 | 1495 | 23 17 0 | 601 | 24 0 24 | 894 |
| 15* | May 6 4 13 | May 12 0 | 705 | 6 22 53 | 340 | 11 8 33 | 365 | 28·4 | 7 5 51 | -20·1 | 6 22 50 | 48·5 | 1262 | 9 16 26 | 1004 | 7 6 26 | 258 |
| 16 | May 20 16 | May 26 6 | 674 | 23 17 56 | 376 | 22 7 10 | 298 | 19·6 | 24 14 20 | -9·2 | 22 4 45 | 28·8 | 1215 | 22 17 40 | 1011 | 22 4 31 | 204 |
| 17* | June 5 20 10 | June 6 22 | 647 | 5 20 18 | 460 | 6 11 5 | 187 | 16·0 | 6 14 10 | -3·0 | 6 7 53 | 19·0 | 1146 | 6 17 45 | 1109 | 6 0 29 | 37 |
| 18* | June 7 7 37 | June 10 0 | 655 | 7 17 2 | 411 | 7 12 15 | 244 | 25·2 | 8 14 39 | -4·8 | (7 9 50<br>(7 22 17 | 30·0 | 1297 | 7 16 56 | 1047 | 8 2 46 | 250 |
| 19* | June 12 3 1 | June 14 0 | 647 | 12 15 16 | 457 | 13 12 56 | 190 | 16·8 | 12 14 15 | -6·7 | 12 22 10 | 23·5 | 1221 | 12 17 37 | 1070 | 13 4 39 | 151 |
| 20 | June 16 7 | June 23 0 | 643 | 18 16 55 | 395 | 19 9 2 | 248 | 18·1 | 19 18 50 | -15·3 | 17 1 1 | 33·4 | 1183 | 19 15 53 | 1000 | 17 2 20 | 183 |
| 21* | June 27 17 28 | June 30 0 | 756 | 29 18 1 | 485 | 29 10 1 | 271 | 24·3 | 29 13 57 | -10·7 | 29 4 50 | 35·0 | 1254 | 29 16 43 | 1065 | 29 8 55 | 189 |
| 22 | July 7 2 | July 12 0 | 638 | 7 17 48 | 433 | 8 0 11 | 205 | 16·1 | 8 14 12 | -8·7 | 8 0 20 | 24·8 | 1200 | 7 19 22 | 1090 | 7 4 53 | 110 |
| 23 | July 18 9 | July 20 4 | 728 | 18 16 38 | 429 | 19 10 59 | 299 | 25·0 | 18 15 48 | -7·5 | 18 22 7 | 32·5 | 1227 | 18 18 54 | 1066 | 19 2 20 | 161 |
| 24 | July 25 10 | July 29 4 | 1075 | 26 19 37 | -1351 | 27 3 6 | 2426 | 61·1 | 27 6 29 | -109·0 | 27 3 7 | 170·1 | 1378 | 26 22 32 | 564 | 27 1 39 | 814 |
| 25 | July 29 4 | July 30 20 | 765 | 29 16 42 | 404 | 29 9 52 | 361 | 22·0 | 29 5 51 | -9·0 | 30 7 26 | 31·0 | 1196 | 29 17 11 | 1076 | 30 3 48 | 120 |
| 26 | Aug. 7 10 | Aug. 8 1 | 636 | 7 17 15 | 476 | 7 10 40 | 160 | 22·5 | 7 14 20 | -7·7 | 7 19 44 | 30·2 | 1244 | 7 17 37 | 1109 | 7 12 17 | 135 |
| 27 | Aug. 14 1 | Aug. 17 24 | 682 | 14 21 4 | 390 | 14 12 11 | 292 | 20·0 | 14 21 9 | -19·0 | 14 20 39 | 39·0 | 1191 | 15 18 12 | 1083 | 16 22 43 | 108 |
| 28* | Aug. 30 22 40 | Aug. 31 24 | 609 | 30 22 46 | 320 | 31 5 18 | 289 | 37·8 | 31 5 25 | -14·7 | 31 2 21 | 52·5 | 1219 | 31 17 21 | 907 | 31 5 43 | 312 |
| 29* | Sept. 16 13 47 | Sept. 17 8 | 627 | 16 16 41 | 341 | 17 1 49 | 286 | 16·2 | 16 17 14 | -28·6 | 16 19 38 | 44·8 | 1333 | 16 19 3 | 927 | 17 2 3 | 406 |
| 30 | Sept. 17 14 | Sept. 20 2 | 701 | 18 15 32 | 151 | 18 3 54 | 550 | 46·0 | 18 18 59 | -37·3 | 18 3 59 | 83·3 | 1364 | 18 16 51 | 759 | 18 3 12 | 605 |
| 31* | Sept. 21 17 12 | Sept. 24 17 | 1374 | 22 14 29 | -48 | 22 6 19 | 1422 | 54·1 | 22 14 53 | -111·6 | 22 11 40 | 165·7 | 1707 | 22 14 6 | 771 | 22 6 16 | 936 |
| 32 | Sept. 27 2 | Oct. 1 2 | 1022 | 28 15 39 | 115 | 28 21 13 | 907 | 35·2 | 28 15 37 | -31·3 | 28 20 54 | 66·5 | 1516 | 28 17 19 | 829 | 29 1 13 | 687 |
| 33* | Oct. 25 21 58 | Oct. 28 2 | 628 | 26 22 4 | 356 | 27 1 33 | 272 | 18·7 | 27 14 20 | -33·9 | 27 2 15 | 52·6 | 1236 | 27 16 35 | 964 | 27 0 34 | 272 |
| 34* | Nov. 24 3 45 | Nov. 26 19 | 610 | 25 20 24 | 412 | 24 13 46 | 198 | 23·4 | 24 13 15 | -15·0 | 25 20 18 | 38·4 | 1179 | 25 15 44 | 1106 | 26 3 33 | 73 |

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*, 16,000γ; *D*, 12°; *V*, 44,000γ.

## REMARKS ON MAGNETIC AND ALLIED PHENOMENA, 1946

*General.* The year was one of increasing activity and the autumn equinox was notably disturbed. In the notes which follow, the sunspot data have been extracted from an article in *The Observatory* for February 1947, and from the Mount Wilson Observatory Bulletins, published quarterly in *Terrestrial Magnetism and Atmospheric Electricity*.

The abbreviation C.M.P. is used for Central Meridian Passage, and areas are given in millionths of the sun's hemisphere.

JANUARY (average character figure 0·74).– Slightly disturbed conditions on 1 January became almost quiet on the 2nd and 3rd until a "sudden commencement" at 3d.8h.8m. introduced a moderate storm which lasted until about 5d.5h. The storm gave mainly low values of *H* from about 3d.11h. until 4d.3h. without much oscillation, and rather high values of westerly declination until about 3d.18h. succeeded by slightly low values until about 4d.2h. It was most marked in *V*. The value of this element rose rapidly soon after 3d.15h. to a peak at about 16h. and then decreased to a sharp minimum at 22h. Thereafter the general level of the *V* trace remained somewhat low until 4d.3h. at which time the general recovery set in. The traces continued to show moderate disturbance during the 4th, but by 5d.5h. it had become almost negligible. The over-all ranges were 254γ in *H*, 56′·6 in *D* and 583γ in *V*.

From the 5th to the 17th inclusive conditions remained quiet or only slightly disturbed. Outstanding quiet periods were 8th-9th and 13th-15th. On the other hand there were noticeable bays in the *D* or *H* traces (or both) on the 6th, 7th and 11th. The 18th brought a brief period with a few moderate oscillations in *H* and after several rather quiet days these were renewed on the 23rd-24th in a disturbance which lasted from about 23d.20h. to 25d.3h. During the last two hours of the 23rd there were marked single oscillations in *H* and *D* and these were followed by serrated trace and some further oscillation on the 24th. The ranges in *H* and *D* were considerable but were due to isolated bays and not to the intensity of the general disturbance. They amounted to 182γ and 43′·8 respectively. The range in *V* was only 91γ. Slight disturbance continued on the 26th but the remaining days of the month were almost quiet.

FEBRUARY (average character figure 0·89).- The first two days of February were quiet, but moderate disturbance set in with a "sudden commencement" at 3d.13h.42m. This continued irregularly with some quiet intervals during the next few days, its most prominent feature being an oscillation of about 110$\gamma$ in *H* between 0h. and 1h. on the 6th. It was followed by a vigorous storm which set in at about 7d.7h. and lasted until about 9d.0h. Large oscillations of *H* and *D* began at about 7d.20h.20m. The beginning of the main rise to peak values of *V* was, however, delayed until 14h. The *V* trace reached its maximum at 7d.18h.34m. but there were two comparable peaks between 16h. and 18h. After the maximum at 18h.34m., *V* decreased fairly rapidly to low oscillatory values which were maintained from about 7d.22h.30m. to about 8d.3h.30m. It was during this period of low values in *V* that the greatest oscillations and extremes of *H* and *D* were recorded. After 3h.30m. all three elements recovered rapidly although considerable oscillation continued in *H* and *D* until late on the 8th and *V* was above normal during the afternoon. The over-all ranges recorded were 219$8\gamma$ in *H*, 147′·0 in *D* and 729$\gamma$ in *V*. This storm was with little doubt related to a group of sunspots of exceptional size whose C.M.P. occurred on 5-6 February.

After the end of the storm of the 7th-9th, irregularities in the traces fell off gradually and quiet or only slightly disturbed conditions reigned from the 11th until about 7h. on the 14th. The trace on that day became serrated from about 6h. and in the evening there were three noteworthy sharp "kicks" in the trace of *H*. Also moderate bays were recorded in *D* and *V* between 4h. and 5h. on the 15th. Noteworthy serration ceased at 15d.22h. Only in *H* did the range (172) exceed 150$\gamma$; those of *D* and *V* were but 22′·7 and 95$\gamma$ respectively.

Between the 15th and the 19th the nights 15th-16th and 17th-18th were noticeably quiet. Slight disturbance continued during the rest of the period and increased considerably for some hours from a "sudden commencement" at 19d.15h.0m. until 20d.1h. The outstanding features in the *H* and *D* records were sharp single deflections between 22h. and 23h. on the 19th. The *V* trace showed a marked rise and recovery from 18h. to 23h. of the 19th with a double peak between 20h. and 21h. The respective ranges were 161$\gamma$ in *H*, 37′·7 in *D* and 179$\gamma$ in *V*.

A brief quiet interval succeeded the disturbance of the 19th. This gave way to a greater disturbance the beginning of which is very indefinite but perhaps may be placed at about 20d.18h. The larger changes in all three elements set in at about 20h. At this time *V*, which had been rising gradually since noon, began a somewhat irregular decrease during which low values and moderate oscillations of *H* and *D* were recorded. The minimum of *D* occurred at about 20d.21h.30m. and those of *V* and *H* between 1h. and 2h. on the 22nd.

After 21d.6h., *V* increased gradually until 15h. at which time there was a moderate sharp rise to a peak followed by a fairly smooth descent to a trough at 4h. In the *H* and *D* traces there were noteworthy "kicks" at the time of the peak in *V* but apart from these the disturbance was not great. Over-all ranges reached 239$\gamma$ in *H*, 56′·7 in *D* and 269$\gamma$ in *V* and the disturbance ended at about 24d.3h. Residual irregularities in the traces of *H* and *D* continued for several days afterwards. The close of the month, from the 26th was, however, rather quiet.

MARCH (average character figure 0·87).- A marked "sudden commencement" was recorded at 1d.1h.37m. but the succeeding disturbance was slight apart from an isolated sharp oscillation in the *H* and *D* traces between 0h. and 1h. on the 2nd. The single oscillation was almost entirely responsible for the range of 176$\gamma$ recorded in *H*. The ranges in *D* and *V* were only 22′·7 and 80$\gamma$ respectively.

Irregular disturbance was renewed again on the 4th after a short, relatively quiet interlude. Its beginning and end were very ill-defined but may perhaps be placed at 4d.7h. and 7d.4h. The chief irregularities were recorded between 4d.21h. and 5d.2h. and included a noteworthy single oscillation in *H* and *D*. There was also a sharp trough in the *H* trace shortly before noon on the 5th. The ranges recorded were 197$\gamma$ in *H*, 31′·2 in *D* and 123$\gamma$ in *V*.

The 8th was a notably quiet day and so also was the 9th until about 13h. Appreciable disturbance followed and can hardly be separated from the marked disturbance of the succeeding day although a decided "sudden commencement" was recorded at 10d.1h.50m. The outstanding part of this disturbance was between 10d.19h. and 11d.2h. The *V* trace showed a small peak shortly after 20h. followed by a decrease to a marked minimum at between 1h. and 2h. There were also in this interval three or four marked oscillations of *H* and *D* accompanying a decrease and recovery in the general value of these elements. The disturbance terminated fairly definitely at about 12d.0h. Its over-all ranges were 254$\gamma$ in *H*, 58′·5 in *D* and 267$\gamma$ in *V*.

The period from the 12th to the 21st inclusive was quiet apart from some slight activity on the 15th, 17th, 20th and 21st. It was succeeded by a protracted stormy period which began with a "sudden commencement" at 22d. 5h. 39m. Disturbance on the 22nd was only moderate and occurred mainly before mid-afternoon and on the 23rd until 21h. there was not much more than serrated trace. At this time however large oscillatory decreases set in especially in *H* and *V*. The lowest values and greatest oscillations occurred between about 24d. 1h. and 4h. All three traces had returned to near their normal positions by 24d. 6h. but there was no clear break in the disturbance and both *H* and *V* reached high values between 24d. 15h. and 17h. Another semi-quiet period followed until about 22h. at which time there was a recurrence with slightly less intensity of the disturbance recorded during approximately the same period 24 hours previously. There was no interval between this and a renewal with storm intensity of the previous afternoon's disturbance, though the three elements passed through their normal values. In this last phase of the storm, oscillation was much more pronounced and persistent in all three elements than during the earlier phases, and also the ranges of *H* and *D*, though not that of *V*, were much increased. The increase was specially marked in *D*. Conditions became progressively less disturbed after a minimum of *H* at about 25d. 23h., and there was a suspension of large oscillations on the 26th and 27th. The disturbed period was not over, however, for a period of even greater storminess followed immediately after an almost violent "sudden commencement" recorded at 28d. 6h. 34m. In this storm short-period large oscillations in *H* and *D* lasted from about 8h. to 23h. on 28th and in *V* from noon until 23h. The value of *H* was much above normal for the greater part of the period from 14h. 30m. to 17h. and below from about 20h. 30m. to about 22h. 30m. Westerly declination was also much below normal from about 12h. to 14h. as well as for shorter periods at about 15h. and 20h., and at 22h. there was a large swing on both sides of the normal. There were some low values of *V* between 12h. and 16h. (a change in character from the disturbance of the 25th) but thereafter the disturbance in *V* resembled that of the 25th in giving values mainly above normal. The large single oscillation at 22h. in *D* was accompanied by smaller oscillations of *H* and *V*. It marked the termination of the intense part of the storm and by 29d. 5h. conditions were quiet. There were, however, residual moderate oscillations and some pulsation until the 30th. A possible connexion has been suggested between the storm and a sunspot region whose C.M.P. occurred on 27 March. The night 30th-31st gave a brief, quiet interlude followed by some irregular variation in the traces especially in the last two hours of the month.

The ranges between 22d. 5h. 39m. and 24d. 6h. were 742$\gamma$ in *H*, 808′·9 in *D* and 416$\gamma$ in *V*, between 24d. 8h. and 25d. 8h. 1021$\gamma$ in *H*, 65′·9 in *D* and 707$\gamma$ in *V*, between 25d. 8h. and 26d. 9h. 1292$\gamma$ in *H*, 140′·9 in *D* and 595$\gamma$ in *V* and between 28d. 6h. 34m. and 29d. 5h. 1711$\gamma$ in *H*, 188′·6 in *D*.

APRIL (average character figure 0·77).- The irregular traces of the closing hours of March continued until about midnight of 2-3 April. The most prominent feature in this period was an oscillation of *H* between 2d. 21h. and 22h. Conditions were quieter until the forenoon of the 5th but somewhat more disturbed again thereafter. On the 9th there was a considerable increase in the diurnal variation and there were a few oscillations in *H* and *D*, which together gave ranges of 178$\gamma$ in *H*, 30′·6 in *D* and 150$\gamma$ in *V* between 9d. 8h. and 10d. 17h. The quiet days intervened between this and a period of considerable disturbance with much serrated trace, which lasted until the 16th inclusive. This period started with a "sudden commencement" at 12d. 19h. 11m. On the 13th the *H* and *D* traces were much serrated and there were a few moderate oscillations in the evening. The disturbance increased on the 14th, continued throughout the night and reached its greatest development on the 15th on which day *H* was notably low in the forenoon and *V* notably high in the afternoon. A few marked slow oscillations between 15d. 19h. and 20h. in which *H* reached its maximum and *D* its minimum ended the stronger part of the disturbance, but there were appreciable residuals until the early hours of the 17th. The extremes of all three elements occurred on the 15th between 6h. and 20h. the ranges being 248$\gamma$ in *H*, 38′·4 in *D* and 226$\gamma$ in *V*.

Following on the moderate disturbances mentioned above there was a fairly quiet period until 22d. 7h. 0m. A "sudden commencement" at this time was succeeded by moderate disturbance until shortly after noon of the 23rd when the disturbance developed into a storm. The value of *H* increased greatly by mid-afternoon subsequently falling off and becoming decidedly low from about 23d. 23h. to 24d. 3h. The general variation of *D* and *V* were similar to those of *H*.

The largest rapid oscillations of the storm occurred chiefly in the last hour of the 23rd and in the *V* trace were notably more marked than usual. The disturbance continued during the 24th and there was a marked isolated peak in *H* at 24d.16h.52m. It may be said to have ended at about 25d.7h., apart from slightly abnormal diurnal variation. The over-all ranges of the storm were 225.3$\gamma$ in *H*, 207′·9 in *D* and 89.4$\gamma$ in *V*. The remainder of the month was slightly disturbed except for a quiet 24 hours on the 27th-28th.

MAY (average character figure 0·77).- The slightly disturbed conditions of the closing days of April continued until 5 May, and there followed a period of moderate disturbance which lasted with little interruption until 11 May inclusive. The moderate disturbance may possibly be said to have begun with a "sudden commencement" at 6d.4h.13m. On this first day there was serrated trace, a considerable decrease and recovery of *H* between 6h. and 7h. and two marked peaks of *H* accompanied by an oscillation in *D* between 22h. and 23h. On the 7th there was a marked bay in the *D* and *V* traces from 5h. to 9h. This was repeated on a smaller scale but with an increased deflection in *H* at the same time of the 8th. The disturbance on the 9th was more concentrated. After a noticeable low value of *V* in the early morning this element rose to a fairly high value in the late afternoon and early evening thereafter falling and reaching a minimum shortly before 23h. This increase and decrease of *V* in the afternoon and evening was accompanied by increases and decreases in *H* and *D* - more especially in *H*. The ranges of *H* and *V* during the 9th were some 23.8$\gamma$ and 22.9$\gamma$ respectively. Disturbance on the 10th was relatively slight, but the traces were more serrated again on the 11th and there was a considerable range of *H* (27.1$\gamma$ between a minimum at 11d.8h.33m. and a maximum at 11d.17h.20m.) with a few moderate oscillations in *H* and *D*. The disturbance may be said to have ended towards midnight by which time *V* had resumed its normal value: major oscillations ceased earlier, at 18h.

There was a period of little more than slight disturbance again from the 12th to the 20th, with almost quiet nights from the 14th to the 15th and the 18th to the 20th, but a moderate increase in *H* for two or three hours in the late afternoon of the 17th and a moderate hump on the *V* trace between 17d.12h. and 18d.4h. This period was followed by moderate disturbance, the major oscillations of which may be said to have terminated on the night of the 25th-26th. The night of the 20th-21st was moderately disturbed without any very outstanding features. There was some little development of oscillation on the afternoon and evening of the 21st, followed by rather low values of *V* and *H* between 22d.4h. and 8h. These low values recurred, though less markedly, at about 23d.2h. The afternoon and evening of the 23rd brought the greatest development in *H*, the moderate evening maximum which had been a feature of the preceding three days being considerably increased on this day. The *V* trace also had a corresponding moderate peak at 23d.17h.50m. After this the disturbance fell off progressively during the next two nights and was not more than slight from the 26th to the end of the month. The over-all ranges between the 20th and the 26th were 29.8$\gamma$ in *H*, 28′·8 in *D* and 20.4$\gamma$ in *V*.

JUNE (average character figure 0·87).- The slight activity of the last part of May persisted until 2 June. It was followed by a notably quiet interval until a small "sudden commencement" at 4d.6h.10m. introduced a further slight disturbance which lasted until the evening. On the following evening, after an almost quiet interval, there was a very marked "sudden commencement" at 20h.10m. and the traces were somewhat irregular on the following day and became considerably disturbed on the 7th and 8th. The increased disturbance set in with a sudden oscillation at 7d.7h.37m. differing somewhat from the conventional type of "sudden commencement". The principal features on the 7th were a high value of *V* in the afternoon followed by a gradual decrease to a minimum at 8d.2h.46m., and a very similar general variation of *H* with two considerable superposed slow oscillations at about noon and 15h. The ranges of *H* and *V* on the 7th were 24.4$\gamma$ and 25.0$\gamma$ respectively. The disturbance on the 8th occurred chiefly in *H* and was inconsiderable in *V*. It gave a generally irregular *H* trace with a range of 18.2$\gamma$. Serration and oscillation fell off during the 9th but there was still some disturbance on the 10th and 11th, the most prominent features being two moderate oscillations of *H* in the late afternoon of the 10th. There was renewed activity on the 12th after a noticeable period of undisturbed *D* trace. This new disturbance started with a "sudden commencement" which was not very well defined, at 12d.3h.1m. The main features were a considerable undulation in the *V* trace with high values from 16h. to 19h. and dropping to slightly low values on the following morning from 3h. to 5h., and a rather similar but more irregular variation of *H* with its peak at 12d.15h.16m. and its minimum at 12d.23h.10m. The ranges in *H* and *V* were 16.8$\gamma$ and 15.1$\gamma$ respectively. Disturbance then continued less intensively (though a somewhat lower minimum of

*H* was recorded at 12d. 12h. 56m.) until fresh activity on the 16th. This latter gave a rather high *H* during the late afternoon and evening on the 16th and a rather low *H* in the early hours of the 17th, the low values being accompanied by low values and some slow oscillation in *D* and *V*. The following day was quieter but the 18th and 19th more disturbed again. Both *H* and *V* had noteworthy maxima in the late afternoon and early evening of the 18th and *V* a minimum shortly before 19d. 2h.

The minimum of *H* was delayed until 19d. 9h. 2m. The disturbance recurred daily with diminishing amplitude until the night 23rd-24th. Over-all ranges were 248$\gamma$ in *H*, 33′·4 in *D* and 183$\gamma$ in *V*. Further moderately high values of *H* on the 25th were preceded by a "sudden commencement" at 24d. 18h. 18m. and there was somewhat greater activity on the 26th. This period was all more or less disturbed but perhaps the beginning of another intensification may be placed in a marked "sudden commencement" at 27d. 17h. 28m. although the large deflections of the traces did not occur until the afternoon and evening on the 29th. The trace of *H* reached rather high peak values at this time, and there was also a peak in *V*. The ranges between the 27th and the 30th were 271$\gamma$ in *H*, 35′·0 in *D* and 189$\gamma$ in *V*. Activity on the 30th was relatively inconsiderable.

JULY (average character figure 0·81).- Apart from rather abnormal diurnal variation in *H* the beginning of July was quiet, until a "sudden commencement" at 3d. 1h. 18m. introduced a disturbance which gave a range of 138$\gamma$ in *H* during the day. Two quiet and one slightly disturbed day ensued before the onset of a marked disturbance at about 7d. 2h. This gave serrations and humps in the *H* and *V* traces on the evening of that day and the traces remained irregular from day to day thereafter until the 11th inclusive. The ranges on the 7th-8th were 205$\gamma$ in *H*, 24′·8 in *D* and 110$\gamma$ in *V*.

A moderate disturbance was recorded again on 14th-15th after two quiet nights. It gave a range of 155$\gamma$ in *H* between the evening of the 14th and the morning of the 15th. Disturbance decreased on the 15th but increased again on 16th-17th the range being 157$\gamma$ in *H* on the 16th. This led up to a considerable disturbance on the 18th-19th. The latter seems to have started suddenly with increased serration of the traces at 18d. 9h. 5m. It gave sudden increases of *H* and *D* (especially of *H*) at about 14h., and a more gradual increase of *V*. The values fell off after about 19h. and minima were recorded round about 19d. 2h. This variation was repeated in a less marked form on the following day but it was hardly recognizable on the 20th-21st: it may be said to have ended at about 20d. 4h. The absolute minimum of *H* occurred later on the 19th at about the time of the ordinary diurnal minimum. Over-all ranges during the disturbance were 299$\gamma$ in *H*, 32′·5 in *D* and 161$\gamma$ in *V*.

Moderate disturbance recurred from the 21st to the 23rd with a change of type from coarse to fine serrations on the 23rd. The 24th-25th was only slightly disturbed but what may perhaps be regarded as a "sudden commencement" at 25d. 10h. 15m. then introduced moderate disturbance which gave place suddenly at 26d. 18h. 47m. to the rapid oscillations of a major storm. The trace of *H* was rather high and oscillatory from this time to about midnight but thereafter until 7h. recorded more pronounced low values with increased oscillation. The trace of *V* was rather similar in appearance to that of *H*, but the initial sudden onset of the storm gave decreased *V* and, except for a peak between 22h. and 23h., *V* was much less above normal than *H* in the first phase which ended at about midnight. In *D* the duration of great disturbance was the same as in the other two elements. The first phase gave some oscillation but no noteworthy general deviation from the usual value. In the second, stronger phase the declination was mainly below normal and there was much more oscillation. All three traces returned to about their normal positions between about 27d. 7h. and 9h. but considerable oscillation continued in *H* until the evening. The night 27th-28th was only slightly disturbed, but following that there was moderate disturbance which gave considerable ranges in *H* on the 29th and 30th with a noteworthy change from coarse to fine serrations at 29d. 4h. 42m. similar to that of the 23rd. This could be regarded as a "sudden commencement" though not of the conventional type. The storm was probably associated with an exceptionally large sunspot region, approaching in size that of February, whose C.M.P. occurred on 26-28 July. Activity on the last day of the month was hardly more than slight. The ranges in the storm of 26th-27th were 24$\gamma$-26$\gamma$ in *H*, 170′·1 in *D* and 814$\gamma$ in *V* and those of the 29th-30th 361$\gamma$ in *H*, 31′·0 in *D* and 120$\gamma$ in *V*.

AUGUST (average character figure 0·74).- The first six days of the month were slightly disturbed only, and the 3rd-4th verged on quiet. A moderate disturbance followed on the 7th being introduced by what may perhaps be regarded as a "sudden commencement" at 7d.1h.17m. Fairly high values of *H* and *V* were recorded on the afternoon and evening. The traces returned to about normal by midnight but there was slight recurrence on the evening of the 8th. The 9th-10th had also slight disturbance which increased to moderate on the 11th but with no very outstanding features, and decreased again on 12th-13th. Moderate activity was renewed on the 14th. The trace of *H* descended from 14d.7h. to a noticeably low value by noon, then recovering to about normal by 13h. and continuing moderately variable thereafter with a marked sharp oscillation which affected all three traces at 21h. The ranges during the 14th-15th were 292$\gamma$ in *H*, 39′·0 *in* D and 102$\gamma$ in *V*. Moderate disturbance continued on the following three days but from the 18th to the 21st conditions were semi-quiet and on the 22nd-23rd notably quiet. Thereafter slight disturbance prevailed until the 28th inclusive, followed by an almost quiet interval on the 29th-30th and fairly marked disturbance on the 31st. The beginning of the latter may be placed at about 30d.19h. but there was also an oscillation of the "sudden commencement" type at 30d.22h.40m. The traces returned to about normal again at about 31d.24h. The outstanding features of the disturbance were pronounced dips in all three traces between 31d.5h. and 6h. These, however, were not simultaneous in *D*, the dip (increase of westerly declination) being a few minutes later than the one in *H*, and that in *V* following after about half an hour. There were also appreciable humps in the *H* and *V* traces in the late afternoon. The ranges were 286$\gamma$ in *H*, 52′·5 in *D* and 312$\gamma$ in *V*.

SEPTEMBER (average character figure 1·00).- Conditions were fairly quiet until the evening of the 3rd when slight disturbance set in. This continued until the 5th and was renewed on the 7th after a quiet 24 hours from the morning of the 6th to the morning of the 7th. Thereafter it persisted with varying intensity until the 16th. The most noteworthy deviation of the traces occurred between 10d.22h. and midnight and on the other hand the activity was noticeably less pronounced from the 13th to the 15th. On the 16th marked disturbance set in with a "sudden commencement" at 13h.47m. and recurred daily in what might be regarded as a series of small storms until the 19th inclusive. The first storm lasted until about 17d.7h. It gave high values of *H* and *V* in the afternoon and evening of the 16th followed by minima at about 17d.2h. It is noticeable that the minimum of *H* preceded that of *V* as in the disturbance of 31 August. There were a few fairly sharp oscillations in all three traces at about 19h.-20h. and *V* reached its peak at this time. The ranges were 286$\gamma$ in *H*, 44′·8 in *D* and 406$\gamma$ in *V*.

The second storm may be said to have begun at about 17d.16h. and there was no perceptible pause between this and the third storm. The most noticeable features were very low values of *H* and *V* with some oscillation between 18d.2h. and 4h., *V* recovering from 4h. onwards but *H* not until 9h. onwards. The increase of *V* did not stop at the normal value but continued without break to peaks between 15h. and 17h. A similar remark applies also to *H* which reached its peak between 18d.15h. and 16h. There were a few sharp oscillations at about 19h. These left all three elements at considerably lower values than before and *V* continued to decrease towards a minimum (less pronounced than that of the 18th) which was reached shortly before 19d.4h. In *H* the decrease was not so continuous and the minimum was again recorded somewhat earlier than that of *V*. Residual disturbance gave further but reduced peaks in *H* and *V* between 19d.3h. and 16h. and the disturbance was practically over by 19d.18h. The ranges were 550$\gamma$ in *H*, 83′·3 in *D* and 605$\gamma$ in *V*.

After a short interval of slight activity another period of intense disturbance set in with an exceptionally strong "sudden commencement" at 21d.17h.12m. This storm was most intense on the 22nd but continued also through the 23rd after some falling off for a brief period during the intervening night hours. Its structure in *V* showed two main oscillations from early morning minima to afternoon maxima on 22nd-25th and 23rd-24th the second one being slightly less pronounced. The deep minimum between 22d.4h.30m. and 6h.30m. occurred with little preparatory activity. From it there was rapid recovery until 9h. and after 11h. a further irregular rise followed by abrupt peaks and rapid vibration between 13h. and 15h. After 19h. the trace descended smoothly until 23d.1h., then dropped moderately to a low level (not so low, however, as on the 22nd) which was maintained until 7h. There was then a steady rise until

14h. followed by peaks between 15h. and 17h. The value of *V* thereafter returned fairly gradually to normal by about 24d.8h. The general character of the changes of *H* were similar to those of *V* but there was much more rapid oscillation especially during the afternoon of the 22nd. There was an isolated peak shortly after 23d.16h. which considerably surpassed any of those on the 22nd. In *D* the disturbance reached storm dimensions on the 22nd only. For the greater part of the disturbed period westerly declination was increased but there were some considerable swings in the opposite direction between 6h. and 7h. and in the afternoon during the period of rapid oscillation. The ranges were 1422$\gamma$ in *H*, 165′·7 in *D* and 936$\gamma$ in *V* all these being recorded on the 22nd.

After semi-quiet days on the 25th-26th further disturbance set in again at about 27d.6h. It was limited mainly to the late afternoon and early evening on this day but developed into a storm on the 28th. The principal features were high values in *H* and *V* between 15h. and 18h. followed by low values between 27d.21h. and 28d.3h. There was little or no rapid oscillation but a peak in *H* between 27d.15h. and 16h. was notably high. The disturbance in *D* was less marked than in *H* and *V* and consisted of fairly marked slower oscillations without any general great departure from the mean. This phase of the storm was over by about 28d.6h. There was however recurrence of moderate disturbance on the last two days of the month. The ranges on the 28th-29th were 907$\gamma$ in *H*, 66′·5 in *D* and 687$\gamma$ in *V*.

A large sunspot group which crossed the sun's disc during 13-26 September and was within the central part of the disc on 16 September was associated with the magnetic disturbances of the month.

OCTOBER (average character figure 0·74).- This month had only one specially noteworthy disturbance. This occurred about a solar revolution after the last disturbance of September.

At the beginning of the month the disturbance of late September had not quite subsided and there was a moderate range on 1 October. Slight irregular oscillation then continued, increasing to moderate on the 5th-6th, and giving place to a continuous but rather weak disturbance on the 9th-10th. Two almost quiet periods occurred from the 17th to the 19th followed by moderate oscillation on the 19th-20th. There was another almost quiet 24 hours on the 23rd-24th after which gradually increasing activity led to a fairly marked disturbance on the 25th-28th.

This isolated disturbance began with an ill-defined "sudden commencement" at 25d.21h.58m. (more clearly defined at Lerwick), and its end may be placed at about 28d.2h. Its main phase comprised a few fairly marked slow oscillations in *H* and *D* together with appreciable decreases in all three elements between 26d.20h. and 27d.5h. Oscillation became less marked later on the 27th but the diurnal variation was appreciably above average. The over-all ranges were 272$\gamma$ in *H* and *V* and 52′·6 in *D*.

The only special feature during the remainder of the month was a quiet interval on the 30th and part of the 31st.

NOVEMBER (average character figure 0·63).- Like October, November had only one disturbance worthy of note, and as in October this followed the preceding disturbance after about one solar revolution.

The was some activity on 31 October and this increased to a continuous though not strong disturbance on 1 November. Subsequently slightly disturbed conditions were broken by quiet periods on 3rd-4th, 7th-8th and 14th-15th and by moderate disturbance on 6th-7th, 10th-12th and 19th-22nd.

The noteworthy individual disturbance of the month followed a "sudden commencement" at 24d.3h.45m. and lasted until about 26d.19h. Its main features on the 24th were fairly marked oscillations between 13h. and 14h. and a considerable amount of serrated trace. On the 25th there were two or three spasmodic oscillations of similar magnitude without serrations. The over-all ranges were 198$\gamma$ in *H*, 38′·4 in *D* and 73$\gamma$ in *V*. The remainder of the month was markedly quiet.

**DECEMBER** (average character figure 0·58).- This month was exceptionally free from disturbance, its greatest daily ranges being 120$\gamma$ in *H*, 30′·8 in *D* and 110$\gamma$ in *V* on the 19th, that is, rather less than a solar revolution after the November disturbance. In the main there was slight activity with a number of quiet intervals on the 30th-1st, 3rd, 4th, 8th-9th, 14th-16th, 20th-21st and a somewhat less quiet period from the 29th to the 31st. The only other moderate disturbance besides that of the 19th occurred on the 11th-12th. There was a marked "sudden commencement" at 25d.19h.13m. but the succeeding disturbance was hardly more than slight.

# PRESSURE AT STATION LEVEL

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·61 is printed 95·61

93 ESKDALEMUIR: $h_b$(height of barometer cistern above M.S.L.) = 237·3 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 00·2 | 92·1 | 95·0 | 60·1 | 54·5 | 58·1 | 86·6 | 81·8 | 84·2 | 96·9 | 94·1 | 95·6 | 89·7 | 88·0 | 88·9 | 61·7 | 58·3 | *59·0* |
| 2 | 05·0 | 00·2 | 03·2 | 65·1 | *49·5* | *54·8* | 86·4 | 82·9 | 85·2 | 95·5 | 93·6 | 94·7 | 90·9 | 87·7 | 88·5 | 68·4 | *58·2* | 62·0 |
| 3 | 04·8 | 92·2 | 99·5 | 65·2 | 57·2 | 60·8 | 82·9 | 74·1 | 77·3 | 94·3 | 87·8 | 91·2 | 99·1 | 90·9 | 94·4 | 81·5 | 68·4 | 75·0 |
| 4 | 92·2 | 78·1 | 84·0 | 64·4 | 60·4 | 62·1 | 82·8 | 76·5 | 79·4 | 87·8 | 84·1 | 85·5 | 00·0 | 95·9 | 98·2 | 81·4 | 70·6 | 76·5 |
| 5 | 84·7 | 79·4 | 82·9 | 83·2 | 64·4 | 73·6 | 90·5 | 82·8 | 87·3 | 00·5 | 86·4 | 93·4 | 00·5 | 97·9 | 99·5 | 70·6 | 60·7 | 64·1 |
| 6 | 89·3 | 83·6 | 86·2 | 83·9 | 77·1 | 81·1 | 92·2 | 90·3 | 91·4 | 03·6 | 99·4 | *01·7* | *00·8* | 99·2 | *00·0* | 84·8 | 67·1 | 76·4 |
| 7 | 89·0 | 81·2 | 84·1 | 81·3 | 74·7 | 76·9 | 91·8 | 83·7 | 88·6 | 99·5 | 88·2 | 93·8 | 00·4 | 95·8 | 97·9 | 89·6 | 84·8 | 87·7 |
| 8 | 81·2 | 65·8 | 72·2 | 75·0 | 64·8 | 69·8 | 83·7 | 78·0 | 80·0 | 92·8 | 84·7 | 87·4 | 99·8 | 95·3 | 97·6 | 89·4 | 81·3 | 84·8 |
| 9 | 71·8 | 45·1 | *57·5* | 88·6 | 74·3 | 84·5 | 85·3 | 78·9 | 81·7 | 01·8 | 92·7 | 97·5 | 99·7 | 95·9 | 97·5 | 81·4 | 74·3 | 79·5 |
| 10 | 68·9 | *44·8* | 60·6 | 87·9 | 84·4 | 86·4 | 89·4 | 85·2 | 87·2 | *03·8* | 97·4 | 01·4 | 96·9 | 94·1 | 95·8 | 77·1 | 70·8 | 72·7 |
| 11 | 69·3 | 63·9 | 66·2 | 91·8 | 86·7 | 89·7 | 89·4 | 80·4 | 86·2 | 97·4 | 85·4 | 90·3 | 96·5 | 91·1 | 94·1 | 81·8 | 77·0 | 78·9 |
| 12 | 92·9 | 65·5 | 78·4 | 97·2 | 91·8 | 94·7 | 80·4 | 74·0 | 76·3 | 85·8 | 83·5 | 84·5 | 91·1 | 87·4 | 89·0 | 93·1 | 81·8 | 86·9 |
| 13 | 09·8 | 92·9 | 03·0 | 04·9 | 97·2 | 00·5 | 82·8 | 75·1 | 79·4 | 89·5 | 85·1 | 86·7 | 89·3 | 85·8 | 87·1 | 95·7 | 93·1 | 94·8 |
| 14 | 13·4 | 09·8 | 11·8 | 08·8 | 04·9 | 07·0 | 87·2 | 82·4 | 84·3 | 89·5 | 85·8 | 88·1 | 85·8 | 83·0 | 84·4 | 94·8 | 87·5 | 91·0 |
| 15 | *15·9* | 13·4 | *14·5* | *09·0* | 04·9 | *07·8* | 95·1 | 87·1 | 90·3 | 87·5 | 84·3 | 85·3 | 86·2 | 82·1 | 84·1 | 87·5 | 82·9 | 84·8 |
| 16 | 15·5 | 09·7 | 12·6 | 04·9 | 98·5 | 01·8 | 99·1 | 95·1 | 98·0 | 89·0 | 76·4 | 84·3 | 83·6 | 81·6 | 82·8 | 82·9 | 78·1 | 80·1 |
| 17 | 09·9 | 99·4 | 05·1 | 04·4 | 93·4 | 00·4 | 98·2 | 86·7 | 92·4 | 89·0 | 74·6 | 81·1 | 90·6 | 83·0 | 86·4 | 79·5 | 78·9 | 79·2 |
| 18 | 99·4 | 85·1 | 90·6 | 95·1 | 88·2 | 93·0 | 87·7 | 86·0 | 86·9 | 00·0 | 89·0 | 94·8 | 93·8 | 90·4 | 92·2 | 78·9 | 76·5 | 77·4 |
| 19 | 92·5 | 83·6 | 87·1 | 88·2 | 76·1 | 82·0 | 87·1 | 85·0 | 86·0 | 00·4 | 96·4 | 98·6 | 93·6 | 88·9 | 91·1 | 83·6 | 78·3 | 80·4 |
| 20 | 96·5 | 92·5 | 94·7 | 87·4 | 75·2 | 79·7 | 86·5 | 76·0 | 79·1 | 97·8 | 95·4 | 96·2 | 89·4 | 82·1 | 85·0 | 93·6 | 83·6 | 87·3 |
| 21 | 99·8 | 95·4 | 97·9 | 94·2 | 87·4 | 91·4 | 82·8 | 76·8 | 80·3 | 03·1 | 97·5 | 99·6 | 84·0 | 79·1 | 81·0 | *01·2* | 93·6 | 98·4 |
| 22 | 95·4 | 80·7 | 88·2 | 92·2 | 65·5 | 82·3 | 77·2 | *69·9* | *72·7* | 03·3 | 93·3 | 00·4 | 93·4 | 84·0 | 88·9 | 00·8 | 98·5 | *99·8* |
| 23 | 90·5 | 78·7 | 83·5 | 79·0 | 55·4 | 66·7 | 84·7 | 75·0 | 79·7 | 93·3 | 80·4 | 85·2 | 94·3 | 92·3 | 93·4 | 98·5 | 87·5 | 93·6 |
| 24 | 91·5 | 81·4 | 87·2 | 83·2 | 79·0 | 81·2 | 87·8 | 83·7 | 85·3 | 80·5 | 71·9 | 76·3 | 92·6 | 88·2 | 89·9 | 87·5 | 83·5 | 85·1 |
| 25 | 85·0 | 77·7 | 82·1 | 84·2 | 81·7 | 82·8 | 93·7 | 87·8 | 91·3 | 72·0 | *67·0* | *69·0* | 88·9 | 84·5 | 86·6 | 86·2 | 79·0 | 83·2 |
| 26 | 81·5 | 75·8 | 78·9 | 85·4 | 83·8 | 84·7 | 99·1 | 93·6 | 96·1 | 83·0 | 69·7 | 76·0 | 84·5 | 79·3 | 81·8 | 84·9 | 76·8 | 79·8 |
| 27 | 82·2 | 79·2 | 81·5 | 84·5 | 75·5 | 79·9 | 99·9 | 98·3 | 99·2 | 85·3 | 82·7 | 84·1 | 79·3 | 69·4 | 74·0 | 85·5 | 75·8 | 81·7 |
| 28 | 79·2 | 62·4 | 71·7 | 81·8 | 74·9 | 77·5 | 99·7 | 93·2 | 96·8 | 85·1 | 76·7 | 80·9 | 78·7 | 75·7 | 77·7 | 84·7 | 77·5 | 80·4 |
| 29 | 67·1 | 53·8 | 61·7 | | | | 96·3 | 91·8 | 93·4 | 82·8 | 74·8 | 77·6 | 80·3 | 77·7 | 78·5 | 84·7 | 77·6 | 82·1 |
| 30 | 71·7 | 54·8 | 61·8 | | | | *01·8* | 96·2 | *99·7* | 89·5 | 82·7 | 86·2 | 80·2 | 68·7 | 75·9 | 93·1 | 82·3 | 88·6 |
| 31 | 76·5 | 59·3 | 70·5 | | | | 01·6 | 96·5 | 98·5 | | | | 68·7 | *61·7* | *65·5* | | | |
| Mean | 91·05 | 79·92 | 85·62 | 86·82 | 77·91 | 82·55 | 89·99 | 84·03 | 86·92 | 92·68 | 85·37 | 88·91 | 90·41 | 85·70 | 87·99 | 85·48 | 78·14 | 81·71 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 93·8 | 90·4 | 93·0 | *90·5* | 84·7 | *88·7* | 77·7 | 75·6 | 76·5 | 90·2 | 86·9 | 88·4 | 96·1 | 85·5 | 89·4 | 77·0 | 58·7 | 69·8 |
| 2 | 90·4 | 85·5 | 86·8 | 84·7 | 78·9 | 81·1 | 76·8 | 74·2 | 75·7 | 89·2 | 86·9 | 88·3 | 85·5 | 83·5 | 84·4 | 68·7 | 59·5 | 65·6 |
| 3 | 86·3 | 81·0 | 84·7 | 85·3 | 80·8 | 82·8 | 74·2 | 64·7 | 69·7 | 88·1 | 79·8 | 82·6 | 88·5 | 83·2 | 85·4 | 70·5 | 61·8 | 64·2 |
| 4 | 81·0 | 71·6 | 74·6 | 85·2 | 82·0 | 83·4 | 64·7 | *61·6* | *62·6* | 85·0 | 79·5 | 83·1 | 96·8 | 88·5 | 91·9 | 86·2 | 70·5 | 80·1 |
| 5 | 89·0 | 74·2 | 81·4 | 84·0 | 81·0 | 82·6 | 69·9 | 62·9 | 66·1 | 86·5 | 81·5 | 83·1 | 05·1 | 96·8 | 01·3 | 86·0 | 77·8 | 81·0 |
| 6 | 02·3 | 89·0 | 95·7 | 81·2 | 79·0 | 80·0 | 75·8 | 69·9 | 73·1 | 93·0 | 86·5 | 90·3 | *05·3* | 99·7 | *03·7* | 83·4 | 79·6 | 82·0 |
| 7 | *04·0* | 02·3 | *03·2* | 79·5 | 78·6 | 79·1 | 79·5 | 75·6 | 77·6 | 97·6 | 92·6 | 94·4 | 99·7 | 96·6 | 97·9 | 79·6 | 58·3 | 68·2 |
| 8 | 03·8 | 00·8 | 02·0 | 78·6 | 72·0 | 74·8 | 82·7 | 78·8 | 80·1 | 04·1 | 97·6 | 01·2 | 98·4 | 96·4 | 97·5 | 58·7 | *52·8* | *55·7* |
| 9 | 03·1 | 00·5 | 01·8 | 72·7 | 71·5 | 72·0 | 88·5 | 82·7 | 85·7 | 07·3 | 04·1 | 05·5 | 97·6 | 91·7 | 94·0 | 76·1 | 58·7 | 66·4 |
| 10 | 03·1 | 97·1 | 00·1 | 73·7 | 68·5 | 70·4 | 88·5 | 74·2 | 83·2 | *09·8* | 07·3 | *08·9* | 96·6 | 94·0 | 95·1 | 83·7 | 76·1 | 81·0 |
| 11 | 97·1 | 91·9 | 94·1 | 83·0 | 73·7 | 80·0 | 89·8 | 74·3 | 81·4 | 08·9 | 02·8 | 06·1 | 95·5 | 88·6 | 93·2 | 78·7 | 65·7 | 71·6 |
| 12 | 91·9 | 86·4 | 89·3 | 81·7 | 73·1 | 76·3 | 90·1 | 75·8 | 85·2 | 02·8 | 97·6 | 00·0 | 88·6 | 70·8 | 77·4 | 89·7 | 77·0 | 84·9 |
| 13 | 86·4 | 78·2 | 81·8 | 84·7 | 74·3 | 81·1 | 76·1 | 69·3 | 72·6 | 97·6 | 95·4 | 96·0 | 77·6 | 72·3 | 75·8 | 99·1 | 89·7 | 94·4 |
| 14 | 78·2 | 75·7 | 76·7 | 84·8 | 82·8 | 83·7 | 77·4 | 64·2 | 72·0 | 95·6 | 93·1 | 94·1 | 82·1 | 75·6 | 79·4 | 06·3 | 99·1 | 01·6 |
| 15 | 78·0 | 75·4 | 76·2 | 86·6 | 84·5 | 85·7 | 83·6 | 71·4 | 79·9 | 96·6 | 93·1 | 94·7 | 81·2 | 76·1 | 78·0 | 15·0 | 06·3 | 11·5 |
| 16 | 76·4 | 74·5 | 75·7 | 86·1 | 82·5 | 84·1 | 82·6 | 77·6 | 79·5 | 97·2 | 95·7 | 96·4 | 79·8 | 71·6 | 77·6 | *15·5* | 14·5 | *15·0* |
| 17 | 74·5 | *67·8* | *71·7* | 86·3 | 82·5 | 84·3 | 77·6 | 72·6 | 74·8 | 96·6 | 94·0 | 95·6 | 71·6 | 43·3 | 54·1 | 14·8 | 13·5 | 14·2 |
| 18 | 74·3 | 72·6 | 73·6 | 86·0 | 79·6 | 82·4 | 75·6 | 66·1 | 71·3 | 94·0 | 86·5 | 90·6 | 60·5 | *43·2* | 53·6 | 14·0 | 07·8 | 11·2 |
| 19 | 78·1 | 72·9 | 74·9 | 84·5 | 78·9 | 80·9 | 77·1 | 70·1 | 75·1 | 86·5 | 76·9 | 81·7 | 63·7 | 60·5 | 62·2 | 07·8 | 99·6 | 02·6 |
| 20 | 82·7 | 77·8 | 80·2 | 87·2 | 84·4 | 85·6 | 80·7 | 65·1 | 70·2 | 76·9 | *72·9* | *74·2* | 63·6 | 48·2 | 55·5 | 99·6 | 95·4 | 97·7 |
| 21 | 83·6 | 78·9 | 82·4 | 89·0 | 87·1 | 88·0 | 89·5 | 80·7 | 86·5 | 85·6 | 74·1 | 79·4 | 50·5 | 47·9 | *49·1* | 95·4 | 81·1 | 87·9 |
| 22 | 81·9 | 77·6 | 80·3 | 89·9 | 86·6 | 87·9 | 84·6 | 75·3 | 77·9 | 91·8 | 85·6 | 88·7 | 80·9 | 48·6 | 64·0 | 81·1 | 69·7 | 73·8 |
| 23 | 84·6 | 81·3 | 83·1 | 89·6 | 83·5 | 87·5 | 79·4 | 75·8 | 77·2 | 96·4 | 91·7 | 93·8 | 81·6 | 66·4 | 73·4 | 77·7 | 71·1 | 73·2 |
| 24 | 83·3 | 78·3 | 80·1 | 83·5 | 79·5 | 80·7 | 84·0 | 79·4 | 82·4 | 97·7 | 95·4 | 96·5 | 68·0 | 57·2 | 61·8 | 83·6 | 77·1 | 81·4 |
| 25 | 89·3 | 83·0 | 86·6 | 82·0 | 80·3 | 81·0 | 86·3 | 80·0 | 83·5 | 95·3 | 90·2 | 92·5 | 62·5 | 50·9 | 57·1 | 77·1 | 57·1 | 65·3 |
| 26 | 89·2 | 76·5 | 84·0 | 82·6 | 81·4 | 81·9 | 86·8 | 84·7 | 85·6 | 89·8 | 83·7 | 86·8 | 71·3 | 58·3 | 65·1 | 66·8 | 61·0 | 64·2 |
| 27 | 85·0 | 75·1 | 78·8 | 81·9 | 75·3 | 79·6 | 93·7 | 84·1 | 87·1 | 83·6 | 82·0 | 82·4 | 70·2 | 64·6 | 66·2 | 81·7 | 64·0 | 72·1 |
| 28 | 86·9 | 79·1 | 83·8 | 75·3 | 55·9 | 62·9 | *96·2* | 93·7 | *95·2* | 94·4 | 82·1 | 89·3 | 68·9 | 65·9 | 67·5 | 94·9 | 81·7 | 87·6 |
| 29 | 83·0 | 79·1 | 81·0 | 64·0 | *54·7* | *58·7* | 95·2 | 89·5 | 92·2 | 96·6 | 94·3 | 95·5 | 70·0 | 67·0 | 68·3 | 94·9 | 81·2 | 89·8 |
| 30 | 81·9 | 70·0 | 75·2 | 70·0 | 63·9 | 66·7 | 90·3 | 87·2 | 88·9 | 96·4 | 95·1 | 95·7 | 69·7 | 62·7 | 66·0 | 85·9 | 74·4 | 82·6 |
| 31 | 88·3 | 80·6 | 84·1 | 77·9 | 69·8 | 74·4 | | | | 98·9 | 96·1 | 98·2 | | | | 78·7 | 66·7 | 71·5 |
| Mean | 87·47 | 81·45 | 84·42 | 82·32 | 77·14 | 79·61 | 82·50 | 75·24 | 78·96 | 94·52 | 89·71 | 92·07 | 80·91 | 71·85 | 76·19 | 88·02 | 77·69 | 82·84 |
| | | | | | | | | | Annual | 87·68 | 80·35 | 84·02 | | | | | | |

## PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

94 ESKDALEMUIR: $h_b$ = 237·3 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millibars* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 85·95 | 85·89 | 85·90 | 85·97 | 85·90 | 85·89 | 85·88 | 86·00 | 86·22 | *86·57* | 86·49 | 86·38 | 85·92 | 85·60 | 85·33 | 85·18 | 85·13 | 85·15 | 85·06 | 85·05 | 85·09 | 85·01 | 84·89 | *84·88* | 84·89 | 85·62 |
| Feb. | 82·51 | 82·39 | 82·29 | 82·13 | 81·85 | 81·68 | *81·50* | 81·61 | 81·82 | 82·04 | 82·08 | 82·28 | 82·42 | 82·46 | 82·51 | 82·67 | 82·81 | 82·91 | 83·24 | 83·47 | *83·55* | 83·50 | 83·54 | 83·44 | 83·31 | 82·55 |
| Mar. | 86·99 | 86·91 | 86·76 | 86·60 | *86·50* | *86·50* | 86·57 | 86·75 | 86·91 | 87·03 | 87·01 | 87·07 | 86·97 | 86·84 | 86·68 | 86·61 | 86·52 | 86·63 | 86·94 | 87·13 | 87·36 | 87·45 | *87·54* | 87·49 | 87·48 | 86·92 |
| Apr. | 89·33 | 89·26 | 89·00 | 88·95 | 88·77 | 88·81 | 88·91 | 89·17 | 89·33 | *89·39* | 89·25 | 89·07 | 89·07 | 88·89 | 88·64 | 88·38 | 88·30 | *88·29* | 88·32 | 88·54 | 88·86 | 89·09 | 89·12 | 89·12 | 89·07 | 88·91 |
| May | *88·93* | 88·77 | 88·57 | 88·44 | 88·25 | 88·33 | 88·38 | 88·44 | 88·45 | 88·47 | 88·23 | 88·03 | 87·76 | 87·63 | 87·38 | 87·22 | *87·05* | 87·07 | 87·19 | 87·46 | 87·78 | 88·06 | 88·17 | 88·14 | 88·05 | 87·99 |
| June | 81·65 | 81·53 | 81·36 | 81·21 | *81·18* | 81·22 | 81·36 | 81·47 | 81·57 | 81·59 | 81·49 | 81·50 | 81·49 | 81·53 | 81·53 | 81·59 | 81·59 | 81·64 | 81·83 | 82·05 | 82·25 | 82·51 | 82·68 | 82·66 | *82·70* | 81·71 |
| July | *84·85* | 84·70 | 84·40 | 84·17 | *84·11* | 84·20 | 84·22 | 84·40 | 84·45 | 84·41 | 84·31 | 84·37 | 84·33 | 84·32 | 84·40 | 84·34 | 84·33 | 84·28 | 84·25 | 84·40 | 84·62 | 84·85 | 84·80 | 84·75 | 84·70 | 84·42 |
| Aug. | *80·15* | 80·01 | 79·80 | 79·58 | 79·42 | *79·40* | 79·44 | 79·55 | 79·58 | 79·61 | 79·44 | 79·43 | 79·41 | 79·43 | 79·41 | 79·47 | 79·43 | 79·45 | 79·50 | 79·68 | 79·88 | 79·95 | 79·95 | 79·92 | 79·81 | 79·61 |
| Sept. | 79·02 | 78·99 | 78·95 | 78·75 | 78·64 | *78·50* | 78·64 | 78·76 | 78·91 | 79·10 | 78·96 | 79·03 | 79·02 | 79·00 | 78·95 | 78·87 | 78·78 | 78·71 | 78·83 | 79·02 | 79·22 | 79·34 | 79·32 | *79·45* | 79·43 | 78·96 |
| Oct. | 91·94 | 91·87 | 91·76 | 91·70 | *91·67* | 91·72 | 91·75 | 92·12 | 92·37 | *92·52* | 92·46 | 92·39 | 92·21 | 92·01 | 91·90 | 91·73 | 91·71 | 91·93 | 92·16 | 92·30 | 92·34 | 92·37 | 92·33 | 92·25 | 92·13 | 92·07 |
| Nov. | *77·21* | 77·04 | 76·91 | 76·66 | 76·56 | 76·53 | 76·51 | 76·64 | 76·72 | 76·73 | 76·39 | 76·19 | 75·78 | 75·46 | 76·25 | *75·22* | 75·30 | 75·53 | 75·74 | 75·85 | 75·99 | 76·21 | 76·29 | 76·28 | 76·30 | 76·19 |
| Dec. | 82·92 | 82·80 | 82·77 | 82·63 | 82·45 | 82·43 | *82·43* | 82·51 | 82·73 | 82·87 | 82·97 | 82·90 | 82·67 | 82·54 | 82·54 | 82·57 | 82·73 | 82·95 | 83·06 | 83·23 | 83·30 | *83·33* | 83·32 | 83·30 | 83·24 | 82·84 |
| Annual | 84·33 | 84·22 | 84·08 | 83·94 | 83·82 | 83·81 | 83·85 | 84·00 | 84·13 | 84·24 | 84·13 | 84·10 | 83·96 | 83·85 | 83·75 | 83·69 | *83·68* | 83·75 | 83·88 | 84·05 | 84·22 | 84·34 | *84·36* | 84·34 | 84·29 | 84·02 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

## PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

95 ESKDALEMUIR: $h_b$ = 237·3 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millibars* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 15·52 | 15·46 | 15·49 | 15·57 | 15·51 | 15·51 | 15·49 | 15·63 | 15·85 | *16·18* | 16·00 | 15·78 | 15·23 | 14·87 | 14·58 | 14·45 | 14·48 | 14·58 | 14·51 | 14·52 | 14·57 | 14·49 | 14·37 | *14·36* | 14·39 | 15·23 |
| Feb. | 11·67 | 11·55 | 11·49 | 11·33 | 11·04 | 10·91 | *10·72* | 10·84 | 11·01 | 11·14 | 11·07 | 11·20 | 11·29 | 11·29 | 11·36 | 11·56 | 11·73 | 11·92 | 12·33 | 12·62 | 12·75 | 12·71 | *12·79* | 12·69 | 12·56 | 11·64 |
| Mar. | 16·46 | 16·40 | 16·28 | 16·12 | 16·04 | 16·05 | 16·13 | 16·28 | 16·36 | 16·34 | 16·14 | 16·09 | 15·92 | 15·75 | 15·58 | 15·51 | *15·46* | 15·67 | 16·08 | 16·37 | 16·68 | 16·82 | *16·93* | 16·91 | 16·88 | 16·19 |
| Apr. | *18·50* | 18·49 | 18·24 | 18·21 | 18·06 | 18·12 | 18·23 | 18·35 | 18·35 | 18·22 | 17·95 | 17·67 | 17·61 | 17·38 | 17·13 | *16·85* | 16·87 | 16·89 | 17·01 | 17·39 | 17·85 | 18·12 | 18·21 | 18·25 | 18·24 | 17·81 |
| May | *18·06* | 17·92 | 17·75 | 17·64 | 17·47 | 17·52 | 17·43 | 17·31 | 17·12 | 16·98 | 16·63 | 16·35 | 16·01 | 15·82 | 15·55 | 15·41 | *15·29* | 15·37 | 15·64 | 16·06 | 16·57 | 16·96 | 17·15 | 17·19 | 17·14 | 16·69 |
| June | 10·28 | 10·18 | 10·04 | 09·93 | 09·90 | 09·87 | 09·87 | 09·83 | 09·82 | 09·75 | 09·60 | 09·55 | *09·49* | 09·52 | 09·53 | 09·60 | 09·61 | 09·69 | 09·95 | 10·24 | 10·53 | 10·93 | 11·21 | 11·24 | *11·34* | 10·03 |
| July | *13·21* | 13·07 | 12·78 | 12·55 | 12·51 | 12·59 | 12·54 | 12·63 | 12·55 | 12·42 | 12·29 | 12·32 | 12·22 | *12·19* | 12·27 | 12·26 | 12·23 | 12·21 | 12·22 | 12·44 | 12·76 | 13·06 | 13·08 | 13·07 | 13·05 | 12·55 |
| Aug. | *08·53* | 08·42 | 08·21 | 08·00 | 07·85 | 07·85 | 07·85 | 07·84 | 07·72 | 07·62 | 07·38 | 07·31 | 07·25 | 07·26 | *07·23* | 07·30 | 07·29 | 07·37 | 07·47 | 07·77 | 08·08 | 08·22 | 08·27 | 08·27 | 08·18 | 07·76 |
| Sept. | 07·30 | 07·29 | 07·27 | 07·09 | 06·99 | 06·83 | 06·97 | 07·05 | 07·24 | 07·25 | 07·02 | 07·05 | 07·01 | 06·95 | 06·91 | 06·82 | 06·76 | *06·73* | 06·92 | 07·17 | 07·42 | 07·57 | 07·55 | 07·71 | *07·72* | 07·13 |
| Oct. | 21·04 | 20·98 | 20·86 | 20·81 | 20·81 | 20·86 | 20·91 | 21·28 | 21·47 | *21·49* | 21·33 | 21·19 | 20·93 | 20·70 | 20·58 | *20·44* | 20·48 | 20·81 | 21·15 | 21·35 | 21·40 | 21·44 | 21·41 | 21·35 | 21·26 | 21·05 |
| Nov. | *05·89* | 05·71 | 05·59 | 05·34 | 05·24 | 05·22 | 05·21 | 05·38 | 05·45 | 05·41 | 04·99 | 04·73 | 04·27 | 03·92 | 03·70 | *03·68* | 03·83 | 04·11 | 04·33 | 04·45 | 04·61 | 04·85 | 04·93 | 04·93 | 04·97 | 04·80 |
| Dec. | 12·28 | 12·15 | 12·14 | 12·00 | 11·82 | 11·80 | 11·79 | 11·86 | 12·07 | 12·20 | 12·24 | 12·11 | 11·81 | *11·66* | 11·67 | 11·74 | 11·95 | 12·22 | 12·34 | 12·52 | 12·61 | 12·64 | 12·13 | *12·67* | 12·62 | 12·13 |
| Annual | *13·27* | 13·17 | 13·05 | 12·92 | 12·81 | 12·80 | 12·80 | 12·90 | 12·95 | 12·95 | 12·76 | 12·65 | 12·45 | 12·31 | 12·21 | *12·16* | 12·19 | 12·33 | 12·52 | 12·77 | 13·02 | 13·19 | 13·24 | 13·25 | 13·23 | 12·78 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

## TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

96 ESKDALEMUIR: Louvered hut: $h_t$ = 0·9 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *degrees Absolute* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 73·12 | 73·00 | 72·87 | 72·86 | 72·66 | 72·65 | 72·72 | *72·54* | 72·63 | 72·87 | 73·79 | 74·69 | 75·35 | 75·67 | *75·77* | 75·51 | 74·84 | 74·16 | 73·90 | 73·71 | 73·57 | 73·63 | 73·62 | 73·64 | 73·42 | 73·75 |
| Feb. | 75·81 | 75·75 | 75·47 | 75·40 | 75·33 | *75·00* | 75·02 | 75·02 | 75·39 | 76·27 | 77·33 | 78·07 | 78·55 | *78·91* | 78·78 | 78·47 | 78·16 | 77·39 | 76·67 | 76·29 | 75·81 | 75·67 | 75·33 | 75·28 | 75·26 | 76·45 |
| Mar. | 74·28 | 74·09 | 73·70 | 73·65 | 73·49 | 73·41 | *73·38* | 73·59 | 74·42 | 75·69 | 77·39 | 78·45 | 79·01 | 79·31 | *79·42* | 79·39 | 79·01 | 78·18 | 77·27 | 76·43 | 75·66 | 75·33 | 75·12 | 74·87 | 74·67 | 76·03 |
| Apr. | 77·49 | 77·02 | 76·83 | 76·67 | 76·33 | *76·13* | 76·16 | 77·37 | 78·98 | 80·74 | 81·92 | 82·92 | 83·50 | *83·95* | 83·91 | 83·89 | 83·01 | 82·59 | 81·78 | 80·24 | 79·13 | 78·77 | 78·26 | 77·89 | 77·50 | 79·81 |
| May | 77·87 | 77·63 | 77·30 | 77·05 | *76·91* | 77·05 | 78·41 | 80·12 | 82·05 | 83·55 | 84·51 | 85·33 | 85·95 | *86·57* | 86·57 | 86·45 | 85·83 | 85·22 | 83·80 | 82·42 | 80·68 | 79·71 | 78·93 | 78·34 | 77·92 | 81·59 |
| June | 80·35 | 80·14 | 79·80 | 79·39 | *79·36* | 80·01 | 81·42 | 82·86 | 83·89 | 84·77 | 85·29 | 85·85 | 86·37 | *86·54* | 86·41 | 86·29 | 86·14 | 85·84 | 85·27 | 84·69 | 83·85 | 82·55 | 81·61 | 81·13 | 80·50 | 83·33 |
| July | 83·73 | 83·46 | 83·33 | 83·19 | *83·09* | 83·18 | 83·80 | 84·73 | 86·11 | 86·96 | 87·23 | 87·53 | 88·09 | 88·35 | 88·29 | *88·36* | 87·96 | 87·64 | 87·32 | 86·59 | 85·69 | 85·04 | 84·40 | 84·05 | 83·67 | 85·75 |
| Aug. | 82·22 | 81·86 | 81·78 | 81·67 | 81·49 | *81·37* | 81·75 | 82·90 | 84·25 | 85·53 | 86·22 | 86·89 | 87·30 | 87·38 | *87·46* | 87·28 | 87·02 | 86·46 | 85·92 | 84·82 | 83·84 | 83·18 | 82·69 | 82·42 | 82·20 | 84·32 |
| Sept. | 82·78 | 82·64 | 82·40 | 82·19 | *82·13* | 82·22 | 82·28 | 82·56 | 83·35 | 84·00 | 84·95 | 85·26 | 85·64 | *85·96* | 85·84 | 85·92 | 85·63 | 85·18 | 84·61 | 84·01 | 83·62 | 83·46 | 83·40 | 83·16 | 82·86 | 83·89 |
| Oct. | 78·81 | 78·74 | 78·80 | 78·70 | 78·49 | 78·42 | *78·29* | 78·29 | 79·02 | 80·30 | 81·16 | 81·92 | 82·45 | 82·73 | *82·78* | 82·51 | 81·89 | 80·87 | 79·96 | 79·47 | 79·32 | 79·23 | 79·10 | 78·87 | 78·65 | 80·00 |
| Nov. | 78·69 | 78·80 | 78·64 | 78·55 | 78·50 | 78·47 | 78·35 | *78·04* | 78·12 | 78·62 | 79·28 | 79·74 | 80·16 | *80·33* | 80·28 | 80·18 | 79·61 | 79·27 | 79·14 | 79·09 | 78·95 | 78·86 | 78·83 | 78·75 | 78·59 | 79·05 |
| Dec. | 74·12 | 74·19 | 74·09 | 74·01 | 73·92 | *73·89* | 74·00 | 74·09 | 74·30 | 74·41 | 74·95 | 75·49 | 76·01 | *76·20* | 76·07 | 75·78 | 75·29 | 75·01 | 74·88 | 74·80 | 74·69 | 74·43 | 74·27 | 74·13 | 74·05 | 74·71 |
| Annual | 78·27 | 78·11 | 77·92 | 77·78 | *77·65* | 77·66 | 77·97 | 78·52 | 79·39 | 80·33 | 81·18 | 81·86 | 82·38 | *82·67* | 82·65 | 82·52 | 82·05 | 81·50 | 80·89 | 80·23 | 79·58 | 79·17 | 78·81 | 78·55 | 78·28 | 79·90 |

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

97 ESKDALEMUIR: Louvered hut: $h_t$ (height of thermometer bulb above ground) = 0·9 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | degrees Absolute | | | | | | | | | | | | | | | | | |
| 1 | 73·8 | 68·4 | 71·8 | 80·2 | 76·3 | 78·0 | 78·0 | 61·6 | *68·6* | 91·5 | 73·5 | 81·6 | 83·7 | 75·9 | 80·2 | 86·5 | 77·5 | 81·2 |
| 2 | 73·2 | 64·7 | 68·3 | 79·6 | 73·8 | 77·7 | 77·3 | *61·0* | 69·5 | 90·4 | 70·6 | 80·5 | 88·8 | 74·1 | 81·7 | 89·1 | 76·4 | 82·8 |
| 3 | 73·4 | 64·1 | 69·4 | 80·1 | 75·9 | 78·4 | 74·3 | 71·2 | 72·8 | *93·0* | 72·9 | *83·2* | 90·6 | 73·2 | 82·7 | 86·6 | 76·1 | 82·5 |
| 4 | 81·1 | 73·4 | 78·7 | 78·0 | 75·5 | 76·9 | 74·9 | 72·1 | 73·7 | 88·4 | 77·4 | 82·2 | 90·0 | 72·4 | 82·6 | 84·2 | 75·0 | 81·2 |
| 5 | 80·2 | 75·8 | 78·1 | 80·7 | 75·1 | 78·1 | 75·2 | 73·5 | 74·2 | 83·9 | 73·3 | 79·3 | 82·5 | 74·8 | 78·9 | 85·7 | 81·0 | 83·3 |
| 6 | 79·9 | 72·2 | 77·0 | 81·1 | 74·4 | 77·8 | 78·6 | 72·4 | 74·4 | 85·2 | 72·3 | 78·8 | 85·0 | 74·0 | 78·8 | 87·7 | 79·0 | 83·5 |
| 7 | 78·3 | 73·7 | 76·6 | 82·3 | 77·4 | 80·0 | 77·3 | 68·2 | 73·0 | 82·2 | 77·0 | 79·5 | 84·4 | 76·3 | 80·5 | 87·9 | 75·3 | 82·5 |
| 8 | 80·1 | 75·8 | 77·5 | 79·2 | 75·1 | 77·8 | 78·0 | 67·0 | 72·7 | 83·6 | 74·0 | 80·1 | 86·9 | 74·0 | 80·9 | 89·1 | 73·9 | 82·2 |
| 9 | 80·7 | 75·4 | 78·6 | 80·5 | 73·9 | 76·5 | 75·5 | 70·0 | 72·9 | 82·9 | 69·1 | *76·6* | 89·4 | 73·6 | 81·1 | 89·3 | *72·8* | 82·1 |
| 10 | 80·8 | 77·0 | 78·8 | 81·0 | 78·5 | 79·5 | 76·4 | 63·2 | 70·1 | 83·2 | *68·4* | 76·7 | 92·4 | 72·8 | 83·2 | 85·3 | 77·8 | 82·3 |
| 11 | *81·3* | 77·1 | 79·3 | 81·1 | 79·3 | 80·1 | 74·8 | 66·3 | 71·9 | 81·3 | 75·8 | 79·4 | 90·7 | 75·0 | 82·2 | 86·5 | 75·6 | *80·1* |
| 12 | 79·2 | 73·9 | 77·3 | 80·4 | 75·9 | 78·0 | 75·8 | 73·5 | 74·8 | 84·4 | 79·7 | 81·4 | 89·1 | 72·0 | 80·8 | 88·8 | 74·9 | 82·2 |
| 13 | 76·1 | 67·1 | 72·1 | 84·4 | 78·7 | 81·0 | 75·9 | 72·8 | 74·6 | 85·3 | 74·6 | 81·5 | 83·3 | 75·0 | 78·4 | 88·4 | 74·0 | 82·1 |
| 14 | 73·2 | 64·4 | 67·7 | 81·0 | 77·9 | 79·6 | 75·1 | 71·8 | 72·8 | 88·0 | 74·7 | 81·1 | 83·1 | 70·8 | 77·1 | 87·8 | 80·2 | 82·8 |
| 15 | 73·6 | 61·5 | 67·0 | 81·1 | 77·6 | 79·3 | 74·6 | 71·1 | 72·3 | 87·5 | 75·0 | 81·4 | 84·7 | 69·8 | 77·7 | 85·1 | 80·3 | 82·3 |
| 16 | 72·7 | *61·4* | *65·9* | *85·0* | 71·1 | 79·6 | 76·1 | 70·2 | 72·7 | 86·9 | 73·2 | 79·6 | 85·3 | *67·8* | *76·9* | 86·6 | 80·4 | 83·1 |
| 17 | 73·1 | 63·2 | 69·9 | 82·1 | 71·9 | 78·3 | 79·7 | 70·4 | 73·6 | 85·1 | 76·1 | 80·7 | 85·1 | 73·4 | 78·3 | 86·4 | 78·6 | 82·8 |
| 18 | 74·8 | 70·0 | 72·2 | 82·9 | 80·0 | *81·1* | 81·4 | 79·1 | 80·3 | 85·1 | 75·3 | 79·9 | 87·3 | 75·0 | 80·8 | 85·2 | 77·1 | 81·9 |
| 19 | 74·0 | 70·9 | 72·8 | 80·6 | 74·1 | 78·3 | 80·8 | 79·0 | 80·1 | 85·8 | 70·8 | 79·4 | 87·3 | 78·6 | 82·2 | 85·4 | 75·9 | 81·1 |
| 20 | 73·2 | 62·8 | 68·0 | 77·3 | 72·9 | 74·5 | 81·1 | 78·7 | 80·0 | 82·5 | 76·8 | 80·0 | 86·4 | 76·6 | 80·4 | 90·0 | 73·4 | 82·8 |
| 21 | 75·8 | 63·0 | 69·0 | 75·4 | 70·0 | 72·7 | 83·0 | 77·4 | 79·5 | 85·0 | 75·7 | 79·5 | 88·1 | 79·2 | 82·7 | 90·5 | 77·0 | 85·1 |
| 22 | 75·8 | 69·4 | 73·4 | 79·8 | 71·6 | 76·5 | 82·4 | 74·2 | 78·1 | 84·2 | 74·0 | 79·9 | 87·7 | 76·0 | 82·2 | *97·7* | 83·0 | *90·4* |
| 23 | 74·0 | 70·2 | 72·7 | 80·1 | 69·0 | 75·4 | 81·3 | 71·7 | 75·9 | 83·8 | 75·9 | 80·2 | 91·8 | 76·0 | 83·9 | 93·5 | 84·2 | 88·6 |
| 24 | 79·4 | 71·4 | 74·6 | 77·1 | 65·0 | 71·0 | 81·8 | 72·3 | 77·0 | 82·0 | 75·0 | 77·5 | 88·9 | 79·4 | 83·7 | 89·3 | 79·7 | 85·9 |
| 25 | 81·0 | 77·9 | *79·3* | 76·7 | 61·5 | 68·7 | 84·7 | 76·6 | 80·2 | 83·2 | 74·4 | 78·3 | 88·5 | 79·0 | 83·1 | 89·6 | 79·0 | 84·4 |
| 26 | 81·0 | 70·1 | 76·8 | 75·6 | 63·6 | 68·7 | 84·2 | 75·0 | 80·3 | 83·5 | 76·7 | 79·3 | 90·3 | 79·6 | 83·8 | 88·4 | 79·9 | 84·8 |
| 27 | 75·4 | 67·5 | 71·8 | 75·2 | *59·8* | *68·4* | 86·5 | 70·8 | 78·2 | 81·3 | 77·5 | 79·1 | 86·9 | 82·4 | 84·4 | 88·0 | 76·9 | 83·1 |
| 28 | 79·9 | 75·1 | 77·7 | 76·0 | 61·8 | 68·8 | 91·6 | 71·6 | 82·2 | 85·1 | 76·3 | 79·5 | 90·7 | 79·0 | 85·7 | 88·0 | 78·2 | 83·3 |
| 29 | 76·1 | 73·0 | 74·5 | | | | 89·4 | 79·3 | 83·2 | 84·8 | 76·0 | 79·5 | 92·5 | 79·5 | *86·4* | 86·7 | 81·4 | 84·4 |
| 30 | 75·9 | 73·2 | 74·5 | | | | 91·4 | 79·4 | *84·4* | 80·6 | 77·1 | 78·7 | *93·9* | 78·7 | 86·1 | 88·8 | 82·7 | 85·3 |
| 31 | 80·5 | 71·0 | 75·0 | | | | *91·7* | 75·9 | 82·9 | | | | 86·1 | 79·0 | 82·1 | | | |
| Mean | 77·0 | 70·1 | 73·7 | 79·8 | 72·8 | 76·5 | 80·3 | 72·2 | 76·0 | 85·0 | 74·6 | 79·8 | 87·8 | 75·6 | 81·6 | 88·1 | 77·9 | 83·3 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | degrees Absolute | | | | | | | | | | | | | | | | | |
| 1 | 89·4 | 83·8 | 86·6 | 87·5 | 81·7 | 84·5 | 89·0 | 78·0 | 83·4 | *89·1* | 83·6 | *85·8* | 80·4 | 75·0 | 77·9 | 79·6 | 75·4 | 77·1 |
| 2 | 87·5 | 83·7 | 86·3 | 90·0 | 83·8 | 86·2 | 87·9 | 80·3 | 83·9 | 87·7 | 82·0 | 85·0 | 79·4 | 72·0 | *75·5* | 79·2 | 73·2 | 76·6 |
| 3 | 91·4 | 80·6 | 86·9 | 90·0 | 82·9 | 85·6 | 88·2 | 78·7 | 84·1 | 87·6 | 82·8 | 84·7 | 85·3 | 76·1 | 81·7 | 76·0 | 73·4 | 74·5 |
| 4 | 92·0 | 84·1 | 87·7 | 90·2 | 83·1 | 86·2 | 89·0 | 85·0 | 86·1 | 84·6 | 80·4 | 82·3 | *88·0* | 84·8 | *85·6* | 78·0 | 68·5 | 74·8 |
| 5 | 87·1 | 81·7 | 84·3 | *91·4* | 85·8 | *87·8* | 89·1 | 84·6 | 85·8 | 86·2 | 80·2 | 83·3 | 85·5 | 84·8 | 85·1 | 76·1 | 66·4 | 71·9 |
| 6 | 88·7 | 81·6 | 84·6 | 88·3 | 84·3 | 86·5 | 87·6 | 79·2 | 84·6 | 85·0 | 73·8 | 79·4 | 86·0 | 83·3 | 85·0 | 78·4 | 67·6 | 74·2 |
| 7 | 93·1 | 79·4 | 85·9 | 88·7 | 79·2 | 84·0 | 88·1 | 77·5 | 83·3 | 85·4 | 73·2 | 79·4 | 83·4 | 78·1 | 81·0 | 76·1 | 71·0 | 73·9 |
| 8 | *95·7* | 79·5 | 88·3 | 87·2 | 77·9 | 83·3 | 87·5 | 82·0 | 84·5 | 84·3 | 74·1 | 79·8 | 79·8 | 77·5 | 78·2 | 76·1 | 72·9 | 74·8 |
| 9 | 93·3 | 79·9 | 87·7 | 87·5 | 81·2 | 84·1 | 87·2 | 79·7 | 83·1 | 84·2 | 79·6 | 81·7 | 80·3 | 73·4 | 78·2 | 76·2 | 70·0 | 74·3 |
| 10 | 93·0 | 79·4 | 86·9 | 88·2 | 81·8 | 84·7 | 86·3 | 78·9 | 82·8 | 86·0 | 76·6 | 81·5 | 82·1 | 75·2 | 79·0 | 74·8 | 68·4 | 71·2 |
| 11 | 93·9 | *76·4* | 87·1 | 88·9 | 81·1 | 84·5 | 87·4 | 78·3 | 84·1 | 86·6 | 77·0 | 81·4 | 80·4 | 70·1 | 76·4 | 77·3 | 73·7 | 75·7 |
| 12 | 95·4 | 82·6 | *89·1* | 86·7 | 82·2 | 84·1 | 88·0 | *76·8* | 83·0 | 87·9 | 79·1 | 81·1 | 82·6 | 79·0 | 80·3 | 77·5 | 71·3 | 74·4 |
| 13 | 93·4 | 81·9 | 86·7 | 89·6 | 81·3 | 84·7 | 83·9 | 80·5 | 82·7 | 82·0 | 80·2 | 81·0 | 80·3 | 73·3 | 77·2 | 76·3 | 74·7 | 75·7 |
| 14 | 88·8 | 81·7 | 84·1 | 88·7 | 78·9 | 83·5 | 86·8 | 80·5 | 83·5 | 80·5 | 77·7 | 79·3 | 77·2 | 74·9 | 76·1 | 78·2 | 75·9 | 77·1 |
| 15 | 82·8 | 80·6 | *81·7* | 85·4 | 76·8 | *81·5* | 86·8 | 81·1 | 83·5 | 80·8 | 77·5 | 78·8 | 77·4 | 73·9 | 75·6 | 76·2 | 69·2 | 73·1 |
| 16 | 89·9 | 80·9 | 84·5 | 89·0 | *73·4* | 82·3 | 86·4 | 82·8 | 84·4 | 81·2 | 78·0 | 79·4 | 79·2 | 76·4 | 77·7 | 73·6 | 69·2 | 71·9 |
| 17 | 87·4 | 82·8 | 84·8 | 88·3 | 75·4 | 82·4 | 85·3 | 80·7 | 83·4 | 81·1 | 78·0 | 79·4 | 80·4 | 76·8 | 78·3 | 75·7 | 70·9 | 73·6 |
| 18 | 86·2 | 83·0 | 84·4 | 86·6 | 76·1 | 82·5 | 83·2 | 81·0 | 81·8 | 83·6 | 77·8 | 80·4 | 79·8 | 75·8 | 78·3 | 75·2 | 67·6 | 71·1 |
| 19 | 88·9 | 82·8 | 85·0 | 88·1 | 79·8 | 83·6 | 84·6 | 80·0 | *81·8* | 82·4 | 77·9 | 80·8 | 78·9 | 75·9 | 77·5 | 77·5 | 67·5 | 74·1 |
| 20 | 87·5 | 83·9 | 85·1 | 89·0 | 77·9 | 83·6 | 85·9 | 79·8 | 81·8 | 86·0 | 81·1 | 83·4 | 82·3 | 75·2 | 78·9 | 75·3 | 72·4 | 74·2 |
| 21 | 87·9 | 82·6 | 84·7 | 89·4 | 78·7 | 84·3 | 86·1 | 81·3 | 83·1 | 83·9 | 81·0 | 82·9 | 81·1 | 77·9 | 79·3 | 79·2 | 72·4 | 75·4 |
| 22 | 88·0 | 83·8 | 85·7 | 91·2 | 82·5 | 85·9 | 88·0 | 80·9 | 85·0 | 83·4 | 79·6 | 80·7 | 78·9 | 70·5 | 76·3 | 80·4 | 76·4 | *79·5* |
| 23 | 87·4 | 86·2 | 86·8 | 89·4 | 81·9 | 86·2 | 84·6 | 78·2 | 81·8 | 82·3 | 74·0 | 79·1 | 82·9 | *69·7* | 77·7 | 76·4 | 72·5 | 74·8 |
| 24 | 90·9 | 83·3 | 87·3 | 90·1 | 83·3 | 86·2 | 85·1 | 79·0 | 82·2 | 80·7 | 75·0 | 77·1 | 83·5 | 78·9 | 81·4 | 75·2 | 65·9 | *70·9* |
| 25 | 89·4 | 81·6 | 85·8 | 90·2 | 76·5 | 84·3 | 86·2 | 83·4 | 84·8 | 78·8 | 73·2 | 75·9 | 81·4 | 78·4 | 80·3 | *81·0* | 76·5 | 78·3 |
| 26 | 90·3 | 82·6 | 86·6 | 90·1 | 73·9 | 81·8 | 87·9 | 85·5 | *86·7* | 81·1 | 70·1 | 75·2 | 80·4 | 77·3 | 79·3 | 77·6 | 73·7 | 76·1 |
| 27 | 88·7 | 83·9 | 85·6 | 89·3 | 73·7 | 81·7 | 88·0 | 85·0 | 86·1 | 81·3 | 74·4 | 78·5 | 80·9 | 77·0 | 79·2 | 78·3 | 74·3 | 76·8 |
| 28 | 87·5 | 83·2 | 84·7 | 89·7 | 78·8 | 83·8 | *93·9* | 82·4 | 86·7 | 79·7 | 69·6 | 76·1 | 82·1 | 78·3 | 79·8 | 80·4 | 69·7 | 76·8 |
| 29 | 87·3 | 82·0 | 84·1 | 87·6 | 83·3 | 84·9 | 88·3 | 81·3 | 84·0 | 82·2 | *68·9* | *73·7* | 78·6 | 74·1 | 76·9 | 77·7 | *65·8* | 72·6 |
| 30 | 88·9 | 81·9 | 85·1 | 86·8 | 83·5 | 84·7 | 89·7 | 80·2 | 84·5 | 80·3 | 69·2 | 75·3 | 80·7 | 75·7 | 77·9 | 78·9 | 74·0 | 76·3 |
| 31 | 88·1 | 82·0 | 84·2 | 89·0 | 80·7 | 84·6 | | | | 79·7 | 74·8 | 77·9 | | | | 75·8 | 73·9 | 74·4 |
| Mean | 89·7 | 82·1 | 85·7 | 88·8 | 80·1 | 84·3 | 87·2 | 80·7 | 83·9 | 83·4 | 76·8 | 80·0 | 81·3 | 76·3 | 79·1 | 77·2 | 71·4 | 74·7 |
| | | | | | | | | | Annual | 83·8 | 75·9 | 79·9 | | | | | | |

## MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h.; vapour pressure from daily mean temperature and relative humidity

98 ESKDALEMUIR: Louvered hut: $h_t$ = 0·9 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. |
| | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. |
| 1 | 81·2 | 4·5 | 89·1 | 7·8 | 74·6 | *3·3* | 77·3 | 8·6 | 77·9 | 8·0 | 82·9 | 9·0 | 92·8 | 14·5 | 84·9 | 11·5 | 90·8 | 11·5 | 94·0 | *13·9* | 91·7 | 7·9 | 86·2 | 7·1 |
| 2 | 88·0 | 3·8 | 90·6 | 7·7 | 85·0 | 4·0 | 73·5 | 7·6 | 70·3 | 7·9 | 79·2 | 9·6 | *98·6* | 15·1 | 87·2 | 13·2 | 91·2 | 11·9 | 92·3 | 12·9 | 86·4 | 6·3 | 83·0 | 6·6 |
| 3 | 93·4 | 4·4 | 91·5 | 8·2 | 90·5 | 5·4 | 69·5 | 8·7 | 63·4 | 7·6 | 77·1 | 9·2 | 82·3 | 13·1 | 83·3 | 12·2 | 91·0 | 12·0 | *97·2* | 13·4 | 97·1 | 10·9 | 89·6 | 6·1 |
| 4 | 93·1 | 8·5 | 83·8 | 6·8 | 94·5 | 6·1 | 81·3 | 9·5 | 62·0 | 7·4 | *94·0* | 10·2 | 87·9 | 14·7 | 94·5 | 14·3 | 92·8 | 14·0 | 84·0 | 9·8 | 94·5 | 13·8 | *76·2* | 5·3 |
| 5 | 88·7 | 7·8 | 81·6 | 7·2 | 91·1 | 6·1 | *57·5* | 5·5 | 67·0 | 6·2 | 88·0 | 11·0 | 85·7 | 11·5 | 93·9 | *15·8* | 96·6 | 14·3 | 85·9 | 10·8 | *98·2* | *13·8* | 90·6 | 5·1 |
| 6 | 90·7 | 7·4 | 87·7 | 7·6 | 80·0 | 5·4 | 69·7 | 6·4 | 67·9 | 6·3 | 72·0 | 9·1 | 80·7 | 11·0 | 90·3 | 14·0 | 90·0 | 12·3 | 82·1 | 7·9 | 97·1 | 13·6 | 83·7 | 5·6 |
| 7 | 97·9 | 7·7 | 85·9 | 8·6 | 76·4 | 4·7 | *93·9* | 9·1 | 76·3 | 7·9 | 77·3 | 9·2 | 83·3 | 12·4 | 88·3 | 11·6 | 93·8 | 11·8 | 82·3 | 7·9 | 82·7 | 8·9 | 89·1 | 5·8 |
| 8 | 86·2 | 7·3 | 78·0 | 6·7 | 84·6 | 5·1 | 74·9 | 7·6 | 65·0 | 6·9 | 82·7 | 9·6 | 80·5 | 14·0 | 93·3 | 11·7 | 90·2 | 12·2 | 88·0 | 8·7 | 79·2 | 7·0 | 93·4 | 6·5 |
| 9 | 92·5 | 8·4 | 71·2 | 5·6 | 92·3 | 5·6 | 63·5 | *5·0* | 65·8 | 7·1 | 81·9 | 9·5 | 76·5 | 12·8 | 89·9 | 11·9 | 84·7 | 10·5 | 82·7 | 9·3 | 77·0 | 6·8 | 90·9 | 6·1 |
| 10 | 85·2 | 7·9 | 82·7 | 8·0 | 81·8 | 4·0 | 63·8 | 5·1 | 59·8 | 7·4 | 83·5 | 9·8 | *71·4* | 11·3 | 84·4 | 11·6 | 95·2 | 11·5 | 83·0 | 9·2 | *76·0* | 7·1 | 91·3 | 4·9 |
| 11 | 89·3 | 8·5 | 88·2 | 8·9 | 89·2 | 5·0 | 81·7 | 7·9 | 76·1 | 8·9 | 86·0 | *8·7* | 75·7 | 12·2 | 84·9 | 11·5 | 89·7 | 11·8 | 74·5 | 8·2 | 86·9 | 6·8 | 90·1 | 6·7 |
| 12 | 83·9 | 7·0 | *93·4* | 8·1 | 85·2 | 5·9 | 87·4 | *9·6* | 77·7 | 8·2 | 77·5 | 9·0 | 76·6 | 14·0 | 92·8 | 12·3 | 94·6 | 11·6 | 84·4 | 9·1 | 90·1 | 9·2 | 90·0 | 6·1 |
| 13 | *79·6* | 4·6 | 88·8 | *9·5* | 89·8 | 6·2 | 78·9 | 8·8 | 75·2 | 6·7 | 81·5 | 9·4 | 74·6 | 11·7 | 80·3 | 11·0 | 87·4 | 10·5 | 82·5 | 8·9 | 76·6 | 6·3 | 94·8 | 7·0 |
| 14 | 88·5 | 3·7 | 84·7 | 8·3 | 80·3 | 4·8 | 83·7 | 9·0 | 62·8 | 5·1 | 84·8 | 10·3 | 80·8 | 10·7 | 85·5 | 10·9 | 91·8 | 11·7 | 82·3 | 7·9 | 81·7 | *6·2* | 95·3 | 7·8 |
| 15 | 91·0 | 3·6 | 86·3 | 8·2 | 79·9 | 4·6 | 84·3 | 9·3 | *56·4* | *4·8* | 82·8 | 9·7 | 91·7 | *10·3* | *95·2* | 10·6 | *79·6* | 10·1 | 79·4 | 7·3 | 84·6 | 6·2 | 81·0 | 5·0 |
| 16 | 91·6 | *3·3* | 82·5 | 8·0 | 71·3 | 4·3 | 90·8 | 8·9 | 75·8 | 6·1 | 87·6 | 10·8 | 76·2 | 10·3 | 79·0 | *9·3* | 86·5 | 11·7 | 82·5 | 7·9 | 92·0 | 7·9 | 82·7 | *4·7* |
| 17 | 92·2 | 4·5 | 83·2 | 7·4 | 94·7 | 6·0 | 71·8 | 7·5 | 87·2 | 7·8 | 83·3 | 10·1 | 87·7 | 12·1 | 86·3 | 10·2 | 85·4 | 10·8 | 81·2 | 7·8 | 93·1 | 8·3 | 83·2 | 5·3 |
| 18 | 82·6 | 4·8 | 86·1 | 9·3 | 96·6 | 9·9 | 68·5 | 6·8 | 76·1 | 8·1 | 77·9 | 8·9 | 91·3 | 12·3 | 89·9 | 10·1 | 89·5 | 10·1 | 78·8 | 8·1 | 87·0 | 7·8 | 88·2 | 4·7 |
| 19 | 90·8 | 5·5 | 79·2 | 7·1 | *98·3* | 9·9 | 77·7 | 7·5 | 61·3 | 7·1 | 84·0 | 9·1 | 94·1 | 13·2 | 94·3 | 12·1 | 81·3 | *9·2* | 91·6 | 9·7 | 90·3 | 7·6 | 89·4 | 5·9 |
| 20 | 91·7 | 3·9 | 78·9 | 5·4 | 96·8 | 9·7 | 87·1 | 8·7 | 81·7 | 8·4 | 77·6 | 9·4 | 89·4 | 12·6 | 81·2 | 10·4 | 82·1 | 9·3 | 96·5 | 12·2 | 91·8 | 8·5 | 89·6 | 6·0 |
| 21 | 91·3 | 4·2 | *62·7* | 3·7 | 86·5 | 8·4 | 68·4 | 6·6 | 77·7 | 9·4 | *67·5* | 9·5 | 83·4 | 11·5 | 85·6 | 11·5 | 84·4 | 10·4 | 95·5 | 11·7 | 91·1 | 8·7 | 94·7 | 6·9 |
| 22 | 87·3 | 5·5 | 81·6 | 6·4 | 86·4 | 7·6 | 80·2 | 8·0 | 71·3 | 8·3 | 73·5 | 14·6 | 94·0 | 13·8 | 85·6 | 12·7 | 90·1 | 12·6 | 87·9 | 9·2 | 82·3 | 6·4 | *95·8* | *9·3* |
| 23 | 95·3 | 5·7 | 72·8 | 5·3 | 81·7 | 6·2 | 76·5 | 7·8 | 70·3 | 9·2 | 87·2 | *15·5* | 87·9 | *15·4* | 87·7 | 13·3 | 82·0 | 9·3 | 87·7 | 8·3 | 95·5 | 8·2 | 90·2 | 6·3 |
| 24 | 92·3 | 6·3 | 69·5 | 3·7 | 80·0 | 6·5 | 80·5 | 6·8 | 74·2 | 9·5 | 80·7 | 12·0 | 81·7 | 13·3 | 93·4 | 14·2 | 85·7 | 10·0 | 76·1 | 6·2 | 95·2 | 10·5 | 91·3 | 4·8 |
| 25 | *99·1* | 9·5 | 72·0 | *3·2* | 77·1 | 7·8 | 81·0 | 7·2 | 71·8 | 8·9 | 77·6 | 10·5 | 85·2 | 12·6 | *77·8* | 10·4 | 93·7 | 13·0 | 75·3 | 5·7 | 92·3 | 9·4 | 92·0 | 8·2 |
| 26 | 92·0 | 7·4 | 76·7 | 3·4 | 87·4 | 8·9 | 80·8 | 7·6 | 84·5 | 10·9 | 83·2 | 11·5 | 85·7 | 13·4 | 84·7 | 9·6 | 95·7 | *15·0* | 79·0 | 5·7 | 93·8 | 9·0 | 87·4 | 6·7 |
| 27 | 97·7 | 5·5 | 80·6 | 3·5 | 79·8 | 7·1 | 88·0 | 8·3 | *90·1* | *12·1* | 88·6 | 11·0 | 91·9 | 13·4 | 86·7 | 9·8 | *97·0* | 14·6 | 76·5 | 6·9 | 92·9 | 8·8 | 84·1 | 6·7 |
| 28 | 90·8 | 7·8 | 81·9 | 3·7 | *59·7* | 6·9 | 80·1 | 7·8 | 72·3 | 10·6 | 88·4 | 11·1 | 87·6 | 12·0 | 89·7 | 11·7 | 87·8 | 13·8 | *70·6* | *5·4* | 97·5 | 9·6 | 80·3 | 6·4 |
| 29 | 89·3 | 6·1 | | | 71·2 | 8·9 | 86·1 | 8·3 | 67·4 | 10·4 | 93·8 | 12·6 | 85·1 | 11·2 | 91·3 | 12·7 | 92·4 | 12·1 | 84·2 | 5·4 | 95·2 | 7·7 | 93·3 | 5·5 |
| 30 | 86·8 | 5·9 | | | 75·5 | *10·2* | 90·6 | 8·3 | 79·2 | 11·9 | 74·1 | 10·6 | 89·1 | 12·6 | 93·5 | 12·9 | 90·9 | 12·3 | 90·8 | 6·5 | 89·8 | 7·8 | 88·3 | 6·8 |
| 31 | 93·7 | 6·6 | | | 79·0 | 9·6 | | | 85·0 | 9·8 | | | 81·2 | 10·8 | 90·9 | 12·4 | | | 90·4 | 7·8 | | | 91·9 | 6·2 |
| Mean* | 90·1 | 6·1 | 81·8 | 6·7 | 83·8 | 6·6 | 78·3 | 7·8 | 72·6 | 8·2 | 81·9 | 10·3 | 85·2 | 12·6 | 87·9 | 11·9 | 89·5 | 11·7 | 84·5 | 8·7 | 89·3 | 8·6 | 88·6 | 6·2 |

* Mean of the column.

## RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

99 ESKDALEMUIR: $h_t$ = 0·9 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *per cent.* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 91·6 | 92·0 | 92·0 | 92·5 | *92·7* | 92·2 | 91·2 | 92·0 | 91·5 | 91·5 | 90·3 | 88·3 | 86·5 | 85·5 | 85·2 | *85·1* | 87·4 | 89·1 | 89·7 | 90·1 | 91·0 | 91·0 | 92·0 | 92·1 | 92·0 | 90·1 |
| Feb. | 86·4 | 85·7 | 86·5 | 86·6 | 86·5 | 87·6 | 88·1 | 88·0 | *88·4* | 85·5 | 80·5 | 77·0 | 73·2 | *70·3* | 71·0 | 72·2 | 73·1 | 76·9 | 79·6 | 81·7 | 82·7 | 84·1 | 85·9 | 86·4 | 86·2 | 81·8 |
| Mar. | 89·7 | 90·2 | 90·3 | 90·8 | 90·4 | 90·9 | 91·4 | *91·8* | 89·1 | 86·5 | 80·5 | 75·5 | 74·5 | 72·2 | *71·0* | 72·0 | 73·7 | 76·5 | 79·4 | 83·2 | 86·3 | 88·3 | 88·1 | 88·8 | 89·5 | 83·8 |
| Apr. | 90·2 | 90·0 | *90·8* | 90·1 | 90·3 | 90·5 | 89·7 | 87·9 | 80·4 | 75·7 | 67·9 | 63·7 | 61·6 | *60·3* | 61·0 | 61·2 | 65·5 | 69·2 | 71·4 | 78·8 | 82·5 | 84·8 | 86·5 | 89·0 | 90·2 | 78·3 |
| May | 87·7 | 87·5 | 88·9 | 90·0 | *90·3* | 90·1 | 84·0 | 79·7 | 69·2 | 65·0 | 61·0 | 56·7 | 55·7 | *51·9* | 52·5 | 52·5 | 55·2 | 58·2 | 64·0 | 70·8 | 77·5 | 81·2 | 84·7 | 87·2 | 87·8 | 72·6 |
| June | 92·2 | 92·6 | 91·6 | 93·6 | *93·7* | 92·2 | 90·0 | 86·1 | 80·7 | 77·3 | 75·0 | 72·0 | *69·7* | 69·8 | 71·4 | 71·7 | 72·7 | 72·8 | 75·4 | 77·8 | 82·6 | 86·3 | 88·8 | 89·1 | 92·0 | 81·9 |
| July | 92·7 | 92·9 | 93·7 | 94·3 | *95·7* | 95·4 | 93·9 | 90·6 | 83·3 | 79·7 | 78·2 | 76·5 | 74·7 | *74·1* | 75·8 | 75·4 | 77·3 | 77·9 | 78·8 | 82·9 | 86·8 | 89·7 | 91·6 | 92·6 | 92·5 | 85·2 |
| Aug. | 95·5 | 96·5 | 95·9 | 96·3 | *96·9* | 96·7 | 95·3 | 92·8 | 89·9 | 83·0 | 81·5 | 78·0 | 75·5 | 76·1 | *75·1* | 76·7 | 78·7 | 81·3 | 84·8 | 89·2 | 92·3 | 93·1 | 94·5 | 94·7 | 95·7 | 87·9 |
| Sept. | 92·4 | 92·7 | 93·1 | 93·2 | 93·4 | 93·1 | 93·2 | *93·4* | 91·4 | 90·8 | 88·1 | 86·3 | 84·5 | *82·2* | 83·6 | 83·7 | 83·4 | 87·1 | 89·1 | 90·2 | 89·3 | 89·5 | 91·3 | 92·1 | 92·6 | 89·5 |
| Oct. | 90·0 | *90·1* | 89·6 | 89·0 | 89·4 | 89·0 | 89·5 | 88·5 | 87·0 | 83·0 | 80·9 | 78·2 | 75·3 | *73·7* | 74·4 | 75·5 | 78·8 | 81·8 | 85·3 | 86·9 | 88·3 | 87·8 | 88·1 | 87·7 | 89·7 | 84·5 |
| Nov. | 90·8 | 90·9 | *90·9* | 90·3 | 90·5 | 90·4 | 89·9 | 90·3 | 90·8 | 89·8 | 88·6 | 87·9 | 86·8 | *86·3* | 87·5 | 87·0 | 88·3 | 88·4 | 89·3 | 88·3 | 89·9 | 90·2 | 90·3 | 90·2 | 90·7 | 89·3 |
| Dec. | 90·0 | 89·1 | 89·3 | 89·2 | *90·3* | 89·7 | 89·3 | 89·1 | 89·3 | 88·6 | 87·9 | 87·3 | 86·7 | *86·2* | 87·5 | 87·3 | 88·4 | 88·3 | 89·1 | 87·9 | 87·1 | 89·2 | 89·9 | 90·3 | 90·2 | 88·6 |
| Annual | 90·8 | 90·9 | 91·1 | 91·4 | *91·7* | 91·5 | 90·5 | 89·2 | 85·9 | 83·0 | 80·0 | 77·3 | 75·4 | *74·1* | 74·7 | 75·1 | 76·9 | 79·0 | 81·3 | 84·0 | 86·4 | 88·0 | 89·3 | 90·0 | 90·8 | 84·5 |

## VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

100 ESKDALEMUIR: $h_t$ = 0·9 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millibars* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 5·6 | 5·6 | 5·6 | 5·6 | 5·5 | 5·5 | 5·5 | *5·4* | 5·4 | 5·5 | 5·8 | 6·1 | 6·3 | 6·3 | *6·3* | 6·2 | 6·1 | 5·9 | 5·8 | 5·8 | 5·8 | 5·8 | 5·9 | 5·9 | 5·8 | 5·8 |
| Feb. | 6·5 | 6·4 | 6·3 | 6·3 | 6·3 | *6·2* | 6·2 | 6·2 | 6·4 | 6·6 | 6·7 | *6·7* | 6·6 | 6·5 | 6·5 | 6·5 | 6·5 | 6·4 | 6·3 | 6·3 | 6·2 | 6·2 | 6·2 | 6·2 | 6·2 | 6·4 |
| Mar. | 6·0 | 6·0 | 5·8 | 5·8 | 5·7 | *5·7* | 5·7 | 5·9 | 6·0 | 6·4 | 6·7 | 6·8 | *7·0* | 6·9 | 6·8 | 6·9 | 6·9 | 6·7 | 6·6 | 6·5 | 6·4 | 6·4 | 6·3 | 6·2 | 6·2 | 6·3 |
| Apr. | 7·6 | 7·3 | 7·3 | 7·2 | 7·0 | 6·9 | *6·9* | 7·3 | 7·5 | 8·0 | 7·8 | 7·8 | 7·8 | 7·9 | 8·0 | 8·0 | 8·0 | *8·3* | 8·1 | 8·0 | 7·8 | 7·8 | 7·7 | 7·7 | 7·6 | 7·7 |
| May | 7·6 | 7·4 | 7·4 | 7·3 | *7·3* | 7·3 | 7·5 | 8·0 | 8·0 | 8·3 | 8·3 | 8·1 | 8·3 | 8·1 | 8·2 | 8·1 | $8^{?}2$ | 8·3 | 8·3 | *8·4* | 8·1 | 8·0 | 7·9 | 7·8 | 7·6 | 7·9 |
| June | 9·5 | 9·4 | 9·1 | 9·0 | *9·0* | 9·3 | 9·9 | 10·5 | 10·5 | 10·7 | 10·7 | 10·7 | 10·7 | 10·8 | *11·0* | 10·9 | 11·0 | 10·8 | 10·8 | 10·7 | 10·7 | 10·3 | 9·9 | 9·6 | 9·5 | 10·2 |
| July | 11·9 | 11·8 | 11·8 | *11·7* | 11·8 | 11·9 | 12·2 | 12·5 | 12·6 | 12·7 | 12·7 | 12·7 | 12·8 | 12·9 | *13·2* | 13·2 | 13·1 | 13·0 | 12·9 | 12·9 | 12·7 | 12·6 | 12·3 | 12·2 | 11·9 | 12·5 |
| Aug. | 11·1 | 11·0 | 10·8 | 10·8 | 10·7 | *10·7* | 10·8 | 11·3 | 12·0 | 12·1 | 12·4 | 12·4 | 12·3 | 12·5 | 12·4 | 12·5 | *12·6* | 12·6 | 12·6 | 12·4 | 12·0 | 11·6 | 11·4 | 12·2 | 11·1 | 11·8 |
| Sept. | 11·2 | 11·1 | 11·0 | 10·8 | *10·8* | 10·9 | 10·9 | 11·7 | 11·5 | 11·9 | 12·3 | 12·3 | 12·4 | 12·3 | 12·4 | *12·5* | 12·2 | 12·4 | 12·2 | 11·9 | 11·4 | 11·3 | 11·5 | 11·4 | 11·3 | 11·7 |
| Oct. | 8·3 | 8·3 | 8·3 | 8·2 | 8·1 | 8·0 | 8·0 | *7·9* | 8·1 | 8·5 | 8·8 | 8·9 | 8·9 | 8·9 | *9·0* | 9·0 | 9·0 | 8·7 | 8·5 | 8·4 | 8·4 | 8·3 | 8·3 | 8·1 | 8·2 | 8·5 |
| Nov. | 8·3 | 8·4 | 8·3 | 8·2 | 8·2 | 8·2 | 8·0 | *7·9* | 8·0 | 8·2 | 8·5 | 8·6 | 8·8 | 8·8 | *8·9* | 8·8 | 8·6 | 8·4 | 8·4 | 8·3 | 8·3 | 8·4 | 8·3 | 8·3 | 8·3 | 8·4 |
| Dec. | 6·0 | 5·9 | 5·9 | 5·9 | 5·9 | 5·8 | 5·9 | 5·9 | 6·0 | 6·0 | 6·2 | 6·4 | 6·6 | 6·6 | *6·7* | 6·5 | 6·4 | 6·2 | 6·2 | 6·1 | 6·0 | 6·0 | 6·0 | 6·0 | *5·8* | 6·1 |
| Annual | 8·1 | 8·0 | 7·9 | 7·9 | *7·8* | *7·8* | 7·9 | 8·1 | 8·3 | 8·5 | 8·7 | 8·8 | 8·9 | 8·9 | *9·0* | 8·9 | 8·9 | 8·8 | 8·7 | 8·6 | 8·4 | 8·3 | 8·2 | 8·2 | 8·1 | 8·4 |

* Mean of values, 1,2,.....23, ½(0 + 24).

# RAINFALL

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

101 **ESKDALEMUIR:** $h_r$(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of surface above ground = 24·1 m. + 0·6 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | ... | ... | ... | 3·6 | 2·5 | 30 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·0 | 1·9 | ... |
| 2 | ... | ... | ... | 9·2 | 8·5 | 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·1 | 4·1 | 5 |
| 3 | 0·3 | 1·1 | 1 | *14·8* | 9·3 | 17 | 4·9 | 10·0 | 6 | ... | ... | ... | ... | ... | ... | 3·7 | 4·0 | 35 |
| 4 | 30·4 | *20·5* | 11 | 14·4 | 7·3 | 18 | 6·1 | 10·4 | 5 | 0·8 | 1·8 | 2 | ... | ... | ... | 15·4 | 11·7 | 4 |
| 5 | 1·5 | 1·3 | 6 | 2·5 | 3·4 | 6 | 1·2 | 3·4 | 2 | ... | ... | ... | 0·1 | 0·2 | ... | *35·5* | *13·5* | *70* |
| 6 | ... | ... | ... | 8·6 | 5·6 | 20 | 0·2 | 0·1 | ... | ... | ... | ... | 0·2 | 0·5 | ... | 0·2 | 0·4 | 1 |
| 7 | 3·7 | 4·5 | 2 | 9·9 | 4·8 | 22 | ... | ... | ... | 4·3 | *11·8* | 12 | ... | ... | ... | ... | ... | ... |
| 8 | 2·0 | 2·1 | 15 | 1·8 | 2·6 | 2 | 5·3 | 4·0 | 8 | 2·2 | 4·2 | 4 | ... | ... | ... | ... | ... | ... |
| 9 | 22·3 | 10·8 | 15 | 2·0 | 3·5 | 1 | 20·2 | 11·9 | 8 | ... | ... | ... | ... | ... | ... | 3·3 | 6·8 | 12 |
| 10 | 7·0 | 6·4 | *30* | 5·2 | 6·5 | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5·5 | 6·6 | 8 |
| 11 | 6·9 | 4·8 | 22 | 1·4 | 3·1 | 2 | 0·7 | ... | ... | ... | ... | ... | ... | ... | ... | 17·7 | 5·3 | 20 |
| 12 | 4·8 | 3·9 | 9 | 3·1 | 6·8 | 2 | 0·6 | 0·8 | 2 | 2·6 | 4·6 | 2 | ... | ... | ... | 0·3 | 0·2 | 1 |
| 13 | ... | ... | ... | ... | ... | ... | 0·7 | 1·0 | ... | 1·0 | 1·6 | ... | 0·6 | 0·8 | 3 | 2·0 | 1·8 | 13 |
| 14 | ... | ... | ... | ... | ... | ... | 0·2 | 0·2 | ... | ... | ... | ... | ... | ... | ... | 4·4 | 1·8 | 12 |
| 15 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 16 | ... | ... | ... | ... | ... | ... | ... | ... | ... | *18·8* | 7·0 | *55* | 6·1 | 2·4 | *40* | 5·9 | 5·4 | 6 |
| 17 | ... | ... | ... | 0·1 | ... | ... | 19·9 | 17·4 | 9 | 2·7 | 1·5 | 24 | 1·2 | 1·4 | 3 | 2·1 | 1·4 | 32 |
| 18 | 0·6 | 1·0 | 2 | ... | ... | ... | 14·3 | *24·0* | 17 | ... | ... | ... | ... | ... | ... | 4·8 | 4·3 | 13 |
| 19 | 0·7 | 1·8 | 1 | 6·7 | 5·8 | 11 | 17·1 | 20·0 | 17 | 1·0 | 2·3 | 1 | ... | ... | ... | 0·7 | 0·6 | 3 |
| 20 | ... | ... | ... | 0·9 | 1·2 | 4 | *29·6* | 14·2 | *21* | 3·3 | 11·5 | 3 | 1·4 | 2·2 | 1 | 0·1 | ... | ... |
| 21 | ... | ... | ... | ... | ... | ... | 2·4 | 1·6 | 15 | 0·1 | ... | ... | 0·2 | 0·2 | ... | ... | ... | ... |
| 22 | 0·1 | 0·2 | 1 | 12·2 | *10·2* | 11 | 6·5 | 5·5 | 7 | 2·0 | 4·3 | 4 | ... | ... | ... | ... | ... | ... |
| 23 | 9·0 | 10·0 | 3 | 4·7 | 4·3 | *44* | 3·4 | 5·3 | 12 | 4·7 | 3·4 | 14 | ... | ... | ... | 1·0 | 0·6 | 10 |
| 24 | 11·1 | 5·5 | 7 | ... | ... | ... | ... | ... | ... | 6·6 | 7·4 | 13 | 4·6 | 5·0 | 3 | 1·0 | 1·4 | 3 |
| 25 | *31·1* | 16·4 | 19 | ... | ... | ... | 0·1 | 0·2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 26 | 9·1 | 6·9 | 3 | ... | ... | ... | 0·1 | 0·2 | ... | ... | ... | ... | ... | ... | ... | 11·8 | 8·9 | 22 |
| 27 | 3·6 | 2·2 | 7 | 0·3 | 0·1 | 1 | 0·2 | ... | ... | ... | ... | ... | 5·0 | 1·6 | 30 | 9·8 | 6·5 | 7 |
| 28 | 17·8 | 8·3 | 24 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·4 | 1·7 | 5 | 3·8 | 2·1 | 30 |
| 29 | 7·7 | 10·0 | 16 | | | | ... | ... | ... | ... | ... | ... | ... | ... | ... | 30·8 | 12·4 | 15 |
| 30 | 1·3 | 1·2 | 3 | | | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 31 | 21·0 | 8·6 | 25 | | | | ... | ... | ... | | | | *12·5* | *9·9* | 26 | | | |
| Total | 192·0 | 127·5 | – | 101·4 | 85·5 | – | 133·7 | 130·2 | – | 50·1 | 61·4 | – | 33·3 | 25·9 | – | 162·9 | 101·7 | – |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | 0·1 | 0·4 | ... | 1·5 | 4·0 | ... | 2·2 | 1·5 | 7 | 0·2 | 0·2 | 1 | 1·3 | 1·8 | 1 | 13·7 | 11·5 | 10 |
| 2 | 2·9 | 7·7 | 2 | 3·3 | 9·7 | 1 | 5·0 | 2·5 | 17 | 0·2 | 0·2 | 1 | ... | ... | ... | 9·1 | 10·0 | 5 |
| 3 | ... | ... | ... | 3·7 | 2·8 | 2 | 6·4 | 6·4 | 3 | 4·2 | 4·8 | *8* | 21·8 | *19·1* | 6 | 6·8 | 8·7 | 3 |
| 4 | 11 5 | 3 8 | *103* | 5 0 | 7 5 | 1 | 5 1 | 6 2 | 6 | 1 5 | 2 1 | 2 | 17 1 | 15 7 | 13 | ... | ... | ... |
| 5 | 2·5 | 3·0 | 3 | 2·7 | 7·6 | 6 | 14·2 | 9·1 | *55* | 1·2 | 2·2 | 1 | 4·0 | 4·1 | 2 | 7·3 | 4·1 | 2 |
| 6 | 0·1 | 0·2 | ... | 4·0 | 4·9 | 7 | 9·2 | 3·1 | 41 | ... | ... | ... | 0·5 | 0·7 | 3 | ... | ... | ... |
| 7 | ... | ... | ... | 9·7 | 2·2 | 54 | 4·9 | 5·4 | 3 | ... | ... | ... | 2·6 | 1·5 | 11 | 0·1 | ... | ... |
| 8 | ... | ... | ... | 1·7 | 1·4 | 7 | 7·8 | 2·7 | 24 | ... | ... | ... | 1·8 | 3·4 | 1 | 5·7 | 7·1 | *15* |
| 9 | ... | ... | ... | 1·5 | 1·7 | 16 | 0·5 | 0·6 | 1 | ... | ... | ... | 0·3 | 0·3 | ... | 0·1 | ... | ... |
| 10 | ... | ... | ... | ... | ... | ... | *38·2* | *13·2* | 15 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11 | ... | ... | ... | ... | ... | ... | 1·8 | 1·8 | 6 | ... | ... | ... | ... | ... | ... | 18·2 | 10·6 | 10 |
| 12 | ... | ... | ... | 8·8 | *9·8* | 14 | 20·6 | 6·0 | 25 | ... | ... | ... | 7·5 | 6·5 | 5 | 0 1 | ... | ... |
| 13 | ... | ... | ... | 3·1 | 5·6 | 1 | 24·3 | 9·9 | 9 | ... | ... | ... | 0·3 | 0·4 | 1 | 3·7 | 2·2 | 6 |
| 14 | 4·8 | 5·7 | 5 | 16·9 | 5·1 | *145* | 12·2 | 8·4 | 5 | ... | ... | ... | 1·0 | 3·3 | 1 | 13·5 | 21·7 | 3 |
| 15 | 11·4 | *18·5* | 4 | 2·1 | 2·3 | 7 | 3·4 | 1·6 | 22 | ... | ... | ... | 0·4 | 0·5 | 1 | 0·8 | 4·1 | ... |
| 16 | 2·5 | 4·7 | 4 | 0·5 | 0·4 | 1 | 1·5 | 3·7 | 3 | ... | ... | ... | 1·1 | 2·0 | 1 | ... | ... | ... |
| 17 | 7·0 | 8·0 | 7 | 0·3 | 0·4 | ... | 6·2 | 3·1 | 27 | ... | ... | ... | 16·9 | 14·8 | 7 | ... | ... | ... |
| 18 | 10·1 | 10·2 | 15 | 4·4 | 6·0 | 1 | 10·2 | 4·7 | 14 | ... | ... | ... | 3·1 | 5·8 | 8 | ... | ... | ... |
| 19 | 1·4 | 1·5 | 15 | 5·7 | 6·4 | 22 | 0·5 | 0·5 | 1 | 9·2 | *5·3* | *8* | 2·8 | 4·6 | 3 | 0 5 | ... | ... |
| 20 | 2·7 | 4·4 | 3 | ... | ... | ... | 7·8 | 6·0 | 2 | 3·0 | 2·8 | 6 | 16·8 | 18·2 | 6 | ... | ... | ... |
| 21 | 6·8 | 6·6 | 3 | 1·6 | 0·9 | 5 | 0·9 | 0·7 | 3 | 1·3 | 2·0 | 1 | *40·7* | 15·6 | 28 | 9·4 | 12·3 | 7 |
| 22 | 3·1 | 9·3 | 3 | 1·2 | 7·0 | ... | 26·5 | 12·1 | 18 | 0·7 | 0·8 | 1 | 4·9 | 3·7 | 3 | *30·5* | 18·2 | 9 |
| 23 | 4·3 | 12·8 | 1 | 1·4 | 1·0 | 7 | 1·4 | 0·3 | 9 | 0·9 | 1·4 | 1 | 14·0 | 11·6 | 3 | 1·8 | 4·2 | 2 |
| 24 | 7·6 | 5·3 | 14 | 2·8 | 3·4 | 14 | 0·1 | 0·1 | ... | ... | ... | ... | 24·0 | 8·8 | 33 | ... | ... | ... |
| 25 | ... | ... | ... | ... | ... | ... | 3·0 | 3·8 | 2 | ... | ... | ... | 34·5 | 15·0 | *50* | 27·9 | 15·3 | 10 |
| 26 | 2·0 | 2·7 | 1 | 0·8 | 0·6 | 2 | 15·1 | 10·4 | 9 | ... | ... | ... | 7·5 | 12·9 | 7 | 1·4 | 4·1 | 1 |
| 27 | 4·4 | 4·9 | 10 | ... | ... | ... | 6·3 | 7·1 | 2 | ... | ... | ... | 19·0 | 12·1 | 8 | ... | ... | ... |
| 28 | 8·0 | 6·9 | 4 | *24·2* | 9·1 | 16 | ... | ... | ... | ... | ... | ... | 16·9 | 7·7 | 8 | 0·4 | 0·5 | ... |
| 29 | 4·2 | 2·7 | 8 | 20·9 | 8·1 | 45 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5·0 | 4·5 | 3 |
| 30 | *17·5* | 12·2 | 19 | 20·9 | 7·5 | 43 | 5·3 | 2·3 | 14 | ... | ... | ... | 11·3 | 11·4 | 8 | 1·6 | 1·4 | 3 |
| 31 | 1·4 | 0·9 | 5 | 10·1 | 6·7 | 27 | | | | ... | ... | ... | | | | 10·8 | 5·9 | 3 |
| Total | 116·3 | 132·4 | – | 158·8 | 122·1 | – | 240·6 | 133·2 | – | 22·4 | 21·8 | – | 272·1 | 201·5 | – | 168·4 | 146·4 | – |

## RAINFALL

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

102 ESKDALEMUIR: $h_r$ = 242·0 m. + 0·4 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millimetres* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 6·6 | 9·6 | 10·5 | 7·2 | 7·6 | 5·6 | 5·5 | 5·4 | 3·2 | 4·4 | 6·4 | 6·8 | 8·1 | 5·6 | 9·3 | 10·4 | 13·4 | *13·8* | 7·6 | 7·1 | 7·4 | 8·9 | 10·1 | 11·5 | 192·0 |
| Feb. | 0·7 | 2·3 | 1·0 | 2·8 | 2·2 | 6·9 | 8·2 | 3·2 | 5·0 | 9·8 | 3·6 | 2·8 | 0·8 | 1·0 | 3·3 | 2·2 | 5·0 | 3·9 | 3·3 | 6·1 | 4·0 | 9·4 | *10·0* | 3·9 | 101·4 |
| Mar. | 3·9 | 6·8 | 7·2 | 4·6 | 4·5 | 8·0 | 6·8 | 8·4 | 7·4 | *11·8* | 7·5 | 7·6 | 9·7 | 5·0 | 2·1 | 2·6 | 2·6 | 3·8 | 4·6 | 2·7 | 3·8 | 4·5 | 2·5 | 5·3 | 133·7 |
| Apr. | 1·1 | 0·8 | 3·4 | 2·7 | 1·3 | 1·7 | 1·9 | 1·4 | 1·8 | 1·0 | 0·7 | 0·2 | 0·6 | 0·5 | 0·5 | 1·5 | 3·4 | *6·8* | 6·0 | 2·0 | 3·5 | 6·1 | 0·7 | 0·5 | 50·1 |
| May | 1·6 | 1·0 | 2·2 | 2·3 | 0·5 | 3·5 | 0·2 | 0·6 | 1·9 | 0·2 | 0·2 | 1·4 | 0·2 | 0·9 | 2·1 | 2·8 | *5·2* | 3·2 | 1·2 | 0·8 | 0·5 | 0·3 | 0·5 | 0·0 | 33·3 |
| June | 2·7 | 2·7 | 11·5 | 2·9 | 5·3 | 8·2 | 6·9 | 4·5 | 3·4 | 6·2 | 7·4 | 2·9 | 4·7 | 13·7 | 13·4 | *15·4* | 14·3 | 11·0 | 10·1 | 8·3 | 3·0 | 1·3 | 1·2 | 1·9 | 162·9 |
| July | 2·3 | 1·6 | 3·7 | 4·6 | 4·8 | 7·1 | 9·8 | *13·1* | 3·5 | 6·1 | 3·8 | 2·6 | 4·3 | 4·2 | 6·5 | 4·5 | 5·4 | 4·7 | 3·3 | 2·0 | 3·4 | 7·4 | 5·8 | 1·8 | 116·3 |
| Aug. | 3·5 | 4·9 | 5·5 | 8·9 | 9·6 | 4·5 | 4·1 | 7·3 | 10·1 | 6·9 | 2·9 | 4·4 | 8·4 | 9·3 | 6·7 | 7·9 | *16·3* | 10·4 | 10·2 | 3·8 | 4·7 | 3·1 | 2·4 | 3·0 | 158·8 |
| Sept. | 1·5 | 6·9 | 8·6 | 4·0 | 7·3 | 5·4 | 15·8 | 12·2 | 13·9 | 9·7 | *19·9* | 10·5 | 11·5 | 13·8 | 12·7 | 9·7 | 9·6 | 7·1 | 12·6 | 16·2 | 10·0 | 9·2 | 5·0 | 7·5 | 240·6 |
| Oct. | 0·5 | 0·3 | 1·4 | 0·5 | 2·1 | 1·2 | 1·0 | 1·8 | *4·8* | 0·9 | 1·7 | 3·8 | 0·3 | 0·7 | 0·3 | 0·1 | 0·0 | 0·3 | 0·0 | 0·0 | 0·0 | 0·2 | 0·0 | 0·5 | 22·4 |
| Nov. | 3·1 | 8·8 | 10·0 | 6·9 | 5·2 | 6·7 | 7·1 | 6·5 | 11·8 | 10·7 | 8·4 | 13·2 | 18·0 | *26·3* | 25·2 | 9·6 | 18·2 | 15·5 | 10·6 | 8·7 | 14·5 | 9·2 | 13·3 | 4·6 | 272·1 |
| Dec. | 4·5 | 4·6 | 8·1 | 7·5 | 6·1 | 7·9 | 7·5 | 4·6 | 5·0 | 5·5 | 10·8 | *11·0* | 8·3 | 9·1 | 10·4 | 8·1 | 7·7 | 10·2 | 7·2 | 6·8 | 5·3 | 4·3 | 4·6 | 3·3 | 168·4 |
| Annual | 32·0 | 50·3 | 73·1 | 54·9 | 56·5 | 66·7 | 74·8 | 69·0 | 71·8 | 73·2 | 73·3 | 67·2 | 74·9 | 90·1 | 92·5 | 74·8 | *101·1* | 90·7 | 76·7 | 64·5 | 60·1 | 63·9 | 56·1 | 43·8 | 1652·0 |

## RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours. G.M.T.

103 ESKDALEMUIR: $h_r$ = 242·0 m. + 0·4 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 5·4 | 6·4 | 6·5 | 4·7 | 5·5 | 6·1 | 5·9 | 5·1 | 4·6 | 4·3 | 3·2 | 4·3 | 5·5 | 5·1 | 5·5 | 5·1 | 6·1 | 6·0 | 4·0 | 3·8 | 4·2 | 5·7 | *8·0* | 6·5 | 127·5 |
| Feb. | 0·9 | 1·7 | 1·1 | 2·8 | 3·4 | 4·4 | *5·8* | 5·4 | 4·6 | 5·1 | 3·4 | 1·4 | 0·9 | 0·8 | 3·8 | 3·9 | 5·0 | 5·2 | 4·9 | 5·1 | 3·1 | 4·4 | 5·1 | 3·3 | 85·5 |
| Mar. | 4·4 | 6·0 | 6·4 | 6·7 | 6·7 | 7·7 | 7·0 | 7·4 | 7·0 | 7·4 | 6·3 | 5·0 | 5·2 | 5·2 | 4·3 | 4·6 | 3·7 | 3·0 | 4·0 | 4·4 | 2·6 | 5·0 | 5·0 | 5·2 | 130·2 |
| Apr. | 1·6 | 2·5 | 3·0 | 2·4 | 1·7 | 1·3 | 2·4 | 2·3 | 4·3 | 2·0 | 1·3 | 1·0 | 1·3 | 2·2 | 2·2 | 2·6 | 4·0 | *4·8* | 4·5 | 2·8 | 3·8 | 3·7 | 2·2 | 1·5 | 61·4 |
| May | 1·0 | 1·1 | *2·0* | 1·7 | 1·3 | 0·9 | 0·3 | 1·2 | 1·6 | 0·3 | 0·4 | 0·5 | 0·4 | 1·1 | 0·6 | 1·9 | 1·5 | 1·9 | 1·5 | 1·0 | 1·7 | 1·0 | 1·0 | 0·0 | 25·9 |
| June | 2·7 | 4·4 | 5·2 | 3·1 | 2·9 | 4·3 | 3·8 | 5·1 | 3·3 | 5·1 | 5·0 | 4·3 | 2·6 | 4·5 | 4·9 | 5·9 | *6·6* | 5·7 | 5·3 | 5·4 | 3·5 | 3·0 | 2·1 | 3·0 | 101·7 |
| July | 4·8 | 4·2 | 5·7 | 8·2 | 8·7 | 7·5 | 7·0 | 6·1 | 3·8 | 4·1 | 3·8 | 3·9 | 6·8 | 5·6 | *8·9* | 5·4 | 5·6 | 6·2 | 3·9 | 3·5 | 3·9 | 4·6 | 5·0 | 5·2 | 132·4 |
| Aug. | 6·3 | 6·5 | 7·6 | *11·1* | 9·2 | 7·8 | 6·5 | 5·4 | 4·9 | 3·4 | 4·0 | 2·9 | 4·2 | 2·4 | 4·1 | 3·6 | 4·2 | 4·3 | 5·0 | 3·3 | 3·8 | 3·7 | 4·4 | 3·5 | 122·1 |
| Sept. | 1·8 | 4·4 | 4·3 | 3·7 | 5·2 | 5·3 | 8·3 | 8·8 | 7·4 | 5·2 | *9·5* | 6·4 | 6·0 | 6·9 | 6·6 | 5·9 | 6·0 | 2·8 | 4·3 | 5·5 | 3·7 | 4·9 | 5·1 | 5·2 | 133·2 |
| Oct. | 1·3 | 0·7 | 2·4 | 0·8 | 0·9 | 1·6 | 2·4 | *2·5* | 2·4 | 1·2 | 1·1 | 1·2 | 1·1 | 0·4 | 0·6 | 0·0 | 0·0 | 0·3 | 0·0 | 0·0 | 0·0 | 0·2 | 0·0 | 0·7 | 21·8 |
| Nov. | 5·3 | 5·8 | 6·9 | 6·5 | 7·0 | 7·7 | 7·9 | 7·7 | 8·4 | 8·5 | 11·8 | 10·8 | 9·4 | 11·5 | *12·5* | 10·0 | 11·9 | 11·7 | 7·4 | 7·4 | 7·4 | 7·8 | 5·7 | 4·5 | 201·5 |
| Dec. | 5·1 | 5·5 | 7·4 | 7·2 | *8·6* | 8·2 | 6·8 | 6·6 | 5·8 | 5·6 | 5·2 | 5·9 | 7·3 | 6·9 | 7·7 | 6·8 | 6·0 | 5·8 | 5·4 | 5·3 | 4·9 | 5·2 | 3·6 | 3·6 | 146·4 |
| Annual | 40·6 | 49·2 | 58·5 | 58·9 | 61·1 | 62·8 | *64·1* | 63·6 | 58·1 | 52·2 | 55·0 | 47·6 | 50·7 | 52·6 | 61·7 | 55·7 | 60·6 | 57·7 | 50·2 | 47·5 | 42·6 | 49·2 | 47·2 | 42·2 | 1289·6 |

## NOTES ON RAINFALL

104 ESKDALEMUIR:

**Dry Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more

"Absolute drought" No occasions
"Partial drought" No occasions
"Dry spell" April 25–May 15

**Wet Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more

"Rain spells" January 23–February 12, July 26–August 9, August 28–September 23 and November 12–November 28.
"Wet spells" January 23–February 12 and July 26–August 9.

**Rainfall Duration**

There were 134 days on which no duration of rainfall was registered. The day with the greatest duration was March 18, when the duration was 24·0 hr., the amount falling being 14·3 mm. The longest continuous fall, 56·0 hr. occurred on March 17–19, 50·6 mm. being recorded.

| Hours | 0·1–1·0 | 1·1–2·0 | 2·1–6·0 | 6·1–12·0 | >12·0 |
|---|---|---|---|---|---|
| Number of days | 38 | 29 | 80 | 59 | 25 |

**Notable Falls of the Year**

The greatest amount in a 60-min. period was 8·1 mm. which was recorded between 19h. and 20h. on September 10, of which 5 mm. fell in 35 min. Falls of 5 mm. in one hour or less occurred on 19 days.

Details of the greatest continuous falls are as follows

| | January 3–4 | March 17–19 | March 19–20 | September 10 | December 14 | December 22–23 |
|---|---|---|---|---|---|---|
| Amount (mm.) | 28·0 | 50·6 | 29·9 | 37·3 | 13·4 | 29·9 |
| Duration of rainfall (hr.) | 17·9 | 56·0 | 17·0 | 11·9 | 20·8 | 18·8 |

**Rate of Rainfall (Jardi recorder)**

The highest instantaneous rate of rainfall recorded was 145 mm./hr. at 16h.35m. on August 14. The maximum rate exceeded 50 mm./hr. on April 16, June 5, July 4, August 7, and 14, September 5 and November 25.

105 ESKDALEMUIR: $h_s$(height of recorder above ground) = 1·5 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible | Duration | Per cent. of possible |
| | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % | hr. | % |
| 1 | ··· | ··· | ··· | ··· | 7·8 | *73* | 8·0 | 62 | 2·7 | 18 | 5·2 | 31 | 0·1 | 1 | 0·1 | 1 | 2·3 | 17 | 0·8 | 7 | 0·2 | 2 | 0·8 | 11 |
| 2 | 2·6 | 36 | ··· | ··· | 7·7 | 72 | 8·3 | 64 | 12·5 | 82 | 5·1 | 31 | 0·2 | 1 | 5·8 | 37 | 2·5 | 18 | 0·5 | 4 | 1·0 | 11 | 3·1 | 42 |
| 3 | ··· | ··· | ··· | ··· | ··· | ··· | 5·4 | 41 | 12·4 | 81 | 6·2 | 36 | 7·4 | 42 | 6·9 | 44 | 1·5 | 11 | 1·8 | 16 | ··· | ··· | ··· | ··· |
| 4 | ··· | ··· | 1·1 | 13 | ··· | ··· | 1·6 | 12 | 9·7 | 63 | ··· | ··· | 6·9 | 40 | 1·6 | 10 | 0·3 | 2 | ··· | ··· | 0·4 | 4 | *6·0* | 82 |
| 5 | 1·6 | 22 | 3·3 | 37 | ··· | ··· | *10·6* | *80* | 8·1 | 52 | 1·9 | 11 | 4·2 | 24 | 0·2 | 1 | 1·4 | 10 | 3·7 | 33 | ··· | ··· | ··· | ··· |
| 6 | 0·2 | 3 | 0·6 | 7 | 6·4 | 58 | 9·3 | 70 | 10·3 | 66 | 9·3 | 54 | 10·9 | 64 | 0·8 | 5 | 1·7 | 13 | 9·3 | 83 | ··· | ··· | 4·1 | 56 |
| 7 | ··· | ··· | 0·2 | 2 | 5·5 | 50 | ··· | ··· | 1·0 | 6 | 5·6 | 32 | 3·2 | 19 | 4·9 | 31 | 0·9 | 7 | 9·3 | 84 | 5·1 | 58 | 0·1 | 1 |
| 8 | 0·3 | 3 | ··· | ··· | 1·5 | 13 | 4·4 | 33 | 12·8 | 82 | 1·3 | 80 | 7·2 | 42 | 2·2 | 14 | 0·1 | 1 | 0·8 | 7 | 2·3 | 26 | ··· | ··· |
| 9 | ··· | ··· | 6·9 | 75 | 1·1 | 10 | 7·6 | 56 | 13·2 | 84 | 5·6 | 33 | 8·8 | 52 | 3·7 | 24 | 3·7 | 28 | 1·4 | 13 | 0·2 | 2 | ··· | ··· |
| 10 | 3·8 | 51 | 1·4 | 15 | 6·1 | 54 | 9·1 | 67 | *13·9* | *88* | 3·2 | 19 | 8·1 | 48 | 0·4 | 3 | ··· | ··· | 7·2 | 66 | 3·6 | 42 | 3·5 | 49 |
| 11 | ··· | ··· | ··· | ··· | 0·2 | 2 | ··· | ··· | 9·9 | 63 | 3·2 | 19 | *13·6* | *80* | 4·2 | 27 | 1·7 | 13 | *9·4* | *87* | ··· | ··· | ··· | ··· |
| 12 | ··· | ··· | ··· | ··· | 1·4 | 12 | 0·3 | 2 | 10·5 | 66 | 9·7 | 56 | 10·6 | 63 | ··· | ··· | 0·2 | 1 | ··· | ··· | *5·2* | *61* | 5·2 | 73 |
| 13 | *6·3* | *84* | 3·7 | 39 | ··· | ··· | 1·8 | 13 | 7·4 | 46 | 5·7 | 33 | 2·9 | 17 | 2·7 | 18 | ··· | ··· | ··· | ··· | ··· | ··· | 1·5 | 21 |
| 14 | 5·7 | 75 | ··· | ··· | 0·2 | 2 | 10·1 | 72 | 10·0 | 62 | 0·5 | 3 | 5·8 | 34 | 3·2 | 21 | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· |
| 15 | 5·5 | 72 | ··· | ··· | 0·9 | 8 | 9·7 | 69 | 9·9 | 62 | ··· | ··· | ··· | ··· | 1·2 | 8 | 5·1 | 40 | 0·1 | 1 | ··· | ··· | ··· | ··· |
| 16 | 5·7 | 73 | 1·9 | 20 | 3·2 | 27 | 2·4 | 17 | 5·7 | 35 | 0·1 | 1 | 3·4 | 20 | 7·2 | 48 | 0·9 | 7 | ··· | ··· | ··· | ··· | ··· | ··· |
| 17 | ··· | ··· | 5·1 | 52 | ··· | ··· | 8·0 | 56 | 5·5 | 34 | 3·0 | 17 | 0·2 | 1 | 4·4 | 30 | 4·7 | 37 | ··· | ··· | ··· | ··· | 0·8 | 11 |
| 18 | 0·8 | 10 | 2·3 | 23 | ··· | ··· | 9·6 | 67 | 6·6 | 41 | 0·7 | 4 | ··· | ··· | 1·3 | 9 | ··· | ··· | 1·1 | 11 | 0·3 | 4 | 5·8 | *83* |
| 19 | 0·1 | 1 | 5·5 | 56 | ··· | ··· | 8·6 | 60 | 12·8 | 78 | 3·8 | 22 | 1·9 | 11 | 0·2 | 1 | 1·8 | 14 | ··· | ··· | ··· | ··· | ··· | ··· |
| 20 | 6·1 | 77 | 6·7 | 67 | 0·1 | 1 | ··· | ··· | 2·5 | 15 | 9·1 | 52 | 0·9 | 5 | 5·8 | 40 | 3·4 | 27 | 0·1 | 1 | ··· | ··· | ··· | ··· |
| 21 | 5·9 | 74 | 8·2 | 82 | 5·4 | 44 | 9·9 | 68 | 5·3 | 32 | 8·4 | 48 | 0·9 | 5 | 0·5 | 3 | 0·3 | 2 | ··· | ··· | ··· | ··· | ··· | ··· |
| 22 | ··· | ··· | 1·4 | 14 | 0·5 | 4 | 3·9 | 27 | 9·7 | 59 | *13·8* | *79* | 0·3 | 2 | 7·7 | 53 | 1·6 | 13 | 0·7 | 7 | 0·9 | 11 | ··· | ··· |
| 23 | ··· | ··· | 7·2 | 71 | 6·1 | 50 | 6·2 | 42 | 11·2 | 68 | 7·8 | 45 | ··· | ··· | 4·7 | 33 | 5·7 | 47 | ··· | ··· | ··· | ··· | ··· | ··· |
| 24 | ··· | ··· | 8·0 | 78 | 1·4 | 11 | 1·5 | 10 | 10·2 | 61 | 4·8 | 28 | 8·1 | 49 | 2·6 | 18 | 2·7 | 22 | 1·1 | 11 | ··· | ··· | 3·5 | 49 |
| 25 | ··· | ··· | *8·8* | *85* | 2·3 | 19 | 1·2 | 8 | 10·1 | 61 | 5·6 | 32 | 2·3 | 14 | 6·3 | 44 | ··· | ··· | 0·4 | 4 | ··· | ··· | ··· | ··· |
| 26 | ··· | ··· | 8·4 | 81 | ··· | ··· | 1·2 | 8 | 6·2 | 37 | 2·8 | 16 | 1·7 | 10 | 6·8 | 48 | ··· | ··· | 7·2 | 74 | ··· | ··· | ··· | ··· |
| 27 | ··· | ··· | 8·1 | 78 | *8·0* | 63 | ··· | ··· | ··· | ··· | 0·7 | 4 | 2·1 | 13 | *9·3* | *66* | 0·3 | 3 | 5·5 | 57 | ··· | ··· | 3·9 | 55 |
| 28 | ··· | ··· | 8·0 | 76 | 7·5 | 59 | 8·7 | 58 | 4·9 | 29 | 5·1 | 29 | 1·6 | 10 | 2·0 | 14 | *6·3* | *53* | 7·4 | 77 | ··· | ··· | 4·2 | 60 |
| 29 | 0·9 | 11 | | | 1·0 | 8 | 1·9 | 13 | 8·1 | 48 | 0·1 | 1 | 4·6 | 29 | 2·7 | 19 | 1·9 | 16 | 7·9 | 83 | 0·1 | 1 | ··· | ··· |
| 30 | 2·6 | 31 | | | 7·4 | 58 | ··· | ··· | 7·5 | 44 | 7·7 | 45 | 2·9 | 18 | 0·5 | 4 | 3·9 | 34 | ··· | ··· | 1·1 | 15 | 2·5 | 35 |
| 31 | ··· | ··· | | | 7·5 | 58 | | | 3·6 | 21 | | | 7·4 | 46 | 1·8 | 13 | | | 0·2 | 2 | | | 2·1 | 30 |
| Mean | 1·55 | 20 | 3·46 | 36 | 2·88 | 24 | 4·98 | 35 | 8·20 | 51 | 4·53 | 26 | 4·13 | 25 | 3·28 | 22 | 1·83 | 14 | 2·45 | 23 | 0·68 | 8 | 1·52 | 21 |
| | | | | | | | | | | | Annual mean | | 3·29 | 27 | | | | | | | | | | |

## DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

106 ESKDALEMUIR: $h_s$ = 1·5 m.

| | 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 | Per cent. of possible |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | % |
| Jan. | – | – | – | – | ··· | 0·4 | 6·9 | *9·1* | *9·1* | *9·1* | 7·2 | 6·0 | 0·3 | ··· | – | – | – | – | 48·1 | 20 |
| Feb. | – | – | – | ··· | 2·9 | 9·6 | 12·8 | 13·3 | 13·0 | *15·0* | 12·5 | 9·6 | 5·6 | 2·5 | ··· | – | – | – | 96·8 | 36 |
| Mar. | – | – | ··· | ··· | 1·4 | 6·4 | 9·8 | 12·9 | 11·8 | *12·1* | 10·3 | 9·9 | 10·2 | 3·8 | 0·6 | ··· | – | – | 89·2 | 24 |
| Apr. | – | ··· | ··· | 4·8 | 9·5 | 13·9 | 15·0 | 16·4 | *16·8* | 16·4 | 14·5 | 13·6 | 12·4 | 9·8 | 6·0 | 0·2 | ··· | – | 149·3 | 35 |
| May | ··· | 0·5 | 8·0 | 14·2 | 18·5 | 20·5 | *22·8* | 21·0 | 20·0 | 21·1 | 21·0 | 19·4 | 20·2 | 19·7 | 17·2 | 9·8 | 0·3 | ··· | 254·2 | 51 |
| June | ··· | 0·4 | 4·7 | 9·0 | 9·5 | 10·1 | 10·5 | 11·5 | *12·0* | 10·5 | 10·9 | 8·9 | 9·8 | *12·0* | 7·7 | 6·5 | 2·0 | ··· | 136·0 | 26 |
| July | ··· | 0·1 | 2·0 | 2·9 | 8·1 | 10·1 | 9·8 | 9·1 | 12·0 | 13·4 | 10·8 | *13·5* | 10·1 | 10·1 | 9·9 | 5·5 | 0·8 | ··· | 128·2 | 25 |
| Aug. | – | ··· | 0·5 | 4·3 | 6·2 | 10·0 | *10·8* | 10·6 | 8·5 | 9·5 | 9·4 | 8·5 | 8·1 | 6·2 | 6·0 | 2·3 | 0·8 | – | 101·7 | 22 |
| Sept. | – | – | ··· | ··· | 2·3 | 2·6 | 5·2 | 6·1 | 5·5 | *7·7* | 6·5 | 6·7 | 6·4 | 5·4 | 0·5 | ··· | – | – | 54·9 | 14 |
| Oct. | – | – | – | ··· | 3·0 | 6·6 | 9·7 | *10·1* | 9·3 | 9·3 | 8·6 | 8·8 | 7·7 | 2·8 | ··· | – | – | – | 75·9 | 23 |
| Nov. | – | – | – | – | ··· | 1·7 | 3·5 | 3·3 | *3·7* | 3·3 | 2·6 | 1·9 | 0·4 | ··· | – | – | – | – | 20·4 | 8 |
| Dec. | – | – | – | – | – | 0·2 | 5·4 | 7·0 | *10·6* | 10·3 | 8·9 | 4·7 | ··· | – | – | – | – | – | 47·1 | 21 |
| Annual | ··· | 1·0 | 15·2 | 35·2 | 61·4 | 92·1 | 122·2 | 130·4 | 132·3 | *137·7* | 123·2 | 111·5 | 91·2 | 72·3 | 47·9 | 24·3 | 3·9 | ··· | 1201·8 | 27 |

## WIND

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

107 ESKDALEMUIR: $h_a$(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 235 m. + 15 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust |
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1·7 | 10 | 9·2 | 23 | 0·9 | 6 | *1·1* | 7 | 2·6 | 8 | 2·6 | 12 | 4·9 | 14 | 3·5 | 13 | *1·2* | 7 | 1·7 | 7 | 3·7 | 13 | 7·1 | 27 |
| 2 | 1·1 | 8 | 7·5 | 26 | 2·2 | 12 | 2·3 | 12 | 1·9 | 12 | 3·3 | 16 | 6·8 | 17 | 5·4 | 18 | 2·1 | 8 | 2·1 | 10 | *1·0* | 6 | 9·5 | *29* |
| 3 | 4·6 | 17 | 7·9 | 21 | 5·9 | 18 | 1·4 | 11 | 2·7 | 11 | 4·2 | 15 | *1·5* | 7 | 5·3 | 17 | 3·7 | 15 | 3·6 | 14 | 3·9 | 14 | 3·4 | 15 |
| 4 | *11·3* | *29* | 8·5 | 22 | 5·2 | 17 | 3·3 | 16 | 2·6 | 13 | 6·3 | 19 | 6·4 | 20 | 5·6 | 16 | 5·0 | 13 | 4·3 | 14 | 7·1 | 20 | 3·5 | 14 |
| 5 | 5·7 | 18 | 7·3 | 25 | 6·8 | 16 | 3·8 | 17 | 5·3 | 16 | *13·3* | *27* | 5·7 | 18 | 3·2 | 8 | 3·7 | 14 | 5·1 | *19* | 4·4 | 13 | 0·9 | 8 |
| 6 | 3·6 | 13 | 5·0 | 20 | 5·9 | 17 | 4·1 | 14 | 6·6 | 18 | 7·3 | 17 | 5·0 | 20 | *6·9* | 17 | 6·6 | 18 | 0·8 | 5 | 1·7 | 7 | 1·5 | 8 |
| 7 | 2·2 | 12 | 7·9 | 21 | 1·8 | 8 | 7·0 | 16 | 6·0 | 19 | 4·3 | 15 | 2·0 | 10 | 5·0 | 17 | 2·9 | 13 | 1·4 | 9 | 5·4 | 19 | 5·0 | 18 |
| 8 | 8·0 | 28 | 5·3 | 19 | 2·8 | 12 | 5·3 | 20 | 6·5 | 22 | *0·8* | 8 | 2·3 | 10 | 3·1 | 13 | 1·9 | 13 | 2·8 | 9 | 7·7 | 21 | 2·9 | 12 |
| 9 | 7·9 | 21 | 6·4 | 19 | 2·3 | 9 | 2·0 | 13 | 5·1 | 15 | 2·7 | 14 | 1·5 | 9 | 4·7 | 16 | 3·4 | 14 | 3·8 | 11 | 4·8 | 17 | 1·9 | 8 |
| 10 | 9·5 | 25 | 6·0 | 18 | *0·5* | 3 | 2·2 | 13 | 3·2 | 10 | 3·9 | 17 | 1·7 | 10 | 2·8 | 15 | 4·6 | 15 | 4·2 | 12 | 2·4 | 12 | 0·7 | 5 |
| 11 | 7·0 | 20 | 6·2 | 19 | 2·8 | 9 | 6·6 | 21 | 2·1 | 9 | 2·6 | 12 | 3·1 | 13 | 3·9 | 11 | 2·7 | 10 | *5·9* | 15 | 1·6 | 13 | 6·9 | 24 |
| 12 | 5·0 | 22 | 1·3 | 8 | 5·1 | 18 | 4·8 | 15 | 3·8 | 14 | 1·5 | 9 | 2·1 | 9 | 6·3 | 19 | 4·5 | 21 | 5·0 | 13 | 8·4 | *25* | 1·8 | 10 |
| 13 | 2·1 | 10 | 1·4 | 6 | 7·3 | 17 | 3·3 | 13 | 4·6 | 17 | 1·3 | 9 | 2·2 | 14 | 5·4 | 18 | 10·3 | 23 | 3·9 | 13 | 3·6 | 21 | *0·6* | 4 |
| 14 | 1·2 | 9 | 2·7 | 10 | 5·3 | 13 | 2·9 | 13 | 3·0 | 13 | 1·1 | 8 | 4·7 | 17 | 1·7 | 10 | 7·1 | 22 | 0·8 | 6 | 5·6 | 17 | 1·3 | 12 |
| 15 | 0·9 | 7 | 4·4 | 12 | 4·2 | 16 | 4·5 | 18 | 1·9 | 11 | 2·0 | 8 | 4·0 | 13 | 1·5 | 9 | 7·9 | 21 | 0·5 | 4 | 2·9 | 10 | 4·3 | 16 |
| 16 | *0·3* | 3 | 4·3 | 16 | 2·4 | 10 | 6·3 | 20 | *1·3* | 13 | 2·7 | 7 | 2·2 | 9 | 1·2 | 11 | *10·7* | 22 | *0·5* | 5 | 1·5 | 9 | 1·1 | 5 |
| 17 | 2·4 | 11 | 5·2 | 20 | 4·0 | 23 | 5·7 | *23* | 3·7 | 15 | 4·1 | 13 | 4·5 | 15 | *0·9* | 7 | 9·6 | 23 | 2·1 | 7 | 5·2 | 14 | 1·7 | 7 |
| 18 | 6·2 | 17 | 5·0 | 21 | 8·2 | 18 | 2·3 | 11 | 5·3 | 17 | 2·4 | 11 | 2·6 | 12 | 4·9 | 17 | 4·5 | 18 | 4·7 | 15 | 4·0 | 17 | 1·4 | 6 |
| 19 | 1·9 | 10 | 8·9 | *28* | *10·5* | 26 | 4·8 | 20 | *7·8* | 22 | 2·0 | 11 | 3·5 | 13 | 2·0 | 11 | 5·9 | 18 | 3·1 | 11 | 1·3 | 9 | 1·8 | 9 |
| 20 | 0·4 | 2 | *10·9* | 23 | 8·3 | *27* | 3·0 | 15 | 4·7 | 15 | 2·3 | 13 | 5·1 | 15 | 1·3 | 6 | 3·8 | 13 | 3·7 | 12 | 6·9 | 23 | 1·0 | 5 |
| 21 | 1·0 | 7 | 6·7 | 21 | 4·8 | 13 | 4·9 | 17 | 4·4 | 15 | 2·2 | 10 | 4·2 | 13 | 1·7 | 8 | 6·8 | *24* | 4·0 | 15 | 7·5 | 22 | 5·0 | 16 |
| 22 | 4·3 | 13 | 6·5 | 21 | 2·2 | 15 | 4·4 | 15 | 2·7 | 12 | 2·5 | 11 | 5·0 | 14 | 1·7 | 10 | 10·4 | 23 | 2·9 | 10 | 3·6 | 18 | 8·7 | 24 |
| 23 | 1·6 | 6 | 9·1 | 27 | 4·5 | 21 | 7·4 | 22 | 3·5 | 13 | 3·4 | 16 | *10·1* | 24 | 2·6 | 11 | 9·8 | 24 | 1·3 | 6 | 6·1 | 23 | 1·1 | 6 |
| 24 | 7·2 | 22 | 3·7 | 13 | 3·4 | 13 | 4·9 | 17 | 5·6 | 16 | 4·7 | 15 | 7·8 | 24 | 4·8 | 14 | 5·4 | 16 | 1·7 | 9 | 6·7 | 20 | 1·5 | 10 |
| 25 | 6·3 | 23 | *1·0* | 6 | 4·8 | 14 | 2·6 | 9 | 6·2 | 17 | 2·6 | 12 | 5·8 | 16 | 1·0 | 7 | 7·5 | 17 | 3·6 | 11 | *9·4* | 24 | *10·4* | 27 |
| 26 | 3·8 | 21 | 1·4 | 8 | 3·3 | 10 | 4·2 | 14 | 5·2 | 15 | 4·7 | 15 | 2·6 | 11 | 1·6 | 10 | 6·7 | 19 | 2·5 | 9 | 4·7 | 13 | 6·7 | 23 |
| 27 | 1·7 | 11 | 1·6 | 10 | 1·8 | 9 | *8·7* | 22 | 5·1 | 18 | 4·7 | 21 | 3·6 | 13 | 1·7 | 8 | 5·6 | 18 | 2·4 | 11 | 4·9 | 13 | 3·2 | 17 |
| 28 | 8·2 | 22 | 1·8 | 10 | 0·7 | 5 | 5·1 | 15 | 3·8 | 15 | 8·1 | 21 | 5·9 | 16 | 5·1 | *23* | 1·2 | 6 | 2·8 | 14 | 2·1 | 10 | 3·5 | 19 |
| 29 | 6·0 | 20 | | | 1·4 | 8 | 5·3 | 17 | 3·9 | 15 | 8·2 | 22 | 4·9 | 21 | 4·4 | (15) | 2·9 | (12) | 0·8 | 8 | 1·2 | 6 | 1·9 | 9 |
| 30 | 5·9 | 20 | | | 2·7 | 9 | 5·6 | 18 | 1·5 | 11 | 7·2 | 20 | 8·2 | *25* | 5·0 | 14 | 2·2 | 9 | (0·6) | 3 | 4·9 | 17 | 3·4 | 14 |
| 31 | 4·6 | 21 | | | 1·5 | 8 | | | 4·3 | 16 | | | 4·2 | 15 | 2·6 | 11 | | | (1·8) | 8 | | | 3·7 | 16 |

## WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

108 ESKDALEMUIR: $h_a$ = 235 m. + 15 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 4·2 | 4·0 | 3·8 | 4·0 | 4·0 | 3·9 | 3·6 | *3·6* | 3·6 | 3·9 | 4·3 | 4·7 | *5·2* | 5·1 | 4·9 | 4·8 | 4·3 | 4·0 | 4·3 | 4·4 | 4·5 | 4·7 | 4·9 | 5·0 | 4·3 |
| Feb. | 5·7 | 5·7 | 5·4 | 5·4 | 5·3 | 5·4 | 5·5 | 4·9 | 5·3 | 5·7 | 6·1 | 6·5 | *6·5* | 6·2 | 5·7 | 5·4 | 5·2 | 5·4 | 4·9 | 4·9 | 5·0 | 5·0 | *4·9* | 5·0 | 5·5 |
| Mar. | 3·3 | 3·1 | 3·0 | 3·1 | 3·1 | *2·9* | 3·1 | 3·2 | 3·7 | 4·3 | 5·1 | 5·1 | *5·5* | 5·4 | 5·2 | 5·3 | 4·9 | 4·1 | 3·9 | 3·8 | 3·9 | 3·6 | 3·4 | 3·5 | 4·0 |
| Apr. | 3·2 | 3·2 | 3·3 | 3·2 | 3·5 | 3·4 | *3·0* | 3·2 | 3·8 | 4·8 | 5·4 | 5·8 | 5·8 | 6·0 | 6·5 | *6·6* | 5·8 | 5·1 | 4·3 | 3·8 | 3·6 | 3·7 | 3·6 | 3·5 | 4·3 |
| May | 2·5 | *2·4* | 2·6 | 2·6 | 2·6 | 2·9 | 3·8 | 4·4 | 4·9 | 5·1 | 5·3 | 5·6 | *5·9* | 5·8 | 5·8 | 5·8 | 5·7 | 5·6 | 4·4 | 3·3 | 2·9 | 2·7 | 2·7 | 2·7 | 4·1 |
| June | 2·3 | 2·3 | 2·3 | *2·3* | 2·4 | 2·6 | 3·1 | 3·8 | 4·3 | 5·0 | 5·3 | 5·4 | 6·0 | *6·4* | 6·2 | 6·0 | 5·6 | 5·3 | 4·4 | 3·7 | 3·0 | 2·6 | 2·5 | 2·5 | 4·0 |
| July | 2·8 | 2·9 | *2·7* | 2·9 | 3·0 | 3·1 | 3·7 | 4·0 | 4·7 | 5·3 | 5·8 | 6·1 | *6·1* | 6·1 | 6·0 | 5·5 | 5·2 | 5·3 | 4·7 | 4·3 | 3·7 | 3·6 | 3·4 | 3·0 | 4·3 |
| Aug. | 2·3 | 2·3 | *2·3* | 2·3 | 2·6 | 2·5 | 2·6 | 3·1 | 3·7 | 4·4 | 4·6 | 4·8 | 4·8 | 5·0 | *5·2* | 5·0 | 4·6 | 4·2 | 3·6 | 2·9 | 2·7 | 2·6 | 2·5 | 2·3 | 3·4 |
| Sept. | 4·5 | *4·3* | 4·4 | 4·4 | 4·5 | 4·8 | 5·0 | 4·8 | 5·1 | 6·0 | 6·2 | 6·5 | 6·3 | 6·3 | 6·4 | *6·5* | 6·2 | 5·6 | 5·4 | 5·0 | 5·0 | 5·3 | 5·3 | 4·8 | 5·4 |
| Oct. | 2·4 | 2·3 | 2·2 | 2·2 | *2·1* | 2·3 | 2·1 | 2·3 | 2·3 | 3·0 | 3·6 | *3·8* | 3·8 | 3·7 | 3·7 | 3·5 | 3·2 | 3·0 | 2·5 | 2·2 | 2·1 | 2·3 | 2·4 | 2·4 | 2·7 |
| Nov. | 4·2 | 4·1 | 4·1 | 4·3 | 4·0 | 4·0 | 4·2 | 3·7 | *3·7* | 4·4 | 4·7 | 4·7 | 5·3 | *5·4* | 5·0 | 4·6 | 4·7 | 4·6 | 4·5 | 4·8 | 4·7 | 4·5 | 4·5 | 4·5 | 4·5 |
| Dec. | 3·3 | 3·3 | 3·1 | 3·0 | 3·1 | 3·4 | 3·2 | 3·5 | 3·7 | 3·7 | 4·2 | 4·4 | *4·4* | 4·4 | 4·2 | 4·0 | 3·6 | 3·1 | 3·0 | 3·1 | 2·9 | *2·6* | 2·8 | 2·7 | 3·5 |
| Annual | 3·4 | 3·3 | *3·2* | 3·3 | 3·3 | 3·4 | 3·6 | 3·7 | 4·0 | 4·6 | 5·0 | 5·2 | 5·5 | *5·5* | 5·4 | 5·2 | 4·9 | 4·6 | 4·2 | 3·8 | 3·7 | 3·6 | 3·6 | 3·5 | 4·1 |

## DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

109 ESKDALEMUIR: $h_a$ = 235 m. + 15 m.

| | DISTRIBUTION OF WIND SPEED | | | | | | | | EXTREME VELOCITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | More than 17·1 m./sec. | | 10·8 to 17·1 m./sec. | | 5·5 to 10·7 m./sec. | 1·6 to 5·4 m./sec. | Less than 1·6 m./sec. | No record | Highest hourly wind | | | Highest gust | |
| | Dates of occurrence | Duration | No. of days | Duration | Duration | Duration | Duration | Duration | Veer from N. | Speed | Hour ended | Speed | Date |
| | | hr. | | hr. | hr. | hr. | hr. | hr. | ° | m./sec. | day h. | m./sec. | day h. m. |
| Jan. | 4 | 3 | 10 | 47 | 193 | 240 | 261 | 0 | 240 | 19 | 4 19 | 29 | 4 18 10 |
| Feb. | – | 0 | 10 | 47 | 291 | 233 | 101 | 0 | 350 | 14 | 23 10 | 28 | 19 14 50 |
| Mar. | – | 0 | 4 | 21 | 179 | 334 | 210 | 0 | 210 | 16 | 19 09 | 27 | 20 10 15 |
| Apr. | – | 0 | 5 | 16 | 221 | 314 | 169 | 0 | 250 | 13 | 17 05 | 23 | 17 04 00 |
| May | – | 0 | 2 | 5 | 219 | 369 | 151 | 0 | 50 | 13 | 19 17 | 22 | 19 16 40 |
| June | 5 | 3 | 6 | 32 | 168 | 301 | 216 | 0 | 200 | 19 | 5 14 | 27 | 5 14 25 |
| July | – | 0 | 4 | 18 | 221 | 369 | 136 | 0 | 250 | 14 | 30 13 | 25 | 30 12 40 |
| Aug. | – | 0 | 1 | 1 | 170 | 354 | 219 | 0 | 20 | 11 | 12 22 | 23 | 28 09 45 |
| Sept. | – | 0 | 9 | 65 | 256 | 298 | 101 | 0 | 250 | 14 | 23 08 | 24 | 21 22 45 |
| Oct. | – | 0 | 0 | 0 | 68 | 396 | 280 | 0 | 310 | 10 | 5 12 | 19 | 5 11 45 |
| Nov. | – | 0 | 6 | 19 | 232 | 315 | 154 | 0 | 230 | 13 | 12 13 | 25 | 12 20 13 |
| Dec. | 2 | 1 | 6 | 30 | 137 | 283 | 293 | 0 | 270 | 17 | 2 03 | 29 | 2 01 00 |
| Year | 3 | 7 | 63 | 301 | 2355 | 3806 | 2291 | 0 | 200 | 19 | June 5 14 | 29 | Jan. 4 18 10 |

## TEMPERATURE IN THE GROUND AT DEPTHS OF 30 CM.(1ft.) AND 122 CM.(4ft.) AT 9h., G.M.T.

110 ESKDALEMUIR

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. |
| | *degrees Absolute* | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 76·1 | 80·2 | 75·1 | 78·2 | 75·7 | 78·6 | 80·3 | 78·4 | 81·3 | 80·3 | 84·1 | 81·9 | 85·4 | 83·1 | 86·6 | 84·8 | 86·0 | 84·9 | 85·0 | 84·1 | 79·7 | 82·5 | 78·9 | 81·1 |
| 2 | 76·1 | 80·1 | 75·3 | 78·2 | 75·1 | 78·4 | 80·2 | 78·5 | 81·5 | 80·3 | 84·0 | 82·0 | 85·9 | 83·3 | 86·6 | 84·8 | 86·0 | 84·8 | 85·1 | 84·1 | 78·7 | 82·5 | 78·8 | 81·1 |
| 3 | 76·0 | 80·1 | 76·0 | 77·9 | 75·2 | 78·4 | 80·6 | 78·9 | 82·1 | 80·3 | 84·2 | 82·0 | 85·8 | 83·1 | 86·7 | 84·9 | 86·1 | 84·9 | 85·1 | 84·1 | 79·5 | 82·4 | 78·2 | 81·0 |
| 4 | 75·0 | 80·0 | 76·7 | 78·1 | 75·1 | 78·3 | 80·9 | 79·0 | 82·5 | 80·3 | 84·0 | 82·1 | 86·4 | 83·2 | 86·7 | 84·5 | 86·1 | 84·9 | 85·1 | 84·2 | 80·5 | 82·2 | 77·8 | 81·1 |
| 5 | 75·9 | 79·9 | 76·8 | 78·0 | 75·1 | 78·2 | 80·9 | 79·1 | 83·0 | 80·4 | 83·9 | 82·1 | 86·6 | 83·2 | 87·0 | 84·8 | 86·1 | 84·9 | 84·9 | 84·3 | 81·6 | 82·1 | 77·2 | 80·9 |
| 6 | 75·8 | 79·8 | 76·7 | 78·0 | 75·1 | 78·2 | 80·6 | 79·2 | 82·2 | 80·5 | 83·6 | 82·1 | 86·6 | 83·6 | 87·3 | 84·8 | 86·5 | 84·9 | 84·3 | 84·3 | 82·2 | 82·1 | 77·0 | 80·8 |
| 7 | 75·7 | 79·8 | 76·8 | 78·2 | 75·0 | 78·2 | 80·2 | 79·1 | 82·1 | 80·5 | 83·9 | 82·2 | 86·3 | 83·6 | 87·0 | 84·9 | 86·2 | 85·1 | 84·1 | 84·3 | 82·6 | 82·1 | 76·8 | 80·9 |
| 8 | 76·1 | 79·3 | 77·1 | 78·1 | 75·0 | 78·1 | 80·2 | 79·1 | 82·2 | 80·6 | 83·9 | 82·2 | 86·7 | 83·8 | 87·0 | 84·9 | 86·0 | 85·1 | 83·6 | 84·2 | 81·9 | 82·2 | 76·8 | 80·7 |
| 9 | 76·3 | 79·2 | 77·1 | 78·2 | 75·0 | 78·1 | 80·0 | 79·3 | 82·3 | 80·8 | 83·9 | 82·1 | 87·2 | 83·9 | 86·8 | 84·9 | 85·8 | 85·0 | 83·4 | 84·2 | 81·1 | 82·1 | 76·7 | 80·5 |
| 10 | 77·0 | 79·2 | 77·0 | 78·1 | 75·0 | 78·1 | 79·9 | 79·3 | 82·7 | 80·8 | 84·0 | 82·1 | 87·4 | 84·0 | 86·6 | 85·0 | 85·6 | 85·1 | 83·5 | 84·1 | 80·8 | 82·5 | 76·6 | 80·5 |
| 11 | 77·6 | 79·2 | 77·3 | 78·2 | 75·1 | 78·0 | 80·0 | 79·3 | 82·9 | 80·9 | 84·0 | 82·2 | 87·7 | 84·1 | 86·5 | 84·9 | 85·4 | 85·1 | 83·2 | 84·2 | 80·3 | 82·3 | 76·4 | 80·3 |
| 12 | 77·4 | 79·2 | 78·0 | 78·3 | 75·0 | 78·0 | 80·0 | 79·4 | 83·1 | 81·0 | 83·9 | 82·3 | 88·1 | 84·2 | 86·5 | 85·0 | 85·3 | 85·1 | 83·1 | 84·1 | 80·3 | 82·2 | 76·3 | 80·3 |
| 13 | 76·4 | 79·3 | 78·0 | 78·1 | 75·0 | 77·9 | 80·1 | 79·4 | 83·2 | 81·1 | 84·0 | 82·3 | 88·7 | 84·1 | 86·3 | 85·1 | 85·4 | 85·1 | 82·9 | 84·0 | 80·4 | 82·1 | 76·2 | 80·0 |
| 14 | 76·9 | 79·3 | 78·4 | 78·1 | 75·7 | 78·0 | 80·4 | 79·4 | 82·9 | 81·1 | 84·0 | 82·2 | 88·0 | 84·0 | 86·2 | 85·0 | 85·2 | 85·1 | 82·8 | 83·8 | 78·9 | 82·1 | 76·2 | 79·9 |
| 15 | 76·2 | 79·1 | 78·5 | 78·3 | 75·6 | 77·9 | 80·8 | 79·5 | 82·6 | 81·2 | 84·1 | 82·3 | 87·2 | 84·1 | 86·1 | 85·0 | 84·8 | 84·7 | 82·4 | 83·7 | 79·2 | 81·9 | 76·0 | 79·8 |
| 16 | 75·9 | 79·1 | 78·6 | 78·3 | 75·2 | 77·8 | 81·1 | 79·6 | 82·4 | 81·2 | 84·3 | 82·3 | 86·9 | 84·5 | 86·1 | 85·1 | 84·8 | 84·6 | 82·4 | 83·6 | 79·2 | 82·0 | 76·0 | 79·8 |
| 17 | 75·4 | 79·1 | 78·4 | 78·7 | 75·0 | 77·8 | 81·2 | 79·4 | 82·0 | 81·2 | 84·2 | 82·4 | 86·9 | 84·5 | 86·0 | 85·0 | 84·9 | 84·6 | 82·3 | 83·7 | 79·3 | 81·7 | 76·0 | 79·7 |
| 18 | 75·1 | 79·1 | 78·4 | 78·7 | 75·2 | 77·7 | 81·3 | 79·7 | 82·1 | 81·2 | 84·0 | 82·2 | 86·6 | 84·6 | 86·0 | 84·8 | 84·9 | 84·5 | 82·1 | 83·6 | 79·3 | 81·7 | 75·9 | 79·5 |
| 19 | 75·1 | 79·0 | 78·9 | 78·9 | 76·1 | 77·6 | 81·3 | 79·8 | 82·4 | 81·1 | 84·1 | 82·4 | 86·3 | 84·6 | 86·0 | 84·9 | 84·5 | 84·4 | 82·0 | 83·3 | 79·3 | 81·6 | 75·8 | 79·4 |
| 20 | 75·1 | 79·1 | 78·3 | 78·7 | 77·5 | 77·6 | 81·5 | 79·9 | 82·5 | 81·1 | 84·0 | 82·4 | 86·2 | 84·4 | 85·9 | 84·7 | 84·1 | 84·3 | 82·2 | 83·5 | 79·2 | 81·6 | 75·8 | 79·3 |
| 21 | 75·0 | 79·1 | 77·8 | 78·0 | 77·9 | 77·6 | 81·4 | 80·1 | 82·8 | 81·2 | 84·0 | 82·5 | 86·1 | 84·6 | 86·0 | 84·6 | 84·0 | 84·5 | 82·8 | 83·4 | 79·3 | 81·5 | 75·8 | 79·2 |
| 22 | 74·8 | 78·8 | 78·1 | 78·9 | 78·4 | 77·6 | 81·2 | 80·1 | 83·0 | 81·2 | 85·0 | 82·3 | 86·0 | 84·7 | 86·1 | 84·7 | 84·0 | 84·6 | 82·9 | 83·5 | 79·6 | 81·5 | 75·9 | 79·2 |
| 23 | 74·7 | 78·6 | 77·0 | 78·9 | 78·2 | 77·9 | 81·4 | 80·1 | 83·1 | 81·2 | 86·1 | 82·6 | 86·2 | 84·5 | 86·7 | 84·7 | 84·5 | 84·4 | 82·8 | 83·3 | 79·0 | 81·4 | 76·0 | 79·1 |
| 24 | 74·6 | 78·5 | 77·0 | 79·0 | 78·0 | 78·0 | 81·2 | 80·1 | 83·5 | 81·2 | 86·7 | 82·6 | 86·3 | 84·4 | 87·1 | 84·9 | 84·1 | 84·3 | 82·3 | 83·2 | 79·2 | 81·4 | 76·2 | 79·1 |
| 25 | 74·8 | 78·3 | 76·3 | 79·0 | 77·7 | 78·0 | 81·1 | 80·2 | 83·6 | 81·2 | 86·2 | 82·5 | 86·9 | 84·6 | 87·0 | 85·0 | 84·1 | 84·3 | 81·8 | 83·2 | 79·4 | 81·4 | 75·8 | 79·0 |
| 26 | 74·7 | 78·4 | 76·0 | 78·8 | 78·3 | 78·0 | 81·3 | 80·1 | 83·9 | 81·2 | 86·5 | 83·0 | 87·0 | 84·6 | 86·9 | 85·0 | 84·3 | 84·3 | 81·0 | 83·3 | 79·9 | 81·2 | 76·2 | 78·9 |
| 27 | 74·9 | 78·3 | 75·9 | 78·8 | 78·5 | 78·1 | 81·2 | 80·2 | 84·1 | 81·4 | 86·1 | 83·1 | 87·0 | 84·5 | 86·5 | 85·1 | 85·0 | 84·3 | 80·6 | 83·1 | 79·9 | 81·2 | 76·5 | 79·1 |
| 28 | 75·0 | 78·3 | 75·7 | 78·6 | 78·9 | 78·2 | 81·0 | 80·1 | 84·1 | 81·5 | 85·7 | 83·0 | 87·0 | 84·4 | 86·8 | 85·2 | 85·1 | 84·4 | 80·6 | 83·2 | 79·8 | 81·2 | 76·5 | 79·0 |
| 29 | 75·0 | 78·3 | | | 79·3 | 78·3 | 81·3 | 80·1 | 84·0 | 81·6 | 85·6 | 83·3 | 86·7 | 84·7 | 86·3 | 85·1 | 85·1 | 84·1 | 80·0 | 83·1 | 79·6 | 81·1 | 76·2 | 78·9 |
| 30 | 74·9 | 78·1 | | | 80·0 | 78·3 | 81·5 | 80·3 | 84·1 | 81·7 | 85·2 | 83·0 | 86·6 | 84·7 | 86·2 | 85·1 | 85·0 | 84·1 | 79·6 | 82·9 | 79·4 | 81·1 | 76·1 | 78·9 |
| 31 | 74·9 | 78·0 | | | 80·2 | 78·3 | | | 84·8 | 81·8 | | | 86·7 | 84·6 | 86·2 | 85·2 | | | 79·3 | 82·8 | | | 76·0 | 78·9 |
| Mean | 75·6 | 79·1 | 77·2 | 78·4 | 76·5 | 78·0 | 80·8 | 79·6 | 82·9 | 81·0 | 84·6 | 82·4 | 86·8 | 84·1 | 86·5 | 84·9 | 85·2 | 84·7 | 82·7 | 83·7 | 80·0 | 81·8 | 76·5 | 79·9 |
| | | | | | | | | | | | Year | | 81·3 | 81·5 | | | | | | | | | | |

## MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 18h. TO 7h., G.M.T.

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| | JANUARY | FEBRUARY | MARCH | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOVEMBER | DECEMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *degrees Absolute* | | | | | | | | | | | |
| 1 | 66·4 | 75·2 | *57·9* | 70·3 | 75·0 | 75·1 | 81·8 | 80·0 | 76·8 | 76·0 | 75·4 | 73·7 |
| 2 | 61·7 | 73·7 | 58·3 | 68·7 | 71·5 | 72·9 | 87·0 | 83·5 | 78·2 | 78·0 | 71·3 | 74·8 |
| 3 | 61·1 | 73·2 | 65·8 | 69·7 | 69·9 | 79·5 | 77·6 | 82·3 | 77·2 | 80·2 | 68·8 | 71·6 |
| 4 | 70·7 | 73·9 | 69·8 | 72·8 | 69·4 | 71·7 | 86·0 | 80·2 | 94·4 | 76·9 | 84·8 | 72·1 |
| 5 | 76·1 | 74·9 | 73·2 | 73·0 | 74·8 | 83·0 | 82·4 | 86·4 | 84·9 | 79·0 | 84·5 | *63·6* |
| 6 | 73·0 | 71·6 | 72·6 | 67·8 | 73·5 | 79·4 | 80·0 | 83·2 | 84·2 | 70·4 | 84·0 | 70·9 |
| 7 | 69·1 | 75·7 | 64·8 | 75·1 | 74·2 | 75·9 | 77·9 | 79·4 | 73·8 | 68·5 | 79·9 | 65·6 |
| 8 | 75·0 | 76·3 | 64·8 | 78·6 | 77·1 | 70·7 | 77·0 | 75·9 | 81·9 | 71·4 | 76·5 | 73·4 |
| 9 | 73·1 | 71·1 | 71·0 | 65·5 | 72·8 | *69·8* | 79·8 | 80·6 | 75·9 | 76·8 | 71·7 | 70·0 |
| 10 | 76·2 | 76·1 | 61·9 | *64·3* | 68·9 | 80·5 | 76·0 | 78·9 | 76·2 | 78·9 | 73·9 | 65·2 |
| 11 | 75·0 | 77·0 | 63·0 | 73·5 | 73·3 | 73·0 | *74·5* | 78·8 | 81·9 | 74·1 | *67·1* | 67·7 |
| 12 | 75·3 | 75·7 | 72·3 | 78·6 | 69·0 | 71·3 | 81·1 | 79·9 | *73·3* | 76·3 | 78·0 | 69·1 |
| 13 | 65·4 | 77·6 | 74·2 | 79·9 | 73·9 | 70·2 | 80·2 | 81·9 | 79·9 | 80·0 | 72·8 | 69·2 |
| 14 | 60·8 | 78·8 | 72·2 | 71·3 | 67·0 | 78·0 | 81·5 | 79·0 | 78·9 | 78·0 | 71·4 | 74·3 |
| 15 | 59·4 | 75·5 | 70·0 | 71·4 | 65·3 | 79·8 | 79·9 | 76·0 | 78·9 | 77·0 | 72·6 | 72·9 |
| 16 | 59·4 | 78·2 | 70·0 | 72·7 | *63·8* | 79·2 | 80·8 | 71·2 | 81·8 | 77·8 | 75·3 | 67·5 |
| 17 | 59·2 | 69·4 | 67·8 | 77·3 | 71·9 | 78·9 | 82·0 | 72·3 | 80·7 | 77·3 | 77·1 | 72·0 |
| 18 | 68·0 | 79·0 | 78·0 | 71·2 | 72·0 | 73·9 | 82·0 | 73·0 | 79·3 | 76·2 | 75·0 | 67·0 |
| 19 | 66·8 | 78·2 | 78·6 | 67·1 | 77·7 | 72·9 | 82·0 | 82·0 | 77·2 | 76·6 | 75·3 | 64·2 |
| 20 | 60·8 | 71·5 | 78·7 | 78·9 | 75·8 | *69·8* | 83·7 | 75·1 | 79·0 | 79·8 | 73·6 | 73·0 |
| 21 | *58·9* | 69·2 | 76·4 | 74·0 | 78·9 | 73·2 | 82·9 | 75·9 | 76·6 | 83·1 | 77·3 | 70·4 |
| 22 | 65·2 | 67·8 | 76·2 | 70·0 | 71·3 | 81·5 | 83·0 | 82·2 | 81·2 | 78·9 | 75·0 | 77·8 |
| 23 | 72·0 | 74·2 | 69·2 | 78·9 | 71·3 | 82·7 | 79·2 | 80·1 | 79·4 | 77·9 | 67·3 | 74·8 |
| 24 | 66·8 | 65·7 | 68·5 | 73·8 | 80·0 | 83·5 | 86·2 | 84·7 | 77·4 | 70·0 | 76·1 | 63·9 |
| 25 | 74·2 | 58·8 | 72·3 | 73·9 | 78·0 | 75·0 | 78·9 | 77·5 | 79·8 | 70·3 | 75·1 | 72·0 |
| 26 | 75·1 | 60·4 | 78·2 | 76·1 | 78·8 | 80·2 | 81·1 | *71·1* | 84·6 | 65·9 | 77·5 | 75·0 |
| 27 | 67·9 | *57·4* | 70·9 | 77·8 | 81·9 | 73·2 | 83·5 | 71·3 | 83·7 | 71·3 | 76·4 | 72·1 |
| 28 | 73·1 | 59·0 | 68·1 | 76·1 | 77·0 | 74·9 | 82·8 | 75·1 | 78·6 | 69·2 | 74·8 | 71·9 |
| 29 | 72·9 | | 75·3 | 74·9 | 75·4 | 80·5 | 79·9 | 82·2 | 77·9 | *63·1* | 73·1 | 64·5 |
| 30 | 71·1 | | 75·3 | 77·7 | 77·3 | 81·2 | 81·9 | 82·7 | 79·6 | 65·5 | 73·1 | 72·6 |
| 31 | 66·9 | | 73·9 | | 78·2 | | 81·9 | 82·7 | | 71·4 | | 72·4 |
| Mean | 68·3 | 72·0 | 70·6 | 73·4 | 73·7 | 76·4 | 81·1 | 78·9 | 79·4 | 74·7 | 75·2 | 70·5 |
| | | | | | | Year | 74·5 | | | | | |

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 18h. on the previous day to 7h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

POTENTIAL GRADIENT (reduced to level surface)
Mean values for periods of sixty minutes between exact hours, G.M.T.

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| | JANUARY, factor 5·33 | | | | FEBRUARY, factor 5·25 | | | | MARCH, factor 5·12 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 220 | 220 | 210 | 340 | 70 | 140 | 175 | 235 | 85 | 280 | 165 | 270 |
| 2 | 165 | 185 | 210 | 320 | Z± | 35 | 110 | 160 | 275 | 155 | 175 | 560 |
| 3 | 175 | 245 | 265 | −35 | 120 | 255 | 170 | Z± | 205 | Z+ | 145 | 350 |
| 4 | −315 | −320 | Z− | 15 | 120 | 95 | 130 | Z− | 165 | 100 | −145 | 110 |
| 5 | 105 | 145 | 290 | 550 | 65 | Z± | Z± | 255 | 70 | 35 | 150 | 145 |
| 6 | 385 | 240 | 245 | Z+ | 340 | Z− | 165 | 255 | 85 | 135 | 140 | 190 |
| 7 | 260 | Z− | 385 | 265 | 155 | Z− | 115 | 130 | 100 | 220 | 195 | 350 |
| 8 | 250 | 265 | 190 | 205 | 50 | 170 | Z− | 180 | 285 | 375 | Z± | Z± |
| 9 | 110 | −40 | Z− | 175 | 145 | 95 | 150 | 105 | Z± | Z± | 400 | 515 |
| 10 | Z− | Z− | 110 | 370 | Z− | Z− | Z− | 125 | 280 | 405 | 390 | 370 |
| 11 | 125 | 165 | 100 | 85 | Z− | 75 | 110 | 210 | 440 | 500 | 365 | 215 |
| 12 | 50 | 80 | Z± | 220 | 85 | 295 | 40 | 395 | Z± | 360 | 265 | 300 |
| 13 | 185 | 135 | 450 | 255 | (615) | 350 | (45) | (45) | 190 | 95 | 40 | 50 |
| 14 | 190 | 125 | 245 | 265 | (20) | (20) | 145 | 340 | 0 | 110 | 60 | 210 |
| 15 | 280 | 380 | 330 | 425 | 215 | 70 | 70 | 180 | 125 | 160 | 135 | 300 |
| 16 | 295 | 380 | Z+ | 730 | 125 | 65 | 115 | 550 | 125 | 130 | 120 | 190 |
| 17 | 325 | 245 | 200 | 425 | 275 | 130 | 90 | 105 | 165 | Z± | 75 | Z− |
| 18 | 115 | 50 | Z± | 140 | 85 | 95 | 195 | 180 | 95 | – | – | – |
| 19 | 100 | 90 | 190 | 305 | 50 | Z− | Z± | Z+ | – | – | −20 | 515 |
| 20 | 145 | 195 | 220 | 215 | 65 | 80 | 175 | 195 | 445 | Z− | −230 | Z− |
| 21 | 130 | 235 | 185 | 205 | 135 | 130 | 185 | 130 | 145 | 100 | Z± | 195 |
| 22 | 255 | 115 | 225 | 245 | 120 | −15 | Z− | Z− | Z− | 190 | 100 | 255 |
| 23 | 165 | 50 | 85 | 635 | 75 | 95 | 150 | 180 | 180 | Z− | 185 | 210 |
| 24 | (395) | (405) | Z− | 70 | 150 | 115 | 180 | 375 | 290 | 300 | 35 | 115 |
| 25 | Z− | 280 | −120 | Z− | 55 | 130 | 160 | 445 | 40 | 70 | 105 | 180 |
| 26 | −150 | −215 | 185 | 405 | 415 | 410 | 145 | 425 | 135 | 110 | 60 | 315 |
| 27 | 345 | 130 | 180 | 150 | 165 | 160 | 210 | 315 | 445 | 515 | 405 | 560 |
| 28 | Z− | 125 | Z− | 90 | 165 | 295 | 170 | 280 | 305 | 365 | 140 | 250 |
| 29 | 55 | Z− | 140 | Z+ | | | | | 200 | 130 | 300 | 305 |
| 30 | 60 | 100 | −230 | 200 | | | | | 140 | 175 | 275 | 125 |
| 31 | 110 | 145 | 280 | Z− | | | | | (220) | 380 | 255 | 405 |
| (a) | 192 | 189 | 224 | 281 | 155 | 150 | 139 | 241 | 194 | 225 | 187 | 280 |
| (b) | 171 | 156 | 196 | 289 | 168 | 157 | 141 | 263 | 186 | 219 | 168 | 261 |
| Mean | (a) 221 | | (b) 203 | | (a) 171 | | (b) 182 | | (a) 221 | | (b) 209 | |

| | APRIL, factor 5·02 | | | | MAY, factor 4·92 | | | | JUNE, factor 4·94 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 235 | 240 | 415 | 330 | 90 | 100 | 55 | 375 | 170 | 130 | 135 | 145 |
| 2 | 475 | 340 | 280 | 325 | 140 | 255 | 140 | 365 | 100 | 195 | 45 | 75 |
| 3 | 240 | 160 | 130 | 255 | 375 | 165 | 185 | 330 | 120 | 140 | 130 | 175 |
| 4 | 345 | 200 | 175 | 140 | 65 | 50 | 130 | 80 | 75 | 35 | −25 | 265 |
| 5 | 285 | 135 | (170) | 520 | 60 | 50 | 105 | 105 | Z− | 265 | Z− | Z± |
| 6 | 175 | 130 | 160 | 220 | 70 | 70 | 140 | 130 | 75 | 50 | 25 | 125 |
| 7 | 290 | 50 | 60 | 70 | 300 | 110 | 110 | 95 | 180 | 135 | 155 | 220 |
| 8 | −10 | 220 | 230 | 275 | 70 | 185 | 210 | 205 | 230 | 60 | Z+ | 175 |
| 9 | 425 | 155 | 140 | 260 | 120 | 270 | 165 | 165 | 45 | 195 | 125 | 85 |
| 10 | 65 | 75 | 105 | 280 | 100 | 105 | 140 | 330 | −160 | −235 | 80 | 215 |
| 11 | 110 | 10 | 40 | – | 130 | 135 | 265 | 405 | 160 | 190 | Z± | 100 |
| 12 | – | – | 50 | 50 | 305 | 160 | 165 | 95 | 80 | 210 | Z± | 295 |
| 13 | 195 | 95 | 90 | 300 | 65 | 150 | 120 | 105 | 165 | 135 | Z− | 205 |
| 14 | 160 | 405 | 160 | 190 | 140 | 200 | 90 | 60 | 60 | 220 | 110 | 10 |
| 15 | 115 | 170 | 275 | 365 | 275 | 235 | 125 | Z+ | 20 | 60 | 100 | 130 |
| 16 | 670 | 375 | 60 | Z− | 240 | 170 | Z± | Z+ | 45 | 105 | 125 | 210 |
| 17 | Z− | 75 | 140 | 200 | 155 | Z− | 300 | 145 | 195 | Z− | 125 | 220 |
| 18 | 85 | 90 | 175 | 360 | 140 | 150 | – | – | 135 | 120 | Z− | 90 |
| 19 | 130 | 210 | 185 | Z− | – | – | – | 105 | 180 | 125 | Z± | 155 |
| 20 | −140 | −115 | 60 | 210 | 50 | Z− | 95 | 165 | 185 | 160 | 165 | 185 |
| 21 | 180 | 110 | 125 | 300 | Z− | 110 | 155 | 225 | 225 | 140 | 115 | 385 |
| 22 | 405 | 145 | 90 | 190 | 170 | 210 | 150 | 75 | 185 | 150 | 135 | 220 |
| 23 | 225 | 150 | 135 | 300 | 50 | 160 | 135 | 95 | Z− | Z+ | 195 | 215 |
| 24 | 115 | Z− | 150 | Z− | Z± | 240 | 140 | 205 | 135 | Z− | 135 | 185 |
| 25 | 80 | 145 | 260 | 130 | 220 | 135 | 115 | 170 | 65 | 185 | 150 | 40 |
| 26 | 25 | 100 | 30 | 90 | 175 | 75 | 120 | 165 | 170 | Z± | 120 | 105 |
| 27 | 85 | Z− | 100 | 70 | 200 | Z± | 210 | 120 | 220 | 165 | 175 | 320 |
| 28 | 85 | 70 | 110 | 105 | 270 | 240 | 135 | 225 | 280 | 135 | 150 | 190 |
| 29 | 65 | 55 | 145 | 330 | 320 | 275 | 80 | 50 | Z− | 110 | Z− | 395 |
| 30 | 100 | 95 | 40 | 165 | 235 | 120 | 145 | 45 | 140 | 160 | 120 | 205 |
| 31 | | | | | Z− | 135 | Z± | −45 | | | | |
| (a) | 206 | 154 | 143 | 232 | 168 | 158 | 145 | 172 | 140 | 143 | 125 | 184 |
| (b) | 178 | 140 | 155 | 248 | 165 | 153 | 138 | 175 | 113 | 118 | 112 | 178 |
| Mean | (a) 184 | | (b) 180 | | (a) 161 | | (b) 158 | | (a) 148 | | (b) 130 | |

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.

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| | JULY, factor 5·09 | | | | AUGUST, factor 5·02 | | | | SEPTEMBER, factor 4·88 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 200 | 320 | 95 | 395 | 190 | 130 | 95 | 250 | 335 | 320 | Z- | 125 |
| 2 | 400 | (440) | 300 | 340 | 275 | 330 | 155 | 170 | 30 | 205 | - | - |
| 3 | 560 | 205 | 145 | 190 | - | -90 | 160 | 185 | - | - | 185 | Z- |
| 4 | 30 | 145 | 185 | 220 | 55 | 165 | 310 | 370 | 255 | 65 | 250 | 170 |
| 5 | 65 | 185 | 110 | 170 | 300 | 670 | 110 | 390 | 235 | Z- | Z+ | 20 |
| 6 | 135 | 150 | 170 | 305 | 35 | 45 | 80 | 125 | Z- | 175 | 160 | 400 |
| 7 | 175 | 120 | 155 | 285 | 165 | 195 | - | - | 395 | 50 | 110 | 220 |
| 8 | 220 | 185 | - | - | - | - | Z± | 205 | 10 | 65 | 150 | 310 |
| 9 | - | - | 175 | 250 | 220 | 240 | Z- | 310 | 150 | Z- | 120 | 165 |
| 10 | 250 | 215 | 210 | 160 | - | 275 | 145 | 130 | 120 | 270 | Z- | Z- |
| 11 | 125 | 265 | 215 | 220 | 110 | 135 | 60 | 180 | 150 | 65 | 75 | 410 |
| 12 | 415 | 240 | 190 | 210 | 100 | 40 | - | - | 330 | 115 | 205 | Z- |
| 13 | 50 | 305 | 140 | 245 | - | - | 85 | 65 | -15 | Z- | Z- | 95 |
| 14 | 35 | 170 | Z± | 155 | 20 | 70 | Z± | 70 | 60 | 235 | 70 | 185 |
| 15 | 70 | -45 | -170 | 0 | 70 | 40 | 5 | 30 | 60 | Z- | 195 | 195 |
| 16 | 155 | 180 | 125 | 50 | 155 | 175 | 75 | 130 | 95 | 120 | 85 | 55 |
| 17 | 330 | 160 | 105 | 320 | 105 | 180 | Z- | 45 | 75 | Z+ | 155 | Z± |
| 18 | 425 | 305 | Z- | 340 | 90 | 150 | 85 | 20 | 140 | 120 | 25 | 295 |
| 19 | 165 | 450 | Z- | 175 | 30 | 205 | 105 | 80 | 140 | 120 | 125 | 135 |
| 20 | -60 | 280 | 130 | 140 | 70 | 150 | 85 | 105 | Z- | 75 | 250 | 70 |
| 21 | 165 | 155 | 150 | -90 | 240 | 90 | 60 | 130 | (15) | 80 | 90 | (5) |
| 22 | 210 | 185 | 45 | 350 | (20) | 150 | 235 | 225 | (110) | Z- | 140 | 75 |
| 23 | 250 | 370 | 305 | 330 | 90 | 140 | 225 | 420 | - | - | 85 | 135 |
| 24 | (70) | 345 | 230 | 350 | 115 | 140 | 165 | 165 | 155 | 150 | 125 | 185 |
| 25 | 325 | 150 | 185 | 190 | 85 | 125 | 130 | 90 | 70 | (10) | 20 | 50 |
| 26 | (70) | 325 | 210 | (35) | 10 | 70 | - | - | 20 | (120) | 30 | 285 |
| 27 | - | 205 | Z- | 205 | - | - | 200 | 150 | 195 | 190 | 190 | 90 |
| 28 | 160 | 200 | -75 | 230 | 215 | Z- | - | - | 105 | 120 | 105 | (350) |
| 29 | 300 | 215 | 20 | (10) | - | - | Z+ | 225 | 320 | 215 | 190 | 155 |
| 30 | - | - | Z- | 180 | 105 | 290 | Z± | 200 | 80 | Z± | 215 | 535 |
| 31 | 120 | 110 | Z- | 250 | Z± | 175 | Z- | 205 | | | | |
| (a) | 203 | 235 | 163 | 217 | 120 | 175 | 129 | 173 | 146 | 137 | 134 | 189 |
| (b) | 193 | 222 | 138 | 202 | 121 | 177 | 124 | 180 | 142 | 115 | 109 | 193 |
| Mean | (a) 205 | | (b) 189 | | (a) 149 | | (b) 150 | | (a) 151 | | (b) 140 | |

| | OCTOBER, factor 4·86 | | | | NOVEMBER, factor 4·80 | | | | DECEMBER, factor 4·70 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 460 | 535 | 300 | 450 | 55 | Z- | 55 | 230 | Z± | 60 | 180 | Z± |
| 2 | 480 | 125 | 340 | 330 | 140 | 145 | 135 | 235 | Z- | 70 | Z± | 260 |
| 3 | 100 | -30 | 180 | 215 | 0 | 50 | 160 | 60 | 25 | Z± | 570 | 335 |
| 4 | 0 | 225 | 155 | 175 | 170 | 200 | 105 | 255 | 220 | 305 | Z+ | Z+ |
| 5 | 95 | 140 | 115 | 180 | 140 | 290 | 465 | 385 | 235 | 225 | Z- | 660 |
| 6 | 395 | 210 | 175 | 105 | 480 | 440 | 675 | 455 | 330 | 230 | 230 | 415 |
| 7 | (30) | (25) | 175 | 285 | 195 | 55 | 270 | 180 | 410 | 250 | 505 | 440 |
| 8 | 200 | 185 | 220 | 345 | 110 | 170 | Z- | Z- | 245 | 160 | Z- | Z+ |
| 9 | 145 | 140 | 155 | 50 | 145 | 135 | 140 | 155 | Z+ | 90 | 165 | 565 |
| 10 | 120 | 120 | 230 | 255 | 140 | 125 | 210 | 400 | 280 | 605 | 600 | 345 |
| 11 | 100 | 145 | 240 | 305 | 275 | 160 | - | 250 | 255 | Z- | Z- | -140 |
| 12 | 80 | 75 | 155 | 195 | 85 | 160 | Z- | 10 | 160 | 280 | 215 | 225 |
| 13 | 90 | 75 | 120 | 160 | 105 | 165 | 255 | 145 | Z- | 485 | Z+ | - |
| 14 | 75 | 115 | 155 | 285 | 135 | 35 | 65 | 45 | - | - | Z- | 0 |
| 15 | 235 | 200 | 250 | 340 | 90 | 175 | Z- | 25 | 80 | 200 | 100 | 215 |
| 16 | 195 | 200 | 100 | 225 | 50 | 195 | 205 | 235 | 120 | 155 | 245 | 390 |
| 17 | 100 | 145 | 175 | 300 | 80 | Z- | Z- | 30 | 225 | 85 | 335 | 300 |
| 18 | 155 | 150 | 290 | 265 | 150 | Z- | Z- | 195 | 175 | 120 | 180 | 255 |
| 19 | 210 | Z- | 235 | 435 | 205 | 20 | Z- | Z+ | 160 | 150 | Z- | 390 |
| 20 | 45 | Z- | 330 | 385 | Z± | Z- | Z- | Z- | 145 | 335 | 455 | 465 |
| 21 | 330 | 295 | 95 | 190 | Z- | Z± | Z- | Z± | 295 | 235 | 30 | 165 |
| 22 | 115 | 105 | 130 | 195 | Z- | (390) | 185 | 515 | 90 | 90 | -8 | Z+ |
| 23 | 150 | 85 | 225 | 230 | 180 | 260 | Z- | 155 | Z+ | Z+ | 245 | 405 |
| 24 | - | - | 165 | 345 | 165 | 60 | Z- | - | 265 | 170 | 485 | 450 |
| 25 | 160 | 250 | 270 | 415 | - | - | Z± | Z- | Z- | 170 | - | - |
| 26 | 240 | 330 | 270 | 280 | 125 | 100 | Z- | 90 | - | - | Z- | 210 |
| 27 | 150 | 235 | 315 | 205 | Z± | 225 | Z+ | 255 | 445 | 190 | 165 | 335 |
| 28 | 140 | 120 | 210 | 215 | 145 | 120 | 175 | 500 | 110 | 130 | 285 | 500 |
| 29 | 290 | 280 | 310 | 365 | 315 | 490 | 445 | Z+ | 205 | 605 | 350 | 5 |
| 30 | 220 | 270 | 280 | 570 | 385 | -170 | 175 | 110 | Z- | 155 | 390 | 465 |
| 31 | 325 | 360 | 190 | 385 | | | | | Z+ | 335 | 260 | 435 |
| (a) | 181 | 190 | 211 | 280 | 163 | 181 | 233 | 214 | 213 | 226 | 299 | 358 |
| (b) | 185 | 183 | 208 | 268 | 172 | 137 | 233 | 243 | 232 | 257 | 299 | 322 |
| Mean | (a) 217 | | (b) 211 | | (a) 198 | | (b) 196 | | (a) 274 | | (b) 277 | |

The factor used for converting the potential at the collector potential gradient in volts per metre in the open is given for each month.

| Annual means | | | | | |
|---|---|---|---|---|---|
| (a) | 173 | 180 | 178 | 235 | |
| (b) | 169 | 169 | 168 | 235 | |
| | (a) 191 | | (b) 185 | | |

## POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

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| | 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 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *volts per metre* | | | | | | | | | | | | | | | | | | | | | | | | | | v./m. |
| | **0a days only*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | −42 | −44 | −38 | −30 | −46 | −30 | −37 | *−57* | −37 | −22 | −5 | +12 | −1 | −17 | +4 | +23 | +61 | +66 | *+83* | +63 | +61 | +45 | +12 | −33 | +9 | 7 | 256 |
| Feb. | +1 | +4 | −2 | +16 | +15 | +16 | +26 | +17 | +19 | 0 | −44 | −60 | −53 | −39 | −42 | *−61* | −42 | −19 | +39 | *+60* | +56 | +33 | +29 | +33 | +83 | 5 | 205 |
| Mar. | −42 | −33 | −27 | −34 | *−47* | −5 | +44 | +15 | +21 | −23 | −21 | −10 | −32 | −32 | −28 | −17 | −26 | +37 | +62 | +77 | +63 | *+79* | +6 | −17 | 0 | 9 | 278 |
| Apr. | +46 | −10 | −23 | −10 | +2 | +16 | +20 | −9 | *−43* | −26 | −35 | −42 | −39 | −30 | −25 | −31 | −37 | −10 | +37 | +69 | *+72* | +46 | +38 | +37 | −25 | 9 | 228 |
| May | +17 | +6 | −18 | −20 | −13 | +1 | +6 | +1 | −2 | −9 | −21 | −29 | *−34* | −32 | −27 | −14 | −15 | +3 | +26 | +46 | *+76* | +36 | 0 | +6 | −26 | 10 | 181 |
| June | +37 | +26 | −2 | +2 | +45 | +27 | +14 | +1 | −31 | −50 | −47 | −41 | −46 | *−64* | −57 | −37 | −24 | −15 | +3 | +58 | *+90* | +78 | +8 | +27 | −6 | 3 | 181 |
| July | 0 | +30 | +7 | +4 | +43 | *+49* | 0 | −18 | −13 | −1 | −9 | −15 | −30 | *−41* | −39 | −35 | −29 | −17 | +35 | +38 | +27 | +39 | +5 | −19 | −49 | 7 | 220 |
| Aug. | −13 | −29 | *−48* | −34 | −9 | +1 | +22 | +34 | +11 | +4 | −9 | −19 | −11 | −20 | −20 | −14 | −3 | +24 | *+64* | +50 | +26 | +22 | −9 | −7 | −49 | 3 | 116 |
| Sept. | −22 | −2 | −3 | +1 | −34 | 0 | +38 | *+70* | +1 | −17 | +5 | +26 | +35 | +8 | −5 | −10 | −22 | +1 | +33 | −13 | −14 | −8 | *−35* | −29 | −36 | 2 | 164 |
| Oct. | −9 | −26 | −37 | −42 | −42 | *−51* | −39 | −34 | −19 | −16 | −26 | −36 | −26 | −22 | 0 | +26 | +30 | +72 | *+102* | +93 | +80 | +43 | +4 | −19 | −9 | 17 | 219 |
| Nov. | *−77* | −47 | −30 | −27 | −30 | −6 | −35 | −63 | −37 | −20 | −52 | +22 | +60 | +52 | +86 | +92 | +77 | *+98* | +11 | +5 | +8 | −47 | −8 | −37 | +161 | 3 | 347 |
| Dec. | −9 | −5 | −60 | −110 | −116 | −108 | −107 | *−120* | −53 | −50 | −13 | −8 | +10 | +50 | +73 | +64 | +57 | +96 | *+111* | +94 | +90 | +77 | +22 | +10 | −57 | 8 | 283 |
| Year | −9 | −11 | −23 | *−24* | −19 | −7 | −4 | −14 | −16 | −19 | −23 | −17 | −14 | −16 | −7 | −1 | +2 | +28 | +51 | *+53* | *+53* | +37 | +6 | +4 | – | – | 223 |
| Winter | −32 | −23 | −33 | −38 | −44 | −32 | −38 | *−56* | −29 | −23 | −29 | −9 | +4 | +12 | +30 | +29 | +38 | +60 | *+61* | +55 | +54 | +27 | +14 | −7 | – | – | 273 |
| Equinox | −7 | −18 | −23 | −21 | *−30* | −10 | +16 | +11 | −10 | −21 | −19 | −15 | −15 | −19 | −15 | −8 | −14 | +25 | *+59* | +57 | +50 | +40 | +3 | −7 | – | – | 222 |
| Summer | +10 | +8 | −15 | −12 | +17 | +19 | +11 | +5 | −9 | −14 | −21 | −26 | −30 | *−39* | −36 | −25 | −18 | −1 | +32 | +48 | *+55* | −44 | +1 | +2 | – | – | 175 |
| | **1a and 2a days only*** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | −98 | *−128* | −106 | −103 | −78 | −29 | −68 | −94 | −108 | −32 | −11 | +42 | +46 | +36 | +41 | +75 | +120 | *+148* | +137 | +126 | +67 | +37 | +32 | −46 | −67 | 5 | 183 |
| Feb. | +74 | −15 | −19 | −52 | −62 | −69 | −68 | *−77* | −46 | −67 | −31 | +2 | +5 | 0 | −57 | −33 | −31 | +14 | +16 | +71 | *+130* | +116 | +103 | +110 | −40 | 6 | 169 |
| Mar. | −12 | −4 | −15 | −13 | *−30* | −28 | −11 | −12 | 0 | −2 | −11 | −21 | −17 | −15 | −17 | −5 | +14 | +15 | +24 | +53 | *+57* | +45 | +5 | −5 | −13 | 9 | 130 |
| Apr. | +14 | +13 | −20 | −4 | −12 | −9 | −21 | −8 | −24 | *−44* | −30 | −35 | −9 | −20 | −9 | +18 | −1 | −11 | +5 | +13 | *+67* | +65 | +30 | +26 | −1 | 7 | 130 |
| May | *−43* | +11 | +36 | *+38* | +37 | +17 | −3 | −20 | −27 | +10 | −16 | −15 | −17 | −16 | −1 | +7 | +19 | +14 | +12 | +14 | −34 | −19 | +4 | −15 | −1 | 7 | 135 |
| June | +19 | −30 | −37 | +22 | +47 | +58 | *+70* | 0 | *−59* | +12 | +20 | −12 | −47 | −15 | −26 | −22 | −22 | −31 | −8 | −7 | −7 | +6 | +35 | +33 | +84 | 6 | 130 |
| July | +35 | +33 | +27 | +53 | *+91* | −10 | +2 | +63 | +17 | −7 | −73 | −62 | −53 | −64 | *−78* | −63 | +6 | −40 | +33 | +40 | +5 | +53 | −5 | +3 | −2 | 5 | 233 |
| Aug. | −28 | −6 | +2 | +7 | *+57* | +50 | +2 | +22 | +6 | −5 | −39 | −13 | −5 | +15 | −15 | −14 | −15 | *−43* | −25 | −14 | +50 | −4 | +25 | −17 | +30 | 6 | 167 |
| Sept. | +42 | +26 | +16 | +6 | +13 | −7 | +5 | −28 | −32 | −3 | −36 | −37 | −30 | −25 | −20 | +26 | −40 | +15 | +37 | +26 | −8 | −16 | 0 | *+60* | −55 | 3 | 139 |
| Oct. | 0 | −22 | −50 | *−57* | −47 | −22 | −7 | +12 | −22 | −28 | −10 | +25 | −3 | +3 | −8 | −1 | +35 | +23 | +58 | *+62* | +28 | +10 | +13 | +7 | −23 | 6 | 188 |
| Nov. | −44 | +10 | −4 | +31 | *−98* | −19 | −44 | −12 | +14 | +4 | +2 | −4 | +13 | +31 | +26 | +20 | *+80* | −5 | −3 | −14 | +26 | +26 | −6 | −35 | +22 | 2 | 106 |
| Dec. | −12 | −84 | −10 | *−157* | −72 | −48 | −90 | +4 | +59 | +63 | −53 | −75 | −90 | −1 | +37 | +76 | +57 | +44 | *+122* | +84 | +76 | +69 | +37 | +24 | +113 | 2 | 226 |
| Year | −4 | −16 | −20 | −19 | −13 | −10 | −19 | −13 | −19 | −8 | −24 | −17 | −17 | −6 | −11 | +7 | +19 | +12 | +34 | +38 | +38 | +32 | +23 | +12 | – | – | 161 |
| Winter | −20 | −54 | −50 | −70 | −77 | −41 | −67 | −45 | −20 | −8 | −23 | −9 | −7 | +17 | +12 | +35 | +57 | +50 | +68 | +67 | +75 | +61 | +41 | +13 | – | – | 171 |
| Equinox | +11 | +3 | −17 | −17 | −19 | −17 | −9 | −9 | −19 | −19 | −22 | −17 | −15 | −14 | −13 | +9 | +2 | +11 | +31 | +39 | +36 | +26 | +12 | +22 | – | – | 147 |
| Summer | −4 | +2 | +7 | +30 | +58 | +29 | +18 | +16 | −16 | +3 | −27 | −25 | −31 | −20 | −30 | −23 | −3 | −25 | +3 | +8 | +3 | +9 | +15 | +1 | – | – | 166 |

Winter: January, February, November, December
Equinox: March, April September, October
Summer: May to August.

* For explanation of 0a, 1a, 2a days see p.90, *Observatories' Year Book, 1938.*

† See p.10, *Observatories' Year Book, 1938.*

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| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | 0a | ... | 1b | 1·6 | 0a | ... | 0a | ... | 0a | ... | 1b | 1·4 |
| 2 | 0a | ... | 2c | 5·3 | 0a | ... | 0a | ... | 0a | ... | 1b | 2·8 |
| 3 | 1a | 2·7 | 2c | 5·1 | 1c | 1·7 | 1a | 0·3 | 0a | ... | 1b | 2·8 |
| 4 | 2c | 17·1 | 2c | 5·4 | 2b | 4·1 | 1b | 1·7 | 1a | 0·1 | 2b | 4·5 |
| 5 | 1b | 1·0 | 1b | 2·9 | 1a | 0·5 | (0a) | ... | 1b | 1·9 | 2c | 10·4 |
| 6 | 0b | ... | 2c | 4·6 | 1a | 0·1 | 0a | ... | 1a | 0·1 | 1a | 1·1 |
| 7 | 2b | 3·6 | 2b | 4·2 | 0a | ... | 1b | 2·7 | 1a | 0·2 | 1a | 0·1 |
| 8 | 1b | 1·9 | 1b | 2·6 | 1c | 1·7 | 1b | 1·7 | 0a | ... | 1b | 0·2 |
| 9 | 2c | 9·8 | 1a | 1·0 | 2c | 8·0 | 0a | ... | 0a | ... | 1b | 1·8 |
| 10 | 2c | 4·5 | 2c | 7·7 | 0a | ... | 0a | ... | 0a | ... | 2a | 4·1 |
| 11 | 2b | 4·2 | 1b | 1·4 | 0a | ... | (1a) | (2·2) | 0a | ... | 2c | 4·8 |
| 12 | 2c | 3·5 | 1a | 0·3 | 1b | 0·5 | (2b) | – | 1a | 0·1 | 1c | 2·7 |
| 13 | 0a | ... | 0a | ... | 1a | 1·1 | 0a | ... | 1b | 2·9 | 2b | 3·5 |
| 14 | 0a | ... | 0a | ... | 1a | 1·3 | 0a | ... | 1b | 0·4 | 1b | 1·7 |
| 15 | 0a | ... | 1a | 0·2 | 1a | 0·1 | 0a | ... | 0b | ... | 1a | 0·3 |
| 16 | 0b | ... | 1a | 0·3 | 0a | ... | 2c | 5·2 | 2c | 3·7 | 1b | 2·9 |
| 17 | 0a | ... | 1a | 0·1 | 2c | 8·6 | 1b | 1·5 | 1b | 1·3 | 1b | 2·1 |
| 18 | 1b | 1·6 | 0a | ... | (2c) | – | 0a | ... | (0a) | ... | 2c | 3·6 |
| 19 | 1a | 0·1 | 1c | 2·5 | (2c) | – | 1b | 1·9 | (0a) | ... | 2c | 4·3 |
| 20 | 1a | 0·7 | 1b | 0·9 | 2c | 11·5 | 2b | 8·7 | 2b | 4·7 | 1a | 0·1 |
| 21 | 0a | ... | 0a | ... | 2c | 4·2 | 1a | 0·1 | 2c | 2·4 | 0a | ... |
| 22 | 1a | 0·3 | 2c | 9·1 | 2c | 5·5 | 1b | 0·6 | 0a | ... | 0a | ... |
| 23 | 2b | 4·2 | 1b | 2·7 | 2c | 4·5 | 2b | 3·1 | 1a | 0·2 | 1b | 0·4 |
| 24 | 2b | 4·5 | 1a | 0·3 | 1a | 0·1 | 2c | 8·4 | 2c | 3·4 | 1b | 0·3 |
| 25 | 2c | 11·1 | 0a | ... | 1a | 0·3 | 1a | 0·6 | 0a | ... | 1a | 0·1 |
| 26 | 2a | 7·1 | 0a | ... | 1a | 0·2 | 1a | 2·4 | 1a | 0·5 | 1b | 1·5 |
| 27 | 1b | 2·3 | 1b | 0·7 | 0a | ... | 1b | 0·7 | 1b | 2·0 | 1b | 2·0 |
| 28 | 2c | 5·8 | 0a | ... | 0a | ... | 1a | 0·3 | 1b | 1·8 | 1b | 1·5 |
| 29 | 2c | 3·5 | | | 0a | ... | 1a | 2·7 | 0a | ... | 2c | 5·8 |
| 30 | 1b | 1·9 | | | 1a | 0·9 | 1a | 1·4 | 1a | 1·1 | 0a | ... |
| 31 | 2c | 8·1 | | | (0a) | ... | | | 2c | 7·6 | | |
| Total | – | 99·5 | – | 58·9 | – | 54·9 | – | 46·2 | – | 34·4 | – | 66·8 |
| No. of days used | – | 31 | – | 28 | – | 29 | – | 29 | – | 31 | – | 30 |
| Mean | – | 3·2 | – | 2·1 | – | 1·9 | – | 1·6 | – | 1·1 | – | 2·2 |

| | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | 1a | 0·2 | 1a | 0·3 | 1b | 2·2 | 1a | 0·2 | 2c | 5·1 | 2c | 6·2 |
| 2 | 1a | 0·1 | 1a | 0·2 | (2b) | – | 1b | 0·4 | 1b | 0·6 | 2c | 4·8 |
| 3 | 0a | ... | 1b | 2·3 | 2c | 6·7 | 1a | 2·0 | 2b | 3·6 | 1b | 1·5 |
| 4 | 2b | 3·6 | 1a | 0·7 | 1b | 2·2 | 1a | 0·3 | 1b | 1·1 | 0b | ... |
| 5 | 1b | 1·4 | 1b | 0·1 | 2c | 7·7 | 0a | ... | 0a | ... | 2b | 4·1 |
| 6 | 0a | ... | 1b | 1·4 | 1b | 1·9 | 0a | ... | 0a | ... | 0a | ... |
| 7 | 0a | ... | (2b) | – | 1b | 1·7 | 0a | ... | 1b | 1·7 | 0a | ... |
| 8 | (0a) | ... | 2c | 4·5 | 2b | 4·7 | 0a | ... | 2c | 7·1 | 2c | 5·9 |
| 9 | (1a) | 0·1 | 2b | 3·5 | 1b | 0·7 | 1a | 0·2 | 1b | 1·1 | 1b | 0·3 |
| 10 | 0a | ... | (0a) | ... | 2c | 10·7 | 0a | ... | 0a | ... | 0a | ... |
| 11 | 0a | ... | 0a | ... | 1b | 0·5 | 0a | ... | (0a) | ... | 2c | 11·9 |
| 12 | 0a | ... | (2c) | – | 2c | 4·8 | 1a | 0·1 | 2b | 3·5 | 0a | ... |
| 13 | 0a | ... | (2b) | – | 2c | 9·5 | 1a | 0·1 | 1b | 0·5 | 2c | 3·1 |
| 14 | 2b | 3·6 | 2c | 2·7 | 1b | 2·9 | 0a | ... | 1a | 1·7 | (2c) | – |
| 15 | 2b | 10·7 | 2b | 3·0 | 1b | 1·4 | 0a | ... | 1b | 1·3 | 1a | 1·4 |
| 16 | 2b | 3·1 | 1b | 1·4 | 1b | 0·9 | 0a | ... | 1a | 1·0 | 0a | ... |
| 17 | 2c | 6·4 | 2b | 2·3 | 1c | 2·3 | 0a | ... | 2c | 10·1 | 0a | ... |
| 18 | 2b | 4·8 | 1a | 0·3 | 2b | 4·4 | 0a | ... | 2c | 7·6 | 0a | ... |
| 19 | 1b | 0·6 | 1b | 1·3 | 1a | 0·9 | 2c | 4·9 | 2c | 5·6 | 1b | 1·5 |
| 20 | 1b | 1·9 | 0a | ... | 1b | 2·8 | 1b | 1·4 | 2c | 18·4 | 1a | 0·1 |
| 21 | 1a | 1·0 | 1a | 0·1 | (1a) | 0·2 | 1b | 0·9 | 2c | 11·8 | 1b | 2·5 |
| 22 | 1a | 0·7 | 1a | 0·1 | 2c | 6·3 | 0a | ... | 2c | 6·1 | 2c | 6·3 |
| 23 | 0b | ... | 1a | 0·1 | (1b) | 1·3 | 1b | 1·4 | 2c | 8·5 | 1c | 0·1 |
| 24 | 1b | 2·0 | 1b | 1·7 | 0a | ... | (0a) | ... | (2c) | – | 0a | ... |
| 25 | 1a | 0·1 | 0a | ... | 1a | 0·3 | 0a | ... | (2c) | – | 2c | 7·1 |
| 26 | 1b | 1·3 | (1b) | 0·2 | 1b | 2·6 | 0a | ... | 2c | 6·9 | 1b | 1·3 |
| 27 | 2b | 3·6 | (0a) | ... | 0a | ... | 0a | ... | 2c | 7·9 | (0a) | ... |
| 28 | 1b | 2·5 | (2c) | – | 1b | 0·8 | 1b | 0·2 | 2b | 4·8 | 1b | 0·3 |
| 29 | (1a) | 1·7 | (2c) | – | 1a | 0·1 | 0a | ... | 0b | ... | 1b | 1·3 |
| 30 | (2c) | – | 2c | 7·8 | 1b | 2·9 | 0a | ... | 2c | 8·8 | 1b | 0·9 |
| 31 | 1b | 1·5 | 2c | 10·0 | | | 0a | ... | | | 2c | 2·5 |
| Total | – | 50·9 | – | 44·0 | – | 83·4 | – | 12·1 | – | 124·8 | – | 63·1 |
| No. of days used | – | 30 | – | 26 | – | 29 | – | 31 | – | 28 | – | 30 |
| Mean | – | 1·7 | – | 1·7 | – | 2·9 | – | 3·9 | – | 4·5 | – | 2·1 |

Annual values: Character frequency 0 1 2
No. of days used 102 159 104

Duration: Total 689·0
No. of days 352
Mean 2·24

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

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| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 530 | 526 | 527 | 528 | 525 | 524 | 535 | 537 | 532 | 520 | 512 | 515 | 520 | 516 | 515 | 512 | 515 | 525 | 501 | 508 | 520 | 524 | 523 | 533 | 522 |
| 2 | 535 | 513 | 514 | 521 | 524 | 531 | 532 | 530 | 528 | 524 | 521 | 514 | 516 | 516 | 513 | 523 | 508 | 511 | 515 | 523 | 531 | 532 | 532 | 531 | 522 |
| 3 *d* | 529 | 531 | 532 | 533 | 533 | 534 | 537 | 536 | 547 | 564 | 552 | 449 | 453 | 513 | 513 | 484 | 489 | 489 | 446 | 403 | 417 | 407 | 451 | 427 | 495 |
| 4 *d* | 429 | 438 | 438 | 485 | 517 | 515 | 508 | 520 | 489 | 492 | 511 | 507 | 490 | 478 | 488 | 496 | 508 | 493 | 512 | 500 | 477 | 488 | 521 | 491 | *491* |
| 5 | 503 | 504 | 504 | 505 | 514 | 520 | 508 | 518 | 513 | 510 | 512 | 513 | 512 | 519 | 516 | 520 | 522 | 522 | 519 | 508 | 510 | 513 | 507 | 515 | 513 |
| 6 | 520 | 517 | 520 | 520 | 524 | 527 | 527 | 524 | 532 | 527 | 520 | 516 | 517 | 520 | 520 | 520 | 504 | 516 | 519 | 513 | 523 | 527 | 524 | 524 | 521 |
| 7 | 524 | 524 | 522 | 519 | 523 | 528 | 530 | 530 | 530 | 527 | 520 | 518 | 508 | 512 | 519 | 517 | 514 | 520 | 538 | 511 | 519 | 524 | 519 | 519 | 521 |
| 8 | 520 | 519 | 522 | 524 | 530 | 528 | 528 | 526 | 523 | 518 | 516 | 516 | 517 | 524 | 526 | 525 | 527 | 527 | 527 | 527 | 528 | 530 | 527 | 526 | 524 |
| 9 *q* | 526 | 526 | 526 | 528 | 531 | 532 | 535 | 535 | 533 | 526 | 522 | 523 | 528 | 534 | 534 | 532 | 534 | 534 | 528 | 523 | 522 | 522 | 526 | 526 | 529 |
| 10 | 524 | 526 | 526 | 530 | 532 | 535 | 544 | 544 | 543 | 541 | 534 | 534 | 541 | 539 | 541 | 534 | 526 | 523 | 531 | 531 | 534 | 538 | 533 | 534 | 534 |
| 11 *d* | 538 | 538 | 539 | 542 | 541 | 503 | 558 | 541 | 539 | 542 | 523 | 524 | 523 | 519 | 519 | 511 | 519 | 512 | 516 | 522 | 516 | 515 | 527 | 524 | 527 |
| 12 | 522 | 527 | 528 | 526 | 528 | 530 | 530 | 531 | 531 | 524 | 504 | 504 | 519 | 519 | 519 | 520 | 520 | 522 | 507 | 518 | 513 | 527 | 527 | 526 | 522 |
| 13 *q* | 524 | 526 | 526 | 530 | 530 | 531 | 530 | 530 | 528 | 525 | 522 | 515 | 519 | 527 | 531 | 530 | 530 | 532 | 532 | 523 | 528 | 534 | 533 | 533 | 528 |
| 14 *q* | 532 | 533 | 534 | 535 | 537 | 542 | 536 | 535 | 534 | 531 | 527 | 523 | 522 | 522 | 521 | 523 | 527 | 528 | 531 | 531 | 532 | 531 | 531 | 532 | 530 |
| 15 | 533 | 534 | 535 | 537 | 542 | 542 | 543 | 539 | 538 | 538 | 535 | 529 | 525 | 526 | 527 | 538 | 542 | 544 | 544 | 546 | 534 | 524 | 515 | 512 | *534* |
| 16 | 506 | 516 | 517 | 521 | 523 | 531 | 543 | 543 | 535 | 534 | 532 | 529 | 526 | 526 | 518 | 519 | 520 | 521 | 526 | 528 | 527 | 527 | 531 | 531 | 526 |
| 17 | 531 | 528 | 528 | 532 | 538 | 542 | 551 | 542 | 522 | 527 | 528 | 526 | 530 | 530 | 526 | 523 | 526 | 515 | 520 | 526 | 526 | 535 | 522 | 515 | 529 |
| 18 | 524 | 525 | 526 | 524 | 523 | 523 | 530 | 531 | 527 | 519 | 514 | 508 | 506 | 515 | 511 | 519 | 524 | 524 | 518 | 551 | 495 | 504 | 518 | 484 | 518 |
| 19 | 492 | 530 | 504 | 517 | 517 | 519 | 524 | 524 | 528 | 529 | 520 | 525 | 526 | 526 | 526 | 530 | 532 | 532 | 529 | 530 | 531 | 519 | 520 | 521 | 523 |
| 20 *q* | 518 | 519 | 518 | 526 | 523 | 528 | 529 | 528 | 525 | 522 | 519 | 518 | 525 | 534 | 537 | 535 | 534 | 532 | 532 | 532 | 532 | 530 | 528 | 528 | 527 |
| 21 *q* | 528 | 530 | 530 | 530 | 530 | 531 | 531 | 530 | 526 | 522 | 521 | 519 | 521 | 531 | 534 | 534 | 535 | 538 | 540 | 539 | 532 | 531 | 522 | 515 | 529 |
| 22 | 519 | 518 | 530 | 520 | 535 | 535 | 550 | 531 | 528 | 537 | 531 | 518 | 510 | 519 | 528 | 526 | 526 | 531 | 533 | 531 | 531 | 527 | 526 | 523 | 528 |
| 23 | 531 | 525 | 526 | 533 | 533 | 538 | 545 | 541 | 538 | 519 | 507 | 500 | 511 | 516 | 514 | 519 | 519 | 522 | 525 | 530 | 526 | 508 | 528 | 553 | 525 |
| 24 *d* | 524 | 524 | 523 | 534 | 530 | 535 | 540 | 532 | 534 | 526 | 502 | 503 | 506 | 465 | 506 | 488 | 502 | 524 | 507 | 488 | 499 | 525 | 546 | 530 | 516 |
| 25 | 519 | 518 | 519 | 523 | 525 | 531 | 533 | 527 | 519 | 515 | 507 | 502 | 498 | 502 | 503 | 519 | 500 | 520 | 510 | 527 | 524 | 528 | 530 | 529 | 518 |
| 26 *d* | 530 | 530 | 534 | 538 | 530 | 530 | 530 | 537 | 519 | 508 | 507 | 518 | 514 | 512 | 522 | 522 | 523 | 511 | 499 | 504 | 517 | 527 | 528 | 525 | 521 |
| 27 | 523 | 523 | 524 | 533 | 520 | 524 | 530 | 528 | 526 | 522 | 518 | 517 | 519 | 526 | 532 | 530 | 531 | 531 | 532 | 529 | 526 | 523 | 527 | 527 | 526 |
| 28 | 529 | 529 | 527 | 529 | 531 | 533 | 533 | 530 | 527 | 517 | 517 | 520 | 521 | 523 | 525 | 528 | 533 | 536 | 537 | 538 | 531 | 522 | 530 | 531 | 528 |
| 29 | 532 | 533 | 536 | 538 | 544 | 533 | 544 | 537 | 530 | 522 | 519 | 515 | 518 | 525 | 510 | 520 | 528 | 531 | 530 | 529 | 526 | 530 | 531 | 534 | 529 |
| 30 | 534 | 532 | 531 | 533 | 537 | 538 | 542 | 544 | 541 | 533 | 523 | 518 | 521 | 523 | 530 | 534 | 538 | 537 | 537 | 537 | 539 | 535 | 538 | 546 | 534 |
| 31 | 534 | 528 | 530 | 533 | 534 | 537 | 534 | 537 | 534 | 538 | 530 | 525 | 526 | 528 | 532 | 529 | 518 | 522 | 525 | 526 | 526 | 527 | 545 | 531 | 530 |
| Mean | 521 | 522 | 523 | 527 | 529 | 530 | *535* | 533 | 529 | 526 | 520 | *515* | 516 | 519 | 521 | 521 | 522 | 523 | 521 | 520 | 519 | 521 | 525 | 522 | 523 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

115 ESKDALEMUIR (D) — 12° + — JANUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 9·4 | 9·1 | 8·3 | 7·9 | 8·1 | 8·4 | 7·9 | 7·9 | 9·2 | 10·7 | 12·5 | 15·7 | 16·1 | 15·7 | 16·7 | 16·1 | 12·9 | 14·0 | 8·3 | 11·2 | 8·9 | 8·9 | 8·5 | 5·9 | *10·8* |
| 2 | 4·9 | 5·2 | 9·1 | 10·1 | 8·6 | 8·7 | 8·6 | 8·9 | 8·6 | 8·7 | 9·7 | 10·9 | 12·4 | 13·0 | 13·1 | 12·6 | 9·7 | 9·7 | 11·5 | 9·8 | 9·7 | 9·4 | 9·3 | 9·3 | 9·6 |
| 3 *d* | 9·8 | 10·5 | 10·5 | 11·1 | 9·9 | 9·5 | 9·3 | 9·7 | 10·8 | 13·1 | 12·6 | 9·7 | 19·5 | 14·4 | 14·2 | 15·1 | 8·3 | 14·4 | -8·3· | -5·4 | -10·0 | -10·3 | -8·1 | -6·5 | *6·8* |
| 4 *d* | -4·7 | 1·6 | 6·1 | 0·4 | 3·0 | 9·8 | 6·1 | 13·7 | 14·9 | 8·9 | 9·8 | 10·0 | 14·2 | 15·5 | 15·5 | 12·8 | 10·6 | 12·4 | 6·2 | 0·7 | 6·5 | 3·5 | 11·4 | 6·7 | 8·1 |
| 5 | 7·9 | 8·5 | 10·6 | 11·4 | 11·3 | 9·5 | 10·4 | 10·6 | 9·8 | 9·8 | 10·6 | 12·2 | 10·9 | 11·3 | 11·0 | 10·6 | 10·7 | 10·4 | 9·9 | 7·4 | 7·6 | 7·0 | 5·2 | 5·3 | 9·6 |
| 6 | 9·7 | 9·0 | 9·4 | 9·5 | 10·1 | 10·0 | 9·7 | 10·6 | 10·6 | 10·6 | 11·8 | 12·0 | 12·9 | 13·8 | 13·3 | 11·4 | 9·4 | 4·3 | 10·6 | 10·3 | 0·0 | 7·7 | 9·0 | 9·6 | 9·8 |
| 7 | 9·7 | 10·0 | 9·7 | 9·7 | 10·3 | 9·7 | 9·5 | 9·5 | 9·4 | 10·0 | 10·7 | 12·2 | 12·8 | 14·0 | 12·9 | 12·9 | 10·9 | 10·6 | 0·8 | 4·6 | 8·9 | 8·9 | 8·3 | 6·3 | 9·7 |
| 8 | 8·6 | 10·0 | 10·2 | 10·1 | 9·9 | 11·1 | 10·4 | 9·6 | 9·7 | 9·7 | 10·5 | 10·8 | 11·6 | 12·4 | 12·0 | 10·8 | 10·2 | 10·1 | 9·5 | 7·9 | 8·5 | 9·4 | 9·3 | 9·0 | 10·1 |
| 9 *q* | 9·6 | 10·1 | 10·1 | 9·8 | 9·7 | 9·9 | 9·7 | 9·7 | 9·3 | 9·8 | 9·8 | 10·5 | 12·1 | 12·6 | 11·8 | 11·4 | 11·1 | 11·7 | 11·5 | 10·1 | 10·1 | 8·5 | 8·6 | 8·9 | 10·3 |
| 10 | 9·2 | 9·1 | 9·2 | 9·4 | 9·4 | 10·7 | 9·7 | 10·1 | 9·9 | 10·0 | 9·7 | 10·6 | 14·1 | 14·5 | 13·0 | 11·6 | 12·5 | 12·5 | 11·8 | 9·9 | 9·7 | 9·5 | 9·6 | 9·2 | 10·6 |
| 11 *d* | 8·5 | 6·4 | 6·7 | 10·6 | 10·4 | 15·5 | 17·6 | 12·4 | 12·8 | 13·3 | 11·5 | 13·5 | 13·4 | 13·7 | 12·5 | 12·4 | 10·6 | 10·7 | 10·8 | 10·3 | 2·9 | -1·4 | 8·1 | 8·6 | 10·5 |
| 12 | 8·3 | 9·3 | 8·9 | 8·6 | 8·4 | 8·9 | 9·9 | 10·1 | 10·1 | 10·5 | 11·3 | 12·7 | 13·5 | 13·3 | 12·2 | 11·3 | 10·3 | 10·6 | 9·8 | 7·0 | 8·8 | 7·4 | 9·1 | 9·4 | 10·0 |
| 13 *q* | 9·1 | 9·3 | 9·5 | 9·9 | 8·6 | 9·0 | 9·0 | 9·0 | 9·1 | 9·7 | 10·5 | 11·5 | 13·2 | 13·0 | 12·4 | 11·3 | 10·5 | 10·1 | 10·1 | 7·6 | 7·9 | 7·7 | 9·4 | 9·7 | 9·9 |
| 14 *q* | 9·7 | 9·8 | 9·8 | 10·0 | 10·7 | 9·0 | 9·2 | 9·0 | 9·3 | 9·6 | 9·8 | 10·8 | 11·9 | 12·2 | 11·8 | 11·7 | 11·6 | 11·5 | 10·0 | 9·7 | 9·0 | 8·9 | 9·0 | 9·2 | 10·1 |
| 15 | 9·6 | 10·1 | 10·3 | 10·1 | 9·7 | 9·7 | 9·0 | 9·0 | 8·9 | 9·7 | 9·7 | 10·5 | 10·6 | 11·0 | 11·5 | 12·2 | 12·3 | 12·1 | 11·9 | 10·8 | 10·5 | 8·8 | 8·0 | 6·1 | 10·1 |
| 16 | 3·4 | 6·0 | 9·1 | 7·7 | 8·7 | 9·8 | 9·8 | 9·7 | 8·7 | 9·4 | 9·9 | 10·7 | 11·5 | 12·5 | 12·1 | 13·2 | 12·3 | 10·9 | 10·8 | 9·7 | 8·9 | 6·1 | 8·9 | 8·8 | 9·5 |
| 17 | 8·4 | 8·6 | 10·3 | 10·4 | 10·9 | 11·0 | 9·9 | 10·7 | 9·8 | 10·0 | 10·0 | 9·8 | 11·0 | 11·0 | 10·8 | 10·7 | 10·9 | 7·9 | 6·1 | 9·3 | 11·1 | 3·2 | 6·1 | 7·9 | 9·4 |
| 18 | 9·3 | 9·0 | 9·9 | 9·3 | 9·0 | 9·3 | 8·4 | 7·8 | 7·6 | 9·7 | 10·6 | 12·2 | 14·8 | 16·1 | 14·6 | 11·4 | 14·2 | 12·1 | 10·1 | 5·0 | 5·6 | 5·8 | 3·7 | 1·6 | 9·5 |
| 19 | 7·9 | 9·3 | 1·9 | 2·9 | 7·3 | 10·3 | 9·4 | 9·2 | 8·3 | 8·3 | 9·3 | 10·8 | 12·2 | 13·0 | 12·7 | 13·1 | 13·5 | 14·0 | 14·0 | 11·0 | 8·2 | 7·5 | 8·6 | 6·7 | 9·6 |
| 20 *q* | 5·3 | 6·4 | 6·4 | 6·8 | 7·4 | 8·3 | 8·7 | 9·0 | 8·9 | 8·9 | 9·2 | 10·1 | 11·0 | 11·3 | 10·0 | 9·5 | 9·9 | 10·0 | 9·8 | 9·4 | 9·2 | 9·1 | 9·1 | 9·2 | 8·9 |
| 21 *q* | 9·3 | 9·5 | 9·5 | 9·9 | 9·9 | 9·5 | 9·2 | 9·0 | 8·4 | 9·2 | 10·0 | 10·7 | 11·0 | 13·1 | 12·4 | 11·7 | 11·6 | 11·1 | 11·1 | 11·5 | 11·5 | 10·0 | 4·6 | 5·3 | 10·0 |
| 22 | 7·4 | 7·0 | 0·8 | 2·0 | 2·0 | 3·8 | 6·4 | 7·0 | 7·7 | 10·0 | 11·8 | 13·2 | 12·6 | 13·5 | 13·3 | 11·6 | 10·9 | 10·3 | 10·6 | 10·0 | 9·3 | 8·8 | 4·9 | 6·0 | 8·4 |
| 23 | 7·5 | 8·9 | 9·7 | 8·2 | 7·9 | 9·4 | 10·1 | 10·5 | 10·0 | 9·5 | 10·8 | 12·5 | 15·6 | 13·7 | 12·4 | 10·9 | 9·9 | 10·1 | 10·0 | 9·4 | 8·1 | 3·6 | -10·8 | 2·7 | 8·8 |
| 24 *d* | 7·3 | 9·8 | 11·8 | 10·0 | 5·5 | 9·2 | 10·7 | 15·2 | 12·2 | 11·3 | 11·2 | 14·1 | 16·5 | 10·8 | 12·2 | 13·9 | 7·2 | 11·6 | 10·6 | -1·7 | 6·5 | 8·1 | 3·7 | 7·1 | 9·8 |
| 25 | 6·4 | 8·2 | 10·8 | 10·7 | 10·1 | 10·0 | 10·0 | 9·8 | 8·9 | 8·8 | 9·1 | 11·2 | 12·3 | 11·6 | 10·8 | 8·2 | 8·9 | 11·0 | 7·7 | 10·0 | 9·7 | 8·8 | 7·7 | 9·0 | 9·6 |
| 26 *d* | 9·1 | 8·6 | 10·1 | 9·6 | 7·3 | 9·3 | 10·8 | 11·2 | 11·1 | 11·1 | 12·7 | 12·6 | 12·5 | 11·9 | 11·6 | 11·2 | 9·9 | 9·2 | 0·2 | 10·7 | 11·0 | 9·7 | 9·3 | 8·2 | 10·0 |
| 27 | 8·9 | 9·2 | 6·5 | 6·0 | 8·1 | 8·3 | 9·1 | 9·4 | 9·2 | 8·8 | 9·7 | 11·5 | 12·7 | 13·1 | 13·1 | 11·6 | 11·1 | 11·1 | 10·6 | 10·1 | 9·1 | 7·5 | 8·7 | 9·2 | 9·6 |
| 28 | 9·9 | 10·1 | 9·5 | 9·2 | 9·0 | 8·9 | 8·9 | 8·8 | 8·7 | 8·3 | 9·5 | 10·9 | 12·4 | 13·7 | 13·0 | 11·9 | 11·3 | 11·1 | 11·1 | 10·9 | 10·8 | 7·6 | 4·6 | 8·2 | 9·9 |
| 29 | 9·1 | 9·8 | 9·9 | 9·1 | 9·8 | 8·3 | 8·0 | 8·2 | 8·1 | 8·7 | 10·8 | 12·4 | 12·0 | 13·9 | 12·5 | 11·9 | 11·4 | 11·0 | 11·0 | 10·7 | 8·8 | 9·6 | 9·2 | 8·2 | 10·1 |
| 30 | 9·2 | 9·6 | 9·7 | 10·1 | 10·0 | 10·0 | 9·3 | 9·7 | 9·1 | 8·7 | 10·7 | 12·3 | 13·2 | 13·7 | 14·3 | 12·8 | 11·9 | 11·8 | 11·5 | 10·4 | 10·4 | 10·0 | 8·2 | 9·0 | 10·7 |
| 31 | 8·2 | 8·2 | 9·5 | 9·6 | 9·2 | 9·3 | 9·9 | 9·8 | 8·9 | 9·2 | 10·1 | 12·4 | 14·2 | 14·0 | 13·6 | 12·7 | 9·7 | 11·8 | 11·8 | 11·7 | 10·6 | 10·0 | 7·1 | 8·9 | 10·4 |
| Mean | 7·9 | 8·6 | 8·8 | 8·7 | 8·7 | 9·5 | 9·5 | 9·8 | 9·6 | 9·8 | 10·5 | 11·7 | 13·1 | *13·1* | 12·7 | 11·9 | 10·9 | 11·0 | 9·1 | 8·4 | 8·0 | 7·1 | *6·7* | 7·2 | 9·7 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

117 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JANUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1112 | 1112 | 1111 | 1111 | 1112 | 1111 | 1107 | 1106 | 1105 | 1106 | 1107 | 1109 | 1111 | 1114 | 1120 | 1125 | 1129 | 1126 | 1142 | 1137 | 1132 | 1125 | 1123 | 1118 | 1117 |
| 2 | 1101 | 1104 | 1107 | 1108 | 1112 | 1112 | 1111 | 1111 | 1112 | 1113 | 1111 | 1111 | 1111 | 1117 | 1120 | 1122 | 1129 | 1131 | 1129 | 1125 | 1121 | 1117 | 1116 | 1116 | 1115 |
| 3 *d* | 1113 | 1113 | 1112 | 1111 | 1111 | 1111 | 1109 | 1108 | 1106 | 1100 | 1100 | 1125 | 1159 | 1138 | 1143 | 1256 | 1310 | 1340 | 1304 | 1185 | 1113 | 1010 | 1014 | 1028 | *1138* |
| 4 *d* | 996 | 1000 | 1003 | 1009 | 1026 | 1042 | 1069 | 1077 | 1088 | 1106 | 1117 | 1123 | 1128 | 1137 | 1141 | 1154 | 1165 | 1161 | 1155 | 1160 | 1133 | 1137 | 1087 | 1101 | *1096* |
| 5 | 1119 | 1123 | 1119 | 1111 | 1113 | 1115 | 1118 | 1119 | 1123 | 1122 | 1120 | 1123 | 1125 | 1124 | 1125 | 1128 | 1125 | 1125 | 1125 | 1127 | 1126 | 1128 | 1126 | 1121 | 1122 |
| 6 | 1102 | 1112 | 1117 | 1118 | 1119 | 1119 | 1118 | 1117 | 1112 | 1110 | 1108 | 1112 | 1116 | 1120 | 1125 | 1125 | 1131 | 1137 | 1129 | 1130 | 1129 | 1118 | 1117 | 1118 | 1119 |
| 7 | 1118 | 1118 | 1118 | 1119 | 1118 | 1117 | 1116 | 1115 | 1114 | 1115 | 1117 | 1118 | 1117 | 1118 | 1124 | 1129 | 1132 | 1130 | 1131 | 1126 | 1123 | 1120 | 1121 | 1123 | 1121 |
| 8 | 1118 | 1118 | 1119 | 1118 | 1118 | 1117 | 1116 | 1116 | 1115 | 1115 | 1116 | 1118 | 1118 | 1119 | 1120 | 1122 | 1120 | 1120 | 1120 | 1120 | 1119 | 1117 | 1117 | 1117 | 1118 |
| 9 *q* | 1117 | 1116 | 1116 | 1117 | 1117 | 1116 | 1115 | 1113 | 1111 | 1114 | 1115 | 1113 | 1112 | 1113 | 1117 | 1119 | 1119 | 1119 | 1120 | 1123 | 1124 | 1124 | 1123 | 1120 | 1117 |
| 10 | 1119 | 1118 | 1118 | 1117 | 1116 | 1113 | 1111 | 1111 | 1112 | 1112 | 1113 | 1112 | 1107 | 1109 | 1111 | 1114 | 1118 | 1118 | 1118 | 1118 | 1117 | 1116 | 1114 | 1112 | 1114 |
| 11 *d* | 1107 | 1106 | 1101 | 1093 | 1088 | 1093 | 1075 | 1089 | 1096 | 1101 | 1108 | 1107 | 1112 | 1117 | 1117 | 1125 | 1125 | 1126 | 1127 | 1125 | 1129 | 1129 | 1117 | 1116 | 1110 |
| 12 | 1116 | 1113 | 1111 | 1111 | 1110 | 1109 | 1111 | 1111 | 1111 | 1115 | 1119 | 1119 | 1118 | 1118 | 1118 | 1119 | 1119 | 1121 | 1128 | 1128 | 1125 | 1123 | 1119 | 1117 | 1117 |
| 13 *q* | 1117 | 1115 | 1114 | 1113 | 1113 | 1113 | 1113 | 1113 | 1113 | 1115 | 1117 | 1120 | 1121 | 1122 | 1117 | 1114 | 1114 | 1115 | 1116 | 1119 | 1117 | 1117 | 1113 | 1113 | 1116 |
| 14 *q* | 1113 | 1112 | 1112 | 1112 | 1111 | 1108 | 1111 | 1111 | 1111 | 1112 | 1113 | 1116 | 1115 | 1116 | 1117 | 1118 | 1117 | 1117 | 1117 | 1116 | 1115 | 1117 | 1115 | 1114 | 1114 |
| 15 | 1112 | 1111 | 1111 | 1110 | 1110 | 1108 | 1107 | 1107 | 1108 | 1107 | 1108 | 1112 | 1117 | 1118 | 1116 | 1113 | 1111 | 1111 | 1111 | 1113 | 1116 | 1125 | 1130 | 1129 | 1113 |
| 16 | 1126 | 1120 | 1117 | 1112 | 1113 | 1114 | 1112 | 1111 | 1112 | 1111 | 1111 | 1112 | 1115 | 1115 | 1117 | 1118 | 1119 | 1118 | 1118 | 1118 | 1118 | 1118 | 1116 | 1116 | 1116 |
| 17 | 1114 | 1112 | 1110 | 1107 | 1105 | 1106 | 1105 | 1105 | 1106 | 1113 | 1116 | 1119 | 1118 | 1118 | 1118 | 1118 | 1119 | 1123 | 1126 | 1124 | 1121 | 1122 | 1118 | 1119 | 1115 |
| 18 | 1117 | 1117 | 1117 | 1117 | 1116 | 1113 | 1111 | 1111 | 1112 | 1110 | 1112 | 1113 | 1112 | 1116 | 1128 | 1133 | 1125 | 1125 | 1130 | 1116 | 1123 | 1126 | 1124 | 1118 | 1118 |
| 19 | 1111 | 1089 | 1101 | 1102 | 1106 | 1110 | 1112 | 1112 | 1111 | 1109 | 1108 | 1109 | 1108 | 1110 | 1114 | 1114 | 1114 | 1117 | 1120 | 1124 | 1128 | 1129 | 1126 | 1124 | 1113 |
| 20 *q* | 1124 | 1121 | 1119 | 1116 | 1117 | 1116 | 1113 | 1113 | 1113 | 1114 | 1117 | 1117 | 1113 | 1113 | 1116 | 1116 | 1117 | 1116 | 1115 | 1113 | 1113 | 1113 | 1113 | 1113 | 1115 |
| 21 *q* | 1113 | 1113 | 1115 | 1115 | 1116 | 1114 | 1113 | 1113 | 1114 | 1114 | 1113 | 1113 | 1112 | 1113 | 1116 | 1114 | 1113 | 1114 | 1116 | 1116 | 1119 | 1124 | 1131 | 1131 | 1116 |
| 22 | 1125 | 1123 | 1120 | 1117 | 1111 | 1106 | 1095 | 1099 | 1107 | 1104 | 1102 | 1107 | 1111 | 1110 | 1113 | 1116 | 1117 | 1117 | 1117 | 1117 | 1117 | 1117 | 1118 | 1116 | 1113 |
| 23 | 1111 | 1111 | 1111 | 1105 | 1108 | 1109 | 1107 | 1108 | 1112 | 1119 | 1120 | 1119 | 1117 | 1122 | 1125 | 1124 | 1126 | 1124 | 1123 | 1120 | 1122 | 1126 | 1098 | 1095 | 1115 |
| 24 *d* | 1105 | 1100 | 1076 | 1081 | 1094 | 1101 | 1104 | 1104 | 1106 | 1113 | 1117 | 1116 | 1120 | 1143 | 1147 | 1148 | 1148 | 1129 | 1134 | 1146 | 1140 | 1125 | 1106 | 1090 | 1116 |
| 25 | 1100 | 1107 | 1111 | 1111 | 1112 | 1113 | 1113 | 1114 | 1118 | 1123 | 1119 | 1119 | 1120 | 1125 | 1132 | 1138 | 1136 | 1130 | 1135 | 1125 | 1123 | 1122 | 1119 | 1118 | 1120 |
| 26 *d* | 1117 | 1114 | 1107 | 1099 | 1101 | 1105 | 1105 | 1106 | 1112 | 1122 | 1120 | 1123 | 1124 | 1124 | 1123 | 1125 | 1129 | 1133 | 1149 | 1143 | 1141 | 1134 | 1129 | 1126 | 1121 |
| 27 | 1127 | 1125 | 1123 | 1117 | 1117 | 1117 | 1118 | 1119 | 1122 | 1113 | 1109 | 1107 | 1107 | 1107 | 1110 | 1112 | 1113 | 1114 | 1117 | 1118 | 1119 | 1123 | 1119 | 1117 | 1116 |
| 28 | 1115 | 1114 | 1115 | 1117 | 1117 | 1116 | 1114 | 1114 | 1113 | 1114 | 1112 | 1108 | 1108 | 1111 | 1113 | 1116 | 1116 | 1114 | 1113 | 1114 | 1117 | 1122 | 1120 | 1116 | 1115 |
| 29 | 1114 | 1113 | 1113 | 1112 | 1108 | 1108 | 1106 | 1107 | 1111 | 1113 | 1112 | 1112 | 1111 | 1112 | 1117 | 1120 | 1119 | 1117 | 1117 | 1117 | 1118 | 1118 | 1117 | 1115 | 1114 |
| 30 | 1113 | 1113 | 1112 | 1112 | 1111 | 1111 | 1108 | 1107 | 1108 | 1108 | 1107 | 1107 | 1106 | 1106 | 1111 | 1113 | 1113 | 1112 | 1112 | 1112 | 1112 | 1113 | 1112 | 1106 | 1110 |
| 31 | 1107 | 1107 | 1107 | 1107 | 1108 | 1107 | 1107 | 1107 | 1109 | 1107 | 1107 | 1106 | 1106 | 1107 | 1112 | 1117 | 1124 | 1124 | 1123 | 1123 | 1124 | 1123 | 1117 | 1115 | 1113 |
| Mean | 1110 | 1109 | 1109 | *1107* | 1108 | 1109 | 1108 | 1109 | 1110 | 1112 | 1113 | 1114 | 1116 | 1118 | 1121 | 1127 | 1129 | 1130 | *1130* | 1126 | 1122 | 1119 | 1114 | 1113 | 1116 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

118 ESKDALEMUIR — JANUARY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 23 36 | 547 | 488 | 18 21 | 59 | 14 59 | 17·1 | 3·4 | 18 39 | 13·7 | 18 37 | 1149 | 1104 | 08 20 | 45 | 1,1,2,2,2,3,3,3 | 17 | 1 | 83·6 |
| 2 | 00 33 | 551 | 494 | 16 33 | 57 | 17 50 | 14·4 | 3·4 | 00 01 | 11·0 | 17 32 | 1135 | 1098 | 00 50 | 37 | 3,1,0,1,1,3,3,0 | 12 | 1 | 83·5 |
| 3 *d* | 10 20 | 579 | *325* | 21 36 | *254* | 16 10 | *34·8* | -21·8 | 18 31 | *56·6* | 16 13 | *1501* | *918* | 22 02 | *583* | 0,1,3,5,5,7,6,5 | 32 | 2 | 83·5 |
| 4 *d* | 18 22 | 572 | 394 | 02 36 | 178 | 02 46 | 20·1 | -11·9 | 00 16 | 32·0 | 16 00 | 1185 | 963 | 02 59 | 222 | 5,5,4,3,3,5,5,4 | 34 | 2 | 83·4 |
| 5 | 23 58 | 535 | 492 | 00 01 | 43 | 02 45 | 14·4 | 2·2 | 23 45 | 12·2 | 21 00 | 1130 | 1110 | 03 23 | 20 | 2,2,2,1,2,1,2,3 | 15 | 1 | 83·4 |
| 6 | 21 03 | 547 | 476 | 16 54 | 71 | 00 06 | 15·3 | -6·6 | 20 36 | 21·9 | 17 07 | 1140 | 1098 | 00 30 | 42 | 3,1,2,1,1,3,4,2 | 17 | 1 | 83·4 |
| 7 | 18 48 | 566 | 495 | 19 36 | 71 | 13 30 | 14·3 | -5·6 | 18 33 | 19·9 | 18 32 | 1135 | 1113 | 09 00 | 22 | 0,1,1,1,1,2,4,2 | 12 | 1 | 83·2 |
| 8 | 06 00 | 536 | 507 | 09 08 | 29 | 13 20 | 12·9 | 5·4 | 19 20 | 7·5 | 15 30 | 1123 | 1113 | 05 55 | *10* | 1,1,1,2,1,0,2,1 | 9 | 0 | 83·2 |
| 9 *q* | 14 19 | 541 | 519 | 20 11 | *22* | 13 11 | 13·4 | 8·1 | 21 05 | 5·3 | 20 30 | 1125 | 1111 | 12 10 | 14 | 0,0,1,1,1,1,1,1 | 6 | 0 | 83·1 |
| 10 | 12 24 | 546 | 520 | 17 15 | 26 | 13 38 | 14·8 | 7·9 | 23 48 | 6·9 | 00 04 | 1120 | 1105 | 12 30 | 15 | 0,1,1,2,2,2,1,1 | 10 | 0 | 83·1 |
| 11 *d* | 06 36 | 573 | 472 | 05 46 | 101 | 05 59 | 26·3 | -7·1 | 21 00 | 33·4 | 21 20 | 1132 | 1069 | 06 29 | 63 | 2,4,4,3,2,1,4,4 | 24 | 1 | 83·1 |
| 12 | 08 56 | 535 | 496 | 18 49 | 39 | 12 47 | 14·2 | 4·5 | 19 07 | 9·7 | 18 49 | 1131 | 1108 | 05 05 | 23 | 2,1,2,2,1,1,3,2 | 14 | 1 | 83·0 |
| 13 *q* | 21 05 | 539 | 515 | 11 18 | 24 | 12 18 | 13·9 | 4·3 | 19 31 | 9·6 | 12 50 | 1123 | 1112 | 03 50 | 11 | 0,1,0,1,1,1,2,2 | 8 | 0 | 83·0 |
| 14 *q* | 05 10 | 546 | 519 | 13 50 | 27 | 13 02 | 12·5 | 8·3 | 20 48 | *4·2* | 15 30 | 1119 | 1107 | 05 10 | 12 | 0,2,1,1,1,0,0,1 | 6 | 0 | 83·0 |
| 15 | 19 09 | 547 | 501 | 23 51 | 46 | 15 23 | 13·0 | 3·3 | 24 00 | 9·7 | 22 40 | 1131 | 1106 | 06 40 | 25 | 1,1,1,1,1,1,2,2 | 10 | 0 | 83·0 |
| 16 | 06 45 | 553 | 499 | 00 40 | 54 | 15 40 | 13·5 | 2·4 | 00 03 | 11·1 | 00 20 | 1128 | 1110 | 03 52 | 18 | 3,2,2,1,2,0,1,2 | 13 | 1 | 83·0 |
| 17 | 21 31 | 559 | 500 | 17 40 | 59 | 04 39 | 12·5 | -1·6 | 21 53 | 14·1 | 18 00 | 1131 | 1104 | 05 00 | 27 | 1,2,3,2,1,2,3,3 | 17 | 1 | 82·9 |
| 18 | 19 30 | 571 | 472 | 23 46 | 99 | 13 31 | 17·3 | 0·0 | 23 05 | 17·3 | 15 07 | 1138 | 1109 | 07 30) 09 52) | 29 | 1,0,1,2,2,3,4,3 | 16 | 1 | 82·8 |
| 19 | 01 05 | 549 | 483 | 00 01 | 66 | 01 12 | 15·7 | 0·9 | 02 40 | 14·8 | 21 23 | 1130 | 1086 | 01 30 | 44 | 4,3,2,1,1,1,2,3 | 17 | 1 | 82·8 |
| 20 *q* | 14 10 | 539 | 510 | 00 01 | 29 | 13 09 | 11·9 | 3·7 | 00 04 | 8·2 | 00 02 | 1125 | 1111 | 08 18 | 14 | 2,2,0,1,1,0,0,0 | 6 | 0 | 82·8 |
| 21 *q* | 18 50 | 542 | 504 | 23 13 | 38 | 13 40 | 13·4 | 1·1 | 22 51 | 12·3 | 23 15 | 1135 | 1111 | 13 00 | 24 | 0,0,0,1,1,1,1,3 | 7 | 0 | 82·8 |
| 22 | 06 36 | 559 | 504 | 00 43 | 55 | 13 04 | 14·3 | -3·6 | 02 21 | 17·9 | 00 01 | 1128 | 1092 | 06 55 | 36 | 4,2,3,2,2,1,0,3 | 17 | 1 | 82·8 |
| 23 | 22 30 | *597* | 473 | 22 14 | 124 | 12 26 | 16·4 | *-24·2* | 22 21 | 40·6 | 21 33 | 1129 | 1083 | 22 53 | 46 | 2,2,1,2,2,1,2,5 | 17 | 1 | 82·8 |
| 24 *d* | 22 12 | 570 | 415 | 13 23 | 155 | 12 58 | 19·6 | -5·6 | 19 49 | 25·2 | 16 00 | 1161 | 1070 | 02 40 | 91 | 3,3,3,3,4,4,4,3 | 27 | 1 | 82·8 |
| 25 | 06 20 | 536 | 483 | 14 52 | 53 | 13 03 | 13·7 | 3·2 | 15 02 | 10·5 | 15 02 | 1143 | 1093 | 00 01 | 50 | 3,2,1,1,3,3,3,1 | 17 | 1 | 82·7 |
| 26 *d* | 03 17 | 547 | 480 | 17 49 | 67 | 12 55 | 13·4 | -5·3 | 18 12 | 18·7 | 18 10 | 1151 | 1097 | 03 18 | 54 | 2,2,3,2,1,4,4,1 | 19 | 1 | 82·7 |
| 27 | 03 42 | 539 | 515 | 11 50 | 24 | 13 09 | 13·6 | 4·1 | 03 30 | 9·5 | 00 18 | 1129 | 1106 | 11 10 | 23 | 2,2,1,1,1,1,1,2 | 11 | 0 | 82·7 |
| 28 | 18 12 | 540 | 510 | 10 07 | 30 | 13 17 | 14·3 | 2·2 | 21 59 | 12·1 | 22 01 | 1124 | 1106 | 11 53 | 18 | 1,0,0,1,0,0,1,2 | 5 | 0 | 82·7 |
| 29 | 04 48 | 553 | 505 | 14 22 | 48 | 13 13 | 14·3 | 7·1 | 06 33 | 7·2 | 15 22 | 1123 | 1105 | 04 50 | 18 | 1,2,2,1,3,1,2,1 | 13 | 1 | 82·6 |
| 30 | 23 18 | 565 | 511 | 11 28 | 54 | 14 10 | 15·1 | 4·7 | 22 02 | 10·4 | 00 01 | 1116 | 1105 | 23 31 | 11 | 1,1,1,2,1,1,1,3 | 11 | 1 | 82·6 |
| 31 | 22 19 | 568 | 511 | 17 11 | 57 | 14 29 | 16·2 | 4·7 | 22 08 | 11·5 | 17 10 | 1126 | 1105 | 11 40 | 21 | 1,0,1,1,2,2,1,3 | 11 | 1 | 82·6 |
| Mean | - - | 553 | 487 | - - | 66 | - - | 15·7 | -0·3 | - - | 16·0 | - - | 1145 | 1091 | - - | 54 | - | - | 0·74 | 83·0 |

*q* denotes an international quiet and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

119 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — FEBRUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 532 | 532 | 530 | 530 | 533 | 537 | 536 | 534 | 532 | 530 | 525 | 526 | 527 | 531 | 534 | 533 | 529 | 529 | 533 | 533 | 533 | 534 | 532 | 531 | *531* |
| 2 | 530 | 535 | 529 | 537 | 531 | 532 | 537 | 540 | 540 | 535 | 514 | 505 | 510 | 518 | 527 | 534 | 537 | 534 | 534 | 528 | 526 | 531 | 529 | 524 | 529 |
| 3 | 522 | 524 | 529 | 529 | 530 | 533 | 533 | 532 | 530 | 521 | 513 | 510 | 511 | 529 | 556 | 549 | 548 | 532 | 544 | 546 | 540 | 529 | 506 | 507 | 529 |
| 4 | 514 | 518 | 513 | 511 | 517 | 526 | 530 | 529 | 525 | 514 | 503 | 509 | 518 | 517 | 506 | 519 | 510 | 509 | 522 | 523 | 525 | 522 | 519 | 513 | 517 |
| 5 | 511 | 510 | 507 | 516 | 517 | 507 | 508 | 514 | 507 | 507 | 506 | 504 | 505 | 519 | 518 | 517 | 523 | 523 | 530 | 536 | 529 | 526 | 529 | 527 | 517 |
| 6 | 545 | 517 | 516 | 518 | 518 | 519 | 518 | 516 | 518 | 521 | 520 | 520 | 514 | 507 | 516 | 522 | 521 | 525 | 529 | 536 | 532 | 532 | 532 | 538 | 523 |
| 7 *d* | 526 | 522 | 522 | 521 | 522 | 523 | 522 | 514 | 515 | 469 | 367 | 426 | 498 | 503 | 490 | 498 | 575 | 550 | 541 | 494 | 464 | 405 | 456 | 362 | 491 |
| 8 *d* | -266 | 99 | 222 | 244 | 337 | 409 | 414 | 405 | 435 | 563 | 553 | 506 | 494 | 491 | 494 | 469 | 514 | 487 | 499 | 483 | 486 | 492 | 502 | 498 | *410* |
| 9 | 496 | 498 | 492 | 492 | 491 | 493 | 494 | 491 | 474 | 466 | 500 | 498 | 499 | 494 | 505 | 495 | 499 | 500 | 510 | 522 | 532 | 518 | 509 | 510 | 499 |
| 10 | 505 | 509 | 503 | 501 | 498 | 478 | 482 | 462 | 480 | 479 | 478 | 494 | 493 | 495 | 524 | 518 | 517 | 519 | 521 | 517 | 516 | 506 | 507 | 509 | 500 |
| 11 *q* | 514 | 511 | 501 | 501 | 497 | 505 | 507 | 509 | 501 | 496 | 494 | 496 | 496 | 488 | 496 | 505 | 507 | 509 | 509 | 514 | 512 | 514 | 515 | 514 | 505 |
| 12 | 515 | 516 | 517 | 518 | 514 | 514 | 517 | 514 | 511 | 503 | 494 | 494 | 498 | 502 | 506 | 512 | 506 | 506 | 507 | 509 | 511 | 503 | 503 | 506 | 508 |
| 13 | 506 | 510 | 506 | 502 | 498 | 514 | 511 | 498 | 486 | 474 | 506 | 514 | 529 | 528 | 518 | 518 | 517 | 515 | 515 | 517 | 520 | 520 | 520 | 519 | 511 |
| 14 *d* | 519 | 521 | 522 | 522 | 522 | 525 | 519 | 505 | 460 | 476 | 497 | 509 | 488 | 494 | 495 | 497 | 500 | 534 | 528 | 533 | 533 | 515 | 502 | 503 | 509 |
| 15 | 510 | 520 | 500 | 502 | 529 | 510 | 507 | 519 | 514 | 506 | 500 | 495 | 521 | 514 | 518 | 522 | 520 | 518 | 521 | 523 | 522 | 521 | 521 | 521 | 515 |
| 16 | 520 | 521 | 521 | 521 | 523 | 527 | 527 | 530 | 527 | 518 | 510 | 505 | 504 | 509 | 518 | 521 | 526 | 529 | 530 | 525 | 530 | 529 | 530 | 518 | 522 |
| 17 | 538 | 518 | 523 | 525 | 525 | 519 | 528 | 523 | 517 | 511 | 502 | 500 | 501 | 508 | 514 | 521 | 521 | 525 | 526 | 526 | 525 | 525 | 523 | 525 | 520 |
| 18 | 530 | 523 | 526 | 525 | 527 | 529 | 533 | 532 | 530 | 516 | 506 | 499 | 498 | 506 | 517 | 533 | 541 | 537 | 543 | 539 | 541 | 529 | 529 | 530 | 526 |
| 19 *d* | 533 | 530 | 527 | 530 | 538 | 541 | 541 | 556 | 540 | 511 | 503 | 502 | 506 | 504 | 510 | 534 | 531 | 550 | 522 | 527 | 523 | 492 | 522 | 518 | 525 |
| 20 | 514 | 511 | 511 | 510 | 514 | 522 | 525 | 529 | 527 | 521 | 510 | 512 | 515 | 518 | 514 | 519 | 523 | 534 | 519 | 509 | 525 | 495 | 479 | 458 | 513 |
| 21 *d* | 438 | 432 | 487 | 517 | 517 | 513 | 498 | 485 | 478 | 467 | 474 | 494 | 470 | 469 | 514 | 510 | 498 | 482 | 495 | 497 | 517 | 509 | 508 | 505 | 491 |
| 22 | 504 | 501 | 505 | 512 | 522 | 507 | 512 | 517 | 505 | 490 | 501 | 497 | 497 | 501 | 510 | 509 | 516 | 506 | 512 | 511 | 516 | 529 | 514 | 517 | 509 |
| 23 | 517 | 532 | 520 | 498 | 492 | 508 | 514 | 513 | 480 | 507 | 487 | 490 | 509 | 519 | 514 | 502 | 501 | 505 | 500 | 521 | 521 | 519 | 518 | 520 | 509 |
| 24 | 518 | 524 | 517 | 517 | 521 | 521 | 521 | 526 | 523 | 512 | 509 | 493 | 501 | 506 | 513 | 511 | 517 | 521 | 526 | 492 | 502 | 498 | 500 | 510 | 512 |
| 25 | 517 | 517 | 513 | 525 | 529 | 531 | 524 | 529 | 529 | 521 | 501 | 484 | 495 | 493 | 501 | 507 | 524 | 523 | 522 | 525 | 526 | 526 | 518 | 518 | 517 |
| 26 *q* | 516 | 513 | 517 | 524 | 525 | 524 | 531 | 529 | 529 | 515 | 509 | 500 | 504 | 503 | 525 | 517 | 520 | 517 | 511 | 522 | 525 | 536 | 530 | 524 | 519 |
| 27 *q* | 525 | 524 | 524 | 525 | 528 | 529 | 533 | 532 | 528 | 517 | 502 | 497 | 495 | 500 | 508 | 516 | 520 | 518 | 524 | 528 | 530 | 532 | 532 | 532 | 521 |
| 28 *q* | 534 | 530 | 532 | 533 | 533 | 536 | 537 | 539 | 537 | 524 | 513 | 501 | 500 | 506 | 513 | 520 | 528 | 535 | 537 | 540 | 538 | 537 | 537 | 533 | 528 |
| Mean | *489* | 501 | 505 | 507 | 512 | 515 | 516 | 515 | 510 | 507 | 500 | 499 | 503 | 506 | 513 | 515 | 521 | 520 | *522* | 521 | 521 | 515 | 515 | 510 | 511 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

120 ESKDALEMUIR (D) — 12° + — FEBRUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 9·3 | 9·3 | 9·3 | 9·3 | 9·3 | 9·9 | 9·3 | 9·1 | 9·2 | 9·0 | 10·1 | 11·7 | 13·7 | 15·1 | 14·8 | 13·1 | 12·1 | 11·1 | 10·9 | 10·9 | 10·1 | 9·8 | 9·2 | 9·1 | 10·6 |
| 2 | 9·3 | 9·1 | 9·8 | 6·7 | 5·7 | 6·4 | 7·2 | 7·9 | 9·0 | 9·1 | 11·7 | 13·6 | 15·9 | 16·0 | 14·4 | 13·3 | 12·7 | 11·7 | 12·2 | 11·6 | 10·9 | 9·6 | 9·7 | 8·3 | 10·5 |
| 3 | 9·3 | 9·0 | 9·0 | 8·8 | 8·3 | 8·2 | 8·3 | 8·2 | 7·5 | 7·5 | 9·1 | 10·5 | 11·8 | 14·2 | 16·8 | 16·7 | 16·2 | 14·3 | 14·0 | 12·6 | 12·9 | 11·5 | 7·9 | 8·2 | 10·9 |
| 4 | 7·0 | 9·6 | 10·1 | 9·6 | 9·2 | 9·5 | 9·1 | 8·3 | 7·1 | 6·5 | 8·0 | 10·9 | 14·2 | 12·7 | 12·6 | 12·7 | 14·2 | 11·7 | 10·1 | 10·0 | 9·8 | 9·0 | 8·8 | 4·6 | 9·8 |
| 5 | 4·6 | 3·7 | 2·7 | -0·8 | 2·7 | 6·2 | 7·1 | 8·5 | 7·9 | 8·8 | 10·1 | 13·1 | 15·3 | 15·4 | 12·9 | 11·3 | 11·6 | 11·1 | 10·0 | 10·7 | 8·7 | 8·5 | 8·2 | 5·5 | 8·5 |
| 6 | 6·4 | 7·3 | 7·6 | 7·8 | 8·3 | 8·1 | 8·0 | 8·2 | 8·9 | 9·3 | 10·7 | 12·6 | 15·0 | 16·7 | 14·3 | 13·0 | 12·6 | 10·7 | 10·0 | 9·9 | 9·3 | 8·3 | 9·0 | 9·0 | 10·0 |
| 7 *d* | 3·5 | 9·0 | 8·9 | 9·4 | 8·9 | 8·3 | 7·5 | 9·9 | 10·6 | 17·6 | 7·8 | -5·5 | 23·9 | 24·6 | 30·9 | 38·6 | 31·6 | 28·8 | 24·6 | 16·9 | 12·7 | -17·4 | 17·7 | -4·8 | *13·5* |
| 8 *d* | -4·8 | 9·2 | 7·8 | 16·9 | 7·8 | 21·1 | 21·1 | 16·2 | 15·5 | 5·4 | 9·8 | 14·2 | 16·2 | 16·5 | 10·6 | 9·0 | 2·1 | -0·7 | 5·7 | 3·2 | 7·9 | 8·5 | 7·9 | 9·1 | 9·8 |
| 9 | 9·6 | 9·5 | 9·2 | 8·8 | 8·4 | 8·1 | 8·3 | 7·0 | 9·9 | 4·7 | 9·8 | 11·8 | 11·8 | 11·7 | 7·3 | 5·4 | 7·3 | 7·5 | 6·9 | 5·7 | 8·3 | 10·7 | 11·9 | 11·8 | 8·8 |
| 10 | 12·6 | 14·0 | 14·4 | 16·5 | 17·8 | 18·6 | 18·4 | 9·0 | 2·0 | 5·6 | 3·3 | 5·7 | 2·8 | 1·5 | -0·2 | 0·6 | 2·9 | 6·5 | 8·5 | 9·8 | 9·4 | 9·3 | 9·4 | 9·3 | 8·7 |
| 11 *q* | 10·0 | 8·8 | 11·9 | 12·3 | 9·4 | 8·3 | 7·8 | 7·4 | 6·1 | 5·5 | 7·1 | 9·3 | 12·2 | 13·1 | 11·5 | 10·7 | 9·6 | 9·1 | 9·5 | 9·3 | 6·6 | 9·3 | 9·3 | 9·3 | 9·3 |
| 12 | 9·3 | 9·5 | 10·0 | 10·1 | 8·4 | 8·2 | 7·8 | 7·8 | 7·6 | 7·7 | 9·3 | 10·8 | 14·0 | 14·3 | 14·0 | 13·4 | 10·2 | 10·4 | 10·5 | 11·8 | 10·3 | 5·2 | 10·1 | 8·3 | 10·0 |
| 13 | 9·7 | 11·1 | 12·8 | 13·1 | 12·5 | 12·7 | 13·9 | 10·3 | 9·9 | 4·9 | 1·0 | 4·6 | 2·8 | 0·1 | 4·4 | 9·3 | 10·0 | 10·5 | 10·1 | 10·0 | 10·0 | 9·9 | 9·5 | 9·3 | 8·9 |
| 14 *d* | 9·3 | 9·2 | 8·9 | 8·9 | 8·1 | 7·9 | 8·5 | 14·9 | 6·3 | 7·4 | 9·2 | 10·9 | 12·2 | 11·7 | 10·5 | 9·7 | 9·7 | 9·9 | 11·8 | 11·0 | 9·3 | 8·8 | 7·0 | 7·5 | 9·5 |
| 15 | 9·1 | 9·0 | 10·2 | 16·3 | 19·6 | 16·6 | 12·6 | 9·7 | 7·5 | 6·8 | 8·1 | 10·1 | 12·4 | 13·8 | 13·4 | 12·5 | 11·6 | 11·0 | 10·2 | 10·2 | 9·7 | 9·1 | 8·9 | 8·5 | 11·1 |
| 16 | 8·6 | 8·9 | 9·1 | 9·0 | 8·6 | 8·2 | 7·8 | 7·7 | 7·0 | 6·1 | 7·3 | 9·6 | 11·1 | 11·8 | 12·7 | 12·4 | 11·6 | 11·0 | 11·1 | 10·6 | 9·9 | 9·6 | 8·2 | 6·4 | 9·3 |
| 17 | 10·0 | 8·7 | 9·5 | 9·3 | 9·0 | 10·6 | 8·2 | 7·9 | 6·4 | 5·7 | 7·0 | 10·1 | 13·0 | 13·5 | 12·7 | 10·9 | 10·1 | 10·1 | 9·9 | 9·3 | 9·1 | 8·4 | 8·2 | 8·0 | 9·4 |
| 18 | 8·6 | 8·3 | 8·8 | 8·9 | 8·2 | 8·9 | 8·6 | 8·1 | 7·6 | 6·5 | 8·2 | 10·9 | 12·4 | 14·1 | 14·4 | 13·4 | 13·1 | 12·3 | 12·0 | 10·1 | 8·9 | 8·4 | 8·4 | 8·5 | 9·9 |
| 19 *d* | 8·4 | 8·8 | 8·4 | 9·4 | 9·1 | 8·5 | 8·6 | 8·9 | 7·8 | 7·5 | 8·9 | 13·3 | 14·0 | 15·4 | 15·7 | 16·1 | 15·2 | 15·0 | 15·8 | 11·5 | 6·4 | 3·4 | 5·2 | 8·1 | 10·4 |
| 20 | 8·7 | 8·0 | 8·1 | 9·1 | 9·3 | 9·5 | 9·2 | 9·1 | 8·7 | 9·7 | 12·1 | 13·0 | 13·6 | 14·2 | 12·6 | 12·2 | 12·1 | 11·6 | 12·6 | 10·5 | 6·4 | -2·0 | -2·0 | -8·2 | 8·7 |
| 21 *d* | -12·6 | -5·7 | -5·0 | -6·4 | -1·3 | 12·3 | 11·5 | 14·9 | 9·4 | 16·7 | 15·8 | 15·1 | 15·5 | 16·9 | 19·6 | 10·6 | 14·2 | 10·5 | 9·1 | 9·3 | 8·8 | 10·0 | 9·8 | 9·1 | 8·7 |
| 22 | 8·1 | 7·3 | 7·5 | 1·9 | 0·0 | 5·5 | 7·3 | 7·2 | 9·3 | 11·6 | 10·9 | 10·8 | 10·7 | 12·7 | 13·9 | 11·6 | 11·6 | 11·1 | 10·7 | 5·9 | 7·0 | 4·5 | 7·7 | 8·2 | *8·5* |
| 23 | 9·0 | 5·4 | 3·9 | 6·4 | 7·3 | 7·8 | 8·9 | 11·6 | 13·3 | 16·9 | 14·3 | 15·7 | 11·3 | 12·5 | 13·4 | 8·9 | 7·9 | 9·7 | -0·3 | 0·9 | 7·5 | 7·5 | 8·2 | 8·5 | 9·0 |
| 24 | 8·0 | 10·9 | 8·7 | 7·8 | 7·3 | 7·1 | 7·7 | 8·1 | 8·0 | 9·0 | 10·1 | 10·7 | 12·3 | 12·2 | 13·2 | 12·3 | 11·8 | 10·5 | 9·0 | 5·3 | 8·0 | 4·3 | 7·3 | 2·0 | 8·8 |
| 25 | 7·3 | 7·9 | 8·3 | 13·4 | 7·4 | 5·4 | 7·9 | 8·3 | 7·5 | 8·6 | 9·8 | 11·7 | 14·9 | 14·6 | 13·9 | 10·9 | 10·0 | 10·1 | 10·2 | 8·2 | 8·9 | 8·5 | 7·9 | 3·3 | 9·4 |
| 26 *q* | 4·2 | 6·9 | 8·9 | 9·2 | 8·3 | 8·3 | 7·6 | 7·4 | 6·4 | 8·3 | 10·7 | 11·6 | 12·9 | 12·7 | 11·9 | 11·3 | 10·1 | 9·7 | 7·3 | 9·3 | 9·6 | 7·8 | 7·3 | 8·3 | 9·0 |
| 27 *q* | 8·2 | 8·4 | 8·7 | 8·6 | 8·3 | 9·1 | 8·0 | 7·3 | 6·5 | 6·0 | 7·4 | 9·2 | 11·6 | 12·6 | 12·3 | 11·5 | 10·1 | 10·1 | 10·3 | 10·0 | 9·8 | 9·2 | 9·0 | 9·1 | 9·2 |
| 28 *q* | 8·2 | 7·9 | 9·2 | 9·7 | 9·1 | 8·3 | 8·0 | 7·3 | 5·7 | 5·3 | 6·6 | 10·0 | 13·2 | 14·5 | 14·1 | 13·2 | 12·0 | 11·8 | 11·5 | 10·9 | 10·2 | 9·8 | 9·3 | 8·5 | 9·8 |
| Mean | 7·1 | 8·2 | 8·5 | 8·9 | 8·4 | 9·6 | 9·4 | 9·1 | 8·2 | 8·3 | 9·1 | 10·6 | 12·9 | *13·4* | 13·2 | 12·3 | 11·6 | 11·0 | 10·5 | 9·5 | 9·2 | 7·1 | 8·5 | *6·9* | 9·6 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

121 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — FEBRUARY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 q | 1113 | 1113 | 1113 | 1112 | 1112 | 1111 | 1109 | 1107 | 1107 | 1108 | 1102 | 1102 | 1105 | 1108 | 1111 | 1113 | 1113 | 1114 | 1114 | 1114 | 1114 | 1117 | 1117 | 1117 | 1111 |
| 2 | 1117 | 1114 | 1114 | 1107 | 1110 | 1110 | 1107 | 1101 | 1101 | 1100 | 1101 | 1103 | 1108 | 1114 | 1117 | 1118 | 1119 | 1120 | 1121 | 1124 | 1125 | 1125 | 1124 | 1125 | 1114 |
| 3 | 1123 | 1119 | 1119 | 1117 | 1116 | 1113 | 1111 | 1110 | 1110 | 1113 | 1112 | 1112 | 1112 | 1111 | 1111 | 1111 | 1114 | 1123 | 1125 | 1125 | 1131 | 1143 | 1150 | 1124 | 1119 |
| 4 | 1119 | 1120 | 1120 | 1121 | 1120 | 1118 | 1114 | 1112 | 1113 | 1117 | 1116 | 1117 | 1119 | 1125 | 1125 | 1135 | 1142 | 1137 | 1130 | 1125 | 1120 | 1119 | 1119 | 1119 | 1122 |
| 5 | 1106 | 1101 | 1099 | 1096 | 1094 | 1099 | 1106 | 1107 | 1107 | 1108 | 1110 | 1112 | 1118 | 1123 | 1128 | 1136 | 1135 | 1135 | 1131 | 1129 | 1132 | 1131 | 1127 | 1126 | 1117 |
| 6 | 1118 | 1119 | 1123 | 1123 | 1122 | 1120 | 1118 | 1115 | 1113 | 1113 | 1111 | 1109 | 1112 | 1118 | 1122 | 1124 | 1124 | 1125 | 1123 | 1122 | 1121 | 1119 | 1118 | 1116 | 1119 |
| 7 d | 1111 | 1113 | 1116 | 1117 | 1118 | 1119 | 1115 | 1111 | 1104 | 1105 | 1128 | 1151 | 1134 | 1131 | 1179 | 1228 | 1310 | 1328 | 1349 | 1280 | 1222 | 1119 | 1049 | 872 | *1150* |
| 8 d | 853 | 902 | 874 | 903 | 973 | 1051 | 1115 | 1153 | 1165 | 1177 | 1182 | 1196 | 1197 | 1220 | 1240 | 1216 | 1213 | 1196 | 1159 | 1143 | 1125 | 1120 | 1123 | 1127 | *1109* |
| 9 | 1131 | 1132 | 1135 | 1135 | 1135 | 1134 | 1134 | 1133 | 1133 | 1138 | 1134 | 1130 | 1129 | 1135 | 1145 | 1153 | 1146 | 1142 | 1139 | 1136 | 1130 | 1130 | 1129 | 1129 | 1135 |
| 10 | 1130 | 1130 | 1131 | 1131 | 1136 | 1142 | 1147 | 1155 | 1161 | 1154 | 1153 | 1146 | 1144 | 1151 | 1154 | 1155 | 1150 | 1143 | 1138 | 1135 | 1135 | 1136 | 1135 | 1131 | 1143 |
| 11 q | 1130 | 1125 | 1125 | 1124 | 1129 | 1130 | 1132 | 1131 | 1135 | 1136 | 1132 | 1129 | 1130 | 1137 | 1143 | 1146 | 1142 | 1139 | 1137 | 1135 | 1135 | 1131 | 1131 | 1130 | 1133 |
| 12 | 1130 | 1129 | 1129 | 1125 | 1126 | 1128 | 1128 | 1128 | 1128 | 1128 | 1126 | 1124 | 1124 | 1128 | 1138 | 1149 | 1156 | 1150 | 1148 | 1145 | 1140 | 1144 | 1136 | 1127 | 1134 |
| 13 | 1125 | 1125 | 1128 | 1128 | 1130 | 1125 | 1123 | 1124 | 1135 | 1143 | 1146 | 1157 | 1159 | 1159 | 1156 | 1147 | 1142 | 1137 | 1135 | 1132 | 1131 | 1130 | 1130 | 1130 | 1137 |
| 14 d | 1130 | 1130 | 1129 | 1129 | 1129 | 1126 | 1125 | 1125 | 1126 | 1133 | 1142 | 1149 | 1152 | 1145 | 1142 | 1142 | 1139 | 1135 | 1131 | 1133 | 1137 | 1145 | 1135 | 1135 | 1135 |
| 15 | 1132 | 1128 | 1120 | 1112 | 1069 | 1078 | 1096 | 1106 | 1113 | 1117 | 1113 | 1114 | 1119 | 1121 | 1123 | 1124 | 1125 | 1124 | 1124 | 1124 | 1125 | 1128 | 1128 | 1128 | 1116 |
| 16 | 1129 | 1126 | 1125 | 1125 | 1125 | 1124 | 1123 | 1121 | 1121 | 1124 | 1121 | 1120 | 1122 | 1123 | 1123 | 1124 | 1124 | 1124 | 1123 | 1124 | 1125 | 1125 | 1125 | 1128 | 1124 |
| 17 | 1123 | 1118 | 1118 | 1120 | 1123 | 1120 | 1117 | 1118 | 1123 | 1125 | 1123 | 1118 | 1118 | 1120 | 1125 | 1129 | 1129 | 1125 | 1124 | 1124 | 1123 | 1124 | 1124 | 1124 | 1122 |
| 18 | 1123 | 1123 | 1122 | 1121 | 1122 | 1120 | 1118 | 1118 | 1120 | 1123 | 1119 | 1116 | 1117 | 1118 | 1123 | 1125 | 1125 | 1124 | 1122 | 1124 | 1124 | 1128 | 1125 | 1123 | 1122 |
| 19 d | 1123 | 1122 | 1121 | 1120 | 1119 | 1115 | 1113 | 1106 | 1109 | 1118 | 1117 | 1117 | 1119 | 1122 | 1128 | 1131 | 1129 | 1130 | 1161 | 1188 | 1250 | 1174 | 1113 | 1120 | 1132 |
| 20 | 1125 | 1129 | 1129 | 1128 | 1126 | 1124 | 1123 | 1122 | 1123 | 1124 | 1123 | 1119 | 1118 | 1122 | 1126 | 1129 | 1129 | 1130 | 1137 | 1151 | 1149 | 1096 | 1083 | 1065 | 1122 |
| 21 d | 1068 | 1027 | 1059 | 1048 | 1033 | 1033 | 1039 | 1062 | 1087 | 1096 | 1112 | 1128 | 1141 | 1152 | 1195 | 1225 | 1225 | 1202 | 1179 | 1154 | 1141 | 1135 | 1131 | 1131 | 1117 |
| 22 | 1131 | 1125 | 1093 | 1059 | 1062 | 1086 | 1100 | 1107 | 1113 | 1118 | 1118 | 1117 | 1118 | 1119 | 1124 | 1125 | 1132 | 1132 | 1135 | 1141 | 1132 | 1128 | 1125 | 1124 | 1115 |
| 23 | 1124 | 1110 | 1100 | 1106 | 1107 | 1108 | 1107 | 1107 | 1113 | 1117 | 1123 | 1124 | 1130 | 1134 | 1136 | 1148 | 1152 | 1148 | 1150 | 1138 | 1128 | 1128 | 1128 | 1125 | 1125 |
| 24 | 1124 | 1119 | 1118 | 1122 | 1124 | 1124 | 1124 | 1120 | 1120 | 1124 | 1123 | 1125 | 1123 | 1122 | 1124 | 1127 | 1125 | 1125 | 1130 | 1150 | 1150 | 1139 | 1114 | 1124 | 1126 |
| 25 | 1118 | 1117 | 1120 | 1102 | 1094 | 1096 | 1105 | 1111 | 1117 | 1118 | 1119 | 1123 | 1124 | 1129 | 1130 | 1135 | 1137 | 1131 | 1129 | 1130 | 1129 | 1129 | 1130 | 1129 | 1121 |
| 26 q | 1125 | 1123 | 1121 | 1119 | 1119 | 1119 | 1118 | 1119 | 1120 | 1119 | 1115 | 1117 | 1119 | 1122 | 1124 | 1125 | 1126 | 1131 | 1136 | 1132 | 1129 | 1125 | 1122 | 1120 | 1123 |
| 27 q | 1120 | 1121 | 1123 | 1123 | 1122 | 1119 | 1118 | 1118 | 1119 | 1123 | 1114 | 1112 | 1113 | 1117 | 1118 | 1121 | 1125 | 1124 | 1123 | 1123 | 1123 | 1124 | 1123 | 1123 | 1120 |
| 28 q | 1120 | 1119 | 1118 | 1117 | 1117 | 1117 | 1117 | 1116 | 1116 | 1115 | 1112 | 1107 | 1107 | 1111 | 1117 | 1119 | 1119 | 1119 | 1119 | 1120 | 1121 | 1122 | 1123 | 1123 | 1117 |
| Mean | 1111 | 1110 | 1109 | *1107* | 1108 | 1111 | 1114 | 1117 | 1120 | 1123 | 1123 | 1125 | 1126 | 1130 | 1137 | 1141 | *1145* | 1143 | 1142 | 1139 | 1137 | 1129 | 1122 | 1114 | 1124 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

122 ESKDALEMUIR — FEBRUARY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. ′ | ′ h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | °A. |
| 1 q | 15 21 | 541 | 522 | 11 18 | *19* | 14 10 16·0 | 8·8 09 34 | 7·2 | 21 50 | 1118 | 1100 | 10 50 | 18 | 0,0,0,1,1,2,1,1 | 6 | 0 | 82·4 |
| 2 | 01 04 | 550 | 498 | 11 59 | 52 | 12 48 16·9 | 4·8 05 40 | 12·1 | 20 45 | 1129 | 1099 | 09 30 | 30 | 2,2,2,3,2,1,1,1 | 14 | 0 | 82·3 |
| 3 | 14 09 | 565 | 490 | 23 40 | 75 | 13 57 18·8 | 4·6 23 00 | 14·2 | 22 10 | 1152 | 1107 | 14 02 | 45 | 1,0,0,1,3,3,3,3 | 14 | 1 | 82·3 |
| 4 | 12 24 | 545 | 489 | 17 02 | 56 | 12 32 16·9 | 2·8 23 47 | 14·1 | 16 33 | 1146 | 1111 | 07 21 | 35 | 2,2,1,2,3,3,1,2 | 16 | 1 | 82·2 |
| 5 | 20 54 | 553 | 492 | 01 01 | 61 | 13 32 16·7 | −2·5 03 26 | 19·2 | 15 42 | 1138 | 1093 | 04 00 | 45 | 3,3,1,1,2,3,3,3 | 19 | 1 | 82·2 |
| 6 | 00 29 | 596 | 487 | 00 58 | 109 | 13 31 17·8 | 3·6 00 18 | 14·2 | 17 05 | 1127 | 1106 | 11 50 | 21 | 5,0,2,2,3,1,2,3 | 18 | 1 | 82·1 |
| 7 d | 22 28 | *826* | 197 | 24 00 | 629 | 15 24 51·2 | −57·3 11 12 | 108·5 | 18 34 | *1424* | 757 | 23 30 | *667* | 3,1,3,7,6,7,8,8 | 43 | 2 | 82·1 |
| 8 d | 11 04 | 604 | *−1372* | 00 33 | *1976* | 00 42 *58·2* | *−88·8* 00 31 | *147·0* | 14 50 | 1256 | *695* | 01 15 | 561 | 9,8,5,7,5,5,5,3 | 47 | 2 | 82·1 |
| 9 | 20 25 | 540 | 443 | 09 16 | 97 | 08 30 13·4 | 2·7 09 19 | 10·7 | 15 20 | 1155 | 1125 | 22 54 | 30 | 1,0,3,4,3,2,3,3 | 19 | 1 | 82·1 |
| 10 | 14 59 | 540 | 447 | 07 25 | 93 | 05 00 20·5 | −1·7 08 05 | 22·2 | 08 05 | 1163 | 1099 | 01 02 | 64 | 1,3,4,3,3,3,2,1 | 20 | 1 | 82·1 |
| 11 q | 17 50 | 520 | 478 | 13 10 | 42 | 13 14 14·8 | 2·9 20 36 | 11·9 | 15 15 | 1148 | 1123 | 01 21 | 25 | 2,2,1,1,2,1,2,1 | 12 | 0 | 82·1 |
| 12 | 23 01 | 537 | 486 | 21 08 | 51 | 13 14 15·4 | 1·2 21 16 | 14·2 | 16 13 | 1159 | 1123 | 11 15 | 36 | 0,1,0,1,2,2,2,3 | 11 | 1 | 82·2 |
| 13 | 13 58 | 542 | 460 | 09 33 | 82 | 06 50 14·4 | −1·1 13 33 | 15·5 | 11 51 | 1165 | 1122 | 06 50 | 43 | 2,2,3,4,3,2,1,0 | 17 | 1 | 82·1 |
| 14 d | 17 39 | 616 | 444 | 09 08 | 172 | 07 45 25·4 | 3·6 08 50 | 21·8 | 11 12 | 1154 | 1119 | 08 05 | 35 | 1,1,4,4,2,5,5,3 | 25 | 1 | 82·1 |
| 15 | 04 27 | 549 | 485 | 02 26 | 64 | 03 58 26·3 | 5·2 08 59 | 21·1 | 01 00 | 1134 | 1059 | 04 40 | 75 | 3,4,3,2,3,2,2,1 | 20 | 1 | 82·1 |
| 16 | 19 13 | 541 | 498 | 12 34 | 43 | 14 51 14·1 | 3·4 23 04 | 10·7 | 00 10 | 1129 | 1118 | 08 00 | *11* | 1,1,1,1,2,2,2,2 | 12 | 0 | 82·1 |
| 17 | 00 49 | 565 | 492 | 12 01 | 73 | 00 45 15·1 | 5·3 01 11 | 9·8 | 00 01 | 1129 | 1108 | 01 00 | 21 | 3,2,2,2,2,0,0,1 | 12 | 0 | 82·1 |
| 18 | 18 51 | 557 | 491 | 12 02 | 66 | 14 31 15·3 | 5·7 20 43 | 9·6 | 21 20 | 1128 | 1113 | 11 48 | 15 | 2,1,1,2,2,2,2,1 | 13 | 1 | 82·1 |
| 19 d | 22 12 | 619 | 458 | 22 36 | 161 | 18 01 20·6 | −17·1 22 06 | 37·7 | 20 35 | 1274 | 1095 | 22 25 | 179 | 2,3,3,2,2,4,4,5 | 25 | 2 | 82·2 |
| 20 | 20 53 | 564 | 400 | 22 41 | 164 | 21 08 24·1 | −25·0 21 36 | 49·1 | 20 11 | 1167 | 1058 | 23 30 | 109 | 1,2,2,2,2,3,4,6 | 22 | 2 | 82·1 |
| 21 d | 14 58 | 623 | 384 | 01 19 | 239 | 14 58 31·7 | −18·7 00 24 | 50·4 | 15 04 | 1279 | 1010 | 01 40 | 269 | 5,5,4,4,5,5,4,1 | 33 | 2 | 82·1 |
| 22 | 03 52 | 543 | 482 | 03 09 | 61 | 14 28 16·2 | −1·8 04 32 | 18·0 | 19 15 | 1145 | 1052 | 04 10 | 93 | 4,3,3,2,3,3,3,2 | 23 | 1 | 82·1 |
| 23 | 01 26 | 544 | 470 | 08 36 | 74 | 09 09 18·8 | −8·2 18 46 | 27·0 | 18 42 | 1155 | 1099 | 02 36 | 56 | 3,2,3,3,3,3,4,1 | 22 | 1 | 82·1 |
| 24 | 22 06 | 551 | 475 | 22 28 | 76 | 14 47 14·3 | −0·1 21 23 | 14·4 | 20 15 | 1155 | 1113 | 01 55 | 42 | 2,1,1,2,1,2,3,4 | 16 | 1 | 82·1 |
| 25 | 04 52 | 540 | 477 | 11 18 | 63 | 12 55 15·9 | −1·4 23 41 | 17·3 | 16 18 | 1140 | 1093 | 04 52 | 47 | 3,3,2,3,1,2,2,3 | 19 | 1 | 81·9 |
| 26 q | 21 54 | 552 | 497 | 11 33 | 55 | 12 57 14·1 | 1·5 00 01 | 12·6 | 18 14 | 1137 | 1113 | 10 52 | 24 | 3,1,2,1,1,2,2,2 | 14 | 0 | 81·9 |
| 27 q | 05 50 | 534 | 489 | 11 53 | 45 | 13 42 12·8 | 5·5 09 09 | 7·3 | 16 40 | 1125 | 1111 | 11 09 | 14 | 0,1,0,2,1,1,1,0 | 6 | 0 | 81·9 |
| 28 q | 19 46 | 544 | 497 | 11 56 | 47 | 14 02 15·2 | 4·8 09 26 | 10·4 | 20 20) 23 40) | 1124 | 1106 | 12 24 | 18 | 2,1,1,2,1,2,1,1 | 11 | 0 | 81·9 |
| Mean | − − | 513 | 360 | − − | 153 | − − 20·4 | −5·6 − − | 26·0 | − − | 1166 | 1072 | − − | 94 | − | − | 0·89 | 82·1 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

123 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 533 | 552 | 548 | 518 | 522 | 528 | 525 | 505 | 484 | 508 | 509 | 497 | 494 | 504 | 509 | 510 | 516 | 518 | 524 | 527 | 524 | 524 | 524 | 523 | 518 |
| 2 | 544 | 510 | 498 | 506 | 510 | 503 | 520 | 518 | 510 | 505 | 517 | 511 | 512 | 509 | 512 | 516 | 514 | 516 | 520 | 521 | 522 | 522 | 521 | 524 | 515 |
| 3 *q* | 521 | 522 | 523 | 521 | 520 | 521 | 524 | 525 | 520 | 509 | 504 | 504 | 506 | 512 | 513 | 520 | 524 | 522 | 532 | 532 | 528 | 531 | 529 | 526 | 520 |
| 4 | 522 | 529 | 516 | 523 | 532 | 533 | 533 | 520 | 501 | 493 | 486 | 471 | 492 | 509 | 524 | 513 | 509 | 516 | 533 | 528 | 517 | 478 | 517 | 482 | 512 |
| 5 | 501 | 506 | 506 | 510 | 510 | 513 | 513 | 512 | 505 | 485 | 478 | 442 | 474 | 493 | 520 | 520 | 512 | 517 | 517 | 521 | 511 | 512 | 524 | 529 | 505 |
| 6 | 513 | 511 | 510 | 517 | 518 | 510 | 499 | 501 | 497 | 485 | 479 | 466 | 477 | 504 | 514 | 529 | 525 | 518 | 529 | 520 | 516 | 529 | 540 | 517 | 509 |
| 7 | 518 | 523 | 525 | 519 | 517 | 520 | 520 | 509 | 500 | 486 | 473 | 478 | 478 | 493 | 504 | 514 | 523 | 517 | 522 | 516 | 520 | 535 | 523 | 526 | 511 |
| 8 | 526 | 522 | 522 | 523 | 526 | 525 | 524 | 519 | 512 | 502 | 495 | 492 | 500 | 511 | 520 | 523 | 528 | 523 | 531 | 532 | 528 | 529 | 521 | 521 | 519 |
| 9 | 524 | 523 | 524 | 523 | 524 | 528 | 528 | 529 | 524 | 517 | 508 | 500 | 501 | 513 | 540 | 540 | 537 | 501 | 515 | 517 | 512 | 517 | 513 | 513 | 520 |
| 10 *d* | 513 | 524 | 500 | 521 | 529 | 525 | 527 | 533 | 524 | 517 | 501 | 502 | 509 | 539 | 540 | 516 | 530 | 521 | 529 | 546 | 513 | 458 | 448 | 435 | 513 |
| 11 | 474 | 439 | 493 | 485 | 477 | 486 | 478 | 483 | 486 | 479 | 466 | 485 | 485 | 504 | 505 | 526 | 509 | 522 | 525 | 545 | 520 | 517 | 527 | 518 | 497 |
| 12 *q* | 506 | 511 | 512 | 516 | 513 | 513 | 511 | 510 | 502 | 498 | 497 | 502 | 506 | 512 | 514 | 514 | 512 | 513 | 519 | 521 | 521 | 522 | 523 | 522 | 512 |
| 13 *q* | 522 | 522 | 521 | 524 | 521 | 524 | 519 | 518 | 508 | 502 | 493 | 497 | 499 | 501 | 511 | 512 | 519 | 526 | 513 | 524 | 524 | 524 | 526 | 526 | 516 |
| 14 *q* | 528 | 528 | 521 | 520 | 520 | 520 | 522 | 523 | 513 | 501 | 493 | 501 | 502 | 513 | 509 | 518 | 521 | 523 | 524 | 522 | 528 | 530 | 532 | 532 | 519 |
| 15 | 537 | 528 | 526 | 526 | 528 | 528 | 526 | 524 | 517 | 486 | 479 | 481 | 486 | 501 | 498 | 499 | 515 | 517 | 522 | 530 | 533 | 544 | 527 | 532 | 516 |
| 16 *q* | 529 | 527 | 527 | 527 | 528 | 527 | 526 | 526 | 520 | 510 | 500 | 502 | 504 | 510 | 513 | 522 | 526 | 526 | 529 | 534 | 533 | 537 | 539 | 533 | 523 |
| 17 | 540 | 540 | 520 | 546 | 541 | 548 | 540 | 540 | 525 | 516 | 501 | 504 | 478 | 502 | 509 | 518 | 525 | 517 | 520 | 529 | 512 | 522 | 524 | 524 | 523 |
| 18 | 531 | 527 | 531 | 533 | 532 | 534 | 536 | 532 | 526 | 510 | 510 | 513 | 517 | 516 | 518 | 519 | 521 | 524 | 517 | 529 | 532 | 536 | 533 | 532 | 525 |
| 19 | 527 | 526 | 524 | 522 | 528 | 530 | 532 | 530 | 521 | 520 | 510 | 509 | 503 | 517 | 518 | 525 | 532 | 529 | 540 | 540 | 549 | 548 | 544 | 547 | *528* |
| 20 | 548 | 537 | 534 | 536 | 540 | 540 | 540 | 537 | 526 | 520 | 510 | 507 | 497 | 509 | 517 | 518 | 521 | 526 | 529 | 531 | 540 | 537 | 536 | 532 | *528* |
| 21 | 533 | 533 | 530 | 542 | 546 | 544 | 540 | 531 | 521 | 512 | 503 | 485 | 478 | 498 | 506 | 523 | 525 | 524 | 531 | 532 | 534 | 536 | 533 | 532 | 524 |
| 22 *d* | 532 | 530 | 530 | 532 | 533 | 541 | 549 | 486 | 504 | 505 | 486 | 492 | 465 | 494 | 482 | 515 | 520 | 536 | 536 | 524 | 533 | 539 | 538 | 561 | 519 |
| 23 | 524 | 524 | 525 | 528 | 529 | 530 | 534 | 545 | 516 | 505 | 498 | 499 | 508 | 520 | 524 | 534 | 533 | 540 | 571 | 539 | 531 | 539 | 520 | 479 | 525 |
| 24 *d* | 470 | 227 | 396 | 161 | 426 | 485 | 489 | 493 | 478 | 459 | 432 | 453 | 453 | 481 | 551 | 689 | 591 | 443 | 464 | 462 | 474 | 480 | 513 | 490 | 461 |
| 25 *d* | 425 | 419 | 470 | 384 | 438 | 480 | 412 | 395 | 360 | 322 | 340 | 389 | 457 | 559 | 732 | 893 | 654 | 626 | 498 | 474 | 388 | 372 | 358 | 343 | 466 |
| 26 | 360 | 348 | 355 | 413 | 371 | 423 | 380 | 435 | 435 | 417 | 438 | 466 | 466 | 477 | 497 | 493 | 508 | 517 | 526 | 532 | 512 | 487 | 489 | 489 | 451 |
| 27 | 479 | 465 | 492 | 490 | 474 | 495 | 497 | 489 | 481 | 471 | 457 | 445 | 453 | 477 | 489 | 517 | 506 | 500 | 507 | 521 | 521 | 512 | 496 | 503 | 489 |
| 28 *d* | 495 | 470 | 448 | 442 | 493 | 459 | 454 | 458 | 274 | 456 | 396 | 486 | 495 | 513 | 588 | 871 | 619 | 482 | 466 | 544 | 435 | 323 | 266 | 392 | 472 |
| 29 | 399 | 395 | 399 | 414 | 424 | 431 | 432 | 428 | 418 | 427 | 427 | 430 | 439 | 431 | 430 | 458 | 475 | 474 | 481 | 484 | 485 | 493 | 494 | 486 | *444* |
| 30 | 490 | 485 | 479 | 485 | 489 | 493 | 496 | 494 | 487 | 481 | 478 | 474 | 476 | 482 | 490 | 493 | 497 | 501 | 505 | 510 | 513 | 510 | 510 | 505 | 493 |
| 31 | 509 | 505 | 502 | 504 | 504 | 506 | 502 | 500 | 489 | 462 | 450 | 454 | 452 | 459 | 481 | 502 | 500 | 506 | 509 | 517 | 520 | 526 | 498 | 478 | 493 |
| Mean | 506 | 494 | 500 | 494 | 505 | 511 | 507 | 505 | 490 | 486 | *478* | 482 | 486 | 502 | 519 | *544* | 527 | 517 | 519 | 523 | 514 | 509 | 506 | 505 | 505 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

124 ESKDALEMUIR (D) — 12° + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 8·4 | 9·1 | 4·4 | -0·3 | 0·7 | -0·1 | 3·5 | 5·4 | 5·5 | 10·1 | 9·9 | 11·8 | 13·2 | 12·7 | 10·9 | 10·0 | 8·7 | 9·9 | 10·1 | 9·1 | 8·9 | 9·1 | 8·8 | 8·4 | 7·8 |
| 2 | 7·6 | 1·9 | 1·7 | 6·0 | 4·6 | 7·9 | 4·2 | 4·3 | 5·1 | 4·7 | 7·9 | 10·3 | 13·0 | 12·9 | 12·7 | 11·5 | 9·6 | 9·3 | 9·3 | 9·0 | 8·9 | 8·7 | 8·9 | 8·8 | 7·9 |
| 3 *q* | 9·0 | 8·7 | 8·4 | 8·2 | 7·5 | 7·3 | 6·7 | 6·9 | 6·6 | 6·9 | 8·9 | 10·2 | 12·3 | 12·9 | 11·1 | 10·5 | 9·7 | 9·9 | 9·9 | 10·3 | 9·9 | 7·4 | 8·4 | 8·7 | 9·0 |
| 4 | 8·8 | 5·5 | 5·6 | 5·5 | 7·0 | 3·7 | 5·5 | 4·2 | 4·5 | 3·4 | 7·1 | 10·9 | 14·8 | 16·6 | 19·2 | 18·6 | 16·9 | 14·2 | 11·4 | 10·9 | 5·2 | 0·7 | 1·4 | -2·9 | 8·3 |
| 5 | -1·3 | 4·0 | 5·1 | 4·6 | 5·4 | 3·2 | 4·2 | 3·6 | 3·7 | 5·1 | 7·2 | 16·0 | 18·9 | 20·3 | 17·8 | 18·9 | 10·6 | 9·9 | 10·2 | 9·1 | 7·2 | 7·3 | 8·2 | 7·2 | 8·6 |
| 6 | 5·5 | 6·9 | 5·6 | 5·2 | 5·6 | 4·7 | 5·6 | 3·7 | 5·3 | 6·4 | 10·0 | 15·1 | 17·7 | 19·2 | 17·9 | 13·8 | 12·4 | 9·9 | 6·4 | 8·1 | 7·5 | 8·7 | 6·2 | 6·2 | 8·9 |
| 7 | 7·8 | 7·0 | 5·5 | 4·7 | 4·7 | 5·2 | 3·8 | 3·9 | 3·7 | 6·5 | 7·4 | 13·1 | 17·6 | 16·2 | 15·9 | 14·2 | 12·1 | 9·8 | 8·2 | 7·0 | 7·3 | 5·6 | 8·2 | 8·7 | 8·5 |
| 8 | 8·7 | 8·2 | 8·2 | 8·1 | 8·1 | 7·3 | 6·9 | 5·7 | 5·5 | 5·6 | 7·9 | 11·5 | 14·1 | 15·8 | 15·9 | 13·8 | 12·5 | 10·7 | 9·7 | 10·1 | 9·1 | 5·6 | 8·6 | 8·7 | 9·4 |
| 9 | 8·6 | 8·2 | 7·6 | 6·4 | 5·8 | 5·3 | 5·8 | 5·5 | 5·1 | 6·3 | 8·4 | 10·1 | 13·7 | 15·8 | 19·6 | 21·5 | 22·1 | 20·9 | 15·7 | 5·3 | 2·7 | 1·9 | 3·5 | 4·3 | 9·6 |
| 10 *d* | 7·0 | 10·0 | 11·1 | 3·7 | 9·0 | 6·2 | 6·1 | 8·5 | 6·1 | 9·2 | 7·6 | 9·6 | 11·9 | 16·0 | 19·8 | 18·6 | 15·1 | 10·6 | 10·9 | 9·4 | -9·2 | -0·2 | 2·7 | -2·5 | 8·2 |
| 11 | -11·1 | 9·7 | 3·5 | 7·9 | 10·0 | 9·1 | 9·1 | 8·7 | 7·2 | 6·6 | 7·7 | 11·3 | 14·2 | 13·5 | 11·8 | 13·0 | 8·1 | 7·9 | 7·0 | 2·1 | 9·2 | 9·3 | 8·2 | 3·8 | 7·8 |
| 12 *q* | 8·2 | 8·8 | 8·3 | 8·4 | 8·3 | 8·2 | 7·4 | 6·4 | 5·9 | 7·0 | 9·1 | 10·9 | 11·7 | 11·7 | 10·5 | 9·3 | 8·6 | 8·8 | 9·1 | 9·1 | 9·4 | 9·3 | 9·3 | 9·5 | 8·9 |
| 13 *q* | 9·1 | 9·1 | 8·3 | 8·6 | 8·5 | 8·1 | 7·2 | 5·6 | 5·1 | 6·1 | 7·9 | 11·7 | 13·1 | 13·5 | 12·5 | 10·4 | 9·2 | 7·7 | 5·3 | 8·3 | 9·1 | 8·3 | 8·2 | 9·1 | 8·7 |
| 14 *q* | 9·2 | 9·0 | 8·8 | 8·2 | 7·3 | 7·2 | 6·3 | 4·7 | 4·6 | 6·4 | 9·0 | 12·4 | 13·9 | 15·0 | 13·1 | 11·6 | 9·9 | 8·4 | 5·4 | 6·3 | 8·3 | 8·5 | 8·7 | 8·7 | 8·8 |
| 15 | 8·5 | 8·4 | 8·3 | 8·4 | 7·5 | 7·1 | 6·2 | 4·8 | 4·2 | 8·3 | 11·7 | 14·8 | 18·0 | 17·3 | 16·5 | 13·2 | 10·4 | 9·3 | 8·2 | 4·9 | 6·2 | 5·9 | 8·3 | 8·9 | 9·4 |
| 16 *q* | 9·0 | 8·6 | 8·3 | 8·2 | 7·6 | 7·3 | 6·5 | 5·5 | 3·9 | 4·6 | 7·2 | 11·1 | 14·2 | 15·4 | 14·9 | 13·2 | 11·7 | 11·1 | 11·6 | 10·9 | 10·1 | 9·6 | 7·1 | 7·2 | 9·4 |
| 17 | 8·1 | 6·5 | 6·7 | 9·9 | 5·3 | 6·5 | 9·6 | 7·7 | 8·3 | 7·3 | 9·3 | 14·0 | 15·1 | 17·0 | 14·9 | 14·2 | 11·0 | 5·4 | 11·8 | 10·6 | 1·8 | 4·2 | 8·9 | 8·1 | 9·3 |
| 18 | 9·7 | 8·1 | 9·4 | 7·9 | 7·5 | 7·8 | 7·7 | 8·3 | 6·9 | 7·5 | 10·5 | 12·0 | 13·8 | 15·0 | 13·6 | 12·7 | 11·7 | 10·5 | 9·0 | 10·2 | 9·4 | 9·1 | 9·0 | 8·5 | 9·8 |
| 19 | 8·4 | 8·5 | 8·2 | 8·1 | 8·3 | 7·5 | 7·3 | 6·8 | 6·2 | 6·7 | 7·9 | 10·1 | 12·5 | 13·3 | 12·4 | 11·9 | 10·9 | 10·1 | 10·4 | 11·1 | 11·3 | 9·5 | 7·0 | 4·8 | 9·1 |
| 20 | 5·2 | 6·4 | 7·3 | 8·0 | 7·9 | 8·2 | 8·1 | 7·2 | 5·6 | 5·9 | 8·8 | 14·4 | 14·4 | 17·5 | 17·0 | 14·9 | 12·3 | 11·4 | 10·2 | 6·8 | 5·3 | 9·3 | 9·0 | 9·3 | 9·6 |
| 21 | 9·4 | 8·8 | 8·4 | 11·9 | 7·4 | 7·1 | 5·7 | 6·1 | 4·7 | 3·7 | 5·4 | 10·1 | 13·8 | 18·0 | 16·5 | 15·2 | 13·3 | 11·3 | 10·4 | 10·1 | 10·1 | 9·3 | 9·0 | 8·8 | 9·8 |
| 22 *d* | 8·4 | 8·3 | 8·2 | 8·3 | 8·0 | 7·7 | 6·1 | 7·2 | 13·5 | 9·1 | 8·0 | 13·7 | 14·2 | 18·3 | 15·4 | 13·5 | 11·8 | 11·1 | 9·3 | 10·0 | 10·0 | 9·9 | 9·1 | 9·7 | *10·4* |
| 23 | 4·7 | 5·5 | 5·9 | 6·8 | 5·7 | 6·2 | 5·5 | 4·5 | 4·6 | 6·2 | 7·8 | 11·0 | 14·7 | 15·8 | 15·7 | 12·6 | 12·1 | 12·0 | 4·5 | 10·1 | 10·0 | 7·3 | -0·8 | -11·8 | 7·4 |
| 24 *d* | -16·5 | -17·2 | -18·7 | -9·9 | 10·8 | 2·2 | 3·3 | 4·7 | 6·7 | 9·7 | 13·4 | 13·3 | 15·2 | 16·6 | 20·2 | 18·7 | 6·9 | 10·1 | 8·8 | 9·1 | 8·9 | 8·0 | 5·3 | 2·5 | 5·5 |
| 25 *d* | 6·5 | -12·8 | 10·7 | -3·8 | 1·4 | 9·8 | 21·5 | 21·5 | 4·1 | 7·9 | 7·0 | 4·8 | 10·7 | 15·8 | 9·1 | 15·1 | 21·5 | 24·8 | 10·0 | 16·7 | 16·0 | -10·1 | 0·1 | -2·0 | 8·6 |
| 26 | -10·5 | -9·7 | -3·7 | -8·1 | -3·5 | 2·3 | 1·7 | 2·6 | 6·2 | 4·9 | 4·2 | 10·9 | 14·2 | 17·6 | 18·1 | 16·5 | 16·6 | 11·6 | 7·3 | 5·6 | 2·5 | 4·7 | 6·5 | 1·5 | 5·0 |
| 27 | 1·0 | 6·3 | 4·9 | 0·1 | 6·7 | 6·9 | 5·2 | 4·7 | 3·6 | 5·1 | 8·1 | 13·1 | 18·0 | 20·8 | 22·3 | 16·7 | 15·1 | 13·2 | 10·9 | 10·1 | 9·2 | 11·1 | 8·1 | 1·7 | 9·3 |
| 28 *d* | 2·7 | -3·8 | -11·5 | 4·3 | -1·1 | 6·1 | 3·1 | 1·5 | 4·0 | 18·8 | 26·4 | 18·3 | -26·3 | -22·1 | 4·5 | -1·1 | 9·7 | 11·7 | 14·8 | -35·3 | 4·7 | 12·7 | 10·0 | 7·5 | *2·5* |
| 29 | 3·6 | 12·9 | 10·1 | 7·5 | 7·1 | 4·1 | 2·1 | 1·9 | 1·6 | 4·6 | 8·3 | 12·5 | 17·3 | 17·6 | 14·3 | 13·1 | 11·5 | 8·8 | 7·9 | 7·0 | 6·1 | 4·1 | 7·0 | 8·2 | 8·3 |
| 30 | 8·0 | 6·9 | 8·5 | 8·2 | 7·2 | 6·2 | 4·2 | 2·3 | 2·8 | 5·2 | 7·7 | 9·9 | 12·9 | 14·2 | 13·5 | 11·7 | 8·9 | 8·1 | 8·1 | 8·0 | 8·3 | 5·3 | 6·3 | 6·9 | 7·9 |
| 31 | 7·6 | 6·8 | 6·9 | 6·7 | 6·4 | 5·2 | 7·2 | 8·8 | 2·7 | 5·1 | 7·7 | 11·4 | 14·6 | 15·4 | 14·2 | 13·5 | 11·2 | 8·9 | 8·0 | 7·9 | 8·0 | 4·9 | -0·2 | -4·5 | 7·7 |
| Mean | *5·1* | 5·3 | 5·5 | 5·4 | 6·2 | 6·2 | 6·2 | 5·9 | 5·3 | 6·8 | 8·9 | 11·9 | 13·1 | 14·7 | *14·9* | 13·6 | 12·0 | 10·9 | 9·3 | 7·3 | 7·5 | 6·6 | 6·7 | 5·2 | 8·4 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

125 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MARCH

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1124 | 1120 | 1112 | 1105 | 1064 | 1093 | 1104 | 1105 | 1105 | 1098 | 1102 | 1102 | 1110 | 1117 | 1123 | 1128 | 1129 | 1125 | 1125 | 1128 | 1126 | 1129 | 1130 | 1130 | 1114 |
| 2 | 1118 | 1116 | 1105 | 1112 | 1113 | 1108 | 1102 | 1107 | 1112 | 1113 | 1112 | 1112 | 1117 | 1120 | 1123 | 1123 | 1124 | 1124 | 1124 | 1125 | 1125 | 1125 | 1125 | 1125 | 1117 |
| 3 *q* | 1125 | 1125 | 1125 | 1125 | 1124 | 1122 | 1119 | 1119 | 1120 | 1120 | 1117 | 1113 | 1113 | 1117 | 1121 | 1122 | 1118 | 1119 | 1122 | 1123 | 1124 | 1126 | 1124 | 1125 | 1121 |
| 4 | 1125 | 1117 | 1123 | 1124 | 1118 | 1117 | 1117 | 1119 | 1120 | 1118 | 1116 | 1115 | 1113 | 1113 | 1124 | 1142 | 1147 | 1148 | 1143 | 1147 | 1156 | 1150 | 1082 | 1095 | 1125 |
| 5 | 1075 | 1106 | 1119 | 1113 | 1112 | 1117 | 1116 | 1118 | 1125 | 1125 | 1124 | 1124 | 1126 | 1141 | 1172 | 1177 | 1182 | 1166 | 1144 | 1137 | 1139 | 1136 | 1129 | 1118 | 1131 |
| 6 | 1119 | 1119 | 1107 | 1100 | 1111 | 1115 | 1118 | 1117 | 1118 | 1123 | 1123 | 1123 | 1123 | 1125 | 1131 | 1141 | 1143 | 1141 | 1141 | 1140 | 1140 | 1134 | 1116 | 1117 | 1124 |
| 7 | 1123 | 1123 | 1117 | 1114 | 1119 | 1119 | 1119 | 1119 | 1117 | 1116 | 1114 | 1112 | 1116 | 1119 | 1120 | 1125 | 1132 | 1137 | 1137 | 1139 | 1136 | 1128 | 1125 | 1123 | 1123 |
| 8 | 1122 | 1122 | 1123 | 1125 | 1125 | 1126 | 1124 | 1123 | 1123 | 1118 | 1116 | 1116 | 1113 | 1121 | 1125 | 1129 | 1133 | 1137 | 1136 | 1135 | 1135 | 1135 | 1132 | 1132 | 1126 |
| 9 | 1130 | 1130 | 1130 | 1131 | 1131 | 1130 | 1129 | 1125 | 1123 | 1119 | 1117 | 1117 | 1116 | 1115 | 1123 | 1135 | 1150 | 1167 | 1158 | 1161 | 1164 | 1141 | 1134 | 1124 | 1133 |
| 10 *d* | 1123 | 1109 | 1037 | 1046 | 1064 | 1099 | 1117 | 1120 | 1123 | 1124 | 1124 | 1123 | 1123 | 1135 | 1142 | 1155 | 1161 | 1155 | 1144 | 1147 | 1172 | 1111 | 1067 | 1004 | 1114 |
| 11 | 1010 | 980 | 1060 | 1092 | 1086 | 1099 | 1115 | 1129 | 1136 | 1143 | 1146 | 1145 | 1142 | 1152 | 1146 | 1146 | 1155 | 1153 | 1150 | 1141 | 1136 | 1135 | 1131 | 1126 | 1119 |
| 12 *q* | 1127 | 1130 | 1131 | 1132 | 1134 | 1134 | 1132 | 1131 | 1131 | 1131 | 1126 | 1124 | 1124 | 1126 | 1131 | 1132 | 1135 | 1134 | 1134 | 1135 | 1134 | 1134 | 1134 | 1133 | 1131 |
| 13 *q* | 1131 | 1131 | 1131 | 1131 | 1130 | 1130 | 1131 | 1134 | 1132 | 1131 | 1129 | 1124 | 1124 | 1125 | 1129 | 1130 | 1130 | 1137 | 1144 | 1137 | 1135 | 1135 | 1134 | 1131 | 1131 |
| 14 *q* | 1130 | 1128 | 1127 | 1129 | 1129 | 1129 | 1129 | 1130 | 1130 | 1124 | 1119 | 1114 | 1114 | 1119 | 1129 | 1132 | 1134 | 1135 | 1137 | 1139 | 1134 | 1131 | 1130 | 1129 | 1128 |
| 15 | 1125 | 1125 | 1127 | 1129 | 1129 | 1129 | 1130 | 1130 | 1126 | 1124 | 1117 | 1116 | 1120 | 1128 | 1134 | 1142 | 1143 | 1141 | 1136 | 1136 | 1133 | 1125 | 1124 | 1124 | 1129 |
| 16 *q* | 1125 | 1129 | 1129 | 1129 | 1129 | 1129 | 1129 | 1129 | 1129 | 1120 | 1111 | 1105 | 1105 | 1108 | 1118 | 1129 | 1130 | 1129 | 1128 | 1128 | 1129 | 1129 | 1129 | 1129 | 1124 |
| 17 | 1129 | 1127 | 1122 | 1103 | 1111 | 1114 | 1114 | 1113 | 1113 | 1113 | 1113 | 1114 | 1128 | 1130 | 1132 | 1137 | 1153 | 1163 | 1147 | 1137 | 1142 | 1141 | 1134 | 1131 | 1128 |
| 18 | 1125 | 1128 | 1128 | 1123 | 1124 | 1125 | 1125 | 1123 | 1118 | 1116 | 1112 | 1108 | 1111 | 1119 | 1126 | 1130 | 1133 | 1137 | 1139 | 1135 | 1131 | 1130 | 1130 | 1130 | 1125 |
| 19 | 1130 | 1130 | 1130 | 1130 | 1128 | 1126 | 1126 | 1126 | 1127 | 1123 | 1118 | 1117 | 1117 | 1118 | 1125 | 1131 | 1134 | 1133 | 1129 | 1128 | 1125 | 1129 | 1130 | 1125 | 1126 |
| 20 | 1122 | 1123 | 1124 | 1124 | 1124 | 1124 | 1125 | 1124 | 1123 | 1117 | 1109 | 1107 | 1105 | 1112 | 1122 | 1132 | 1136 | 1135 | 1135 | 1135 | 1129 | 1126 | 1123 | 1118 | 1123 |
| 21 | 1118 | 1118 | 1121 | 1111 | 1108 | 1113 | 1118 | 1122 | 1121 | 1121 | 1115 | 1111 | 1112 | 1113 | 1117 | 1122 | 1131 | 1133 | 1131 | 1129 | 1125 | 1126 | 1126 | 1126 | 1120 |
| 22 *d* | 1125 | 1125 | 1126 | 1125 | 1125 | 1124 | 1123 | 1129 | 1112 | 1113 | 1119 | 1117 | 1123 | 1129 | 1136 | 1138 | 1137 | 1134 | 1141 | 1142 | 1136 | 1130 | 1129 | 1122 | 1127 |
| 23 | 1126 | 1118 | 1114 | 1122 | 1124 | 1124 | 1124 | 1124 | 1123 | 1119 | 1115 | 1107 | 1107 | 1113 | 1124 | 1136 | 1137 | 1138 | 1138 | 1136 | 1143 | 1137 | 1122 | 1071 | 1123 |
| 24 *d* | 1022 | 853 | 914 | 834 | 932 | 1095 | 1137 | 1142 | 1147 | 1149 | 1166 | 1173 | 1183 | 1211 | 1260 | 1376 | 1325 | 1214 | 1184 | 1168 | 1167 | 1161 | 1143 | 1107 | 1128 |
| 25 *d* | 1026 | 871 | 859 | 857 | 883 | 956 | 1009 | 1027 | 1086 | 1120 | 1161 | 1220 | 1270 | 1278 | 1374 | 1333 | 1321 | 1226 | 1195 | 1249 | 1231 | 955 | 995 | 969 | 1103 |
| 26 | 978 | 1004 | 1051 | 1081 | 1040 | 1058 | 1086 | 1104 | 1123 | 1148 | 1159 | 1157 | 1158 | 1171 | 1185 | 1193 | 1203 | 1213 | 1212 | 1195 | 1154 | 1158 | 1159 | 1142 | 1131 |
| 27 | 1136 | 1111 | 1074 | 1096 | 1111 | 1111 | 1124 | 1130 | 1138 | 1140 | 1138 | 1136 | 1136 | 1146 | 1163 | 1184 | 1185 | 1168 | 1160 | 1159 | 1160 | 1156 | 1112 | 1120 | 1137 |
| 28 *d* | 1123 | 1099 | 1086 | 1023 | 1035 | 1060 | 1108 | 1124 | 1119 | 1065 | 1105 | 1147 | 806 | 525 | 615 | 1130 | 1334 | 1315 | 1346 | 1274 | 1094 | 1020 | 1033 | 1075 | *1069* |
| 29 | 1088 | 1117 | 1120 | 1153 | 1160 | 1172 | 1177 | 1177 | 1176 | 1167 | 1165 | 1165 | 1166 | 1171 | 1171 | 1171 | 1173 | 1173 | 1173 | 1172 | 1172 | 1165 | 1153 | 1152 | *1160* |
| 30 | 1148 | 1150 | 1149 | 1149 | 1153 | 1154 | 1155 | 1153 | 1149 | 1148 | 1144 | 1141 | 1140 | 1143 | 1148 | 1149 | 1151 | 1152 | 1149 | 1149 | 1152 | 1155 | 1151 | 1152 | 1149 |
| 31 | 1149 | 1149 | 1148 | 1147 | 1144 | 1143 | 1145 | 1146 | 1147 | 1147 | 1147 | 1144 | 1145 | 1144 | 1144 | 1149 | 1150 | 1149 | 1149 | 1148 | 1149 | 1152 | 1150 | 1119 | 1146 |
| Mean | 1109 | 1098 | 1099 | *1097* | 1101 | 1113 | 1120 | 1123 | 1125 | 1124 | 1126 | 1127 | 1119 | 1116 | 1130 | 1155 | *1163* | 1156 | 1153 | 1150 | 1143 | 1127 | 1121 | 1114 | 1125 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

126 ESKDALEMUIR — MARCH

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 | 01 41 | 597 | 455 | 08 39 | 142 | 09 15 | 15·6 | −5·4 03 33 | 21·0 | 23 28 | 1132 | 1052 | 04 17 | 80 | 4,4,4,3,2,2,1,3 | 23 | 1 | 81·9 |
| 2 | 00 26 | 631 | 478 | 00 50 | 153 | 00 35 | 17·3 | −1·7 00 17 | 19·0 | 00 01 | 1130 | 1096 | 06 02 | 34 | 5,3,2,4,3,2,1,1 | 21 | 1 | 81·9 |
| 3 *q* | 21 20 | 537 | 501 | 12 13 | 36 | 13 35 | 14·0 | 6·0 12 12 | 8·0 | 21 08 | 1129 | 1112 | 11 55 | 17 | 1,0,2,1,2,1,2,2 | 11 | 0 | 81·9 |
| 4 | 22 11 | 588 | 437 | 22 30 | 151 | 15 05 | 20·9 | −8·1 22 06 | 29·0 | 20 36 | 1165 | 1070 | 22 21 | 95 | 3,2,2,3,3,3,3,5 | 24 | 1 | 81·9 |
| 5 | 22 57 | 540 | 391 | 11 36 | 149 | 13 42 | 22·9 | −8·3 00 47 | 31·2 | 16 45 | 1187 | 1064 | 00 35 | 123 | 4,2,2,4,3,3,2,3 | 23 | 1 | 81·9 |
| 6 | 22 29 | 552 | 450 | 11 35 | 102 | 13 30 | 20·5 | 1·8 07 45 | 18·7 | 16 33 | 1145 | 1093 | 03 16 | 52 | 2,3,2,3,3,3,3,3 | 22 | 1 | 81·9 |
| 7 | 21 35 | 544 | 465 | 12 18 | 79 | 12 48 | 18·7 | 2·6 21 00 | 16·1 | 19 52 | 1141 | 1111 | 11 30 | 30 | 2,1,2,2,2,2,2,3 | 16 | 0 | 81·9 |
| 8 | 21 10 | 544 | 490 | 11 32 | 54 | 13 45 | 16·5 | 3·3 21 07 | 13·2 | 17 20 | 1138 | 1112 | 12 20 | 26 | 0,0,0,0,0,2,2,2 | 6 | 0 | 81·9 |
| 9 | 16 56 | 564 | 470 | 17 42 | 94 | 16 32 | 25·2 | −2·7 19 50 | 27·9 | 19 45 | 1176 | 1113 | 12 41 | 63 | 0,1,1,2,2,4,4,3 | 17 | 1 | 81·9 |
| 10 *d* | 14 38 | 595 | 341 | 23 26 | 254 | 02 07 | 31·5 | −25·0 20 16 | 56·5 | 20 13 | 1201 | 971 | 23 18 | 230 | 5,5,5,4,5,4,5,6 | 39 | 2 | 81·9 |
| 11 | 00 26 | 576 | 396 | 00 09 | 180 | 12 03 | 17·8 | −27·0 00 17 | 44·8 | 16 25 | 1156 | 934 | 01 19 | 222 | 6,3,3,3,3,3,3,3 | 27 | 1 | 81·7 |
| 12 *q* | 22 18 | 525 | 493 | 10 09 | *32* | 11 55 | 12·5 | 5·4 07 36 | *7·1* | 19 20 | 1136 | 1123 | 11 50 | *13* | 1,1,1,1,1,2,1,0 | 8 | 0 | 81·7 |
| 13 *q* | 17 26 | 533 | 486 | 10 56 | 47 | 13 11 | 15·9 | 4·4 08 36 | 11·5 | 18 26 | 1147 | 1123 | 11 40 | 24 | 1,1,0,2,2,2,2,1 | 11 | 0 | 81·7 |
| 14 *q* | 01 18) 18 20) | 533 | 489 | 10 29 | 44 | 13 33 | 15·5 | 1·2 18 48 | 14·3 | 19 00 | 1142 | 1113 | 12 20 | 29 | 1,1,0,1,2,1,3,1 | 10 | 0 | 81·6 |
| 15 | 21 26 | 549 | 471 | 09 58 | 78 | 12 43 | 19·4 | 1·9 08 15 | 17·5 | 16 10 | 1146 | 1111 | 11 00 | 35 | 1,0,2,2,2,2,2,2 | 13 | 1 | 81·6 |
| 16 *q* | 22 22 | 549 | 497 | 12 17 | 52 | 13 39 | 16·0 | 2·8 08 51 | 13·2 | 16 26 | 1131 | 1102 | 12 20 | 29 | 0,0,1,0,2,1,2,2 | 8 | 0 | 81·6 |
| 17 | 03 55 | 567 | 454 | 12 40 | 113 | 13 16 | 17·8 | −6·3 20 58 | 24·1 | 17 01 | 1166 | 1100 | 03 41 | 66 | 3,3,2,2,3,3,4,4 | 24 | 1 | 81·6 |
| 18 | 03 19 | 541 | 502 | 13 49 | 39 | 13 13 | 16·8 | 4·7 08 20 | 12·1 | 18 20 | 1141 | 1106 | 11 12 | 35 | 2,2,2,2,3,2,2,1 | 16 | 1 | 81·6 |
| 19 | 20 44 | 560 | 497 | 12 23 | 63 | 13 45 | 13·7 | 4·5 23 20 | 9·2 | 17 00 | 1135 | 1116 | 12 00 | 19 | 0,1,1,1,1,1,2,2 | 9 | 0 | 81·6 |
| 20 | 00 22 | 557 | 474 | 12 11 | 83 | 13 19 | 19·5 | 3·6 20 10 | 15·9 | 16 19 | 1137 | 1101 | 12 50 | 36 | 2,1,1,3,3,2,3,2 | 17 | 1 | 81·6 |
| 21 | 03 06 | 570 | 465 | 12 30 | 105 | 13 21 | 19·8 | 2·6 09 22 | 17·2 | 17 00 | 1136 | 1106 | 03 50 | 30 | 2,3,2,3,3,2,1,0 | 16 | 1 | 81·8 |
| 22 *d* | 23 09 | 603 | 442 | 10 21 | 161 | 13 26 | 22·2 | 1·0 09 06 | 21·2 | 19 07 | 1143 | 1107 | 09 14 | 36 | 1,3,5,5,4,3,2,4 | 27 | 1 | 82·0 |
| 23 | 18 30 | 596 | 416 | 23 48 | 180 | 13 40 | 16·9 | −19·6 23 50 | 36·5 | 20 49 | 1144 | 1005 | 24 00 | 139 | 3,2,2,2,2,3,4,5 | 23 | 1 | 82·0 |
| 24 *d* | 15 58 | 1078 | −129 | 03 50 | 1207 | 15 53 | 34·0 | −58·7 02 08 | 92·7 | 16 03 | *1489* | 728 | 03 48 | 761 | 8,8,4,3,6,8,3,5 | 45 | 2 | 82·0 |
| 25 *d* | 15 34 | *1353* | 57 | 01 11 | 1296 | 17 10 | *89·3* | −51·6 21 09 | 140·9 | 14 39 | 1446 | 782 | 01 13 | 664 | 8,7,5,5,9,9,8,7 | 58 | 2 | 82·1 |
| 26 | 19 54 | 627 | 223 | 01 59 | 404 | 13 56 | 19·4 | −16·1 00 22 | 35·5 | 18 10 | 1231 | 939 | 00 03 | 292 | 6,5,5,4,3,3,5,3 | 34 | 2 | 82·1 |
| 27 | 15 51 | 557 | 439 | 11 04 | 118 | 14 38 | 24·1 | −2·5 03 36 | 26·6 | 15 53 | 1196 | 1066 | 02 25 | 130 | 4,4,1,2,3,4,3,4 | 25 | 1 | 82·3 |
| 28 *d* | 15 01 | 1328 | *−383* | 22 09 | *1711* | 22 01 | 72·7 | *−115·9* 12 20 | *188·6* | 16 51 | 1417 | *393* | 13 50 | *1024* | 4,5,9,8,9,9,8,9 | 61 | 2 | 82·3 |
| 29 | 22 30 | 517 | 338 | 08 43 | 179 | 12 52 | 20·5 | −6·8 08 41 | 27·3 | 08 39 | 1179 | 1075 | 00 01 | 104 | 4,4,5,5,4,3,3,3 | 31 | 1 | 82·3 |
| 30 | 22 14 | 533 | 466 | 11 59 | 67 | 13 42 | 15·1 | 0·8 07 50 | 14·3 | 21 42 | 1157 | 1137 | 12 22 | 20 | 2,2,2,2,2,2,2,2 | 16 | 0 | 82·3 |
| 31 | 21 12 | 537 | 439 | 10 38 | 98 | 13 05 | 16·2 | −6·9 22 55 | 23·1 | 22 04 | 1153 | 1106 | 24 00 | 47 | 1,1,3,2,2,2,2,4 | 17 | 1 | 82·3 |
| Mean | − − | 628 | 387 | − − | 241 | − − | 23·2 | −10·2 − − | 33·4 | − − | 1183 | 1038 | − − | 145 | − | − | 0·87 | 81·9 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

127 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 477 | 495 | 493 | 500 | 502 | 508 | 504 | 490 | 486 | 479 | 470 | 457 | 473 | 479 | 493 | 500 | 511 | 517 | 521 | 532 | 511 | 502 | 493 | 497 | 495 |
| 2 | 499 | 503 | 505 | 502 | 506 | 493 | 512 | 501 | 497 | 466 | 454 | 470 | 458 | 495 | 496 | 517 | 516 | 514 | 516 | 521 | 529 | 499 | 497 | 505 | 499 |
| 3 | 504 | 505 | 504 | 506 | 509 | 509 | 510 | 501 | 490 | 474 | 469 | 462 | 466 | 488 | 505 | 517 | 517 | 536 | 517 | 514 | 513 | 517 | 514 | 505 | 502 |
| 4 | 506 | 509 | 513 | 513 | 509 | 512 | 513 | 508 | 495 | 479 | 471 | 473 | 481 | 494 | 514 | 509 | 513 | 518 | 524 | 525 | 528 | 528 | 512 | 508 | 506 |
| 5 | 513 | 516 | 516 | 514 | 513 | 513 | 513 | 506 | 493 | 480 | 470 | 470 | 475 | 493 | 497 | 517 | 526 | 528 | 521 | 510 | 522 | 523 | 521 | 517 | 507 |
| 6 | 516 | 519 | 517 | 513 | 511 | 513 | 513 | 513 | 504 | 481 | 466 | 458 | 469 | 490 | 495 | 520 | 521 | 530 | 528 | 525 | 529 | 517 | 508 | 515 | 507 |
| 7 | 513 | 519 | 525 | 526 | 526 | 522 | 531 | 523 | 511 | 497 | 485 | 467 | 478 | 499 | 510 | 509 | 498 | 515 | 527 | 526 | 526 | 529 | 529 | 528 | 513 |
| 8 | 525 | 524 | 524 | 524 | 525 | 530 | 513 | 513 | 512 | 485 | 480 | 477 | 483 | 478 | 482 | 505 | 516 | 520 | 522 | 534 | 538 | 538 | 542 | 552 | 514 |
| 9 *d* | 536 | 532 | 533 | 540 | 537 | 533 | 529 | 521 | 518 | 490 | 461 | 454 | 475 | 479 | 517 | 535 | 482 | 498 | 498 | 504 | 517 | 521 | 517 | 516 | 510 |
| 10 | 503 | 509 | 509 | 509 | 510 | 513 | 509 | 501 | 489 | 474 | 465 | 450 | 467 | 474 | 491 | 501 | 509 | 516 | 516 | 519 | 520 | 522 | 533 | 521 | 501 |
| 11 *q* | 523 | 520 | 517 | 517 | 519 | 524 | 523 | 517 | 505 | 492 | 482 | 489 | 486 | 493 | 509 | 516 | 526 | 524 | 525 | 528 | 525 | 528 | 532 | 534 | 515 |
| 12 | 531 | 535 | 524 | 524 | 525 | 527 | 526 | 517 | 509 | 497 | 493 | 478 | 493 | 513 | 513 | 520 | 520 | 529 | 537 | 549 | 552 | 584 | 544 | 540 | 524 |
| 13 | 541 | 556 | 545 | 517 | 525 | 536 | 521 | 529 | 520 | 490 | 485 | 490 | 488 | 504 | 505 | 517 | 532 | 532 | 530 | 572 | 532 | 517 | 533 | 517 | 522 |
| 14 *d* | 528 | 522 | 516 | 518 | 521 | 521 | 521 | 518 | 513 | 520 | 491 | 477 | 458 | 536 | 505 | 517 | 509 | 513 | 520 | 517 | 521 | 540 | 533 | 504 | 514 |
| 15 *d* | 525 | 502 | 481 | 520 | 516 | 502 | 485 | 415 | 423 | 430 | 425 | 442 | 478 | 500 | 477 | 538 | 492 | 506 | 537 | 529 | 499 | 505 | 507 | 508 | 489 |
| 16 | 505 | 505 | 501 | 500 | 501 | 505 | 501 | 496 | 483 | 471 | 461 | 458 | 465 | 483 | 498 | 506 | 510 | 518 | 524 | 524 | 530 | 539 | 502 | 506 | 500 |
| 17 | 509 | 511 | 515 | 515 | 517 | 520 | 517 | 509 | 502 | 493 | 485 | 482 | 482 | 477 | 505 | 519 | 525 | 525 | 525 | 524 | 524 | 526 | 528 | 526 | 511 |
| 18 | 522 | 523 | 524 | 524 | 526 | 526 | 525 | 518 | 501 | 471 | 461 | 473 | 481 | 495 | 501 | 516 | 518 | 530 | 542 | 529 | 531 | 533 | 532 | 532 | 514 |
| 19 *q* | 529 | 529 | 528 | 526 | 525 | 526 | 522 | 519 | 513 | 498 | 490 | 482 | 485 | 493 | 505 | 515 | 524 | 545 | 524 | 533 | 530 | 533 | 533 | 529 | 518 |
| 20 *q* | 521 | 524 | 525 | 527 | 529 | 530 | 526 | 521 | 512 | 498 | 487 | 479 | 481 | 493 | 511 | 530 | 524 | 526 | 536 | 537 | 533 | 534 | 532 | 532 | 519 |
| 21 *q* | 529 | 528 | 527 | 529 | 532 | 530 | 527 | 521 | 508 | 496 | 488 | 483 | 489 | 504 | 498 | 518 | 528 | 538 | 544 | 537 | 540 | 540 | 540 | 537 | 521 |
| 22 | 538 | 533 | 533 | 533 | 533 | 536 | 533 | 540 | 523 | 485 | 478 | 476 | 492 | 504 | 512 | 509 | 524 | 548 | 561 | 557 | 544 | 548 | 544 | 544 | *526* |
| 23 *d* | 537 | 556 | 555 | 560 | 551 | 532 | 537 | 513 | 491 | 434 | 430 | 419 | 419 | 481 | 552 | 716 | 784 | 643 | 579 | 506 | 369 | 333 | 125 | -767 | 452 |
| 24 *d* | 49 | 235 | 74 | 363 | 299 | 458 | 461 | 443 | 403 | 439 | 426 | 473 | 489 | 501 | 502 | 520 | 664 | 568 | 521 | 528 | 494 | 489 | 482 | 472 | *431* |
| 25 | 465 | 457 | 479 | 477 | 470 | 478 | 474 | 470 | 450 | 443 | 443 | 442 | 453 | 466 | 481 | 489 | 495 | 502 | 509 | 507 | 506 | 509 | 505 | 502 | 478 |
| 26 | 492 | 490 | 487 | 485 | 480 | 484 | 490 | 500 | 500 | 501 | 489 | 489 | 501 | 504 | 511 | 517 | 525 | 510 | 536 | 538 | 520 | 520 | 521 | 510 | 504 |
| 27 | 509 | 514 | 491 | 489 | 490 | 486 | 486 | 483 | 478 | 466 | 466 | 470 | 478 | 482 | 495 | 501 | 508 | 516 | 520 | 521 | 515 | 517 | 513 | 513 | 496 |
| 28 | 512 | 513 | 506 | 508 | 509 | 506 | 508 | 502 | 497 | 493 | 486 | 490 | 494 | 497 | 520 | 532 | 532 | 520 | 568 | 561 | 511 | 513 | 517 | 519 | 513 |
| 29 | 519 | 514 | 513 | 513 | 514 | 513 | 506 | 489 | 462 | 482 | 484 | 477 | 496 | 502 | 512 | 521 | 528 | 544 | 526 | 533 | 537 | 517 | 515 | 520 | 510 |
| 30 *q* | 525 | 520 | 518 | 520 | 517 | 515 | 509 | 505 | 500 | 491 | 485 | 490 | 502 | 506 | 514 | 533 | 540 | 545 | 539 | 528 | 526 | 525 | 528 | 528 | 517 |
| Mean | 500 | 507 | 500 | 510 | 508 | 513 | 511 | 503 | 493 | 480 | 471 | *470* | 478 | 493 | 504 | 523 | *531* | 529 | 530 | 529 | 519 | 518 | 508 | 476 | 504 |

## MAGNETIC DECLINATION (WEST)

Mean value for periods of sixty minutes ending at exact hours, G.M.T.

128 ESKDALEMUIR (D) — 12° + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 1·7 | 2·7 | 7·3 | 3·3 | 4·7 | 4·1 | 3·5 | 3·5 | 6·2 | 4·5 | 8·4 | 13·3 | 16·8 | 16·6 | 14·2 | 11·5 | 8·9 | 8·0 | 4·6 | 3·4 | 3·6 | -2·9 | -1·3 | 0·0 | 6·1 |
| 2 | 4·2 | 10·7 | 5·9 | 4·5 | 7·0 | 3·6 | 2·5 | 2·4 | 2·8 | 2·3 | 5·9 | 13·2 | 14·3 | 17·4 | 15·1 | 13·8 | 11·0 | 5·3 | 8·0 | 8·6 | 7·4 | 6·2 | 0·6 | 3·6 | 7·3 |
| 3 | 6·1 | 7·7 | 7·1 | 6·9 | 6·2 | 5·7 | 4·7 | 3·9 | 3·4 | 4·1 | 6·9 | 11·8 | 16·0 | 15·6 | 16·4 | 14·8 | 11·7 | 7·0 | 6·9 | 8·1 | 7·7 | 6·0 | 5·0 | 5·6 | 8·1 |
| 4 | 5·7 | 5·0 | 7·0 | 5·6 | 4·7 | 5·2 | 4·1 | 1·7 | 0·6 | 3·1 | 7·2 | 12·2 | 15·1 | 15·3 | 15·2 | 13·2 | 10·4 | 8·8 | 8·5 | 8·5 | 8·8 | 6·0 | 5·0 | 5·8 | 7·6 |
| 5 | 3·4 | 2·8 | 5·3 | 5·5 | 5·3 | 5·2 | 4·2 | 1·2 | 0·2 | 0·6 | 3·4 | 9·8 | 15·0 | 18·7 | 18·9 | 18·5 | 16·1 | 16·0 | 10·5 | 8·5 | 8·5 | 7·9 | 7·7 | 4·4 | 8·2 |
| 6 | 5·8 | 2·9 | 3·4 | 4·5 | 4·9 | 6·1 | 4·2 | 2·4 | 1·7 | 3·6 | 7·9 | 12·5 | 15·9 | 19·6 | 17·8 | 17·0 | 13·3 | 11·1 | 10·0 | 8·9 | 9·0 | 7·8 | 2·5 | 4·2 | 8·2 |
| 7 | 4·2 | 4·9 | 4·7 | -0·5 | 1·9 | 1·4 | 2·6 | 0·7 | 1·6 | 2·8 | 6·9 | 11·3 | 15·4 | 18·8 | 19·9 | 19·5 | 15·9 | 10·3 | 8·7 | 7·7 | 6·0 | 7·2 | 8·3 | 7·9 | 7·8 |
| 8 | 7·8 | 7·6 | 7·1 | 7·1 | 7·5 | 7·3 | 8·0 | 6·9 | 5·4 | 5·8 | 8·0 | 10·8 | 15·8 | 17·1 | 15·3 | 13·1 | 9·6 | 7·9 | 7·1 | 7·8 | 9·0 | 9·0 | 8·5 | 8·2 | 9·1 |
| 9 *d* | 6·2 | 7·0 | 7·0 | 6·1 | 6·1 | 5·2 | 4·4 | 3·2 | 1·1 | 5·2 | 11·5 | 16·6 | 17·9 | 20·1 | 17·6 | 15·3 | 11·5 | 9·7 | 7·9 | 7·8 | 8·3 | 8·3 | -0·4 | 0·6 | 8·5 |
| 10 | 9·0 | 5·9 | 6·1 | 5·7 | 5·5 | 4·4 | 3·3 | 1·5 | 0·7 | 1·7 | 5·8 | 8·9 | 11·6 | 12·4 | 12·4 | 11·5 | 9·8 | 8·1 | 7·8 | 8·0 | 8·0 | 7·9 | 7·5 | 6·0 | 7·1 |
| 11 *q* | 7·5 | 7·0 | 7·0 | 6·9 | 7·1 | 7·4 | 6·9 | 3·0 | 2·3 | 4·7 | 8·0 | 11·2 | 15·5 | 15·8 | 13·7 | 10·7 | 8·8 | 7·2 | 6·7 | 7·5 | 8·1 | 8·6 | 8·7 | 7·9 | 8·3 |
| 12 | 7·5 | 7·3 | 5·7 | 6·0 | 5·4 | 5·2 | 3·6 | 1·9 | 1·7 | 4·3 | 8·2 | 12·3 | 13·4 | 16·0 | 14·9 | 13·1 | 11·0 | 8·8 | 7·8 | 9·7 | 9·7 | 10·3 | 5·8 | 11·5 | 8·4 |
| 13 | 7·7 | 7·9 | 2·4 | -0·4 | 2·5 | 4·1 | 8·9 | 5·0 | 3·6 | 4·5 | 6·2 | 9·5 | 12·5 | 15·1 | 14·4 | 12·5 | 9·8 | 8·3 | 6·8 | -4·9 | -0·4 | 3·5 | 1·7 | 3·4 | 6·0 |
| 14 *d* | 9·1 | 11·7 | 8·0 | 6·1 | 5·5 | 5·4 | 3·3 | 1·6 | 1·9 | 5·2 | 8·8 | 13·9 | 17·7 | 19·7 | 14·3 | 17·1 | 12·7 | 9·6 | 8·3 | 6·1 | 4·1 | 1·6 | 3·5 | 11·1 | 8·6 |
| 15 *d* | 6·2 | 8·8 | -1·7 | -0·2 | 4·1 | 6·6 | 9·4 | 22·3 | 20·4 | 9·7 | 17·0 | 18·8 | 15·2 | 14·9 | 14·8 | 15·6 | 11·1 | 9·6 | 11·4 | 2·5 | 7·7 | 8·5 | 8·0 | 8·0 | *10·4* |
| 16 | 7·7 | 7·0 | 7·6 | 7·7 | 7·1 | 5·2 | 3·2 | 1·9 | 1·8 | 3·7 | 7·1 | 10·4 | 13·6 | 15·0 | 14·3 | 11·7 | 10·4 | 9·7 | 8·2 | 8·0 | 3·9 | 1·1 | -0·3 | 5·1 | 7·1 |
| 17 | 10·0 | 6·3 | 6·0 | 5·8 | 6·2 | 5·3 | 4·4 | 2·2 | 1·6 | 2·6 | 5·2 | 9·4 | 13·6 | 15·1 | 14·3 | 12·5 | 10·4 | 8·8 | 7·9 | 7·9 | 7·9 | 7·3 | 7·5 | 6·2 | 7·7 |
| 18 | 6·1 | 7·2 | 7·2 | 7·8 | 6·9 | 6·1 | 4·3 | 3·3 | 1·9 | 4·7 | 8·5 | 12·9 | 14·9 | 15·3 | 14·0 | 12·5 | 10·9 | 9·7 | 9·0 | 8·8 | 7·6 | 8·1 | 7·9 | 7·7 | 8·5 |
| 19 *q* | 7·3 | 6·5 | 6·2 | 6·2 | 5·9 | 5·7 | 4·6 | 4·1 | 2·9 | 2·8 | 4·5 | 6·7 | 8·9 | 10·8 | 10·8 | 10·9 | 10·7 | 10·4 | 8·8 | 8·8 | 9·2 | 8·9 | 6·9 | 2·7 | 7·1 |
| 20 *q* | 4·9 | 7·1 | 7·6 | 7·2 | 7·3 | 6·2 | 5·0 | 3·6 | 2·7 | 3·6 | 5·2 | 7·6 | 10·4 | 12·7 | 13·1 | 13·1 | 11·5 | 9·8 | 9·7 | 9·7 | 8·8 | 7·9 | 7·8 | 7·3 | 7·9 |
| 21 *q* | 7·0 | 6·7 | 6·2 | 6·2 | 6·1 | 4·8 | 3·6 | 2·4 | 2·6 | 2·8 | 5·1 | 7·9 | 11·6 | 15·1 | 13·9 | 12·5 | 11·4 | 10·4 | 9·5 | 8·7 | 8·5 | 8·2 | 8·0 | 7·8 | 7·8 |
| 22 | 7·3 | 6·9 | 6·4 | 6·0 | 5·2 | 4·7 | 3·7 | 2·1 | 2·5 | 7·4 | 13·4 | 12·4 | 14·2 | 15·8 | 15·4 | 14·4 | 13·3 | 12·9 | 10·8 | 9·8 | 8·8 | 8·7 | 8·2 | 7·0 | 9·1 |
| 23 *d* | 6·2 | 7·2 | 8·6 | 9·2 | 12·2 | 12·5 | 14·0 | 16·2 | 11·5 | 13·1 | 9·7 | 11·7 | 15·8 | 16·8 | 19·5 | 22·2 | 20·6 | 12·9 | 19·9 | 12·9 | 0·3 | -9·4 | -10·8 | -45·2 | 8·7 |
| 24 *d* | -29·8 | -24·5 | -10·3 | -26·3 | -7·6 | 7·1 | -1·4 | 0·6 | -2·0 | 6·3 | 7·1 | 8·8 | 13·1 | 16·9 | 13·1 | 13·5 | 2·4 | 8·5 | 9·1 | 6·2 | 10·8 | 4·2 | 5·1 | 2·0 | *1·4* |
| 25 | 3·7 | -2·2 | 0·6 | 2·1 | 1·6 | 3·9 | 3·1 | 0·4 | 2·5 | 4·7 | 6·9 | 8·8 | 9·9 | 10·3 | 10·1 | 9·1 | 8·1 | 7·7 | 6·5 | 5·9 | 6·2 | 6·8 | 6·6 | 5·5 | 5·4 |
| 26 | 6·0 | 4·3 | 3·2 | 1·6 | 1·5 | 1·8 | 2·5 | 3·2 | 4·3 | 6·1 | 8·6 | 10·6 | 12·4 | 13·9 | 14·1 | 12·8 | 9·9 | 8·0 | 7·9 | 7·7 | 5·8 | 7·4 | 5·2 | 0·5 | 6·6 |
| 27 | -5·5 | -6·7 | 2·1 | 4·2 | 3·6 | 3·9 | 3·6 | 2·9 | 2·8 | 4·5 | 6·1 | 8·7 | 10·6 | 11·4 | 12·3 | 11·5 | 10·5 | 9·7 | 8·9 | 7·5 | 6·7 | 7·0 | 6·9 | 6·3 | 5·8 |
| 28 | 4·7 | 3·7 | 2·4 | 1·9 | 4·0 | 3·3 | 2·6 | 1·2 | 0·2 | 1·9 | 3·6 | 7·9 | 11·7 | 13·3 | 14·2 | 14·0 | 12·4 | 10·4 | 10·7 | 7·9 | -0·1 | 3·9 | 6·1 | 6·3 | 6·2 |
| 29 | 6·3 | 6·2 | 6·1 | 5·4 | 4·6 | 2·9 | 0·5 | -1·7 | 3·3 | 2·9 | 7·7 | 11·6 | 13·6 | 12·3 | 10·8 | 10·0 | 9·0 | 8·5 | 6·2 | 6·3 | 6·6 | 4·3 | 3·3 | 6·1 | 6·4 |
| 30 *q* | 8·0 | 9·0 | 7·9 | 5·2 | 4·3 | 3·2 | 0·3 | -1·1 | -1·0 | 1·8 | 4·7 | 9·1 | 14·3 | 15·3 | 14·3 | 12·6 | 10·7 | 9·4 | 8·0 | 7·1 | 7·1 | 7·1 | 6·8 | 6·7 | 7·1 |
| Mean | 4·7 | 4·8 | 5·0 | 3·9 | 4·9 | 5·1 | 4·3 | 3·4 | *3·0* | 4·4 | 7·5 | 11·0 | 13·9 | *15·4* | 14·6 | 13·7 | 11·1 | 9·4 | 8·7 | 7·4 | 6·8 | 5·9 | 4·9 | 4·0 | 7·4 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

129 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — APRIL

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1113 | 1129 | 1099 | 1119 | 1135 | 1138 | 1141 | 1143 | 1137 | 1144 | 1142 | 1137 | 1141 | 1143 | 1149 | 1159 | 1161 | 1159 | 1160 | 1154 | 1155 | 1154 | 1142 | 1134 | 1141 |
| 2 | 1135 | 1121 | 1133 | 1136 | 1130 | 1124 | 1125 | 1129 | 1130 | 1135 | 1136 | 1134 | 1140 | 1151 | 1159 | 1163 | 1172 | 1171 | 1158 | 1149 | 1149 | 1135 | 1143 | 1142 | 1142 |
| 3 | 1146 | 1148 | 1149 | 1148 | 1148 | 1148 | 1149 | 1148 | 1146 | 1143 | 1135 | 1134 | 1136 | 1137 | 1142 | 1150 | 1160 | 1167 | 1171 | 1165 | 1129 | 1155 | 1153 | 1149 | 1148 |
| 4 | 1149 | 1149 | 1143 | 1141 | 1143 | 1143 | 1144 | 1144 | 1143 | 1141 | 1134 | 1130 | 1134 | 1137 | 1144 | 1154 | 1155 | 1154 | 1149 | 1147 | 1144 | 1146 | 1149 | 1149 | 1144 |
| 5 | 1147 | 1145 | 1144 | 1144 | 1147 | 1147 | 1148 | 1148 | 1144 | 1141 | 1136 | 1129 | 1128 | 1131 | 1140 | 1153 | 1165 | 1183 | 1191 | 1182 | 1162 | 1154 | 1150 | 1149 | 1150 |
| 6 | 1146 | 1136 | 1136 | 1136 | 1140 | 1139 | 1141 | 1141 | 1135 | 1134 | 1129 | 1128 | 1129 | 1135 | 1143 | 1149 | 1156 | 1161 | 1161 | 1160 | 1154 | 1156 | 1155 | 1148 | 1144 |
| 7 | 1144 | 1142 | 1136 | 1129 | 1121 | 1124 | 1125 | 1124 | 1124 | 1123 | 1120 | 1123 | 1129 | 1137 | 1150 | 1161 | 1160 | 1159 | 1154 | 1149 | 1148 | 1145 | 1142 | 1142 | 1138 |
| 8 | 1141 | 1141 | 1140 | 1140 | 1140 | 1141 | 1142 | 1141 | 1136 | 1135 | 1134 | 1132 | 1136 | 1147 | 1146 | 1147 | 1148 | 1149 | 1149 | 1147 | 1144 | 1142 | 1141 | 1136 | 1141 |
| 9 *d* | 1135 | 1137 | 1136 | 1136 | 1136 | 1141 | 1143 | 1142 | 1139 | 1133 | 1132 | 1132 | 1143 | 1152 | 1177 | 1231 | 1226 | 1209 | 1192 | 1172 | 1162 | 1157 | 1149 | 1128 | 1156 |
| 10 | 1111 | 1106 | 1132 | 1141 | 1145 | 1148 | 1148 | 1148 | 1147 | 1146 | 1141 | 1138 | 1135 | 1136 | 1141 | 1143 | 1143 | 1145 | 1144 | 1144 | 1143 | 1146 | 1142 | 1139 | 1140 |
| 11 *q* | 1138 | 1140 | 1141 | 1142 | 1142 | 1141 | 1143 | 1143 | 1143 | 1136 | 1131 | 1131 | 1134 | 1137 | 1142 | 1144 | 1144 | 1146 | 1144 | 1143 | 1142 | 1142 | 1141 | 1141 | 1140 |
| 12 | 1140 | 1136 | 1137 | 1138 | 1138 | 1140 | 1142 | 1141 | 1140 | 1135 | 1132 | 1129 | 1124 | 1123 | 1133 | 1141 | 1139 | 1140 | 1141 | 1137 | 1137 | 1130 | 1140 | 1140 | 1136 |
| 13 | 1136 | 1122 | 1106 | 1117 | 1125 | 1126 | 1124 | 1122 | 1124 | 1125 | 1125 | 1123 | 1124 | 1129 | 1140 | 1143 | 1153 | 1160 | 1160 | 1156 | 1141 | 1140 | 1129 | 1119 | *1132* |
| 14 *d* | 1106 | 1108 | 1125 | 1135 | 1137 | 1141 | 1142 | 1138 | 1134 | 1125 | 1124 | 1129 | 1129 | 1147 | 1186 | 1167 | 1165 | 1166 | 1160 | 1161 | 1159 | 1141 | 1117 | 1113 | 1140 |
| 15 *d* | 1107 | 1102 | 1064 | 1069 | 1089 | 1103 | 1111 | 1099 | 1097 | 1125 | 1149 | 1153 | 1201 | 1255 | 1255 | 1263 | 1213 | 1197 | 1203 | 1174 | 1157 | 1155 | 1153 | 1147 | 1152 |
| 16 | 1148 | 1149 | 1147 | 1143 | 1142 | 1143 | 1149 | 1149 | 1147 | 1148 | 1145 | 1141 | 1141 | 1142 | 1148 | 1149 | 1153 | 1150 | 1151 | 1149 | 1148 | 1141 | 1130 | 1128 | 1145 |
| 17 | 1118 | 1117 | 1135 | 1140 | 1141 | 1141 | 1140 | 1141 | 1141 | 1137 | 1135 | 1131 | 1135 | 1141 | 1137 | 1140 | 1142 | 1144 | 1144 | 1143 | 1142 | 1142 | 1142 | 1142 | 1138 |
| 18 | 1142 | 1143 | 1142 | 1142 | 1138 | 1141 | 1143 | 1143 | 1142 | 1142 | 1138 | 1132 | 1135 | 1138 | 1141 | 1147 | 1144 | 1144 | 1146 | 1144 | 1143 | 1142 | 1142 | 1142 | 1141 |
| 19 *q* | 1142 | 1142 | 1142 | 1142 | 1142 | 1141 | 1137 | 1136 | 1132 | 1130 | 1125 | 1123 | 1123 | 1125 | 1130 | 1132 | 1135 | 1141 | 1144 | 1143 | 1141 | 1140 | 1141 | 1136 | 1136 |
| 20 *q* | 1136 | 1137 | 1138 | 1139 | 1138 | 1138 | 1138 | 1138 | 1136 | 1132 | 1129 | 1126 | 1125 | 1124 | 1129 | 1138 | 1148 | 1148 | 1143 | 1141 | 1138 | 1137 | 1137 | 1137 | 1136 |
| 21 *q* | 1138 | 1138 | 1139 | 1138 | 1137 | 1137 | 1136 | 1134 | 1134 | 1129 | 1124 | 1119 | 1117 | 1120 | 1129 | 1130 | 1129 | 1134 | 1140 | 1142 | 1138 | 1137 | 1136 | 1136 | 1133 |
| 22 | 1134 | 1136 | 1136 | 1136 | 1136 | 1136 | 1134 | 1129 | 1125 | 1129 | 1125 | 1130 | 1131 | 1131 | 1136 | 1138 | 1141 | 1143 | 1144 | 1142 | 1141 | 1138 | 1137 | 1136 | 1135 |
| 23 *d* | 1135 | 1128 | 1117 | 1108 | 1104 | 1108 | 1099 | 1093 | 1105 | 1117 | 1125 | 1146 | 1164 | 1257 | 1262 | 1383 | 1394 | 1327 | 1327 | 1316 | 1207 | 1141 | 1041 | 1111 | *1180* |
| 24 *d* | 818 | 1035 | 987 | 901 | 960 | 996 | 1105 | 1119 | 1136 | 1148 | 1178 | 1218 | 1194 | 1197 | 1226 | 1214 | 1238 | 1196 | 1197 | 1197 | 1138 | 1142 | 1143 | 1146 | 1118 |
| 25 | 1106 | 1063 | 1094 | 1129 | 1147 | 1132 | 1141 | 1156 | 1160 | 1159 | 1155 | 1153 | 1155 | 1160 | 1165 | 1165 | 1164 | 1162 | 1161 | 1162 | 1161 | 1160 | 1160 | 1160 | 1147 |
| 26 | 1160 | 1159 | 1159 | 1155 | 1150 | 1143 | 1137 | 1136 | 1135 | 1135 | 1138 | 1141 | 1142 | 1149 | 1155 | 1159 | 1160 | 1162 | 1161 | 1164 | 1166 | 1160 | 1156 | 1141 | 1151 |
| 27 | 1119 | 1093 | 1099 | 1130 | 1146 | 1148 | 1147 | 1142 | 1141 | 1141 | 1140 | 1139 | 1138 | 1142 | 1147 | 1152 | 1149 | 1153 | 1154 | 1156 | 1155 | 1154 | 1154 | 1154 | 1141 |
| 28 | 1154 | 1150 | 1149 | 1150 | 1149 | 1147 | 1146 | 1144 | 1142 | 1136 | 1136 | 1134 | 1131 | 1135 | 1143 | 1154 | 1165 | 1170 | 1165 | 1185 | 1179 | 1167 | 1159 | 1155 | 1152 |
| 29 | 1152 | 1152 | 1149 | 1148 | 1148 | 1149 | 1148 | 1146 | 1141 | 1131 | 1128 | 1118 | 1122 | 1129 | 1135 | 1138 | 1142 | 1147 | 1153 | 1150 | 1149 | 1153 | 1153 | 1148 | 1143 |
| 30 *q* | 1143 | 1136 | 1135 | 1141 | 1142 | 1143 | 1146 | 1142 | 1137 | 1129 | 1124 | 1123 | 1123 | 1129 | 1130 | 1135 | 1138 | 1145 | 1147 | 1147 | 1145 | 1144 | 1143 | 1143 | 1138 |
| Mean | *1125* | 1128 | 1126 | 1127 | 1131 | 1133 | 1137 | 1137 | 1136 | 1135 | 1135 | 1135 | 1138 | 1147 | 1155 | 1165 | *1167* | 1164 | 1164 | 1161 | 1151 | 1147 | 1141 | 1140 | 1143 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

130 ESKDALEMUIR — APRIL

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | Vertical force | | | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 19 22 | 542 | 448 | 11 42 | 94 | 12 48 | 18·6 | −3·8 | 21 30 | 22·4 | 16 21 | 1162 | 1076 | 02 33 | 86 | 4,3,3,3,2,2,3,2 | 22 | 1 | 82·3 |
| 2 | 21 00 | 584 | 435 | 21 37 | 149 | 13 11 | 21·2 | −3·7 | 21 50 | 24·9 | 16 40 | 1173 | 1113 | 01 32 | 60 | 3,2,2,3,3,3,4,5 | 25 | 1 | 82·3 |
| 3 | 17 49 | 546 | 450 | 11 43 | 96 | 13 52 | 16·9 | 1·7 | 08 29 | 15·2 | 18 46 | 1173 | 1132 | 11 21 | 41 | 1,1,1,2,3,3,2,2 | 15 | 1 | 82·3 |
| 4 | 03 03 | 544 | 466 | 11 00 | 78 | 13 56 | 16·0 | 0·0 | 08 18 | 16·0 | 16 50 | 1156 | 1129 | 11 30 | 27 | 2,2,1,1,2,2,1,2 | 13 | 0 | 82·3 |
| 5 | 17 44 | 537 | 464 | 10 44 | 73 | 14 40 | 20·9 | −0·3 | 08 11 | 21·2 | 18 22 | 1195 | 1125 | 12 29 | 70 | 2,1,2,2,3,3,3,2 | 18 | 1 | 82·3 |
| 6 | 17 22 | 536 | 454 | 11 50 | 82 | 13 38 | 20·8 | 0·7 | 08 05 | 20·1 | 18 03 | 1165 | 1126 | 12 00 | 39 | 2,2,2,2,2,2,2,2 | 16 | 0 | 82·3 |
| 7 | 02 51 | 547 | 462 | 11 36 | 85 | 14 41 | 22·2 | −2·2 | 03 36 | 24·4 | 15 47 | 1166 | 1118 | 04 40 | 48 | 3,2,2,3,3,3,2,1 | 19 | 1 | 82·4 |
| 8 | 23 55 | 573 | 470 | 10 11 | 103 | 13 10 | 18·0 | 3·8 | 08 04 | 14·2 | 18 23 | 1153 | 1130 | 11 12 | 23 | 1,1,2,2,2,2,3,3 | 16 | 1 | 82·5 |
| 9 *d* | 15 10 | 615 | 439 | 11 46 | 176 | 13 17 | 21·4 | −9·2 | 22 45 | 30·6 | 15 50 | 1240 | 1123 | 24 00 | 117 | 3,1,2,3,4,5,3,4 | 25 | 1 | 82·6 |
| 10 | 22 41 | 548 | 437 | 11 25 | 111 | 00 42 | 14·1 | 0·3 | 08 34 | 13·8 | 07 05 | 1150 | 1090 | 01 02 | 60 | 3,1,2,3,2,1,1,2 | 15 | 0 | 82·8 |
| 11 *q* | 23 28 | 540 | 478 | 10 24 | 62 | 13 13 | 16·1 | 0·8 | 07 50 | 15·3 | 17 55 | 1147 | 1129 | 10 40 | *18* | 1,0,2,1,2,2,1,1 | 10 | 0 | 82·8 |
| 12 | 21 51 | 615 | 473 | 11 36 | 142 | 13 53 | 19·8 | 0·8 | 08 05 | 19·0 | 15 44 | 1143 | 1120 | 13 00 | 23 | 2,1,1,3,3,3,3,4 | 20 | 1 | 82·8 |
| 13 | 19 30 | 611 | 473 | 09 44 | 138 | 13 59 | 16·5 | −9·1 | 19 17 | 25·6 | 19 03 | 1166 | 1101 | 02 44 | 65 | 4,3,3,3,2,3,4,4 | 26 | 1 | 82·8 |
| 14 *d* | 13 48 | 573 | 428 | 12 00 | 145 | 13 32 | 24·2 | −0·2 | 21 15 | 24·4 | 14 15 | 1194 | 1090 | 23 55 | 104 | 3,1,2,4,5,3,3,4 | 25 | 1 | 82·8 |
| 15 *d* | 18 52 | 634 | 386 | 07 34 | 248 | 07 50 | 26·7 | −11·7 | 19 25 | 38·4 | 15 23 | 1281 | 1055 | 02 42 | 226 | 4,4,5,4,5,4,5,1 | 32 | 2 | 83·0 |
| 16 | 21 45 | 544 | 457 | 11 40 | 87 | 13 51 | 15·8 | −2·8 | 20 53)<br>22 20) | 18·6 | 16 30 | 1155 | 1122 | 24 00 | 33 | 2,2,2,1,2,2,3,3 | 17 | 1 | 83·0 |
| 17 | 16 23 | 530 | 473 | 13 30 | 57 | 13 22 | 16·0 | 1·4 | 07 45 | 14·6 | 18 24 | 1147 | 1106 | 01 03 | 41 | 3,1,1,1,3,1,0,1 | 11 | 0 | 83·0 |
| 18 | 18 16 | 548 | 453 | 10 38 | 95 | 12 53 | 17·2 | 0·9 | 08 17 | 16·3 | 15 36 | 1149 | 1131 | 11 52 | *18* | 1,2,2,2,2,2,2,0 | 13 | 0 | 83·0 |
| 19 *q* | 17 28 | 554 | 479 | 11 37 | 75 | 16 50 | 11·9 | 1·6 | 23 39 | *10·3* | 18 02 | 1147 | 1120 | 12 12 | 27 | 0,0,1,1,1,3,1,2 | 9 | 0 | 83·0 |
| 20 *q* | 18 07 | 544 | 475 | 11 45 | 69 | 14 11 | 14·2 | 2·4 | 08 21 | 11·8 | 16 54 | 1151 | 1123 | 13 20 | 28 | 2,0,0,1,2,2,2,0 | 9 | 0 | 83·0 |
| 21 *q* | 18 12 | 548 | 481 | 12 00 | 67 | 13 47 | 15·9 | 1·0 | 07 28 | 14·9 | 19 30 | 1143 | 1116 | 12 21 | 27 | 0,0,1,2,2,2,1,0 | 8 | 0 | 83·0 |
| 22 | 18 19 | 593 | 461 | 11 33 | 132 | 13 30 | 16·4 | −2·1 | 07 04 | 18·5 | 18 43 | 1148 | 1123 | 10 20 | 25 | 1,0,3,3,2,3,4,2 | 18 | 1 | 83·0 |
| 23 *d* | 16 53 | *933* | *−1320* | 23 25 | *2253* | 16 58 | *62·6* | *−145·3* | 23 38 | *207·9* | 17 00 | *1495* | 854 | 24 00 | 641 | 3,3,4,3,5,7,7,9 | 41 | 2 | 83·1 |
| 24 *d* | 16 52 | 798 | −262 | 00 23 | 1060 | 13 28 | 17·7 | −60·5 | 00 27 | 78·2 | 16 22 | 1318 | *601* | 00 24 | *717* | 8,6,5,5,3,7,4,3 | 41 | 2 | 83·1 |
| 25 | 18 58 | 512 | 422 | 01 28 | 90 | 14 40 | 10·8 | −8·0 | 01 36 | 18·8 | 15 13 | 1165 | 1059 | 02 00 | 106 | 4,3,2,1,2,1,0,1 | 14 | 1 | 83·1 |
| 26 | 18 43 | 548 | 478 | 04 28 | 70 | 14 10 | 14·5 | −1·6 | 24 00 | 16·1 | 20 32 | 1167 | 1132 | 24 00 | 35 | 2,1,2,2,1,2,2,3 | 15 | 1 | 83·1 |
| 27 | 19 09 | 526 | 462 | 09 57 | 64 | 14 20 | 12·5 | −9·1 | 01 31 | 21·6 | 19 50 | 1158 | 1089 | 01 18 | 69 | 4,2,1,1,2,1,1,1 | 13 | 1 | 83·1 |
| 28 | 18 50 | 595 | 482 | 10 45 | 113 | 15 43 | 15·3 | −2·2 | 20 17 | 17·5 | 19 51 | 1192 | 1130 | 12 30 | 62 | 1,1,0,2,2,3,4,2 | 15 | 1 | 83·1 |
| 29 | 17 41 | 560 | 447 | 08 21 | 113 | 12 29 | 14·6 | −2·8 | 07 33 | 17·4 | 22 15 | 1155 | 1117 | 12 00 | 38 | 2,1,3,2,2,2,2,2 | 16 | 1 | 83·1 |
| 30 *q* | 17 48 | 550 | 483 | 10 43 | 67 | 13 06 | 16·1 | −1·7 | 07 58 | 17·8 | 18 50 | 1149 | 1120 | 11 40 | 29 | 2,1,0,1,3,1,2,1 | 11 | 0 | 83·1 |
| Mean | - - | 581 | 375 | - - | 206 | - - | 18·8 | −8·7 | - - | 27·5 | - - | 1183 | 1087 | - - | 97 | - | - | 0·77 | 82·8 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

131 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 526 | 526 | 525 | 525 | 520 | 513 | 497 | 505 | 496 | 482 | 477 | 481 | 493 | 500 | 514 | 530 | 549 | 560 | 563 | 552 | 533 | 520 | 521 | 522 | 518 |
| 2 | 521 | 528 | 511 | 514 | 518 | 520 | 517 | 505 | 497 | 484 | 478 | 475 | 482 | 499 | 509 | 526 | 539 | 556 | 559 | 548 | 540 | 534 | 528 | 537 | 518 |
| 3 | 529 | 515 | 520 | 526 | 530 | 521 | 511 | 498 | 485 | 474 | 473 | 481 | 496 | 509 | 517 | 533 | 541 | 544 | 552 | 564 | 542 | 531 | 528 | 528 | 519 |
| 4 | 553 | 536 | 524 | 530 | 531 | 529 | 528 | 525 | 509 | 487 | 496 | 513 | 505 | 516 | 526 | 531 | 524 | 532 | 553 | 549 | 530 | 528 | 521 | 522 | 525 |
| 5 | 522 | 523 | 524 | 525 | 522 | 531 | 527 | 520 | 509 | 493 | 481 | 485 | 493 | 508 | 520 | 528 | 539 | 544 | 556 | 564 | 568 | 549 | 533 | 536 | 525 |
| 6 *d* | 540 | 533 | 537 | 556 | 560 | 560 | 502 | 564 | 553 | 533 | 512 | 505 | 507 | 505 | 518 | 528 | 557 | 564 | 561 | 545 | 545 | 544 | 600 | 555 | *541* |
| 7 | 564 | 572 | 582 | 567 | 572 | 497 | 485 | 483 | 486 | 479 | 482 | 484 | 451 | 470 | 482 | 516 | 522 | 525 | 536 | 529 | 526 | 532 | 531 | 528 | 517 |
| 8 | 526 | 524 | 519 | 532 | 540 | 504 | 493 | 512 | 514 | 504 | 490 | 473 | 456 | 482 | 501 | 517 | 521 | 532 | 531 | 540 | 548 | 540 | 540 | 536 | 516 |
| 9 *d* | 508 | 521 | 523 | 516 | 504 | 516 | 517 | 474 | 497 | 494 | 467 | 455 | 471 | 501 | 520 | 593 | 614 | 603 | 608 | 546 | 513 | 491 | 498 | 507 | 519 |
| 10 | 505 | 505 | 498 | 505 | 504 | 490 | 506 | 521 | 502 | 485 | 470 | 465 | 485 | 492 | 514 | 533 | 533 | 549 | 553 | 549 | 548 | 548 | 556 | 552 | 515 |
| 11 *d* | 539 | 536 | 512 | 536 | 544 | 524 | 513 | 458 | 394 | 521 | 497 | 498 | 502 | 473 | 509 | 509 | 531 | 580 | 540 | 536 | 532 | 525 | 524 | 526 | 515 |
| 12 | 521 | 520 | 521 | 524 | 529 | 528 | 532 | 519 | 509 | 486 | 483 | 491 | 497 | 492 | 510 | 522 | 527 | 526 | 533 | 544 | 529 | 529 | 528 | 525 | 518 |
| 13 | 528 | 521 | 525 | 513 | 529 | 529 | 525 | 512 | 500 | 496 | 498 | 500 | 505 | 513 | 517 | 518 | 525 | 537 | 536 | 544 | 538 | 537 | 533 | 533 | 521 |
| 14 *q* | 529 | 537 | 533 | 525 | 527 | 527 | 524 | 520 | 516 | 508 | 505 | 513 | 527 | 533 | 537 | 536 | 540 | 539 | 539 | 540 | 544 | 537 | 537 | 537 | 530 |
| 15 *q* | 540 | 540 | 536 | 534 | 530 | 526 | 517 | 511 | 505 | 494 | 490 | 497 | 516 | 517 | 528 | 533 | 540 | 543 | 550 | 551 | 544 | 544 | 545 | 542 | 528 |
| 16 | 539 | 536 | 537 | 536 | 536 | 537 | 540 | 541 | 536 | 521 | 511 | 513 | 530 | 516 | 536 | 544 | 548 | 551 | 562 | 540 | 539 | 541 | 540 | 539 | 536 |
| 17 | 548 | 548 | 540 | 540 | 545 | 544 | 540 | 540 | 532 | 517 | 509 | 504 | 509 | 512 | 533 | 553 | 573 | 561 | 541 | 551 | 539 | 539 | 538 | 537 | 537 |
| 18 | 537 | 540 | 526 | 544 | 540 | 528 | 520 | 509 | 470 | 475 | 490 | 501 | 493 | 509 | 521 | 536 | 537 | 551 | 549 | 545 | 539 | 539 | 536 | 540 | 524 |
| 19 *q* | 537 | 533 | 533 | 533 | 533 | 529 | 523 | 513 | 505 | 497 | 493 | 499 | 504 | 517 | 533 | 539 | 545 | 539 | 545 | 548 | 548 | 543 | 542 | 540 | 528 |
| 20 | 537 | 537 | 537 | 534 | 536 | 537 | 534 | 525 | 517 | 506 | 497 | 495 | 505 | 510 | 528 | 540 | 556 | 566 | 581 | 588 | 582 | 556 | 513 | 516 | 535 |
| 21 | 510 | 510 | 497 | 521 | 523 | 509 | 493 | 489 | 481 | 461 | 471 | 481 | 493 | 481 | 486 | 551 | 563 | 577 | 576 | 589 | 564 | 530 | 525 | 529 | 517 |
| 22 *d* | 520 | 517 | 520 | 502 | 493 | 502 | 442 | 414 | 478 | 475 | 454 | 482 | 454 | 458 | 504 | 533 | 579 | 580 | 564 | 575 | 542 | 516 | 539 | 517 | *507* |
| 23 *d* | 517 | 486 | 536 | 509 | 518 | 511 | 504 | 497 | 471 | 475 | 487 | 486 | 468 | 497 | 505 | 542 | 571 | 626 | 635 | 552 | 541 | 536 | 530 | 493 | 521 |
| 24 | 505 | 521 | 501 | 493 | 489 | 486 | 494 | 493 | 494 | 486 | 477 | 473 | 490 | 501 | 532 | 575 | 579 | 576 | 557 | 556 | 537 | 526 | 521 | 536 | 517 |
| 25 | 529 | 507 | 501 | 517 | 517 | 505 | 496 | 493 | 480 | 482 | 481 | 483 | 485 | 486 | 510 | 548 | 557 | 569 | 576 | 544 | 531 | 537 | 544 | 524 | 517 |
| 26 | 520 | 521 | 532 | 533 | 525 | 518 | 505 | 497 | 490 | 481 | 485 | 498 | 498 | 516 | 530 | 537 | 548 | 544 | 536 | 540 | 540 | 541 | 531 | 525 | 520 |
| 27 *q* | 525 | 526 | 529 | 532 | 531 | 522 | 509 | 500 | 495 | 494 | 502 | 497 | 500 | 510 | 529 | 537 | 538 | 556 | 556 | 557 | 553 | 552 | 533 | 534 | 526 |
| 28 | 533 | 529 | 528 | 525 | 524 | 536 | 525 | 510 | 500 | 496 | 488 | 486 | 494 | 498 | 524 | 544 | 544 | 560 | 553 | 560 | 556 | 533 | 529 | 528 | 525 |
| 29 | 536 | 530 | 520 | 526 | 527 | 513 | 513 | 497 | 490 | 484 | 493 | 504 | 506 | 510 | 517 | 521 | 544 | 556 | 571 | 560 | 557 | 544 | 538 | 534 | 525 |
| 30 *q* | 528 | 541 | 530 | 533 | 533 | 532 | 525 | 515 | 500 | 491 | 492 | 504 | 517 | 527 | 537 | 553 | 552 | 557 | 554 | 560 | 556 | 540 | 526 | 529 | 531 |
| 31 | 516 | 514 | 521 | 536 | 544 | 513 | 533 | 502 | 490 | 498 | 497 | 493 | 498 | 505 | 502 | 513 | 525 | 548 | 565 | 571 | 557 | 544 | 537 | 535 | 523 |
| Mean | 529 | 527 | 525 | 527 | 528 | 521 | 513 | 505 | 497 | 492 | *488* | 491 | 495 | 502 | 518 | 536 | 547 | 557 | *558* | 553 | 544 | 536 | 534 | 531 | 523 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

132 ESKDALEMUIR (D) — 12° + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 6·8 | 6·8 | 6·2 | 6·2 | 5·1 | 3·6 | 4·9 | 2·1 | -0·2 | 1·6 | 6·0 | 12·4 | 16·8 | 17·0 | 16·6 | 15·1 | 13·2 | 10·7 | 9·3 | 6·7 | 5·1 | 2·4 | 5·8 | 6·2 | 7·8 |
| 2 | 9·7 | 3·9 | 0·2 | 1·7 | 2·1 | 0·8 | -0·7 | 0·7 | 1·5 | 3·2 | 8·6 | 14·2 | 16·3 | 16·9 | 15·7 | 13·5 | 10·9 | 7·5 | 7·3 | 7·7 | 8·0 | 8·0 | 7·6 | 5·5 | 7·1 |
| 3 | 3·3 | 4·4 | 5·5 | 6·2 | 6·0 | 2·2 | 0·1 | -0·3 | 0·8 | 2·5 | 6·7 | 11·8 | 15·4 | 15·9 | 15·0 | 13·5 | 12·2 | 10·7 | 9·2 | 4·3 | 6·1 | 7·0 | 7·2 | 7·1 | 7·2 |
| 4 | 8·5 | 2·4 | 3·1 | 3·4 | 1·3 | 0·4 | 1·3 | 1·5 | 2·2 | 6·1 | 9·7 | 14·3 | 16·6 | 16·9 | 17·8 | 15·9 | 12·7 | 10·6 | 9·7 | 8·6 | 7·5 | 6·9 | 5·9 | 5·4 | 7·9 |
| 5 | 6·2 | 6·0 | 5·3 | 4·7 | 3·7 | 2·7 | 0·2 | -0·2 | 0·7 | 3·1 | 6·5 | 9·5 | 12·1 | 14·4 | 15·0 | 13·3 | 12·6 | 10·7 | 9·7 | 9·7 | 9·7 | 5·7 | 2·4 | 6·4 | 7·1 |
| 6 *d* | 7·4 | 6·0 | 11·0 | 8·7 | 4·0 | 7·0 | 14·2 | 15·3 | 9·6 | 6·8 | 7·1 | 10·5 | 11·5 | 12·4 | 11·3 | 10·7 | 11·2 | 10·7 | 10·1 | 8·6 | 8·0 | 8·9 | 2·5 | 1·6 | 9·0 |
| 7 | 6·1 | 5·2 | 4·8 | 5·2 | 5·2 | 17·1 | 20·2 | 6·2 | 2·5 | 1·8 | 3·6 | 9·0 | 12·2 | 13·5 | 12·9 | 13·3 | 12·8 | 10·4 | 9·5 | 7·6 | 7·3 | 7·9 | 7·3 | 5·4 | 8·6 |
| 8 | 6·8 | 7·7 | 9·4 | 9·4 | 9·5 | 12·9 | 23·2 | 15·8 | 9·7 | 4·5 | 5·5 | 8·1 | 10·9 | 12·0 | 12·6 | 12·3 | 10·5 | 9·0 | 7·2 | 7·7 | 3·5 | 4·3 | 2·5 | 2·3 | *9·1* |
| 9 *d* | 4·3 | 2·5 | 3·1 | 7·0 | 3·3 | -0·9 | 0·7 | 5·7 | 7·1 | 4·1 | 6·8 | 9·9 | 11·6 | 11·4 | 12·4 | 13·2 | 16·0 | 9·8 | 3·6 | 4·2 | 3·6 | 5·2 | 7·0 | 3·5 | 6·5 |
| 10 | 4·0 | 3·6 | 2·1 | 3·9 | 2·3 | 5·0 | 10·6 | 4·7 | 1·8 | 3·7 | 6·1 | 9·8 | 12·9 | 15·9 | 16·8 | 15·8 | 12·4 | 12·2 | 11·0 | 9·1 | 6·9 | 8·1 | 7·9 | 7·5 | 8·1 |
| 11 *d* | 6·9 | 8·2 | 10·5 | 2·0 | 6·2 | 5·7 | 7·5 | 5·2 | 4·2 | 10·6 | 7·5 | 11·7 | 15·6 | 15·2 | 14·9 | 14·2 | 8·6 | 3·6 | 6·1 | 7·6 | 7·8 | 6·8 | 7·1 | 6·7 | 8·3 |
| 12 | 7·1 | 7·0 | 5·7 | 4·2 | 5·0 | 2·2 | 0·9 | 1·6 | 2·5 | 4·4 | 8·3 | 10·2 | 11·6 | 11·7 | 11·0 | 9·5 | 7·9 | 6·9 | 5·6 | 6·1 | 6·2 | 6·2 | 7·2 | 7·1 | 6·5 |
| 13 | 8·7 | 6·7 | 2·5 | 3·1 | -0·9 | 1·3 | 0·6 | 0·5 | 1·7 | 2·7 | 5·4 | 7·9 | 9·6 | 10·6 | 10·5 | 9·7 | 9·6 | 8·7 | 7·5 | 7·5 | 6·9 | 4·4 | 1·5 | 6·9 | 5·6 |
| 14 *q* | 6·2 | 8·3 | 7·6 | 5·8 | 3·5 | 2·5 | 0·8 | 1·0 | 2·5 | 5·2 | 7·8 | 10·5 | 13·0 | 13·6 | 13·3 | 11·6 | 10·5 | 8·9 | 7·9 | 7·1 | 7·3 | 7·0 | 7·1 | 7·0 | 7·3 |
| 15 *q* | 6·9 | 6·4 | 5·4 | 5·2 | 3·4 | 2·2 | 0·8 | 1·2 | 3·7 | 5·6 | 9·4 | 12·0 | 15·1 | 15·7 | 14·3 | 11·3 | 9·6 | 8·8 | 8·3 | 7·9 | 7·9 | 7·7 | 7·9 | 5·9 | 7·6 |
| 16 | 5·3 | 5·2 | 5·4 | 5·2 | 5·6 | 6·2 | 3·7 | 2·4 | 2·9 | 3·3 | 5·9 | 8·0 | 10·0 | 11·0 | 11·3 | 10·2 | 9·1 | 8·3 | 8·3 | 6·3 | 6·9 | 7·5 | 7·0 | 7·2 | 6·8 |
| 17 | 8·6 | 9·7 | 4·2 | 6·0 | 10·4 | 1·0 | -0·4 | 0·3 | 1·7 | 5·0 | 8·0 | 10·6 | 14·2 | 14·2 | 14·0 | 13·6 | 14·2 | 13·1 | 9·6 | 9·0 | 8·4 | 8·1 | 7·2 | 7·4 | 8·3 |
| 18 | 7·0 | 8·1 | 12·3 | 5·3 | 1·6 | 0·8 | -0·9 | -1·3 | 2·3 | 4·0 | 4·7 | 8·8 | 10·6 | 12·7 | 12·3 | 10·6 | 8·9 | 6·9 | 7·0 | 7·0 | 7·1 | 7·4 | 7·1 | 7·1 | 6·6 |
| 19 *q* | 5·7 | 6·1 | 6·0 | 5·4 | 5·1 | 2·6 | 0·7 | 0·3 | 1·4 | 5·0 | 9·6 | 13·1 | 15·8 | 16·7 | 15·2 | 12·6 | 11·3 | 9·2 | 8·8 | 8·1 | 8·0 | 7·9 | 7·0 | 7·1 | 7·9 |
| 20 | 7·1 | 6·9 | 6·5 | 6·1 | 3·9 | 2·4 | 0·9 | 0·8 | 0·2 | 2·2 | 6·0 | 9·4 | 13·3 | 15·2 | 15·1 | 14·3 | 11·9 | 9·8 | 9·8 | 11·0 | 9·9 | 8·8 | -2·0 | -0·7 | 7·0 |
| 21 | 0·5 | -1·2 | 6·2 | 3·5 | 1·5 | 0·3 | 4·7 | 7·3 | 1·8 | 4·5 | 8·8 | 11·1 | 14·1 | 15·2 | 17·2 | 13·9 | 15·2 | 17·2 | 10·1 | 12·8 | 10·9 | 7·5 | 5·1 | 5·4 | 8·1 |
| 22 *d* | 2·8 | 2·6 | 1·6 | 2·1 | -0·3 | 5·4 | 3·7 | 10·3 | 9·6 | 5·9 | 7·9 | 12·3 | 14·8 | 14·5 | 14·3 | 14·0 | 9·0 | 7·6 | 8·9 | 1·2 | 7·5 | 7·9 | 8·3 | 9·0 | 7·5 |
| 23 *d* | 4·2 | 2·2 | 5·0 | 0·9 | 0·5 | -1·6 | -3·0 | -0·7 | -1·0 | 2·7 | 3·2 | 7·0 | 9·3 | 9·7 | 11·6 | 12·1 | 9·6 | 6·3 | 2·4 | 6·1 | 4·2 | 5·2 | 5·5 | 2·1 | *4·1* |
| 24 | 3·4 | 3·6 | 1·0 | 1·1 | 3·9 | 1·4 | 1·6 | -1·0 | 0·2 | 3·4 | 7·9 | 11·5 | 14·2 | 16·1 | 16·5 | 11·6 | 14·0 | 12·5 | 11·6 | 9·1 | 7·9 | 7·0 | 6·9 | 7·1 | 7·2 |
| 25 | 0·4 | 1·3 | 8·1 | 5·0 | 3·6 | 2·7 | 0·6 | -0·2 | -2·0 | -0·2 | 3·6 | 8·6 | 12·3 | 12·6 | 12·2 | 11·6 | 8·8 | 5·2 | 7·0 | 5·2 | 6·5 | 7·2 | 5·2 | 6·1 | 5·5 |
| 26 | 5·6 | 7·1 | 7·0 | 3·9 | 2·6 | 0·5 | 0·5 | -0·3 | 0·3 | 2·8 | 8·4 | 11·3 | 13·4 | 14·2 | 13·0 | 11·9 | 9·9 | 7·3 | 6·2 | 6·9 | 7·2 | 5·8 | 6·0 | 6·8 | 6·6 |
| 27 *q* | 6·5 | 5·0 | 5·3 | 5·3 | 4·3 | 1·8 | -0·1 | 0·8 | 1·1 | 3·4 | 7·1 | 11·2 | 13·6 | 15·1 | 15·1 | 13·3 | 10·7 | 8·8 | 6·5 | 6·1 | 6·9 | 5·0 | 5·8 | 7·0 | 6·9 |
| 28 | 6·1 | 6·3 | 5·8 | 2·5 | 2·4 | -1·0 | -2·5 | -2·8 | -2·5 | 2·3 | 6·8 | 9·7 | 12·5 | 13·9 | 13·1 | 9·2 | 7·4 | 7·5 | 6·0 | 6·6 | 3·8 | 5·3 | 7·7 | 7·9 | 5·6 |
| 29 | 7·6 | 6·3 | 3·2 | 2·7 | 2·0 | 0·8 | 2·6 | 0·0 | -0·1 | 4·9 | 9·3 | 12·9 | 14·9 | 15·4 | 14·6 | 12·2 | 11·1 | 9·8 | 8·8 | 7·0 | 6·1 | 6·7 | 5·5 | 4·7 | 7·0 |
| 30 *q* | 4·3 | 5·2 | 3·9 | 3·4 | 2·9 | 2·0 | 0·8 | 0·0 | -0·5 | 1·5 | 6·9 | 11·3 | 13·7 | 15·0 | 15·1 | 13·4 | 10·5 | 8·2 | 7·3 | 7·5 | 4·0 | 3·8 | 3·4 | 4·4 | 6·2 |
| 31 | -1·6 | -1·3 | 1·7 | -1·8 | 0·1 | 3·8 | 0·5 | -3·1 | 0·5 | 2·6 | 5·9 | 11·5 | 14·0 | 13·4 | 12·8 | 12·6 | 11·9 | 10·5 | 9·5 | 7·9 | 6·3 | 5·9 | 6·1 | 5·8 | 5·6 |
| Mean | 5·6 | 5·1 | 5·3 | 4·3 | 3·5 | 3·0 | 3·2 | 2·4 | *2·1* | 3·9 | 6·9 | 10·7 | 13·3 | *14·1* | 14·0 | 12·6 | 11·1 | 9·3 | 8·1 | 7·4 | 6·9 | 6·6 | 5·8 | 5·6 | 7·1 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

133 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — MAY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1142 | 1142 | 1142 | 1142 | 1143 | 1144 | 1143 | 1137 | 1137 | 1131 | 1121 | 1117 | 1117 | 1123 | 1131 | 1141 | 1148 | 1159 | 1166 | 1171 | 1166 | 1153 | 1142 | 1141 | *1142* |
| 2 | 1136 | 1111 | 1119 | 1128 | 1137 | 1141 | 1142 | 1138 | 1130 | 1134 | 1122 | 1111 | 1110 | 1119 | 1134 | 1141 | 1147 | 1155 | 1156 | 1153 | 1148 | 1147 | 1146 | 1138 | 1135 |
| 3 | 1131 | 1137 | 1141 | 1137 | 1130 | 1135 | 1137 | 1137 | 1135 | 1125 | 1117 | 1110 | 1116 | 1123 | 1129 | 1136 | 1142 | 1147 | 1149 | 1153 | 1149 | 1147 | 1144 | 1144 | 1135 |
| 4 | 1135 | 1118 | 1123 | 1129 | 1129 | 1125 | 1125 | 1126 | 1124 | 1124 | 1119 | 1114 | 1118 | 1128 | 1138 | 1149 | 1159 | 1161 | 1165 | 1166 | 1165 | 1156 | 1153 | 1148 | 1137 |
| 5 | 1144 | 1143 | 1142 | 1141 | 1140 | 1136 | 1136 | 1135 | 1130 | 1123 | 1117 | 1111 | 1111 | 1117 | 1120 | 1128 | 1131 | 1136 | 1142 | 1140 | 1136 | 1142 | 1143 | 1138 | 1133 |
| 6 *d* | 1136 | 1136 | 1131 | 1114 | 1109 | 1116 | 1122 | 1094 | 1104 | 1113 | 1116 | 1121 | 1124 | 1130 | 1137 | 1143 | 1143 | 1146 | 1147 | 1146 | 1143 | 1142 | 1124 | 1108 | 1127 |
| 7 | 1124 | 1126 | 1128 | 1123 | 1106 | 1099 | 1011 | 1034 | 1077 | 1111 | 1115 | 1118 | 1134 | 1138 | 1147 | 1147 | 1147 | 1147 | 1147 | 1147 | 1148 | 1147 | 1144 | 1141 | *1121* |
| 8 | 1136 | 1136 | 1137 | 1123 | 1108 | 1106 | 1076 | 1059 | 1063 | 1105 | 1109 | 1115 | 1129 | 1141 | 1138 | 1136 | 1138 | 1140 | 1154 | 1160 | 1162 | 1150 | 1131 | 1108 | 1123 |
| 9 *d* | 1108 | 1108 | 1065 | 1077 | 1045 | 1072 | 1088 | 1099 | 1106 | 1122 | 1129 | 1135 | 1142 | 1167 | 1207 | 1240 | 1249 | 1235 | 1203 | 1178 | 1168 | 1153 | 1105 | 1129 | 1139 |
| 10 | 1137 | 1140 | 1143 | 1147 | 1147 | 1130 | 1099 | 1101 | 1117 | 1118 | 1113 | 1117 | 1119 | 1123 | 1129 | 1137 | 1144 | 1148 | 1144 | 1143 | 1142 | 1141 | 1140 | 1137 | 1131 |
| 11 *d* | 1140 | 1136 | 1116 | 1101 | 1095 | 1106 | 1105 | 1107 | 1110 | 1102 | 1118 | 1118 | 1118 | 1134 | 1144 | 1159 | 1178 | 1191 | 1174 | 1158 | 1149 | 1150 | 1147 | 1142 | 1133 |
| 12 | 1142 | 1141 | 1142 | 1142 | 1141 | 1143 | 1139 | 1141 | 1140 | 1137 | 1134 | 1130 | 1131 | 1136 | 1141 | 1143 | 1149 | 1149 | 1148 | 1147 | 1144 | 1143 | 1142 | 1142 | 1141 |
| 13 | 1135 | 1119 | 1114 | 1111 | 1124 | 1130 | 1134 | 1136 | 1137 | 1135 | 1131 | 1129 | 1129 | 1130 | 1135 | 1137 | 1142 | 1142 | 1143 | 1143 | 1143 | 1147 | 1147 | 1137 | 1134 |
| 14 *q* | 1136 | 1134 | 1130 | 1136 | 1141 | 1142 | 1142 | 1138 | 1135 | 1129 | 1120 | 1116 | 1116 | 1122 | 1125 | 1129 | 1130 | 1136 | 1137 | 1137 | 1135 | 1137 | 1137 | 1137 | 1132 |
| 15 *q* | 1136 | 1136 | 1136 | 1137 | 1138 | 1136 | 1136 | 1132 | 1132 | 1129 | 1123 | 1117 | 1118 | 1122 | 1129 | 1135 | 1138 | 1142 | 1141 | 1140 | 1138 | 1137 | 1136 | 1136 | 1133 |
| 16 | 1136 | 1136 | 1136 | 1137 | 1136 | 1134 | 1130 | 1130 | 1130 | 1129 | 1130 | 1125 | 1126 | 1134 | 1130 | 1132 | 1136 | 1141 | 1147 | 1156 | 1149 | 1143 | 1141 | 1137 | 1136 |
| 17 | 1135 | 1126 | 1122 | 1119 | 1106 | 1113 | 1123 | 1126 | 1128 | 1126 | 1122 | 1116 | 1119 | 1129 | 1137 | 1146 | 1162 | 1183 | 1173 | 1156 | 1147 | 1142 | 1140 | 1137 | 1135 |
| 18 | 1137 | 1136 | 1125 | 1105 | 1105 | 1113 | 1123 | 1130 | 1130 | 1119 | 1118 | 1119 | 1130 | 1138 | 1147 | 1158 | 1165 | 1161 | 1154 | 1146 | 1141 | 1137 | 1136 | 1135 | 1134 |
| 19 *q* | 1136 | 1136 | 1137 | 1137 | 1138 | 1136 | 1136 | 1134 | 1129 | 1117 | 1108 | 1106 | 1110 | 1124 | 1131 | 1143 | 1146 | 1143 | 1141 | 1138 | 1138 | 1137 | 1136 | 1135 | 1132 |
| 20 | 1135 | 1135 | 1136 | 1137 | 1138 | 1138 | 1136 | 1136 | 1133 | 1132 | 1125 | 1117 | 1117 | 1119 | 1127 | 1134 | 1137 | 1140 | 1142 | 1142 | 1143 | 1144 | 1101 | 1110 | 1131 |
| 21 | 1107 | 1083 | 1090 | 1113 | 1134 | 1131 | 1118 | 1111 | 1113 | 1125 | 1122 | 1119 | 1125 | 1142 | 1155 | 1177 | 1184 | 1174 | 1183 | 1172 | 1155 | 1149 | 1155 | 1143 | 1137 |
| 22 *d* | 1136 | 1137 | 1141 | 1135 | 1033 | 1028 | 1057 | 1065 | 1075 | 1101 | 1112 | 1123 | 1155 | 1160 | 1165 | 1177 | 1199 | 1209 | 1191 | 1189 | 1168 | 1159 | 1138 | 1105 | 1132 |
| 23 *d* | 1101 | 1041 | 1063 | 1092 | 1120 | 1137 | 1142 | 1137 | 1131 | 1135 | 1135 | 1133 | 1143 | 1147 | 1144 | 1156 | 1177 | 1190 | 1182 | 1167 | 1166 | 1154 | 1119 | 1114 | 1134 |
| 24 | 1106 | 1099 | 1101 | 1094 | 1107 | 1116 | 1123 | 1130 | 1132 | 1126 | 1126 | 1122 | 1125 | 1135 | 1120 | 1177 | 1185 | 1189 | 1177 | 1166 | 1159 | 1153 | 1142 | 1111 | 1134 |
| 25 | 1095 | 1107 | 1094 | 1105 | 1111 | 1123 | 1134 | 1138 | 1141 | 1137 | 1131 | 1129 | 1128 | 1130 | 1130 | 1141 | 1159 | 1171 | 1162 | 1158 | 1149 | 1142 | 1125 | 1119 | 1132 |
| 26 | 1122 | 1118 | 1107 | 1095 | 1117 | 1130 | 1135 | 1135 | 1131 | 1122 | 1113 | 1107 | 1111 | 1119 | 1130 | 1135 | 1142 | 1149 | 1149 | 1143 | 1142 | 1139 | 1140 | 1138 | 1128 |
| 27 *q* | 1138 | 1137 | 1137 | 1138 | 1141 | 1143 | 1143 | 1142 | 1136 | 1132 | 1124 | 1118 | 1120 | 1126 | 1129 | 1134 | 1137 | 1141 | 1146 | 1147 | 1144 | 1142 | 1140 | 1137 | 1136 |
| 28 | 1136 | 1136 | 1126 | 1125 | 1123 | 1116 | 1117 | 1113 | 1109 | 1106 | 1106 | 1107 | 1112 | 1124 | 1137 | 1153 | 1160 | 1159 | 1159 | 1150 | 1143 | 1138 | 1137 | 1137 | 1130 |
| 29 | 1132 | 1126 | 1128 | 1131 | 1136 | 1136 | 1129 | 1123 | 1117 | 1110 | 1105 | 1110 | 1115 | 1126 | 1137 | 1139 | 1138 | 1142 | 1146 | 1153 | 1150 | 1143 | 1142 | 1142 | 1131 |
| 30 *q* | 1141 | 1131 | 1129 | 1131 | 1136 | 1137 | 1141 | 1142 | 1141 | 1131 | 1118 | 1106 | 1107 | 1116 | 1125 | 1135 | 1141 | 1148 | 1148 | 1144 | 1147 | 1147 | 1146 | 1140 | 1135 |
| 31 | 1128 | 1122 | 1115 | 1100 | 1092 | 1090 | 1091 | 1104 | 1099 | 1099 | 1100 | 1112 | 1118 | 1128 | 1137 | 1147 | 1153 | 1155 | 1156 | 1150 | 1149 | 1148 | 1143 | 1141 | 1124 |
| Mean | 1130 | 1125 | 1123 | 1122 | 1119 | 1122 | 1120 | 1120 | 1121 | 1122 | 1119 | *1118* | 1122 | 1131 | 1137 | 1148 | 1155 | *1159* | 1157 | 1153 | 1149 | 1145 | 1137 | 1133 | 1133 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

134 ESKDALEMUIR — MAY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 18 58 | 573 | 474 | 10 55 | 99 | 13 08 | 17·7 | −0·4 | 08 22 | 18·1 | 19 54 | 1173 | 1113 | 12 00 | 60 | 0,2,2,1,2,2,3,2 | 14 | 0 | 83·1 |
| 2 | 17 42 | 564 | 473 | 11 30 | 91 | 13 18 | 17·7 | −1·8 | 06 45 | 19·5 | 17 52 | 1158 | 1105 | 12 00 | 53 | 4,1,1,2,2,3,2,2 | 17 | 1 | 83·1 |
| 3 | 18 59 | 584 | 471 | 10 26 | 113 | 13 17 | 16·6 | −1·2 | 06 56 | 17·8 | 19 39 | 1155 | 1107 | 11 33 | 48 | 2,1,1,1,1,1,3,2 | 12 | 0 | 83·1 |
| 4 | 00 40 | 571 | 474 | 09 29 | 97 | 14 00 | 18·6 | −0·1 | 01 43 | 18·7 | 19 10 | 1167 | 1113 | 11 30 | 54 | 3,1,2,3,2,3,2,1 | 17 | 1 | 83·1 |
| 5 | 19 57 | 584 | 480 | 10 41 | 104 | 14 11 | 15·2 | −1·0 | 07 20 | 16·2 | 22 11 | 1149 | 1110 | 12 11 | 39 | 1,1,1,1,2,2,3,3 | 14 | 0 | 83·1 |
| 6 *d* | 22 33 | *705* | 457 | 06 50 | 248 | 22 29 | 19·6 | *−20·1* | 22 50 | *39·7* | 19 30 | 1149 | 1090 | 07 25 | 59 | 2,4,5,4,3,4,3,5 | 30 | 1 | 83·1 |
| 7 | 04 20 | 599 | 422 | 12 39 | 177 | 05 51 | *28·4* | −4·5 | 08 35 | 32·9 | 20 20 | 1149 | *1004* | 06 26 | 145 | 3,5,5,3,4,2,2,2 | 26 | 2 | 83·2 |
| 8 | 23 50 | 571 | 419 | 06 12 | 152 | 06 20 | 26·8 | 0·6 | 23 35 | 26·2 | 20 04 | 1168 | 1052 | 06 35 | 116 | 2,4,5,3,4,3,3,4 | 28 | 1 | 83·2 |
| 9 *d* | 15 04 | 673 | 435 | 11 39 | 238 | 16 21 | 23·4 | −5·3 | 18 11 | 28·7 | 16 26 | *1262* | 1033 | 04 22 | *229* | 4,3,4,4,5,5,5,4 | 34 | 2 | 83·2 |
| 10 | 22 51 | 592 | 451 | 11 18 | 141 | 14 52 | 18·3 | 0·1 | 08 08 | 18·2 | 03 00) 17 10) | 1149 | 1094 | 06 43 | 55 | 2,3,3,3,3,3,2,3 | 22 | 1 | 83·2 |
| 11 *d* | 17 20 | 611 | *340* | 08 33 | *271* | 08 47 | 25·8 | −7·4 | 08 27 | 33·2 | 17 08 | 1197 | 1089 | 04 41 | 108 | 4,4,5,4,5,5,1,2 | 30 | 1 | 83·2 |
| 12 | 19 21 | 568 | 467 | 10 11 | 101 | 12 56 | 13·3 | −1·0 | 06 13 | 14·3 | 16 54 | 1153 | 1128 | 11 26 | *25* | 2,2,2,2,2,2,3,1 | 16 | 0 | 83·2 |
| 13 | 20 06 | 553 | 490 | 10 58 | 63 | 13 40 | 11·5 | −2·1 | 04 10 | 13·6 | 22 09 | 1148 | 1105 | 03 42 | 43 | 3,3,1,1,2,1,2,3 | 16 | 0 | 83·2 |
| 14 *q* | 14 52 | 553 | 502 | 10 20 | *51* | 14 04 | 14·3 | 0·6 | 06 40 | 13·7 | 06 31 | 1143 | 1111 | 12 20 | 32 | 2,1,1,1,1,2,1,0 | 9 | 0 | 83·2 |
| 15 *q* | 18 17 | 560 | 485 | 10 27 | 75 | 12 28 | 16·2 | 0·6 | 07 20 | 15·6 | 17 15 | 1143 | 1116 | 11 47 | 27 | 1,1,1,2,2,2,1,2 | 12 | 0 | 83·2 |
| 16 | 18 38 | 568 | 497 | 13 40 | 71 | 13 44 | 12·4 | 1·7 | 07 49 | *10·7* | 19 39 | 1159 | 1124 | 12 05 | 35 | 1,2,2,2,3,1,3,2 | 16 | 0 | 83·2 |
| 17 | 17 10 | 604 | 486 | 14 00 | 118 | 13 00 | 16·7 | −2·0 | 06 30 | 18·7 | 17 43 | 1188 | 1100 | 04 45 | 88 | 3,3,2,2,4,4,3,1 | 22 | 1 | 83·2 |
| 18 | 17 46 | 562 | 462 | 08 50 | 100 | 02 30 | 14·6 | −3·7 | 06 48 | 18·3 | 16 46 | 1166 | 1099 | 04 00 | 67 | 3,3,3,3,3,3,1,1 | 20 | 1 | 83·2 |
| 19 *q* | 16 31 | 553 | 490 | 10 41 | 63 | 13 33 | 17·0 | −0·2 | 07 50 | 17·2 | 16 43 | 1147 | 1103 | 12 00 | 44 | 1,1,0,1,2,2,1,1 | 9 | 0 | 83·2 |
| 20 | 19 17 | 607 | 493 | 10 50 | 114 | 14 01 | 15·8 | −6·5 | 22 12 | 22·3 | 21 11 | 1153 | 1093 | 22 40 | 60 | 0,1,1,1,1,3,3,4 | 14 | 1 | 83·3 |
| 21 | 18 50 | 608 | 451 | 09 29 | 157 | 17 05 | 18·6 | −7·0 | 01 43 | 25·6 | 18 35 | 1190 | 1076 | 01 30 | 114 | 4,3,3,3,4,4,4,3 | 28 | 1 | 83·3 |
| 22 *d* | 16 49 | 616 | 376 | 07 10 | 240 | 12 57 | 17·7 | −9·2 | 04 45 | 26·9 | 17 40 | 1215 | 1011 | 04 31 | 204 | 2,5,5,4,4,4,4,4 | 32 | 2 | 83·4 |
| 23 *d* | 17 56 | 674 | 435 | 12 17 | 239 | 15 06 | 13·7 | −6·9 | 06 48 | 20·6 | 17 50 | 1207 | 1013 | 01 42 | 194 | 4,4,3,3,4,5,5,4 | 32 | 2 | 83·4 |
| 24 | 15 32 | 595 | 456 | 11 18 | 139 | 14 20 | 19·6 | −3·1 | 00 01 | 22·7 | 16 56 | 1194 | 1087 | 00 58 | 107 | 3,3,3,3,4,3,3,3 | 25 | 1 | 83·5 |
| 25 | 17 50 | 583 | 470 | 08 51 | 113 | 12 36 | 13·5 | −3·5 | 00 32 | 17·0 | 17 24 | 1172 | 1087 | 00 08 | 85 | 4,3,2,2,3,3,3,3 | 23 | 1 | 83·6 |
| 26 | 16 02 | 560 | 470 | 10 14 | 90 | 13 28 | 15·1 | −2·1 | 06 41 | 17·2 | 17 50 | 1154 | 1092 | 03 03 | 62 | 3,3,2,2,3,3,1,2 | 19 | 1 | 83·6 |
| 27 *q* | 21 39 | 564 | 491 | 11 30 | 73 | 14 37 | 15·5 | −1·0 | 06 40 | 16·5 | 19 46 | 1149 | 1117 | 11 40 | 32 | 1,1,2,2,2,2,1,3 | 14 | 0 | 83·6 |
| 28 | 20 30 | 572 | 479 | 11 34 | 93 | 13 53 | 14·5 | −4·3 | 08 12 | 18·8 | 16 30 | 1161 | 1105 | 09 40 | 56 | 2,2,2,2,2,2,3,2 | 17 | 1 | 83·6 |
| 29 | 18 42 | 580 | 481 | 09 36 | 99 | 13 00 | 16·1 | −1·5 | 07 58 | 17·6 | 19 46 | 1157 | 1102 | 10 30 | 55 | 2,2,2,2,2,3,2,2 | 17 | 1 | 83·6 |
| 30 *q* | 19 50 | 568 | 489 | 10 10 | 79 | 13 52) 14 48) | 16·1 | −0·8 | 08 24 | 16·9 | 17 51 | 1152 | 1105 | 11 50 | 47 | 2,1,1,2,3,2,2,2 | 15 | 0 | 83·5 |
| 31 | 18 30 | 583 | 477 | 08 08 | 106 | 13 06 | 15·2 | −6·7 | 03 35 | 21·9 | 18 42 | 1159 | 1082 | 06 18 | 77 | 2,4,3,2,3,3,2,2 | 21 | 1 | 83·5 |
| Mean | − − | 589 | 463 | − − | 126 | − − | 17·3 | −3·2 | − − | 20·5 | − − | 1167 | 1089 | − − | 78 | − | − | 0·77 | 83·3 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

135 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 541 | 537 | 534 | 532 | 530 | 526 | 531 | 528 | 517 | 503 | 495 | 492 | 490 | 502 | 520 | 533 | 548 | 548 | 556 | 561 | 552 | 544 | 544 | 544 | 529 |
| 2 *q* | 544 | 544 | 531 | 537 | 538 | 544 | 544 | 533 | 518 | 505 | 497 | 495 | 493 | 498 | 509 | 526 | 544 | 560 | 569 | 564 | 556 | 548 | 543 | 541 | 533 |
| 3 *q* | 540 | 544 | 541 | 540 | 541 | 540 | 535 | 524 | 513 | 507 | 501 | 504 | 515 | 521 | 529 | 535 | 540 | 552 | 557 | 552 | 551 | 548 | 545 | 544 | 534 |
| 4 | 546 | 545 | 544 | 545 | 544 | 539 | 532 | 532 | 531 | 513 | 508 | 502 | 510 | 504 | 500 | 536 | 556 | 549 | 560 | 557 | 550 | 547 | 546 | 545 | 535 |
| 5 | 542 | 540 | 540 | 541 | 544 | 540 | 532 | 525 | 515 | 506 | 500 | 500 | 504 | 521 | 533 | 546 | 557 | 557 | 557 | 559 | 596 | 586 | 568 | 564 | 541 |
| 6 | 533 | 556 | 540 | 544 | 545 | 544 | 536 | 520 | 500 | 484 | 482 | 482 | 517 | 486 | 493 | 524 | 535 | 544 | 556 | 556 | 555 | 550 | 549 | 549 | 528 |
| 7 *d* | 556 | 552 | 547 | 546 | 545 | 545 | 541 | 544 | 543 | 533 | 521 | 518 | 483 | 552 | 550 | 563 | 622 | 589 | 553 | 548 | 532 | 518 | 517 | 506 | 543 |
| 8 *d* | 496 | 497 | 497 | 528 | 517 | 510 | 500 | 489 | 486 | 487 | 491 | 485 | 500 | 505 | 541 | 485 | 544 | 534 | 569 | 567 | 576 | 572 | 584 | 539 | 521 |
| 9 | 528 | 537 | 531 | 518 | 513 | 506 | 510 | 505 | 509 | 490 | 494 | 501 | 516 | 530 | 521 | 559 | 552 | 557 | 537 | 537 | 537 | 540 | 537 | 531 | 525 |
| 10 | 526 | 527 | 530 | 529 | 529 | 524 | 510 | 506 | 504 | 494 | 490 | 497 | 503 | 497 | 521 | 530 | 575 | 529 | 575 | 560 | 549 | 540 | 536 | 532 | 526 |
| 11 | 536 | 540 | 545 | 540 | 536 | 539 | 529 | 501 | 500 | 501 | 504 | 510 | 493 | 521 | 516 | 530 | 544 | 541 | 560 | 565 | 560 | 557 | 555 | 553 | 532 |
| 12 *d* | 555 | 553 | 556 | 560 | 555 | 552 | 551 | 541 | 521 | 513 | 498 | 500 | 498 | 513 | 588 | 604 | 589 | 595 | 579 | 549 | 529 | 536 | 553 | 514 | 546 |
| 13 | 532 | 528 | 537 | 549 | 549 | 522 | 516 | 527 | 517 | 498 | 473 | 490 | 498 | 493 | 524 | 539 | 549 | 556 | 556 | 560 | 553 | 541 | 539 | 538 | 529 |
| 14 | 537 | 540 | 540 | 539 | 535 | 526 | 519 | 508 | 493 | 505 | 509 | 509 | 515 | 517 | 528 | 559 | 572 | 575 | 584 | 567 | 538 | 533 | 533 | 528 | 534 |
| 15 | 531 | 533 | 535 | 539 | 540 | 540 | 530 | 501 | 510 | 497 | 497 | 504 | 511 | 517 | 533 | 522 | 546 | 555 | 559 | 560 | 568 | 546 | 543 | 541 | 532 |
| 16 | 542 | 540 | 537 | 540 | 544 | 544 | 534 | 517 | 506 | 514 | 490 | 504 | 495 | 521 | 510 | 549 | 569 | 592 | 580 | 602 | 591 | 553 | 531 | 528 | 539 |
| 17 | 446 | 469 | 500 | 540 | 536 | 509 | 547 | 509 | 485 | 478 | 470 | 471 | 469 | 487 | 516 | 530 | 541 | 541 | 560 | 560 | 552 | 552 | 549 | 529 | 514 |
| 18 | 525 | 536 | 530 | 529 | 530 | 521 | 521 | 508 | 489 | 466 | 463 | 481 | 495 | 507 | 530 | 551 | 553 | 599 | 578 | 574 | 557 | 542 | 526 | 547 | 527 |
| 19 *d* | 534 | 509 | 545 | 525 | 504 | 473 | 481 | 477 | 433 | 425 | 438 | 459 | 461 | 499 | 533 | 572 | 555 | 560 | 580 | 578 | 547 | 538 | 523 | 518 | *511* |
| 20 | 521 | 517 | 511 | 509 | 513 | 522 | 513 | 496 | 483 | 474 | 474 | 481 | 494 | 529 | 542 | 542 | 545 | 549 | 558 | 571 | 554 | 539 | 528 | 523 | 520 |
| 21 | 526 | 521 | 521 | 509 | 521 | 532 | 521 | 482 | 481 | 482 | 492 | 484 | 481 | 500 | 515 | 537 | 545 | 539 | 562 | 579 | 571 | 551 | 541 | 530 | 522 |
| 22 | 517 | 533 | 518 | 532 | 533 | 529 | 517 | 509 | 498 | 498 | 500 | 498 | 502 | 527 | 522 | 538 | 557 | 534 | 554 | 577 | 554 | 535 | 533 | 529 | 527 |
| 23 *q* | 524 | 525 | 526 | 528 | 530 | 525 | 509 | 490 | 504 | 498 | 485 | 484 | 495 | 506 | 521 | 534 | 538 | 540 | 540 | 538 | 538 | 537 | 536 | 535 | 520 |
| 24 *q* | 534 | 536 | 537 | 538 | 538 | 534 | 530 | 530 | 528 | 521 | 517 | 521 | 518 | 527 | 537 | 541 | 542 | 549 | 551 | 551 | 554 | 550 | 550 | 545 | 537 |
| 25 | 543 | 542 | 539 | 538 | 549 | 545 | 535 | 521 | 508 | 505 | 513 | 509 | 497 | 497 | 510 | 537 | 578 | 565 | 568 | 538 | 534 | 537 | 538 | 539 | 533 |
| 26 | 545 | 542 | 529 | 530 | 529 | 530 | 518 | 510 | 504 | 494 | 501 | 506 | 513 | 525 | 573 | 579 | 582 | 564 | 546 | 544 | 542 | 538 | 545 | 539 | 535 |
| 27 | 535 | 534 | 537 | 541 | 545 | 543 | 527 | 501 | 501 | 509 | 521 | 521 | 515 | 510 | 526 | 529 | 545 | 562 | 570 | 607 | 578 | 567 | 570 | 551 | 539 |
| 28 | 551 | 552 | 550 | 557 | 558 | 548 | 530 | 517 | 513 | 519 | 517 | 521 | 526 | 540 | 547 | 557 | 566 | 575 | 586 | 577 | 571 | 539 | 542 | 537 | 546 |
| 29 *d* | 553 | 551 | 547 | 547 | 553 | 527 | 514 | 502 | 499 | 498 | 498 | 515 | 537 | 551 | 581 | 632 | 653 | 675 | 662 | 611 | 537 | 501 | 501 | 505 | 552 |
| 30 *q* | 505 | 509 | 513 | 514 | 517 | 509 | 494 | 485 | 480 | 472 | 468 | 480 | 489 | 485 | 509 | 522 | 529 | 537 | 538 | 542 | 546 | 537 | 537 | 535 | *511* |
| Mean | 531 | 533 | 533 | 535 | 535 | 530 | 524 | 511 | 503 | 496 | *494* | 497 | 501 | 513 | 529 | 545 | 559 | 561 | *565* | 564 | 554 | 544 | 541 | 535 | 531 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

136 ESKDALEMUIR (D) — 12° + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 5·7 | 4·7 | 4·7 | 4·7 | 3·9 | 4·5 | 2·0 | −2·6 | −2·5 | 0·2 | 3·4 | 7·1 | 11·0 | 14·2 | 15·1 | 13·7 | 11·5 | 9·9 | 8·4 | 5·2 | 6·9 | 7·1 | 6·5 | 7·6 | 6·4 |
| 2 *q* | 6·1 | 7·2 | 9·7 | 6·8 | 4·3 | 1·6 | 0·2 | −0·7 | −0·9 | −0·7 | 2·8 | 6·1 | 9·6 | 12·2 | 13·8 | 13·7 | 12·2 | 10·4 | 9·4 | 7·9 | 7·9 | 7·7 | 7·5 | 7·2 | 6·7 |
| 3 *q* | 7·0 | 7·0 | 6·2 | 5·4 | 4·1 | 1·9 | 0·0 | −1·6 | −1·4 | 1·8 | 6·8 | 10·0 | 12·8 | 14·6 | 14·6 | 13·3 | 11·5 | 9·4 | 7·9 | 7·0 | 7·0 | 7·3 | 7·2 | 7·0 | 6·9 |
| 4 | 7·1 | 7·2 | 7·1 | 6·1 | 5·2 | 1·4 | −1·5 | −2·4 | −0·7 | 1·3 | 4·5 | 9·2 | 13·5 | 15·1 | 15·9 | 14·9 | 12·8 | 10·4 | 9·4 | 8·4 | 8·0 | 8·1 | 7·8 | 7·1 | 7·3 |
| 5 | 6·8 | 6·5 | 5·9 | 5·2 | 3·9 | 2·5 | 1·1 | 0·0 | 0·1 | 1·0 | 4·3 | 8·0 | 11·8 | 12·9 | 12·7 | 12·1 | 10·4 | 8·9 | 7·9 | 7·8 | 11·0 | 7·2 | 5·4 | 7·2 | 6·7 |
| 6 | 8·8 | 6·3 | 2·4 | 1·7 | 1·6 | 0·3 | −0·6 | −0·7 | 0·7 | 4·1 | 7·9 | 12·2 | 14·7 | 14·4 | 15·0 | 12·8 | 10·4 | 8·2 | 7·2 | 7·0 | 7·8 | 7·2 | 7·0 | 7·0 | 6·8 |
| 7 *d* | 9·6 | 9·7 | 6·1 | 5·2 | 4·3 | 3·1 | 1·7 | 0·7 | 1·6 | 2·3 | 6·1 | 9·4 | 15·6 | 15·1 | 16·7 | 15·8 | 16·8 | 11·4 | 11·5 | 11·5 | 4·5 | 7·0 | 6·6 | 5·1 | *8·2* |
| 8 *d* | 5·4 | 8·7 | 11·5 | 6·3 | 3·4 | −0·1 | −0·3 | 0·0 | 1·6 | 1·0 | 4·1 | 10·3 | 13·2 | 16·6 | 20·6 | 16·0 | 16·8 | 11·6 | 11·4 | 9·9 | 10·6 | 9·8 | −0·1 | 1·8 | 7·9 |
| 9 | 4·7 | 5·1 | 9·7 | 5·2 | 4·9 | 7·0 | 7·6 | 6·8 | 6·4 | 7·0 | 7·1 | 8·1 | 10·7 | 11·7 | 12·3 | 12·5 | 10·8 | 9·8 | 8·4 | 7·1 | 7·5 | 7·3 | 5·4 | 7·0 | 7·9 |
| 10 | 6·2 | 6·1 | 4·8 | 4·0 | 2·0 | 0·4 | −0·2 | 0·5 | 1·6 | 3·3 | 5·4 | 8·5 | 10·9 | 12·0 | 12·5 | 12·4 | 9·8 | 8·6 | 9·4 | 8·2 | 8·3 | 8·0 | 7·2 | 6·6 | 6·5 |
| 11 | 6·8 | 6·3 | 6·1 | 5·5 | 7·8 | 4·6 | 2·9 | 1·7 | 3·5 | 4·3 | 8·0 | 9·9 | 11·6 | 11·3 | 11·1 | 10·1 | 9·7 | 9·4 | 8·6 | 8·0 | 7·8 | 7·7 | 7·2 | 7·0 | 7·4 |
| 12 *d* | 7·2 | 7·0 | 7·5 | 6·3 | 6·4 | 3·3 | −2·0 | 0·7 | 1·5 | 3·9 | 7·5 | 8·8 | 13·2 | 14·4 | 15·6 | 7·9 | 9·9 | 11·3 | 8·8 | 6·0 | 7·1 | 5·0 | 2·3 | 5·1 | 6·9 |
| 13 | 2·7 | 1·7 | −0·8 | −2·7 | 2·0 | 4·5 | 1·4 | −1·4 | −0·7 | 2·0 | 4·9 | 6·8 | 10·4 | 11·5 | 10·3 | 9·7 | 8·8 | 8·7 | 7·6 | 7·0 | 7·2 | 6·8 | 6·5 | 6·3 | 5·1 |
| 14 | 5·7 | 5·5 | 5·0 | 2·6 | 2·8 | 3·5 | 2·5 | 4·2 | 5·3 | 6·3 | 7·0 | 9·7 | 12·1 | 12·5 | 11·9 | 10·5 | 10·1 | 8·8 | 8·5 | 6·9 | 7·7 | 8·1 | 7·6 | 6·8 | 7·1 |
| 15 | 6·1 | 6·2 | 6·3 | 6·7 | 6·7 | 4·0 | 2·6 | 4·5 | 3·1 | 4·2 | 6·2 | 9·5 | 12·2 | 13·7 | 14·3 | 13·0 | 10·6 | 8·5 | 7·2 | 6·0 | 5·3 | 7·4 | 7·1 | 7·4 | 7·5 |
| 16 | 7·9 | 7·0 | 5·3 | 5·4 | 3·3 | 0·7 | −0·1 | −0·4 | 1·8 | 1·8 | 2·6 | 7·2 | 9·8 | 12·5 | 13·3 | 12·6 | 11·6 | 10·4 | 7·8 | 7·7 | 5·2 | 5·0 | 3·8 | −4·1 | 5·8 |
| 17 | −8·4 | −5·9 | 3·3 | −7·4 | −2·7 | 3·5 | 0·7 | −3·1 | −1·7 | 0·7 | 5·2 | 9·2 | 10·8 | 13·5 | 14·7 | 13·8 | 12·8 | 10·1 | 9·3 | 7·4 | 8·0 | 7·9 | 2·3 | 3·9 | *4·5* |
| 18 | 7·0 | 7·8 | 4·4 | 1·0 | −0·6 | −0·2 | −2·2 | −2·9 | −2·0 | 1·1 | 2·1 | 5·6 | 9·2 | 12·0 | 13·5 | 13·6 | 13·5 | 11·0 | 7·3 | 8·1 | 5·6 | 1·7 | 0·7 | 0·7 | 4·9 |
| 19 *d* | −0·3 | 1·1 | −2·8 | −0·9 | −3·5 | −1·4 | 2·3 | 1·9 | 3·7 | 7·2 | 11·1 | 11·9 | 15·6 | 14·8 | 12·7 | 10·2 | 11·5 | 11·0 | 10·6 | 11·9 | 6·9 | 6·5 | 4·8 | 6·2 | 6·4 |
| 20 | 7·0 | 4·8 | 2·7 | 4·3 | 2·6 | 1·8 | −0·5 | −1·1 | 0·5 | 2·7 | 5·7 | 8·2 | 9·7 | 11·3 | 10·7 | 9·3 | 8·3 | 8·1 | 8·2 | 5·6 | 6·5 | 6·8 | 6·2 | 6·0 | 5·6 |
| 21 | 6·4 | 6·6 | 5·2 | 3·6 | 4·1 | 4·6 | −0·2 | −2·5 | 1·9 | 2·7 | 3·4 | 6·3 | 9·0 | 10·6 | 10·2 | 10·5 | 9·5 | 6·5 | 7·3 | 7·3 | 6·2 | 2·1 | 5·4 | 2·1 | 5·4 |
| 22 | 0·1 | 0·2 | 1·9 | 2·3 | 1·8 | 0·9 | −0·7 | −0·5 | 0·1 | 2·3 | 5·5 | 8·9 | 10·1 | 12·7 | 12·4 | 11·8 | 12·0 | 8·3 | 8·4 | 6·4 | 6·6 | 5·6 | 6·3 | 6·2 | 5·4 |
| 23 *q* | 5·4 | 4·8 | 4·3 | 3·3 | 2·8 | 1·1 | 0·0 | 2·1 | 3·6 | 2·8 | 3·7 | 7·2 | 10·1 | 11·6 | 11·4 | 9·9 | 7·7 | 6·9 | 6·6 | 7·0 | 6·9 | 6·0 | 5·6 | 5·3 | 5·7 |
| 24 *q* | 5·4 | 5·5 | 5·5 | 4·5 | 3·7 | 2·6 | 1·9 | 1·7 | 0·9 | 1·2 | 3·5 | 7·0 | 10·5 | 12·9 | 12·6 | 10·5 | 8·9 | 8·1 | 7·7 | 7·1 | 7·3 | 6·5 | 5·9 | 6·1 | 6·1 |
| 25 | 6·4 | 4·2 | 3·9 | 3·9 | 5·4 | 0·2 | −2·4 | 0·3 | −0·7 | 3·8 | 4·7 | 7·5 | 10·9 | 12·3 | 11·0 | 11·2 | 10·9 | 6·6 | 5·9 | 6·9 | 7·8 | 7·5 | 7·3 | 6·9 | 5·9 |
| 26 | 5·7 | 4·4 | 4·7 | 6·5 | 7·4 | 3·9 | 1·7 | 0·8 | 2·4 | 3·9 | 5·6 | 9·0 | 11·6 | 13·4 | 16·0 | 14·1 | 10·8 | 8·2 | 5·6 | 7·5 | 8·4 | 8·3 | 8·3 | 4·7 | 7·2 |
| 27 | 6·7 | 6·1 | 4·6 | 3·7 | 2·9 | 3·9 | 2·9 | 7·3 | 7·6 | 7·7 | 5·4 | 5·4 | 8·5 | 10·8 | 12·4 | 11·1 | 10·0 | 9·9 | 10·5 | 10·2 | 4·4 | 5·6 | 6·2 | 2·3 | 6·9 |
| 28 | 3·8 | 3·6 | 3·2 | 3·0 | 1·2 | −0·7 | 0·1 | 3·5 | 3·7 | 2·8 | 2·8 | 5·5 | 9·3 | 12·5 | 13·5 | 13·8 | 12·8 | 12·1 | 11·6 | 10·4 | 9·0 | 4·4 | 5·7 | 3·8 | 6·3 |
| 29 *d* | 1·9 | 0·2 | −0·1 | −1·6 | −5·4 | −3·5 | −5·8 | −1·6 | 2·6 | 3·8 | 8·4 | 11·8 | 18·9 | 20·0 | 20·5 | 18·9 | 16·3 | 13·1 | 14·8 | 6·2 | 1·8 | −0·8 | 4·3 | 6·5 | 6·8 |
| 30 *q* | 5·3 | 3·4 | 2·6 | 2·2 | 2·6 | 1·9 | 2·7 | 1·3 | 1·0 | 2·6 | 5·7 | 9·3 | 12·2 | 13·2 | 13·0 | 11·9 | 10·4 | 9·1 | 7·1 | 7·3 | 8·1 | 7·3 | 7·8 | 7·5 | 6·5 |
| Mean | 5·2 | 5·0 | 4·7 | 3·4 | 3·0 | 2·1 | 0·6 | *0·5* | 1·5 | 3·0 | 5·4 | 8·5 | 11·7 | 13·2 | *13·7* | 12·4 | 11·3 | 9·5 | 8·7 | 7·7 | 7·1 | 6·4 | 5·7 | 5·3 | 6·5 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

137 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JUNE

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1131 | 1129 | 1133 | 1135 | 1135 | 1135 | 1135 | 1135 | 1135 | 1131 | 1129 | 1129 | 1129 | 1130 | 1131 | 1134 | 1140 | 1146 | 1146 | 1150 | 1146 | 1140 | 1137 | 1136 | 1136 |
| 2 q | 1136 | 1135 | 1132 | 1129 | 1132 | 1134 | 1132 | 1131 | 1133 | 1134 | 1128 | 1122 | 1119 | 1122 | 1124 | 1131 | 1138 | 1147 | 1150 | 1149 | 1145 | 1141 | 1137 | 1136 | 1134 |
| 3 q | 1136 | 1136 | 1136 | 1137 | 1138 | 1139 | 1139 | 1137 | 1135 | 1130 | 1118 | 1114 | 1121 | 1129 | 1135 | 1136 | 1141 | 1143 | 1143 | 1141 | 1137 | 1135 | 1135 | 1134 | 1134 |
| 4 | 1134 | 1135 | 1135 | 1136 | 1137 | 1139 | 1137 | 1132 | 1131 | 1125 | 1118 | 1114 | 1116 | 1129 | 1135 | 1137 | 1146 | 1147 | 1143 | 1140 | 1137 | 1135 | 1135 | 1135 | 1134 |
| 5 | 1135 | 1136 | 1136 | 1137 | 1138 | 1140 | 1136 | 1135 | 1131 | 1125 | 1123 | 1123 | 1119 | 1119 | 1120 | 1129 | 1137 | 1146 | 1148 | 1144 | 1132 | 1135 | 1125 | 1124 | 1132 |
| 6 | 1112 | 1114 | 1126 | 1134 | 1137 | 1137 | 1137 | 1137 | 1131 | 1119 | 1114 | 1118 | 1123 | 1140 | 1140 | 1142 | 1143 | 1144 | 1142 | 1142 | 1139 | 1137 | 1135 | 1134 | 1132 |
| 7 d | 1130 | 1122 | 1128 | 1134 | 1136 | 1136 | 1135 | 1129 | 1129 | 1133 | 1126 | 1116 | 1119 | 1143 | 1201 | 1213 | 1256 | 1279 | 1247 | 1204 | 1190 | 1165 | 1148 | 1141 | *1161* |
| 8 d | 1124 | 1095 | 1060 | 1088 | 1111 | 1130 | 1137 | 1137 | 1134 | 1129 | 1125 | 1119 | 1118 | 1123 | 1135 | 1154 | 1150 | 1159 | 1149 | 1147 | 1140 | 1143 | 1118 | 1123 | 1127 |
| 9 | 1130 | 1131 | 1124 | 1094 | 1096 | 1105 | 1113 | 1119 | 1119 | 1124 | 1124 | 1126 | 1134 | 1149 | 1160 | 1172 | 1184 | 1173 | 1171 | 1164 | 1154 | 1144 | 1136 | 1133 | 1137 |
| 10 | 1136 | 1137 | 1138 | 1138 | 1141 | 1142 | 1141 | 1137 | 1135 | 1130 | 1125 | 1128 | 1131 | 1137 | 1137 | 1147 | 1165 | 1162 | 1148 | 1147 | 1143 | 1142 | 1141 | 1141 | 1140 |
| 11 | 1138 | 1138 | 1137 | 1138 | 1134 | 1129 | 1129 | 1129 | 1126 | 1124 | 1120 | 1117 | 1125 | 1129 | 1136 | 1137 | 1143 | 1149 | 1148 | 1146 | 1141 | 1137 | 1137 | 1136 | 1134 |
| 12 d | 1136 | 1136 | 1135 | 1135 | 1131 | 1128 | 1129 | 1126 | 1129 | 1120 | 1123 | 1126 | 1135 | 1147 | 1165 | 1195 | 1215 | 1220 | 1219 | 1207 | 1184 | 1162 | 1110 | 1123 | 1151 |
| 13 | 1121 | 1111 | 1087 | 1077 | 1075 | 1081 | 1099 | 1112 | 1119 | 1122 | 1130 | 1129 | 1130 | 1125 | 1123 | 1137 | 1154 | 1159 | 1160 | 1156 | 1153 | 1148 | 1143 | 1141 | 1125 |
| 14 | 1140 | 1139 | 1137 | 1138 | 1138 | 1136 | 1135 | 1129 | 1129 | 1129 | 1126 | 1122 | 1125 | 1134 | 1141 | 1142 | 1148 | 1156 | 1155 | 1155 | 1149 | 1142 | 1139 | 1138 | 1138 |
| 15 | 1137 | 1137 | 1137 | 1137 | 1136 | 1136 | 1137 | 1135 | 1126 | 1124 | 1119 | 1118 | 1123 | 1131 | 1139 | 1143 | 1143 | 1147 | 1150 | 1153 | 1148 | 1144 | 1141 | 1137 | 1137 |
| 16 | 1136 | 1137 | 1137 | 1137 | 1137 | 1138 | 1136 | 1131 | 1117 | 1112 | 1113 | 1112 | 1117 | 1117 | 1123 | 1128 | 1136 | 1142 | 1151 | 1155 | 1160 | 1137 | 1134 | 1093 | 1131 |
| 17 | 1033 | 1063 | 1017 | 1047 | 1069 | 1063 | 1075 | 1101 | 1116 | 1124 | 1124 | 1126 | 1129 | 1129 | 1129 | 1132 | 1137 | 1141 | 1142 | 1144 | 1143 | 1141 | 1138 | 1135 | *1108* |
| 18 | 1128 | 1093 | 1077 | 1105 | 1119 | 1121 | 1128 | 1130 | 1129 | 1126 | 1119 | 1117 | 1114 | 1118 | 1123 | 1136 | 1149 | 1172 | 1178 | 1161 | 1154 | 1148 | 1129 | 1093 | 1128 |
| 19 d | 1081 | 1039 | 1041 | 1046 | 1081 | 1101 | 1100 | 1107 | 1111 | 1116 | 1119 | 1114 | 1135 | 1142 | 1158 | 1174 | 1174 | 1161 | 1159 | 1155 | 1147 | 1130 | 1129 | 1126 | 1119 |
| 20 | 1117 | 1108 | 1119 | 1125 | 1126 | 1130 | 1135 | 1136 | 1135 | 1131 | 1130 | 1128 | 1125 | 1129 | 1135 | 1140 | 1143 | 1146 | 1144 | 1148 | 1147 | 1144 | 1142 | 1141 | 1133 |
| 21 | 1135 | 1117 | 1111 | 1117 | 1124 | 1114 | 1119 | 1124 | 1123 | 1124 | 1125 | 1124 | 1126 | 1129 | 1126 | 1126 | 1132 | 1144 | 1144 | 1149 | 1149 | 1147 | 1137 | 1129 | 1129 |
| 22 | 1116 | 1103 | 1111 | 1119 | 1130 | 1137 | 1141 | 1141 | 1141 | 1135 | 1129 | 1122 | 1120 | 1119 | 1122 | 1125 | 1134 | 1143 | 1143 | 1149 | 1150 | 1148 | 1142 | 1138 | 1132 |
| 23 q | 1137 | 1136 | 1135 | 1136 | 1137 | 1140 | 1138 | 1129 | 1124 | 1123 | 1123 | 1120 | 1118 | 1120 | 1123 | 1126 | 1130 | 1135 | 1137 | 1137 | 1136 | 1136 | 1136 | 1135 | 1131 |
| 24 q | 1135 | 1132 | 1134 | 1136 | 1137 | 1141 | 1137 | 1135 | 1130 | 1131 | 1130 | 1120 | 1117 | 1121 | 1125 | 1128 | 1135 | 1137 | 1138 | 1137 | 1135 | 1136 | 1135 | 1134 | 1132 |
| 25 | 1129 | 1125 | 1128 | 1128 | 1116 | 1107 | 1112 | 1115 | 1118 | 1119 | 1120 | 1117 | 1120 | 1122 | 1123 | 1135 | 1144 | 1159 | 1163 | 1153 | 1141 | 1136 | 1135 | 1135 | 1129 |
| 26 | 1130 | 1124 | 1124 | 1129 | 1126 | 1124 | 1124 | 1128 | 1126 | 1123 | 1117 | 1110 | 1107 | 1113 | 1136 | 1159 | 1183 | 1195 | 1189 | 1168 | 1155 | 1147 | 1140 | 1131 | 1138 |
| 27 | 1130 | 1131 | 1136 | 1137 | 1137 | 1135 | 1134 | 1131 | 1124 | 1119 | 1124 | 1129 | 1130 | 1137 | 1142 | 1148 | 1149 | 1147 | 1143 | 1142 | 1154 | 1160 | 1152 | 1147 | 1138 |
| 28 | 1141 | 1139 | 1138 | 1137 | 1134 | 1136 | 1134 | 1130 | 1129 | 1117 | 1116 | 1118 | 1119 | 1118 | 1118 | 1120 | 1125 | 1131 | 1135 | 1136 | 1138 | 1147 | 1138 | 1136 | 1130 |
| 29 d | 1130 | 1124 | 1122 | 1119 | 1112 | 1112 | 1105 | 1104 | 1096 | 1099 | 1105 | 1107 | 1122 | 1144 | 1169 | 1198 | 1232 | 1219 | 1165 | 1168 | 1147 | 1130 | 1135 | 1144 | 1138 |
| 30 q | 1140 | 1146 | 1148 | 1147 | 1144 | 1146 | 1147 | 1149 | 1147 | 1143 | 1138 | 1128 | 1128 | 1131 | 1138 | 1147 | 1158 | 1161 | 1164 | 1158 | 1150 | 1148 | 1144 | 1142 | 1145 |
| Mean | 1127 | 1122 | *1119* | 1122 | 1125 | 1126 | 1128 | 1128 | 1127 | 1125 | 1123 | 1120 | 1123 | 1129 | 1137 | 1146 | 1155 | *1160* | 1157 | 1153 | 1148 | 1143 | 1136 | 1132 | 1134 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

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| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnetic house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 19 22 | 570 | 482 | 12 06 | 88 | 14 09 | 16·2 | -3·9 | 08 11 | 20·1 | 19 04 | 1153 | 1126 | 10 32 | 27 | 1,2,2,2,2,2,2,1 | 14 | 0 | 83·5 |
| 2 q | 18 23 | 573 | 485 | 12 19 | 88 | 14 51 | 14·3 | -2·4 | 09 03 | 16·7 | 18 57 | 1153 | 1117 | 12 32 | 36 | 2,2,2,2,2,3,2,0 | 15 | 0 | 83·5 |
| 3 q | 18 24 | 561 | 498 | 10 19 | 63 | 13 29 | 15·2 | -2·2 | 08 01 | 17·4 | 17 20 | 1144 | 1112 | 11 23 | 32 | 1,0,1,2,1,1,1,0 | 7 | 0 | 83·5 |
| 4 | 16 21 | 569 | 482 | 13 50 | 87 | 14 25 | 16·6 | -3·8 | 06 40 | 20·4 | 17 01 | 1149 | 1113 | 11 58 | 36 | 0,2,2,2,3,3,1,0 | 13 | 1 | 83·5 |
| 5 | 20 18 | 647 | 494 | 11 16 | 153 | 13 28 | 13·5 | -0·4 | 07 58 | 13·9 | 18 22 | 1150 | 1117 | 12 30 | 33 | 0,0,0,1,2,1,4,3 | 11 | 1 | 83·5 |
| 6 | 20 04 | 570 | 460 | 11 05 | 110 | 14 10 | 16·0 | -3·0 | 07 53 | 19·0 | 17 45 | 1146 | 1109 | 00 29 | 37 | 3,2,2,3,4,2,2,1 | 19 | 1 | 83·5 |
| 7 d | 17 02 | 655 | 411 | 12 15 | 244 | 14 39 | 23·4 | -4·8 | 09 50 | 28·2 | 16 56 | *1297* | 1110 | 11 40 | 187 | 3,1,3,4,6,5,4,3 | 29 | 2 | 83·6 |
| 8 d | 22 20 | 624 | 442 | 15 18 | 182 | 14 39 | 25·2 | -4·8 | 22 17 | 30·0 | 17 31 | 1165 | 1047 | 02 46 | 118 | 4,4,2,4,5,5,3,4 | 31 | 1 | 83·6 |
| 9 | 15 45 | 584 | 484 | 03 15 | 100 | 15 10 | 15·2 | 0·3 | 03 33 | 14·9 | 16 24 | 1185 | 1086 | 03 57 | 99 | 3,3,3,2,3,3,3,2 | 22 | 1 | 83·6 |
| 10 | 16 16 | 588 | 481 | 13 40 | 107 | 14 44 | 13·4 | -1·4 | 07 05 | 14·8 | 17 11 | 1170 | 1124 | 10 19 | 46 | 1,2,2,2,3,4,3,1 | 18 | 1 | 83·6 |
| 11 | 18 32 | 572 | 484 | 12 21 | 88 | 12 51 | 12·5 | -0·3 | 08 00 | 12·8 | 17 33 | 1153 | 1116 | 11 19 | 37 | 2,2,2,3,3,3,3,2 | 20 | 1 | 83·9 |
| 12 d | 15 16 | 647 | 479 | 23 10 | 168 | 14 15 | 16·8 | -6·7 | 22 10 | 23·5 | 17 37 | 1221 | 1117 | 09 50 | 104 | 1,3,2,3,5,4,4,4 | 26 | 1 | 83·9 |
| 13 | 03 40 | 576 | 457 | 12 56 | 119 | 12 44 | 13·2 | -4·0 | 03 57 | 17·2 | 18 18 | 1163 | 1070 | 04 39 | 93 | 3,3,3,3,4,3,2,1 | 22 | 1 | 83·9 |
| 14 | 18 43 | 595 | 473 | 08 27 | 122 | 12 55 | 13·5 | 0·7 | 04 37 | 12·8 | 19 10 | 1159 | 1120 | 11 40 | 39 | 2,2,3,2,2,2,3,1 | 17 | 1 | 83·9 |
| 15 | 20 22 | 580 | 490 | 10 18 | 90 | 14 19 | 15 8 | 2·3 | 06 40 | 13·5 | 19 28 | 1153 | 1117 | 11 10 | 36 | 1,1,2,2,3,3,2,1 | 15 | 1 | 83·9 |
| 16 | 19 18)<br>20 16) | 615 | 458 | 23 58 | 157 | 13 47 | 14·2 | -9·2 | 23 35)<br>23 42) | 23·4 | 20 05 | 1166 | 1063 | 24 00 | 103 | 1,1,2,3,3,3,3,5 | 21 | 1 | 83·9 |
| 17 | 04 19 | 572 | 432 | 00 40 | 140 | 14 05 | 15·0 | *-15·3* | 01 01 | 30·3 | 19 49 | 1147 | *1000* | 02 20 | 147 | 5,5,4,2,3,1,2,3 | 25 | 1 | 84·0 |
| 18 | 16 55 | 643 | 449 | 10 06 | 194 | 15 16 | 14·8 | -4·6 | 07 09 | 19·4 | 18 09 | 1182 | 1071 | 02 07 | 111 | 3,2,3,3,3,4,3,4 | 25 | 1 | 84·1 |
| 19 d | 18 49 | 615 | *395* | 09 02 | 220 | 18 50 | 18·1 | -7·1 | 02 44 | 25·2 | 15 53 | 1183 | 1027 | 01 42 | 156 | 4,4,4,4,5,4,4,4 | 33 | 1 | 84·1 |
| 20 | 15 55 | 578 | 461 | 10 50 | 117 | 14 21 | 12·2 | -2·8 | 07 54 | 15·0 | 19 34 | 1149 | 1105 | 01 40 | 44 | 3,2,2,3,4,3,3,2 | 22 | 1 | 84·1 |
| 21 | 19 04 | 611 | 468 | 08 50 | 143 | 14 13 | 11·2 | -4·2 | 07 33 | 15·4 | 20 10 | 1154 | 1107 | 02 49 | 47 | 2,3,3,2,3,3,3,3 | 22 | 1 | 84·1 |
| 22 | 19 26 | 586 | 485 | 12 18 | 101 | 13 46 | 14·5 | -2·8 | 01 51 | 17·3 | 20 03 | 1154 | 1099 | 01 42 | 55 | 3,2,2,2,3,3,4,1 | 20 | 1 | 84·1 |
| 23 q | 18 39 | 550 | 477 | 11 03 | 73 | 14 00 | 12·0 | -1·6 | 06 36 | 13·6 | 05 39 | 1142 | 1117 | 12 55 | *25* | 1,1,3,2,2,1,1,0 | 11 | 0 | 84·1 |
| 24 q | 18 23 | 575 | 513 | 10 38 | *62* | 13 47 | 13·4 | 0·5 | 09 03 | 12·9 | 05 35 | 1142 | 1113 | 12 11 | 29 | 0,1,2,1,1,1,3,2 | 11 | 0 | 84·1 |
| 25 | 18 00 | 589 | 489 | 13 34 | 100 | 13 17 | 12·7 | -3·4 | 06 16 | 16·1 | 18 31 | 1165 | 1107 | 05 02 | 58 | 2,2,2,2,3,3,3,1 | 18 | 1 | 84·1 |
| 26 | 16 10 | 619 | 485 | 13 12 | 134 | 14 12 | 17·2 | -0·1 | 07 04 | 17·3 | 17 50 | 1196 | 1104 | 12 50 | 92 | 2,2,2,2,4,4,2,3 | 21 | 1 | 84·0 |
| 27 | 19 35 | 635 | 491 | 07 48 | 144 | 14 30 | 13·0 | 1·1 | 06 00 | *11·9* | 21 23 | 1166 | 1118 | 09 51 | 48 | 2,2,3,3,3,4,4,4 | 25 | 1 | 84·0 |
| 28 | 18 20)<br>18 38) | 607 | 502 | 08 14 | 105 | 15 38 | 14·7 | -6·3 | 06 07 | 21·0 | 21 20 | 1149 | 1113 | 10 05 | 36 | 2,3,3,2,3,3,3,2 | 21 | 1 | 84·0 |
| 29 d | 18 01 | *756* | 485 | 10 01 | *271* | 13 57 | 24·3 | -10·7 | 04 50 | *35·0* | 16 43 | 1254 | 1065 | 08 55 | *189* | 2,3,4,3,4,5,6,4 | 31 | 2 | 84·0 |
| 30 q | 20 44 | 557 | 464 | 10 01 | 93 | 14 23 | 13·9 | 0·2 | 08 02 | 13·7 | 18 42 | 1166 | 1123 | 12 00 | 43 | 2,2,2,2,3,3,2,0 | 16 | 0 | 84·0 |
| Mean | - - | 601 | 472 | - - | 129 | - - | 15·4 | -3·4 | - - | 18·8 | - - | 1169 | 1098 | - - | 71 | - | - | 0·87 | 83·9 |

*q* denotes an international quiet day and *d* an international disturbed day

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

139 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 528 | 525 | 527 | 533 | 537 | 532 | 520 | 510 | 500 | 489 | 484 | 489 | 501 | 511 | 542 | 553 | 548 | 547 | 550 | 553 | 553 | 546 | 545 | 539 | 528 |
| 2 | 537 | 541 | 545 | 549 | 551 | 551 | 530 | 498 | 504 | 493 | 497 | 493 | 489 | 514 | 536 | 540 | 538 | 544 | 554 | 559 | 554 | 549 | 543 | 540 | 531 |
| 3 | 535 | 545 | 548 | 551 | 547 | 553 | 548 | 498 | 505 | 489 | 481 | 517 | 526 | 525 | 546 | 541 | 562 | 562 | 564 | 555 | 556 | 550 | 550 | 545 | 537 |
| 4 *q* | 542 | 537 | 533 | 534 | 531 | 531 | 525 | 515 | 505 | 490 | 486 | 480 | 487 | 509 | 533 | 549 | 550 | 543 | 549 | 547 | 546 | 546 | 541 | 538 | 527 |
| 5 *q* | 536 | 533 | 532 | 530 | 533 | 533 | 526 | 513 | 505 | 496 | 489 | 494 | 512 | 537 | 529 | 539 | 537 | 533 | 542 | 549 | 549 | 546 | 544 | 540 | 528 |
| 6 | 541 | 541 | 546 | 545 | 542 | 542 | 542 | 537 | 524 | 519 | 511 | 515 | 513 | 521 | 514 | 538 | 554 | 553 | 551 | 559 | 562 | 546 | 541 | 538 | 537 |
| 7 *d* | 535 | 541 | 541 | 562 | 579 | 520 | 554 | 530 | 529 | 517 | 498 | 480 | 491 | 515 | 526 | 540 | 546 | 619 | 602 | 570 | 543 | 505 | 489 | 477 | 534 |
| 8 | 460 | 470 | 493 | 497 | 494 | 490 | 489 | 487 | 480 | 470 | 473 | 497 | 511 | 510 | 526 | 554 | 550 | 534 | 541 | 547 | 544 | 554 | 553 | 551 | 511 |
| 9 | 555 | 558 | 531 | 557 | 552 | 541 | 534 | 523 | 514 | 510 | 494 | 492 | 496 | 508 | 534 | 566 | 549 | 533 | 544 | 525 | 533 | 530 | 529 | 529 | 531 |
| 10 | 532 | 528 | 522 | 526 | 521 | 517 | 513 | 513 | 506 | 509 | 497 | 517 | 526 | 530 | 545 | 546 | 567 | 550 | 547 | 541 | 537 | 537 | 545 | 534 | 529 |
| 11 | 530 | 534 | 525 | 538 | 541 | 534 | 517 | 501 | 497 | 481 | 485 | 496 | 518 | 525 | 529 | 535 | 542 | 561 | 582 | 545 | 551 | 545 | 532 | 528 | 528 |
| 12 | 525 | 526 | 525 | 526 | 528 | 514 | 504 | 498 | 489 | 495 | 495 | 497 | 500 | 505 | 521 | 534 | 534 | 542 | 543 | 545 | 542 | 546 | 542 | 542 | 522 |
| 13 *q* | 538 | 536 | 538 | 537 | 538 | 532 | 526 | 521 | 518 | 515 | 509 | 513 | 524 | 542 | 562 | 563 | 553 | 546 | 548 | 546 | 546 | 549 | 549 | 547 | 537 |
| 14 | 545 | 546 | 546 | 549 | 551 | 553 | 546 | 542 | 524 | 528 | 515 | 521 | 518 | 546 | 521 | 530 | 587 | 592 | 562 | 553 | 546 | 550 | 546 | 534 | 544 |
| 15 | 521 | 524 | 534 | 536 | 513 | 530 | 534 | 522 | 505 | 498 | 497 | 498 | 510 | 526 | 540 | 542 | 534 | 536 | 550 | 538 | 537 | 534 | 534 | 530 | 526 |
| 16 | 530 | 528 | 533 | 535 | 534 | 529 | 517 | 506 | 506 | 505 | 473 | 499 | 504 | 524 | 521 | 542 | 545 | 562 | 578 | 574 | 558 | 550 | 550 | 529 | 531 |
| 17 | 537 | 541 | 534 | 527 | 533 | 526 | 526 | 509 | 487 | 484 | 481 | 489 | 506 | 506 | 531 | 563 | 562 | 561 | 550 | 555 | 554 | 543 | 553 | 541 | 529 |
| 18 *d* | 530 | 530 | 537 | 539 | 539 | 532 | 517 | 509 | 513 | 521 | 518 | 502 | 521 | 534 | 615 | 643 | 644 | 611 | 626 | 582 | 552 | 530 | 550 | 519 | 551 |
| 19 | 526 | 506 | 516 | 541 | 554 | 514 | 492 | 491 | 458 | 449 | 438 | 441 | 462 | 509 | 542 | 546 | 544 | 545 | 549 | 550 | 542 | 537 | 530 | 542 | 513 |
| 20 *q* | 521 | 519 | 521 | 522 | 525 | 522 | 513 | 504 | 494 | 489 | 479 | 484 | 489 | 502 | 510 | 529 | 530 | 541 | 553 | 554 | 548 | 547 | 538 | 530 | 519 |
| 21 | 529 | 526 | 529 | 535 | 534 | 530 | 519 | 519 | 510 | 497 | 484 | 480 | 489 | 501 | 538 | 570 | 578 | 545 | 545 | 550 | 554 | 556 | 543 | 545 | 529 |
| 22 | 529 | 530 | 534 | 530 | 518 | 538 | 530 | 513 | 500 | 500 | 490 | 492 | 505 | 515 | 537 | 570 | 589 | 578 | 555 | 565 | 566 | 543 | 553 | 569 | 535 |
| 23 | 539 | 542 | 544 | 545 | 535 | 529 | 518 | 505 | 505 | 509 | 515 | 521 | 493 | 526 | 523 | 539 | 532 | 529 | 550 | 557 | 563 | 554 | 547 | 539 | 532 |
| 24 | 533 | 529 | 526 | 533 | 530 | 526 | 525 | 514 | 508 | 505 | 500 | 502 | 500 | 498 | 517 | 529 | 532 | 537 | 541 | 547 | 554 | 549 | 546 | 545 | 526 |
| 25 | 544 | 534 | 535 | 533 | 537 | 530 | 529 | 528 | 514 | 516 | 509 | 514 | 520 | 521 | 538 | 547 | 548 | 594 | 555 | 596 | 587 | 553 | 544 | 534 | 540 |
| 26 *d* | 525 | 532 | 515 | 521 | 526 | 491 | 525 | 525 | 505 | 474 | 482 | 473 | 501 | 530 | 527 | 581 | 574 | 566 | 594 | 948 | 752 | 671 | 765 | 599 | *571* |
| 27 *d* | -111 | 55 | -238 | -408 | 4 | 9 | -153 | 289 | 449 | 480 | 489 | 496 | 482 | 499 | 498 | 503 | 504 | 515 | 511 | 491 | 488 | 481 | 492 | 483 | *305* |
| 28 | 470 | 469 | 470 | 472 | 472 | 480 | 472 | 466 | 461 | 457 | 454 | 448 | 445 | 484 | 509 | 519 | 514 | 547 | 535 | 551 | 532 | 544 | 515 | 515 | 492 |
| 29 *d* | 506 | 515 | 495 | 489 | 492 | 467 | 457 | 472 | 476 | 458 | 458 | 475 | 507 | 520 | 524 | 528 | 603 | 681 | 560 | 537 | 528 | 523 | 529 | 522 | 513 |
| 30 | 515 | 497 | 484 | 439 | 492 | 484 | 496 | 482 | 459 | 463 | 476 | 492 | 495 | 535 | 516 | 541 | 600 | 560 | 524 | 524 | 519 | 520 | 514 | 513 | 506 |
| 31 | 520 | 513 | 506 | 511 | 511 | 513 | 512 | 505 | 499 | 481 | 484 | 489 | 486 | 493 | 501 | 524 | 532 | 518 | 525 | 525 | 535 | 533 | 536 | 531 | 512 |
| Mean | 507 | 511 | 501 | 498 | 513 | 506 | 497 | 501 | 498 | 493 | *488* | 493 | 501 | 517 | 531 | 547 | 554 | 558 | 554 | *563* | 553 | 544 | 545 | 535 | 521 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

140 ESKDALEMUIR (D) — 12° + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 5·6 | 5·1 | 3·9 | 3·7 | 2·6 | 0·2 | -1·5 | -1·6 | -1·5 | 0·3 | 3·4 | 6·6 | 10·7 | 11·9 | 11·7 | 10·7 | 9·2 | 8·9 | 8·0 | 8·1 | 7·3 | 6·5 | 6·4 | 5·8 | 5·5 |
| 2 | 5·5 | 5·0 | 4·5 | 6·5 | 8·0 | 2·0 | 0·4 | 0·8 | 2·8 | 2·0 | 3·4 | 5·5 | 8·0 | 9·7 | 10·1 | 10·5 | 9·3 | 7·2 | 7·1 | 7·3 | 7·3 | 7·7 | 6·2 | 5·7 | 5·9 |
| 3 | 5·5 | 5·7 | 6·3 | 5·1 | 8·1 | 7·4 | 2·9 | 6·9 | 9·8 | 7·4 | 11·1 | 10·0 | 9·7 | 7·4 | 8·1 | 8·4 | 9·1 | 7·8 | 8·9 | 8·5 | 8·1 | 7·2 | 7·1 | 5·5 | *7·6* |
| 4 *q* | 4·5 | 3·8 | 3·0 | 2·1 | 0·9 | 0·1 | -0·9 | -0·4 | 1·1 | 2·9 | 4·4 | 8·3 | 12·0 | 13·7 | 11·2 | 10·3 | 10·4 | 10·0 | 9·3 | 8·4 | 7·4 | 6·5 | 6·0 | 5·5 | 5·9 |
| 5 *q* | 5·9 | 5·5 | 5·7 | 3·1 | 1·5 | 0·1 | 0·1 | 0·3 | 0·7 | 1·8 | 3·7 | 7·4 | 9·7 | 11·5 | 11·6 | 11·8 | 9·7 | 8·6 | 9·0 | 9·2 | 9·0 | 7·9 | 6·9 | 6·3 | 6·1 |
| 6 | 5·3 | 4·7 | 4·5 | 3·8 | 3·0 | 2·1 | 1·8 | 2·1 | 1·9 | 3·7 | 4·6 | 8·4 | 10·1 | 11·7 | 11·9 | 11·7 | 10·0 | 9·1 | 8·7 | 7·0 | 8·2 | 7·3 | 7·1 | 6·3 | 6·5 |
| 7 *d* | 4·8 | 5·2 | 5·7 | 7·0 | 8·4 | 2·9 | 4·2 | -0·6 | -1·8 | 0·0 | 5·5 | 8·0 | 12·5 | 13·7 | 14·7 | 14·5 | 10·5 | 12·7 | 11·9 | 9·1 | 7·3 | 5·2 | 2·8 | 0·8 | 6·8 |
| 8 | -4·3 | -4·3 | -6·1 | -6·7 | -6·2 | -5·5 | -3·1 | -1·7 | 1·9 | 4·1 | 6·6 | 11·0 | 12·8 | 14·5 | 13·6 | 12·9 | 12·5 | 7·9 | 8·1 | 8·8 | 7·6 | 6·7 | 6·5 | 6·5 | 4·3 |
| 9 | 6·4 | 6·4 | 7·3 | 0·3 | -2·3 | -3·7 | -2·5 | -1·1 | 0·2 | 2·7 | 5·7 | 9·2 | 10·1 | 10·6 | 11·6 | 12·0 | 9·4 | 8·3 | 9·2 | 8·3 | 7·5 | 4·7 | 4·5 | 5·8 | 5·4 |
| 10 | 5·5 | 5·4 | 6·9 | 5·5 | 2·2 | 0·9 | 0·8 | 1·9 | 4·5 | 5·3 | 7·3 | 10·9 | 11·8 | 12·4 | 12·5 | 11·0 | 10·7 | 5·4 | 6·4 | 9·3 | 9·8 | 8·9 | 8·2 | 6·5 | 7·1 |
| 11 | 6·4 | 6·7 | 8·8 | 5·4 | 1·3 | 1·0 | 0·3 | 0·5 | 2·6 | 1·0 | 2·1 | 4·8 | 8·0 | 9·0 | 8·4 | 8·8 | 8·0 | 7·7 | 5·3 | 5·4 | 7·3 | 3·9 | 5·7 | 7·3 | 5·2 |
| 12 | 5·6 | 5·2 | 4·0 | 2·8 | 2·8 | 1·5 | 1·8 | 3·0 | 3·8 | 4·6 | 4·8 | 7·0 | 9·3 | 10·3 | 9·9 | 8·2 | 5·9 | 6·0 | 6·5 | 6·9 | 6·9 | 7·3 | 7·4 | 7·3 | 5·8 |
| 13 *q* | 6·5 | 6·4 | 6·3 | 5·7 | 3·8 | 1·3 | 1·2 | 2·6 | 4·4 | 5·7 | 6·1 | 9·8 | 12·7 | 14·3 | 12·9 | 11·0 | 8·7 | 7·3 | 5·4 | 5·1 | 5·9 | 6·4 | 6·6 | 6·0 | 6·8 |
| 14 | 5·9 | 5·6 | 5·8 | 3·9 | 3·0 | 1·1 | 1·1 | 2·8 | 5·8 | 3·8 | 4·6 | 8·2 | 11·9 | 14·3 | 14·3 | 13·0 | 15·9 | 11·9 | 9·4 | 10·0 | 9·2 | 8·0 | 5·2 | 3·4 | 7·4 |
| 15 | 1·9 | 3·6 | 3·6 | 0·1 | 0·6 | 0·4 | -2·8 | -0·7 | 0·1 | 1·8 | 5·1 | 8·9 | 11·6 | 13·4 | 12·9 | 10·9 | 8·1 | 7·1 | 6·5 | 6·5 | 6·3 | 6·2 | 5·5 | 5·1 | 5·1 |
| 16 | 4·6 | 3·8 | 3·8 | 3·4 | 2·8 | 0·8 | -0·3 | 0·9 | 1·8 | 0·0 | 3·3 | 7·9 | 9·7 | 10·9 | 10·4 | 11·7 | 4·1 | 8·2 | 7·5 | 7·2 | 7·2 | 5·7 | 2·9 | 2·8 | 5·0 |
| 17 | 3·7 | 5·7 | 1·9 | 1·1 | 1·9 | 2·7 | 3·8 | -0·8 | 0·0 | 2·2 | 6·4 | 9·0 | 11·9 | 14·3 | 13·3 | 12·0 | 10·1 | 9·3 | 7·2 | 7·0 | 7·3 | 5·5 | 2·6 | 1·0 | 5·8 |
| 18 *d* | 1·5 | 2·0 | 3·5 | 3·1 | 1·2 | -0·2 | -2·5 | -2·0 | -1·2 | -2·4 | 1·0 | 5·4 | 10·7 | 13·6 | 20·7 | 21·7 | 15·3 | 14·6 | 10·9 | 6·2 | 7·3 | 3·0 | 1·0 | 4·0 | 5·8 |
| 19 | 3·6 | 6·1 | 7·3 | 1·1 | 6·4 | 7·3 | 4·7 | 6·9 | 4·0 | 2·2 | 3·7 | 7·5 | 12·5 | 12·3 | 8·6 | 9·2 | 7·6 | 6·9 | 6·5 | 7·2 | 3·8 | 6·3 | 6·4 | 2·9 | 6·3 |
| 20 *q* | 5·6 | 2·8 | 2·9 | 1·2 | -0·1 | -1·7 | -3·3 | -2·7 | -2·1 | 0·1 | 3·0 | 7·0 | 10·9 | 13·6 | 13·6 | 12·5 | 9·1 | 7·5 | 6·5 | 5·9 | 6·2 | 6·3 | 6·3 | 5·7 | 4·9 |
| 21 | 3·5 | 3·0 | 3·8 | 2·9 | -1·7 | -1·6 | -1·7 | -1·9 | -1·7 | 2·8 | 4·4 | 7·7 | 11·1 | 12·9 | 13·6 | 12·6 | 9·0 | 7·2 | 6·5 | 7·3 | 7·2 | 1·8 | 3·0 | 0·1 | 4·7 |
| 22 | 1·0 | 2·9 | 2·9 | 1·3 | 2·9 | 1·0 | -3·9 | -3·8 | -1·4 | 1·9 | 5·1 | 6·8 | 10·3 | 12·7 | 12·9 | 13·0 | 11·6 | 7·7 | 6·6 | 6·4 | 7·7 | 6·0 | 6·5 | 1·0 | 5·0 |
| 23 | -0·7 | -0·9 | 0·3 | 0·5 | -1·7 | -3·1 | -3·2 | -4·4 | -0·8 | 2·4 | 5·2 | 8·7 | 12·1 | 13·0 | 13·4 | 13·7 | 12·5 | 7·0 | 6·0 | 5·9 | 5·9 | 5·4 | 5·7 | 5·7 | 4·5 |
| 24 | 5·3 | 4·6 | 3·8 | 4·0 | 2·0 | 1·1 | 1·9 | 1·1 | 1·5 | 1·8 | 3·8 | 6·6 | 10·1 | 11·0 | 10·1 | 8·7 | 7·4 | 7·1 | 6·5 | 5·7 | 6·2 | 6·9 | 7·1 | 6·6 | 5·5 |
| 25 | 5·9 | 5·9 | 5·6 | 5·2 | 1·0 | -1·7 | -0·9 | 2·4 | 3·7 | 8·1 | 10·0 | 12·8 | 14·5 | 13·5 | 12·5 | 11·2 | 9·9 | 3·9 | 3·7 | 6·5 | 6·2 | 6·2 | 5·4 | 0·8 | 6·3 |
| 26 *d* | 2·6 | -2·7 | -1·6 | 0·2 | -1·6 | 3·5 | 0·2 | 0·1 | -1·5 | -2·0 | 3·3 | 7·2 | 11·0 | 12·6 | 11·8 | 12·3 | 10·1 | 8·6 | 9·7 | 13·6 | 26·9 | 20·2 | 6·6 | 19·2 | 7·1 |
| 27 *d* | -4·0 | -30·6 | -24·3 | -29·2 | -2·6 | -16·6 | 24·7 | -10·3 | -7·1 | -2·4 | 8·5 | 12·4 | 12·6 | 10·2 | 8·9 | 6·7 | 5·3 | 3·7 | 2·0 | 1·0 | 1·3 | 1·2 | 1·9 | 3·5 | *-1·0* |
| 28 | 3·6 | 3·0 | 1·3 | 0·8 | -0·3 | -1·1 | -1·9 | -3·1 | -2·5 | -0·9 | 3·1 | 8·3 | 9·9 | 9·9 | 10·2 | 9·2 | 6·5 | 5·6 | 3·8 | 3·0 | 2·8 | 2·9 | 6·3 | 3·8 | 3·5 |
| 29 *d* | 3·8 | 3·8 | 1·9 | 3·7 | 5·5 | 10·7 | 8·9 | 5·6 | 3·8 | 3·0 | 7·5 | 12·7 | 15·4 | 13·3 | 13·4 | 10·3 | 10·5 | 5·8 | 4·3 | 5·7 | 7·2 | 6·5 | 2·3 | 8·0 | 7·2 |
| 30 | 4·5 | 1·1 | 6·4 | 9·3 | 2·0 | -0·1 | -4·3 | -4·4 | -3·9 | -0·3 | 2·6 | 6·9 | 9·3 | 11·7 | 9·8 | 10·0 | 7·4 | 5·4 | 4·6 | 5·1 | 5·8 | 5·4 | 5·3 | 4·9 | 4·4 |
| 31 | 8·2 | 7·3 | 3·7 | 2·5 | 1·8 | 1·1 | 0·3 | 0·0 | 1·9 | 2·2 | 3·7 | 9·0 | 13·1 | 14·4 | 13·6 | 10·9 | 7·2 | 4·6 | 2·6 | 2·9 | 3·5 | 5·3 | 6·2 | 6·4 | 5·5 |
| Mean | 4·0 | 2·8 | 3·0 | 1·9 | 1·9 | 0·5 | 0·9 | *-0·1* | 1·0 | 2·1 | 4·9 | 8·4 | 11·2 | *12·2* | 12·0 | 11·3 | 9·4 | 7·7 | 6·9 | 6·9 | 7·3 | 6·3 | 5·4 | 5·1 | 5·5 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

141 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — JULY

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 q | 1143 | 1143 | 1144 | 1145 | 1147 | 1146 | 1144 | 1141 | 1138 | 1140 | 1137 | 1134 | 1129 | 1135 | 1136 | 1147 | 1153 | 1155 | 1154 | 1150 | 1148 | 1144 | 1142 | 1141 | 1143 |
| 2 | 1141 | 1140 | 1138 | 1137 | 1129 | 1124 | 1129 | 1131 | 1130 | 1128 | 1129 | 1129 | 1130 | 1130 | 1129 | 1136 | 1143 | 1148 | 1149 | 1147 | 1142 | 1139 | 1138 | 1136 | 1135 |
| 3 | 1136 | 1136 | 1136 | 1136 | 1136 | 1129 | 1130 | 1129 | 1113 | 1113 | 1114 | 1108 | 1124 | 1146 | 1153 | 1156 | 1154 | 1155 | 1153 | 1147 | 1142 | 1141 | 1137 | 1137 | 1136 |
| 4 q | 1137 | 1137 | 1139 | 1139 | 1141 | 1140 | 1136 | 1134 | 1129 | 1129 | 1124 | 1122 | 1129 | 1129 | 1130 | 1136 | 1141 | 1141 | 1141 | 1142 | 1140 | 1137 | 1136 | 1136 | 1135 |
| 5 q | 1136 | 1136 | 1135 | 1135 | 1137 | 1137 | 1136 | 1136 | 1134 | 1132 | 1127 | 1117 | 1115 | 1122 | 1131 | 1139 | 1143 | 1144 | 1141 | 1140 | 1140 | 1140 | 1137 | 1136 | 1134 |
| 6 | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1131 | 1130 | 1125 | 1119 | 1114 | 1113 | 1118 | 1123 | 1130 | 1131 | 1141 | 1146 | 1144 | 1143 | 1142 | 1143 | 1141 | 1137 | 1133 |
| 7 d | 1136 | 1136 | 1134 | 1122 | 1095 | 1100 | 1094 | 1105 | 1105 | 1106 | 1103 | 1105 | 1107 | 1117 | 1131 | 1143 | 1161 | 1171 | 1183 | 1195 | 1189 | 1181 | 1160 | 1144 | 1134 |
| 8 | 1117 | 1119 | 1120 | 1117 | 1120 | 1124 | 1124 | 1129 | 1135 | 1138 | 1136 | 1132 | 1129 | 1142 | 1141 | 1136 | 1134 | 1143 | 1143 | 1142 | 1146 | 1147 | 1143 | 1141 | 1133 |
| 9 | 1137 | 1137 | 1112 | 1113 | 1134 | 1141 | 1136 | 1134 | 1131 | 1125 | 1129 | 1129 | 1135 | 1146 | 1159 | 1174 | 1191 | 1179 | 1161 | 1154 | 1147 | 1147 | 1146 | 1139 | 1143 |
| 10 | 1137 | 1137 | 1136 | 1132 | 1138 | 1141 | 1141 | 1137 | 1132 | 1129 | 1125 | 1117 | 1117 | 1124 | 1131 | 1141 | 1147 | 1167 | 1171 | 1161 | 1154 | 1149 | 1144 | 1135 | 1139 |
| 11 | 1137 | 1137 | 1131 | 1108 | 1112 | 1124 | 1129 | 1129 | 1129 | 1125 | 1123 | 1121 | 1119 | 1129 | 1142 | 1147 | 1149 | 1149 | 1158 | 1166 | 1161 | 1155 | 1148 | 1141 | 1136 |
| 12 | 1140 | 1137 | 1136 | 1135 | 1131 | 1135 | 1124 | 1124 | 1124 | 1123 | 1123 | 1124 | 1130 | 1134 | 1140 | 1144 | 1148 | 1151 | 1152 | 1148 | 1145 | 1141 | 1138 | 1137 | 1136 |
| 13 q | 1137 | 1137 | 1138 | 1140 | 1141 | 1141 | 1136 | 1130 | 1129 | 1130 | 1131 | 1129 | 1130 | 1134 | 1135 | 1136 | 1140 | 1143 | 1142 | 1143 | 1141 | 1137 | 1136 | 1136 | 1136 |
| 14 | 1136 | 1135 | 1135 | 1135 | 1136 | 1135 | 1131 | 1130 | 1130 | 1129 | 1119 | 1114 | 1119 | 1136 | 1153 | 1166 | 1178 | 1197 | 1180 | 1159 | 1150 | 1144 | 1141 | 1137 | 1143 |
| 15 | 1135 | 1136 | 1136 | 1135 | 1123 | 1095 | 1112 | 1122 | 1118 | 1119 | 1119 | 1117 | 1119 | 1124 | 1131 | 1139 | 1141 | 1140 | 1137 | 1139 | 1137 | 1136 | 1136 | 1136 | 1128 |
| 16 | 1136 | 1136 | 1136 | 1137 | 1137 | 1136 | 1136 | 1135 | 1120 | 1112 | 1108 | 1107 | 1117 | 1128 | 1129 | 1141 | 1159 | 1150 | 1150 | 1147 | 1143 | 1138 | 1128 | 1129 | 1133 |
| 17 | 1124 | 1101 | 1106 | 1120 | 1129 | 1130 | 1117 | 1113 | 1108 | 1109 | 1106 | 1105 | 1110 | 1116 | 1123 | 1132 | 1142 | 1142 | 1142 | 1139 | 1137 | 1137 | 1134 | 1126 | 1123 |
| 18 d | 1130 | 1131 | 1130 | 1129 | 1131 | 1134 | 1131 | 1124 | 1119 | 1107 | 1105 | 1107 | 1106 | 1110 | 1116 | 1146 | 1189 | 1203 | 1215 | 1210 | 1189 | 1155 | 1123 | 1116 | 1140 |
| 19 | 1111 | 1105 | 1075 | 1096 | 1101 | 1099 | 1106 | 1113 | 1120 | 1129 | 1136 | 1143 | 1142 | 1159 | 1194 | 1191 | 1196 | 1192 | 1182 | 1171 | 1162 | 1148 | 1141 | 1128 | 1139 |
| 20 q | 1125 | 1131 | 1135 | 1142 | 1144 | 1147 | 1143 | 1138 | 1135 | 1130 | 1122 | 1119 | 1119 | 1122 | 1125 | 1129 | 1136 | 1142 | 1142 | 1142 | 1143 | 1141 | 1137 | 1132 | 1134 |
| 21 | 1130 | 1131 | 1130 | 1124 | 1126 | 1132 | 1133 | 1130 | 1124 | 1123 | 1123 | 1119 | 1116 | 1119 | 1130 | 1142 | 1155 | 1154 | 1152 | 1145 | 1138 | 1137 | 1130 | 1119 | 1132 |
| 22 | 1120 | 1125 | 1129 | 1134 | 1131 | 1113 | 1120 | 1124 | 1123 | 1119 | 1117 | 1114 | 1114 | 1124 | 1136 | 1147 | 1155 | 1168 | 1167 | 1156 | 1149 | 1144 | 1136 | 1113 | 1132 |
| 23 | 1105 | 1116 | 1125 | 1129 | 1134 | 1135 | 1130 | 1123 | 1118 | 1112 | 1108 | 1104 | 1107 | 1110 | 1115 | 1125 | 1134 | 1138 | 1143 | 1143 | 1143 | 1138 | 1136 | 1135 | 1125 |
| 24 | 1135 | 1135 | 1136 | 1137 | 1140 | 1143 | 1142 | 1141 | 1136 | 1127 | 1123 | 1120 | 1123 | 1129 | 1137 | 1143 | 1144 | 1142 | 1140 | 1141 | 1140 | 1135 | 1135 | 1135 | 1136 |
| 25 | 1134 | 1135 | 1129 | 1125 | 1123 | 1126 | 1127 | 1123 | 1117 | 1117 | 1114 | 1113 | 1108 | 1108 | 1126 | 1135 | 1130 | 1153 | 1155 | 1149 | 1153 | 1147 | 1141 | 1132 | 1130 |
| 26 d | 1117 | 1105 | 1107 | 1098 | 1095 | 1096 | 1090 | 1101 | 1101 | 1111 | 1117 | 1118 | 1111 | 1120 | 1131 | 1142 | 1154 | 1161 | 1148 | 1141 | 1206 | 1190 | 1244 | 1082 | 1129 |
| 27 d | 765 | 795 | 948 | 913 | 741 | 790 | 694 | 956 | 1159 | 1183 | 1194 | 1201 | 1189 | 1180 | 1183 | 1185 | 1185 | 1181 | 1178 | 1173 | 1171 | 1167 | 1166 | 1165 | *1061* |
| 28 | 1162 | 1160 | 1161 | 1160 | 1160 | 1161 | 1166 | 1166 | 1164 | 1159 | 1153 | 1153 | 1165 | 1166 | 1171 | 1172 | 1168 | 1177 | 1189 | 1186 | 1180 | 1159 | 1138 | 1145 | *1164* |
| 29 d | 1130 | 1141 | 1144 | 1143 | 1131 | 1111 | 1112 | 1124 | 1136 | 1141 | 1143 | 1142 | 1136 | 1149 | 1155 | 1153 | 1161 | 1186 | 1190 | 1179 | 1161 | 1152 | 1142 | 1129 | 1145 |
| 30 | 1105 | 1107 | 1108 | 1093 | 1119 | 1139 | 1147 | 1152 | 1152 | 1150 | 1146 | 1138 | 1130 | 1148 | 1156 | 1161 | 1179 | 1183 | 1174 | 1156 | 1148 | 1147 | 1146 | 1146 | 1143 |
| 31 | 1141 | 1128 | 1132 | 1141 | 1146 | 1143 | 1146 | 1147 | 1142 | 1137 | 1137 | 1128 | 1124 | 1135 | 1146 | 1154 | 1159 | 1161 | 1160 | 1153 | 1148 | 1144 | 1142 | 1138 | 1143 |
| Mean | 1120 | 1120 | 1124 | 1122 | 1117 | 1119 | *1115* | 1124 | 1129 | 1127 | 1126 | 1124 | 1125 | 1132 | 1140 | 1147 | 1155 | *1160* | 1159 | 1155 | 1153 | 1147 | 1143 | 1133 | 1134 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

142 ESKDALEMUIR — JULY

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 q | 20 00 | 561 | 482 | 10 32 | 79 | 14 05 | 12·5 | -2·0 | 08 19 | 14·5 | 17 49 | 1156 | 1126 | 12 25 | 30 | 1,1,0,1,3,2,2,0 | 10 | 0 | 84·0 |
| 2 | 19 31 | 563 | 480 | 12 02 | 83 | 15 35 | 10·6 | -0·9 | 07 14 | 11·5 | 17 53 | 1152 | 1122 | 05 03 | 30 | 2,2,3,2,3,2,2,1 | 17 | 0 | 83·9 |
| 3 | 16 30 | 571 | 433 | 10 15 | 138 | 10 29 | 13·8 | 0·0 | 06 25 | 13·8 | 15 27 | 1158 | 1107 | 11 32 | 51 | 2,3,4,4,3,3,2,1 | 22 | 1 | 83·9 |
| 4 q | 18 50 | 558 | 473 | 12 03 | 85 | 13 24 | 14·6 | -2·6 | 06 54 | 17·2 | 17 00 | 1143 | 1120 | 11 41 | 23 | 1,1,0,2,3,2,2,0 | 11 | 0 | 83·8 |
| 5 q | 20 09 | 551 | 527 | 10 46 | *24* | 15 04 | 12·4 | -0·8 | 06 30 | 13·2 | 17 13 | 1147 | 1112 | 12 01 | 35 | 1,0,1,1,3,2,2,1 | 11 | 0 | 83·8 |
| 6 | 19 48 | 570 | 506 | 10 44 | 64 | 13 49 | 12·5 | 0·9 | 05 30 | 11·6 | 17 02 | 1148 | 1111 | 10 55 | 37 | 2,1,1,1,2,2,2,2 | 13 | 0 | 83·8 |
| 7 d | 17 48 | 638 | 453 | 24 00 | 185 | 14 58 | 15·6 | -7·2 | 08 03 | 22·8 | 19 22 | 1200 | 1090 | 04 53 | 110 | 2,4,4,4,3,5,4,3 | 29 | 1 | 83·8 |
| 8 | 15 22 | 591 | 433 | 00 11 | 158 | 14 12 | 16·1 | -8·7 | 00 20 | 24·8 | 21 30 | 1149 | 1111 | 01 12 | 38 | 4,3,2,3,4,4,2,1 | 23 | 1 | 83·8 |
| 9 | 01 45 | 602 | 473 | 10 25 | 129 | 02 14 | 15·9 | -6·2 | 05 45 | 22·1 | 16 30 | 1196 | 1095 | 02 54 | 101 | 4,3,2,3,3,4,3,1 | 23 | 1 | 83·8 |
| 10 | 16 45 | 624 | 489 | 10 30 | 135 | 14 16 | 12·7 | 0·1 | 06 06 | 12·6 | 18 09 | 1173 | 1113 | 11 21 | 60 | 2,2,2,3,2,3,2,3 | 19 | 1 | 83·8 |
| 11 | 18 39 | 598 | 477 | 09 22 | 121 | 02 46 | 12·9 | -0·8 | 07 09 | 13·7 | 19 30 | 1167 | 1105 | 03 31 | 62 | 3,3,2,3,3,3,4,2 | 23 | 1 | 83·8 |
| 12 | 18 50 | 551 | 484 | 08 22 | 67 | 13 44 | 10·8 | -0·7 | 06 00 | 11·5 | 17 51 | 1154 | 1120 | 10 30 | 34 | 1,2,2,2,2,2,1,0 | 12 | 0 | 83·8 |
| 13 q | 15 10 | 574 | 499 | 11 10 | 75 | 13 14 | 14·4 | 0·5 | 06 06 | 13·9 | 19 11 | 1144 | 1128 | 09 10 | *16* | 0,0,2,2,2,3,1,2 | 12 | 0 | 83·7 |
| 14 | 17 14 | 643 | 500 | 15 30 | 143 | 16 22 | 17·3 | -0·2 | 05 31 | 17·5 | 17 50 | 1206 | 1112 | 11 42 | 94 | 1,1,2,2,4,5,3,3 | 21 | 1 | 83·7 |
| 15 | 15 44 | 560 | 488 | 11 19 | 72 | 13 38 | 13·8 | -5·6 | 06 40 | 19·4 | 19 02 | 1142 | 1089 | 05 28 | 53 | 3,3,2,1,2,3,2,1 | 17 | 1 | 83·7 |
| 16 | 18 18 | 591 | 434 | 10 38 | 157 | 15 13 | 12·9 | -2·4 | 06 24 | 15·3 | 16 30 | 1161 | 1105 | 11 15 | 56 | 1,1,2,4,3,3,3,3 | 20 | 1 | 83·7 |
| 17 | 15 21 | 574 | 470 | 09 10 | 104 | 13 27 | 15·3 | -3·2 | 07 22 | 18·5 | 17 21 | 1143 | 1096 | 01 39 | 47 | 2,3,3,2,3,3,2,3 | 21 | 1 | 83·7 |
| 18 d | 16 38 | 728 | 479 | 11 22 | 249 | 15 48 | 25·0 | -7·5 | 22 07 | 32·5 | 18 54 | 1227 | 1101 | 10 25 | 126 | 2,2,2,3,5,6,5,4 | 29 | 2 | 83·8 |
| 19 | 13 54 | 578 | 429 | 10 59 | 149 | 01 59 | 20·7 | -0·9 | 23 48 | 21·6 | 16 40 | 1197 | 1066 | 02 20 | 131 | 4,4,3,2,5,2,2,3 | 25 | 1 | 83·9 |
| 20 q | 19 28 | 560 | 475 | 10 52 | 85 | 14 09 | 14·4 | -3·7 | 06 37 | 18·1 | 05 30 | 1149 | 1117 | 12 10 | 32 | 3,1,0,1,1,2,1,2 | 11 | 0 | 83·8 |
| 21 | 15 49 | 607 | 469 | 11 39 | 138 | 14 13 | 14·6 | -5·2 | 23 34 | 19·8 | 17 00 | 1161 | 1114 | 12 43 | 47 | 2,2,2,2,3,4,3,3 | 21 | 1 | 83·8 |
| 22 | 16 16 | 597 | 485 | 10 19 | 112 | 15 18 | 13·9 | -5·4 | 07 30 | 19·3 | 17 59 | 1172 | 1106 | 23 51 | 66 | 2,3,2,2,3,3,3,4 | 22 | 1 | 84·0 |
| 23 | 20 59 | 578 | 457 | 12 00 | 121 | 16 13 | 15·0 | -6·6 | 07 17 | 21·6 | 19 10 | 1147 | 1099 | 11 42 | 48 | 3,2,2,4,4,4,3,3 | 25 | 1 | 84·0 |
| 24 | 20 05 | 558 | 489 | 13 03 | 69 | 13 12 | 11·5 | 0·3 | 06 09 | *11·2* | 16 20 | 1146 | 1119 | 11 40 | 27 | 0,1,1,2,2,2,2,1 | 11 | 0 | 84·1 |
| 25 | 17 05 | 646 | 500 | 10 40 | 146 | 12 34 | 15·3 | -3·2 | 05 33 | 18·5 | 17 53 | 1162 | 1105 | 12 58 | 57 | 1,2,2,3,2,5,4,3 | 22 | 1 | 84·1 |
| 26 d | 19 37 | *1075* | 449 | 09 56 | 626 | 20 45 | 46·0 | -16·9 | 22 34 | 62·9 | 22 32 | *1378* | 1022 | 24 00 | 356 | 3,3,3,3,3,4,8,8 | 35 | 2 | 84·2 |
| 27 d | 12 01 | 602 | *-1351* | 03 06 | *1953* | 06 29 | *61·1* | *-109·0* | 03 07 | *170·1* | 11 08 | 1213 | *564* | 01 39 | *649* | 9,9,9,6,5,4,4,2 | 48 | 2 | 84·2 |
| 28 | 17 24 | 583 | 421 | 12 27 | 162 | 14 05 | 13·6 | -3·7 | 04 51 | 17·3 | 18 55 | 1196 | 1135 | 22 25 | 61 | 1,2,2,2,4,4,4,4 | 23 | 1 | 84·2 |
| 29 d | 16 42 | 765 | 404 | 09 52 | 361 | 05 51 | 22·0 | -1·2 | 09 58 | 23·2 | 17 11 | 1196 | 1106 | 06 01 | 90 | 4,5,5,4,4,6,4,4 | 36 | 2 | 84·2 |
| 30 | 16 59 | 657 | 421 | 03 24 | 236 | 13 12 | 15·2 | -9·0 | 07 26 | 24·2 | 16 57 | 1190 | 1076 | 03 48 | 114 | 4,4,3,4,4,5,2,1 | 27 | 1 | 84·1 |
| 31 | 15 54 | 563 | 477 | 10 04 | 86 | 13 45 | 15·5 | -0·8 | 06 59 | 16·3 | 18 08 | 1162 | 1123 | 12 20 | 39 | 3,1,1,2,2,3,2,2 | 16 | 0 | 84·1 |
| Mean | | 613 | 410 | - - | 203 | - - | 17·4 | -6·8 | - - | 24·2 | - - | 1175 | 1088 | - - | 88 | - | - | 0·81 | 83·9 |

q denotes an international quiet day and d an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

143 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 520 | 520 | 503 | 505 | 516 | 516 | 516 | 503 | 498 | 488 | 476 | 468 | 473 | 490 | 518 | 526 | 533 | 536 | 536 | 532 | 534 | 531 | 526 | 526 | 512 |
| 2 | 523 | 522 | 523 | 524 | 523 | 524 | 518 | 516 | 512 | 496 | 490 | 482 | 483 | 501 | 512 | 529 | 539 | 543 | 546 | 543 | 540 | 536 | 533 | 532 | 520 |
| 3 | 529 | 527 | 529 | 528 | 527 | 513 | 508 | 500 | 481 | 480 | 485 | 490 | 500 | 512 | 527 | 537 | 547 | 543 | 536 | 531 | 527 | 529 | 532 | 532 | 519 |
| 4 | 532 | 535 | 533 | 534 | 533 | 532 | 525 | 516 | 509 | 504 | 502 | 507 | 507 | 504 | 508 | 529 | 539 | 542 | 550 | 543 | 543 | 543 | 537 | 535 | 527 |
| 5 | 535 | 533 | 533 | 530 | 532 | 532 | 528 | 513 | 508 | 503 | 500 | 513 | 509 | 507 | 522 | 536 | 535 | 546 | 551 | 558 | 547 | 545 | 548 | 547 | 530 |
| 6 | 544 | 539 | 536 | 534 | 534 | 533 | 532 | 528 | 519 | 504 | 496 | 503 | 522 | 526 | 524 | 532 | 524 | 527 | 545 | 548 | 552 | 550 | 547 | 545 | 531 |
| 7 *d* | 539 | 547 | 543 | 552 | 542 | 539 | 535 | 524 | 509 | 500 | 489 | 494 | 528 | 524 | 572 | 588 | 601 | 597 | 555 | 536 | 527 | 533 | 530 | 528 | *539* |
| 8 | 525 | 521 | 520 | 520 | 523 | 516 | 509 | 502 | 496 | 483 | 482 | 487 | 494 | 509 | 519 | 528 | 536 | 537 | 545 | 548 | 547 | 536 | 528 | 534 | 519 |
| 9 | 534 | 536 | 533 | 533 | 530 | 527 | 520 | 516 | 512 | 510 | 516 | 516 | 524 | 527 | 524 | 525 | 539 | 543 | 551 | 545 | 540 | 541 | 540 | 536 | 530 |
| 10 | 533 | 533 | 532 | 530 | 531 | 528 | 520 | 511 | 504 | 492 | 488 | 494 | 509 | 524 | 535 | 530 | 543 | 551 | 551 | 552 | 548 | 544 | 539 | 532 | 527 |
| 11 *d* | 523 | 528 | 518 | 535 | 530 | 552 | 548 | 542 | 514 | 513 | 493 | 481 | 506 | 545 | 531 | 524 | 572 | 572 | 560 | 557 | 546 | 560 | 527 | 522 | 533 |
| 12 | 511 | 519 | 505 | 520 | 524 | 524 | 507 | 504 | 483 | 480 | 478 | 480 | 492 | 507 | 520 | 529 | 545 | 534 | 539 | 544 | 545 | 547 | 545 | 516 | 517 |
| 13 | 516 | 517 | 522 | 527 | 525 | 520 | 512 | 509 | 505 | 494 | 482 | 483 | 489 | 496 | 507 | 526 | 530 | 535 | 535 | 548 | 543 | 543 | 539 | 535 | 518 |
| 14 *d* | 537 | 535 | 536 | 546 | 543 | 533 | 527 | 469 | 459 | 441 | 440 | 442 | 440 | 503 | 488 | 483 | 492 | 509 | 539 | 564 | 546 | 536 | 501 | 510 | *505* |
| 15 *d* | 529 | 541 | 492 | 480 | 503 | 515 | 513 | 496 | 484 | 471 | 457 | 469 | 492 | 504 | 532 | 516 | 572 | 556 | 539 | 539 | 529 | 528 | 514 | 527 | 512 |
| 16 | 520 | 524 | 524 | 511 | 521 | 513 | 501 | 492 | 477 | 466 | 472 | 476 | 490 | 500 | 500 | 527 | 537 | 559 | 573 | 577 | 554 | 532 | 533 | 522 | 517 |
| 17 | 518 | 518 | 521 | 520 | 516 | 507 | 479 | 465 | 453 | 472 | 476 | 450 | 495 | 495 | 494 | 510 | 531 | 538 | 538 | 546 | 537 | 558 | 529 | 519 | 508 |
| 18 | 518 | 518 | 518 | 520 | 523 | 521 | 517 | 504 | 496 | 480 | 468 | 472 | 496 | 516 | 526 | 531 | 536 | 542 | 538 | 531 | 538 | 547 | 523 | 527 | 517 |
| 19 | 526 | 511 | 517 | 520 | 520 | 514 | 510 | 503 | 496 | 489 | 489 | 488 | 499 | 500 | 507 | 514 | 524 | 529 | 537 | 536 | 542 | 535 | 534 | 528 | 515 |
| 20 | 528 | 527 | 525 | 527 | 521 | 524 | 528 | 525 | 507 | 484 | 481 | 487 | 492 | 505 | 517 | 526 | 531 | 534 | 544 | 550 | 540 | 536 | 535 | 531 | 521 |
| 21 *q* | 534 | 531 | 532 | 531 | 528 | 526 | 523 | 515 | 503 | 485 | 480 | 493 | 502 | 511 | 522 | 531 | 532 | 537 | 535 | 536 | 539 | 538 | 536 | 540 | 523 |
| 22 *q* | 538 | 535 | 533 | 530 | 532 | 528 | 519 | 512 | 502 | 493 | 494 | 500 | 510 | 516 | 524 | 530 | 532 | 529 | 531 | 538 | 538 | 538 | 538 | 540 | 524 |
| 23 *q* | 538 | 538 | 535 | 534 | 531 | 526 | 518 | 507 | 498 | 494 | 502 | 508 | 511 | 514 | 521 | 526 | 527 | 530 | 536 | 544 | 548 | 549 | 552 | 554 | 527 |
| 24 | 553 | 560 | 565 | 549 | 544 | 542 | 525 | 527 | 513 | 511 | 513 | 515 | 519 | 524 | 536 | 531 | 544 | 544 | 544 | 548 | 549 | 542 | 540 | 536 | 536 |
| 25 | 543 | 535 | 542 | 531 | 523 | 516 | 503 | 491 | 480 | 479 | 495 | 499 | 515 | 519 | 524 | 520 | 534 | 519 | 527 | 535 | 534 | 534 | 533 | 532 | 519 |
| 26 *q* | 531 | 531 | 531 | 531 | 530 | 525 | 515 | 500 | 485 | 477 | 479 | 491 | 507 | 518 | 528 | 538 | 538 | 538 | 536 | 548 | 542 | 542 | 539 | 539 | 522 |
| 27 | 539 | 538 | 537 | 538 | 533 | 533 | 530 | 506 | 488 | 477 | 476 | 495 | 495 | 516 | 528 | 533 | 538 | 538 | 537 | 545 | 550 | 550 | 536 | 530 | 524 |
| 28 | 533 | 531 | 526 | 532 | 534 | 531 | 523 | 511 | 496 | 487 | 487 | 496 | 509 | 524 | 515 | 522 | 540 | 547 | 542 | 545 | 546 | 540 | 538 | 536 | 525 |
| 29 *q* | 536 | 536 | 534 | 536 | 534 | 532 | 527 | 518 | 506 | 487 | 483 | 490 | 500 | 511 | 516 | 529 | 543 | 546 | 547 | 545 | 542 | 538 | 539 | 536 | 525 |
| 30 | 533 | 534 | 534 | 534 | 534 | 532 | 527 | 519 | 510 | 501 | 496 | 503 | 512 | 524 | 534 | 542 | 548 | 557 | 559 | 567 | 556 | 543 | 554 | 550 | 533 |
| 31 *d* | 571 | 548 | 527 | 540 | 503 | 456 | 508 | 497 | 491 | 470 | 443 | 457 | 489 | 512 | 520 | 554 | 578 | 548 | 516 | 516 | 515 | 515 | 512 | 513 | 512 |
| Mean | 532 | 531 | 528 | 529 | 527 | 523 | 518 | 508 | 497 | 487 | *484* | 488 | 500 | 512 | 521 | 529 | 541 | 542 | 543 | *545* | 541 | 540 | 534 | 532 | 522 |

## MAGNETIC DECLINATION (WEST)
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

144 ESKDALEMUIR (D) — 12° + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 6·5 | 9·1 | 7·3 | 7·2 | 3·3 | 3·0 | 2·1 | −0·7 | −2·1 | −0·6 | 1·9 | 6·5 | 11·0 | 13·6 | 13·0 | 11·4 | 7·4 | 5·4 | 2·8 | 2·5 | 3·7 | 4·8 | 4·3 | 5·2 | 5·4 |
| 2 | 5·6 | 5·5 | 6·4 | 6·2 | 4·8 | 2·0 | −0·6 | −1·3 | −0·9 | 0·1 | 2·8 | 7·4 | 9·9 | 10·8 | 9·5 | 7·3 | 4·9 | 3·1 | 2·5 | 4·4 | 4·7 | 5·8 | 5·2 | 6·4 | 4·7 |
| 3 | 6·5 | 5·9 | 5·5 | 5·1 | 4·7 | 2·6 | 1·5 | −1·7 | −1·6 | 0·2 | 3·7 | 8·1 | 11·1 | 12·5 | 11·5 | 8·6 | 6·6 | 5·7 | 5·0 | 5·3 | 4·7 | 4·2 | 4·2 | 3·9 | 5·2 |
| 4 | 4·2 | 4·2 | 4·0 | 3·6 | 2·6 | 0·2 | −1·6 | −2·2 | −0·9 | 1·8 | 4·6 | 9·0 | 11·1 | 12·4 | 11·6 | 9·4 | 8·1 | 6·7 | 6·6 | 6·5 | 6·6 | 6·5 | 7·1 | 6·6 | 5·4 |
| 5 | 5·7 | 5·6 | 4·5 | 3·9 | 2·0 | 0·3 | −0·6 | −0·6 | 0·7 | 1·7 | 3·8 | 8·6 | 12·8 | 13·1 | 10·9 | 9·2 | 8·0 | 6·7 | 6·9 | 6·1 | 5·7 | 4·9 | 5·1 | 4·9 | 5·4 |
| 6 | 5·3 | 5·3 | 5·1 | 3·0 | 2·0 | 0·2 | 0·1 | −0·2 | 0·2 | 1·8 | 4·5 | 7·9 | 11·6 | 12·3 | 12·9 | 11·0 | 9·3 | 6·8 | 6·7 | 6·7 | 6·9 | 8·8 | 7·4 | 6·8 | 5·9 |
| 7 *d* | 5·5 | 6·5 | 6·3 | 5·6 | 3·7 | 0·1 | −1·2 | −1·0 | 0·7 | 3·0 | 6·4 | 10·2 | 16·1 | 17·9 | 18·1 | 16·9 | 15·5 | 11·1 | 7·4 | 0·1 | 5·7 | 8·4 | 6·7 | 5·6 | *7·3* |
| 8 | 4·6 | 3·9 | 3·5 | 3·2 | 2·0 | 1·1 | 1·0 | 1·1 | 0·7 | 0·8 | 2·9 | 5·5 | 7·7 | 9·8 | 9·5 | 8·4 | 7·8 | 7·0 | 6·3 | 7·2 | 6·0 | 4·6 | 4·2 | 4·7 | 4·7 |
| 9 | 3·9 | 3·7 | 2·8 | 2·5 | 1·3 | 0·2 | 0·3 | 0·1 | 1·3 | 3·7 | 6·3 | 10·1 | 13·4 | 13·5 | 11·8 | 9·8 | 7·9 | 5·6 | 6·1 | 4·9 | 5·5 | 6·4 | 6·1 | 5·3 | 5·5 |
| 10 | 4·4 | 3·9 | 3·5 | 2·8 | 1·5 | −0·6 | −1·6 | −2·6 | −2·2 | 1·8 | 5·7 | 10·6 | 14·5 | 15·1 | 13·4 | 10·1 | 7·5 | 5·7 | 2·9 | 3·7 | 5·9 | 6·5 | 3·8 | 2·8 | 5·0 |
| 11 *d* | 3·5 | 5·1 | 1·5 | 2·6 | 4·5 | 7·9 | 8·7 | 3·8 | −1·1 | 2·3 | 6·2 | 8·8 | 10·3 | 13·1 | 12·4 | 9·9 | 10·5 | 1·9 | 1·0 | 6·4 | 6·6 | 6·4 | 5·1 | −0·8 | 5·7 |
| 12 | 3·5 | −5·5 | −4·4 | 2·5 | 1·6 | 0·5 | 0·3 | −1·0 | −2·1 | 1·0 | 5·2 | 9·0 | 12·0 | 13·3 | 11·9 | 9·2 | 8·2 | 5·7 | 4·7 | 5·6 | 5·7 | 4·6 | 1·9 | −2·7 | 3·8 |
| 13 | 3·5 | 2·6 | 3·9 | 2·0 | −1·0 | −0·7 | −0·7 | −1·7 | −1·6 | −0·3 | 3·4 | 7·3 | 11·6 | 13·1 | 11·1 | 9·0 | 5·7 | 4·4 | 2·9 | 4·3 | 4·5 | 4·4 | 3·9 | 3·8 | 4·0 |
| 14 *d* | 3·7 | 3·6 | 3·3 | 2·9 | 0·1 | −1·0 | −2·9 | −4·2 | 5·5 | 2·6 | 4·7 | 10·9 | 12·6 | 14·8 | 14·6 | 13·1 | 10·1 | 7·2 | 7·3 | 5·7 | −5·7 | 5·7 | −0·3 | 3·9 | 4·9 |
| 15 *d* | 3·6 | −1·3 | −6·3 | 2·0 | 1·3 | −4·7 | −0·7 | −1·1 | −2·7 | −0·5 | 4·4 | 8·1 | 11·0 | 11·9 | 12·8 | 10·6 | 11·7 | 5·4 | 2·5 | 5·7 | 3·7 | −0·8 | 5·5 | 3·8 | 3·6 |
| 16 | 3·6 | 4·1 | 4·5 | 3·4 | 1·0 | −2·6 | −3·7 | −3·9 | −1·9 | 0·7 | 5·3 | 8·4 | 11·8 | 12·7 | 10·5 | 9·9 | 9·6 | 8·8 | 9·1 | 1·8 | −4·1 | −0·3 | −5·4 | −2·1 | 3·4 |
| 17 | −0·6 | 0·3 | 1·6 | 1·1 | 3·3 | 4·5 | 8·2 | 10·2 | 3·3 | 2·3 | 4·0 | 7·9 | 13·4 | 15·2 | 15·4 | 10·4 | 10·7 | 8·0 | 4·5 | 2·8 | 4·4 | 1·5 | 5·5 | 3·9 | 5·9 |
| 18 | 3·8 | 3·5 | 3·7 | 3·2 | 2·3 | 0·8 | 0·2 | 0·9 | 0·0 | 2·7 | 5·5 | 9·1 | 11·5 | 13·1 | 11·9 | 9·1 | 7·2 | 6·0 | 4·7 | 5·3 | 4·5 | 2·5 | 3·7 | 3·0 | 4·9 |
| 19 | −4·2 | −2·8 | 0·2 | 1·6 | 1·0 | 0·8 | 0·0 | −0·5 | −0·3 | 0·0 | 3·3 | 7·3 | 11·8 | 12·9 | 12·4 | 10·7 | 9·2 | 7·0 | 4·6 | 4·3 | 4·4 | 3·4 | 3·6 | 3·8 | 3·9 |
| 20 | 4·6 | 2·9 | 3·6 | 2·7 | 0·5 | 2·0 | 0·2 | −0·1 | −0·9 | 0·0 | 2·6 | 7·2 | 11·1 | 11·6 | 10·8 | 9·5 | 7·5 | 5·2 | 5·4 | 5·2 | 2·6 | 4·2 | 4·5 | 3·8 | 4·4 |
| 21 *q* | 3·8 | 4·2 | 4·5 | 4·1 | 2·9 | 0·8 | −1·1 | −1·8 | −1·6 | 1·5 | 5·0 | 9·8 | 13·5 | 14·5 | 13·2 | 11·0 | 8·0 | 6·2 | 4·9 | 5·3 | 4·7 | 4·5 | 4·1 | 5·1 | 5·3 |
| 22 *q* | 4·2 | 4·0 | 3·9 | 3·9 | 1·8 | 0·5 | −0·9 | −1·6 | −1·2 | 0·2 | 3·7 | 7·5 | 10·0 | 10·9 | 9·9 | 8·0 | 5·6 | 4·5 | 4·7 | 5·2 | 4·9 | 4·4 | 4·5 | 4·4 | 4·3 |
| 23 *q* | 4·3 | 4·0 | 3·8 | 2·9 | 1·7 | 0·4 | −1·1 | −1·4 | −1·1 | 0·3 | 5·9 | 11·1 | 12·9 | 12·3 | 9·9 | 6·9 | 4·2 | 3·5 | 4·5 | 5·8 | 5·4 | 5·5 | 5·4 | 5·5 | 4·7 |
| 24 | 5·7 | 5·8 | 3·8 | 0·3 | 0·4 | −0·9 | −1·9 | −1·5 | 0·1 | 3·6 | 6·7 | 9·2 | 11·6 | 12·7 | 12·0 | 9·1 | 6·7 | 4·6 | 3·8 | 4·4 | 4·6 | 4·2 | 6·1 | 4·6 | 4·8 |
| 25 | 4·7 | 0·1 | −0·7 | −1·6 | −1·7 | −2·7 | −2·8 | −4·3 | −2·8 | 1·9 | 7·1 | 10·0 | 12·1 | 11·7 | 8·9 | 4·9 | 3·4 | 2·0 | 3·6 | 4·6 | 4·7 | 4·9 | 4·5 | 4·4 | *3·2* |
| 26 *q* | 3·8 | 3·0 | 3·0 | 2·7 | 1·7 | 0·6 | −0·3 | −1·3 | −0·9 | 2·6 | 6·5 | 9·7 | 11·8 | 12·4 | 11·4 | 7·5 | 4·6 | 3·8 | 4·8 | 6·4 | 5·7 | 5·7 | 5·4 | 4·6 | 4·8 |
| 27 | 3·9 | 3·3 | 2·8 | 2·4 | 0·8 | −2·1 | −2·8 | −2·5 | −2·5 | −0·1 | 4·5 | 10·1 | 11·0 | 11·3 | 10·1 | 8·0 | 6·2 | 4·8 | 4·8 | 5·4 | 5·4 | 6·3 | 3·0 | 3·0 | 4·0 |
| 28 | 2·8 | −0·1 | 0·1 | 0·0 | 0·0 | 0·4 | 0·0 | 0·1 | 1·8 | 4·8 | 8·4 | 12·1 | 14·9 | 17·4 | 15·3 | 11·6 | 8·9 | 6·4 | 5·3 | 4·5 | 5·2 | 4·7 | 4·1 | 3·4 | 5·5 |
| 29 *q* | 3·1 | 2·8 | 2·4 | 2·3 | 1·8 | 1·3 | 0·1 | −0·3 | −0·3 | 1·4 | 5·4 | 9·9 | 13·1 | 13·6 | 12·3 | 10·3 | 8·2 | 6·0 | 5·6 | 5·5 | 6·4 | 5·6 | 4·6 | 3·8 | 5·2 |
| 30 | 2·8 | 2·5 | 2·3 | 2·1 | 2·0 | 1·7 | 1·0 | 0·3 | 0·5 | 1·8 | 3·9 | 3·0 | 4·6 | 10·7 | 11·0 | 10·5 | 8·9 | 7·3 | 7·3 | 5·5 | 5·1 | 4·7 | 2·6 | 1·9 | 4·3 |
| 31 *d* | 5·6 | −5·4 | −11·0 | −3·4 | 13·5 | 15·6 | 2·8 | −4·1 | −2·5 | 1·0 | 4·2 | 4·4 | 8·3 | 11·8 | 15·0 | 15·5 | 15·9 | 12·5 | 8·2 | 8·1 | 6·4 | 4·6 | 3·6 | 2·4 | 5·5 |
| Mean | 3·9 | 2·9 | 2·4 | 2·7 | 2·2 | 1·0 | 0·1 | −0·8 | −0·5 | 1·4 | 4·8 | 8·5 | 11·6 | *13·0* | 12·1 | 9·9 | 8·2 | 6·0 | 5·1 | 5·0 | 4·5 | 4·8 | 4·2 | 3·7 | 4·9 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

145 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — AUGUST

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1138 | 1135 | 1136 | 1138 | 1146 | 1148 | 1150 | 1154 | 1154 | 1155 | 1150 | 1142 | 1141 | 1142 | 1152 | 1160 | 1167 | 1166 | 1161 | 1156 | 1151 | 1147 | 1146 | 1143 | 1149 |
| 2 | 1143 | 1144 | 1144 | 1147 | 1148 | 1152 | 1149 | 1146 | 1142 | 1137 | 1134 | 1129 | 1130 | 1131 | 1136 | 1144 | 1152 | 1157 | 1161 | 1155 | 1153 | 1149 | 1147 | 1144 | 1145 |
| 3 | 1143 | 1143 | 1141 | 1137 | 1138 | 1142 | 1144 | 1148 | 1149 | 1142 | 1129 | 1119 | 1125 | 1133 | 1136 | 1142 | 1144 | 1147 | 1147 | 1145 | 1144 | 1143 | 1142 | 1141 | 1140 |
| 4 | 1141 | 1140 | 1141 | 1142 | 1143 | 1143 | 1142 | 1146 | 1136 | 1126 | 1117 | 1112 | 1111 | 1122 | 1129 | 1131 | 1135 | 1141 | 1142 | 1142 | 1141 | 1140 | 1138 | 1137 | 1135 |
| 5 | 1137 | 1137 | 1137 | 1140 | 1142 | 1142 | 1144 | 1147 | 1143 | 1137 | 1135 | 1126 | 1123 | 1124 | 1124 | 1133 | 1140 | 1142 | 1141 | 1138 | 1141 | 1142 | 1140 | 1135 | 1137 |
| 6 | 1134 | 1135 | 1136 | 1137 | 1141 | 1142 | 1141 | 1138 | 1137 | 1131 | 1122 | 1108 | 1106 | 1123 | 1131 | 1143 | 1148 | 1148 | 1144 | 1144 | 1145 | 1142 | 1139 | 1137 | 1135 |
| 7 *d* | 1138 | 1136 | 1134 | 1115 | 1117 | 1123 | 1129 | 1130 | 1133 | 1130 | 1130 | 1120 | 1117 | 1138 | 1172 | 1213 | 1225 | 1240 | 1227 | 1214 | 1177 | 1154 | 1148 | 1147 | *1154* |
| 8 | 1147 | 1147 | 1147 | 1145 | 1147 | 1148 | 1148 | 1147 | 1142 | 1134 | 1132 | 1129 | 1126 | 1135 | 1141 | 1144 | 1147 | 1147 | 1144 | 1143 | 1147 | 1148 | 1147 | 1139 | 1143 |
| 9 | 1140 | 1139 | 1138 | 1138 | 1140 | 1141 | 1138 | 1137 | 1136 | 1125 | 1118 | 1116 | 1113 | 1125 | 1135 | 1140 | 1146 | 1154 | 1150 | 1151 | 1145 | 1140 | 1138 | 1137 | 1137 |
| 10 | 1137 | 1137 | 1137 | 1137 | 1140 | 1141 | 1140 | 1140 | 1137 | 1125 | 1119 | 1111 | 1107 | 1117 | 1129 | 1136 | 1141 | 1150 | 1152 | 1149 | 1147 | 1143 | 1141 | 1137 | 1135 |
| 11 *d* | 1132 | 1114 | 1113 | 1124 | 1125 | 1105 | 1100 | 1112 | 1127 | 1130 | 1129 | 1129 | 1130 | 1140 | 1148 | 1153 | 1156 | 1185 | 1188 | 1166 | 1161 | 1136 | 1116 | 1117 | 1135 |
| 12 | 1092 | 1093 | 1094 | 1105 | 1124 | 1134 | 1131 | 1134 | 1133 | 1132 | 1125 | 1119 | 1120 | 1124 | 1129 | 1140 | 1142 | 1143 | 1140 | 1138 | 1138 | 1143 | 1122 | 1124 | 1126 |
| 13 | 1128 | 1129 | 1131 | 1135 | 1133 | 1135 | 1135 | 1135 | 1135 | 1129 | 1125 | 1120 | 1118 | 1122 | 1130 | 1136 | 1141 | 1137 | 1140 | 1136 | 1135 | 1135 | 1135 | 1135 | 1132 |
| 14 *d* | 1135 | 1135 | 1134 | 1129 | 1129 | 1135 | 1135 | 1137 | 1126 | 1125 | 1123 | 1117 | 1123 | 1152 | 1147 | 1149 | 1162 | 1163 | 1155 | 1166 | 1176 | 1117 | 1135 | 1137 | 1139 |
| 15 *d* | 1124 | 1100 | 1093 | 1096 | 1096 | 1125 | 1134 | 1140 | 1145 | 1141 | 1138 | 1130 | 1128 | 1128 | 1137 | 1148 | 1154 | 1180 | 1185 | 1164 | 1158 | 1153 | 1144 | 1129 | 1136 |
| 16 | 1130 | 1122 | 1116 | 1124 | 1133 | 1135 | 1136 | 1136 | 1134 | 1127 | 1123 | 1120 | 1120 | 1126 | 1134 | 1138 | 1141 | 1144 | 1146 | 1159 | 1155 | 1144 | 1093 | 1104 | 1131 |
| 17 | 1121 | 1134 | 1137 | 1135 | 1133 | 1127 | 1111 | 1101 | 1103 | 1113 | 1110 | 1110 | 1110 | 1125 | 1151 | 1168 | 1162 | 1159 | 1158 | 1158 | 1149 | 1141 | 1127 | 1132 | 1132 |
| 18 | 1136 | 1136 | 1136 | 1135 | 1137 | 1140 | 1142 | 1143 | 1138 | 1133 | 1128 | 1123 | 1122 | 1127 | 1135 | 1139 | 1144 | 1148 | 1149 | 1146 | 1143 | 1139 | 1135 | 1134 | 1137 |
| 19 | 1125 | 1124 | 1129 | 1134 | 1137 | 1141 | 1141 | 1141 | 1135 | 1131 | 1130 | 1129 | 1125 | 1128 | 1132 | 1138 | 1141 | 1142 | 1143 | 1145 | 1142 | 1142 | 1138 | 1136 | 1135 |
| 20 | 1134 | 1132 | 1131 | 1131 | 1132 | 1134 | 1136 | 1137 | 1138 | 1137 | 1134 | 1123 | 1124 | 1125 | 1128 | 1135 | 1137 | 1141 | 1141 | 1142 | 1144 | 1142 | 1138 | 1137 | 1135 |
| 21 *q* | 1136 | 1136 | 1136 | 1136 | 1137 | 1141 | 1141 | 1141 | 1141 | 1134 | 1122 | 1113 | 1116 | 1124 | 1134 | 1136 | 1141 | 1139 | 1136 | 1135 | 1135 | 1137 | 1137 | 1135 | 1134 |
| 22 *q* | 1134 | 1133 | 1134 | 1135 | 1136 | 1137 | 1137 | 1137 | 1136 | 1129 | 1123 | 1116 | 1116 | 1123 | 1134 | 1138 | 1140 | 1136 | 1134 | 1132 | 1134 | 1135 | 1135 | 1135 | 1132 |
| 23 *q* | 1136 | 1136 | 1136 | 1136 | 1137 | 1140 | 1142 | 1141 | 1136 | 1123 | 1111 | 1111 | 1117 | 1128 | 1135 | 1135 | 1131 | 1129 | 1126 | 1126 | 1129 | 1130 | 1130 | 1130 | 1130 |
| 24 | 1130 | 1128 | 1119 | 1123 | 1125 | 1128 | 1129 | 1125 | 1125 | 1125 | 1118 | 1111 | 1107 | 1116 | 1126 | 1136 | 1138 | 1140 | 1138 | 1136 | 1136 | 1135 | 1134 | 1135 | 1128 |
| 25 | 1129 | 1129 | 1124 | 1125 | 1129 | 1131 | 1129 | 1123 | 1118 | 1112 | 1107 | 1106 | 1111 | 1122 | 1131 | 1135 | 1137 | 1136 | 1130 | 1128 | 1129 | 1131 | 1132 | 1134 | *1126* |
| 26 *q* | 1135 | 1135 | 1135 | 1135 | 1135 | 1136 | 1136 | 1136 | 1136 | 1125 | 1117 | 1111 | 1111 | 1119 | 1129 | 1134 | 1136 | 1132 | 1125 | 1125 | 1130 | 1132 | 1134 | 1135 | 1130 |
| 27 | 1135 | 1135 | 1135 | 1135 | 1135 | 1135 | 1131 | 1131 | 1129 | 1125 | 1119 | 1117 | 1120 | 1120 | 1126 | 1135 | 1136 | 1136 | 1134 | 1134 | 1133 | 1135 | 1137 | 1136 | 1131 |
| 28 | 1132 | 1131 | 1131 | 1130 | 1130 | 1129 | 1129 | 1127 | 1123 | 1117 | 1110 | 1108 | 1113 | 1117 | 1124 | 1128 | 1133 | 1140 | 1142 | 1142 | 1137 | 1136 | 1135 | 1135 | 1128 |
| 29 *q* | 1135 | 1135 | 1135 | 1135 | 1135 | 1136 | 1135 | 1135 | 1134 | 1129 | 1119 | 1112 | 1110 | 1114 | 1122 | 1129 | 1135 | 1139 | 1138 | 1137 | 1136 | 1135 | 1135 | 1132 | 1131 |
| 30 | 1135 | 1135 | 1135 | 1136 | 1136 | 1136 | 1135 | 1132 | 1129 | 1126 | 1121 | 1114 | 1116 | 1117 | 1123 | 1128 | 1132 | 1137 | 1137 | 1135 | 1132 | 1137 | 1136 | 1128 | 1130 |
| 31 *d* | 1065 | 1069 | 1071 | 1063 | 1043 | 949 | 1009 | 1087 | 1118 | 1130 | 1141 | 1140 | 1144 | 1159 | 1167 | 1184 | 1202 | 1214 | 1197 | 1167 | 1154 | 1148 | 1145 | 1144 | 1121 |
| Mean | 1131 | 1129 | 1129 | 1129 | 1131 | 1130 | 1132 | 1134 | 1134 | 1129 | 1125 | *1119* | 1119 | 1127 | 1136 | 1143 | 1148 | *1152* | 1150 | 1147 | 1144 | 1140 | 1135 | 1134 | 1135 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

146 ESKDALEMUIR — AUGUST

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 18 19 | 548 | 465 | 11 47 | 83 | 13 58 | 14·4 | −2·5 | 08 04 | 16·9 | 16 46 | 1168 | 1132 | 01 44 | 36 | 2,2,2,2,3,3,2,1 | 17 | 1 | 84·1 |
| 2 | 18 18 | 556 | 476 | 12 10 | 80 | 13 47 | 11·7 | −2·2 | 08 02 | 13·9 | 18 33 | 1165 | 1127 | 12 00 | 38 | 1,1,2,2,2,1,2,1 | 12 | 0 | 84·0 |
| 3 | 16 39 | 556 | 469 | 09 08 | 87 | 13 08 | 12·9 | −2·7 | 07 48 | 15·6 | 08 15 | 1150 | 1117 | 11 39 | 33 | 0,2,2,2,2,2,2,1 | 13 | 0 | 84·0 |
| 4 | 18 31 | 555 | 500 | 10 40 | 55 | 13 13 | 12·8 | −2·7 | 07 11 | 15·5 | 05 10 | 1144 | 1107 | 12 02 | 37 | 1,1,0,1,2,1,2,1 | 9 | 0 | 84·0 |
| 5 | 19 44 | 564 | 495 | 11 03 | 69 | 13 03 | 14·6 | −1·1 | 06 50 | 15·7 | 07 42 | 1149 | 1120 | 12 51 | 29 | 0,0,1,2,2,2,2,2 | 11 | 1 | 84·0 |
| 6 | 20 50 | 560 | 491 | 10 04 | 69 | 13 21 | 14·2 | −0·9 | 07 05 | 15·1 | 17 30 | 1150 | 1105 | 12 16 | 45 | 1,1,1,2,4,3,2,2 | 16 | 1 | 84·0 |
| 7 *d* | 17 15 | 636 | 476 | 10 40 | 160 | 14 20 | 22·5 | −7·7 | 19 44 | 30·2 | 17 37 | *1244* | 1107 | 03 35 | 137 | 2,4,2,2,4,4,4,2 | 24 | 1 | 84·0 |
| 8 | 19 51 | 572 | 480 | 10 08 | 92 | 13 36 | 10·5 | −0·3 | 08 22 | *10·8* | 20 57 | 1150 | 1125 | 12 20 | 25 | 2,1,1,1,1,3,3,2 | 14 | 1 | 84·0 |
| 9 | 19 00 | 567 | 504 | 10 15 | 63 | 12 38 | 13·6 | −0·8 | 07 24 | 14·4 | 17 30 | 1155 | 1111 | 11 55 | 44 | 2,1,1,2,2,2,3,1 | 14 | 1 | 84·0 |
| 10 | 18 11 | 578 | 476 | 10 54 | 102 | 13 37 | 15·9 | −3·2 | 07 43 | 19·1 | 18 51 | 1154 | 1106 | 12 10 | 48 | 0,0,1,2,2,2,3,2 | 12 | 1 | 84·0 |
| 11 *d* | 13 06 | 606 | 468 | 11 13 | 138 | 13 07 | 17·4 | −5·4 | 08 32 | 22·8 | 17 57 | 1195 | 1097 | 06 10 | 98 | 3,4,4,3,5,4,3,4 | 30 | 1 | 84·0 |
| 12 | 22 09 | 602 | 476 | 10 07 | 126 | 14 05 | 14·4 | −8·2 | 01 35 | 22·6 | 17 15 | 1147 | 1080 | 00 43 | 67 | 4,3,3,2,2,3,2,4 | 23 | 1 | 84·0 |
| 13 | 19 07 | 567 | 477 | 11 05 | 90 | 13 00 | 13·7 | −4·4 | 07 48 | 18·1 | 16 30 | 1142 | 1117 | 12 20 | 25 | 2,2,2,2,1,2,3,2 | 16 | 1 | 84·0 |
| 14 *d* | 21 04 | *682* | 390 | 12 11 | 292 | 21 09 | 20·0 | *−19·0* | 20 39 | 39·0 | 20 35 | 1190 | 1112 | 11 50 | 78 | 1,3,4,4,5,4,5,6 | 31 | 2 | 84·0 |
| 15 *d* | 16 56 | 608 | 435 | 10 22 | 173 | 14 28 | 16·2 | −8·1 | 02 28 | 24·3 | 18 12 | 1191 | 1089 | 02 20 | 102 | 4,3,2,3,3,4,4,4 | 27 | 1 | 84·1 |
| 16 | 18 50 | 593 | 458 | 10 28 | 135 | 13 49 | 14·4 | −12·5 | 21 57 | 26·9 | 19 50 | 1173 | 1083 | 22 43 | 90 | 3,2,2,2,3,3,4,4 | 23 | 1 | 84·1 |
| 17 | 21 46 | 606 | 437 | 10 27 | 169 | 14 01 | 18·2 | −5·7 | 21 40 | 23·9 | 15 22 | 1172 | 1099 | 07 53 | 73 | 3,3,3,3,4,3,3,4 | 26 | 1 | 84·1 |
| 18 | 21 24 | 555 | 464 | 10 37 | 91 | 13 23 | 13·5 | −0·4 | 06 34 | 13·9 | 18 43 | 1150 | 1119 | 12 05 | 31 | 1,0,1,1,2,2,2,3 | 12 | 0 | 84·1 |
| 19 | 18 09 | 550 | 483 | 09 42 | 67 | 13 11 | 15·2 | −7·9 | 00 52 | 23·1 | 19 30 | 1147 | 1122 | 00 45 | 25 | 3,2,1,2,2,2,2,1 | 15 | 1 | 84·1 |
| 20 | 19 00 | 551 | 475 | 10 11 | 76 | 12 50 | 12·5 | −1·6 | 07 57 | 14·1 | 20 30 | 1146 | 1120 | 11 50 | 26 | 1,2,2,1,2,2,2,1 | 13 | 0 | 84·1 |
| 21 *q* | 23 15 | 550 | 476 | 10 37 | 74 | 13 23 | 14·9 | −2·6 | 07 13 | 17·5 | 16 50 | 1143 | 1112 | 11 40 | 31 | 1,0,0,2,0,1,1,2 | 7 | 0 | 84·1 |
| 22 *q* | 24 00 | 543 | 489 | 09 40 | *54* | 13 23 | 11·4 | −2·4 | 07 10 | 13·8 | 16 00 | 1142 | 1114 | 11 33 | 28 | 1,0,0,1,0,2,1,1 | 6 | 0 | 84·1 |
| 23 *q* | 24 00 | 562 | 484 | 09 35 | 78 | 12 48 | 13·4 | −1·9 | 08 05 | 15·3 | 06 50 | 1143 | 1108 | 10 49 | 35 | 0,1,0,2,2,1,2,2 | 10 | 0 | 84·1 |
| 24 | 02 43 | 569 | 507 | 09 24 | 62 | 14 12 | 13·5 | −3·7 | 06 55 | 17·2 | 17 33 | 1141 | 1105 | 12 30 | 36 | 2,2,2,1,2,2,2,1 | 14 | 1 | 84·1 |
| 25 | 02 18 | 548 | 472 | 09 00 | 76 | 12 48 | 12·7 | −6·0 | 07 19 | 18·7 | 16 56 | 1138 | 1105 | 10 50 | 33 | 3,2,2,3,2,2,2,0 | 16 | 1 | 84·1 |
| 26 *q* | 19 30 | 553 | 475 | 09 33 | 78 | 13 28 | 12·7 | −2·1 | 07 58 | 14·8 | 16 38 | 1137 | 1107 | 12 12 | 30 | 0,0,2,2,1,2,2,0 | 9 | 0 | 84·1 |
| 27 | 21 12 | 552 | 472 | 10 30 | 80 | 12 03 | 12·6 | −3·5 | 06 05 | 16·1 | 23 02 | 1138 | 1117 | 11 22 | *21* | 0,1,3,3,2,2,2,2 | 15 | 1 | 84·1 |
| 28 | 17 55 | 559 | 484 | 09 41 | 75 | 13 30 | 18·1 | −1·5 | 04 07 | 19·6 | 19 39 | 1144 | 1107 | 11 10 | 37 | 2,2,1,2,2,2,2,0 | 13 | 1 | 84·1 |
| 29 *q* | 17 10 | 551 | 480 | 10 17 | 71 | 13 30 | 14·2 | −0·9 | 07 18 | 15·1 | 17 47 | 1141 | 1107 | 12 09 | 34 | 0,1,1,1,0,1,0,2 | 6 | 0 | 84·1 |
| 30 | 22 46 | 609 | 495 | 10 40 | 114 | 14 22 | 11·1 | 0·0 | 07 50 | 11·1 | 22 20 | 1142 | 1112 | 12 00 | 30 | 0,1,0,1,1,2,3,4 | 12 | 1 | 84·1 |
| 31 *d* | 00 42 | 606 | *320* | 05 18 | 286 | 05 25 | *37·8* | −14·7 | 02 21 | *52·5* | 17 21 | 1219 | *907* | 05 43 | *312* | 5,6,5,3,4,4,3,1 | 21 | 2 | 84·1 |
| Mean | − − | 575 | 469 | − − | 105 | − − | 15·2 | 4 4 | − − | 19·6 | − − | 1158 | 1103 | − − | 55 | − | − | 0·74 | 84·1 |

*d* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

147 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 515 | 515 | 515 | 515 | 515 | 516 | 516 | 512 | 505 | 494 | 480 | 483 | 490 | 492 | 494 | 504 | 517 | 535 | 541 | 536 | 531 | 532 | 533 | 539 | 514 |
| 2 | 539 | 532 | 531 | 526 | 525 | 526 | 510 | 516 | 525 | 512 | 503 | 500 | 501 | 499 | 508 | 519 | 529 | 532 | 540 | 546 | 532 | 534 | 533 | 536 | 523 |
| 3 | 534 | 530 | 534 | 532 | 530 | 533 | 533 | 531 | 518 | 504 | 487 | 479 | 499 | 512 | 519 | 539 | 546 | 527 | 521 | 533 | 536 | 538 | 534 | 536 | 524 |
| 4 | 546 | 544 | 544 | 543 | 547 | 546 | 523 | 542 | 507 | 507 | 463 | 476 | 493 | 495 | 523 | 526 | 528 | 534 | 543 | 530 | 528 | 528 | 537 | 546 | 525 |
| 5 | 528 | 523 | 523 | 526 | 529 | 526 | 523 | 503 | 487 | 481 | 479 | 483 | 486 | 512 | 512 | 528 | 545 | 548 | 534 | 531 | 534 | 542 | 551 | 540 | 520 |
| 6 *q* | 543 | 523 | 528 | 519 | 531 | 542 | 532 | 527 | 518 | 498 | 483 | 483 | 498 | 512 | 519 | 526 | 531 | 534 | 535 | 538 | 538 | 538 | 539 | 538 | 524 |
| 7 | 539 | 541 | 542 | 542 | 539 | 540 | 539 | 534 | 507 | 479 | 493 | 503 | 493 | 507 | 493 | 498 | 522 | 519 | 535 | 527 | 535 | 539 | 536 | 539 | 523 |
| 8 | 529 | 531 | 523 | 524 | 525 | 525 | 531 | 510 | 504 | 499 | 495 | 506 | 492 | 506 | 514 | 518 | 529 | 535 | 538 | 532 | 524 | 528 | 540 | 531 | 520 |
| 9 | 530 | 530 | 532 | 530 | 527 | 528 | 519 | 512 | 503 | 500 | 496 | 507 | 517 | 528 | 542 | 534 | 551 | 544 | 531 | 529 | 526 | 530 | 536 | 523 | 525 |
| 10 | 531 | 530 | 532 | 529 | 528 | 527 | 520 | 515 | 483 | 463 | 499 | 510 | 521 | 507 | 511 | 516 | 531 | 530 | 532 | 532 | 532 | 542 | 559 | 527 | 521 |
| 11 | 524 | 522 | 523 | 528 | 532 | 539 | 531 | 523 | 506 | 494 | 486 | 487 | 509 | 510 | 521 | 544 | 529 | 547 | 535 | 543 | 542 | 536 | 530 | 535 | 524 |
| 12 | 536 | 528 | 529 | 531 | 534 | 532 | 519 | 500 | 494 | 499 | 493 | 491 | 489 | 502 | 504 | 523 | 535 | 536 | 539 | 537 | 542 | 534 | 528 | 528 | 520 |
| 13 | 532 | 532 | 531 | 534 | 531 | 528 | 535 | 527 | 511 | 492 | 484 | 483 | 489 | 503 | 520 | 519 | 531 | 535 | 544 | 542 | 543 | 542 | 547 | 558 | 525 |
| 14 | 535 | 518 | 527 | 528 | 531 | 533 | 532 | 525 | 508 | 499 | 497 | 492 | 491 | 498 | 513 | 523 | 530 | 537 | 544 | 545 | 544 | 542 | 540 | 542 | 524 |
| 15 *q* | 531 | 531 | 532 | 531 | 531 | 535 | 531 | 522 | 504 | 495 | 483 | 484 | 491 | 502 | 519 | 540 | 528 | 540 | 544 | 540 | 542 | 540 | 542 | 542 | 524 |
| 16 | 540 | 535 | 534 | 535 | 535 | 536 | 535 | 527 | 515 | 494 | 487 | 486 | 493 | 519 | 533 | 550 | 593 | 588 | 569 | 513 | 479 | 509 | 516 | 534 | *527* |
| 17 | 479 | 401 | 459 | 506 | 509 | 512 | 519 | 511 | 505 | 493 | 488 | 491 | 494 | 492 | 502 | 512 | 527 | 544 | 533 | 546 | 547 | 503 | 502 | 512 | 504 |
| 18 *d* | 494 | 508 | 358 | 326 | 324 | 412 | 361 | 384 | 335 | 390 | 436 | 451 | 423 | 440 | 555 | 654 | 571 | 546 | 578 | 464 | 492 | 498 | 500 | 495 | 458 |
| 19 *d* | 444 | 431 | 475 | 400 | 461 | 468 | 464 | 440 | 479 | 467 | 448 | 438 | 459 | 560 | 526 | 497 | 491 | 494 | 498 | 507 | 495 | 502 | 496 | 495 | 476 |
| 20 | 514 | 494 | 497 | 496 | 499 | 500 | 491 | 495 | 500 | 487 | 477 | 466 | 459 | 461 | 472 | 491 | 499 | 513 | 518 | 510 | 513 | 512 | 509 | 507 | 495 |
| 21 | 520 | 510 | 504 | 504 | 505 | 507 | 510 | 511 | 503 | 488 | 483 | 466 | 480 | 494 | 495 | 506 | 510 | 564 | 552 | 540 | 531 | 543 | 527 | 521 | 511 |
| 22 *d* | 518 | 512 | 507 | 491 | 452 | 309 | 111 | 328 | 374 | 392 | 361 | 404 | 481 | 753 | 617 | 464 | 571 | 544 | 504 | 498 | 462 | 468 | 490 | 512 | 463 |
| 23 *d* | 492 | 500 | 373 | 313 | 373 | 357 | 274 | 262 | 327 | 363 | 391 | 413 | 482 | 519 | 532 | 693 | 774 | 559 | 500 | 495 | 515 | 466 | 448 | 439 | *453* |
| 24 | 489 | 483 | 472 | 476 | 492 | 487 | 491 | 475 | 472 | 462 | 454 | 461 | 470 | 483 | 495 | 487 | 492 | 501 | 506 | 506 | 507 | 508 | 507 | 508 | 487 |
| 25 *q* | 507 | 511 | 510 | 508 | 510 | 510 | 506 | 497 | 485 | 475 | 473 | 474 | 477 | 484 | 488 | 487 | 504 | 515 | 515 | 517 | 514 | 517 | 519 | 519 | 501 |
| 26 *q* | 519 | 516 | 514 | 515 | 517 | 516 | 512 | 503 | 497 | 483 | 475 | 468 | 480 | 495 | 495 | 504 | 504 | 515 | 519 | 523 | 526 | 523 | 524 | 523 | 507 |
| 27 | 523 | 524 | 530 | 528 | 519 | 516 | 512 | 464 | 445 | 483 | 479 | 475 | 476 | 472 | 490 | 523 | 544 | 588 | 532 | 465 | 475 | 475 | 479 | 493 | 500 |
| 28 *d* | 496 | 499 | 514 | 510 | 535 | 539 | 480 | 475 | 475 | 456 | 424 | 435 | 480 | 529 | 534 | 721 | 626 | 665 | 478 | 433 | 456 | 325 | 409 | 392 | 495 |
| 29 | 324 | 448 | 437 | 462 | 485 | 485 | 484 | 481 | 475 | 468 | 459 | 463 | 463 | 488 | 503 | 508 | 519 | 519 | 496 | 499 | 500 | 500 | 511 | 495 | 478 |
| 30 | 475 | 475 | 475 | 490 | 515 | 495 | 523 | 511 | 511 | 469 | 452 | 455 | 463 | 475 | 494 | 487 | 515 | 510 | 514 | 507 | 502 | 498 | 509 | 512 | 493 |
| Mean | 511 | 509 | 503 | 500 | 506 | 504 | 489 | 489 | 483 | 476 | *470* | 474 | 485 | 508 | 515 | 531 | *541* | 540 | 529 | 519 | 518 | 513 | 518 | 517 | 506 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

148 ESKDALEMUIR (D) — 12° + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *q* | 1·7 | 2·0 | 2·1 | 2·0 | 1·5 | 0·8 | 0·1 | 0·0 | 0·2 | 0·4 | 1·4 | 3·8 | 7·0 | 9·9 | 10·0 | 9·2 | 7·7 | 6·5 | 5·2 | 4·8 | 4·4 | 3·8 | 3·0 | 3·0 | 3·8 |
| 2 | 3·0 | 2·8 | 2·7 | 3·2 | 2·8 | 0·2 | 0·0 | 1·2 | 0·2 | 0·9 | 2·0 | 6·0 | 9·1 | 10·4 | 11·9 | 11·7 | 9·2 | 7·1 | 2·6 | 4·7 | 4·0 | 4·1 | 3·7 | 4·1 | 4·5 |
| 3 | 4·6 | 3·7 | 6·1 | 4·4 | 2·9 | 1·8 | 0·4 | -1·3 | -1·7 | -0·1 | 2·8 | 6·5 | 11·7 | 14·8 | 15·0 | 15·5 | 14·5 | 7·4 | 4·8 | 5·2 | 4·6 | 1·0 | 1·9 | 4·6 | 5·5 |
| 4 | 3·9 | 3·4 | 1·9 | 2·0 | 2·6 | 2·8 | 4·6 | 3·1 | 0·7 | 1·5 | 2·6 | 7·5 | 10·7 | 12·5 | 13·1 | 12·1 | 9·2 | 3·6 | 4·8 | 2·8 | 1·4 | 2·7 | 4·3 | 3·9 | 4·9 |
| 5 | -1·8 | 2·0 | 3·2 | 2·9 | 2·6 | 1·3 | -0·4 | 0·0 | 2·6 | 3·0 | 5·3 | 8·7 | 10·7 | 12·7 | 12·7 | 12·0 | 9·5 | 6·0 | 6·4 | 5·6 | 5·7 | 5·5 | 2·7 | 1·7 | 5·0 |
| 6 *q* | -0·8 | -1·6 | 1·2 | 6·3 | 7·3 | 2·8 | -0·7 | -2·7 | -2·5 | -1·0 | 1·1 | 6·3 | 10·7 | 11·2 | 9·9 | 8·4 | 7·4 | 6·2 | 5·1 | 5·3 | 5·3 | 4·7 | 4·5 | 4·0 | 4·1 |
| 7 | 3·7 | 3·7 | 3·6 | 3·1 | 2·9 | 2·6 | 2·8 | 1·9 | -0·1 | 5·9 | 11·1 | 13·7 | 12·9 | 16·3 | 13·6 | 8·3 | 6·2 | 4·2 | 3·9 | 2·1 | 3·0 | 7·1 | 4·4 | 4·2 | 5·9 |
| 8 | 3·2 | 3·5 | 2·0 | 1·1 | 1·6 | 0·7 | -0·6 | 0·5 | 1·3 | 3·9 | 6·2 | 10·0 | 11·1 | 10·1 | 9·0 | 7·3 | 6·2 | 5·4 | 3·7 | 1·2 | 2·9 | 2·6 | 1·9 | -3·2 | 3·8 |
| 9 | 2·7 | 2·2 | 1·8 | 0·1 | 0·8 | 0·5 | 0·5 | 0·1 | -0·1 | 1·3 | 4·6 | 7·3 | 9·2 | 10·5 | 11·9 | 12·0 | 11·9 | 8·9 | 3·2 | 2·9 | 4·9 | 4·5 | 1·5 | 3·1 | 4·4 |
| 10 | 2·7 | 1·6 | 2·5 | 2·1 | 1·4 | 0·3 | -0·6 | -1·7 | 0·3 | 6·9 | 6·4 | 8·0 | 11·5 | 11·8 | 12·1 | 8·3 | 7·8 | 6·4 | 6·4 | 4·8 | 4·7 | 4·5 | 8·3 | 1·0 | 4·9 |
| 11 | -0·6 | 0·1 | 1·7 | 2·3 | 1·1 | 1·1 | 0·9 | 0·1 | -0·2 | 1·7 | 4·3 | 6·8 | 10·0 | 11·1 | 10·5 | 11·8 | 9·6 | 8·1 | 6·0 | 2·6 | 5·1 | 4·5 | 3·7 | 1·9 | 4·3 |
| 12 | 3·3 | 2·4 | 2·0 | 2·3 | 2·7 | 1·4 | -0·4 | 2·1 | 3·5 | 1·8 | 3·6 | 8·1 | 11·6 | 12·8 | 9·9 | 9·3 | 7·9 | 6·4 | 5·6 | 4·7 | 3·8 | 1·4 | -3·4 | 2·7 | 4·4 |
| 13 | 3·4 | 3·4 | 2·6 | 2·5 | 2·6 | 5·3 | -0·4 | -0·9 | -0·8 | 0·7 | 2·7 | 6·3 | 9·9 | 12·7 | 12·7 | 10·0 | 8·0 | 6·5 | 5·4 | 4·5 | 3·8 | 3·8 | 3·1 | -0·4 | 4·5 |
| 14 | -3·9 | 0·1 | 2·0 | 2·9 | 2·5 | 2·3 | 0·8 | -1·4 | -2·6 | -1·7 | 1·3 | 6·2 | 9·0 | 11·0 | 10·9 | 9·8 | 7·6 | 5·7 | 5·1 | 4·6 | 4·0 | 1·9 | 1·9 | 0·3 | 3·3 |
| 15 *q* | 2·1 | 2·8 | 2·1 | 2·6 | 1·3 | 1·0 | -0·3 | -1·7 | -2·1 | -0·9 | 2·4 | 7·1 | 11·9 | 13·3 | 13·0 | 11·6 | 7·4 | 5·6 | 5·4 | 4·7 | 4·7 | 4·5 | 4·1 | 3·6 | 4·4 |
| 16 | 2·8 | 1·5 | 2·1 | 1·9 | 2·0 | 1·9 | 1·7 | 0·5 | -0·7 | -0·3 | 3·0 | 5·7 | 9·3 | 12·1 | 12·0 | 10·7 | 11·8 | 12·1 | 7·7 | -7·1 | -1·3 | 4·2 | 2·7 | -2·9 | 3·9 |
| 17 | -6·8 | -9·5 | -2·7 | 0·7 | 1·0 | 5·9 | 3·9 | -3·0 | -2·8 | -0·2 | 3·1 | 7·4 | 9·1 | 10·3 | 9·7 | 8·2 | 4·7 | 5·6 | 4·3 | 1·0 | -0·7 | 0·1 | 0·7 | 7·3 | 2·4 |
| 18 *d* | 7·1 | -6·3 | -0·8 | -1·7 | -14·5 | 8·3 | 13·6 | 3·1 | 7·3 | 11·5 | 9·0 | 7·8 | 9·8 | 9·8 | 13·5 | 17·0 | 17·1 | 9·4 | 17·2 | 1·3 | -1·1 | 2·2 | -1·5 | 3·1 | 5·9 |
| 19 *d* | -1·7 | -3·4 | -8·2 | 5·3 | -2·0 | -5·1 | -3·5 | -5·1 | -3·8 | -1·2 | 4·3 | 9·2 | 15·6 | 13·1 | 16·6 | 8·1 | 6·4 | 4·7 | 4·7 | 5·1 | 2·9 | 2·9 | 3·6 | 2·9 | 3·0 |
| 20 | 0·1 | 0·6 | 1·0 | 1·1 | 1·2 | -0·1 | 0·7 | 4·3 | 1·6 | 0·1 | 0·2 | 3·0 | 5·6 | 7·3 | 7·2 | 7·4 | 7·2 | 6·4 | 5·8 | 4·8 | 3·7 | 2·9 | 2·4 | 2·4 | 3·2 |
| 21 | 6·4 | 0·7 | 1·2 | 0·9 | 1·0 | 0·4 | 0·1 | -0·7 | -1·3 | 0·2 | 2·8 | 6·3 | 11·2 | 12·1 | 12·0 | 9·7 | 7·7 | 2·7 | 2·7 | 8·1 | 7·0 | 7·0 | 4·7 | 1·1 | 4·3 |
| 22 *d* | 0·2 | -1·5 | -2·2 | -7·0 | 14·7 | 28·9 | -1·9 | -13·4 | -9·8 | 2·8 | 4·1 | -13·1 | 8·8 | 10·3 | 30·7 | 33·3 | 19·0 | 10·0 | 6·9 | -15·2 | 1·9 | 2·6 | -5·3 | 1·0 | 4·4 |
| 23 *d* | 9·1 | 8·9 | 9·3 | 15·9 | 17·2 | 16·3 | 20·7 | 3·3 | 1·5 | 7·3 | 5·2 | 9·6 | 9·1 | 9·2 | 7·7 | 17·0 | 5·9 | 4·6 | -0·6 | 1·1 | 4·6 | -5·7 | -6·2 | -5·7 | *6·9* |
| 24 | -9·1 | -4·4 | -4·7 | 2·7 | -0·5 | -1·6 | -1·3 | -2·5 | -3·2 | -1·9 | 1·1 | 4·9 | 6·1 | 8·6 | 9·2 | 7·1 | 3·9 | 3·2 | 3·7 | 2·9 | 3·4 | 3·5 | 3·5 | 3·3 | 1·6 |
| 25 *q* | 3·3 | 3·5 | 3·4 | 2·8 | 2·8 | 2·0 | 1·0 | -0·3 | -0·2 | 1·2 | 3·6 | 7·1 | 8·9 | 9·5 | 8·7 | 7·4 | 5·8 | 3·7 | 3·0 | 2·7 | 2·0 | 3·2 | 3·1 | 1·9 | 3·8 |
| 26 *q* | 2·7 | 3·1 | 2·8 | 2·4 | 2·3 | 1·9 | 0·9 | 0·7 | -0·3 | 0·6 | 3·3 | 6·5 | 9·2 | 11·9 | 11·7 | 9·9 | 9·0 | 6·4 | 4·7 | 3·8 | 3·4 | -0·6 | 1·7 | 2·4 | 4·2 |
| 27 | 1·9 | 2·2 | 3·3 | 1·5 | 1·6 | 1·3 | 2·0 | 5·3 | 5·5 | 6·2 | 5·1 | 6·6 | 10·0 | 9·9 | 9·9 | 8·7 | 7·9 | -3·3 | -5·1 | -9·8 | -2·7 | -5·2 | -10·7 | -1·5 | 2·1 |
| 28 *d* | 0·8 | 2·3 | 5·2 | -1·3 | -3·1 | 2·9 | 9·7 | 21·8 | 9·2 | 4·7 | 10·2 | 10·1 | 10·4 | 10·2 | 11·1 | 14·6 | 6·0 | 4·7 | 1·7 | 3·6 | -1·9 | 0·9 | -5·1 | -6·9 | 5·1 |
| 29 | 4.3 | 8.2 | -10·5 | -3·4 | -2·5 | -2·6 | -2·8 | -3·6 | -3·1 | -0·4 | 2·7 | 7·1 | 9·3 | 10·8 | 11·6 | 12·8 | 7·9 | -0·2 | 1·2 | -4·2 | -1·6 | 0·6 | -0·6 | -6·6 | *1·4* |
| 30 | -5·5 | -6·5 | 2·9 | 3·4 | 6·6 | 11·0 | 10·8 | 9·1 | 5·5 | 2·9 | 4·6 | 9·1 | 9·6 | 9·5 | 9·1 | 4·7 | 1·4 | 2·4 | -0·3 | -9·7 | -3·1 | -2·0 | 2·3 | 3·5 | 3·4 |
| Mean | 1·4 | 1·1 | 1·3 | 2·2 | 2·1 | 3·2 | 2·1 | 0·6 | *0·1* | 1·9 | 4·0 | 6·7 | 10·0 | 11·2 | *11·9* | 11·1 | 8·4 | 5·5 | 4·4 | 1·6 | 2·6 | 2·4 | 1·4 | 1·3 | 4·1 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT
Mean values for periods of sixty minutes ending at exact hours, G.M.T.

149 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — SEPTEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *q* | 1144 | 1143 | 1143 | 1144 | 1144 | 1144 | 1142 | 1140 | 1132 | 1130 | 1134 | 1130 | 1123 | 1126 | 1135 | 1143 | 1148 | 1147 | 1143 | 1141 | 1138 | 1138 | 1137 | 1136 | 1139 |
| 2 | 1135 | 1129 | 1124 | 1129 | 1135 | 1137 | 1136 | 1125 | 1120 | 1124 | 1123 | 1123 | 1124 | 1125 | 1129 | 1131 | 1137 | 1144 | 1151 | 1148 | 1148 | 1146 | 1142 | 1135 | 1133 |
| 3 | 1125 | 1124 | 1123 | 1123 | 1129 | 1133 | 1135 | 1135 | 1130 | 1129 | 1129 | 1123 | 1117 | 1118 | 1128 | 1138 | 1154 | 1167 | 1161 | 1150 | 1144 | 1140 | 1129 | 1129 | 1134 |
| 4 | 1130 | 1131 | 1132 | 1134 | 1133 | 1136 | 1136 | 1129 | 1130 | 1131 | 1137 | 1138 | 1136 | 1144 | 1152 | 1165 | 1168 | 1173 | 1166 | 1165 | 1161 | 1153 | 1144 | 1118 | 1143 |
| 5 | 1115 | 1123 | 1130 | 1135 | 1137 | 1141 | 1143 | 1141 | 1138 | 1131 | 1129 | 1129 | 1135 | 1135 | 1141 | 1143 | 1159 | 1167 | 1166 | 1160 | 1152 | 1144 | 1137 | 1129 | 1140 |
| 6 *q* | 1119 | 1117 | 1120 | 1121 | 1108 | 1112 | 1125 | 1131 | 1131 | 1132 | 1126 | 1118 | 1113 | 1118 | 1123 | 1126 | 1130 | 1134 | 1133 | 1131 | 1131 | 1135 | 1135 | 1135 | 1125 |
| 7 | 1134 | 1132 | 1131 | 1130 | 1130 | 1131 | 1131 | 1129 | 1125 | 1123 | 1117 | 1119 | 1127 | 1143 | 1153 | 1154 | 1150 | 1144 | 1144 | 1150 | 1152 | 1131 | 1129 | 1131 | 1135 |
| 8 | 1128 | 1120 | 1129 | 1134 | 1136 | 1137 | 1137 | 1139 | 1141 | 1135 | 1131 | 1124 | 1129 | 1137 | 1141 | 1143 | 1144 | 1143 | 1147 | 1157 | 1150 | 1147 | 1132 | 1129 | 1137 |
| 9 | 1125 | 1131 | 1134 | 1135 | 1136 | 1136 | 1137 | 1137 | 1135 | 1132 | 1129 | 1124 | 1125 | 1128 | 1143 | 1150 | 1165 | 1179 | 1189 | 1167 | 1149 | 1143 | 1141 | 1142 | 1142 |
| 10 | 1141 | 1141 | 1138 | 1137 | 1136 | 1136 | 1137 | 1134 | 1130 | 1126 | 1124 | 1124 | 1126 | 1134 | 1141 | 1140 | 1140 | 1142 | 1140 | 1141 | 1137 | 1136 | 1119 | 1094 | 1133 |
| 11 | 1114 | 1126 | 1131 | 1132 | 1134 | 1132 | 1131 | 1132 | 1132 | 1129 | 1128 | 1125 | 1123 | 1125 | 1131 | 1135 | 1141 | 1147 | 1150 | 1148 | 1141 | 1142 | 1143 | 1141 | 1134 |
| 12 | 1135 | 1136 | 1136 | 1135 | 1135 | 1134 | 1135 | 1131 | 1125 | 1122 | 1120 | 1119 | 1126 | 1136 | 1138 | 1136 | 1135 | 1136 | 1136 | 1136 | 1136 | 1142 | 1141 | 1137 | 1133 |
| 13 | 1136 | 1136 | 1136 | 1135 | 1134 | 1128 | 1130 | 1130 | 1127 | 1129 | 1125 | 1125 | 1125 | 1129 | 1135 | 1136 | 1136 | 1135 | 1135 | 1134 | 1134 | 1135 | 1132 | 1125 | 1132 |
| 14 | 1117 | 1118 | 1125 | 1129 | 1130 | 1131 | 1131 | 1131 | 1130 | 1126 | 1124 | 1120 | 1118 | 1122 | 1124 | 1129 | 1132 | 1135 | 1135 | 1135 | 1135 | 1136 | 1135 | 1123 | 1128 |
| 15 *q* | 1128 | 1130 | 1132 | 1134 | 1132 | 1134 | 1130 | 1131 | 1129 | 1124 | 1116 | 1110 | 1106 | 1109 | 1118 | 1132 | 1135 | 1135 | 1135 | 1135 | 1135 | 1130 | 1130 | 1130 | 1127 |
| 16 | 1130 | 1130 | 1130 | 1131 | 1130 | 1130 | 1131 | 1134 | 1133 | 1127 | 1117 | 1110 | 1107 | 1113 | 1117 | 1125 | 1136 | 1178 | 1244 | 1189 | 1142 | 1159 | 1150 | 1096 | 1137 |
| 17 | 1081 | 1017 | 986 | 1083 | 1099 | 1099 | 1119 | 1130 | 1128 | 1129 | 1129 | 1129 | 1132 | 1137 | 1149 | 1153 | 1160 | 1159 | 1160 | 1159 | 1129 | 1141 | 1137 | 1120 | *1119* |
| 18 *d* | 1009 | 963 | 795 | 791 | 883 | 916 | 997 | 1069 | 1106 | 1125 | 1159 | 1176 | 1232 | 1279 | 1306 | 1334 | 1322 | 1275 | 1264 | 1173 | 1190 | 1189 | 1159 | 1153 | *1119* |
| 19 *d* | 1066 | 1034 | 969 | 939 | 1000 | 1092 | 1118 | 1120 | 1135 | 1138 | 1140 | 1143 | 1153 | 1239 | 1237 | 1256 | 1198 | 1173 | 1160 | 1158 | 1162 | 1166 | 1161 | 1155 | 1130 |
| 20 | 1141 | 1142 | 1148 | 1150 | 1150 | 1148 | 1144 | 1132 | 1132 | 1136 | 1140 | 1141 | 1142 | 1143 | 1145 | 1148 | 1152 | 1152 | 1165 | 1166 | 1160 | 1158 | 1154 | 1149 | 1147 |
| 21 | 1128 | 1131 | 1140 | 1143 | 1143 | 1143 | 1145 | 1149 | 1150 | 1147 | 1137 | 1128 | 1123 | 1129 | 1141 | 1151 | 1153 | 1155 | 1165 | 1163 | 1164 | 1159 | 1162 | 1170 | 1147 |
| 22 *d* | 1162 | 1130 | 1126 | 1123 | 1052 | 849 | 854 | 1027 | 1104 | 1131 | 1142 | 1207 | 1225 | 1293 | 1461 | 1288 | 1331 | 1347 | 1304 | 1291 | 1186 | 1148 | 1115 | 1083 | 1166 |
| 23 *d* | 1059 | 985 | 908 | 962 | 904 | 964 | 955 | 1015 | 1134 | 1154 | 1173 | 1198 | 1240 | 1286 | 1323 | 1322 | 1346 | 1243 | 1214 | 1204 | 1189 | 1141 | 1117 | 1095 | 1130 |
| 24 | 1106 | 1107 | 1116 | 1114 | 1126 | 1143 | 1152 | 1163 | 1167 | 1166 | 1162 | 1164 | 1159 | 1155 | 1154 | 1154 | 1159 | 1159 | 1156 | 1155 | 1154 | 1153 | 1154 | 1154 | 1148 |
| 25 *q* | 1154 | 1153 | 1150 | 1153 | 1153 | 1154 | 1155 | 1155 | 1155 | 1147 | 1142 | 1135 | 1132 | 1141 | 1147 | 1147 | 1149 | 1155 | 1158 | 1156 | 1155 | 1154 | 1152 | 1150 | 1150 |
| 26 *q* | 1147 | 1147 | 1148 | 1148 | 1149 | 1149 | 1149 | 1148 | 1148 | 1146 | 1143 | 1141 | 1140 | 1144 | 1152 | 1160 | 1155 | 1154 | 1154 | 1154 | 1151 | 1153 | 1149 | 1147 | 1149 |
| 27 | 1147 | 1146 | 1132 | 1131 | 1137 | 1142 | 1146 | 1146 | 1142 | 1139 | 1147 | 1147 | 1154 | 1168 | 1176 | 1200 | 1225 | 1238 | 1209 | 1225 | 1208 | 1171 | 1152 | 1142 | 1165 |
| 28 *d* | 1147 | 1146 | 1117 | 1074 | 1074 | 1094 | 1107 | 1093 | 1111 | 1137 | 1149 | 1167 | 1208 | 1264 | 1278 | 1328 | 1292 | 1395 | 1261 | 1220 | 1183 | 1052 | 1080 | 1090 | *1169* |
| 29 | 1011 | 997 | 1080 | 1111 | 1127 | 1150 | 1159 | 1165 | 1170 | 1167 | 1166 | 1167 | 1176 | 1195 | 1214 | 1224 | 1262 | 1269 | 1219 | 1196 | 1167 | 1166 | 1155 | 1137 | 1160 |
| 30 | 1123 | 1113 | 1111 | 1099 | 1101 | 1111 | 1099 | 1124 | 1137 | 1153 | 1159 | 1162 | 1168 | 1171 | 1173 | 1193 | 1202 | 1190 | 1186 | 1183 | 1166 | 1165 | 1159 | 1154 | 1150 |
| Mean | 1118 | 1109 | *1101* | 1105 | 1107 | 1109 | 1115 | 1125 | 1134 | 1135 | 1137 | 1139 | 1145 | 1159 | 1173 | 1176 | *1181* | 1179 | 1175 | 1166 | 1155 | 1146 | 1139 | 1134 | 1140 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

150 ESKDALEMUIR — SEPTEMBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices K | Sum of K indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | | Vertical force | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 *q* | 18 05 | 544 | 477 | 11 19 | 67 | 13 35 | 11·0 | −0·7 | 08 18 | 11·7 | 16 40 | 1149 | 1123 | 12 42 | 26 | 1,0,1,2,2,3,2,1 | 12 | 0 | 84·1 |
| 2 | 18 49 | 551 | 496 | 06 41 | *55* | 14 31 | 12·7 | −2·2 | 06 00 | 14·9 | 18 50 | 1155 | 1119 | 08 21 | 36 | 2,2,3,1,2,1,2,1 | 14 | 0 | 84·1 |
| 3 | 21 54 | 563 | 473 | 11 02 | 90 | 15 48 | 16·0 | −4·0 | 21 58 | 20·0 | 17 39 | 1170 | 1114 | 12 58 | 56 | 2,1,0,2,2,3,3,3 | 16 | 1 | 84·1 |
| 4 | 17 54 | 556 | 445 | 10 30 | 111 | 14 47 | 14·1 | −4·3 | 24 00 | 18·4 | 17 21 | 1177 | 1107 | 23 52 | 70 | 2,2,3,3,3,3,3,4 | 23 | 1 | 84·1 |
| 5 | 22 50 | 571 | 467 | 11 51 | 104 | 13 59 | 15·4 | −5·9 | 00 04 | 21·3 | 17 22 | 1168 | 1112 | 00 01 | 56 | 3,1,3,3,3,3,2,3 | 21 | 1 | 84·1 |
| 6 *q* | 05 09 | 551 | 479 | 11 01 | 72 | 13 12 | 11·6 | −3·3 | 01 13 | 14·9 | 17 50 | 1136 | 1106 | 05 10 | 30 | 3,3,1,1,2,0,0,0 | 10 | 0 | 84·1 |
| 7 | 21 21 | 559 | 452 | 09 08 | 107 | 13 29 | 18·0 | −6·4 | 08 07 | 24·4 | 19 53 | 1158 | 1114 | 10 10 | 44 | 1,0,3,4,3,3,3,3 | 20 | 1 | 84·1 |
| 8 | 17 38 | 550 | 487 | 10 55 | 63 | 11 49 | 12·0 | −6·2 | 23 16 | 18·2 | 19 33 | 1160 | 1118 | 01 34 | 42 | 2,1,2,2,2,2,2,3 | 16 | 1 | 84·1 |
| 9 | 16 08 | 567 | 494 | 10 48 | 73 | 15 42 | 14·1 | −1·6 | 03 41 | 15·7 | 18 31 | 1197 | 1120 | 12 04 | 77 | 2,2,2,2,3,3,3,2 | 19 | 1 | 84·1 |
| 10 | 22 32 | 590 | 440 | 09 15 | 150 | 22 46 | 15·1 | −3·8 | 23 59 | 18·9 | 14 44 | 1143 | 1088 | 23 12 | 55 | 2,1,3,4,3,2,1,4 | 20 | 1 | 84·1 |
| 11 | 15 36 | 566 | 468 | 11 09 | 98 | 15 38 | 13·5 | −3·8 | 00 01 | 17·3 | 18 07 | 1153 | 1112 | 00 01 | 41 | 2,2,2,2,2,3,3,2 | 18 | 1 | 84·1 |
| 12 | 22 09 | 550 | 471 | 11 40 | 79 | 13 31 | 13·6 | −5·9 | 22 28 | 19·5 | 22 30 | 1143 | 1117 | 11 20 | 26 | 2,1,3,3,2,2,2,3 | 18 | 1 | 84·1 |
| 13 | 23 25 | 563 | 478 | 11 23 | 85 | 14 11 | 14·2 | −1·9 | 24 00 | 16·1 | 14 50 | 1137 | 1119 | 24 00 | *18* | 1,2,3,1,3,2,2,2 | 16 | 0 | 84·1 |
| 14 | 00 01 | 558 | 483 | 11 32 | 75 | 14 04 | 11·8 | −4·9 | 00 31 | 16·7 | 21 01 | 1141 | 1115 | 00 59 | 26 | 3,0,1,2,1,1,2,3 | 13 | 0 | 84·1 |
| 15 *q* | 15 32 | 555 | 480 | 10 52 | 75 | 14 03 | 14·4 | −3·6 | 07 58 | 18·0 | 16 00 | 1137 | 1105 | 12 15 | 32 | 1,1,2,1,3,3,1,1 | 13 | 0 | 84·1 |
| 16 | 16 41 | 627 | 414 | 20 03 | 213 | 17 14 | 16·2 | −28·6 | 19 38 | 44·8 | 19 03 | 1333 | 1070 | 23 59 | 263 | 1,1,1,2,4,4,6,4 | 23 | 2 | 84·1 |
| 17 | 20 00 | 618 | 341 | 01 49 | 277 | 24 00 | 23·4 | −15·9 | 01 13 | 39·3 | 19 05 | 1165 | 927 | 02 03 | 238 | 5,4,2,2,2,3,5,5 | 28 | 2 | 84·1 |
| 18 *d* | 15 32 | 701 | 151 | 03 54 | 550 | 18 59 | 46·0 | −37·3 | 03 59 | 83·3 | 16 51 | 1364 | *759* | 03 12 | 605 | 7,7,5,5,6,6,7,4 | 47 | 2 | 84·1 |
| 19 *d* | 13 26 | 654 | 326 | 03 31 | 328 | 14 49 | 26·2 | −14·2 | 02 47 | 40·4 | 14 59 | 1286 | 883 | 03 46 | 403 | 5,6,3,3,6,5,2,3 | 33 | 2 | 84·1 |
| 20 | 00 08 | 532 | 456 | 12 59 | 76 | 07 15 | 8·6 | −3·3 | 00 21 | 11·9 | 18 54 | 1170 | 1129 | 07 42 | 41 | 3,1,3,2,1,3,3,2 | 18 | 1 | 84·1 |
| 21 | 17 15 | 654 | 448 | 11 21 | 206 | 17 13 | 15·3 | −7·0 | 17 52 | 22·3 | 23 56 | 1177 | 1117 | 12 04 | 60 | 3,1,1,3,3,5,4,4 | 24 | 1 | 84·1 |
| 22 *d* | 14 29 | *1374* | *−48* | 06 19 | *1422* | 14 53 | *54·1* | *−111·6* | 11 40 | *165·7* | 14 06 | *1707* | 771 | 06 16 | *936* | 3,8,8,8,9,9,6,5 | 56 | 2 | 84·1 |
| 23 *d* | 16 22 | 1049 | 127 | 06 22 | 922 | 15 43 | 39·4 | −28·7 | 21 12 | 68·1 | 16 22 | 1534 | 872 | 04 26 | 662 | 6,6,6,5,5,8,5,6 | 47 | 2 | 84·1 |
| 24 | 00 27 | 519 | 432 | 11 30 | 87 | 13 05 | 10·2 | −15·6 | 00 19 | 25·8 | 08 05 | 1170 | 1084 | 00 07 | 86 | 4,3,3,3,3,3,1,0 | 20 | 1 | 84·1 |
| 25 *q* | 23 03 | 524 | 470 | 12 00 | 54 | 12 56 | 10·5 | −0·9 | 07 21 | *11·4* | 18 13 | 1159 | 1131 | 12 26 | 28 | 1,1,2,2,1,2,1,1 | 11 | 0 | 84·1 |
| 26 *q* | 22 22 | 531 | 463 | 11 39 | 68 | 13 48 | 14·4 | −2·5 | 21 33 | 16·9 | 15 38 | 1161 | 1136 | 12 00 | 25 | 1,1,2,2,2,2,1,2 | 13 | 0 | 84·1 |
| 27 | 17 44 | 662 | 424 | 08 21 | 238 | 13 01 | 12·7 | −23·3 | 17 39 | 36·0 | 19 16 | 1274 | 1129 | 03 22 | 145 | 2,2,4,3,3,5,5,4 | 28 | 1 | 84·1 |
| 28 *d* | 15 39 | 1022 | 115 | 21 13 | 907 | 15 37 | 35·2 | −31·3 | 20 54 | 66·5 | 17 19 | 1516 | 951 | 19 59 | 565 | 3,4,5,4,4,8,6,7 | 41 | 2 | 84·1 |
| 29 | 01 09 | 598 | 216 | 00 04 | 382 | 00 40 | 26·2 | −17·0 | 00 31 | 43·2 | 17 39 | 1081 | 829 | 01 13 | 252 | 7,3,1,2,4,4,4,3 | 28 | 2 | 84·1 |
| 30 | 19 37 | 542 | 435 | 10 30 | 107 | 05 55 | 19·2 | −19·3 | 19 22 | 38·5 | 15 59 | 1204 | 1092 | 06 10 | 112 | 4,4,3,3,3,4,4,3 | 28 | 1 | 84·1 |
| Mean | − − | 633 | 395 | − − | 238 | − − | 18·8 | −13·8 | − − | 32·7 | − − | 1221 | 1052 | − − | 169 | − | − | 1·00 | 84·1 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

151 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 515 | 503 | 504 | 518 | 519 | 517 | 527 | 504 | 471 | 486 | 480 | 467 | 467 | 475 | 483 | 490 | 507 | 512 | 506 | 514 | 508 | 516 | 521 | 515 | 501 |
| 2 | 515 | 512 | 512 | 515 | 513 | 515 | 516 | 510 | 482 | 464 | 457 | 459 | 469 | 479 | 476 | 492 | 507 | 497 | 512 | 517 | 523 | 523 | 523 | 527 | 501 |
| 3 | 520 | 527 | 526 | 528 | 526 | 511 | 538 | 521 | 505 | 487 | 479 | 480 | 490 | 498 | 496 | 498 | 499 | 508 | 519 | 519 | 519 | 520 | 523 | 523 | 511 |
| 4 | 522 | 523 | 517 | 527 | 527 | 534 | 529 | 520 | 504 | 484 | 484 | 487 | 489 | 496 | 504 | 514 | 499 | 508 | 524 | 527 | 523 | 519 | 520 | 526 | 513 |
| 5 | 526 | 527 | 525 | 534 | 530 | 526 | 525 | 530 | 513 | 503 | 500 | 487 | 495 | 522 | 515 | 498 | 503 | 519 | 495 | 523 | 526 | 527 | 528 | 526 | 517 |
| 6 | 525 | 521 | 523 | 520 | 531 | 529 | 523 | 522 | 499 | 475 | 485 | 487 | 493 | 503 | 507 | 510 | 508 | 510 | 513 | 504 | 506 | 519 | 511 | 503 | 509 |
| 7 | 514 | 517 | 519 | 516 | 528 | 535 | 527 | 524 | 514 | 499 | 494 | 479 | 475 | 485 | 497 | 498 | 499 | 506 | 520 | 523 | 531 | 534 | 534 | 531 | 512 |
| 8 q | 527 | 523 | 525 | 525 | 527 | 524 | 526 | 527 | 518 | 504 | 491 | 487 | 493 | 502 | 512 | 524 | 531 | 536 | 547 | 546 | 550 | 545 | 546 | 543 | 524 |
| 9 d | 541 | 539 | 538 | 519 | 524 | 531 | 515 | 520 | 511 | 506 | 500 | 487 | 483 | 488 | 497 | 518 | 523 | 521 | 514 | 504 | 512 | 515 | 512 | 519 | 514 |
| 10 | 512 | 516 | 519 | 516 | 520 | 520 | 522 | 521 | 508 | 493 | 484 | 487 | 497 | 496 | 510 | 515 | 519 | 524 | 528 | 535 | 515 | 512 | 519 | 522 | 513 |
| 11 | 527 | 529 | 525 | 522 | 519 | 521 | 522 | 518 | 515 | 509 | 505 | 507 | 510 | 521 | 528 | 511 | 514 | 522 | 527 | 525 | 522 | 527 | 528 | 533 | 520 |
| 12 | 530 | 526 | 522 | 534 | 541 | 526 | 527 | 520 | 505 | 488 | 482 | 482 | 486 | 494 | 505 | 514 | 522 | 523 | 523 | 528 | 526 | 530 | 526 | 535 | 516 |
| 13 q | 538 | 522 | 526 | 529 | 531 | 531 | 530 | 522 | 509 | 492 | 482 | 483 | 486 | 497 | 510 | 519 | 526 | 529 | 533 | 535 | 537 | 535 | 538 | 524 | 519 |
| 14 | 525 | 535 | 528 | 527 | 527 | 493 | 534 | 518 | 498 | 485 | 478 | 474 | 482 | 493 | 505 | 511 | 525 | 534 | 538 | 537 | 530 | 529 | 526 | 529 | 515 |
| 15 | 530 | 531 | 530 | 532 | 530 | 530 | 530 | 525 | 506 | 486 | 479 | 486 | 502 | 514 | 518 | 527 | 529 | 534 | 535 | 541 | 534 | 535 | 532 | 532 | 522 |
| 16 | 527 | 527 | 528 | 528 | 531 | 533 | 523 | 526 | 518 | 492 | 490 | 497 | 505 | 506 | 514 | 517 | 527 | 530 | 533 | 530 | 525 | 544 | 528 | 530 | 521 |
| 17 q | 530 | 529 | 528 | 527 | 530 | 528 | 529 | 529 | 514 | 503 | 492 | 490 | 494 | 503 | 513 | 523 | 527 | 531 | 534 | 539 | 543 | 541 | 541 | 541 | 523 |
| 18 q | 538 | 538 | 538 | 533 | 534 | 533 | 531 | 527 | 519 | 510 | 502 | 501 | 507 | 514 | 522 | 527 | 527 | 530 | 533 | 532 | 534 | 538 | 539 | 541 | 527 |
| 19 | 530 | 529 | 526 | 530 | 532 | 533 | 530 | 526 | 517 | 505 | 503 | 505 | 508 | 512 | 516 | 521 | 529 | 534 | 526 | 518 | 523 | 542 | 530 | 507 | 522 |
| 20 d | 493 | 499 | 518 | 524 | 541 | 530 | 534 | 528 | 518 | 499 | 491 | 504 | 499 | 502 | 514 | 531 | 528 | 528 | 537 | 519 | 514 | 506 | 518 | 525 | 517 |
| 21 | 525 | 525 | 527 | 522 | 524 | 523 | 527 | 526 | 514 | 501 | 490 | 486 | 494 | 503 | 510 | 519 | 523 | 529 | 536 | 532 | 530 | 539 | 540 | 539 | 520 |
| 22 | 535 | 533 | 530 | 531 | 534 | 535 | 537 | 537 | 523 | 503 | 495 | 494 | 490 | 495 | 513 | 517 | 521 | 522 | 529 | 525 | 531 | 532 | 533 | 527 | 522 |
| 23 | 537 | 538 | 532 | 535 | 535 | 533 | 533 | 534 | 524 | 507 | 501 | 502 | 493 | 501 | 502 | 513 | 522 | 531 | 532 | 534 | 532 | 530 | 527 | 526 | 523 |
| 24 | 530 | 528 | 527 | 527 | 530 | 531 | 526 | 518 | 508 | 494 | 483 | 484 | 493 | 494 | 510 | 509 | 521 | 519 | 525 | 525 | 531 | 530 | 530 | 530 | 517 |
| 25 | 522 | 526 | 527 | 532 | 532 | 534 | 537 | 524 | 510 | 485 | 482 | 476 | 484 | 499 | 509 | 516 | 519 | 518 | 508 | 513 | 520 | 520 | 516 | 514 | 513 |
| 26 d | 502 | 506 | 530 | 522 | 517 | 531 | 537 | 540 | 526 | 494 | 486 | 472 | 482 | 508 | 516 | 522 | 507 | 515 | 509 | 499 | 482 | 505 | 530 | 431 | 507 |
| 27 d | 461 | 459 | 420 | 470 | 506 | 511 | 511 | 493 | 468 | 442 | 452 | 460 | 467 | 498 | 493 | 479 | 486 | 490 | 500 | 507 | 538 | 511 | 490 | 511 | 484 |
| 28 | 504 | 507 | 506 | 507 | 511 | 510 | 509 | 514 | 497 | 475 | 474 | 479 | 482 | 488 | 496 | 503 | 502 | 511 | 512 | 519 | 522 | 522 | 520 | 530 | 504 |
| 29 | 525 | 511 | 509 | 518 | 524 | 527 | 530 | 522 | 509 | 490 | 486 | 490 | 501 | 495 | 498 | 501 | 508 | 515 | 520 | 516 | 509 | 512 | 523 | 534 | 511 |
| 30 q | 523 | 524 | 522 | 526 | 526 | 528 | 524 | 526 | 514 | 498 | 488 | 490 | 495 | 502 | 507 | 511 | 514 | 522 | 529 | 531 | 530 | 530 | 529 | 526 | 517 |
| 31 d | 527 | 528 | 529 | 529 | 532 | 530 | 529 | 526 | 503 | 506 | 509 | 502 | 499 | 492 | 496 | 511 | 510 | 510 | 492 | 496 | 492 | 493 | 488 | 501 | 510 |
| Mean | 522 | 521 | 521 | 523 | 527 | 526 | 527 | 523 | 508 | 492 | 487 | 486 | 491 | 499 | 506 | 512 | 515 | 520 | 522 | 523 | 523 | 525 | 525 | 523 | 514 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

152 ESKDALEMUIR (D) — 12° + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | 0·9 | 0·2 | 2·6 | 2·5 | 2·9 | 5·3 | 3·3 | 3·7 | 2·7 | 0·6 | 3·5 | 7·1 | 8·4 | 10·8 | 11·7 | 7·1 | 6·3 | 4·9 | 1·1 | -5·4 | 0·6 | 3·6 | 1·1 | 1·0 | 3·6 |
| 2 | 3·4 | 3·3 | 2·5 | 3·4 | 1·9 | 1·7 | 0·5 | -0·7 | -0·6 | 0·4 | 2·7 | 6·5 | 9·8 | 10·8 | 9·1 | 7·6 | 6·2 | 3·4 | 2·7 | 3·7 | 3·9 | 4·5 | 4·4 | 3·1 | 3·9 |
| 3 | 1·8 | 1·9 | 0·1 | 0·7 | 1·8 | 7·1 | 5·1 | 0·7 | -0·7 | 0·1 | 2·7 | 7·2 | 11·9 | 12·5 | 12·4 | 9·3 | 5·7 | 5·5 | 4·5 | 3·8 | 3·8 | 3·7 | 3·0 | 3·1 | 4·5 |
| 4 | 3·5 | 3·0 | 3·5 | 1·9 | -0·8 | 1·1 | 1·5 | -0·1 | 1·6 | 2·9 | 4·4 | 9·0 | 11·0 | 10·9 | 10·2 | 7·1 | 3·3 | 2·9 | 4·7 | 4·4 | 3·3 | 3·4 | 3·3 | 2·9 | 4·1 |
| 5 | 3·4 | 2·8 | 2·3 | 5·0 | 3·8 | 0·7 | 0·1 | -0·3 | -0·3 | 1·7 | 5·6 | 7·3 | 9·5 | 12·8 | 14·3 | 13·8 | 9·3 | 8·2 | -1·0 | 3·4 | 4·1 | 4·2 | 4·1 | 3·8 | 4·9 |
| 6 | 3·2 | 2·9 | 4·0 | 5·6 | 3·1 | 1·4 | 0·8 | 0·3 | 0·5 | 3·5 | 4·7 | 7·2 | 8·9 | 9·8 | 8·1 | 6·4 | 4·3 | 2·7 | 2·3 | -0·7 | -6·5 | -1·6 | -1·0 | -4·8 | 2·7 |
| 7 | -0·7 | 1·2 | 1·3 | 3·8 | 3·5 | 2·9 | 2·0 | 1·1 | 1·1 | 1·8 | 3·5 | 7·2 | 7·3 | 11·1 | 11·1 | 10·1 | 9·7 | 8·3 | 5·2 | 4·4 | 3·8 | 2·0 | 2·7 | 2·7 | 4·5 |
| 8 q | 2·7 | 2·5 | 2·7 | 2·4 | 2·3 | 2·0 | 1·6 | 0·3 | -1·0 | -1·0 | 1·0 | 3·9 | 6·8 | 8·2 | 8·0 | 7·4 | 5·9 | 5·9 | 6·1 | 5·5 | 5·4 | 3·9 | 3·7 | 3·6 | 3·7 |
| 9 d | 2·7 | 1·0 | -1·8 | -5·7 | -1·8 | -2·5 | -3·5 | -0·2 | 0·4 | 1·2 | 1·9 | 5·3 | 8·4 | 9·7 | 6·9 | 6·1 | 5·1 | 4·7 | 4·5 | 3·5 | 1·1 | -0·3 | 3·7 | 0·1 | 2·1 |
| 10 | 0·2 | 1·2 | -0·6 | 2·5 | 2·6 | 2·4 | 1·4 | 0·1 | -0·6 | -0·7 | 2·3 | 5·7 | 11·4 | 11·0 | 11·3 | 9·0 | 5·9 | 5·2 | 4·6 | 4·4 | -1·4 | -4·1 | 0·2 | 2·8 | 3·2 |
| 11 | 2·9 | 4·4 | 1·8 | 1·3 | 1·8 | 1·8 | 1·1 | 0·3 | 0·3 | 1·8 | 4·6 | 7·7 | 9·0 | 11·0 | 10·9 | 9·0 | 6·2 | 4·9 | 4·5 | 1·0 | 0·1 | 2·0 | 3·4 | 3·3 | 4·0 |
| 12 | 3·3 | 2·0 | 5·4 | -0·9 | -0·1 | 1·2 | 2·9 | -2·0 | -2·4 | -1·4 | 1·9 | 5·9 | 7·5 | 7·4 | 6·6 | 5·2 | 4·2 | 4·1 | 4·0 | 3·7 | 3·3 | 2·8 | 2·2 | 5·2 | 3·0 |
| 13 q | 5·3 | 2·8 | 2·6 | 2·6 | 2·4 | 2·2 | 1·5 | 0·5 | -0·4 | 0·3 | 2·5 | 5·8 | 8·2 | 9·1 | 8·6 | 6·6 | 4·9 | 4·8 | 4·8 | 4·5 | 4·4 | 3·6 | 3·4 | 2·0 | 3·9 |
| 14 | 1·3 | 0·9 | 1·1 | 2·0 | 2·7 | 2·0 | 0·2 | -1·0 | -0·9 | -1·7 | 2·2 | 7·5 | 11·3 | 12·3 | 10·8 | 7·6 | 5·1 | 4·9 | 5·5 | 5·4 | 3·3 | 3·9 | 3·6 | 2·8 | 3·9 |
| 15 | 3·5 | 3·0 | 2·9 | 2·5 | 2·1 | 2·0 | 0·9 | -0·3 | -2·4 | -1·6 | 1·9 | 6·1 | 9·4 | 11·7 | 9·4 | 6·6 | 4·8 | 5·2 | 4·4 | 3·5 | 3·4 | 3·6 | 2·6 | -1·4 | 3·5 |
| 16 | 1·0 | 2·1 | 2·3 | 2·0 | 1·9 | 1·1 | 1·8 | 2·4 | -0·8 | -0·7 | 2·8 | 8·3 | 10·3 | 10·4 | 10·1 | 7·0 | 5·6 | 4·7 | 5·2 | 4·6 | 2·4 | -3·2 | 2·8 | 3·2 | 3·6 |
| 17 q | 3·3 | 2·9 | 2·4 | 2·4 | 1·9 | 0·7 | 1·4 | -0·6 | -1·9 | -1·9 | 1·2 | 5·5 | 8·4 | 9·8 | 9·3 | 7·5 | 5·8 | 5·6 | 5·4 | 5·1 | 4·4 | 3·9 | 3·7 | 3·5 | 3·7 |
| 18 q | 3·3 | 3·3 | 3·3 | 2·5 | 2·1 | 2·0 | 1·8 | 1·2 | 0·4 | 1·7 | 4·5 | 7·1 | 9·0 | 9·4 | 7·9 | 5·8 | 4·6 | 4·7 | 4·7 | 4·6 | 4·3 | 3·4 | 3·8 | 1·3 | 4·0 |
| 19 | 2·2 | 1·9 | 2·3 | 2·7 | 2·1 | 1·6 | 1·4 | 0·7 | -0·6 | 0·7 | 3·4 | 7·0 | 8·4 | 8·9 | 8·4 | 6·4 | 5·4 | 4·7 | 2·6 | 3·7 | 3·0 | 1·0 | 1·3 | -5·2 | 3·1 |
| 20 d | -5·3 | 1·1 | 0·9 | 0·8 | -1·3 | -0·9 | 3·3 | 3·9 | -1·7 | -0·8 | 1·4 | 3·3 | 8·0 | 10·2 | 9·3 | 9·3 | 8·2 | 6·6 | 5·1 | 3·0 | 1·1 | -3·3 | 1·1 | 2·7 | 2·7 |
| 21 | 2·7 | 3·6 | 3·0 | 2·5 | 2·9 | 2·1 | 1·8 | 0·3 | -1·3 | -0·8 | 2·1 | 4·9 | 7·1 | 7·3 | 6·4 | 5·1 | 4·2 | 4·4 | 4·6 | 3·8 | 3·3 | 3·5 | 3·0 | 2·9 | 3·3 |
| 22 | 2·2 | 2·7 | 2·2 | 2·6 | 2·6 | 2·2 | 2·0 | 1·3 | -0·2 | 0·4 | 3·5 | 7·3 | 8·8 | 8·3 | 7·0 | 5·3 | 4·6 | 3·7 | 3·5 | 3·5 | 3·4 | 3·3 | 2·2 | 2·0 | 3·5 |
| 23 | 3·5 | 1·5 | 0·2 | 1·2 | 1·7 | 4·5 | 3·7 | 5·0 | 2·3 | 3·5 | 5·0 | 9·0 | 8·2 | 8·2 | 6·2 | 4·4 | 4·1 | 4·0 | 3·9 | 3·6 | 3·2 | 1·7 | 2·0 | 2·7 | 3·9 |
| 24 | 2·6 | 3·1 | 2·6 | 2·1 | 2·0 | 1·8 | 1·0 | 0·1 | -1·5 | 0·1 | 3·8 | 7·2 | 11·7 | 9·8 | 10·0 | 8·4 | 6·3 | 4·7 | 4·4 | 3·6 | 3·0 | 2·0 | 2·7 | -0·4 | 3·8 |
| 25 | -0·7 | 0·2 | 0·4 | 0·9 | 1·1 | 1·1 | 0·4 | 1·3 | 0·4 | 1·2 | 3·9 | 7·4 | 10·1 | 10·0 | 8·4 | 6·1 | 3·9 | 4·6 | 3·6 | 2·3 | 2·7 | 2·1 | - 1·6 | -1·4 | 2 9 |
| 26 d | -6·2 | -0·6 | -0·9 | -3·7 | 0·0 | 7·4 | 6·3 | 3·7 | 3·6 | 1·8 | 6·3 | 9·0 | 11·0 | 10·1 | 9·5 | 8·7 | 5·5 | 5·2 | 1·7 | 2·0 | -1·7 | -10·8 | -9·2 | -16·3 | 1·8 |
| 27 d | -14·2 | -9·9 | -27·6 | -12·9 | -4·5 | 8·3 | 1·8 | 0·6 | 2·7 | 6·2 | 8·9 | 12·6 | 10·9 | 8·7 | 14·4 | 8·9 | 2·8 | 5·2 | 4·9 | -2·6 | -3·5 | -2·9 | -4·0 | 3·8 | 0·8 |
| 28 | 2·7 | 2·1 | 2·4 | 3·3 | 3·0 | 3·3 | 4·3 | 2·7 | 0·0 | -0·9 | 1·9 | 6·9 | 8·9 | 9·0 | 8·0 | 6·8 | 4·0 | -0·4 | 4·5 | 4·3 | 3·6 | 2·9 | 1·8 | 0·9 | 3·6 |
| 29 | 0·7 | -0·8 | 2·9 | 4·5 | 2·0 | 1·5 | 1·0 | 1·0 | 1·0 | 3·3 | 5·4 | 6·4 | 8·7 | 9·5 | 8·3 | 7·1 | 5·8 | 5·2 | 4·2 | 2·6 | -1·7 | 1·1 | 2·3 | 2·0 | 3·5 |
| 30 q | 1·9 | 2·0 | 1·9 | 1·2 | 1·5 | 1·1 | 3·4 | 0·8 | 0·4 | 1·9 | 3·8 | 6·6 | 8·2 | 8·3 | 8·0 | 6·3 | 4·9 | 4·9 | 4·1 | 3·6 | 3·6 | 3·3 | 2·9 | 2·6 | 3·6 |
| 31 d | 2·8 | 2·7 | 2·4 | 2·3 | 2·4 | 2·3 | 1·8 | 0·4 | 0·2 | 3·9 | 5·5 | 8·8 | 10·1 | 12·7 | 9·3 | 9·3 | 7·7 | 2·8 | 7·5 | 2·0 | -0·5 | -2·4 | -3·6 | -1·7 | 3·7 |
| Mean | 1·3 | 1·7 | 1·0 | 1·4 | 1·6 | 2·3 | 1·8 | 0·9 | 0·0 | 0·9 | 3·5 | 7·0 | 9·3 | 10·0 | 9·3 | 7·5 | 5·5 | 4·7 | 4·1 | 3·1 | 2·0 | 1·3 | 1·7 | 1·1 | 3·5 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

109 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — OCTOBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1143 | 1141 | 1147 | 1148 | 1147 | 1143 | 1143 | 1147 | 1153 | 1161 | 1160 | 1165 | 1165 | 1170 | 1183 | 1188 | 1173 | 1172 | 1177 | 1178 | 1166 | 1158 | 1150 | 1149 | *1159* |
| 2 | 1148 | 1149 | 1149 | 1141 | 1140 | 1147 | 1154 | 1158 | 1160 | 1162 | 1159 | 1150 | 1150 | 1159 | 1176 | 1172 | 1172 | 1173 | 1173 | 1165 | 1159 | 1156 | 1156 | 1154 | 1158 |
| 3 | 1147 | 1138 | 1141 | 1140 | 1141 | 1136 | 1131 | 1141 | 1145 | 1149 | 1144 | 1138 | 1143 | 1156 | 1168 | 1179 | 1183 | 1166 | 1159 | 1157 | 1155 | 1155 | 1154 | 1153 | 1151 |
| 4 | 1153 | 1152 | 1144 | 1126 | 1130 | 1135 | 1137 | 1144 | 1144 | 1147 | 1143 | 1137 | 1141 | 1143 | 1150 | 1160 | 1176 | 1177 | 1161 | 1158 | 1160 | 1160 | 1158 | 1153 | 1150 |
| 5 | 1152 | 1148 | 1149 | 1144 | 1135 | 1141 | 1147 | 1147 | 1148 | 1147 | 1142 | 1143 | 1146 | 1155 | 1174 | 1194 | 1179 | 1180 | 1198 | 1175 | 1162 | 1156 | 1153 | 1153 | 1157 |
| 6 | 1152 | 1150 | 1143 | 1131 | 1125 | 1130 | 1140 | 1146 | 1146 | 1146 | 1141 | 1135 | 1136 | 1142 | 1147 | 1158 | 1161 | 1164 | 1166 | 1171 | 1166 | 1136 | 1131 | 1131 | 1146 |
| 7 | 1134 | 1140 | 1142 | 1144 | 1143 | 1143 | 1146 | 1148 | 1149 | 1147 | 1147 | 1144 | 1150 | 1148 | 1156 | 1180 | 1184 | 1171 | 1165 | 1165 | 1158 | 1152 | 1148 | 1147 | 1152 |
| 8 *q* | 1147 | 1148 | 1147 | 1148 | 1148 | 1148 | 1148 | 1148 | 1148 | 1143 | 1138 | 1135 | 1135 | 1135 | 1140 | 1142 | 1143 | 1142 | 1142 | 1143 | 1143 | 1144 | 1144 | 1145 | 1143 |
| 9 *d* | 1146 | 1144 | 1140 | 1133 | 1132 | 1125 | 1123 | 1124 | 1134 | 1137 | 1138 | 1138 | 1144 | 1150 | 1154 | 1155 | 1155 | 1153 | 1159 | 1165 | 1164 | 1160 | 1141 | 1092 | 1142 |
| 10 | 1125 | 1140 | 1141 | 1143 | 1143 | 1143 | 1143 | 1146 | 1147 | 1142 | 1137 | 1137 | 1137 | 1141 | 1144 | 1153 | 1154 | 1149 | 1147 | 1147 | 1158 | 1155 | 1149 | 1149 | 1145 |
| 11 | 1141 | 1137 | 1140 | 1141 | 1142 | 1141 | 1141 | 1141 | 1140 | 1136 | 1135 | 1135 | 1135 | 1138 | 1147 | 1156 | 1153 | 1148 | 1148 | 1150 | 1149 | 1144 | 1143 | 1143 | 1143 |
| 12 | 1143 | 1143 | 1135 | 1128 | 1129 | 1128 | 1120 | 1134 | 1142 | 1143 | 1138 | 1136 | 1137 | 1141 | 1144 | 1147 | 1148 | 1146 | 1144 | 1144 | 1143 | 1143 | 1143 | 1141 | 1139 |
| 13 *q* | 1125 | 1132 | 1138 | 1141 | 1142 | 1142 | 1144 | 1148 | 1149 | 1144 | 1141 | 1136 | 1136 | 1137 | 1140 | 1145 | 1144 | 1141 | 1141 | 1141 | 1141 | 1141 | 1142 | 1146 | 1141 |
| 14 | 1147 | 1143 | 1143 | 1142 | 1143 | 1143 | 1147 | 1150 | 1152 | 1143 | 1135 | 1129 | 1130 | 1132 | 1141 | 1147 | 1147 | 1143 | 1142 | 1142 | 1143 | 1143 | 1144 | 1144 | 1142 |
| 15 | 1142 | 1142 | 1142 | 1142 | 1142 | 1142 | 1143 | 1146 | 1147 | 1143 | 1137 | 1130 | 1129 | 1132 | 1139 | 1142 | 1142 | 1141 | 1141 | 1141 | 1142 | 1141 | 1142 | 1142 | 1141 |
| 16 | 1138 | 1141 | 1142 | 1142 | 1142 | 1142 | 1142 | 1141 | 1142 | 1140 | 1136 | 1131 | 1134 | 1135 | 1141 | 1146 | 1147 | 1148 | 1147 | 1149 | 1153 | 1144 | 1141 | 1141 | 1142 |
| 17 *q* | 1141 | 1141 | 1141 | 1141 | 1142 | 1142 | 1140 | 1138 | 1138 | 1133 | 1130 | 1130 | 1129 | 1129 | 1134 | 1138 | 1138 | 1137 | 1137 | 1137 | 1136 | 1137 | 1137 | 1136 | 1137 |
| 18 *q* | 1136 | 1136 | 1136 | 1136 | 1137 | 1138 | 1138 | 1141 | 1137 | 1129 | 1126 | 1128 | 1126 | 1129 | 1133 | 1136 | 1136 | 1137 | 1138 | 1138 | 1138 | 1137 | 1137 | 1134 | 1135 |
| 19 | 1135 | 1136 | 1137 | 1137 | 1137 | 1138 | 1138 | 1140 | 1141 | 1136 | 1129 | 1125 | 1125 | 1128 | 1134 | 1137 | 1137 | 1142 | 1147 | 1149 | 1148 | 1142 | 1138 | 1119 | 1136 |
| 20 *d* | 1111 | 1123 | 1129 | 1135 | 1131 | 1130 | 1125 | 1117 | 1122 | 1124 | 1123 | 1122 | 1125 | 1130 | 1136 | 1140 | 1141 | 1139 | 1141 | 1145 | 1150 | 1154 | 1146 | 1139 | 1132 |
| 21 | 1137 | 1137 | 1132 | 1135 | 1137 | 1138 | 1137 | 1141 | 1142 | 1141 | 1131 | 1131 | 1136 | 1140 | 1141 | 1142 | 1141 | 1138 | 1137 | 1140 | 1141 | 1138 | 1137 | 1137 | 1138 |
| 22 | 1137 | 1137 | 1137 | 1138 | 1137 | 1137 | 1136 | 1135 | 1137 | 1134 | 1129 | 1126 | 1127 | 1135 | 1136 | 1136 | 1138 | 1140 | 1138 | 1141 | 1141 | 1140 | 1140 | 1138 | 1136 |
| 23 | 1135 | 1130 | 1131 | 1130 | 1130 | 1129 | 1130 | 1131 | 1135 | 1135 | 1136 | 1137 | 1141 | 1142 | 1149 | 1153 | 1147 | 1144 | 1142 | 1141 | 1141 | 1141 | 1142 | 1142 | 1138 |
| 24 | 1140 | 1140 | 1140 | 1140 | 1139 | 1138 | 1140 | 1141 | 1143 | 1143 | 1138 | 1137 | 1141 | 1148 | 1152 | 1152 | 1152 | 1151 | 1148 | 1147 | 1145 | 1143 | 1141 | 1140 | 1143 |
| 25 | 1135 | 1126 | 1128 | 1129 | 1130 | 1131 | 1135 | 1137 | 1141 | 1141 | 1135 | 1134 | 1132 | 1134 | 1139 | 1147 | 1150 | 1153 | 1159 | 1160 | 1155 | 1149 | 1141 | 1131 | 1140 |
| 26 *d* | 1127 | 1128 | 1118 | 1119 | 1123 | 1117 | 1104 | 1109 | 1118 | 1129 | 1130 | 1136 | 1141 | 1143 | 1150 | 1158 | 1167 | 1165 | 1170 | 1170 | 1172 | 1135 | 1057 | 1031 | *1130* |
| 27 *d* | 1011 | 1000 | 1004 | 1057 | 1080 | 1103 | 1107 | 1125 | 1133 | 1142 | 1156 | 1155 | 1177 | 1212 | 1208 | 1203 | 1221 | 1196 | 1171 | 1168 | 1140 | 1138 | 1141 | 1124 | 1132 |
| 28 | 1116 | 1135 | 1143 | 1146 | 1146 | 1142 | 1137 | 1141 | 1146 | 1146 | 1142 | 1141 | 1146 | 1153 | 1154 | 1160 | 1164 | 1161 | 1155 | 1150 | 1148 | 1147 | 1146 | 1143 | 1146 |
| 29 | 1134 | 1134 | 1137 | 1136 | 1138 | 1141 | 1140 | 1140 | 1142 | 1139 | 1137 | 1141 | 1143 | 1148 | 1154 | 1159 | 1157 | 1153 | 1153 | 1154 | 1158 | 1152 | 1146 | 1126 | 1144 |
| 30 *q* | 1132 | 1136 | 1140 | 1141 | 1141 | 1141 | 1138 | 1137 | 1139 | 1138 | 1137 | 1139 | 1143 | 1147 | 1149 | 1150 | 1154 | 1152 | 1148 | 1146 | 1143 | 1142 | 1142 | 1142 | 1142 |
| 31 *d* | 1142 | 1141 | 1141 | 1141 | 1141 | 1141 | 1141 | 1141 | 1143 | 1136 | 1131 | 1132 | 1143 | 1155 | 1170 | 1165 | 1174 | 1191 | 1192 | 1191 | 1185 | 1173 | 1168 | 1148 | 1155 |
| Mean | 1134 | 1135 | 1135 | 1135 | 1136 | 1137 | 1137 | 1139 | 1142 | 1141 | 1138 | 1137 | 1139 | 1145 | 1151 | 1156 | *1157* | 1155 | 1154 | 1154 | 1152 | 1147 | 1142 | 1136 | 1143 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

110 ESKDALEMUIR — OCTOBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. ′ | ′ h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 | 19 23 | 546 | 456 | 08 46 | 90 | 14 11 12·6 | −12·5 19 10 | 25·1 | 15 20 | 1191 | 1135 | 01 22 | 56 | 3,2,3,3,2,3,4,2 | 22 | 1 | 84·1 |
| 2 | 24 00 | 558 | 451 | 11 03 | 107 | 12 26 12·0 | −2·1 08 59 | 14·1 | 14 49 | 1179 | 1135 | 03 45 | 44 | 1,2,3,1,3,2,2,3 | 17 | 1 | 84·2 |
| 3 | 00 01 | 558 | 472 | 10 54 | 86 | 13 33 13·5 | −1·0 01 50 | 14·5 | 16 02 | 1186 | 1129 | 06 20 | 57 | 3,3,3,2,2,2,0,0 | 15 | 1 | 84·4 |
| 4 | 03 16 | 542 | 475 | 10 00 | 67 | 12 24 12·8 | −1·3 04 32 | 14·1 | 17 04 | 1180 | 1123 | 03 28 | 57 | 2,3,2,2,2,3,2,2 | 18 | 1 | 84·5 |
| 5 | 03 40 | 540 | 468 | 18 40 | 72 | 14 56 17·2 | −9·5 18 48 | 26·7 | 18 40 | 1209 | 1134 | 04 12 | 75 | 0,3,2,2,3,4,4,1 | 19 | 1 | 84·5 |
| 6 | 21 00 | 544 | 468 | 09 25 | 76 | 13 49 11·0 | −15·8 20 49 | 26·8 | 19 40 | 1173 | 1124 | 04 19 | 49 | 2,3,3,2,2,2,4,3 | 21 | 1 | 84·5 |
| 7 | 05 55 | 548 | 464 | 12 04 | 84 | 14 57 12·6 | −3·7 00 01 | 16·3 | 16 18 | 1189 | 1131 | 00 09 | 58 | 2,3,2,3,2,3,2,1 | 18 | 1 | 84·6 |
| 8 *q* | 18 50 | 555 | 484 | 11 44 | 71 | 13 47 8·3 | −1·7 08 55 | 10·0 | 03 20 | 1149 | 1134 | 12 06 | 15 | 1,1,1,2,0,1,1,2 | 9 | 0 | 84·6 |
| 9 *d* | 01 17 | 553 | 436 | 23 00 | 117 | 22 53 14·3 | −8·0 03 32 | 22·3 | 19 50 | 1167 | 1078 | 23 18 | 89 | 3,3,4,3,3,2,3,5 | 26 | 1 | 84·6 |
| 10 | 19 41 | 545 | 464 | 10 53 | 81 | 12 13 13·5 | −8·9 20 58 | 22·4 | 20 53 | 1162 | 1102 | 00 01 | 60 | 3,1,2,3,3,1,4,4 | 21 | 1 | 84·6 |
| 11 | 00 53 | 541 | 498 | 11 30 | *43* | 13 31 12·8 | −3·1 19 50 | 15·9 | 15 20 | 1159 | 1134 | 11 50 | 25 | 2,2,2,1,2,2,3,2 | 16 | 1 | 84·6 |
| 12 | 24 00 | 553 | 476 | 11 12 | 77 | 24 00 9·3 | −4·4 07 30 | 13·7 | 16 15 | 1158 | 1118 | 06 28 | 40 | 3,3,3,1,2,2,1,3 | 18 | 1 | 84·6 |
| 13 *q* | 00 01 | 553 | 478 | 10 40 | 75 | 00 04 9·5 | −1·3 08 27 | 10·8 | 08 51 | 1149 | 1123 | 00 30 | 26 | 3,1,1,1,1,0,0,2 | 9 | 0 | 84·6 |
| 14 | 18 48 | 543 | 471 | 11 19 | 72 | 12 44 13·6 | −2·7 09 21 | 16·3 | 08 23 | 1154 | 1129 | 11 30 | 25 | 2,0,2,2,2,2,2,1 | 13 | 0 | 84·6 |
| 15 | 19 25 | 545 | 474 | 09 42 | 71 | 13 49 12·7 | −3·7 08 52 | 16·4 | 07 50 | 1148 | 1129 | 12 07 | 19 | 0,1,2,2,2,1,1,2 | 11 | 0 | 84·6 |
| 16 | 21 12 | 564 | 486 | 10 59 | 78 | 14 43 11·7 | −4·9 22 03 | 16·6 | 20 15 | 1155 | 1131 | 11 40 | 24 | 1,0,2,3,2,2,2,3 | 15 | 1 | 84·5 |
| 17 *q* | 20 43 | 549 | 487 | 12 22 | 62 | 13 42 10·1 | −2·8 09 10 | 12·9 | 05 50 | 1143 | 1128 | 10 30 | 15 | 0,0,1,1,1,0,1,0 | 4 | 0 | 84·5 |
| 18 *q* | 23 01 | 559 | 498 | 11 16 | 61 | 13 39 10·2 | 0·1 08 20 | 10·1 | 07 32 | 1141 | 1125 | 12 50 | 16 | 2,0,0,1,0,1,0,2 | 6 | 0 | 84·5 |
| 19 | 21 55 | 551 | 486 | 23 56 | 65 | 13 20 9·5 | −7·9 23 27 | 17·4 | 19 14 | 1151 | 1106 | 24 00 | 45 | 0,1,0,1,2,2,3,4 | 13 | 1 | 84·5 |
| 20 *d* | 04 18 | 561 | 482 | 10 41 | 79 | 15 10 11·7 | −9·6 00 11 | 21·3 | 21 09 | 1159 | 1104 | 00 07 | 55 | 3,3,3,2,3,3,3,3 | 23 | 1 | 84·5 |
| 21 | 21 20 | 556 | 483 | 11 34 | 73 | 13 18 7·7 | −2·1 08 45 | 9·8 | 09 17 | 1143 | 1129 | 11 02 | *14* | 2,1,1,1,1,2,3,2 | 13 | 1 | 84·5 |
| 22 | 07 19 | 543 | 484 | 13 13 | 59 | 11 49 9·8 | −1·9 08 52 | 11·7 | 22 05 | 1142 | 1125 | 11 21 | 17 | 1,0,2,1,2,1,1,1 | 9 | 0 | 84·5 |
| 23 | 00 50 | 546 | 486 | 12 20 | 60 | 11 58 10·6 | −0·8 02 41 | 11·4 | 15 20 | 1155 | 1127 | 05 50 | 28 | 2,2,2,2,2,2,0,1 | 13 | 0 | 84·5 |
| 24 | 24 00 | 539 | 474 | 11 00 | 65 | 12 46 16·5 | −2·1 24 00 | 18·6 | 15 07 | 1153 | 1135 | 12 00 | 18 | 1,0,0,2,2,2,2,2 | 11 | 0 | 84·5 |
| 25 | 06 19 | 541 | 471 | 11 17 | 70 | 12 55 10·7 | −6·3 24 00 | 17·0 | 19 11 | 1161 | 1119 | 24 00 | 42 | 3,1,2,1,2,2,2,3 | 16 | 1 | 84·5 |
| 26 *d* | 22 04 | *628* | 385 | 23 59 | 243 | 11 59 13·5 | −22·0 23 26 | 35·5 | 20 21 | 1176 | 1010 | 23 50 | 166 | 3,4,2,3,3,3,3,6 | 27 | 2 | 84·1 |
| 27 *d* | 01 04 | 616 | *356* | 01 33 | *260* | 14 20 *18·7* | *−33·9* 02 15 | *52·6* | 16 35 | *1236* | *964* | 00 34 | *272* | 6,5,4,3,4,3,4,4 | 33 | 2 | 84·1 |
| 28 | 23 53 | 541 | 465 | 10 32 | 76 | 13 18 10·2 | −3·1 17 14 | 13·3 | 16 20 | 1165 | 1108 | 00 11 | 57 | 3,1,2,2,1,3,1,2 | 15 | 1 | 84·1 |
| 29 | 22 58 | 549 | 471 | 11 03 | 78 | 12 56 10·4 | −3·2 20 35 | 13·6 | 15 40 | 1160 | 1124 | 23 30 | 36 | 3,3,1,2,2,1,3,3 | 18 | 1 | 84·1 |
| 30 *q* | 20 30 | 533 | 484 | 10 26 | 49 | 12 56 9·0 | −0·3 07 47 | *9·3* | 16 48 | 1155 | 1129 | 00 01 | 26 | 0,1,2,1,0,1,0,0 | 5 | 0 | 84·0 |
| 31 *d* | 04 13 | 534 | 463 | 13 44 | 71 | 13 50 15·4 | −5·3 22 16 | 20·7 | 17 26 | 1197 | 1129 | 11 00 | 68 | 0,0,2,2,3,3,3,2 | 15 | 1 | 83·8 |
| Mean | − − | 553 | 467 | − − | 85 | − − 12·0 | −6·0 − − | 18·0 | − − | 1166 | 1115 | − − | 51 | − | − | 0·74 | 84·4 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

155 ESKDALEMUIR (H) — 16,000γ (0·16 C.G.S. unit) + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *d* | 495 | 498 | 518 | 509 | 508 | 527 | 517 | 495 | 478 | 471 | 446 | 455 | 473 | 472 | 478 | 480 | 494 | 484 | 506 | 506 | 497 | 495 | 515 | 514 | *493* |
| 2 | 516 | 514 | 514 | 518 | 522 | 529 | 514 | 517 | 509 | 497 | 487 | 483 | 486 | 497 | 506 | 511 | 514 | 518 | 519 | 526 | 516 | 513 | 518 | 526 | 511 |
| 3 | 524 | 529 | 522 | 523 | 529 | 533 | 532 | 526 | 518 | 510 | 505 | 504 | 505 | 510 | 517 | 518 | 520 | 526 | 529 | 530 | 532 | 527 | 530 | 526 | 522 |
| 4 | 531 | 525 | 525 | 529 | 533 | 534 | 533 | 530 | 522 | 510 | 499 | 490 | 495 | 506 | 506 | 516 | 522 | 526 | 530 | 531 | 533 | 530 | 527 | 525 | 521 |
| 5 | 526 | 526 | 526 | 527 | 537 | 539 | 542 | 533 | 522 | 515 | 509 | 507 | 509 | 518 | 522 | 533 | 538 | 543 | 545 | 556 | 549 | 554 | 541 | 541 | *532* |
| 6 *d* | 529 | 531 | 526 | 528 | 538 | 537 | 532 | 526 | 533 | 507 | 480 | 487 | 505 | 498 | 480 | 474 | 489 | 509 | 517 | 517 | 519 | 514 | 512 | 546 | 514 |
| 7 | 514 | 512 | 511 | 511 | 526 | 518 | 522 | 524 | 514 | 502 | 492 | 490 | 494 | 501 | 507 | 509 | 517 | 516 | 485 | 526 | 528 | 528 | 526 | 526 | 512 |
| 8 | 524 | 522 | 525 | 526 | 528 | 528 | 527 | 526 | 523 | 510 | 506 | 507 | 501 | 513 | 519 | 522 | 523 | 531 | 533 | 524 | 534 | 533 | 530 | 524 | 522 |
| 9 | 515 | 510 | 516 | 514 | 521 | 526 | 528 | 526 | 518 | 506 | 498 | 503 | 511 | 516 | 519 | 515 | 522 | 530 | 536 | 537 | 538 | 538 | 521 | 521 | 520 |
| 10 | 524 | 533 | 527 | 524 | 527 | 533 | 533 | 532 | 525 | 510 | 504 | 506 | 512 | 516 | 519 | 523 | 520 | 528 | 534 | 521 | 517 | 486 | 510 | 522 | 520 |
| 11 | 518 | 518 | 549 | 510 | 507 | 513 | 526 | 515 | 507 | 508 | 501 | 506 | 511 | 514 | 518 | 522 | 530 | 528 | 531 | 534 | 533 | 545 | 518 | 526 | 520 |
| 12 | 524 | 541 | 537 | 530 | 499 | 506 | 505 | 506 | 527 | 506 | 499 | 492 | 495 | 502 | 503 | 506 | 510 | 514 | 518 | 517 | 522 | 524 | 523 | 523 | 514 |
| 13 | 524 | 524 | 523 | 524 | 526 | 526 | 525 | 523 | 519 | 510 | 502 | 499 | 502 | 509 | 513 | 521 | 524 | 535 | 518 | 526 | 531 | 522 | 522 | 525 | 520 |
| 14 *q* | 524 | 524 | 524 | 525 | 527 | 528 | 527 | 526 | 522 | 514 | 508 | 505 | 499 | 505 | 515 | 520 | 524 | 530 | 531 | 533 | 536 | 536 | 533 | 528 | 523 |
| 15 | 529 | 529 | 527 | 528 | 530 | 532 | 531 | 527 | 534 | 520 | 534 | 529 | 526 | 537 | 531 | 530 | 543 | 539 | 533 | 545 | 531 | 519 | 530 | 525 | 531 |
| 16 | 507 | 497 | 490 | 512 | 527 | 526 | 519 | 509 | 506 | 506 | 501 | 497 | 498 | 502 | 510 | 517 | 522 | 526 | 522 | 505 | 509 | 530 | 514 | 518 | 511 |
| 17 | 522 | 522 | 518 | 515 | 527 | 523 | 522 | 522 | 513 | 504 | 498 | 499 | 506 | 507 | 513 | 518 | 526 | 525 | 532 | 532 | 530 | 522 | 515 | 513 | 518 |
| 18 | 530 | 518 | 522 | 523 | 526 | 528 | 528 | 526 | 522 | 511 | 510 | 507 | 509 | 515 | 520 | 522 | 531 | 533 | 534 | 534 | 534 | 533 | 533 | 518 | 524 |
| 19 | 506 | 506 | 514 | 519 | 522 | 528 | 548 | 539 | 506 | 495 | 495 | 502 | 509 | 510 | 520 | 507 | 522 | 529 | 530 | 522 | 498 | 495 | 526 | 506 | 515 |
| 20 | 510 | 510 | 511 | 514 | 522 | 518 | 518 | 523 | 522 | 515 | 517 | 518 | 518 | 526 | 499 | 523 | 532 | 534 | 522 | 530 | 527 | 524 | 526 | 539 | 521 |
| 21 *d* | 527 | 519 | 520 | 520 | 524 | 526 | 533 | 532 | 541 | 511 | 494 | 478 | 503 | 499 | 491 | 505 | 505 | 507 | 499 | 511 | 521 | 514 | 521 | 499 | 513 |
| 22 | 504 | 510 | 514 | 514 | 522 | 526 | 528 | 514 | 497 | 511 | 504 | 503 | 504 | 504 | 501 | 504 | 499 | 524 | 522 | 522 | 522 | 521 | 528 | 523 | 513 |
| 23 | 522 | 517 | 524 | 527 | 527 | 523 | 526 | 529 | 521 | 502 | 502 | 491 | 494 | 497 | 506 | 513 | 518 | 525 | 526 | 528 | 530 | 531 | 530 | 528 | 518 |
| 24 *d* | 526 | 524 | 529 | 537 | 565 | 555 | 543 | 555 | 541 | 522 | 518 | 518 | 509 | 479 | 482 | 499 | 507 | 506 | 507 | 510 | 512 | 513 | 514 | 511 | 520 |
| 25 *d* | 511 | 507 | 504 | 504 | 510 | 520 | 528 | 525 | 514 | 502 | 506 | 494 | 490 | 492 | 488 | 486 | 509 | 510 | 503 | 517 | 552 | 518 | 518 | 531 | 510 |
| 26 | 518 | 516 | 514 | 526 | 526 | 530 | 518 | 514 | 511 | 506 | 499 | 498 | 504 | 508 | 507 | 509 | 518 | 522 | 526 | 529 | 528 | 526 | 526 | 527 | 517 |
| 27 *q* | 528 | 529 | 526 | 526 | 530 | 529 | 528 | 526 | 522 | 511 | 510 | 509 | 513 | 520 | 522 | 524 | 531 | 533 | 534 | 534 | 533 | 532 | 531 | 530 | 525 |
| 28 *q* | 527 | 530 | 533 | 533 | 534 | 534 | 535 | 538 | 538 | 527 | 513 | 507 | 511 | 515 | 524 | 527 | 530 | 530 | 532 | 532 | 532 | 532 | 533 | 532 | 528 |
| 29 *q* | 532 | 533 | 534 | 535 | 537 | 538 | 539 | 536 | 529 | 518 | 510 | 507 | 514 | 522 | 523 | 527 | 531 | 533 | 535 | 534 | 533 | 533 | 534 | 531 | 529 |
| 30 *q* | 530 | 526 | 529 | 530 | 533 | 537 | 538 | 538 | 534 | 523 | 515 | 514 | 518 | 518 | 521 | 529 | 531 | 532 | 534 | 536 | 535 | 532 | 522 | 518 | 528 |
| Mean | 521 | 520 | 522 | 522 | 526 | *528* | *528* | 525 | 520 | 509 | 502 | *500* | 504 | 508 | 509 | 514 | 520 | 524 | 524 | 527 | 527 | 524 | 524 | 524 | 519 |

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

156 ESKDALEMUIR (D) — 12° + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 *d* | -1·9 | -1·8 | 0·2 | -0·7 | 4·6 | 3·4 | 4·6 | 3·9 | 2·7 | 5·2 | 8·0 | 8·7 | 10·6 | 8·4 | 9·6 | 7·5 | 10·7 | 4·3 | -1·1 | 1·3 | -1·7 | -4·7 | -5·5 | 0·3 | 3·2 |
| 2 | 2·1 | 2·1 | 2·2 | 2·0 | 2·4 | 2·1 | 6·2 | 7·4 | 1·5 | 1·2 | 3·4 | 6·4 | 7·9 | 7·4 | 6·4 | 5·4 | 3·9 | 3·4 | 2·4 | -3·4 | -3·1 | -1·3 | 0·3 | 2·8 | 3·0 |
| 3 | 4·1 | 3·1 | 1·5 | 2·0 | 2·0 | 1·9 | 2·1 | 1·9 | 0·5 | -0·1 | 1·3 | 3·0 | 4·1 | 4·5 | 4·6 | 3·9 | 4·1 | 4·4 | 3·7 | 3·2 | 2·9 | 2·0 | -0·2 | 1·1 | 2·6 |
| 4 | 3·7 | 1·1 | 2·3 | 2·5 | 2·7 | 2·4 | 2·0 | 1·1 | 0·2 | 0·1 | 1·9 | 4·2 | 7·3 | 8·6 | 6·9 | 6·4 | 5·3 | 4·2 | 3·8 | 2·7 | 2·7 | 2·3 | 1·2 | 1·3 | 3·2 |
| 5 | 2·0 | 1·9 | 1·3 | 1·6 | 1·1 | 1·0 | 1·8 | 1·5 | 0·2 | -0·5 | 3·9 | 6·3 | 7·3 | 8·0 | 8·9 | 7·7 | 6·7 | 5·8 | 4·7 | 5·3 | 3·9 | 3·3 | 2·2 | 2·1 | 3·7 |
| 6 *d* | 1·1 | -0·8 | 1·2 | 1·6 | 0·2 | 0·2 | 0·0 | 2·0 | 3·7 | 2·5 | 1·3 | 4·8 | 6·2 | 10·1 | 12·0 | 10·0 | 9·9 | 7·4 | 4·2 | 3·1 | 1·4 | 0·2 | -0·8 | -4·1 | 3·2 |
| 7 | -2·0 | -0·1 | -0·3 | -1·0 | 0·2 | 1·6 | 0·2 | -0·2 | -1·6 | -1·6 | -0·5 | 2·0 | 4·7 | 5·5 | 6·2 | 5·4 | 5·2 | 4·6 | 4·4 | 3·6 | 2·3 | 1·7 | 1·1 | 1·4 | 1·8 |
| 8 | 1·7 | 1·5 | 1·5 | 1·7 | 1·5 | 1·4 | 1·1 | 0·5 | -0·4 | -0·8 | 0·1 | 3·8 | 4·7 | 7·3 | 5·9 | 5·1 | 4·5 | 4·3 | 4·1 | 2·7 | 2·7 | 2·5 | 1·2 | -3·6 | 2·3 |
| 9 | -5·7 | -3·7 | -0·6 | 0·0 | 1·6 | 0·7 | 0·6 | -0·2 | -0·3 | 0·6 | 3·0 | 7·1 | 8·2 | 9·8 | 8·2 | 6·2 | 5·1 | 3·8 | 3·6 | 3·3 | 3·3 | 2·3 | -1·5 | -2·5 | 2·2 |
| 10 | 1·0 | 2·8 | 1·2 | 0·1 | 0·4 | 1·2 | 1·0 | 0·4 | 0·1 | 0·6 | 2·7 | 4·8 | 6·5 | 6·3 | 6·2 | 6·2 | 5·4 | 5·5 | 5·9 | -2·5 | -7·4 | -7·3 | -2·1 | 1·2 | 1·7 |
| 11 | 0·6 | 0·3 | 1·9 | -4·6 | -0·6 | 0·3 | -0·1 | 0·1 | 0·2 | 0·7 | 3·2 | 3·9 | 4·6 | 6·3 | 6·5 | 5·5 | 5·7 | 4·8 | 4·7 | 3·5 | 2·3 | -4·2 | -0·8 | 0·5 | 1·9 |
| 12 | 0·6 | 1·6 | -3·6 | -6·1 | -0·3 | -2·1 | -2·0 | -0·8 | -0·9 | -1·1 | -0·5 | 2·0 | 4·8 | 5·8 | 6·4 | 4·8 | 4·1 | 4·5 | -0·4 | -3·1 | 1·5 | 1·6 | 0·8 | 1·1 | 0·8 |
| 13 | 1·4 | 0·9 | 1·5 | 1·8 | 2·0 | 1·2 | 1·5 | 0·7 | 0·4 | 0·2 | 0·7 | 2·8 | 5·1 | 5·9 | 6·0 | 5·5 | 4·7 | 4·8 | 4·3 | 3·1 | 2·8 | 0·1 | -0·3 | 2·6 | 2·5 |
| 14 *q* | 1·1 | 1·2 | 1·2 | 1·4 | 1·5 | 1·1 | 0·6 | 0·5 | 0·3 | 0·0 | 1·5 | 4·7 | 6·4 | 5·8 | 6·0 | 5·4 | 4·7 | 4·1 | 3·7 | 3·3 | 3·2 | 1·6 | 1·5 | 1·3 | 2·6 |
| 15 | 1·9 | 1·8 | 1·2 | 1·4 | 1·2 | 1·0 | 0·8 | -0·2 | 0·1 | 1·4 | 1·8 | 4·1 | 5·1 | 8·0 | 7·5 | 9·0 | 8·2 | 12·3 | 8·9 | 9·7 | 5·4 | 2·0 | 0·0 | -4·4 | 3·7 |
| 16 | -10·3 | -6·1 | -2·8 | -1·8 | 0·1 | -0·6 | 0·1 | 0·1 | 1·1 | 0·5 | 2·3 | 3·7 | 6·4 | 6·2 | 5·4 | 4·8 | 4·5 | 4·5 | 3·9 | -0·5 | 1·5 | -6·2 | -1·0 | 0·7 | 0·7 |
| 17 | 0·7 | 1·0 | 0·5 | 4·1 | 1·4 | 0·5 | 0·4 | 0·1 | -0·2 | 0·1 | 1·1 | 3·7 | 5·1 | 5·7 | 5·6 | 4·8 | 3·7 | 3·6 | 3·2 | 2·7 | 3·3 | -1·9 | -3·4 | -0·8 | 1·9 |
| 18 | -1·7 | -0·8 | 1·0 | 0·8 | 1·6 | 1·5 | 0·8 | 0·5 | 0·5 | 0·4 | 0·9 | 3·1 | 4·8 | 5·6 | 5·9 | 4·7 | 3·9 | 3·6 | 3·0 | 2·7 | 2·1 | 1·9 | 1·6 | -2·5 | 1·9 |
| 19 | -9·3 | -5·5 | -2·7 | -0·3 | -1·5 | -0·8 | 0·2 | 2·1 | 0·5 | 2·5 | 1·7 | 2·3 | 4·5 | 6·3 | 7·3 | 5·1 | 2·8 | 3·0 | 4·2 | 5·9 | 1·1 | -2·4 | -10·8 | -5·2 | *0·5* |
| 20 | -5·2 | -0·8 | -0·5 | -1·7 | 2·1 | 2·0 | 0·1 | 0·2 | 0·3 | 1·0 | 2·4 | 4·5 | 5·0 | 7·3 | 7·5 | 5·4 | 5·2 | 4·0 | 4·6 | 3·8 | 2·8 | 2·8 | 1·8 | 1·2 | 2·4 |
| 21 *d* | -0·4 | 0·9 | -0·4 | -0·3 | -0·3 | 0·1 | -0·4 | 0·5 | 0·6 | 0·3 | 3·5 | 8·7 | 10·7 | 12·3 | 3·8 | 5·0 | 3·5 | 2·4 | -1·3 | 0·6 | 1·9 | -0·6 | -11·8 | -9·5 | 1·2 |
| 22 | -2·6 | 0·7 | 1·7 | 4·3 | 2·1 | 3·6 | 2·9 | 2·4 | 3·0 | 2·8 | 3·2 | 4·6 | 4·4 | 5·5 | 3·8 | 4·1 | -3·5 | -0·6 | 2·6 | 1·9 | 0·3 | 0·8 | 0·6 | 0·3 | 2·0 |
| 23 | 0·7 | 5·2 | 2·0 | 2·1 | 1·5 | 1·6 | 3·0 | 1·8 | 0·9 | 0·8 | 3·0 | 5·1 | 6·4 | 7·4 | 6·5 | 5·5 | 4·5 | 3·7 | 2·7 | 2·3 | 1·9 | 1·5 | 1·2 | 1·1 | 3·0 |
| 24 *d* | 0·5 | 0·5 | 1·9 | 3·3 | 3·8 | 2·9 | 4·0 | 9·0 | 5·3 | 2·1 | 2·9 | 7·2 | 10·3 | 9·9 | 8·3 | 6·2 | 3·4 | 2·9 | 2·0 | 1·6 | 1·0 | 0·6 | 0·4 | 0·4 | *3·8* |
| 25 *d* | 0·7 | 0·7 | 0·5 | 1·7 | 1·2 | 0·3 | 0·9 | 1·5 | 0·7 | 3·3 | 4·1 | 5·7 | 7·0 | 7·3 | 5·7 | -2·6 | 3·5 | 2·8 | 2·5 | -2·8 | -3·0 | -0·3 | -3·0 | -4·1 | 1·4 |
| 26 | -1·5 | -0·7 | 1·2 | 4·7 | 0·0 | 0·9 | 1·0 | 0·2 | -0·4 | -0·1 | 1·0 | 3·3 | 6·4 | 6·0 | 5·0 | 4·6 | -1·0 | 3·2 | 3·3 | 2·5 | 2·0 | 1·2 | 1·0 | 0·9 | 1·9 |
| 27 *q* | 1·0 | 1·1 | 1·1 | 1·9 | 1·7 | 1·4 | 1·1 | 1·2 | 1·2 | 0·5 | 1·8 | 3·8 | 5·3 | 5·2 | 5·1 | 4·5 | 3·7 | 3·1 | 2·9 | 2·3 | 2·1 | 1·5 | 1·1 | 1·0 | 2·3 |
| 28 *q* | 1·0 | 1·6 | 1·7 | 2·6 | 2·0 | 1·5 | 1·6 | 1·8 | 2·0 | 1·0 | 1·9 | 3·3 | 5·6 | 5·3 | 5·5 | 4·7 | 3·6 | 2·8 | 2·7 | 2·1 | 1·9 | 1·4 | 1·3 | 1·4 | 2·5 |
| 29 *q* | 1·6 | 2·0 | 2·0 | 2·3 | 2·3 | 1·9 | 1·1 | 0·9 | 0·1 | 0·7 | 1·1 | 3·0 | 5·0 | 5·4 | 4·3 | 3·4 | 3·1 | 2·9 | 2·8 | 2·4 | 2·3 | 1·6 | 1·1 | 0·3 | 2·2 |
| 30 *q* | -1·6 | 0·2 | 1·0 | 1·8 | 1·9 | 1·8 | 1·1 | 1·0 | 0·9 | 0·1 | 1·1 | 2·7 | 4·6 | 4·7 | 4·2 | 3·8 | 3·2 | 3·0 | 2·8 | 2·0 | 2·3 | -1·8 | -2·4 | -2·6 | 1·5 |
| Mean | -0·5 | 0·4 | 0·7 | 1·0 | 1·3 | 1·2 | 1·3 | 1·4 | 0·8 | 0·8 | 2·1 | 4·4 | 6·2 | *6·9* | 6·4 | 5·3 | 4·4 | 4·1 | 3·3 | 2·2 | 1·5 | 0·1 | *-0·8* | -0·5 | 2·3 |

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

157 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — NOVEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 *d* | 1140 | 1128 | 1112 | 1111 | 1118 | 1119 | 1128 | 1136 | 1142 | 1141 | 1143 | 1153 | 1167 | 1177 | 1184 | 1201 | 1227 | 1222 | 1189 | 1173 | 1171 | 1141 | 1130 | 1135 | *1154* |
| 2 | 1137 | 1142 | 1145 | 1146 | 1146 | 1144 | 1143 | 1135 | 1137 | 1136 | 1136 | 1141 | 1147 | 1151 | 1153 | 1151 | 1149 | 1149 | 1149 | 1150 | 1147 | 1142 | 1141 | 1137 | 1144 |
| 3 | 1128 | 1124 | 1131 | 1137 | 1140 | 1141 | 1141 | 1142 | 1144 | 1142 | 1140 | 1140 | 1138 | 1142 | 1142 | 1143 | 1144 | 1142 | 1142 | 1142 | 1143 | 1143 | 1143 | 1143 | 1140 |
| 4 | 1137 | 1138 | 1141 | 1141 | 1141 | 1141 | 1142 | 1143 | 1147 | 1145 | 1142 | 1142 | 1140 | 1144 | 1144 | 1143 | 1144 | 1144 | 1144 | 1144 | 1144 | 1146 | 1146 | 1144 | 1143 |
| 5 | 1143 | 1142 | 1142 | 1142 | 1140 | 1137 | 1136 | 1136 | 1138 | 1138 | 1133 | 1131 | 1131 | 1135 | 1136 | 1137 | 1137 | 1136 | 1136 | 1135 | 1137 | 1137 | 1140 | 1141 | 1137 |
| 6 *d* | 1142 | 1143 | 1142 | 1141 | 1137 | 1136 | 1136 | 1135 | 1135 | 1141 | 1144 | 1143 | 1141 | 1144 | 1161 | 1173 | 1171 | 1185 | 1166 | 1159 | 1155 | 1154 | 1153 | 1142 | 1149 |
| 7 | 1129 | 1135 | 1137 | 1137 | 1129 | 1130 | 1135 | 1140 | 1146 | 1146 | 1143 | 1142 | 1142 | 1141 | 1142 | 1146 | 1148 | 1146 | 1143 | 1143 | 1142 | 1142 | 1142 | 1142 | 1140 |
| 8 | 1142 | 1142 | 1142 | 1141 | 1140 | 1137 | 1137 | 1136 | 1137 | 1140 | 1134 | 1131 | 1134 | 1135 | 1136 | 1137 | 1138 | 1138 | 1138 | 1143 | 1142 | 1143 | 1146 | 1148 | 1139 |
| 9 | 1146 | 1140 | 1137 | 1141 | 1142 | 1143 | 1141 | 1140 | 1141 | 1140 | 1139 | 1135 | 1136 | 1137 | 1137 | 1140 | 1142 | 1140 | 1138 | 1137 | 1137 | 1141 | 1153 | 1153 | 1141 |
| 10 | 1148 | 1141 | 1129 | 1136 | 1136 | 1136 | 1136 | 1136 | 1141 | 1142 | 1142 | 1142 | 1143 | 1143 | 1143 | 1143 | 1143 | 1142 | 1142 | 1153 | 1148 | 1158 | 1153 | 1146 | 1143 |
| 11 | 1145 | 1143 | 1126 | 1101 | 1119 | 1134 | 1135 | 1137 | 1140 | 1140 | 1139 | 1139 | 1137 | 1137 | 1141 | 1142 | 1142 | 1142 | 1141 | 1142 | 1146 | 1144 | 1141 | 1143 | 1137 |
| 12 | 1143 | 1141 | 1125 | 1105 | 1108 | 1113 | 1128 | 1135 | 1142 | 1142 | 1142 | 1140 | 1141 | 1142 | 1147 | 1149 | 1150 | 1151 | 1154 | 1154 | 1149 | 1143 | 1143 | 1142 | 1139 |
| 13 | 1141 | 1141 | 1142 | 1142 | 1142 | 1141 | 1141 | 1141 | 1142 | 1142 | 1142 | 1140 | 1140 | 1142 | 1142 | 1143 | 1144 | 1143 | 1146 | 1147 | 1144 | 1147 | 1146 | 1140 | 1143 |
| 14 *q* | 1138 | 1141 | 1141 | 1142 | 1142 | 1141 | 1140 | 1139 | 1141 | 1140 | 1136 | 1135 | 1142 | 1141 | 1142 | 1143 | 1144 | 1143 | 1143 | 1142 | 1142 | 1141 | 1141 | 1141 | 1141 |
| 15 | 1140 | 1140 | 1140 | 1140 | 1140 | 1139 | 1137 | 1137 | 1136 | 1133 | 1129 | 1128 | 1129 | 1126 | 1131 | 1141 | 1142 | 1148 | 1162 | 1165 | 1183 | 1186 | 1173 | 1165 | 1145 |
| 16 | 1160 | 1155 | 1139 | 1130 | 1132 | 1137 | 1139 | 1142 | 1146 | 1142 | 1141 | 1141 | 1142 | 1143 | 1142 | 1143 | 1145 | 1144 | 1148 | 1158 | 1155 | 1137 | 1136 | 1137 | 1143 |
| 17 | 1140 | 1141 | 1141 | 1137 | 1136 | 1141 | 1142 | 1143 | 1148 | 1149 | 1147 | 1146 | 1143 | 1141 | 1141 | 1141 | 1142 | 1141 | 1141 | 1141 | 1142 | 1148 | 1146 | 1142 | 1143 |
| 18 | 1130 | 1131 | 1136 | 1137 | 1137 | 1138 | 1137 | 1137 | 1141 | 1142 | 1140 | 1136 | 1135 | 1136 | 1141 | 1141 | 1141 | 1141 | 1140 | 1140 | 1140 | 1141 | 1141 | 1144 | 1138 |
| 19 | 1148 | 1140 | 1130 | 1131 | 1136 | 1135 | 1129 | 1129 | 1136 | 1137 | 1138 | 1141 | 1142 | 1142 | 1146 | 1148 | 1149 | 1148 | 1148 | 1155 | 1172 | 1173 | 1150 | 1136 | 1143 |
| 20 | 1137 | 1142 | 1143 | 1142 | 1134 | 1126 | 1134 | 1137 | 1138 | 1140 | 1138 | 1137 | 1138 | 1144 | 1148 | 1142 | 1138 | 1138 | 1147 | 1147 | 1146 | 1149 | 1148 | 1142 | 1141 |
| 21 *d* | 1139 | 1137 | 1137 | 1138 | 1136 | 1136 | 1135 | 1135 | 1135 | 1140 | 1139 | 1143 | 1144 | 1153 | 1179 | 1174 | 1164 | 1160 | 1160 | 1156 | 1149 | 1148 | 1142 | 1126 | 1146 |
| 22 | 1119 | 1114 | 1123 | 1122 | 1125 | 1128 | 1128 | 1131 | 1133 | 1135 | 1139 | 1144 | 1147 | 1153 | 1156 | 1156 | 1165 | 1160 | 1152 | 1149 | 1148 | 1147 | 1142 | 1136 | 1140 |
| 23 | 1136 | 1135 | 1131 | 1136 | 1136 | 1137 | 1136 | 1136 | 1137 | 1137 | 1135 | 1141 | 1147 | 1149 | 1154 | 1154 | 1153 | 1149 | 1147 | 1144 | 1143 | 1142 | 1142 | 1142 | 1142 |
| 24 *d* | 1142 | 1142 | 1140 | 1135 | 1125 | 1124 | 1125 | 1122 | 1122 | 1126 | 1129 | 1132 | 1146 | 1165 | 1168 | 1167 | 1165 | 1159 | 1154 | 1153 | 1152 | 1148 | 1148 | 1148 | 1143 |
| 25 *d* | 1148 | 1148 | 1148 | 1147 | 1146 | 1142 | 1142 | 1138 | 1142 | 1140 | 1138 | 1139 | 1142 | 1152 | 1158 | 1174 | 1162 | 1160 | 1165 | 1159 | 1141 | 1142 | 1144 | 1125 | 1148 |
| 26 | 1126 | 1135 | 1131 | 1110 | 1120 | 1127 | 1134 | 1135 | 1135 | 1134 | 1129 | 1129 | 1131 | 1135 | 1138 | 1145 | 1150 | 1148 | 1146 | 1143 | 1142 | 1142 | 1142 | 1142 | *1135* |
| 27 *q* | 1141 | 1140 | 1140 | 1140 | 1139 | 1138 | 1138 | 1137 | 1139 | 1140 | 1137 | 1135 | 1136 | 1136 | 1137 | 1141 | 1142 | 1142 | 1140 | 1140 | 1138 | 1138 | 1139 | 1140 | 1139 |
| 28 *q* | 1140 | 1139 | 1137 | 1137 | 1137 | 1137 | 1137 | 1136 | 1135 | 1136 | 1135 | 1134 | 1135 | 1137 | 1140 | 1141 | 1141 | 1141 | 1141 | 1140 | 1139 | 1138 | 1137 | 1136 | 1138 |
| 29 *q* | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1137 | 1137 | 1136 | 1135 | 1136 | 1137 | 1141 | 1141 | 1140 | 1140 | 1138 | 1138 | 1137 | 1136 | 1136 | 1136 | 1137 |
| 30 *q* | 1136 | 1135 | 1135 | 1135 | 1136 | 1136 | 1136 | 1135 | 1135 | 1140 | 1139 | 1140 | 1137 | 1136 | 1137 | 1141 | 1142 | 1141 | 1141 | 1141 | 1139 | 1140 | 1138 | 1139 | 1138 |
| Mean | 1139 | 1138 | 1136 | *1134* | 1134 | 1135 | 1136 | 1137 | 1139 | 1139 | 1138 | 1139 | 1140 | 1143 | 1147 | 1149 | *1150* | 1149 | 1148 | 1148 | 1147 | 1146 | 1144 | 1141 | 1142 |

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

158 ESKDALEMUIR — NOVEMBER

| | TERRESTRIAL MAGENTIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | | Vertical force | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | | Minimum 12° + | | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | °A. |
| 1 *d* | 05 35 | 537 | 435 | 10 20 | 102 | 16 19 | 15·5 | -17·2 | 22 02 | *32·7* | 16 33 | *1234* | 1105 | 02 50 | *129* | 3,3,3,3,3,4,3,4 | 26 | 1 | 83·8 |
| 2 | 05 36)<br>19 11) | 534 | 478 | 12 51 | 56 | 07 04 | 12·0 | -4·6 | 19 59 | 16·6 | 20 10 | 1154 | 1131 | 07 30 | 23 | 1,2,3,2,2,1,3,3 | 17 | 1 | 83·8 |
| 3 | 06 39 | 535 | 502 | 11 12 | 33 | 00 01 | 7·2 | -1·1 | 22 40 | 8·3 | 15 52 | 1147 | 1123 | 01 20 | 24 | 2,1,2,0,1,1,1,2 | 10 | 0 | 83·6 |
| 4 | 00 34 | 539 | 481 | 11 12 | 58 | 13 26 | 9·4 | -0·7 | 09 26 | 10·1 | 08 40 | 1149 | 1135 | 00 50 | 14 | 2,0,1,2,1,2,1,2 | 11 | 0 | 83·8 |
| 5 | 19 01 | 570 | 467 | 09 24 | 103 | 12 13 | 13·2 | -9·1 | 09 25 | 22·3 | 01 00 | 1143 | 1128 | 11 30 | 15 | 0,2,2,4,3,3,3,2 | 19 | 1 | 83·7 |
| 6 *d* | 23 39 | 563 | 460 | 14 26 | 103 | 14 48 | 17·0 | -8·8 | 23 44 | 25·8 | 17 33 | 1195 | 1124 | 24 00 | 71 | 2,2,2,3,3,3,2,4 | 21 | 1 | 83·7 |
| 7 | 04 33 | 540 | 486 | 11 30 | 54 | 14 49 | 7·3 | -5·1 | 00 34 | 12·4 | 16 31 | 1149 | 1122 | 00 15 | 27 | 3,2,1,1,2,1,1,1 | 12 | 1 | 83·7 |
| 8 | 20 20 | 537 | 493 | 12 11 | 44 | 13 34 | 9·0 | -7·0 | 24 00 | 16·0 | 23 33 | 1150 | 1129 | 11 10 | 21 | 0,0,0,2,2,1,2,3 | 10 | 0 | 83·7 |
| 9 | 19 21 | 544 | 492 | 10 00 | 52 | 13 29 | 10·9 | -7·5 | 00 14 | 18·4 | 22 45 | 1156 | 1135 | 11 42 | 21 | 3,1,1,2,2,2,1,3 | 15 | 1 | 83·7 |
| 10 | 20 05 | 560 | 480 | 20 51 | 80 | 13 56 | 9·2 | -10·3 | 19 59 | 19·5 | 19 46 | 1159 | 1125 | 02 28 | 34 | 3,2,1,1,2,2,4,3 | 18 | 1 | 83·6 |
| 11 | 02 46 | 564 | 489 | 11 18 | 75 | 14 09 | 7·4 | -9·1 | 21 08 | 16·5 | 21 02 | 1153 | *1095* | 03 22 | 58 | 3,3,2,3,2,2,3,3 | 21 | 1 | 83·6 |
| 12 | 01 41 | 564 | 462 | 04 35 | 102 | 04 46 | 9·1 | -9·3 | 02 58 | 18·4 | 19 01 | 1156 | *1095* | 03 43 | 61 | 4,4,3,2,2,3,3,1 | 22 | 1 | 83·6 |
| 13 | 17 42 | 542 | 494 | 12 17 | 48 | 13 58 | 7·2 | -2·8 | 22 02 | 10·0 | 22 10 | 1149 | 1137 | 12 00 | 12 | 1,1,1,1,2,2,2,3 | 13 | 0 | 83·6 |
| 14 *q* | 21 34 | 543 | 494 | 12 31 | 49 | 12 20 | 7·2 | -0·7 | 21 31 | 7·9 | 16 10 | 1146 | 1134 | 11 10 | 12 | 0,0,0,2,2,1,1,2 | 8 | 0 | 83·6 |
| 15 | 13 37 | 562 | 486 | 07 59 | 76 | 17 49 | 12·7 | -11·5 | 24 00 | 24·2 | 21 04 | 1195 | 1123 | 13 10 | 72 | 0,0,4,3,3,3,3,4 | 20 | 1 | 83·4 |
| 16 | 21 10 | 553 | 482 | 01 11 | 71 | 13 14 | 9·0 | -12·4 | 00 43 | 21·4 | 00 01 | 1165 | 1129 | 03 55 | 36 | 3,3,3,2,2,2,3,3 | 21 | 1 | 83·4 |
| 17 | 21 52 | 544 | 497 | 10 39 | 47 | 13 10 | 6·3 | -5·7 | 22 06 | 12·0 | 21 40 | 1153 | 1131 | 04 06 | 22 | 1,2,1,1,1,2,1,3 | 12 | 1 | 83·3 |
| 18 | 00 12 | 543 | 502 | 23 57 | 41 | 12 59 | 7·4 | -5·2 | 23 54 | 12·6 | 23 59 | 1149 | 1125 | 00 46 | 24 | 2,1,0,1,1,2,0,3 | 10 | 0 | 83·3 |
| 19 | 22 32 | 573 | 478 | 22 00 | 95 | 14 30 | 8·8 | *-18·8* | 22 30 | 27·6 | 20 43 | 1183 | 1129 | 07 40 | 54 | 3,2,3,2,2,3,3,4 | 22 | 1 | 83·2 |
| 20 | 17 52 | 557 | 493 | 14 15 | 64 | 13 44 | 9·1 | -7·4 | 00 12 | 16·5 | 18 51 | 1154 | 1123 | 05 10 | 31 | 3,3,2,2,3,3,3,3 | 22 | 1 | 83·2 |
| 21 *d* | 08 54 | 551 | 456 | 11 10 | 95 | 13 47 | 13·8 | -17·5 | 22 39 | 31·3 | 14 32 | 1184 | 1123 | 23 50 | 61 | 3,2,3,4,4,2,3,3 | 24 | 1 | 83·2 |
| 22 | 22 21 | 538 | 480 | 08 53 | 58 | 03 00 | 7·2 | -9·3 | 16 50 | 16·5 | 16 41 | 1169 | 1112 | 01 10 | 57 | 3,3,3,2,2,4,1,2 | 20 | 1 | 83·2 |
| 23 | 21 00 | 534 | 486 | 11 28 | 48 | 13 59 | 9·1 | 0·1 | 09 01 | 9·0 | 14 14 | 1155 | 1129 | 02 05 | 26 | 3,2,2,2,1,1,1,0 | 12 | 0 | 83·2 |
| 24 *d* | 04 40 | 574 | *412* | 13 46 | *162* | 13 15 | *23·4* | -1·7 | 10 11 | 25·1 | 13 43 | 1172 | 1117 | 07 35 | 55 | 1,3,3,3,5,3,2,1 | 21 | 1 | 83·3 |
| 25 *d* | 20 24 | *610* | 459 | 15 21 | 151 | 14 00 | 8·9 | -15·0 | 20 18 | 23·9 | 15 44 | 1179 | 1118 | 23 35 | 61 | 1,3,2,3,2,4,5,3 | 23 | 1 | 83·3 |
| 26 | 03 16 | 537 | 497 | 11 24 | 40 | 12 51 | 9·0 | -3·6 | 00 01 | 12·6 | 16 41 | 1152 | 1106 | 03 33 | 46 | 3,3,2,1,2,3,1,0 | 15 | 1 | 83·3 |
| 27 *q* | 18 10 | 535 | 506 | 11 38 | 29 | 13 12 | 5·4 | 0·1 | 09 43 | *5·3* | 16 01 | 1143 | 1135 | 12 10 | *8* | 1,0,0,1,0,1,0,0 | 3 | 0 | 83·4 |
| 28 *q* | 07 03 | 544 | 506 | 11 24 | 38 | 12 52 | 6·1 | 0·8 | 06 58 | *5·3* | 16 00 | 1142 | 1132 | 12 02 | 10 | 1,0,2,2,2,1,1,1 | 10 | 0 | 83·4 |
| 29 *q* | 05 55 | 541 | 506 | 11 27 | 35 | 13 28 | 5·7 | -0·3 | 09 00 | 6·0 | 15 00 | 1143 | 1135 | 11 20 | *8* | 1,0,0,0,1,0,0,1 | 3 | 0 | 83·4 |
| 30 *q* | 06 50 | 538 | 513 | 11 11 | *25* | 12 39 | 7·3 | -3·6 | 22 50 | 10·9 | 16 10 | 1143 | 1134 | 13 25 | 9 | 1,0,0,0,2,0,0,2 | 5 | 0 | 83·3 |
| Mean | - - | 550 | 482 | - - | 68 | - - | 9·7 | -6·8 | - - | 16·5 | - - | 1161 | 1124 | - - | 37 | - | - | 0·63 | 83·5 |

*q* denotes an international quiet day and *d* an international disturbed day.

## TERRESTRIAL MAGNETIC FORCE: HORIZONTAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

159 ESKDALEMUIR (H) — 16,000$\gamma$ (0·16 C.G.S. unit) + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ | $\gamma$ |
| 1 | 522 | 525 | 528 | 533 | 534 | 533 | 532 | 534 | 527 | 517 | 511 | 513 | 517 | 521 | 525 | 526 | 529 | 511 | 509 | 508 | 517 | 522 | 524 | 524 | 523 |
| 2 | 525 | 529 | 532 | 535 | 533 | 535 | 535 | 529 | 528 | 521 | 513 | 510 | 513 | 511 | 505 | 507 | 518 | 524 | 521 | 523 | 524 | 524 | 526 | 529 | 523 |
| 3 | 515 | 516 | 542 | 532 | 523 | 537 | 530 | 529 | 526 | 510 | 494 | 494 | 497 | 501 | 504 | 508 | 521 | 526 | 529 | 528 | 525 | 525 | 525 | 526 | 519 |
| 4 | 525 | 526 | 525 | 525 | 531 | 535 | 536 | 527 | 525 | 519 | 513 | 513 | 513 | 521 | 525 | 525 | 531 | 528 | 543 | 544 | 541 | 537 | 536 | 537 | 529 |
| 5 *d* | 537 | 536 | 531 | 528 | 537 | 541 | 536 | 531 | 527 | 528 | 517 | 509 | 510 | 525 | 532 | 537 | 517 | 524 | 532 | 537 | 530 | 517 | 511 | 526 | 527 |
| 6 | 531 | 525 | 524 | 522 | 521 | 525 | 523 | 524 | 521 | 514 | 510 | 511 | 517 | 527 | 527 | 529 | 533 | 534 | 537 | 533 | 530 | 521 | 516 | 517 | 524 |
| 7 | 521 | 528 | 526 | 549 | 553 | 546 | 541 | 534 | 524 | 517 | 514 | 515 | 519 | 521 | 522 | 527 | 502 | 506 | 517 | 527 | 527 | 529 | 527 | 525 | 526 |
| 8 | 527 | 525 | 529 | 529 | 553 | 535 | 530 | 529 | 526 | 517 | 509 | 513 | 523 | 522 | 523 | 525 | 532 | 537 | 538 | 537 | 532 | 531 | 532 | 529 | 528 |
| 9 *q* | 533 | 527 | 529 | 529 | 529 | 530 | 531 | 530 | 532 | 529 | 524 | 522 | 525 | 527 | 525 | 528 | 529 | 532 | 538 | 540 | 533 | 533 | 532 | 533 | 530 |
| 10 *d* | 530 | 526 | 529 | 530 | 531 | 537 | 540 | 538 | 536 | 526 | 521 | 516 | 517 | 524 | 523 | 508 | 529 | 539 | 539 | 540 | 529 | 525 | 536 | 533 | 529 |
| 11 *d* | 529 | 529 | 529 | 533 | 534 | 536 | 536 | 537 | 536 | 526 | 517 | 518 | 514 | 513 | 511 | 517 | 514 | 525 | 529 | 533 | 487 | 528 | 502 | 519 | 523 |
| 12 *d* | 517 | 536 | 517 | 515 | 517 | 523 | 525 | 527 | 529 | 522 | 517 | 489 | 480 | 499 | 506 | 497 | 518 | 517 | 521 | 524 | 521 | 525 | 525 | 534 | 517 |
| 13 | 521 | 525 | 525 | 527 | 529 | 531 | 530 | 529 | 525 | 525 | 517 | 509 | 510 | 513 | 509 | 514 | 521 | 525 | 529 | 533 | 532 | 529 | 530 | 529 | 524 |
| 14 *q* | 529 | 527 | 528 | 528 | 527 | 529 | 527 | 524 | 523 | 517 | 517 | 513 | 517 | 521 | 525 | 526 | 530 | 533 | 536 | 537 | 537 | 536 | 533 | 532 | 527 |
| 15 *q* | 529 | 531 | 530 | 531 | 532 | 533 | 536 | 532 | 529 | 520 | 509 | 503 | 508 | 519 | 525 | 529 | 534 | 537 | 538 | 538 | 538 | 537 | 535 | 534 | 529 |
| 16 | 535 | 532 | 531 | 532 | 533 | 534 | 534 | 531 | 531 | 529 | 523 | 524 | 527 | 532 | 533 | 537 | 538 | 541 | 544 | 544 | 545 | 532 | 529 | 526 | *533* |
| 17 | 525 | 528 | 526 | 529 | 530 | 545 | 545 | 537 | 524 | 513 | 505 | 498 | 498 | 503 | 513 | 525 | 529 | 532 | 531 | 529 | 519 | 521 | 536 | 527 | 524 |
| 18 | 530 | 527 | 531 | 536 | 532 | 533 | 531 | 533 | 534 | 529 | 524 | 529 | 529 | 533 | 529 | 534 | 540 | 543 | 544 | 543 | 534 | 536 | 534 | 534 | *533* |
| 19 *d* | 536 | 533 | 546 | 541 | 541 | 551 | 556 | 532 | 509 | 499 | 513 | 502 | 473 | 473 | 504 | 510 | 505 | 521 | 478 | 492 | 505 | 511 | 511 | 511 | 515 |
| 20 *q* | 510 | 511 | 516 | 513 | 513 | 509 | 510 | 506 | 500 | 493 | 493 | 491 | 490 | 501 | 502 | 508 | 516 | 521 | 521 | 522 | 523 | 522 | 523 | 522 | *510* |
| 21 | 521 | 524 | 525 | 525 | 528 | 532 | 527 | 527 | 520 | 470 | 513 | 506 | 509 | 511 | 506 | 517 | 522 | 525 | 525 | 526 | 528 | 528 | 534 | 524 | 520 |
| 22 | 515 | 523 | 523 | 523 | 523 | 527 | 540 | 525 | 516 | 501 | 504 | 501 | 493 | 493 | 508 | 519 | 521 | 526 | 525 | 523 | 525 | 526 | 529 | 528 | 518 |
| 23 | 527 | 526 | 527 | 529 | 528 | 538 | 537 | 535 | 538 | 529 | 518 | 509 | 502 | 513 | 522 | 529 | 527 | 530 | 529 | 529 | 529 | 527 | 535 | 523 | 527 |
| 24 | 518 | 506 | 511 | 513 | 517 | 525 | 525 | 524 | 526 | 524 | 522 | 517 | 517 | 522 | 513 | 521 | 524 | 529 | 532 | 533 | 534 | 529 | 529 | 527 | 522 |
| 25 | 525 | 523 | 529 | 525 | 527 | 528 | 529 | 529 | 529 | 526 | 521 | 519 | 519 | 520 | 521 | 525 | 529 | 533 | 536 | 541 | 536 | 533 | 501 | 521 | 526 |
| 26 | 524 | 525 | 525 | 532 | 534 | 532 | 529 | 525 | 523 | 519 | 522 | 502 | 492 | 501 | 505 | 506 | 506 | 508 | 501 | 500 | 506 | 502 | 508 | 509 | 514 |
| 27 | 509 | 513 | 519 | 517 | 522 | 532 | 529 | 529 | 512 | 506 | 508 | 505 | 509 | 513 | 517 | 517 | 516 | 519 | 512 | 522 | 511 | 512 | 500 | 518 | 515 |
| 28 | 513 | 521 | 523 | 517 | 520 | 521 | 529 | 529 | 517 | 520 | 517 | 512 | 513 | 505 | 509 | 512 | 517 | 521 | 523 | 525 | 525 | 525 | 525 | 526 | 519 |
| 29 | 529 | 527 | 525 | 533 | 534 | 538 | 534 | 528 | 518 | 515 | 511 | 509 | 509 | 507 | 510 | 517 | 520 | 525 | 523 | 523 | 527 | 525 | 523 | 526 | 522 |
| 30 *q* | 525 | 528 | 526 | 529 | 530 | 531 | 529 | 529 | 525 | 521 | 517 | 518 | 521 | 526 | 529 | 529 | 529 | 532 | 536 | 536 | 537 | 534 | 534 | 535 | 529 |
| 31 | 534 | 537 | 542 | 539 | 538 | 541 | 541 | 540 | 535 | 529 | 525 | 526 | 525 | 525 | 518 | 519 | 526 | 529 | 532 | 533 | 530 | 533 | 534 | 537 | 532 |
| Mean | 525 | 526 | 527 | 528 | 530 | *533* | *533* | 529 | 525 | 517 | 514 | *510* | *510* | 514 | 517 | 520 | 523 | 527 | 527 | 529 | 526 | 526 | 525 | 527 | 524 |

536 at 0-1h. January 1, 1947.

## MAGNETIC DECLINATION (WEST)

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

160 ESKDALEMUIR (D) — 12° + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| 1 | -0·7 | -1·2 | -0·6 | 0·0 | 0·2 | 0·9 | 0·9 | 0·7 | 0·3 | 0·1 | 1·0 | 2·6 | 3·6 | 4·4 | 4·6 | 3·8 | 3·1 | 2·8 | 3·5 | 1·1 | 1·2 | 0·2 | -0·4 | -6·0 | 1·1 |
| 2 | -2·6 | 0·3 | 1·1 | 2·1 | 2·5 | 2·6 | 2·4 | 1·1 | 0·7 | 0·0 | 1·1 | 2·8 | 4·6 | 6·0 | 6·6 | 6·7 | 4·6 | 2·9 | 3·7 | 0·6 | 1·5 | -0·3 | -2·7 | -9·3 | 1·6 |
| 3 | -7·7 | -5·9 | -0·3 | -1·7 | 2·3 | 3·7 | 1·5 | 1·2 | 0·7 | 0·7 | 2·0 | 4·4 | 4·4 | 5·1 | 4·1 | 2·5 | 1·9 | 2·0 | 1·9 | 1·5 | 0·6 | 0·3 | 1·0 | 1·0 | 1·1 |
| 4 | 1·2 | 1·6 | 1·7 | 1·8 | 1·1 | 0·3 | 0·6 | 1·5 | 1·0 | 0·7 | 2·0 | 3·6 | 4·6 | 4·5 | 3·7 | 3·5 | 2·9 | 2·6 | 2·5 | 2·2 | 2·0 | 1·5 | 1·8 | 1·7 | 2·1 |
| 5 *d* | 1·9 | 1·5 | 0·8 | 1·3 | 1·2 | 0·8 | 0·0 | 0·0 | 0·5 | 0·8 | 2·2 | 4·5 | 6·2 | 5·7 | 6·5 | 7·7 | 5·6 | 7·5 | 2·9 | 2·7 | 2·2 | 0·5 | 1·4 | 0·0 | 2·6 |
| 6 | 1·9 | 0·2 | -0·2 | -0·8 | -1·8 | -0·9 | -0·7 | 0·0 | -0·1 | -0·2 | 2·0 | 3·8 | 5·1 | 5·6 | 5·1 | 3·7 | 2·9 | 2·2 | 2·0 | 1·9 | 1·0 | 0·0 | -3·1 | -0·4 | 1·2 |
| 7 | 0·2 | 1·8 | -1·7 | -3·5 | -1·0 | -2·5 | 0·8 | 0·2 | -1·8 | -0·7 | 1·0 | 3·4 | 4·8 | 4·9 | 4·0 | 4·6 | 2·9 | 2·4 | 4·5 | 2·5 | 1·0 | 0·1 | -2·8 | -1·6 | 1·0 |
| 8 | -1·5 | -0·7 | 1·2 | 2·7 | 3·3 | 0·5 | 0·7 | 0·4 | 0·0 | 1·0 | 1·1 | 1·9 | 3·6 | 4·8 | 4·6 | 3·9 | 3·6 | 3·2 | 2·5 | 2·7 | 2·0 | 0·6 | 0·1 | 0·0 | 1·8 |
| 9 *q* | -1·7 | -0·6 | 0·1 | 0·6 | 1·7 | 1·4 | 0·7 | 0·2 | -0·3 | -0·4 | 1·0 | 3·3 | 3·9 | 3·9 | 3·8 | 4·1 | 4·3 | 4·3 | 3·2 | 2·7 | 0·1 | 1·4 | 0·2 | -0·4 | 1·6 |
| 10 *d* | -2·5 | -2·1 | 0·2 | 1·1 | 1·9 | 1·4 | 1·0 | 0·7 | 0·6 | 0·1 | 1·0 | 3·8 | 4·1 | 6·0 | 5·5 | 0·3 | 5·1 | 4·7 | 2·8 | 2·7 | 1·2 | -3·3 | -7·6 | -2·9 | 1·1 |
| 11 *d* | 0·3 | 0·7 | 1·8 | 1·9 | 1·9 | 1·1 | 1·1 | 0·8 | 0·7 | 0·1 | 0·0 | 2·9 | 3·5 | 4·6 | 5·4 | 5·9 | 5·6 | 1·9 | 2·6 | -7·5 | -2·6 | -5·1 | -3·8 | -1·3 | 0·9 |
| 12 *d* | -2·5 | -0·7 | -1·6 | 0·4 | 1·9 | 1·5 | 1·0 | 1·0 | 0·9 | 0·1 | 2·7 | 3·8 | 7·4 | 7·3 | 6·9 | 2·6 | 0·6 | 3·0 | 3·0 | -0·6 | 1·9 | 0·7 | -1·5 | -5·2 | 1·4 |
| 13 | -2·4 | 0·8 | 0·6 | 1·1 | 1·4 | 0·5 | 1·7 | 1·1 | 1·2 | 0·9 | 1·3 | 4·4 | 4·6 | 6·4 | 5·1 | 4·6 | 4·6 | 4·2 | 2·3 | 1·9 | 0·8 | 0·9 | 0·5 | 0·6 | 2·0 |
| 14 *q* | 0·5 | 0·5 | 0·7 | 0·8 | 0·9 | 0·8 | 1·0 | 0·2 | 0·1 | 0·2 | 1·5 | 3·1 | 4·6 | 5·3 | 4·8 | 4·2 | 3·6 | 2·6 | 2·2 | 1·9 | 1·6 | 1·3 | 0·9 | 0·5 | 1·8 |
| 15 *q* | 0·4 | 0·2 | 0·5 | 0·6 | 0·7 | 0·9 | 0·7 | 0·5 | 0·1 | 0·1 | 0·7 | 3·8 | 6·3 | 6·5 | 5·5 | 4·4 | 3·6 | 3·4 | 2·9 | 2·5 | 2·4 | 1·9 | 2·0 | 1·1 | 2·2 |
| 16 | 0·8 | 0·5 | -0·5 | 0·4 | 0·5 | 0·8 | 0·4 | 0·8 | 0·7 | 1·1 | 2·0 | 4·6 | 5·6 | 4·6 | 4·6 | 4·6 | 3·8 | 3·1 | 2·8 | 3·3 | 3·8 | 2·9 | -1·9 | -4·5 | 1·9 |
| 17 | -2·2 | -0·9 | -0·9 | -0·8 | -0·3 | -0·7 | 0·3 | 0·5 | 0·3 | 1·5 | 2·6 | 5·0 | 5·9 | 6·3 | 5·6 | 4·5 | 3·3 | 2·3 | 2·3 | 2·3 | 0·9 | 0·2 | -2·5 | 0·0 | 1·5 |
| 18 | -0·3 | -0·7 | 1·7 | -1·6 | -2·8 | -1·3 | -0·6 | 0·9 | 0·4 | -0·4 | 0·9 | 3·2 | 5·6 | 8·1 | 6·3 | 5·5 | 3·9 | 3·1 | 2·4 | 2·1 | 1·1 | 1·1 | 1·2 | 1·5 | 1·7 |
| 19 *d* | 1·5 | 2·4 | 3·6 | 2·0 | 1·5 | 3·2 | 3·5 | 6·3 | 7·1 | 6·9 | 8·3 | 8·8 | 10·0 | 10·9 | 11·9 | 10·8 | 7·7 | -3·1 | 0·2 | -0·9 | -0·6 | 0·1 | 0·3 | 0·8 | *4·3* |
| 20 *q* | 0·9 | 1·0 | 2·4 | 4·8 | 2·0 | 0·2 | -0·8 | -1·7 | -1·9 | -2·6 | -1·7 | -0·6 | 1·1 | 1·8 | 1·9 | 1·7 | 1·1 | 1·1 | 1·4 | 1·4 | 1·5 | 2·0 | 1·3 | 1·6 | 0·8 |
| 21 | 2·0 | 1·6 | 1·5 | 1·9 | 1·4 | 0·2 | -0·3 | -0·3 | 0·8 | 2·4 | 6·4 | 4·5 | 6·5 | 6·3 | 6·2 | 4·9 | 4·1 | 2·3 | 1·1 | 1·0 | 0·8 | 0·4 | -1·7 | -0·9 | 2·2 |
| 22 | -1·8 | -3·1 | -3·5 | -0·5 | -0·5 | 0·2 | 4·4 | 1·9 | 0·9 | 0·7 | 2·1 | 4·5 | 6·3 | 7·3 | 5·0 | 3·9 | 1·9 | 0·2 | 2·5 | 1·5 | 1·0 | 0·8 | 0·2 | 0·1 | 1·5 |
| 23 | 1·0 | 1·0 | 1·1 | 0·9 | 0·8 | 0·7 | 0·5 | 0·2 | -0·2 | -1·2 | -0·6 | 2·9 | 4·7 | 5·5 | 6·0 | 6·5 | 5·3 | 3·7 | 3·7 | 2·1 | 1·5 | -0·1 | -1·0 | -1·3 | 1·8 |
| 24 | -2·4 | -4·5 | -2·3 | -1·9 | -2·0 | -0·9 | -0·1 | -0·2 | 0·0 | 0·0 | 1·5 | 2·4 | 4·2 | 5·2 | 5·1 | 3·6 | 2·3 | 1·9 | 1·6 | 1·1 | 1·0 | 0·7 | 0·7 | 0·7 | 0·7 |
| 25 | 0·7 | -0·2 | -2·1 | -1·6 | -0·6 | -0·3 | -0·4 | -0·6 | -0·3 | -0·9 | 0·0 | 1·3 | 2·8 | 4·6 | 4·9 | 3·5 | 2·8 | 2·7 | 2·5 | 3·5 | 2·0 | 2·8 | -3·4 | -2·6 | 0·9 |
| 26 | 0·8 | 0·3 | 2·4 | 3·1 | 1·9 | 1·5 | 1·1 | 1·1 | 2·1 | 2·3 | 1·1 | 3·4 | 5·6 | 5·5 | 6·2 | 6·5 | 7·8 | 5·2 | 5·4 | 2·0 | 0·3 | -1·0 | -1·3 | -2·0 | 2·6 |
| 27 | -1·9 | -1·3 | -3·3 | -5·0 | -0·8 | 1·5 | 4·1 | 1·1 | 1·3 | 1·9 | 1·8 | 3·7 | 3·7 | 3·6 | 3·7 | 3·5 | 2·7 | 2·8 | -0·7 | -3·6 | -0·8 | -2·8 | -4·3 | -0·9 | *0·4* |
| 28 | -3·1 | 1·0 | -2·6 | -2·2 | -0·6 | -0·1 | 0·1 | 0·3 | -0·2 | 0·1 | 0·9 | 3·2 | 3·7 | 4·2 | 5·4 | 4·3 | 3·2 | 2·6 | 2·8 | 1·6 | 0·5 | -0·5 | -0·6 | -0·1 | 1·0 |
| 29 | 0·1 | 0·0 | 1·5 | 2·2 | 1·1 | -0·3 | 0·1 | 0·5 | -0·3 | -0·3 | 0·6 | 2·9 | 4·3 | 5·3 | 5·4 | 3·9 | 0·1 | 2·0* | 1·6 | 1·5 | 0·4 | -0·8 | 0·1 | -0·3 | 1·3 |
| 30 *q* | 0·3 | 0·5 | 0·9 | 0·9 | 1·1 | 0·8 | 0·2 | 0·1 | 0·0 | 0·1 | 0·8 | 1·5 | 2·5 | 3·7 | 3·7 | 3·0 | 2·1 | 2·0 | 2·0 | 1·8 | 1·5 | 1·1 | 0·9 | 0·5 | 1·3 |
| 31 | 1·1 | 2·0 | 0·3 | 0·0 | 0·6 | 0·5 | 0·2 | 0·1 | 0·0 | 0·1 | 0·7 | 2·3 | 1·8 | 4·5 | 5·3 | 4·3 | 3·6 | 2·3 | 2·0 | 1·8 | 1·0 | -1·7 | 0·2 | 0·3 | 1·4 |
| Mean | -0·6 | -0·1 | 0·1 | 0·3 | 0·7 | 0·6 | 0·8 | 0·7 | 0·5 | 0·5 | 1·5 | 3·4 | 4·7 | *5·4* | 5·3 | 4·4 | 3·6 | 2·7 | 2·5 | 1·3 | 1·1 | 0·2 | -0·9 | *-0·9* | 1·6 |

1·1 at 0-1h. January 1, 1947.

## TERRESTRIAL MAGNETIC FORCE: VERTICAL COMPONENT

Mean values for periods of sixty minutes ending at exact hours, G.M.T.

161 ESKDALEMUIR (V) — 44,000γ (0·44 C.G.S. unit) + — DECEMBER

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| 1 | 1138 | 1136 | 1135 | 1135 | 1134 | 1134 | 1135 | 1135 | 1135 | 1136 | 1135 | 1135 | 1134 | 1132 | 1135 | 1136 | 1141 | 1147 | 1153 | 1159 | 1154 | 1147 | 1141 | 1135 | 1139 |
| 2 | 1131 | 1130 | 1130 | 1129 | 1130 | 1131 | 1134 | 1136 | 1137 | 1138 | 1134 | 1131 | 1131 | 1135 | 1141 | 1144 | 1144 | 1144 | 1146 | 1148 | 1144 | 1144 | 1141 | 1133 | 1137 |
| 3 | 1129 | 1126 | 1105 | 1101 | 1113 | 1117 | 1125 | 1130 | 1135 | 1138 | 1141 | 1142 | 1146 | 1144 | 1147 | 1148 | 1146 | 1142 | 1142 | 1141 | 1142 | 1141 | 1140 | 1138 | 1134 |
| 4 | 1137 | 1136 | 1136 | 1135 | 1133 | 1135 | 1135 | 1135 | 1136 | 1136 | 1136 | 1136 | 1137 | 1138 | 1141 | 1141 | 1140 | 1138 | 1137 | 1136 | 1137 | 1137 | 1137 | 1136 | 1137 |
| 5 *d* | 1135 | 1135 | 1136 | 1135 | 1132 | 1132 | 1134 | 1134 | 1135 | 1134 | 1134 | 1134 | 1135 | 1135 | 1136 | 1141 | 1150 | 1152 | 1149 | 1148 | 1152 | 1158 | 1161 | 1153 | 1141 |
| 6 | 1145 | 1143 | 1141 | 1137 | 1135 | 1135 | 1136 | 1137 | 1139 | 1142 | 1141 | 1142 | 1141 | 1138 | 1140 | 1141 | 1140 | 1140 | 1140 | 1140 | 1142 | 1146 | 1148 | 1146 | 1141 |
| 7 | 1143 | 1141 | 1138 | 1123 | 1112 | 1108 | 1113 | 1118 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1136 | 1140 | 1147 | 1152 | 1148 | 1146 | 1143 | 1142 | 1142 | 1142 | 1134 |
| 8 | 1138 | 1137 | 1134 | 1126 | 1111 | 1117 | 1124 | 1129 | 1133 | 1132 | 1133 | 1130 | 1129 | 1132 | 1136 | 1137 | 1137 | 1137 | 1136 | 1137 | 1138 | 1141 | 1142 | 1142 | 1133 |
| 9 *q* | 1141 | 1138 | 1136 | 1136 | 1136 | 1136 | 1135 | 1135 | 1132 | 1129 | 1126 | 1129 | 1134 | 1135 | 1138 | 1141 | 1141 | 1140 | 1138 | 1137 | 1141 | 1139 | 1140 | 1141 | 1136 |
| 10 *d* | 1141 | 1141 | 1138 | 1137 | 1136 | 1135 | 1133 | 1131 | 1130 | 1131 | 1130 | 1129 | 1130 | 1131 | 1140 | 1154 | 1147 | 1140 | 1138 | 1138 | 1141 | 1147 | 1140 | 1133 | 1137 |
| 11 *d* | 1135 | 1135 | 1135 | 1135 | 1135 | 1135 | 1135 | 1132 | 1130 | 1130 | 1131 | 1130 | 1133 | 1136 | 1143 | 1146 | 1149 | 1151 | 1149 | 1149 | 1153 | 1130 | 1129 | 1135 | 1138 |
| 12 *d* | 1138 | 1129 | 1129 | 1135 | 1137 | 1138 | 1137 | 1136 | 1137 | 1138 | 1136 | 1136 | 1139 | 1143 | 1153 | 1167 | 1166 | 1158 | 1153 | 1152 | 1150 | 1148 | 1147 | 1142 | 1143 |
| 13 | 1138 | 1137 | 1137 | 1138 | 1138 | 1137 | 1137 | 1136 | 1137 | 1136 | 1137 | 1134 | 1130 | 1133 | 1142 | 1147 | 1145 | 1144 | 1144 | 1143 | 1141 | 1138 | 1137 | 1137 | 1138 |
| 14 *q* | 1136 | 1137 | 1137 | 1137 | 1137 | 1136 | 1136 | 1136 | 1136 | 1134 | 1131 | 1134 | 1131 | 1129 | 1132 | 1135 | 1137 | 1137 | 1137 | 1137 | 1136 | 1136 | 1136 | 1136 | 1135 |
| 15 *q* | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1136 | 1137 | 1138 | 1139 | 1137 | 1136 | 1134 | 1135 | 1136 | 1138 | 1138 | 1138 | 1138 | 1138 | 1137 | 1136 | 1136 | 1137 |
| 16 | 1136 | 1136 | 1136 | 1135 | 1135 | 1135 | 1135 | 1135 | 1133 | 1130 | 1130 | 1130 | 1130 | 1130 | 1133 | 1135 | 1136 | 1136 | 1136 | 1136 | 1138 | 1143 | 1147 | 1147 | 1136 |
| 17 | 1143 | 1139 | 1137 | 1136 | 1135 | 1131 | 1129 | 1130 | 1131 | 1135 | 1136 | 1136 | 1136 | 1138 | 1142 | 1142 | 1142 | 1142 | 1142 | 1143 | 1147 | 1146 | 1139 | 1136 | 1138 |
| 18 | 1136 | 1136 | 1131 | 1125 | 1129 | 1130 | 1130 | 1131 | 1134 | 1131 | 1126 | 1123 | 1123 | 1124 | 1129 | 1131 | 1132 | 1133 | 1133 | 1134 | 1135 | 1135 | 1135 | 1135 | *1131* |
| 19 *d* | 1134 | 1132 | 1128 | 1126 | 1128 | 1123 | 1118 | 1118 | 1123 | 1124 | 1126 | 1131 | 1143 | 1159 | 1162 | 1169 | 1189 | 1177 | 1171 | 1168 | 1157 | 1149 | 1147 | 1145 | 1144 |
| 20 *q* | 1144 | 1145 | 1143 | 1141 | 1141 | 1142 | 1142 | 1143 | 1147 | 1146 | 1145 | 1147 | 1147 | 1145 | 1144 | 1146 | 1145 | 1143 | 1143 | 1143 | 1142 | 1142 | 1142 | 1143 | 1144 |
| 21 | 1143 | 1142 | 1142 | 1142 | 1141 | 1138 | 1138 | 1136 | 1137 | 1144 | 1137 | 1140 | 1145 | 1147 | 1147 | 1149 | 1149 | 1148 | 1147 | 1147 | 1144 | 1143 | 1142 | 1141 | 1143 |
| 22 | 1143 | 1143 | 1141 | 1138 | 1138 | 1136 | 1129 | 1129 | 1136 | 1143 | 1141 | 1141 | 1144 | 1149 | 1148 | 1148 | 1150 | 1149 | 1144 | 1145 | 1144 | 1143 | 1142 | 1141 | 1142 |
| 23 | 1141 | 1138 | 1138 | 1137 | 1136 | 1135 | 1135 | 1135 | 1134 | 1133 | 1130 | 1129 | 1135 | 1137 | 1137 | 1141 | 1143 | 1144 | 1144 | 1145 | 1146 | 1143 | 1141 | 1138 | 1138 |
| 24 | 1141 | 1142 | 1140 | 1141 | 1139 | 1136 | 1137 | 1138 | 1138 | 1140 | 1137 | 1136 | 1135 | 1135 | 1138 | 1142 | 1142 | 1141 | 1141 | 1141 | 1141 | 1141 | 1141 | 1141 | 1139 |
| 25 | 1141 | 1142 | 1142 | 1141 | 1140 | 1137 | 1137 | 1136 | 1135 | 1134 | 1131 | 1131 | 1130 | 1129 | 1134 | 1138 | 1141 | 1141 | 1140 | 1140 | 1145 | 1153 | 1169 | 1164 | 1140 |
| 26 | 1154 | 1150 | 1144 | 1136 | 1132 | 1132 | 1135 | 1136 | 1134 | 1130 | 1131 | 1135 | 1141 | 1144 | 1153 | 1167 | 1172 | 1172 | 1174 | 1177 | 1168 | 1164 | 1158 | 1153 | *1150* |
| 27 | 1149 | 1143 | 1136 | 1130 | 1129 | 1128 | 1126 | 1127 | 1133 | 1135 | 1136 | 1136 | 1135 | 1137 | 1139 | 1143 | 1147 | 1147 | 1152 | 1155 | 1153 | 1152 | 1154 | 1143 | 1140 |
| 28 | 1136 | 1118 | 1123 | 1129 | 1136 | 1139 | 1138 | 1137 | 1141 | 1139 | 1138 | 1140 | 1140 | 1142 | 1144 | 1149 | 1150 | 1151 | 1149 | 1148 | 1147 | 1143 | 1143 | 1142 | 1140 |
| 29 | 1138 | 1135 | 1134 | 1131 | 1135 | 1137 | 1137 | 1137 | 1137 | 1137 | 1136 | 1135 | 1135 | 1135 | 1136 | 1143 | 1148 | 1146 | 1146 | 1146 | 1144 | 1143 | 1142 | 1138 | 1139 |
| 30 *q* | 1137 | 1137 | 1139 | 1140 | 1139 | 1137 | 1138 | 1138 | 1140 | 1136 | 1136 | 1133 | 1129 | 1128 | 1131 | 1138 | 1141 | 1141 | 1140 | 1138 | 1138 | 1137 | 1136 | 1136 | 1137 |
| 31 | 1136 | 1134 | 1129 | 1130 | 1130 | 1130 | 1131 | 1131 | 1135 | 1135 | 1133 | 1129 | 1127 | 1129 | 1135 | 1138 | 1140 | 1140 | 1140 | 1140 | 1140 | 1141 | 1137 | 1136 | 1134 |
| Mean | 1139 | 1137 | 1135 | 1133 | 1133 | *1133* | 1133 | 1133 | 1135 | 1135 | 1134 | 1134 | 1135 | 1137 | 1140 | 1144 | *1146* | 1145 | 1145 | 1145 | 1145 | 1143 | 1143 | 1141 | 1139 |

1134 at 0-1h. January 1, 1947.

## DAILY EXTREMES OF TERRESTRIAL MAGNETIC ELEMENTS, MAGNETIC CHARACTER FIGURES AND TEMPERATURE IN MAGNET HOUSE

162 ESKDALEMUIR — DECEMBER

| | TERRESTRIAL MAGNETIC ELEMENTS | | | | | | | | | | | | 3-hr. range indices *K* | Sum of *K* indices | Magnetic character of day (0-2) | Temperature in magnet house 200 + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Horizontal force | | | | | Declination | | | Vertical force | | | | | | | |
| | Maximum 16,000γ + | | Minimum 16,000γ + | | Range | Maximum 12° + | Minimum 12° + | Range | Maximum 44,000γ + | | Minimum 44,000γ + | | Range | | | |
| | h. m. | γ | γ | h. m. | γ | h. m. | ′ | ′ | h. m. | ′ | h. m. | γ | γ | h. m. | γ | | | | | °A. |
| 1 | 04 29 | 537 | 501 | 19 10 | 36 | 14 52 | 5·5 | −9·5 | 23 43 | 15·0 | 19 40 | 1160 | 1131 | 13 40 | 29 | 1, 0, 0, 0, 1, 2, 2, 3 | 9 | 0 | 83·3 |
| 2 | 23 21 | 540 | 497 | 15 01 | 43 | 14 35 | 7·2 | −11·2 | 23 29 | 18·4 | 19 20 | 1149 | 1129 | 03 20 | 20 | 3, 0, 1, 0, 2, 2, 1, 3 | 12 | 1 | 83·2 |
| 3 | 02 26 | 570 | 489 | 11 21 | 81 | 13 20 | 5·4 | −10·8 | 00 08 | 16·2 | 15 10 | 1149 | *1060* | 02 42 | 89 | 4, 3, 1, 2, 1, 2 0, 0 | 13 | 1 | 83·2 |
| 4 | 19 30 | 549 | 510 | 11 43 | 39 | 12 16 | 5·7 | −0·2 | 06 04 | 5·9 | 15 00 | 1143 | 1132 | 04 30 | 11 | 0, 1, 1, 0, 1, 2, 2, 2 | 9 | 0 | 83·2 |
| 5 *d* | 05 32 | 545 | 495 | 22 19 | 50 | 17 15 | 10·4 | −2·7 | 22 27 | 13·1 | 22 25 | 1163 | 1130 | 11 15 | 33 | 1, 2, 1, 3, 3, 3, 3, 3 | 19 | 1 | 83·2 |
| 6 | 18 49 | 543 | 506 | 10 57 | 37 | 13 52 | 7·7 | −3·9 | 22 21 | 11·6 | 23 05 | 1149 | 1135 | 04 50 | 14 | 2, 2, 1, 1, 1, 1, 2, 2 | 12 | 0 | 83·2 |
| 7 | 03 28 | 562 | 497 | 16 43 | 65 | 12 36 | 6·4 | −5·2 | 03 43 | 11·6 | 17 23 | 1153 | 1106 | 05 10 | 47 | 2, 3, 2, 1, 1, 3, 2, 2 | 16 | 1 | 83·1 |
| 8 | 04 25 | 565 | 505 | 11 20 | 60 | 04 05 | 7·4 | −2·5 | 00 39 | 9·9 | 22 10 | 1143 | 1105 | 04 28 | 38 | 2, 3, 1, 2, 1, 1, 0, 0 | 10 | 1 | 83·0 |
| 9 *q* | 20 47 | 552 | 520 | 11 06 | 32 | 12 14 | 5·4 | −2·5 | 20 34 | 7·9 | 20 30 | 1143 | 1125 | 10 45 | 18 | 1, 1, 1, 1, 0, 1, 3, 1 | 9 | 0 | 83·0 |
| 10 *d* | 22 58 | 549 | 494 | 15 16 | 55 | 14 17 | 7·3 | −10·3 | 22 52 | 17·6 | 15 42 | 1159 | 1128 | 11 10 | 31 | 1, 0, 1, 3, 2, 3, 2, 3 | 15 | 1 | 83·0 |
| 11 *d* | 21 03 | *573* | 469 | 20 26 | 104 | 15 33 | 7·3 | −13·6 | 19 24 | 20·9 | 19 04 | 1158 | 1125 | 22 18 | 33 | 1, 1, 1, 2, 2, 2, 4, 4 | 17 | 1 | 82·8 |
| 12 *d* | 23 36 | 557 | 462 | 12 12 | 95 | 14 07 | 10·2 | −9·4 | 23 31 | 19·6 | 15 49 | 1176 | 1123 | 01 44 | 53 | 3, 1, 1, 3, 3, 3, 2, 3 | 19 | 1 | 82·8 |
| 13 | 06 53 | 537 | 500 | 14 40 | 37 | 13 29 | 7·3 | −3·4 | 00 04 | 10·7 | 15 30 | 1149 | 1129 | 12 30 | 20 | 2, 1, 2, 2, 2, 2, 1, 0 | 12 | 0 | 82·8 |
| 14 *q* | 21 14 | 538 | 512 | 11 14 | 26 | 14 10 | 5·5 | −0·1 | 07 58 | *5·6* | 17 05 | 1139 | 1128 | 13 40 | 11 | 0, 0, 0, 0, 0, 0, 0, 0 | 0 | 0 | 82·6 |
| 15 *q* | 18 24 | 540 | 501 | 11 51 | 39 | 12 42 | 6·9 | −0·3 | 09 57 | 7·2 | 10 40 | 1141 | 1131 | 13 52 | 10 | 0, 0, 0, 1, 2, 1, 0, 0 | 4 | 0 | 82·6 |
| 16 | 20 13 | 549 | 511 | 24 00 | 38 | 12 19 | 6·5 | −5·9 | 23 18 | 12·4 | 22 40 | 1149 | 1129 | 11 40 | 20 | 1, 0, 1, 0, 1, 0, 2, 3 | 8 | 0 | 82·6 |
| 17 | 06 03 | 553 | 494 | 11 29 | 59 | 13 54 | 7·4 | −5·7 | 22 02 | 13·1 | 20 40 | 1148 | 1129 | 06 43 | 19 | 2, 2, 2, 2, 2, 1, 1, 3 | 15 | 0 | 82·6 |
| 18 | 18 23 | 548 | 521 | 10 40 | 27 | 13 33 | 9·1 | −3·5 | 04 11 | 12·6 | 00 12 | 1137 | 1122 | 11 25 | 15 | 2, 2, 2, 1, 2, 1, 2, 1 | 13 | 1 | 82·5 |
| 19 *d* | 06 11 | 566 | *446* | 12 56 | *120* | 14 01 | *14·5* | *−16·3* | 17 08 | *30·8* | 17 07 | *1224* | 1114 | 07 10 | *110* | 3, 2, 4, 3, 4, 5, 3, 1 | 25 | 1 | 82·4 |
| 20 *q* | 21 11 | 525 | 489 | 12 29 | 36 | 03 42 | 5·7 | −3·2 | 09 52 | 8·9 | 12 00 | 1148 | 1138 | 04 23 | 10 | 2, 2, 1, 0, 1, 1 0, 0 | 7 | 0 | 82·4 |
| 21 | 22 29 | 544 | 450 | 09 34 | 94 | 12 16 | 9·5 | −3·9 | 22 43 | 13·4 | 15 30 | 1154 | 1135 | 08 10 | 19 | 0, 1, 3, 4, 2, 2, 0, 2 | 14 | 1 | 82·4 |
| 22 | 06 31 | 546 | 486 | 13 12 | 60 | 13 37 | 9·1 | −5·7 | 01 42 | 14·8 | 17 00 | 1154 | 1123 | 06 40 | 31 | 2, 3, 3, 2, 2, 2, 1, 1 | 16 | 1 | 82·4 |
| 23 | 22 42 | 545 | 490 | 12 58 | 55 | 16 46 | 7·3 | −2·5 | 09 58 | 9·8 | 21 20 | 1147 | 1128 | 11 10 | 19 | 0, 2, 2, 2, 3, 1, 1, 2 | 13 | 1 | 82·5 |
| 24 | 20 00 | 541 | 502 | 02 00 | 39 | 13 52 | 6·5 | −5·5 | 01 25 | 12·0 | 15 11 | 1143 | 1135 | 13 33 | *8* | 2, 2, 1, 1, 2, 1, 0, 0 | 9 | 0 | 82·5 |
| 25 | 19 16 | 572 | 479 | 22 34 | 93 | 13 48 | 6·3 | −7·0 | 22 33 | 13·3 | 22 40 | 1176 | 1126 | 13 12 | 50 | 2, 1, 1, 0, 1, 1, 3, 4 | 13 | 1 | 82·5 |
| 26 | 04 55 | 541 | 482 | 12 04 | 59 | 16 29 | 9·1 | −2·6 | 23 48 | 11·7 | 19 20 | 1179 | 1129 | 10 10 | 50 | 1, 1, 2, 3, 2, 2, 2, 2 | 15 | 1 | 82·5 |
| 27 | 05 34 | 542 | 492 | 18 44 | 50 | 12 53 | 6·5 | −9·6 | 18 55 | 16·1 | 18 58 | 1159 | 1123 | 07 01 | 36 | 2, 3, 2, 1, 2, 0, 4, 3 | 17 | 1 | 82·4 |
| 28 | 01 20 | 538 | 489 | 13 47 | 49 | 14 25 | 6·2 | −4·9 | 00 31 | 11·1 | 17 19 | 1152 | 1112 | 01 36 | 40 | 3, 1, 2, 2, 2, 1, 1, 1 | 13 | 1 | 82·4 |
| 29 | 06 00 | 541 | 504 | 13 00 | 37 | 13 45 | 6·6 | −1·0 | 21 13 | 7·6 | 16 28 | 1149 | 1130 | 03 50 | 19 | 1, 2, 2, 2, 2, 2, 1, 2 | 14 | 1 | 82·4 |
| 30 *q* | 18 44 | 539 | 516 | 11 40 | *23* | 13 58 | 4·4 | −0·4 | 00 01 | 4·8 | 16 40 | 1142 | 1127 | 13 10 | 15 | 1, 1, 1, 1, 1, 0, 1, 0 | 6 | 0 | 82·2 |
| 31 | 02 22 | 548 | 513 | 15 09 | 35 | 14 47 | 5·6 | −3·8 | 21 25 | 9·4 | 21 35 | 1142 | 1125 | 12 30 | 17 | 2, 1, 0, 1, 2, 1, 1, 2 | 10 | 0 | 82·2 |
| Mean | − − | 548 | 494 | − − | 54 | − − | 7·3 | −5·4 | − − | 12·7 | − − | 1154 | 1124 | − − | 30 | − | − | 0·58 | 82·7 |

*q* denotes an international quiet day and *d* an international disturbed day.

# DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

## ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

163 ESKDALEMUIR

### NORTH COMPONENT

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | −0·1 | +0·1 | +0·1 | +4·2 | +6·7 | +6·7 | *+11·1* | +9·1 | +5·6 | +2·3 | −3·9 | −10·3 | *−10·8* | −7·8 | −5·1 | −4·3 | −2·7 | −1·2 | −1·1 | −1·6 | −2·4 | −0·1 | +4·4 | +1·1 |
| Feb. | *−19·0* | −8·6 | −4·8 | −2·7 | +2·7 | +4·6 | +5·6 | +4·6 | +0·6 | −2·7 | −10·1 | −12·3 | −10·5 | −8·5 | −1·0 | +1·6 | +7·9 | +8·1 | +9·8 | +9·7 | *+10·9* | +6·7 | +5·3 | +2·3 |
| Mar. | +3·5 | −8·3 | −2·1 | −8·2 | +2·2 | +7·9 | +4·1 | +2·0 | −12·0 | −17·3 | *−27·3* | −26·7 | −23·8 | −9·6 | +6·4 | *+32·5* | +17·7 | +9·4 | +12·2 | +18·0 | +9·2 | +5·0 | +2·3 | +2·8 |
| Apr. | −1·5 | +5·5 | −2·0 | +9·5 | +6·3 | +11·1 | +10·2 | +3·1 | −6·8 | −20·9 | −32·8 | *−37·4* | −32·5 | −18·9 | −7·5 | +11·7 | +21·9 | +22·1 | +23·5 | *+24·0* | +15·0 | +15·1 | +5·8 | −24·6 |
| May | +7·1 | +5·9 | +3·8 | +7·0 | +8·7 | +1·8 | −6·2 | −12·5 | −20·6 | −26·7 | −34·2 | *−35·0* | −34·1 | −27·5 | −12·1 | +7·4 | +19·5 | +31·0 | *+33·1* | +29·0 | +20·7 | +13·1 | +11·8 | +9·1 |
| June | +2·2 | +3·8 | +4·1 | +7·9 | +8·3 | +3·4 | −0·9 | −12·9 | −21·9 | −30·1 | *−35·1* | −34·4 | −34·1 | −24·2 | −8·5 | +7·8 | +22·9 | +26·3 | *+31·7* | +31·1 | +22·5 | +13·2 | +11·3 | +5·8 |
| July | −12·7 | −6·8 | −17·3 | −19·0 | −4·5 | −9·4 | −18·9 | −13·5 | −17·7 | −23·9 | *−31·4* | −30·0 | −25·4 | −10·9 | +2·8 | +19·1 | +28·6 | +33·5 | +31·0 | *+39·1* | +28·9 | +21·7 | +23·3 | +13·5 |
| Aug. | +10·4 | +10·8 | +7·8 | +8·4 | +7·6 | +5·1 | +1·1 | −8·3 | −19·6 | −30·5 | *−37·2* | −37·2 | −28·3 | −17·8 | −8·5 | +1·7 | +14·6 | +18·3 | +19·6 | *+22·2* | +19·1 | +17·5 | +12·3 | +10·6 |
| Sept. | +7·4 | +6·0 | +0·1 | −4·1 | +2·0 | −1·1 | −14·8 | −13·5 | −19·1 | −27·1 | *−35·0* | −34·2 | −26·9 | −5·0 | +0·6 | +17·7 | +29·5 | *+31·5* | +22·0 | +14·8 | +13·1 | +8·5 | +14·0 | +13·5 |
| Oct. | +9·4 | +8·3 | +8·4 | +10·7 | *+14·0* | +12·0 | +13·9 | +10·5 | −3·1 | −19·0 | −26·7 | *−31·1* | −29·1 | −21·5 | −13·9 | −6·7 | −0·9 | +4·0 | +7·0 | +8·8 | +10·0 | +12·6 | +12·0 | +10·4 |
| Nov. | +4·5 | +2·9 | +4·4 | +4·3 | +8·2 | *+10·2* | +10·1 | +7·1 | +2·3 | −8·5 | −16·2 | *−20·5* | −18·3 | −15·7 | −13·4 | −8·1 | −0·9 | +3·3 | +4·1 | +7·8 | +8·9 | +7·2 | +8·4 | +8·0 |
| Dec. | +3·0 | +3·5 | +5·0 | +5·7 | +7·1 | *+10·1* | +9·4 | +6·5 | +2·3 | −5·5 | −9·4 | −15·0 | *−16·7* | −13·1 | −10·3 | −6·3 | −2·5 | +2·3 | +2·7 | +5·4 | +3·1 | +3·8 | +3·7 | +5·2 |
| Year | +1·1 | +1·9 | +0·7 | +2·0 | +5·8 | +5·2 | +2·1 | −1·5 | −9·1 | −17·5 | −24·9 | *−27·0* | −24·3 | −15·1 | −5·9 | +6·2 | +12·9 | +15·7 | +16·3 | *+17·3* | +13·2 | +10·3 | +9·5 | +4·8 |
| Winter | −2·9 | −0·5 | +1·2 | +2·9 | +6·2 | +7·9 | *+9·0* | +6·9 | +2·7 | −3·6 | −9·9 | *−14·6* | −14·1 | −11·3 | −7·4 | −4·3 | +0·4 | +3·1 | +3·8 | +5·3 | +5·1 | +4·4 | +5·5 | +4·1 |
| Equinox | +4·8 | +2·9 | +1·2 | +2·0 | +6·1 | +7·5 | +3·3 | +0·5 | −10·2 | −21·0 | −30·5 | *−32·4* | −28·1 | −13·8 | −3·6 | +13·8 | *+17·0* | +16·7 | +16·2 | +16·4 | +11·9 | +10·3 | +8·6 | +0·5 |
| Summer | +1·7 | +3·4 | −0·4 | +1·1 | +5·1 | +0·2 | −6·2 | −11·8 | −19·9 | −27·8 | *−34·4* | −34·1 | −30·4 | −20·1 | −6·6 | +8·9 | +21·4 | +27·3 | +28·8 | *+30·3* | +22·8 | +16·3 | +14·7 | +9·8 |

### WEST COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −8·6 | −5·3 | −4·2 | −3·9 | −3·3 | +0·6 | +1·5 | +2·7 | +0·9 | +1·2 | +3·3 | +7·5 | +14·2 | +15·4 | *+13·7* | *+10·3* | *+5·2* | *+6·1* | *−3·2* | *−6·7* | *−8·8* | *−12·8* | −13·6 | *−12·1* |
| Feb. | *−16·6* | −9·0 | −6·9 | −4·1 | −5·5 | +0·6 | +0·2 | −1·4 | −7·1 | −6·9 | −4·9 | +1·9 | +13·7 | +16·7 | *+17·1* | +13·5 | +11·3 | +8·3 | +6·4 | +1·3 | 0·0 | −10·9 | −4·3 | −13·0 |
| Mar. | −15·1 | −16·7 | −14·6 | −16·2 | −10·0 | −9·1 | −9·5 | −11·6 | *−17·8* | −11·4 | −3·4 | +11·9 | +18·3 | +29·0 | *+33·4* | +32·6 | +21·7 | +14·3 | +7·5 | −1·1 | −2·5 | −7·5 | −7·5 | −14·8 |
| Apr. | −13·5 | −11·6 | −12·2 | −15·2 | −10·9 | −8·9 | −13·3 | −19·0 | *−22·9* | −19·5 | −6·8 | +9·6 | +24·8 | *+35·3* | +33·9 | +33·2 | +22·9 | +14·6 | +11·6 | +5·0 | +0·2 | −4·2 | −11·2 | −22·0 |
| May | −6·1 | −8·6 | −7·9 | −12·3 | −15·7 | −19·7 | −20·7 | −25·9 | *−28·9* | −21·8 | −8·2 | +9·9 | +23·1 | +28·6 | *+31·2* | +28·5 | +23·8 | +17·3 | +11·8 | +7·5 | +3·3 | +0·1 | −4·1 | −5·3 |
| June | −4·8 | −6·6 | −7·9 | −13·3 | −15·5 | −21·0 | −29·1 | *−31·9* | −29·3 | −23·7 | −13·9 | +2·4 | +18·1 | +27·9 | *+33·6* | +30·8 | +28·6 | +20·5 | +17·6 | +12·7 | +7·9 | +2·6 | −1·3 | −4·5 |
| July | −10·4 | −14·8 | −16·2 | −21·9 | −19·1 | −27·0 | −27·1 | *−30·4* | −26·2 | −21·9 | −9·7 | +7·6 | +22·2 | +30·4 | +32·3 | *+32·6* | +25·0 | +17·8 | +13·4 | +15·1 | +15·0 | +8·3 | +4·3 | +0·8 |
| Aug. | −2·3 | −7·3 | −10·3 | −9·0 | −11·6 | −17·7 | −23·3 | −29·7 | *−30·7* | −23·4 | −8·3 | +10·1 | +27·2 | *+36·1* | +33·8 | +25·1 | +19·5 | +9·4 | +5·3 | +5·4 | +2·5 | +3·3 | −0·7 | −3·3 |
| Sept. | −11·6 | −13·7 | −13·7 | −10·4 | −9·2 | −4·7 | −13·1 | −20·0 | *−23·6* | −16·5 | −8·0 | +5·1 | +23·1 | +33·7 | *+38·4* | +38·3 | +27·3 | +13·8 | +6·0 | −9·0 | −4·5 | −6·4 | −10·5 | −10·8 |
| Oct. | −8·7 | −7·1 | −10·2 | −7·7 | −6·1 | −3·1 | −5·0 | −10·4 | *−17·6* | −16·7 | −5·4 | +10·7 | +22·3 | *+27·5* | +26·0 | +18·3 | +9·8 | +7·1 | +4·8 | −0·1 | −4·8 | −7·8 | −6·3 | −9·5 |
| Nov. | −12·5 | −8·5 | −6·5 | −5·3 | −2·7 | −3·0 | −2·5 | −2·7 | −6·8 | −8·9 | −4·1 | +6·4 | +15·4 | *+19·6* | +17·4 | +13·1 | +10·4 | +9·8 | +6·0 | +1·3 | −1·7 | −9·1 | *−13·4* | −12·0 |
| Dec. | −9·9 | −7·7 | −5·9 | −4·8 | −2·9 | −2·6 | −1·6 | −3·1 | −4·8 | −6·5 | −2·1 | +5·8 | +11·8 | *+16·1* | +16·0 | +12·7 | +9·3 | +6·1 | +4·8 | −0·1 | −1·8 | −6·0 | *−11·5* | −11·3 |
| Year | −10·1 | −9·7 | −9·7 | −10·3 | −9·4 | −9·6 | −12·0 | −15·3 | *−17·9* | −14·7 | −5·9 | +7·4 | +19·5 | +26·4 | *+27·3* | +24·1 | +17·9 | +12·1 | +7·7 | +2·6 | +0·4 | −4·2 | −6·7 | −9·8 |
| Winter | −11·9 | −7·6 | −5·9 | −4·5 | −3·6 | −1·1 | −0·6 | −1·1 | −4·5 | −5·3 | −2·0 | +5·4 | +13·8 | *+16·9* | +16·1 | +12·4 | +9·0 | +7·6 | +3·5 | −1·0 | −3·1 | −9·7 | −10·7 | *−12·1* |
| Equinox | −12·2 | −12·3 | −12·6 | −12·4 | −9·0 | −6·4 | −10·2 | −15·2 | *−20·4* | −16·0 | −5·9 | +9·3 | +22·1 | +31·3 | *+32·9* | +30·6 | +20·4 | +12·5 | +7·4 | −1·3 | −2·9 | −6·5 | −8·9 | −14·3 |
| Summer | −6·2 | −9·3 | −10·5 | −14·1 | −15·5 | −21·3 | −25·1 | *−29·5* | −28·7 | −22·7 | −9·8 | +7·5 | +22·6 | +30·7 | *+32·7* | +29·2 | +24·2 | +16·2 | +12·0 | +10·2 | +7·2 | +3·5 | −0·4 | −3·1 |

### VERTICAL COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −5·7 | −6·5 | −7·5 | *−8·6* | −7·7 | −7·3 | −7·8 | −7·1 | −5·6 | −4·0 | −3·4 | −1·5 | 0·0 | +1·9 | +4·7 | +10·7 | +13·5 | +13·8 | *+14·3* | +9·8 | +6·4 | +2·7 | −2·0 | −3·1 |
| Feb. | −12·8 | −14·2 | −15·6 | *−17·5* | −16·6 | −13·2 | −9·9 | −7·7 | −4·5 | −1·7 | −1·1 | +0·6 | +1·8 | +5·7 | +12·5 | +17·1 | *+20·3* | +18·4 | +17·6 | +15·1 | +13·2 | +4·8 | −2·2 | −10·1 |
| Mar. | −16·5 | −27·5 | −26·4 | *−28·1* | −24·8 | −12·7 | −5·1 | −2·2 | +0·1 | −1·1 | +0·4 | +2·1 | −5·9 | −9·1 | +4·7 | +29·4 | *+37·6* | +30·4 | +27·2 | +24·7 | +17·4 | +2·0 | −4·9 | −11·7 |
| Apr. | *−18·1* | −14·6 | −16·4 | −15·5 | −11·4 | −9·8 | −5·5 | −6·0 | −6·9 | −7·1 | −7·9 | −7·4 | −4·7 | +4·6 | +12·6 | +22·1 | *+24·1* | +21·7 | +21·2 | +18·1 | +7·9 | +3·9 | −2·0 | −2·9 |
| May | −2·6 | −8·0 | −10·4 | −10·8 | −13·4 | −10·8 | −13·1 | −13·1 | −11·9 | −10·7 | −13·6 | *−15·1* | −10·5 | −2·2 | +4·5 | +15·1 | +22·1 | *+26·2* | +24·3 | +20·7 | +16·3 | +12·7 | +4·6 | −0·3 |
| June | −7·3 | −12·2 | *−15·2* | −12·2 | −9·0 | −7·4 | −5·9 | −5·4 | −6·9 | −9·1 | −11·1 | −13·5 | −10·7 | −4·6 | +3·3 | +11·9 | +21·7 | *+26·5* | +23·3 | +19·6 | +14·3 | +9·0 | +2·3 | −1·4 |
| July | −14·4 | −14·0 | −10·3 | −12·0 | −16·6 | −15·3 | *−18·7* | −9·9 | −5·6 | −6·6 | −8·1 | −10·1 | −9·4 | −2·0 | +6·1 | +13·3 | +21·2 | *+26·0* | +25·1 | +21·0 | +18·6 | +13·1 | +9·2 | −0·6 |
| Aug. | −3·7 | −5·0 | −5·7 | −5·0 | −3·6 | −4·6 | −2·9 | −0·2 | −0·8 | −5·0 | −10·1 | *−15·4* | −15·2 | −7·2 | +1·1 | +9·0 | +13·4 | *+17·4* | +15·5 | +12·4 | +9·8 | +5·2 | +0·9 | −0·3 |
| Sept. | −22·3 | −30·8 | *−39·5* | −35·5 | −32·9 | −30·7 | −25·2 | −14·6 | −6·6 | −4·6 | −3·6 | −1·2 | +4·6 | +19·4 | +33·3 | +36·0 | *+40·4* | +38·8 | +34·9 | +26·2 | +14·8 | +5·7 | −0·8 | −5·8 |
| Oct. | *−9·1* | −8·6 | −8·4 | −7·7 | −7·2 | −6·5 | −6·4 | −3·6 | −1·1 | −1·8 | −5·0 | −6·6 | −3·5 | +1·6 | +8·0 | +13·1 | *+14·3* | +12·2 | +11·4 | +10·7 | +8·6 | +4·0 | −1·2 | −7·2 |
| Nov. | −2·4 | −3·1 | −5·6 | −7·7 | −7·2 | −6·5 | −5·5 | −5·0 | −2·7 | −2·1 | −3·5 | −3·1 | −1·3 | +1·7 | +5·3 | +7·8 | +8·5 | +7·9 | +6·4 | +6·2 | +5·5 | +4·4 | +2·5 | −0·5 |
| Dec. | +0·6 | −1·4 | −3·5 | −5·2 | −5·7 | *−6·1* | −5·6 | −5·2 | −3·6 | −3·3 | −4·3 | −4·3 | −3·3 | −1·9 | +1·7 | +5·8 | *+7·8* | +6·9 | +6·3 | +6·5 | +6·0 | +5·0 | +4·5 | +2·3 |
| Year | −9·5 | −12·2 | −13·7 | *−13·8* | −13·0 | −10·9 | −9·3 | −6·7 | −4·7 | −4·8 | −5·9 | −6·3 | −4·8 | +0·7 | +8·1 | +15·9 | +20·4 | *+20·5* | +19·0 | +15·9 | +11·6 | +6·0 | +0·9 | −3·5 |
| Winter | −5·1 | −6·3 | −8·1 | *−9·7* | −9·3 | −8·3 | −7·2 | −6·3 | −4·1 | −2·8 | −3·1 | −2·1 | −0·7 | +1·9 | +6·1 | +10·3 | *+12·5* | +11·7 | +11·1 | +9·4 | +7·8 | +4·2 | +0·7 | −2·9 |
| Equinox | −16·5 | −20·4 | *−22·7* | −21·7 | −19·1 | −14·9 | −10·5 | −6·6 | −3·6 | −3·7 | −4·0 | −3·3 | −2·4 | +4·1 | +14·7 | +25·1 | *+29·1* | +25·8 | +23·7 | +19·9 | +12·2 | +3·9 | −2·2 | −6·9 |
| Summer | −7·0 | −9·8 | −10·4 | −10·0 | −10·7 | −9·5 | −10·1 | −7·1 | −6·3 | −7·9 | −10·7 | *−13·5* | −11·5 | −4·0 | +3·7 | +12·3 | +19·6 | *+24·0* | +22·1 | +18·4 | +14·7 | +10·0 | +4·3 | −0·7 |

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

ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

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| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DECLINATION (measured positive towards the west)** | | | | | | | | | | | | | | | | | | | | | | | | |
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| Jan. | -1·75 | -1·08 | -0·85 | -0·97 | -0·96 | -0·18 | -0·18 | +0·15 | -0·07 | +0·14 | +0·83 | +1·97 | +3·37 | *+3·47* | +3·01 | +2·27 | +1·17 | +1·30 | -0·60 | -1·29 | -1·69 | -2·60 | *-2·96* | -2·50 |
| Feb. | -2·54 | -1·46 | -1·19 | -0·71 | -1·25 | -0·08 | -0·20 | -0·49 | -1·48 | -1·29 | -0·56 | +0·92 | +3·24 | *+3·76* | +3·52 | +2·67 | +1·94 | +1·33 | +0·87 | -0·16 | -0·48 | -2·51 | -1·10 | *-2·75* |
| Mar. | *-3·23* | -3·05 | -2·89 | -2·95 | -2·14 | -2·19 | -2·12 | -2·45 | -3·10 | -1·56 | +0·51 | +3·59 | +4·77 | +6·34 | *+6·53* | +5·23 | +3·64 | +2·51 | +0·99 | -1·01 | -0·91 | -1·75 | -1·63 | -3·13 |
| Apr. | -2·68 | -2·60 | -2·41 | -3·51 | -2·50 | -2·30 | -3·16 | -4·00 | *-4·37* | -3·05 | +0·04 | +3·60 | +6·48 | *+8·02* | +7·23 | +6·26 | +3·72 | +2·00 | +1·33 | -0·04 | -0·62 | -1·51 | -2·53 | -3·40 |
| May | -1·55 | -2·01 | -1·77 | -2·80 | -3·57 | -4·08 | -3·93 | -4·73 | *-4·97* | -3·26 | -0·17 | +3·55 | +6·18 | *+7·02* | +6·87 | +5·47 | +3·99 | +2·16 | +0·95 | +0·26 | -0·23 | -0·55 | -1·35 | -1·48 |
| June | -1·27 | -1·50 | -1·78 | -3·04 | -3·52 | -4·41 | -5·89 | *-5·92* | -4·99 | -3·50 | -1·10 | +1·98 | +5·17 | +6·74 | *+7·20* | +5·92 | +4·82 | +3·02 | +2·20 | +1·23 | +0·63 | -0·07 | -0·75 | -1·17 |
| July | -1·56 | -2·71 | -2·54 | -3·62 | -3·70 | -5·09 | -4·70 | *-5·59* | -4·56 | -3·42 | -0·61 | +2·84 | +5·61 | *+6·66* | +6·46 | +5·80 | +3·84 | +2·17 | +1·37 | +1·38 | +1·79 | +0·74 | -0·13 | -0·43 |
| Aug. | -0·93 | -1·95 | -2·43 | -2·20 | -2·69 | -3·82 | -4·80 | *-5·67* | -5·39 | -3·44 | -0·07 | +3·67 | +6·76 | *+8·11* | +7·24 | +5·04 | +3·33 | +1·11 | +0·22 | +0·14 | -0·33 | -0·10 | -0·67 | -1·13 |
| Sept. | -2·68 | -3·06 | -2·79 | -1·94 | -1·96 | -0·90 | -2·03 | -3·48 | *-3·97* | -2·18 | -0·11 | +2·53 | +5·86 | +7·08 | *+7·79* | +7·02 | +4·28 | +1·44 | +0·26 | -2·48 | -1·48 | -1·67 | -2·75 | -2·78 |
| Oct. | -2·17 | -1·80 | -2·45 | -2·04 | -1·85 | -1·15 | -1·63 | -2·57 | *-3·44* | -2·57 | +0·06 | +3·53 | +5·80 | *+6·53* | +5·90 | +4·01 | +2·03 | +1·27 | +0·67 | -0·40 | -1·41 | -2·13 | -1·80 | -2·39 |
| Nov. | -2·73 | -1·85 | -1·52 | -1·27 | -0·90 | -1·05 | -0·96 | -0·85 | -1·48 | -1·43 | -0·12 | +2·19 | +3·93 | *+4·68* | +4·12 | +3·03 | +2·16 | +1·85 | +1·05 | -0·07 | -0·73 | -2·17 | *-3·09* | -2·79 |
| Dec. | -2·14 | -1·71 | -1·42 | -1·23 | -0·89 | -0·96 | -0·74 | -0·92 | -1·08 | -1·09 | -0·02 | +1·83 | +3·13 | *+3·85* | +3·70 | +2·86 | +1·99 | +1·14 | +0·87 | -0·25 | -0·51 | -1·39 | -2·49 | *-2·53* |
| Year | -2·10 | -2·06 | -2·00 | -2·19 | -2·16 | -2·18 | -2·53 | -3·04 | *-3·24* | -2·22 | -0·11 | +2·68 | +5·03 | *+6·02* | +5·80 | +4·63 | +3·08 | +1·77 | +0·85 | -0·22 | -0·50 | -1·31 | -1·77 | -2·21 |
| Winter | -2·29 | -1·53 | -1·25 | -1·05 | -1·00 | -0·57 | -0·52 | -0·53 | -1·03 | -0·92 | +0·03 | +1·73 | +3·42 | *+3·94* | +3·59 | +2·71 | +1·81 | +1·41 | +0·55 | -0·44 | -0·85 | -2·17 | -2·41 | *-2·64* |
| Equinox | -2·69 | -2·63 | -2·63 | -2·61 | -2·11 | -1·63 | -2·23 | -3·13 | *-3·72* | -2·34 | +0·13 | +3·31 | +5·73 | *+6·99* | +6·86 | +5·63 | +3·42 | +1·81 | +0·81 | -0·98 | -1·11 | -1·77 | -2·18 | -2·93 |
| Summer | -1·33 | -2·04 | -2·13 | -2·91 | -3·37 | -4·35 | -4·83 | *-5·48* | -4·98 | -3·41 | -0·49 | +3·01 | +5·93 | *+7·13* | +6·94 | +5·56 | +3·99 | +2·11 | +1·19 | +0·75 | +0·47 | +0·01 | -0·73 | -1·05 |
| **INCLINATION** | | | | | | | | | | | | | | | | | | | | | | | | |
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| Jan. | -0·01 | -0·09 | -0·13 | -0·43 | -0·59 | -0·63 | *-0·95* | -0·82 | -0·52 | -0·27 | +0·13 | *+0·54* | +0·51 | +0·34 | +0·26 | +0·40 | +0·44 | +0·33 | +0·48 | +0·45 | +0·44 | +0·26 | -0·14 | +0·02 |
| Feb. | *+1·17* | +0·34 | +0·02 | -0·20 | -0·51 | *-0·64* | -0·62 | -0·47 | -0·05 | +0·23 | +0·71 | +0·80 | +0·54 | +0·47 | +0·13 | +0·13 | -0·17 | -0·19 | -0·30 | -0·28 | -0·39 | -0·16 | -0·35 | -0·22 |
| Mar. | -0·43 | +0·10 | -0·31 | +0·07 | -0·61 | -0·71 | -0·26 | -0·02 | +1·05 | +1·27 | *+1·86* | +1·64 | +1·16 | 0·00 | -0·78 | *-1·87* | -0·54 | -0·07 | -0·23 | -0·56 | -0·14 | -0·17 | -0·17 | -0·26 |
| Apr. | -0·16 | -0·56 | -0·10 | -0·79 | -0·54 | -0·85 | -0·62 | -0·08 | +0·60 | +1·47 | +2·06 | *+2·14* | +1·67 | +0·85 | +0·33 | -0·69 | -1·17 | -1·13 | -1·19 | *-1·20* | -0·79 | -0·84 | -0·27 | +1·86 |
| May | -0·44 | -0·47 | -0·40 | -0·56 | -0·68 | -0·11 | +0·38 | +0·87 | +1·47 | +1·80 | *+2·03* | +1·79 | +1·66 | +1·35 | +0·47 | -0·52 | -1·08 | -1·63 | *-1·74* | -1·50 | -1·01 | -0·55 | -0·61 | -0·53 |
| June | -0·24 | -0·46 | -0·53 | -0·63 | -0·55 | -0·11 | +0·33 | +1·17 | +1·69 | +2·09 | *+2·22* | +1·90 | +1·72 | +1·09 | +0·17 | -0·65 | -1·38 | -1·37 | *-1·76* | -1·75 | -1·24 | -0·68 | -0·67 | -0·35 |
| July | +0·63 | +0·31 | +1·11 | +1·27 | +0·15 | +0·63 | +1·17 | +1·07 | +1·40 | +1·72 | +2·00 | +1·62 | +1·13 | +0·24 | -0·49 | -1·39 | -1·71 | -1·81 | -1·61 | -2·27 | -1·65 | -1·23 | -1·37 | -0·92 |
| Aug. | -0·75 | -0·73 | -0·51 | -0·55 | -0·43 | -0·20 | +0·18 | +0·97 | +1·71 | +2·21 | *+2·32* | +1·92 | +1·10 | +0·48 | +0·11 | -0·24 | -0·91 | -0·91 | -0·98 | *-1·23* | -1·05 | -1·07 | -0·78 | -0·66 |
| Sept. | -0·88 | -0·97 | -0·80 | -0·46 | -0·82 | -0·63 | +0·53 | +0·81 | +1·43 | +1·90 | *+2·33* | +2·15 | +1·56 | +0·34 | +0·25 | -0·81 | *-1·32* | -1·31 | -0·67 | -0·20 | -0·43 | -0·33 | -0·79 | -0·89 |
| Oct. | -0·73 | -0·67 | -0·62 | -0·79 | *-1·01* | -0·91 | *-1·01* | -0·63 | +0·43 | +1·45 | +1·71 | *+1·74* | +1·52 | +1·07 | +0·75 | +0·51 | +0·28 | -0·06 | -0·24 | -0·31 | -0·38 | -0·62 | -0·73 | -0·73 |
| Nov. | -0·18 | -0·15 | -0·33 | -0·40 | -0·68 | *-0·79* | -0·77 | -0·55 | -0·12 | +0·63 | +1·04 | *+1·18* | +0·96 | +0·80 | +0·77 | +0·54 | +0·12 | -0·16 | -0·20 | -0·38 | -0·42 | -0·23 | -0·30 | -0·37 |
| Dec. | -0·05 | -0·16 | -0·34 | -0·44 | -0·57 | *-0·78* | -0·74 | -0·51 | -0·17 | +0·37 | +0·54 | +0·80 | *+0·85* | +0·59 | +0·49 | +0·38 | +0·23 | -0·07 | -0·09 | -0·20 | -0·03 | -0·05 | +0·03 | -0·13 |
| Year | -0·17 | -0·29 | -0·25 | -0·33 | -0·57 | -0·48 | -0·20 | +0·15 | +0·74 | +1·24 | *+1·58* | +1·52 | +1·20 | +0·64 | +0·20 | -0·35 | -0·60 | -0·70 | -0·71 | *-0·79* | -0·59 | -0·47 | -0·51 | -0·26 |
| Winter | +0·23 | -0·01 | -0·19 | -0·37 | -0·59 | -0·71 | *-0·77* | -0·59 | -0·22 | +0·24 | +0·60 | *+0·83* | +0·72 | +0·55 | +0·41 | +0·36 | +0·15 | -0·02 | -0·03 | -0·10 | -0·10 | -0·05 | -0·19 | -0·17 |
| Equinox | -0·55 | -0·53 | -0·46 | -0·49 | -0·75 | *-0·77* | -0·33 | +0·02 | +0·87 | +1·52 | *+1·99* | +1·92 | +1·48 | +0·57 | +0·14 | -0·72 | -0·69 | -0·64 | -0·59 | -0·57 | -0·44 | -0·49 | -0·49 | -0·00 |
| Summer | +0·72 | +1·13 | +1·18 | +1·71 | +2·01 | +2·70 | +3·01 | *+3·52* | +3·20 | +2·10 | +0·07 | -2·36 | -4·28 | *-4·91* | -4·59 | -3·44 | -2·20 | -0·83 | -0·25 | -0·05 | +0·05 | +0·24 | +0·60 | +0·69 |
| **HORIZONTAL FORCE** | | | | | | | | | | | | | | | | | | | | | | | | |
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | -1·9 | -1·0 | -0·8 | +3·3 | +5·9 | +6·7 | *+11·2* | +9·5 | +5·7 | +2·5 | -3·1 | *-8·5* | -7·6 | -4·4 | -2·1 | -2·0 | -1·6 | +0·1 | -1·8 | -3·0 | -4·2 | -2·8 | +1·4 | -1·5 |
| Feb. | *-22·1* | -10·3 | -6·1 | -3·5 | +1·5 | +4·6 | +5·5 | +4·2 | -0·9 | -4·1 | -10·9 | -11·6 | -7·4 | -4·8 | +2·6 | +4·4 | +10·1 | +9·6 | *+10·9* | +9·7 | +10·6 | +4·2 | +4·3 | -0·5 |
| Mar. | +0·3 | -11·6 | -5·1 | -11·4 | 0·0 | +5·8 | +2·0 | -0·5 | -15·5 | -19·3 | *-27·4* | -23·6 | -19·4 | -3·3 | +13·3 | *+38·6* | +21·9 | +12·2 | +13·5 | +17·4 | +8·5 | +3·3 | +0·7 | -0·4 |
| Apr. | -4·3 | +2·9 | -4·5 | +6·1 | +3·8 | +9·0 | +7·2 | -1·0 | -11·5 | -24·5 | -33·5 | *-34·5* | -26·5 | -11·0 | -0·2 | +18·4 | *+26·2* | +24·7 | +25·5 | +24·5 | +14·7 | +13·9 | +3·3 | -28·7 |
| May | +5·6 | +4·0 | +2·1 | +4·3 | +5·2 | -2·4 | -10·4 | -17·7 | -26·2 | -30·7 | *-35·1* | -32·1 | -28·5 | -20·9 | -5·3 | +13·2 | +24·1 | +33·9 | *+34·8* | +29·9 | +20·9 | +12·8 | +10·7 | +7·8 |
| June | +0·9 | +2·3 | +2·3 | +4·9 | +4·8 | -1·1 | -7·0 | -19·3 | -27·6 | -34·4 | *-37·0* | -33·1 | -29·5 | -17·8 | -1·3 | +14·1 | +28·4 | +30·0 | *+34·7* | +33·1 | +23·7 | +13·4 | +10·8 | +4·7 |
| July | -14·6 | -9·8 | -20·3 | -23·2 | -8·4 | -14·9 | -24·2 | -19·6 | -22·8 | -28·0 | *-32·7* | -27·7 | -20·2 | -4·3 | +9·5 | +25·5 | +33·2 | +36·5 | +33·1 | *+41·4* | +31·4 | +23·0 | +23·7 | +13·4 |
| Aug. | +9·7 | +9·0 | +5·5 | +6·3 | +5·0 | +1·3 | -3·8 | -14·4 | -25·6 | -34·7 | *-38·1* | -34·2 | -21·9 | -9·8 | -1·2 | +6·9 | +18·4 | +19·9 | +20·3 | *+22·8* | +19·2 | +17·8 | +11·9 | +9·7 |
| Sept. | +4·8 | +3·0 | -2·7 | -6·2 | 0·0 | -2·0 | -17·2 | -17·4 | -23·6 | -29·9 | *-35·9* | -32·4 | -21·5 | +2·1 | +8·6 | +25·3 | *+34·5* | +33·7 | +22·8 | +12·6 | +11·9 | +7·0 | +11·5 | +11·0 |
| Oct. | +7·4 | +6·7 | +6·1 | +8·9 | +12·4 | +11·1 | *+12·6* | +8·1 | -6·7 | -22·1 | -27·2 | *-28·2* | -23·8 | -15·3 | -8·2 | -2·8 | +1·1 | +5·4 | +7·8 | +8·6 | +8·8 | +10·7 | +10·4 | +8·2 |
| Nov. | +1·8 | +1·1 | +2·9 | +3·1 | +7·5 | *+9·4* | *+9·4* | +6·4 | +0·8 | -10·2 | -16·7 | *-18·7* | -14·7 | -11·3 | -9·5 | -5·2 | +1·3 | +5·3 | +5·3 | +7·9 | +8·3 | +5·1 | +5·4 | +5·3 |
| Dec. | +0·9 | +1·8 | +3·7 | +4·6 | +6·3 | *+9·3* | +8·9 | +5·7 | +1·2 | -6·7 | -9·6 | -13·5 | *-13·9* | -9·5 | -6·7 | -3·5 | -0·5 | +3·5 | +3·6 | +5·3 | +2·7 | +2·5 | +1·2 | +2·7 |
| Year | -1·0 | -0·2 | -1·4 | -0·2 | +3·7 | +3·1 | -0·5 | -4·7 | -12·7 | -20·2 | *-25·6* | -24·8 | -19·6 | -9·2 | 0·0 | +11·1 | +16·4 | *+17·9* | +17·5 | +17·5 | +13·0 | +9·2 | +7·9 | +2·6 |
| Winter | -5·3 | -2·1 | -0·1 | +1·9 | +5·3 | +7·5 | *+8·7* | +6·5 | +1·7 | -4·6 | -10·1 | *-13·1* | -10·9 | -7·5 | -3·9 | -1·6 | +2·3 | +4·6 | +4·5 | +5·0 | +4·3 | +2·3 | +3·1 | +1·5 |
| Equinox | +2·1 | +0·3 | -1·5 | -0·7 | +4·1 | +6·0 | +1·1 | -2·7 | -14·3 | -23·9 | *-31·0* | -29·7 | -22·8 | -6·9 | +3·4 | +19·9 | *+20·9* | +19·0 | +17·4 | +15·8 | +11·0 | +8·7 | +6·5 | -2·5 |
| Summer | +0·4 | +1·4 | -2·6 | -1·9 | +1·7 | -4·3 | -11·3 | -17·7 | -25·5 | -31·9 | *-35·7* | -31·8 | -25·0 | -13·2 | +0·4 | +14·9 | +26·0 | +30·1 | +30·7 | *+31·8* | +23·8 | +16·7 | +14·3 | +8·9 |

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

# DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

## INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

165 ESKDALEMUIR

### NORTH COMPONENT

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | −1·8 | −0·9 | −1·1 | +1·7 | +2·1 | *+4·7* | +4·2 | +3·6 | +1·3 | −2·9 | −6·4 | *−9·7* | −7·6 | −1·7 | +0·8 | +0·8 | +2·2 | +2·9 | +3·2 | +1·1 | +0·8 | +2·0 | +1·0 | −0·4 |
| Feb. | +4·9 | +2·5 | −0·1 | +1·4 | +3·0 | +6·1 | +9·2 | +9·4 | +7·2 | −1·5 | −10·8 | −17·3 | *−19·3* | −18·9 | −8·9 | −5·0 | −1·3 | 0·0 | +1·5 | +5·9 | +6·9 | *+10·0* | +8·9 | +6·5 |
| Mar. | +3·2 | +4·1 | +3·3 | +4·3 | +3·5 | +4·4 | +4·5 | +5·6 | −1·5 | −10·8 | *−19·6* | −18·7 | −18·4 | −12·9 | −9·4 | −2·7 | +1·5 | +3·8 | +6·0 | +8·5 | +8·2 | +11·0 | *+12·2* | +10·0 |
| Apr. | +7·9 | +6·4 | +5·7 | +7·0 | +7·8 | +9·1 | +6·9 | +3·9 | −4·3 | −17·9 | −28·7 | *−33·5* | −33·3 | −26·1 | −15·8 | −0·1 | +7·2 | *+15·4* | +14·3 | +13·5 | +11·9 | +13·2 | +14·7 | +14·9 |
| May | +4·7 | +7·8 | +5·4 | +5·1 | +5·7 | +3·9 | −2·0 | −9·7 | −18·0 | −27·8 | *−32·2* | −30·3 | −22·3 | −15·6 | −3·1 | +5·6 | +10·9 | +16·5 | +19·3 | *+22·1* | +20·6 | +15·4 | +9·1 | +8·7 |
| June | +3·1 | +5·5 | +3·5 | +6·5 | +8·8 | +8·0 | +1·2 | −8·2 | −12·0 | −20·7 | −30·5 | *−30·9* | −28·9 | −25·5 | −12·4 | −0·8 | +7·8 | +17·8 | *+22·3* | +21·2 | +20·7 | +16·3 | +14·7 | +12·7 |
| July | +5·2 | +3·2 | +3·8 | +5·9 | +8·9 | +7·9 | +1·0 | −8·7 | −17·5 | −27·7 | −35·9 | *−37·1* | −30·2 | −14·8 | +0·8 | +12·8 | +11·7 | +11·1 | +18·2 | *+19·9* | +18·8 | +17·6 | +14·5 | +10·6 |
| Aug. | +12·0 | +10·9 | +10·0 | +9·6 | +9·5 | +7·3 | +1·8 | −7·4 | −18·9 | −32·6 | *−36·2* | −32·1 | −25·3 | −18·0 | −8·5 | +2·4 | +8·6 | +11·6 | +12·4 | +16·7 | +16·6 | +16·0 | +16·3 | *+17·3* |
| Sept. | +11·1 | +7·3 | +7·6 | +4·4 | +7·8 | −12·0 | +9·2 | +3·2 | −6·7 | −20·4 | −32·6 | *−36·8* | −31·6 | −23·6 | −17·2 | −6·9 | −0·6 | +12·0 | +15·9 | +16·3 | +16·1 | +16·7 | +17·9 | *+19·0* |
| Oct. | +9·3 | +6·0 | +6·7 | +7·3 | +9·0 | +8·6 | +7·5 | +7·3 | −2·9 | −16·7 | −29·3 | *−33·3* | −30·9 | −23·3 | −13·7 | −4·3 | +1·3 | +5·8 | +11·5 | +13·2 | +15·6 | +15·5 | *+16·3* | +13·7 |
| Nov. | +3·1 | +2·7 | +3·3 | +3·3 | +5·7 | +6·9 | *+7·7* | +7·1 | +3·6 | −6·1 | −14·4 | *−19·2* | −18·5 | −13·5 | −8·4 | −3·4 | +1·2 | +3·7 | +5·6 | +6·7 | +6·8 | +7·5 | +5·5 | +3·0 |
| Dec. | +1·7 | +1·2 | +1·5 | +1·2 | +1·6 | +2·2 | +2·9 | +1·1 | −1·1 | −6·5 | −11·5 | *−15·7* | −14·6 | −8·6 | −6·0 | −2·7 | +1·3 | +4·8 | +8·0 | *+9·1* | +8·6 | +7·4 | +6·8 | +7·1 |
| Year | +5·4 | +4·7 | +4·1 | +4·8 | +6·1 | +6·8 | +4·5 | +0·6 | −5·9 | −15·9 | −24·0 | *−26·2* | −23·5 | −16·9 | −8·5 | −0·3 | +4·3 | +8·8 | +11·5 | *+12·9* | +12·6 | +12·4 | +11·5 | +10·3 |
| Winter | +2·0 | +1·4 | +0·9 | +1·9 | +3·1 | +4·9 | +6·0 | +5·4 | +2·8 | −4·3 | −10·8 | *−15·5* | −15·1 | −10·7 | −5·7 | −2·6 | +0·9 | +2·8 | +4·5 | +5·7 | +5·7 | *+6·8* | +5·6 | +4·1 |
| Equinox | +7·9 | +5·9 | +5·8 | +5·7 | +7·0 | +8·5 | +7·1 | +5·1 | −3·9 | −16·5 | −27·5 | *−30·6* | −28·6 | −21·5 | −14·1 | −3·6 | +2·3 | +9·2 | +11·9 | +12·9 | +13·0 | +14·0 | *+15·3* | +14·3 |
| Summer | +6·3 | +6·8 | +5·7 | +6·7 | +8·2 | +6·8 | +0·5 | −8·5 | −16·6 | −17·2 | *−33·8* | −32·7 | −26·6 | −18·5 | −5·8 | +5·0 | +9·8 | +14·3 | +18·1 | *+20·0* | +19·2 | +16·3 | +13·6 | +2·5 |

### WEST COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | −6·4 | −4·1 | −4·0 | −2·3 | −2·3 | −2·3 | −2·3 | −2·6 | −3·8 | −2·5 | −1·2 | +2·3 | +8·3 | *+12·5* | +9·3 | +6·6 | +6·0 | +5·9 | +4·0 | −0·5 | −1·3 | −4·4 | *−8·1* | −6·8 |
| Feb. | −6·8 | −5·9 | +0·1 | +1·5 | −2·8 | −2·7 | −5·1 | −7·2 | −12·2 | *−13·9* | −8·2 | +0·1 | +11·3 | *+15·7* | +14·5 | +10·6 | +5·6 | +3·8 | +1·9 | +3·7 | −0·1 | +0·2 | −1·8 | −2·1 |
| Mar. | +0·4 | +0·3 | −1·9 | −2·2 | −4·8 | −5·7 | −9·6 | −14·2 | *−18·7* | −15·9 | −6·9 | +7·3 | +16·1 | *+20·5* | +15·0 | +9·4 | +4·5 | +1·9 | −2·2 | +1·9 | +3·7 | +0·7 | −0·4 | +0·6 |
| Apr. | −1·7 | −0·5 | −2·1 | −4·9 | −5·7 | −8·8 | −16·0 | −24·9 | *−29·2* | −26·0 | −16·7 | −3·0 | +15·0 | *+25·4* | +23·7 | +21·2 | +16·2 | +12·2 | +7·5 | +6·5 | +5·9 | +5·3 | +3·1 | −2·5 |
| May | −5·2 | −3·1 | −6·4 | −9·5 | −15·1 | −23·5 | −32·7 | *−34·1* | −31·1 | −20·9 | −2·1 | +15·4 | +29·9 | *+36·2* | +35·8 | +27·1 | +18·8 | +11·4 | +7·1 | +5·6 | +2·7 | −1·1 | −2·7 | −2·5 |
| June | −2·1 | −2·8 | −2·9 | −8·2 | −12·4 | −20·7 | −26·5 | −30·5 | *−30·9* | −28·3 | −15·9 | +0·8 | +16·6 | +26·5 | *+30·2* | *+26·1* | +20·1 | +15·6 | +11·4 | +8·8 | +9·5 | +6·2 | +5·1 | +3·8 |
| July | +0·1 | −4·7 | −6·4 | −11·8 | −18·1 | −26·9 | *−32·7* | −32·3 | −29·8 | −23·9 | −16·1 | +1·9 | +20·0 | *+32·1* | +31·5 | +29·5 | +20·2 | +15·4 | +12·9 | +11·7 | +10·6 | +8·2 | +6·2 | +2·5 |
| Aug. | −2·4 | −3·9 | −4·5 | −6·2 | −12·1 | −18·8 | −26·7 | −31·8 | *−32·9* | −24·9 | −5·6 | +16·5 | +31·0 | *+34·9* | +30·0 | +19·6 | +8·0 | +2·2 | +2·9 | +7·4 | +6·3 | +4·9 | +3·2 | +2·8 |
| Sept. | −8·6 | −8·7 | −6·9 | −3·1 | −3·3 | −9·0 | −16·9 | −23·1 | *−26·1* | −23·9 | −15·3 | +2·5 | +20·3 | *+29·9* | +28·8 | +24·4 | +16·6 | +10·6 | +6·5 | +4·5 | +3·0 | −1·0 | 0·0 | −1·2 |
| Oct. | −0·5 | −4·1 | −4·6 | −6·3 | −6·7 | −9·0 | −7·6 | −14·9 | *−21·8* | −21·3 | −12·2 | +2·6 | +14·6 | *+20·4* | +19·5 | +13·4 | +7·3 | +8·0 | +8·4 | +7·1 | +6·4 | +2·4 | +2·0 | −3·0 |
| Nov. | −7·3 | −4·4 | −3·3 | −0·4 | −0·5 | −1·9 | −3·9 | −4·1 | −5·7 | *−10·0* | −6·8 | +2·1 | +11·5 | *+12·1* | +12·0 | +9·7 | +7·3 | +5·5 | +4·9 | +2·4 | +2·1 | −5·1 | −7·2 | −8·9 |
| Dec. | −6·8 | −5·7 | −2·7 | +0·3 | −0·9 | −3·1 | −5·2 | −8·0 | −9·8 | *−11·5* | −7·8 | 0·0 | +7·4 | *+11·4* | +10·5 | +8·9 | +7·2 | +6·6 | +5·6 | +4·5 | +1·3 | +1·6 | −0·9 | −2·8 |
| Year | −4·0 | −4·0 | −3·8 | −4·4 | −7·0 | −11·0 | −15·5 | −19·0 | *−21·0* | −18·6 | −9·5 | +4·1 | +16·8 | *+23·1* | +21·7 | +17·3 | +11·5 | +8·2 | +5·9 | +5·3 | +4·2 | +1·5 | −0·1 | −1·7 |
| Winter | −6·8 | −5·1 | −2·5 | −0·2 | −1·6 | −2·5 | −4·1 | −5·5 | −7·9 | *−9·5* | −6·0 | +1·1 | +9·6 | *+12·9* | +11·6 | +9·0 | +6·5 | +5·4 | +4·1 | +2·5 | +0·5 | −1·9 | −4·5 | −5·2 |
| Equinox | −2·6 | −3·3 | −3·9 | −4·1 | −5·1 | −8·1 | −12·5 | −19·3 | *−24·0* | −21·8 | −12·7 | +2·4 | +16·5 | *+24·1* | +21·7 | +17·1 | +11·2 | +8·2 | +5·1 | +5·0 | +4·8 | +1·8 | +1·2 | −1·6 |
| Summer | −2·4 | −3·7 | −5·0 | −8·9 | −14·5 | −22·5 | −29·6 | *−32·2* | −31·2 | −24·5 | −10·0 | +8·6 | +24·4 | *+32·4* | +31·9 | +25·7 | +16·8 | +11·1 | +8·6 | +8·4 | +7·3 | +4·5 | +3·0 | +1·7 |

### VERTICAL COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | +1·2 | −0·3 | −0·4 | −1·1 | −0·9 | −2·2 | −2·7 | −3·1 | *−3·2* | −1·9 | −0·6 | +0·1 | −1·0 | −0·3 | +1·0 | +0·5 | +0·3 | +0·6 | +1·1 | +1·7 | +2·0 | +3·3 | *+3·4* | +2·5 |
| Feb. | +0·7 | −0·6 | −0·9 | −1·9 | −1·1 | −1·6 | −2·1 | −2·7 | −1·5 | −0·6 | −5·9 | *−7·5* | −6·1 | −1·8 | +1·7 | +3·9 | +4·1 | +4·6 | *+4·9* | +3·9 | +3·5 | +3·0 | +2·3 | +1·7 |
| Mar. | +0·3 | +1·3 | +1·2 | +1·9 | +1·9 | +1·5 | +0·7 | +1·3 | +1·0 | −2·1 | −6·9 | *−11·3* | *−11·3* | −8·3 | −1·8 | +1·7 | +2·1 | +3·5 | *+5·7* | +5·1 | +3·8 | +3·7 | +2·9 | +2·1 |
| Apr. | +2·7 | +1·8 | +2·3 | +3·7 | +3·5 | +3·2 | +3·3 | +1·9 | −0·3 | −5·6 | −10·1 | *−12·3* | *−12·3* | −9·8 | −4·7 | −0·9 | +2·1 | +6·0 | *+6·9* | +6·5 | +4·1 | +3·2 | +2·9 | +1·9 |
| May | +3·6 | +1·1 | 0·0 | +2·1 | +5·1 | +5·0 | +5·9 | +3·9 | +0·8 | −6·1 | −15·2 | *−21·1* | −19·6 | −11·7 | −6·0 | +1·5 | +4·7 | +8·2 | *+8·9* | +7·5 | +6·6 | +6·3 | +5·2 | +3·3 |
| June | +1·3 | +1·6 | +1·5 | +1·5 | +2·1 | +4·6 | +3·1 | +0·7 | −1·7 | −3·2 | −8·1 | −14·7 | *−14·9* | −10·8 | *−6·5* | −1·9 | +4·9 | +9·2 | *+10·9* | +8·9 | +5·1 | +3·8 | +1·9 | +0·7 |
| July | −1·0 | +0·1 | +1·5 | +3·6 | +5·3 | +5·5 | +2·4 | −0·9 | −3·7 | −4·4 | −8·5 | *−12·5* | −12·2 | −8·3 | −5·3 | +0·8 | +5·9 | *+8·3* | +7·4 | +6·7 | +5·7 | +3·2 | +0·9 | −0·5 |
| Aug. | +3·7 | +3·5 | +3·7 | +3·9 | +4·5 | +6·5 | *+6·7* | +6·5 | +5·1 | −3·5 | −13·1 | *−18·9* | −17·5 | −9·9 | −0·7 | +2·9 | +5·1 | +3·5 | +0·3 | −0·5 | +1·3 | +2·3 | +2·7 | +1·9 |
| Sept. | +0·4 | −0·1 | +0·6 | +1·9 | −0·9 | +0·6 | +2·1 | +2·9 | +1·0 | −2·3 | −5·8 | −11·3 | *−15·2* | −10·5 | −3·0 | +3·5 | +5·3 | +7·0 | +6·5 | +5·3 | +4·0 | +3·9 | +2·6 | +1·5 |
| Oct. | −3·5 | −1·0 | +0·7 | +1·8 | +2·4 | +2·5 | +2·0 | +2·8 | +2·5 | −2·2 | −5·3 | *−6·0* | −5·9 | −4·2 | −0·5 | +2·6 | *+3·4* | +2·1 | +1·6 | +1·4 | +0·5 | +0·6 | +0·7 | +1·0 |
| Nov. | −0·3 | −0·3 | −0·7 | −0·5 | −0·5 | −0·8 | −1·1 | −1·9 | −1·1 | +0·1 | −1·9 | *−2·7* | −1·3 | −1·1 | +0·9 | +2·9 | *+3·3* | +3·0 | +2·1 | +1·7 | +0·5 | +0·1 | −0·3 | −0·1 |
| Dec. | +1·0 | +0·9 | +0·4 | +0·2 | 0·0 | −0·3 | −0·4 | −0·2 | +0·6 | −1·1 | −2·4 | −1·8 | −2·4 | *−3·5* | −1·8 | +1·4 | *+2·6* | +2·1 | +1·4 | +0·8 | +1·2 | +0·5 | +0·2 | +0·6 |
| Year | +0·8 | +0·7 | +0·8 | +1·4 | +1·8 | +2·0 | +1·7 | +0·9 | 0·0 | −2·7 | −7·0 | *−10·0* | *−10·0* | −6·7 | −2·2 | +1·6 | +3·7 | *+4·8* | *+4·8* | +4·1 | +3·2 | +2·8 | +2·1 | +1·4 |
| Winter | +0·7 | −0·1 | −0·4 | −0·8 | −0·6 | −1·2 | −1·6 | −2·0 | −1·3 | −0·9 | −2·7 | *−3·0* | −2·7 | −1·7 | +0·5 | +2·2 | *+2·6* | *+2·6* | +2·4 | +2·0 | +1·8 | +1·7 | +1·4 | +1·2 |
| Equinox | 0·0 | +0·5 | +1·2 | +2·3 | +1·7 | +1·9 | +2·0 | +2·2 | +1·1 | −3·1 | −7·0 | −10·2 | *−11·2* | −8·2 | −2·5 | +1·7 | +3·2 | +4·7 | *+5·2* | +4·6 | +3·1 | +2·9 | +2·5 | +1·6 |
| Summer | +1·9 | +1·6 | +1·7 | +2·8 | +4·3 | +5·4 | +4·5 | +2·5 | +0·1 | −4·3 | −11·2 | *−16·8* | −16·1 | −10·2 | −4·6 | +0·8 | +5·1 | *+7·3* | +6·9 | +5·7 | +4·7 | +3·9 | +2·7 | +1·3 |

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

INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

166 ESKDALEMUIR

DECLINATION (measured positive towards the west)

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| Jan. | -1·22 | -0·80 | -0·77 | -0·54 | -0·56 | -0·68 | -0·66 | -0·68 | -0·83 | -0·38 | +0·04 | +0·90 | +2·02 | *+2·62* | +1·85 | +1·30 | +1·12 | +1·06 | +0·68 | -0·16 | -0·29 | -0·98 | *-1·68* | -1·36 |
| Feb. | -1·60 | -1·32 | +0·02 | +0·24 | -0·70 | -0·81 | -1·44 | -1·88 | *-2·80* | -2·76 | -1·20 | +0·78 | +3·14 | *+4·02* | +3·34 | +2·38 | +1·20 | +0·77 | +0·32 | +0·50 | -0·32 | -0·40 | -0·76 | -0·72 |
| Mar. | -0·06 | -0·12 | -0·54 | -0·64 | -1·12 | -1·34 | -2·14 | -3·14 | *-3·74* | -2·76 | -0·54 | +2·30 | +4·08 | *+4·74* | +3·46 | +2·04 | +0·86 | +0·22 | -0·70 | +0·02 | +0·40 | -0·34 | -0·62 | -0·32 |
| Apr. | -0·70 | -0·38 | -0·67 | -1·30 | -1·50 | -2·18 | -3·56 | -5·24 | *-5·75* | -4·50 | -2·14 | +0·86 | +4·50 | *+6·30* | +5·51 | +4·32 | +2·98 | +1·80 | +0·90 | +0·72 | +0·69 | +0·50 | 0·00 | -1·16 |
| May | -1·26 | -0·97 | -1·54 | -2·15 | -3·33 | -4·96 | *-6·57* | -6·51 | -5·54 | -3·03 | +0·98 | +4·45 | +7·06 | *+8·05* | +7·42 | +5·27 | +3·35 | +1·60 | +0·59 | +0·17 | -0·36 | -0·89 | -0·94 | -0·89 |
| June | -0·56 | -0·82 | -0·74 | -1·96 | -2·90 | -4·57 | -5·44 | *-5·84* | -5·76 | -4·86 | -1·90 | +1·52 | +4·64 | +6·50 | *+6·68* | +5·46 | +3·74 | +2·39 | +1·34 | +0·86 | +1·04 | +0·56 | +0·40 | +0·22 |
| July | -0·20 | -1·10 | -1·46 | -2·66 | -4·08 | -5·82 | *-6·70* | -6·18 | -5·30 | -3·66 | -1·70 | +2·00 | +5·38 | *+7·18* | +6·38 | +5·44 | +3·60 | +2·64 | +1·82 | +1·52 | +1·34 | +0·90 | +0·62 | +0·04 |
| Aug. | -1·01 | -1·26 | -1·34 | -1·67 | -2·88 | -4·14 | -5·51 | *-6·14* | -5·88 | -3·65 | +0·44 | +4·74 | +7·41 | *+7·88* | +6·48 | +3·89 | +1·26 | -0·06 | +0·05 | +0·78 | +0·56 | +0·29 | -0·06 | -0·18 |
| Sept. | -2·24 | -2·09 | -1·73 | -0·82 | -1·01 | -2·35 | -3·84 | -4·85 | *-5·03* | -3·98 | -1·69 | +2·11 | +5·50 | *+7·11* | +6·61 | +5·26 | +3·41 | +1·63 | +0·64 | +0·21 | -0·09 | -0·92 | -0·77 | -1·07 |
| Oct. | -0·51 | -1·10 | -1·22 | -1·59 | -1·76 | -2·20 | -1·87 | -3·36 | *-4·30* | -3·61 | -1·20 | +1·98 | +4·31 | *+5·16* | +4·56 | +2·91 | +1·42 | +1·38 | +1·21 | +0·86 | +0·62 | -0·19 | -0·30 | -1·20 |
| Nov. | -1·61 | -1·01 | -0·82 | -0·23 | -0·35 | -0·69 | -1·13 | -1·15 | -1·32 | -1·77 | -0·75 | +1·27 | *+3·15* | +3·05 | +2·80 | +2·13 | +1·43 | +0·95 | +0·75 | +0·19 | +0·14 | -1·37 | -1·71 | *-1·95* |
| Dec. | -1·46 | -1·22 | -0·62 | 0·00 | -0·26 | -0·73 | -1·18 | -1·68 | -1·94 | *-2·06* | -1·08 | +0·68 | +2·14 | *+2·70* | +2·40 | +1·94 | +1·40 | +1·13 | +0·80 | +0·52 | -0·12 | 0·00 | -0·48 | -0·88 |
| Year | -1·04 | -1·02 | -0·95 | -1·11 | -1·70 | -2·54 | -3·34 | -3·89 | *-4·02* | -3·09 | -0·89 | +1·97 | +4·44 | *+5·44* | +4·79 | +3·53 | +2·15 | +1·29 | +0·70 | +0·52 | +0·30 | -0·24 | -0·53 | -0·79 |
| Winter | -1·47 | -1·09 | -0·55 | -0·13 | -0·47 | -0·73 | -1·10 | -1·35 | -1·72 | *-1·74* | -0·75 | +0·91 | +2·61 | *+3·10* | +2·60 | +1·94 | +1·29 | +0·98 | +0·64 | +0·26 | -0·15 | -0·69 | -1·16 | -1·23 |
| Equinox | -0·88 | -0·92 | -1·04 | -1·09 | -1·35 | -2·02 | -2·85 | -4·15 | *-4·71* | -3·71 | -1·39 | +1·81 | +4·60 | *+5·83* | +5·03 | +3·63 | +2·17 | +1·26 | +0·51 | +0·45 | +0·41 | -0·24 | -0·42 | -0·94 |
| Summer | -0·76 | -1·04 | -1·27 | -2·11 | -3·30 | -4·87 | -6·05 | *-6·17* | -5·62 | -3·80 | -0·55 | +3·18 | +6·12 | *+7·40* | +6·74 | +5·01 | +2·99 | +1·64 | +0·95 | +0·83 | +0·65 | +0·21 | +0·01 | -0·20 |

INCLINATION

| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | +0·24 | +0·11 | +0·12 | -0·11 | -0·13 | *-0·33* | -0·31 | -0·28 | -0·11 | +0·18 | +0·42 | *+0·61* | +0·36 | -0·07 | -0·16 | -0·14 | -0·22 | -0·26 | -0·24 | -0·03 | +0·02 | +0·01 | +0·13 | +0·18 |
| Feb. | -0·21 | -0·10 | -0·01 | -0·16 | -0·18 | -0·40 | -0·58 | *-0·59* | -0·34 | +0·28 | +0·68 | +0·95 | +0·96 | *+0·98* | +0·43 | +0·28 | +0·11 | +0·06 | -0·01 | -0·34 | -0·37 | *-0·59* | -0·50 | -0·36 |
| Mar. | -0·21 | -0·24 | -0·16 | -0·20 | -0·11 | *-0·17* | -0·15 | -0·14 | +0·39 | +0·89 | *+1·22* | +0·85 | +0·70 | +0·35 | +0·36 | +0·09 | -0·11 | -0·19 | -0·22 | -0·46 | -0·50 | -0·64 | *-0·72* | -0·61 |
| Apr. | -0·43 | -0·37 | -0·29 | -0·30 | -0·34 | -0·39 | -0·15 | +0·14 | +0·69 | +1·41 | +1·88 | *+1·95* | +1·68 | +1·12 | +0·59 | -0·32 | -0·65 | *-1·04* | -0·88 | -0·82 | -0·77 | -0·87 | -0·94 | -0·90 |
| May | -0·15 | -0·45 | -0·26 | -0·15 | -0·04 | +0·20 | +0·74 | +1·22 | +1·64 | *+1·98* | +1·77 | +1·26 | +0·56 | +0·22 | -0·45 | -0·72 | -0·87 | -1·04 | -1·15 | *-1·35* | -1·23 | -0·84 | -0·43 | -0·46 |
| June | -0·14 | -0·28 | -0·15 | -0·27 | -0·35 | -0·12 | +0·37 | +0·99 | +1·19 | +1·69 | *+2·04* | +1·66 | +1·30 | +1·04 | +0·23 | -0·37 | -0·67 | -1·17 | -1·36 | -1·30 | *-1·37* | -1·07 | -0·99 | -0·87 |
| July | -0·37 | -0·14 | -0·13 | -0·13 | -0·20 | -0·01 | +0·46 | +1·01 | +1·49 | +2·05 | *+2·38* | +2·11 | +1·40 | +0·31 | -0·63 | -1·24 | -0·91 | -0·74 | -1·20 | *-1·31* | -1·25 | -1·19 | -1·02 | -0·75 |
| Aug. | -0·66 | -0·58 | -0·50 | -0·45 | -0·34 | -0·05 | +0·43 | +1·10 | +1·84 | *+2·41* | +2·14 | +1·41 | +0·79 | +0·45 | +0·12 | -0·37 | -0·55 | -0·71 | -0·85 | *-1·22* | -1·15 | -1·07 | -1·05 | -1·13 |
| Sept. | -0·60 | -0·36 | -0·39 | -0·20 | -0·49 | -0·65 | -0·32 | +0·19 | +0·83 | +1·62 | *+2·22* | +2·11 | +1·42 | +0·88 | +0·65 | +0·20 | -0·06 | -0·76 | -0·98 | -1·01 | -1·01 | -0·99 | -1·11 | *-1·20* |
| Oct. | -0·69 | -0·36 | -0·36 | -0·35 | -0·44 | -0·38 | -0·34 | -0·20 | +0·56 | +1·35 | +1·97 | *+2·01* | +1·69 | +1·15 | +0·62 | +0·16 | -0·11 | -0·44 | -0·84 | -0·94 | *-1·11* | -1·04 | -1·09 | -0·84 |
| Nov. | -0·10 | -0·12 | -0·19 | -0·22 | -0·38 | -0·45 | *-0·48* | -0·46 | -0·18 | +0·55 | +1·00 | *+1·17* | +1·03 | +0·69 | +0·41 | +0·16 | -0·10 | -0·25 | -0·39 | -0·44 | -0·47 | -0·42 | -0·27 | -0·08 |
| Dec. | +0·01 | +0·02 | -0·05 | -0·08 | -0·09 | -0·11 | -0·13 | +0·03 | +0·22 | +0·57 | +0·81 | *+0·99* | +0·80 | +0·32 | +0·20 | +0·09 | -0·13 | -0·36 | -0·57 | *-0·64* | -0·56 | -0·50 | -0·43 | -0·42 |
| Year | -0·28 | -0·24 | -0·20 | -0·22 | -0·26 | -0·24 | -0·04 | +0·25 | +0·69 | +1·25 | *+1·55* | +1·42 | +1·06 | +0·62 | +0·19 | -0·18 | -0·35 | -0·57 | -0·72 | *-0·82* | -0·81 | -0·77 | -0·70 | -0·62 |
| Winter | -0·02 | -0·02 | -0·03 | -0·14 | -0·20 | -0·32 | *-0·38* | -0·33 | -0·11 | +0·40 | +0·73 | *+0·93* | +0·79 | +0·48 | +0·22 | +0·10 | -0·08 | -0·20 | -0·30 | -0·36 | -0·34 | -0·38 | -0·27 | -0·17 |
| Equinox | -0·49 | -0·33 | -0·30 | -0·26 | -0·35 | -0·40 | -0·24 | -0·01 | +0·62 | +1·32 | *+1·82* | +1·73 | +1·37 | +0·87 | +0·56 | +0·03 | -0·23 | -0·60 | -0·73 | -0·81 | -0·85 | -0·88 | *-0·96* | -0·88 |
| Summer | -0·33 | -0·36 | -0·26 | -0·25 | -0·23 | +0·01 | +0·50 | +1·08 | +1·54 | +2·03 | *+2·09* | +1·61 | +1·01 | +0·51 | -0·18 | -0·67 | -0·76 | -0·92 | -1·14 | *-1·29* | -1·25 | -1·04 | -0·87 | -0·80 |

HORIZONTAL

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -3·1 | -1·8 | -1·9 | +1·2 | +1·6 | *+4·1* | +3·6 | +3·0 | +0·5 | -3·4 | -6·5 | *-9·0* | -5·7 | +1·0 | +2·7 | +2·2 | +3·4 | *+4·1* | +4·0 | +1·0 | +0·5 | +1 0 | -0·7 | -1·8 |
| Feb. | +3·3 | +1·2 | -0·1 | +1·7 | +2·3 | +5·4 | +7·9 | +7·7 | +4·5 | -4·4 | -12·3 | *-16·9* | -16·5 | -15·2 | -5·7 | -2·7 | -0·1 | +0·8 | +1·9 | +6·5 | +6·7 | *+9·8* | +8·3 | +5·9 |
| Mar. | +3·2 | +4·1 | +2·8 | +3·7 | +2·4 | +3·1 | +2·4 | +2·5 | -5·4 | -13·9 | *-20·6* | -16·7 | -14·6 | -8·3 | -6·0 | -0·7 | +2·4 | +4·1 | +5·4 | +8·7 | +8·8 | +10·9 | *+11·8* | +9·9 |
| Apr. | +7·4 | +6·2 | +5·1 | +5·8 | +6·4 | +7·0 | +3·4 | -1·4 | -10·3 | -23·0 | -31·6 | *-33·4* | -29·4 | -20·2 | -10·5 | +4·4 | +10·4 | *+17·6* | +15·6 | +14·6 | +12·9 | +14·0 | +15·0 | +14·0 |
| May | +3·5 | +7·0 | +3·9 | +3·0 | +2·4 | -1·1 | -8·8 | -16·6 | -24·1 | -31·6 | *-31·9* | -26·4 | -15·5 | -7·6 | +4·5 | +11·2 | +14·6 | +18·5 | +20·4 | *+22·8* | +20·7 | +14·8 | +8·3 | +8·0 |
| June | +2·6 | +4·8 | +2·8 | +4·6 | +6·0 | +3·5 | -4·4 | -14·4 | -18·2 | -26·2 | *-33·2* | -30·0 | -24·8 | -19·4 | -5·8 | +4·8 | +11·8 | +20·7 | *+24·2* | +22·6 | +22·2 | +17·2 | +15·4 | +13·2 |
| July | +5·1 | +2·1 | +2·4 | +3·3 | +4·9 | +2·1 | -5·9 | -15·3 | -23·4 | -32·1 | *-38·5* | -35·9 | -25·3 | -7·7 | +7·4 | +18·7 | +15·7 | +14·1 | +20·5 | *+21·9* | +20·6 | +18·9 | +15·5 | +10·9 |
| Aug. | +11·2 | +9·9 | +8·8 | +8·1 | +6·7 | +3·2 | -3·9 | -13·9 | -25·4 | *-37·1* | -36·6 | -27·9 | -18·2 | -10·3 | -2·0 | +6·5 | +10·1 | +11·8 | +12·7 | *+17·9* | +17·6 | +16·7 | +16·6 | +17·5 |
| Sept. | +9·1 | +5·3 | +6·0 | +3·7 | +6·9 | +9·9 | +5·5 | -1·7 | -12·0 | -24·9 | -35·1 | *-35·5* | -26·7 | -16·9 | -10·8 | -1·7 | +2·9 | +13·9 | +16·9 | +16·9 | +16·4 | +16·1 | +17·5 | *+18·3* |
| Oct. | +9·0 | +5·0 | +5·6 | +5·8 | +7·4 | +6·5 | +5·8 | +4·0 | -7·4 | -20·8 | -31·2 | *-32·0* | -27·2 | -18·6 | -9·4 | -1·4 | +2·8 | +7·3 | +13·0 | +14·4 | *+16·6* | +15·6 | +16·4 | +12·8 |
| Nov. | +1·5 | +1·7 | +2·5 | +3·1 | +5·5 | +6·4 | +6·7 | +6·1 | +2·3 | -8·1 | -15·5 | *-18·3* | -15·7 | -10·7 | -5·7 | -1·3 | +2·7 | +4·8 | +6·5 | *+7·1* | *+7·1* | +6·3 | +3·9 | +1·1 |
| Dec. | +0·3 | 0·0 | +0·9 | +1·2 | +1·4 | +1·5 | +1·8 | -0·6 | -3·1 | -8·8 | -12·9 | *-15·4* | -12·7 | -6·0 | -3·7 | -0·8 | +2·8 | +6·1 | +9·0 | *+9·8* | +8·7 | +7·6 | +6·5 | +6·4 |
| Year | +4·4 | +3·8 | +3·2 | +3·8 | +4·5 | +4·3 | +1·2 | -3·4 | -10·2 | -19·5 | *-25·5* | -24·8 | -19·4 | -11·7 | -3·7 | +3·3 | +6·6 | +10·3 | +12·5 | *+13·7* | +13·2 | +12·4 | +11·2 | +9·7 |
| Winter | +0·5 | +0·3 | +0·3 | +1·8 | +2·7 | +4·3 | +5·0 | +4·1 | +1·1 | -6·2 | -11·8 | *-14·9* | -12·7 | -7·7 | -3·1 | -0·7 | +2·2 | +3·9 | +5·3 | +6·1 | +5·7 | *+6·2* | +4·5 | +2·9 |
| Equinox | +7·2 | +5·1 | +4·9 | +4·7 | +5·8 | +6·6 | +4·3 | +0·9 | -8·8 | -20·7 | *-29·6* | -29·4 | -24·5 | -16·0 | -9·2 | +0·1 | +4·6 | +10·7 | +12·7 | +13·7 | +13·7 | +14·1 | *+15·2* | +13·7 |
| Summer | +5·6 | +5·9 | +4·5 | +4·7 | +5·0 | +1·9 | -5·7 | -15·1 | -22·8 | -31·7 | *-35·1* | -30·1 | -20·9 | -11·3 | +1·0 | +10·3 | +13·1 | +16·3 | +19·5 | *+21·3* | +20·3 | +16·9 | +13·9 | +12·4 |

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

# DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE

## INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

167 ESKDALEMUIR

### NORTH COMPONENT

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| Jan. | +3·0 | +3·6 | +3·0 | +16·5 | +21·4 | +11·4 | +22·0 | +19·1 | +11·8 | +13·3 | +6·1 | -12·7 | -18·9 | -16·8 | -4·7 | -13·9 | -2·2 | -6·9 | -8·7 | -20·0 | -18·6 | -10·2 | +8·6 | -6·3 |
| Feb. | -122·3 | -58·5 | -23·7 | -15·0 | +6·1 | +15·7 | +12·4 | +5·2 | +1·1 | +11·4 | -6·0 | +3·1 | 0·0 | +0·3 | +8·1 | +9·8 | +33·5 | +32·6 | +28·3 | +21·3 | +20·5 | +5·5 | +13·6 | -3·0 |
| Mar. | +6·3 | -40·7 | -9·8 | -69·9 | -0·8 | +12·3 | -1·0 | -14·5 | -56·7 | -37·6 | -59·4 | -26·2 | -8·3 | +28·5 | +83·6 | +200·0 | +88·5 | +28·0 | +8·4 | +28·5 | -16·1 | -47·7 | -58·5 | -36·9 |
| Apr. | -35·5 | -4·3 | -41·3 | +28·9 | +8·7 | +29·3 | +28·1 | +1·3 | -8·7 | -16·9 | -35·4 | -32·3 | -23·9 | +9·3 | +22·1 | +74·5 | +100·3 | +62·1 | +46·5 | +37·0 | +1·9 | +3·0 | -39·1 | -215·4 |
| May | +6·2 | +1·1 | +5·9 | +6·3 | +7·7 | +6·1 | -21·8 | -38·2 | -39·8 | -19·3 | -35·7 | -37·7 | -44·7 | -38·5 | -15·0 | +14·3 | +45·1 | +68·0 | +60·7 | +31·3 | +14·7 | +2·3 | +18·3 | +2·6 |
| June | +6·6 | -0·2 | +6·5 | +10·7 | +6·5 | -5·9 | -8·7 | -16·5 | -32·4 | -38·8 | -44·6 | -41·6 | -46·1 | -19·4 | +13·3 | +29·2 | +49·6 | +50·3 | +48·6 | +33·3 | +10·4 | +0·2 | +4·7 | -15·5 |
| July | -92·0 | -49·1 | -113·7 | -142·4 | -62·1 | -83·8 | -114·0 | -22·3 | +6·5 | +1·3 | -5·5 | -13·1 | -1·6 | +16·9 | +33·7 | +55·1 | +72·7 | +97·5 | +79·6 | +126·2 | +71·5 | +44·2 | +71·1 | +23·3 |
| Aug. | +20·0 | +22·7 | +9·5 | +13·5 | +4·5 | +0·6 | +9·8 | -7·7 | -22·9 | -36·7 | -54·5 | -53·8 | -35·1 | -11·3 | -1·3 | +4·5 | +34·3 | +33·1 | +21·1 | +21·7 | +14·0 | +14·3 | -2·2 | +2·1 |
| Sept. | +21·2 | +25·4 | -18·8 | -57·0 | -36·7 | -56·1 | -131·0 | -86·3 | -65·4 | -54·3 | -57·3 | -39·8 | -9·7 | +83·5 | +71·0 | +120·6 | +128·5 | +88·9 | +40·5 | +15 9 | +18·3 | -12·5 | +7·5 | +3·6 |
| Oct. | +4·8 | +3·2 | +8·3 | +12·4 | +20·6 | +19·1 | +18·8 | +15·3 | +0·1 | -16·9 | -20·9 | -26·4 | -27·3 | -16·7 | -10·7 | -0·5 | +0·8 | +3·6 | +1·5 | -0·6 | +4·2 | +5·8 | +5·9 | -4·2 |
| Nov. | +10·1 | +8·4 | +11·3 | +10·9 | +19·3 | +23·8 | +21·0 | +15·5 | +11·3 | -7·3 | -22·0 | -27·4 | -20·0 | -28·5 | -30·7 | -23·3 | -12·5 | -7·9 | -2·1 | +4·1 | +12·8 | +4·4 | +12·7 | +16·0 |
| Dec. | +9·8 | +11·3 | +9·1 | +7·8 | +10·0 | +15·5 | +16·8 | +10·9 | +5·2 | -1·5 | -5·9 | -17·8 | -27·1 | -19·9 | -12·0 | -11·6 | -8·3 | +2·2 | -2·6 | +5·7 | -6·0 | +2·5 | -0·2 | +6·1 |
| Year | -13·5 | -6·5 | -12·8 | -14·8 | +0·4 | -1·0 | -12·3 | -9·9 | -15·7 | -16·9 | -28·4 | -27·2 | -21·9 | -1·1 | +13·1 | +38·2 | +44·2 | +37·6 | +26·8 | +25·4 | +10·6 | +1·0 | +3·5 | -18·9 |
| Winter | -24·8 | -8·7 | -0·1 | +5·0 | +14·2 | +16·6 | +18·0 | +12·6 | +7·3 | +4·0 | -6·9 | -13·7 | -16·5 | -16·2 | -9·9 | -9·7 | +2·6 | +5·0 | +3·7 | +2·8 | +2·2 | +0·5 | +8·7 | +3·2 |
| Equinox | -0·8 | -4·1 | -15·4 | -21·4 | -2·1 | +1·1 | -21·3 | -21·0 | -32·6 | -31·5 | -43·2 | -31·2 | -17·3 | +26·1 | +41·5 | +98·6 | +79·5 | +45·6 | +24·2 | +20·1 | +2·1 | -12·9 | -21·0 | -63·1 |
| Summer | -14·8 | -6·3 | -22·9 | -27·9 | -10·9 | -20·7 | -33·7 | -21·1 | -22·1 | -23·3 | -35·1 | -36·6 | -31·9 | -13·1 | +7·7 | +25·8 | +50·4 | +62·2 | +52·5 | +53·1 | +27·6 | +15·3 | +23·0 | +3·1 |

### WEST COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -14·3 | -7·4 | +0·7 | +0·1 | -4·3 | +10·4 | +13·9 | +20·8 | +18·9 | +15·1 | +13·7 | +11·7 | +26·3 | +17·1 | +19·4 | +16·9 | +0·9 | +11·4 | -27·1 | -34·4 | -31·8 | -37·2 | -18·6 | -22·1 |
| Feb. | -73·6 | -33·7 | -27·6 | -16·7 | -17·7 | +9·5 | +7·8 | +13·7 | -2·0 | +5·1 | -1·7 | -3·2 | +29·4 | +32·6 | +36·5 | +33·6 | +27·7 | +18·4 | +20·9 | +4·5 | -2·2 | -36·8 | -1·3 | -23·2 |
| Mar. | -25·3 | -58·4 | -36·8 | -47·0 | -7·1 | -0·5 | +4·6 | +5·0 | -12·9 | +11·1 | +14·0 | +18·5 | -11 1 | +15·4 | +51·2 | +72·0 | +48·3 | +38·5 | +20·1 | -18·7 | -8·1 | -24·9 | -20·4 | -27·5 |
| Apr. | -46·5 | -27·7 | -34·3 | -35·6 | -15·0 | +5·7 | -1·6 | +6·5 | -6·4 | -1·6 | +8·7 | +24·8 | +36·3 | +52·0 | +45·8 | +61·3 | +41·9 | +25·9 | +28·7 | +6·0 | -5·8 | -23·1 | -39·9 | -106·1 |
| May | -8·4 | -13·5 | -2·9 | -13·2 | -19·7 | -18·2 | -16·8 | -7·9 | -14·4 | -9·4 | -10·6 | +7·6 | +17·3 | +19·0 | +25·4 | +31·4 | +28·3 | +17·1 | +8·8 | -0·9 | -1·1 | -0·9 | -1·0 | -15·9 |
| June | -10·2 | -8·9 | -11·9 | -17·7 | -28·6 | -35·0 | -41·0 | -37·0 | -31·2 | -25·5 | -8·1 | +7·3 | +30·3 | +40·3 | +52·4 | +38·9 | +45·7 | +33·1 | +31·5 | +16·8 | -2·5 | -8·0 | -16·5 | -14·1 |
| July | -36·6 | -57·8 | -64·3 | -70·8 | -28·0 | -43·0 | -15·0 | -37·3 | -31·7 | -28·8 | -1·3 | +16·6 | +35·2 | +40·4 | +49·9 | +50·6 | +40·8 | +40·0 | +29·6 | +36·4 | +38·9 | +19·5 | +4·1 | +12·8 |
| Aug. | -0·8 | -13·4 | -30·6 | -14·2 | -2·9 | -8·9 | -17·9 | -34·7 | -31·5 | -26·2 | -12·8 | +3·6 | +23·2 | +39·3 | +44·9 | +39·2 | +43·3 | +17·9 | +3·9 | +3·6 | -7·1 | +0·3 | -6·8 | -11·5 |
| Sept. | -5·1 | -19·3 | -25·5 | -25·9 | -20·5 | -13·5 | -14·9 | -33·7 | -34·4 | -11·8 | -4·9 | -10·1 | +25·7 | +44·6 | +68·3 | +89·2 | +56·0 | +26·9 | +13·2 | -25·3 | -14·6 | -24·6 | -37·3 | -29·4 |
| Oct. | -29·7 | -15·8 | -35·6 | -27·1 | -11·6 | +7·5 | +2·6 | +0·6 | -5·7 | -2·4 | +8·2 | +21·8 | +30·8 | +36·0 | +35·4 | +30·6 | +18·1 | +13·9 | +12·7 | -3·3 | -13·4 | -29·1 | -21·4 | -23·0 |
| Nov. | -10·5 | -11·3 | -6·9 | -4·8 | +0·8 | -0·8 | +0·8 | +7·3 | +2·6 | -1·0 | +2·1 | +16·0 | +27·1 | +28·5 | +19·5 | +8·0 | +15·2 | +5·1 | -6·9 | -8·0 | -10·3 | -16·4 | -30·3 | -25·9 |
| Dec. | -9·4 | -5·9 | -3·5 | -1·9 | +0·3 | +1·0 | -0·1 | +0·8 | +0·6 | -2·6 | +2·5 | +9·5 | +14·7 | +19·5 | +22·8 | +14·2 | +12·3 | +4·1 | +0·6 | -12·5 | -9·4 | -16·6 | -24·0 | -17·3 |
| Year | -22·5 | -22·7 | -23·2 | -22·9 | -12·9 | -4·9 | -6·5 | -7·9 | -12·3 | -6·5 | +0·8 | +10·3 | +23·7 | +32·1 | +39·3 | +40·5 | +31·5 | +21·0 | +11·3 | -3·0 | -5·6 | -16·5 | -17·8 | -25·2 |
| Winter | -26·9 | -14·5 | -9·3 | -5·8 | -5·3 | +5·0 | +5·6 | +10·7 | +4·9 | +4·1 | +4·2 | +8·5 | +24·4 | +24·5 | +24·6 | +18·2 | +14·0 | +9·7 | -3·1 | -12·6 | -13·5 | -26·8 | -18·5 | -22·1 |
| Equinox | -26·6 | -30·3 | -33·1 | -33·9 | -13·5 | +6·6 | -2·3 | -5·4 | -14·9 | -1·2 | +6·5 | +13·7 | +20·4 | +37·0 | +50·1 | +63·2 | +41·0 | +26·3 | +18·7 | -10·4 | -10·5 | -25·4 | -29·7 | -46·4 |
| Summer | -14·0 | -23·4 | -27·5 | -29·0 | -19·8 | -26·3 | -22·7 | -29·2 | -27·2 | -22·5 | -8·2 | +8·8 | +26·6 | +34·8 | +43·2 | +40·0 | +39·5 | +27·0 | +18·4 | +14·0 | +7·0 | +2·7 | -5·1 | -7·2 |

### VERTICAL COMPONENT

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -28·8 | -29·8 | -36·6 | -37·8 | -32·4 | -25·9 | -24·0 | -19·6 | -14·8 | -8·0 | -4·0 | +2·4 | +12·2 | +15·4 | +17·8 | +45·2 | +59·0 | +61·5 | +57·4 | +35·4 | +14·8 | -9·4 | -25·8 | -24·2 |
| Feb. | -71·7 | -69·9 | -68·9 | -65·3 | -54·3 | -39·9 | -27·3 | -17·3 | -10·5 | -2·9 | +7·5 | +19·5 | +19·9 | +25·3 | +48·1 | +59·7 | +74·5 | +69·5 | +67·1 | +50·9 | +46·3 | +9·9 | -18·5 | -51·7 |
| Mar. | -24·3 | -96·8 | -103·8 | -131·1 | -100·4 | -41·4 | -9·3 | +0·2 | +9·2 | +6·1 | +26·8 | +47·8 | -7·1 | -52·6 | -2·8 | +118·3 | +147·4 | +100·6 | +93·9 | +87·8 | +51·8 | -32·7 | -34·8 | -52·8 |
| Apr. | -88·8 | -47·0 | -63·2 | -79·2 | -63·8 | -51·2 | -29·0 | -30·8 | -26·8 | -19·4 | -7·4 | +6·6 | +17·2 | +52·6 | +72·2 | +102·6 | +98·2 | +70·0 | +66·8 | +55·0 | +15·6 | -1·8 | -28·4 | -20·0 |
| May | -8·8 | -21·3 | -29·8 | -29·2 | -52·6 | -41·1 | -30·2 | -32·6 | -27·8 | -18·3 | -11·0 | -7·0 | +3·4 | +14·7 | +26·4 | +42·0 | +56·2 | +61·3 | +46·4 | +34·6 | +25·8 | +18·7 | -6·4 | -13·4 |
| June | -19·0 | -35·9 | -42·0 | -34·7 | -25·0 | -17·7 | -18·0 | -18·5 | -19·4 | -19·7 | -19·6 | -22·7 | -13·4 | +0·7 | +26·4 | +47·7 | +66·2 | +68·5 | +48·6 | +37·1 | +22·4 | +6·9 | -11·2 | -7·7 |
| July | -66·2 | -60·2 | -29·3 | -40·8 | -83·2 | -75·6 | -97·6 | -39·8 | +2·1 | +7·8 | +10·6 | +12·8 | +8 0 | +13·4 | +21·3 | +32·0 | +48·2 | +58·6 | +61·0 | +57·8 | +61·3 | +47·2 | +45·2 | +5·4 |
| Aug. | -18·4 | -26·4 | -28·2 | -31·8 | -35·2 | -49·9 | -35·8 | -16·0 | -7·4 | -6·0 | -5·0 | -10·0 | -8·8 | +6·2 | +17·0 | +32·2 | +42·6 | +59·1 | +53·2 | +38·2 | +28·0 | +4·4 | +0·4 | -2·4 |
| Sept. | -54·4 | -91·3 | -160·0 | -165·1 | -160·4 | -159·9 | -136·8 | -78·1 | -25·0 | -5·9 | +9·6 | +35·3 | +68·6 | +129·3 | +178·0 | +162·7 | +154·8 | +143·7 | +197·6 | +66·3 | +39·0 | -3·7 | -16·6 | -27·7 |
| Oct. | -30·9 | -31·2 | -31·9 | -21·3 | -16·9 | -15·2 | -18·3 | -15·1 | -8·3 | -4·8 | -2·7 | -1·7 | +7·7 | +19·6 | +25·3 | +25·9 | +33·3 | +30·4 | +28·3 | +29·5 | +23·9 | +13·6 | -7·7 | -31·5 |
| Nov. | -5·7 | -8·4 | -12·1 | -13·5 | -15·5 | -16·6 | -14·7 | -14·7 | -12·7 | -10·4 | -9·3 | -5·9 | +0·1 | +10·2 | +22·1 | +29·9 | +29·9 | +29·2 | +18·9 | +12·1 | +5·7 | -1·4 | -4·5 | -12·7 |
| Dec. | -3·9 | -6·2 | -7·3 | -6·9 | -6·9 | -8·0 | -9·1 | -10·3 | -9·5 | -9·2 | -9·1 | -8·5 | -4·5 | +0·2 | +6·3 | +14·9 | +19·7 | +15·0 | +11·5 | +10·5 | +10·1 | +5·8 | +4·3 | +1·1 |
| Year | -35·1 | -43·7 | -51·1 | -54·7 | -53·9 | -45·2 | -37·5 | -24·4 | -12·6 | -7·6 | -1·1 | +5·7 | +8·6 | +19·6 | +38·2 | +59·4 | +69·2 | +63·9 | +54·2 | +42·9 | +28·7 | +4·8 | -8·7 | -19·8 |
| Winter | -27·5 | -28·6 | -31·2 | -30·9 | -27·3 | -22·6 | -18·8 | -15·5 | -11·9 | -7·6 | -3·7 | +1·9 | +6·9 | +12·8 | +23·6 | +37·4 | +45·8 | +43·8 | +38·7 | +27·2 | +19·2 | +1·2 | -11·1 | -21·9 |
| Equinox | -49·6 | -66·6 | -89·7 | -99·2 | -85·4 | -66·9 | -48·3 | -30·9 | -12·7 | -6·0 | +6·6 | +22·0 | +21·6 | +37·2 | +68·2 | +102·4 | +108·4 | +86·2 | +71·7 | +59·7 | +32·6 | -6·2 | -21·9 | -33·0 |
| Summer | -28·1 | -35·9 | -32·3 | -34·1 | -49·0 | -46·1 | -45·4 | -26·7 | -13·1 | -9·1 | -6·3 | -6·7 | -2·7 | +8·7 | +22·8 | +38·5 | +53·3 | +61·9 | +52·3 | +41·9 | +34·4 | +19·3 | +7·0 | -4·5 |

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

## INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

168 ESKDALEMUIR

### DECLINATION (measured positive towards the west)

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
| Jan. | -3·04 | -1·66 | 0·00 | -0·70 | -1·82 | +1·61 | +1·86 | +3·40 | +3·32 | +2·50 | +2·52 | +2·94 | +6·18 | +4·22 | +4·16 | +4·04 | +0·28 | +2·61 | -5·14 | -6·12 | -5·66 | -7·12 | -4·16 | -4·22 |
| Feb. | -9·62 | -4·29 | -4·58 | -2·75 | -3·87 | +1·24 | +1·05 | +2·57 | +0·46 | +0·53 | -0·08 | -0·79 | +5·98 | +6·63 | +7·08 | +6·41 | +4·17 | +2·32 | +3·01 | -0·01 | -1·36 | -7·73 | -0·86 | -4·59 |
| Mar. | -5·42 | -10·13 | -7·07 | -6·52 | -1·41 | -0·63 | +0·98 | +1·65 | -0·15 | +3·90 | +5·45 | +4·91 | -1·90 | +1·89 | +6·77 | +5·92 | +5·97 | +6·63 | +3·72 | -5·05 | -0·95 | -2·98 | -1·59 | -3·99 |
| Apr. | -7·92 | -5·45 | -5·18 | -8·52 | -3·44 | -0·13 | -1·56 | +1·28 | -0·92 | +0·41 | +3·32 | +6·46 | +8·44 | +10·19 | +8·36 | +9·24 | +4·16 | +2·57 | +3·82 | -0·40 | -1·26 | -4·85 | -6·42 | -12·20 |
| May | -1·97 | -2·79 | -0·85 | -2·95 | -4·35 | -3·97 | -2·47 | +0·07 | -1·19 | -1·07 | -0·59 | +3·19 | +5·47 | +5·55 | +5·81 | +5·75 | +3·79 | +0·51 | -0·87 | -1·55 | -0·87 | -0·29 | -1·01 | -3·35 |
| June | -2·37 | -1·80 | -2·70 | -4·07 | -6·10 | -6·86 | -7·95 | -6·80 | -4·94 | -3·49 | +0·30 | +3·30 | +8·17 | +9·04 | +10·08 | +6·63 | +7·12 | +4·54 | +4·29 | +1·96 | -0·96 | -1·63 | -3·56 | -2·20 |
| July | -3·45 | -9·64 | -8·15 | -8·23 | -3·01 | -5·12 | +1·91 | -6·63 | -6·75 | -5·94 | -0·03 | +3·95 | +7·25 | +7·50 | +8·71 | +7·91 | +5·15 | +3·90 | +2·57 | +1·93 | +4·81 | +2·04 | -2·27 | +1·59 |
| Aug. | -1·03 | -3·71 | -6·64 | -3·47 | -0·79 | -1·83 | -4·07 | -6·73 | -5·42 | -3·73 | -0·23 | +3·07 | +6·25 | +8·49 | +9·18 | +7·79 | +7·33 | +2·21 | -0·13 | -0·21 | -2·06 | -0·55 | -1·29 | -2·43 |
| Sept. | -1·96 | -5·05 | -4·40 | -2·81 | -2·59 | +5·20 | +2·67 | -3·11 | -4·18 | -0·03 | +1·50 | -0·33 | +5·68 | +5·47 | +10·86 | +12·95 | +5·83 | +1·62 | +0·93 | -5·87 | -3·78 | -4·47 | -7·96 | -6·17 |
| Oct. | -6·26 | -3·36 | -7·61 | -6·06 | -3·26 | +0·70 | -0·28 | -0·54 | -1·17 | +0·24 | +2·58 | +5·58 | +7·46 | +8·06 | +7·67 | +6·24 | +3·64 | +2·68 | +2·52 | -0·64 | -2·91 | -6·16 | -4·62 | -4·50 |
| Nov. | -2·57 | -2·67 | -1·89 | -1·45 | -0·67 | -1·20 | -0·75 | +0·81 | +0·03 | +0·11 | +1·39 | +4·45 | +6·39 | +7·03 | +5·31 | +2·65 | +3·63 | +1·38 | -1·31 | -1·81 | -2·65 | -3·53 | -6·71 | -5·97 |
| Dec. | -2·33 | -1·70 | -1·11 | -0·72 | -0·38 | -0·47 | -0·74 | -0·30 | -0·11 | -0·46 | +0·77 | +2·70 | +4·17 | +4·84 | +5·17 | +3·40 | +2·86 | +0·73 | +0·24 | -2·78 | -1·65 | -3·48 | -4·87 | -3·78 |
| Year | -3·99 | -4·35 | -4·18 | -4·02 | -2·64 | -0·95 | -0·78 | -1·19 | -1·83 | -0·59 | +1·41 | +3·29 | +5·79 | +6·58 | +7·43 | +6·58 | +4·49 | +2·64 | +1·14 | -1·71 | -1·61 | -3·40 | -3·78 | -4·32 |
| Winter | -4·39 | -2·58 | -1·89 | -1·40 | -1·69 | +0·29 | +0·35 | +1·62 | +0·69 | +0·67 | +1·15 | +2·33 | +5·68 | +5·68 | +5·43 | +4·13 | +2·73 | +1·76 | -0·80 | -2·68 | -2·83 | -5·47 | -4·15 | -4·64 |
| Equinox | -5·39 | -6·00 | -6·07 | -5·98 | -2·67 | +1·29 | +0·45 | -0·18 | -1·61 | +1·13 | +3·21 | +4·15 | +4·92 | +6·40 | +8·41 | +8·59 | +4·90 | +3·37 | +2·75 | -2·99 | -2·23 | -4·61 | -5·15 | -6·71 |
| Summer | -2·21 | -4·49 | -4·59 | -4·68 | -3·56 | -4·45 | -3·15 | -5·02 | -4·57 | -3·56 | -0·14 | +3·38 | +6·79 | +7·65 | +8·45 | +7·02 | +5·85 | +2·79 | +1·47 | +0·53 | +0·23 | -0·11 | -2·03 | -1·60 |

### INCLINATION

| | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ | ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -0·71 | -0·87 | -1·12 | -2·03 | -2·15 | -1·54 | -2·24 | -2·04 | -1·41 | -1·29 | -0·70 | +0·73 | +1·17 | +1·25 | +0·47 | +1·79 | +1·60 | +1·81 | +2·38 | +2·68 | +2·05 | +0·97 | -0·94 | +0·13 |
| Feb. | +7·32 | +2·59 | +0·25 | -0·39 | -1·49 | -2·16 | -1·61 | -0·97 | -0·30 | -0·89 | +0·61 | +0·32 | +0·08 | +0·14 | +0·14 | +0·36 | -0·75 | -0·68 | -0·49 | -0·21 | -0·17 | -0·41 | -1·33 | -0·76 |
| Mar. | -0·66 | +1·11 | -1·41 | +2·02 | -2·33 | -1·83 | -0·23 | +0·89 | +4·14 | +2·47 | +4·38 | +2·65 | +0·53 | -3·40 | -6·30 | -11·26 | -2·86 | +0·10 | +1·49 | +0·57 | +2·46 | +2·68 | +3·28 | +1·51 |
| Apr. | +0·80 | -0·49 | +1·64 | -3·36 | -1·95 | -3·28 | -2·55 | -0·94 | 0·00 | +0·66 | +2·03 | +1·94 | +1·49 | -0·04 | -0·31 | -3·23 | -4·76 | -2·73 | -1·81 | -1·16 | +0·35 | +0·08 | +2·44 | +15·20 |
| May | -0·51 | -0·41 | -1·08 | -0·95 | -1·53 | -1·16 | +0·92 | +1·82 | +2·13 | +0·95 | +2·23 | +2·20 | +2·79 | +2·63 | +1·28 | -0·35 | -1·98 | -3·21 | -2·97 | -1·19 | -0·31 | +0·33 | -1·35 | -0·28 |
| June | -0·76 | -0·75 | -1·30 | -1·31 | -0·64 | +0·44 | +0·71 | +1·15 | +2·09 | +2·43 | +2·57 | +2·07 | +2·28 | +0·73 | -0·96 | -1·29 | -2·27 | -2·08 | -2·44 | -1·51 | -0·09 | +0·27 | -0·35 | +1·03 |
| July | +4·94 | +2·56 | +7·67 | +9·37 | +2·43 | +4·25 | +5·30 | +1·01 | +0·07 | +0·51 | +0·64 | +0·95 | -0·19 | -1·35 | -2·40 | -3·55 | -4·17 | -5·54 | -4·15 | -7·40 | -3·74 | -2·02 | -3·62 | -1·58 |
| Aug. | -1·76 | -1·96 | -0·89 | -1·48 | -1·13 | -1·15 | -1·28 | +0·60 | +1·77 | +2·64 | +3·65 | +3·24 | +1·76 | +0·34 | -0·13 | -0·05 | -1·81 | -0·97 | -0·12 | -0·54 | -0·13 | -0·83 | +0·25 | -0·03 |
| Sept. | -2·68 | -3·67 | -2·37 | +0·03 | -1·27 | -0·45 | +5·45 | +4·22 | +4·17 | +3·60 | +4·09 | +3·65 | +1·98 | -2·93 | -1·23 | -5·17 | -5·42 | -2·67 | -0·44 | +0·96 | -0·04 | +1·08 | -0·38 | -0·51 |
| Oct. | -0·67 | -0·76 | -0·84 | -0·97 | -1·61 | -1·74 | -1·73 | -1·39 | -0·13 | +1·03 | +1·19 | +1·39 | +1·56 | +1·08 | +0·84 | +0·24 | +0·52 | +0·32 | +0·43 | +0·82 | +0·51 | +0·36 | -0·28 | -0·18 |
| Nov. | -0·66 | -0·61 | -0·95 | -0·99 | -1·67 | -1·97 | -1·76 | -1·49 | -1·10 | +0·23 | +1·19 | +1·44 | +0·94 | +1·73 | +2·30 | +2·16 | +1·35 | +1·18 | +0·71 | +0·15 | -0·56 | -0·10 | -0·52 | -1·01 |
| Dec. | -0·61 | -0·81 | -0·73 | -0·66 | -0·83 | -1·24 | -1·33 | -0·98 | -0·59 | -0·09 | +0·12 | +0·83 | +1·47 | +1·04 | +0·63 | +0·94 | +0·87 | +0·17 | +0·45 | +0·06 | +0·78 | +0·21 | +0·46 | -0·13 |
| Year | +0·34 | -0·34 | -0·09 | -0·06 | -1·18 | -0·99 | -0·03 | +0·16 | +0·90 | +1·02 | +1·83 | +1·79 | +1·32 | +0·10 | -0·47 | -1·62 | -1·64 | -1·19 | -0·58 | -0·57 | +0·09 | +0·29 | -0·20 | +1·11 |
| Winter | +1·33 | +0·07 | -0·64 | -1·01 | -1·54 | -1·73 | -1·73 | -1·37 | -0·85 | -0·51 | +0·31 | +0·83 | +0·91 | +1·04 | +0·89 | +1·31 | +0·77 | +0·62 | +0·76 | +0·67 | +0·52 | +0·37 | -0·59 | -0·44 |
| Equinox | -0·80 | -0·95 | -0·74 | -0·57 | -1·79 | -1·83 | +0·24 | +0·70 | +2·04 | +1·94 | +2·92 | +2·41 | +1·39 | -1·32 | -1·75 | -4·85 | -3·13 | -1·24 | -0·08 | +0·30 | +0·82 | +1·05 | +1·26 | +4·00 |
| Summer | +0·48 | -0·14 | +1·10 | +1·41 | -0·22 | +0·60 | +1·41 | +1·14 | +1·51 | +1·63 | +2·27 | +2·12 | +1·66 | +0·59 | -0·55 | -1·31 | -2·56 | -2·95 | -2·42 | -2·66 | -1·07 | -0·57 | -1·27 | -0·21 |

### HORIZONTAL FORCE

| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. | -0·1 | +2·0 | +3·1 | +16·2 | +20·0 | +13·3 | +24·4 | +23·0 | +15·5 | +16·2 | +8·9 | -10·0 | -12·9 | -12·8 | -0·5 | -10·0 | -2·0 | -4·3 | -14·2 | -26·8 | -24·9 | -17·8 | +4·5 | -10·8 |
| Feb. | -135·0 | -64·2 | -29·0 | -18·2 | +2·2 | +17·3 | +13·8 | +8·0 | +0·6 | +12·2 | -6·2 | +2·4 | +6·2 | +7·2 | +15·6 | +16·6 | +38·6 | +35·7 | +32·0 | +21·8 | +19·6 | -2·4 | +13·0 | -7·8 |
| Mar. | +0·8 | -52·1 | -17·3 | -78·2 | -2·3 | +11·9 | 0·0 | -13·1 | -58·1 | -34·4 | -55·1 | -21·7 | -10·4 | +31·1 | +92·5 | +210·6 | +96·7 | +35·5 | +12·4 | +23·9 | -17·5 | -51·8 | -61·5 | -41·9 |
| Apr. | -44·5 | -10·0 | -47·6 | +20·7 | +5·4 | +29·8 | +27·1 | +2·6 | -9·8 | -16·9 | -32·8 | -26·4 | -15·7 | +20·0 | +31·2 | +85·7 | +106·8 | +66·2 | +51·5 | +37·4 | +0·6 | -1·9 | -46·6 | -232·8 |
| May | +4·3 | -1·8 | +5·1 | +3·4 | +3·4 | +2·1 | -24·8 | -39·0 | -41·9 | -20·8 | -37·1 | -35·2 | -40·1 | -33·6 | -9·3 | +20·6 | +50·0 | +70·1 | +61·2 | +30·4 | +14·1 | +2·0 | +17·7 | -0·8 |
| June | +4·3 | -2·1 | +3·8 | +6·7 | +0·3 | -13·1 | -17·1 | -23·9 | -38·2 | -43·3 | -45·3 | -39·1 | -38·7 | -10·5 | +24·0 | +36·7 | +58·1 | +56·1 | +54·1 | +36·1 | +9·6 | -1·5 | +1·1 | -18·1 |
| July | -97·6 | -60·1 | -124·6 | -154·0 | -66·6 | -90·9 | -114·6 | -29·6 | -0·2 | -4·7 | -5·6 | -9·4 | +5·8 | +24·9 | +43·4 | +64·4 | +79·6 | +103·7 | +84·0 | +131·0 | +78·0 | +47·3 | +70·4 | +25·4 |
| Aug. | +19·4 | +19·4 | +2·8 | +10·2 | +3·8 | -1·3 | +5·8 | -14·8 | -29·0 | -41·4 | -56·0 | -51·8 | -29·4 | -2·8 | +8·2 | +12·6 | +42·6 | +36·1 | +21·4 | +22·0 | +12·2 | +14·0 | -3·6 | -0·4 |
| Sept. | +19·7 | +20·8 | -23·7 | -61·2 | -40·2 | -52·1 | -131·2 | -91·4 | -71·1 | -55·6 | -57·1 | -41·0 | -4·1 | +91·0 | +83·7 | +136·6 | +137·4 | +92·5 | +42·4 | +10·2 | +14·9 | -17·4 | -0·5 | -2·6 |
| Oct. | -1·5 | -0·2 | +0·7 | +6·5 | +17·7 | +20·2 | +18·9 | +15·1 | -1·1 | -17·0 | -18·7 | -21·3 | -20·3 | -8·8 | -3·1 | +5·9 | +4·5 | +6·4 | +4·1 | -1·3 | +1·3 | -0·4 | +1·3 | -8·9 |
| Nov. | +7·7 | +5·9 | +9·6 | +9·7 | +19·1 | +23·1 | +20·7 | +16·7 | +11·6 | -7·3 | -21·1 | -23·5 | -13·9 | -21·9 | -26·0 | -21·1 | -9·1 | -6·7 | -3·5 | +2·3 | +10·4 | +0·9 | +6·1 | +10·3 |
| Dec. | +7·6 | +9·8 | +8·2 | +7·2 | +9·8 | +15·4 | +16·4 | +10·8 | +5·2 | -2·0 | -5·2 | -15·4 | -23·4 | -15·4 | -7·0 | -8·4 | -5·6 | +3·0 | -2·4 | +3·0 | -7·8 | -1·0 | -5·2 | +2·4 |
| Year | -17·9 | -11·1 | -17·4 | -19·3 | -2·3 | -2·0 | -13·4 | -11·3 | -18·0 | -17·9 | -27·6 | -24·4 | -16·4 | +5·7 | +21·1 | +45·9 | +49·8 | +41·2 | +28·6 | +24·2 | +9·2 | -2·5 | -0·3 | -23·8 |
| Winter | -29·9 | -11·6 | -2·0 | +3·7 | +12·8 | +17·3 | +18·8 | +14·6 | +8·3 | +4·8 | -5·9 | -11·6 | -11·0 | -10·7 | -4·5 | -5·7 | +5·5 | +6·9 | +3·0 | +0·1 | -0·7 | -5·1 | +4·6 | -1·5 |
| Equinox | -6·4 | -10·4 | -22·0 | -28·1 | -4·9 | +2·5 | -21·3 | -21·7 | -35·0 | -31·0 | -40·9 | -27·6 | -12·6 | +33·3 | +51·1 | +109·7 | +86·3 | +50·1 | +27·6 | +17·5 | -0·2 | -17·9 | -26·8 | -71·5 |
| Summer | -17·4 | -11·1 | -28·2 | -33·4 | -14·8 | -25·8 | -37·7 | -26·8 | -27·3 | -27·5 | -36·0 | -33·9 | -25·6 | -5·5 | +16·6 | +33·6 | +57·6 | +66·5 | +55·2 | +54·9 | +28·5 | +15·5 | +21·4 | +1·5 |

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

## RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1946

The ranges are derived from the diurnal inequalities printed in Tables 163 to 168

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| | 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* |
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | ′ | ′ | γ | ′ | ′ | γ | ′ | ′ | γ |
| Jan. | 21·9 | 29·0 | 22·9 | 14·4 | 20·6 | 6·6 | 42·0 | 63·5 | 99·3 | 6·43 | 1·49 | 19·7 | 4·30 | 0·94 | 13·1 | 13·30 | 4·92 | 51·2 |
| Feb. | 29·9 | 33·7 | 37·8 | 29·3 | 29·6 | 12·4 | 155·8 | 110·1 | 146·2 | 6·51 | 1·81 | 33·0 | 6·82 | 1·57 | 26·7 | 16·70 | 9·48 | 173·6 |
| Mar. | 59·8 | 51·2 | 65·7 | 31·8 | 39·2 | 17·0 | 269·9 | 130·4 | 278·5 | 9·76 | 3·73 | 66·0 | 8·48 | 1·94 | 32·4 | 16·90 | 15·64 | 288·8 |
| Apr. | 61·4 | 58·2 | 42·2 | 48·9 | 54·6 | 19·2 | 315·7 | 167·4 | 191·4 | 12·39 | 3·34 | 60·7 | 12·05 | 2·99 | 51·0 | 22·39 | 19·96 | 339·6 |
| May | 68·1 | 60·1 | 41·3 | 54·3 | 70·3 | 30·0 | 112·7 | 51·1 | 113·9 | 11·99 | 3·77 | 69·9 | 14·62 | 3·33 | 54·7 | 10·16 | 6·00 | 112·0 |
| June | 66·8 | 65·5 | 41·7 | 53·2 | 61·1 | 25·8 | 96·4 | 93·4 | 110·5 | 13·12 | 3·98 | 71·7 | 12·52 | 3·41 | 57·4 | 18·03 | 5·01 | 103·4 |
| July | 70·5 | 63·0 | 44·7 | 57·0 | 64·8 | 20·8 | 268·6 | 121·4 | 158·9 | 12·25 | 4·27 | 74·1 | 13·88 | 3·69 | 60·4 | 18·35 | 16·77 | 285·0 |
| Aug. | 59·4 | 66·8 | 32·8 | 53·5 | 67·8 | 25·6 | 88·8 | 79·6 | 109·0 | 13·78 | 3·55 | 60·9 | 14·02 | 3·63 | 55·0 | 15·91 | 5·61 | 98·6 |
| Sept. | 66·5 | 62·0 | 79·9 | 55·8 | 56·0 | 22·2 | 259·5 | 126·5 | 343·1 | 11·76 | 3·65 | 70·4 | 12·14 | 3·42 | 53·8 | 20·91 | 10·87 | 268·6 |
| Oct. | 45·1 | 45·1 | 23·4 | 49·6 | 42·2 | 9·4 | 47·9 | 71·6 | 65·2 | 9·97 | 2·75 | 40·8 | 9·46 | 3·12 | 48·6 | 15·67 | 3·30 | 41·5 |
| Nov. | 30·7 | 33·0 | 16·2 | 26·9 | 22·1 | 6·0 | 54·5 | 58·8 | 46·5 | 7·77 | 1·97 | 28·1 | 5·10 | 1·65 | 25·4 | 13·74 | 4·27 | 49·1 |
| Dec. | 26·8 | 27·6 | 13·9 | 24·8 | 22·9 | 6·1 | 43·9 | 46·8 | 30·0 | 6·38 | 1·63 | 23·2 | 4·76 | 1·63 | 25·2 | 10·04 | 2·80 | 39·8 |
| Year | 44·3 | 45·2 | 34·3 | 39·1 | 44·1 | 14·8 | 72·6 | 65·7 | 123·9 | 9·26 | 2·37 | 43·5 | 9·46 | 2·37 | 39·2 | 11·78 | 3·47 | 77·4 |
| Winter | 23·6 | 29·0 | 22·2 | 22·3 | 22·4 | 5·6 | 42·8 | 51·5 | 77·0 | 6·58 | 1·60 | 21·8 | 4·84 | 1·31 | 21·1 | 11·15 | 3·06 | 48·7 |
| Equinox | 49·4 | 53·3 | 51·8 | 45·9 | 48·1 | 16·4 | 161·7 | 109·6 | 207·6 | 10·71 | 2·76 | 51·9 | 10·54 | 2·78 | 44·8 | 15·30 | 8·85 | 181·2 |
| Summer | 64·7 | 62·2 | 37·5 | 53·8 | 64·6 | 24·1 | 98·8 | 72·4 | 110·9 | 12·61 | 8·43 | 67·5 | 13·57 | 3·38 | 56·4 | 13·47 | 5·22 | 104·2 |

## NON-CYCLIC CHANGE

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| | All days | | | Quiet days | | | Disturbed days | | |
|---|---|---|---|---|---|---|---|---|---|
| | *H* | *D* | *V* | *H* | *D* | *V* | *H* | *D* | *V* |
| | γ | ′ | γ | γ | ′ | γ | γ | ′ | γ |
| Jan. | 0·0 | −0·01 | +0·1 | +0·8 | +0·05 | +0·5 | −13·1 | −0·28 | +1·2 |
| Feb. | +0·1 | −0·02 | +0·3 | +3·6 | +0·89 | −0·2 | −1·3 | +4·21 | +16·6 |
| Mar. | −1·8 | −0·32 | −0·2 | +6·0 | +0·23 | +1·0 | −54·9 | −0·52 | −46·2 |
| Apr. | +1·7 | +0·26 | +0·9 | +4·4 | +0·14 | −1·6 | −24·5 | −0·91 | +1·9 |
| May | +0·4 | −0·03 | −0·2 | +1·9 | −0·69 | −2·0 | −8·4 | −1·27 | −4·4 |
| June | −0·2 | +0·03 | +0·2 | +9·0 | +0·26 | −1·5 | −22·2 | +0·38 | +4·8 |
| July | −0·2 | 0·00 | −0·1 | +1·5 | −0·14 | +0·2 | −25·2 | −0·25 | −0·4 |
| Aug. | −0·4 | −0·14 | +0·2 | +5·4 | +0·40 | −1·5 | −17·1 | −0·92 | +4·3 |
| Sept. | 0·0 | +0·01 | +0·1 | +8·4 | +1·04 | −0·1 | −38·1 | −2·94 | −15·2 |
| Oct. | −0·5 | −0·13 | −0·1 | +0·9 | −0·78 | +3·7 | −6·1 | +1·50 | −4·2 |
| Nov. | +0·7 | +0·01 | −0·2 | −0·7 | −0·57 | −0·3 | −4·4 | −2·34 | −9·7 |
| Dec. | +0·5 | +0·08 | −0·1 | +5·2 | +0·31 | −0·8 | −7·4 | −0·77 | +4·5 |
| Year | 0·0 | −0·02 | +0·1 | +3·9 | +0·09 | −0·2 | −18·6 | −0·34 | −3·9 |
| Winter | +0·3 | +0·01 | 0·0 | +2·2 | +0·17 | −0·2 | −6·5 | +0·21 | +3·1 |
| Equinox | −0·1 | −0·05 | +0·2 | +4·9 | +0·16 | +0·7 | −30·9 | −0·72 | −15·9 |
| Summer | −0·1 | −0·03 | 0·0 | +4·5 | −0·04 | −1·2 | −18·2 | −0·51 | +1·1 |

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

## MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS

For all, *a*, quiet, *q*, and disturbed, *d*, days for *H*, *D* and *V* and for all days for *N*, *W*, *I* and *T*

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| | Horizontal force | | | Declination (west) | | | Vertical force | | | North component all days | West component all days | Inclination (north) all days | Total force all days |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *a* | *q* | *d* | *a* | *q* | *d* | *a* | *q* | *d* | | | | |
| | 16,000γ + | | | 12° + | | | 44,000γ + | | | | | | |
| | γ | γ | γ | ′ | ′ | ′ | γ | γ | γ | γ | γ | ° ′ | γ |
| Jan. | 523 | 529 | 510 | 9·7 | 9·8 | 9·0 | 1116 | 1116 | 1116 | 16152 | 3481 | 69 53·1 | 48046 |
| Feb. | 511 | 521 | 485 | 9·6 | 9·6 | 10·4 | 1124 | 1121 | 1129 | 16140 | 3478 | 69 54·1 | 48050 |
| Mar. | 505 | 518 | 486 | 8·4 | 9·0 | 7·0 | 1125 | 1127 | 1108 | 16136 | 3471 | 69 54·6 | 48049 |
| Apr. | 504 | 518 | 479 | 7·4 | 7·6 | 7·5 | 1143 | 1137 | 1149 | 16136 | 3466 | 69 55·0 | 48065 |
| May | 523 | 528 | 520 | 7·1 | 7·2 | 7·1 | 1133 | 1134 | 1133 | 16155 | 3469 | 69 53·6 | 48062 |
| June | 531 | 527 | 535 | 6·5 | 6·4 | 7·1 | 1134 | 1135 | 1139 | 16163 | 3467 | 69 53·1 | 48066 |
| July | 521 | 528 | 394 | 5·5 | 5·8 | 5·2 | 1134 | 1137 | 1122 | 16155 | 3461 | 69 53·7 | 48063 |
| Aug. | 522 | 524 | 520 | 4·9 | 4·9 | 5·4 | 1135 | 1131 | 1137 | 16156 | 3458 | 69 53·6 | 48063 |
| Sept. | 506 | 514 | 469 | 4·1 | 4·0 | 5·1 | 1140 | 1138 | 1143 | 16141 | 3451 | 69 54·9 | 48063 |
| Oct. | 514 | 522 | 506 | 3·5 | 3·8 | 2·2 | 1143 | 1140 | 1138 | 16150 | 3450 | 69 54·4 | 48069 |
| Nov. | 519 | 527 | 510 | 2·3 | 2·2 | 2·6 | 1142 | 1138 | 1148 | 16156 | 3445 | 69 54·0 | 48069 |
| Dec. | 524 | 525 | 522 | 1·6 | 1·5 | 2·1 | 1139 | 1138 | 1141 | 16161 | 3443 | 69 53·6 | 48068 |
| Year | 517 | 523 | 503 | 5·9 | 6·0 | 5·9 | 1134 | 1133 | 1134 | 16150 | 3462 | 69 54·0 | 48061 |

## HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of $a_n$, $b_n$ in the series $\Sigma\ (a_n \cos 15nt + b_n \sin 15nt)$, $t$ being reckoned in hours from midnight G.M.T.

Longitude of Eskdalemuir Observatory, 3°12′W.

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| | North component | | | | | | | | West component | | | | | | | | Vertical component | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $a_1$ | $b_1$ | $a_2$ | $b_2$ | $a_3$ | $b_3$ | $a_4$ | $b_4$ | $a_1$ | $b_1$ | $a_2$ | $b_2$ | $a_3$ | $b_3$ | $a_4$ | $b_4$ | $a_1$ | $b_1$ | $a_2$ | $b_2$ | $a_3$ | $b_3$ | $a_4$ | $b_4$ |
| | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ | γ |
| | | | | | | | | | | | | ALL DAYS | | | | | | | | | | | | |
| Jan. | +3·2 | +4·7 | −4·1 | −1·7 | +2·4 | −1·2 | −0·4 | −0·5 | −10·4 | −0·7 | −0·2 | +4·9 | +0·1 | −0·8 | +0·7 | +1·6 | −2·0 | −9·9 | −3·2 | +0·2 | +0·3 | +1·2 | +0·3 | −0·4 |
| Feb. | +2·4 | −3·8 | −8·6 | −3·3 | +0·3 | −2·6 | −1·5 | −1·4 | −8·5 | −6·3 | −3·1 | +5·2 | −1·5 | −3·2 | +0·5 | +1·7 | +6·5 | −15·3 | −4·3 | −1·8 | +0·6 | +0·6 | −1·2 | +0·1 |
| Mar. | +7·1 | −10·3 | −11·9 | +3·8 | +6·3 | −5·1 | −1·8 | +0·1 | −14·2 | −15·5 | 0·0 | +8·9 | −0·4 | −5·3 | +0·6 | −0·3 | −9·0 | −20·3 | −11·3 | −6·1 | +4·5 | +2·8 | +0·7 | −2·6 |
| Apr. | +12·4 | −7·8 | −20·0 | +2·5 | +2·1 | −0·5 | −3·3 | +1·7 | −13·4 | −17·3 | +0·1 | +12·0 | −3·5 | −4·9 | +0·7 | +2·4 | −4·5 | −15·6 | −7·9 | +0·2 | +2·3 | −0·8 | −0·5 | −0·6 |
| May | +20·1 | −14·0 | −15·2 | +2·5 | +1·5 | +2·8 | +1·1 | −1·6 | −8·1 | −20·8 | +4·0 | +11·0 | −2·7 | −3·1 | +1·4 | +0·9 | +3·5 | −17·9 | −6·9 | −0·6 | +1·9 | +1·2 | −0·5 | −0·6 |
| June | +19·1 | −14·3 | −16·3 | +3·1 | +0·5 | +0·8 | +0·4 | −1·1 | −5·5 | −24·7 | +2·8 | +11·7 | −2·2 | −2·4 | −0·1 | +0·9 | +1·3 | −15·1 | −9·2 | −2·1 | +2·3 | +0·5 | +0·7 | −1·0 |
| July | +12·0 | −25·3 | −12·5 | −2·8 | +3·1 | −2·9 | −1·0 | −2·2 | −7·6 | −26·5 | +4·7 | +6·9 | −2·5 | −5·2 | −0·4 | +0·3 | +0·7 | −18·6 | −6·3 | −3·4 | +1·0 | +1·7 | −2·6 | −1·6 |
| Aug. | +20·6 | −10·1 | −11·8 | +3·6 | +1·7 | −1·8 | +0·3 | +1·1 | −7·4 | −19·8 | +7·2 | +11·8 | −4·3 | −5·9 | +1·1 | +0·8 | +3·1 | −8·4 | −7·9 | −1·1 | +3·1 | +1·2 | −1·3 | −0·2 |
| Sept. | +14·3 | −16·9 | −10·0 | +6·8 | +6·3 | −0·7 | +0·6 | −1·7 | −13·1 | −16·1 | +1·1 | +14·3 | +0·1 | −6·8 | +0·5 | −1·1 | −14·1 | −31·9 | −5·9 | −2·1 | +4·8 | −0·5 | −0·8 | −0·6 |
| Oct. | +17·5 | +1·9 | −10·4 | −0·6 | +3·3 | −3·2 | −0·2 | +1·0 | −9·6 | −10·0 | +1·9 | +9·0 | −2·8 | −5·5 | +3·0 | +2·2 | −2·5 | −9·5 | −4·9 | −0·4 | +1·1 | 0·0 | −2·3 | −0·1 |
| Nov. | +11·1 | +2·2 | −7·3 | −2·5 | +2·1 | −1·5 | +0·3 | +0·6 | −9·3 | −6·5 | −2·0 | +6·2 | −2·2 | −2·2 | +1·2 | +2·5 | −0·6 | −7·2 | −1·1 | −0·5 | +1·3 | −0·2 | −0·7 | −0·1 |
| Dec. | +8·1 | +3·3 | −6·1 | −1·5 | +1·6 | −0·3 | +0·2 | +0·3 | −8·3 | −5·3 | −1·4 | +5·1 | −1·5 | −2·0 | +0·3 | +1·8 | +1·7 | −6·4 | −1·0 | −0·6 | +1·3 | +0·3 | −0·5 | −0·5 |
| Year | +12·3 | −7·5 | −11·2 | +0·8 | +2·6 | −1·3 | −0·5 | −0·3 | −9·6 | −14·1 | +1·3 | +8·9 | −2·0 | −3·9 | +0·8 | +1·1 | −2·4 | −14·7 | −5·8 | −1·5 | +2·0 | +0·7 | −0·7 | −0·7 |
| Winter | +6·2 | +1·6 | −6·5 | −2·2 | +1·6 | −1·4 | −0·4 | −0·2 | −9·1 | −4·7 | −1·7 | +5·3 | −1·3 | −2·1 | +0·7 | +1·9 | −1·9 | −9·7 | −2·4 | −0·7 | +0·9 | +0·5 | −0·5 | −0·2 |
| Equinox | +12·9 | −8·2 | −13·1 | +3·1 | +4·5 | −2·3 | −1·2 | +0·3 | −12·6 | −14·7 | +0·7 | +11·0 | −1·6 | −5·6 | +1·2 | +0·8 | −7·5 | −19·3 | −7·5 | −2·1 | +3·2 | +0·4 | −0·7 | −1·0 |
| Summer | +17·9 | −15·9 | −13·9 | +1·6 | +1·7 | −0·2 | +0·2 | −0·9 | −7·1 | −22·9 | +4·7 | +10·3 | −3·0 | −4·1 | +0·5 | +0·7 | +2·2 | −15·0 | −7·6 | −1·8 | +2·1 | +1·2 | −0·9 | −0·9 |
| | | | | | | | | | | | | QUIET DAYS | | | | | | | | | | | | |
| Year | +14·3 | −2·6 | −8·7 | +0·1 | +2·6 | −1·5 | −0·4 | +0·6 | −3·5 | −13·0 | +3·5 | +8·6 | −3·3 | −3·8 | +0·5 | +1·4 | +3·9 | −1·3 | −4·0 | −0·2 | +1·7 | +0·1 | −0·7 | −0·2 |
| Winter | +6·9 | +0·8 | −5·5 | −1·8 | +2·5 | −0·9 | −9·0 | +0·6 | −3·6 | −5·2 | −0·7 | +5·0 | −2·1 | −2·2 | +0·2 | +1·4 | +1·2 | −1·9 | −0·8 | +0·1 | +0·7 | +0·1 | −0·3 | −0·3 |
| Equinox | +17·3 | −0·9 | −9·8 | −1·2 | +3·9 | −1·5 | −0·1 | +0·8 | −2·4 | −12·7 | +2·9 | +9·6 | −3·5 | −5·1 | +1·2 | +1·7 | +4·1 | −0·8 | −4·4 | −0·4 | +1·8 | +0·4 | −1·0 | −0·2 |
| Summer | +17·1 | −7·1 | −11·3 | +2·7 | +0·9 | −1·2 | −1·8 | +0·5 | −4·5 | −21·2 | +8·1 | +11·4 | −4·3 | −4·0 | 0·0 | +1·3 | +6·3 | −1·4 | −6·7 | −0·4 | +2·5 | −0·1 | −0·8 | −0·3 |
| | | | | | | | | | | | | DISTURBED DAYS | | | | | | | | | | | | |
| Year | +1·3 | −26·9 | −17·1 | +4·2 | +5·2 | −2·3 | −2·5 | −3·6 | −21·5 | −17·8 | −3·9 | +9·1 | +1·4 | −5·2 | +1·1 | −0·4 | −22·0 | −50·0 | −11·0 | −3·7 | +5·5 | +3·6 | −0·8 | −1·9 |
| Winter | +3·4 | +3·1 | −11·3 | −5·6 | +0·4 | −3·3 | −0·6 | −4·4 | −19·5 | −0·8 | −3·6 | +7·3 | +0·8 | −2·9 | +0·4 | +1·8 | −14·6 | −29·2 | −10·9 | +0·7 | +0·9 | +2·6 | +0·1 | −0·5 |
| Equinox | −10·1 | −41·6 | −21·7 | +22·1 | +9·7 | −5·7 | −6·9 | −2·1 | −30·6 | −20·9 | −9·1 | −11·7 | +3·7 | −6·3 | +1·2 | −2·1 | −42·8 | −76·7 | −13·6 | −6·3 | +12·5 | +2·1 | +1·1 | −2·4 |
| Summer | +10·5 | −42·3 | −18·2 | −3·8 | +5·5 | +2·2 | 0·0 | −4·3 | −14·4 | −31·7 | +1·2 | +8·3 | −0·4 | −6·5 | +1·8 | −1·0 | −8·6 | −44·3 | −8·6 | −5·4 | +3·0 | +5·9 | −3·5 | −2·7 |

## HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE

Values of $c_n$, $\alpha_n$ in the series $\Sigma c_n \sin(15nt + \alpha_n)$, $t$ being mean local time, reckoned in hours from midnight

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| | North component | | | | | | | | West component | | | | | | | | Vertical component | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $c_1$ | $\alpha_1$ | $c_2$ | $\alpha_2$ | $c_3$ | $\alpha_3$ | $c_4$ | $\alpha_4$ | $c_1$ | $\alpha_1$ | $c_2$ | $\alpha_2$ | $c_3$ | $\alpha_3$ | $c_4$ | $\alpha_4$ | $c_1$ | $\alpha_1$ | $c_2$ | $\alpha_2$ | $c_3$ | $\alpha_3$ | $c_4$ | $\alpha_4$ |
| | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° | γ | ° |
| | | | | | | | | | | | | ALL DAYS | | | | | | | | | | | | |
| Jan. | 5·7 | 38 | 4·5 | 254 | 2·7 | 125 | 0·6 | 232 | 10·5 | 270 | 4·9 | 4 | 0·8 | 183 | 1·8 | 37 | 10·1 | 195 | 3·2 | 280 | 1·3 | 21 | 0·5 | 154 |
| Feb. | 4·5 | 151 | 9·2 | 256 | 2·6 | 183 | 2·0 | 241 | 10·6 | 237 | 6·0 | 336 | 3·5 | 214 | 1·8 | 29 | 16·6 | 206 | 4·6 | 253 | 0·8 | 57 | 1·2 | 286 |
| Mar. | 12·5 | 149 | 12·5 | 294 | 8·1 | 139 | 1·8 | 287 | 21·0 | 226 | 8·9 | 6 | 5·4 | 194 | 0·6 | 130 | 22·2 | 207 | 12·8 | 248 | 5·3 | 68 | 2·7 | 177 |
| Apr. | 14·7 | 125 | 20·1 | 283 | 2·2 | 112 | 3·7 | 311 | 21·8 | 221 | 12·0 | 7 | 6·0 | 225 | 2·5 | 29 | 16·3 | 199 | 7·9 | 278 | 2·4 | 118 | 0·8 | 229 |
| May | 24·5 | 128 | 15·5 | 286 | 3·2 | 38 | 1·9 | 159 | 22·3 | 204 | 11·7 | 26 | 4·1 | 231 | 1·6 | 69 | 18·3 | 172 | 6·9 | 272 | 2·2 | 67 | 0·8 | 232 |
| June | 23·9 | 130 | 16·5 | 287 | 0·9 | 41 | 1·1 | 173 | 25·3 | 196 | 12·0 | 20 | 3·3 | 233 | 0·9 | 6 | 15·2 | 178 | 9·4 | 263 | 2·3 | 87 | 1·2 | 159 |
| July | 28·0 | 158 | 12·8 | 264 | 4·2 | 142 | 2·4 | 217 | 27·6 | 199 | 8·4 | 41 | 5·8 | 215 | 0·5 | 320 | 18·6 | 181 | 7·1 | 248 | 2·0 | 39 | 3·1 | 250 |
| Aug. | 22·9 | 119 | 12·3 | 293 | 2·4 | 146 | 1·2 | 27 | 21·1 | 204 | 13·8 | 38 | 7·2 | 226 | 1·3 | 67 | 8·9 | 163 | 7·9 | 268 | 3·4 | 78 | 1·3 | 275 |
| Sept. | 22·1 | 143 | 12·1 | 311 | 6·3 | 106 | 1·8 | 174 | 20·8 | 222 | 14·3 | 11 | 6·8 | 189 | 1·2 | 169 | 34·8 | 207 | 6·2 | 256 | 4·9 | 106 | 1·0 | 244 |
| Oct. | 17·6 | 87 | 10·4 | 273 | 4·6 | 143 | 1·1 | 2 | 13·9 | 227 | 9·2 | 18 | 6·2 | 217 | 3·7 | 67 | 9·8 | 198 | 4·9 | 272 | 1·1 | 98 | 2·3 | 281 |
| Nov. | 11·3 | 82 | 7·8 | 257 | 2·6 | 136 | 0·7 | 42 | 11·4 | 238 | 6·5 | 349 | 3·1 | 235 | 2·7 | 38 | 7·2 | 188 | 1·2 | 252 | 1·3 | 108 | 0·7 | 277 |
| Dec. | 8·8 | 71 | 6·2 | 263 | 1·6 | 112 | 0·4 | 53 | 9·8 | 241 | 5·3 | 351 | 2·5 | 227 | 1·8 | 23 | 6·6 | 169 | 1·1 | 244 | 1·3 | 87 | 0·7 | 236 |
| Year | 14·4 | 125 | 11·2 | 281 | 2·9 | 127 | 0·5 | 249 | 17·1 | 217 | 9·0 | 15 | 4·4 | 216 | 1·4 | 47 | 14·9 | 193 | 6·0 | 261 | 2·1 | 81 | 1·0 | 239 |
| Winter | 6·4 | 79 | 6·9 | 258 | 2·1 | 141 | 0·4 | 249 | 10·3 | 246 | 5·6 | 349 | 2·4 | 221 | 2·0 | 33 | 9·9 | 194 | 2·5 | 261 | 1·0 | 71 | 0·6 | 262 |
| Equinox | 15·3 | 126 | 13·4 | 290 | 5·1 | 127 | 1·3 | 299 | 19·3 | 224 | 11·0 | 10 | 5·9 | 206 | 1·5 | 67 | 20·7 | 205 | 7·8 | 261 | 3·2 | 93 | 1·2 | 228 |
| Summer | 23·9 | 135 | 14·0 | 283 | 1·7 | 108 | 1·0 | 181 | 24·0 | 201 | 11·3 | 31 | 5·1 | 225 | 0·8 | 46 | 15·2 | 175 | 7·8 | 263 | 2·4 | 70 | 1·3 | 241 |
| | | | | | | | | | | | | QUIET DAYS | | | | | | | | | | | | |
| Year | 14·5 | 103 | 8·7 | 277 | 3·0 | 131 | 0·7 | 337 | 13·5 | 198 | 9·3 | 28 | 5·0 | 231 | 1·5 | 30 | 4·1 | 113 | 4·0 | 273 | 1·7 | 95 | 0·7 | 264 |
| Winter | 6·9 | 87 | 5·7 | 258 | 2·6 | 119 | 1·1 | 317 | 6·3 | 218 | 5·0 | 358 | 3·0 | 232 | 1·4 | 21 | 2·3 | 151 | 0·8 | 280 | 0·7 | 89 | 0·5 | 239 |
| Equinox | 17·3 | 96 | 9·8 | 270 | 4·2 | 121 | 0·8 | 9 | 12·9 | 194 | 10·0 | 23 | 6·1 | 224 | 2·1 | 48 | 4·2 | 104 | 4·4 | 272 | 1·8 | 88 | 1·0 | 273 |
| Summer | 18·5 | 116 | 11·7 | 290 | 1·5 | 154 | 1·9 | 297 | 21·7 | 195 | 14·0 | 42 | 5·9 | 237 | 1·3 | 13 | 6·5 | 106 | 6·7 | 273 | 2·5 | 101 | 0·9 | 264 |
| | | | | | | | | | | | | DISTURBED DAYS | | | | | | | | | | | | |
| Year | 27·0 | 181 | 17·6 | 290 | 5·7 | 123 | 4·4 | 227 | 27·9 | 234 | 9·9 | 343 | 5·4 | 175 | 1·1 | 123 | 54·7 | 207 | 11·6 | 258 | 6·5 | 67 | 2·0 | 215 |
| Winter | 4·6 | 51 | 12·6 | 250 | 3·3 | 182 | 4·4 | 201 | 19·5 | 271 | 8·2 | 340 | 3·0 | 174 | 1·8 | 24 | 32·7 | 210 | 10·9 | 280 | 2·8 | 29 | 0·5 | 187 |
| Equinox | 42·8 | 197 | 31·0 | 322 | 11·3 | 130 | 7·2 | 266 | 37·1 | 239 | 14·8 | 328 | 7·3 | 159 | 2·4 | 162 | 87·8 | 212 | 15·0 | 251 | 12·6 | 90 | 2·6 | 168 |
| Summer | 43·5 | 169 | 18·6 | 265 | 6·0 | 78 | 4·3 | 193 | 34·8 | 208 | 8·4 | 15 | 6·5 | 193 | 2·1 | 131 | 45·1 | 194 | 10·1 | 244 | 6·7 | 36 | 4·4 | 244 |

KEW

# KEW OBSERVATORY

| | |
|---|---|
| Latitude .. .. .. .. .. | 51°28′N. |
| Longitude .. .. .. .. .. | 0°19′W. |
| G.M.T. of Local Mean Noon .. | 12h. 1m. |

| *Heights of instruments* | *above M.S.L.* | *above ground* |
|---|---|---|
| | m. | m. |
| Barometer .. .. .. .. .. | 10·4 | .. |
| Thermometer bulbs .. .. .. | .. | 3·0 |
| Rain-gauge site .. .. .. .. | 5·5 | .. |
| Tilting-siphon rain recorder rim | .. | 0·53 |
| Sunshine recorder .. .. .. | .. | 13·3 |
| Pressure-tube anemograph .. .. | 28 | 23 |

## INTRODUCTION

Full details of the site, instruments, procedure and tabulation are given in the *Observatories' Year Book, 1938*. Changes and additions only are mentioned here.

### *Meteorology*

Notes on the instruments

*Pressure.*- The photographic barograph is mounted in the galvanometer room of the underground seismograph house. It was transferred there on 15 May 1939 from the position in the north room of the basement of the main Observatory building which it had occupied since the inception of the record in 1862.

*Temperature.*- As from January 1943, Kew adopted the practice followed by the other Observatories for the tabulation of hourly readings of temperature from the curves of the photo-thermograph, i.e. by adjusting 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 control thermometers, and then reading off the temperature equivalent from the curves at the requisite times. This supersedes method (*a*) set out on page 3 of the General Introduction to the *Observatories' Year Book, 1938*.

Rainfall.- On and after 1 October 1944, the hourly readings are from a Meteorological Office tilting-siphon recorder, M.O.80, instead of from the old Beckley self-registering rain-gauge No.1 which had been continuously in operation at Kew Observatory since 1871. The new instrument, whose funnel also has a collecting area of approximately 100 square inches, is set up 8·5 metres south-south-west of the standard check gauge with the rim at exactly the same height above ground level as was the old Beckley gauge, i.e. 0·53 metres. From 1 January 1945 onwards the hourly readings are adjusted to give totals in agreement with the check gauge read daily at 9h. and 21h. Prior to 1 August 1944 the check gauge was read at 7h. and 18h., from 1 August to 31 December 1944 at 6h. and 18h. A special instrument, known as the rainfall chronograph, which in effect is a sensitive drop-counting gauge, is used to help in determining the duration of rainfall of 0·1 mm. per hour or more. This gauge stands on the lawn about 6·5 metres west-north-west of the tilting-siphon recorder. The Jardi rate-of-rainfall recorder has proved to be unreliable at rates below 6 mm. per hour and such values are omitted from Table 184.

*Solar radiation.*- The tabulations of the radiation received on a surface perpendicular to the solar beam (Tables 188 and 190) were made on the assumption that the thermopile of the Gorczynski pyrheliograph had maintained its sensitivity. Subsequent investigation indicated

that a progressive decrease in sensitivity had occurred and that all tabulations needed correction from 1938 onwards until April 1945 when the thermopile was repaired and readjusted.* The factors by which the printed values should be multiplied are given in the Introductions for the years in question.

*Minimum temperature on the grass.*- From 1 January 1945 onwards the thermometer was set at 21h. and read at 9h. and the printed values refer to the period 21h. on the previous day to 9h. on the day of entry.

Identification numbers of instruments in use in 1946

During 1945 thermometer No.788 was used as the control dry-bulb thermometer and No.738 as the control wet-bulb thermometer 1887 and 1846 were used as the measuring glasses for the control rain-gauge. The dry-bulb tube of the photographic thermograph, Kew Tube No.411, scale value 1°A. = 2·997 mm. on the chart, was accidentally broken on 13 August 1946. It was replaced on 16 August by Kew Tube No.4, scale value 1°A. = 3·683 mm. which had been in use as the wet-bulb tube at Kew since 18 March 1936. A matched tube held in stock was taken into use as the new wet-bulb tube. Its number is unknown but its scale value is identical with Kew Tube No.4, i.e. 1°A. = 3·683 mm., thus enabling one glass tabulating scale to be used for the measurement of both dry and wet-bulb curves.

*Thermometer corrections 1946*

| | *No.788 N.P.L.1933* | | *No.738 N.P.L.1938* | | *M.O.5. N.P.L.1913* | | *M.O.10. N.P.L.1913* | | *M.O.108011 N.P.L.1929* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | °F. | | °F. | | °A. | | °A. | | °F. | |
| Certified | 2 | +0·1 | 2 | +0·2 | 250 | +0·1 | 250 | +0·3 | 2 | 0·0 |
| | 12 | +0·1 | 12 | +0·1 | 273 | 0·0 | 273 | +0·1 | 22 | 0·0 |
| | 32 | 0·0 | 32 | 0·0 | 280 | 0·0 | 280 | +0·2 | 32 | 0·0 |
| | 52 | -0·1 | 52 | -0·1 | 290 | 0·0 | 290 | 0·0 | 52 | 0·0 |
| | 72 | 0·0 | 72 | -0·1 | 300 | 0·0 | 300 | 0·0 | 72 | 0·0 |
| Applied | 92 | 0·0 | 92 | -0·2 | 310 | 0·0 | 316 | +0·1 | .. | .. |
| | | 0·0 | | 0·0 | | 0·0 | | 0·1 | | 0·0 |

Notes on the meteorological summaries

The mean temperature for the year 1946, 283·1°A. (50·2°F.), was a little above the average of 282·8°A. (49·6°F.) for the period 1871-1915. February, April and November were mild months with mean temperatures 4°F. above average. There were three days, all in July, on which the maximum temperature in the north-wall screen exceeded 300°A. (80·6°F.). The highest reading was 301·2°A. (82·8°F.) at 15h.10m. on 12 July. There were three "ice days", i.e. days with a maximum temperature in the screen of 273·0°A. (32·0°F.) or less; two occurred in January and one in December. The lowest temperature in the north-wall screen was 266·0°A. (19·4°F.) registered at 10h.15m. on 21 December on which date the lowest recording of the grass minimum thermometer, i.e. 260·0°A. (9·0°F.), also occurred.

The rainfall for the year, 777 mm., was 28 per cent above the average for the standard period 1881-1915. March and October, with 69 and 49 per cent of the average respectively were the only dry months. May, with twice the average rainfall, was the wettest since 1932. August, September (the wettest since 1927) and November had 166, 184 and 184 per cent of the average respectively, whilst February and July were also wet with 45 per cent above average. The heaviest rainfall in one day was 53 mm. in a thunderstorm on 26 July.

*STAGG, J.M.; Solar radiation at Kew Observatory. *Geophys. Mem., London*, 11, No.86, 1950.

The sunshine for the year, 1441 hours, was 28 hours less than the normal for the period 1906-1935. July with 239 hours was the sunniest month but March, September, October and November each had only 80 per cent or less of the average.

The highest wind speed recorded in a gust was 31 m./sec. (68 m.p.h.) at 18h.20m. on 20 September. The highest on record is 33 m./sec. (73 m.p.h.) on 23 November 1938.

*Diurnal variation of pressure and temperature; harmonic analysis.* Notes on the tables will be found in the *Observatories' Year Book, 1938*.

TABLE 174 - DIURNAL VARIATION OF BAROMETRIC PRESSURE FOURIER COEFFICIENTS

Values of $c_n$, $\alpha_n$ in the series $\Sigma c_n \sin(15nt + \alpha_n)$, $t$ being local mean time reckoned in hours from midnight

| | $c_1$ | | $\alpha_1$ | | $c_2$ | | $\alpha_2$ | | $c_3$ | | $\alpha_3$ | | $c_4$ | | $\alpha_4$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 |
| | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° | mb. | mb. | ° | ° |
| January | 0.59 | 0.02 | 295 | 315 | 0.28 | 0.31 | 145 | 151 | 0.17 | 0.17 | 344 | 346 | 0.10 | 0.07 | 208 | 202 |
| February | 0.57 | 0.05 | 70 | 73 | 0.23 | 0.36 | 138 | 146 | 0.12 | 0.12 | 351 | 340 | 0.06 | 0.03 | 61 | 108 |
| March | 0.23 | 0.11 | 33 | 38 | 0.45 | 0.40 | 155 | 149 | 0.07 | 0.07 | 332 | 332 | 0.05 | 0.04 | 30 | 25 |
| April | 0.47 | 0.28 | 10 | 31 | 0.49 | 0.40 | 151 | 151 | 0.05 | 0.03 | 169 | 185 | 0.06 | 0.04 | 354 | 353 |
| May | 0.39 | 0.32 | 46 | 27 | 0.38 | 0.35 | 144 | 148 | 0.09 | 0.09 | 166 | 161 | 0.04 | 0.02 | 319 | 319 |
| June | 0.18 | 0.30 | 77 | 17 | 0.34 | 0.32 | 162 | 143 | 0.13 | 0.09 | 147 | 160 | 0.03 | 0.01 | 263 | 260 |
| July | 0.32 | 0.26 | 52 | 16 | 0.34 | 0.31 | 145 | 140 | 0.11 | 0.10 | 149 | 153 | 0.04 | 0.01 | 306 | 241 |
| August | 0.24 | 0.21 | 121 | 20 | 0.29 | 0.34 | 168 | 144 | 0.04 | 0.06 | 156 | 155 | 0.05 | 0.04 | 326 | 309 |
| September | 0.47 | 0.12 | 31 | 6 | 0.44 | 0.40 | 150 | 152 | 0.01 | 0.01 | 53 | 350 | 0.08 | 0.04 | 354 | 332 |
| October | 0.04 | 0.06 | 39 | 76 | 0.40 | 0.38 | 168 | 160 | 0.10 | 0.09 | 7 | 359 | 0.03 | 0.01 | 343 | 22 |
| November | 0.62 | 0.03 | 68 | 124 | 0.39 | 0.34 | 155 | 160 | 0.11 | 0.13 | 10 | 358 | 0.03 | 0.03 | 242 | 183 |
| December | 0.29 | 0.08 | 27 | 137 | 0.23 | 0.31 | 165 | 152 | 0.15 | 0.15 | 358 | 353 | 0.09 | 0.07 | 306 | 205 |
| Arithmetic mean | 0.37 | 0.15 | | | 0.35 | 0.35 | | | 0.10 | 0.09 | | | 0.05 | 0.03 | | |
| Year | 0.27 | 0.14 | 41 | 29 | 0.35 | 0.35 | 154 | 150 | 0.03 | 0.03 | 19 | 359 | 0.03 | 0.01 | 322 | 280 |
| Winter | 0.29 | 0.03 | 37 | 111 | 0.28 | 0.33 | 151 | 152 | 0.14 | 0.14 | 355 | 350 | 0.03 | 0.05 | 259 | 208 |
| Equinox | 0.30 | 0.14 | 24 | 32 | 0.44 | 0.39 | 156 | 153 | 0.03 | 0.04 | 360 | 345 | 0.05 | 0.03 | 360 | 359 |
| Summer | 0.25 | 0.27 | 67 | 20 | 0.33 | 0.33 | 154 | 144 | 0.09 | 0.08 | 153 | 157 | 0.04 | 0.02 | 309 | 305 |

TABLE 175 - DIURNAL VARIATION OF TEMPERATURE FOURIER COEFFICIENTS

Values of $c_n$, $\alpha_n$ in the series $\Sigma c_n \sin(15nt + \alpha_n)$, $t$ being local mean time reckoned in hours from midnighg

| | $c_1$ | | $\alpha_1$ | | $c_2$ | | $\alpha_2$ | | $c_3$ | | $\alpha_3$ | | $c_4$ | | $\alpha_4$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 | 1946 | 1871-1926 |
| | °A. | °A. | ° | ° | °A. | °A. | ° | ° | °A. | °A. | ° | ° | °A. | °A. | ° | ° |
| January | 0.69 | 0.99 | 198 | 221 | 0.46 | 0.43 | 34 | 35 | 0.19 | 0.17 | 203 | 208 | 0.04 | 0.01 | 53 | 3 |
| February | 1.41 | 1.53 | 223 | 221 | 0.44 | 0.57 | 24 | 34 | 0.10 | 0.12 | 250 | 211 | 0.05 | 0.06 | 99 | 169 |
| March | 2.40 | 2.45 | 219 | 222 | 0.57 | 0.63 | 38 | 40 | 0.08 | 0.07 | 330 | 334 | 0.09 | 0.11 | 181 | 197 |
| April | 3.88 | 3.21 | 221 | 226 | 0.48 | 0.48 | 47 | 51 | 0.31 | 0.22 | 10 | 24 | 0.07 | 0.07 | 199 | 218 |
| May | 3.51 | 3.72 | 225 | 227 | 0.13 | 0.15 | 294 | 74 | 0.25 | 0.31 | 36 | 35 | 0.10 | 0.04 | 30 | 20 |
| June | 2.62 | 3.72 | 229 | 226 | 0.08 | 0.02 | 94 | 84 | 0.18 | 0.26 | 34 | 35 | 0.09 | 0.10 | 10 | 33 |
| July | 3.61 | 3.68 | 226 | 225 | 0.06 | 0.06 | 181 | 50 | 0.25 | 0.29 | 22 | 31 | 0.11 | 0.07 | 42 | 28 |
| August | 2.74 | 3.54 | 227 | 226 | 0.23 | 0.34 | 48 | 52 | 0.25 | 0.30 | 39 | 28 | 0.03 | 0.03 | 222 | 218 |
| September | 1.93 | 3.22 | 232 | 228 | 0.48 | 0.71 | 65 | 49 | 0.14 | 0.14 | 6 | 24 | 0.13 | 0.16 | 246 | 213 |
| October | 1.95 | 2.32 | 231 | 229 | 0.54 | 0.76 | 57 | 50 | 0.12 | 0.10 | 277 | 248 | 0.07 | 0.12 | 231 | 200 |
| November | 1.01 | 1.39 | 227 | 226 | 0.33 | 0.57 | 42 | 44 | 0.14 | 0.18 | 224 | 232 | 0.00 | 0.02 | 280 | 141 |
| December | 1.08 | 0.90 | 226 | 226 | 0.38 | 0.40 | 47 | 41 | 0.17 | 0.16 | 202 | 215 | 0.03 | 0.04 | 121 | 38 |
| Arithmetic mean | 2.24 | 2.56 | | | 0.35 | 0.43 | | | 0.18 | 0.19 | | | 0.07 | 0.07 | | |
| Year | 2.23 | 2.56 | 225 | 226 | 0.31 | 0.42 | 45 | 45 | 0.07 | 0.08 | 5 | 17 | 0.00 | 0.02 | 114 | 195 |
| Winter | 1.03 | 1.20 | 221 | 223 | 0.39 | 0.49 | 36 | 39 | 0.14 | 0.15 | 216 | 217 | 0.02 | 0.01 | 91 | 121 |
| Equinox | 2.53 | 2.80 | 225 | 226 | 0.51 | 0.64 | 51 | 47 | 0.13 | 0.09 | 350 | 4 | 0.08 | 0.11 | 218 | 207 |
| Summer | 3.12 | 3.67 | 226 | 226 | 0.05 | 0.14 | 44 | 59 | 0.23 | 0.29 | 32 | 32 | 0.07 | 0.04 | 27 | 27 |

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

*Atmospheric electricity*

No change took place during 1946 in the method and procedures for observing potential gradient, air-earth current and conductivity, from those printed in the Introduction for 1938. Details of the changes of position of the Kelvin electrograph in April 1940 and of the effects on the instrument of the erection of a fire escape in March 1941 are printed in the Introduction for the years in question.

In 1946 the mean value of the air-earth current for the year, allowing equal weight for each month, was $122 \times 10^{-18}$ amp. cm.$^{-2}$. The mean value of the conductivity for the year was $42 \times 10^{-18}$ ohm$^{-1}$ cm.$^{-1}$.

The mean factor for the year for the Kelvin electrograph was 4·33 giving an equivalent height for the collector of 23·1 cm. In 1946 there were 149, 154 and 62 days of electrical character 0, 1 and 2 respectively. The extreme hourly values of potential gradient in Table 198 are 1890 volts per metre at 9h. on 13 December and -1435 volts per metre at 15h. on 14 November.

During the following months there were not 10 "quiet" calendar days.

| *1946* | *Calendar days* | *Other spells* | *Total* |
|---|---|---|---|
| February | 9 | 1 | 10 |
| June | 8 | 2 | 10 |
| August | 8 | 2 | 10 |
| September | 7 | 3 | 10 |
| November | 9 | 1 | 10 |
| December | 8 | 2 | 10 |

The *Observatories' Year Book, 1938* should be consulted for an explanation of the figures in the foregoing paragraphs.

*Atmospheric Pollution*

During 1946 the highest estimate of pollution was 2·0 mg. m.$^{-3}$, this value occurring on 19 January at 21h. There were 9 days on which the pollution reached 1·0 mg. m.$^{-3}$. The number of hours credited with 1·0 mg. m.$^{-3}$ was 46 of which 24 were recorded during December.

*Seismology*

The seismological diary and table of microseisms, which were printed in the *Observatories' Year Book* from 1922 to 1939 are now omitted. The distribution of the *Kew Monthly Bulletin* ceased in May 1940* but such seismological data as are available for 1946 are published in the *International Seismological Summary.*

No change took place in instruments or procedures from those printed in the Introduction for 1938 and 1939 except that the two modified Wood-Anderson seismographs, which were put out of commission as an economy measure in May 1942, have not been reinstated.

The Galitzin seismographs were not standardized during 1946.

The total number of shocks measured during the year was 326. The phases of 110 of these were sufficiently well defined to allow an estimate of the epicentral distance to be computed. No British earthquakes were recorded during 1946 although an earthquake is reported to have been felt at Inverness on 25 December.

*It was resumed in 1947.

Maximum, minimum and daily mean values in millibars for each day 0h. to 24h., G.M.T.
The initial 9 or 10 of the values is omitted, i.e. 1005·6 is printed 05·6

176 KEW OBSERVATORY: $h_b$(height of barometer cistern above M.S.L.) = 10·4 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 26·5 | 21·6 | 23·3 | 02·7 | 95·9 | 99·2 | 10·9 | 06·4 | 08·9 | 24·2 | 22·1 | 23·4 | 13·7 | 11·9 | 12·8 | 96·4 | 87·4 | *91·9* |
| 2 | 33·5 | 26·5 | 30·7 | 02·3 | 91·5 | *94·8* | 10·4 | 02·4 | 06·2 | 24·5 | 21·9 | 23·3 | 16·3 | 11·4 | 12·7 | 04·4 | *86·8* | 95·6 |
| 3 | 34·6 | 30·4 | 33·3 | 04·6 | 97·6 | 00·9 | 02·4 | 98·2 | *99·5* | 22·4 | 17·9 | 20·0 | 22·5 | 15·5 | 18·6 | 14·4 | 04·2 | 08·4 |
| 4 | 30·6 | 21·6 | 26·1 | 07·5 | 98·0 | 02·2 | 03·1 | 00·9 | 01·7 | 17·9 | 13·3 | 15·3 | *23·3* | 20·6 | *22·1* | 15·2 | 10·3 | 13·7 |
| 5 | 21·6 | 19·8 | 20·3 | 16·0 | 07·5 | 11·1 | 09·3 | 03·1 | 06·3 | 25·5 | 14·2 | 18·6 | 21·9 | 19·5 | 20·7 | 10·3 | 04·6 | 06·6 |
| 6 | 21·9 | 19·6 | 20·7 | 19·4 | 12·0 | 15·5 | 11·7 | 09·1 | 10·2 | 33·0 | 25·5 | 30·4 | 20·2 | 15·9 | 17·5 | 16·3 | 07·7 | 11·6 |
| 7 | 21·5 | 15·6 | 18·1 | 18·7 | 11·5 | 15·2 | 13·1 | 11·3 | 12·1 | *33·3* | 24·7 | 28·9 | 18·6 | 14·6 | 16·5 | 18·7 | 16·2 | 17·3 |
| 8 | 15·6 | 07·8 | 10·5 | 11·5 | *87·1* | 00·6 | 11·5 | 09·7 | 10·5 | 24·7 | 18·2 | 20·6 | 22·9 | 16·4 | 19·8 | 16·2 | 07·3 | 10·8 |
| 9 | 08·0 | *87·1* | 98·2 | 21·5 | 95·5 | 13·4 | 15·1 | 10·5 | 12·4 | 26·9 | 20·6 | 23·9 | 22·9 | 18·8 | 20·7 | 13·7 | 02·7 | 10·7 |
| 10 | 06·2 | 88·3 | 99·9 | 22·1 | 19·6 | 20·5 | 16·7 | 15·1 | 16·0 | 30·3 | 26·9 | 29·0 | 20·1 | 17·6 | 18·9 | 10·7 | 98·2 | 03·1 |
| 11 | 07·0 | 01·9 | 04·4 | 23·7 | 22·0 | 22·9 | 16·5 | 07·4 | 12·1 | 29·9 | 18·3 | 23·7 | 20·2 | 16·3 | 18·5 | 12·9 | 10·5 | 11·7 |
| 12 | 22·8 | 02·3 | 12·2 | 27·1 | 21·9 | 24·3 | 07·4 | 98·8 | 02·2 | 18·3 | 14·8 | 16·3 | 16·3 | 09·0 | 11·8 | 18·7 | 12·1 | 14·4 |
| 13 | 37·0 | 22·7 | 29·4 | 33·3 | 27·0 | 29·6 | 03·0 | *97·9* | 00·0 | 18·0 | 15·5 | 16·8 | 11·1 | 07·0 | 08·8 | 23·2 | 18·7 | 21·7 |
| 14 | 42·6 | 37·0 | 40·6 | 38·2 | 33·3 | 35·8 | 11·5 | 03·0 | 06·9 | 18·7 | 15·2 | 17·1 | 11·8 | 07·3 | 09·1 | 22·5 | 15·7 | 19·0 |
| 15 | *45·1* | 42·6 | *44·0* | *39·6* | 37·9 | *38·8* | 21·2 | 11·5 | 15·7 | 16·9 | 14·1 | 15·6 | 12·9 | 11·4 | 12·0 | 15·7 | 10·2 | 12·3 |
| 16 | 44·3 | 32·4 | 38·1 | 39·1 | 30·7 | 33·9 | *30·5* | 21·2 | 26·7 | 18·4 | 15·3 | 16·9 | 13·3 | 11·4 | 12·4 | 12·1 | 09·5 | 11·0 |
| 17 | 32·5 | 20·7 | 27·9 | 33·2 | 27·8 | 31·1 | 30·4 | 26·8 | *28·7* | 15·5 | 13·0 | 14·1 | 14·1 | 12·3 | 12·9 | 13·2 | 09·9 | 12·1 |
| 18 | 20·7 | 10·1 | 13·6 | 28·4 | 22·0 | 24·4 | 26·8 | 24·0 | 25·1 | 27·2 | 13·8 | 19·3 | 13·8 | 11·8 | 13·0 | 12·5 | 07·9 | 10·3 |
| 19 | 20·1 | 10·4 | 15·1 | 22·0 | 14·3 | 17·2 | 24·8 | 22·1 | 23·6 | 31·1 | 27·2 | 29·7 | 13·3 | 10·8 | 11·8 | 16·2 | 10·1 | 12·1 |
| 20 | 25·8 | 20·1 | 23·0 | 14·3 | 09·7 | 11·3 | 22·3 | 12·4 | 16·6 | 30·2 | 24·4 | 27·1 | 12·0 | 08·6 | 10·1 | 22·6 | 16·1 | 18·2 |
| 21 | 29·2 | 25·5 | 27·7 | 21·9 | 13·2 | 17·8 | 18·2 | 09·5 | 15·2 | 30·6 | 26·1 | 28·0 | 15·7 | 09·3 | 11·7 | 29·1 | 22·6 | 26·0 |
| 22 | 28·8 | 13·4 | 21·9 | 22·0 | 10·8 | 18·2 | 11·0 | *97·9* | 03·2 | 32·6 | 28·7 | *30·6* | 19·9 | 15·6 | 17·9 | *29·8* | 25·6 | *28·0* |
| 23 | 20·8 | 11·1 | 14·2 | 10·8 | 93·2 | 00·9 | 17·2 | 11·0 | 15·1 | 28·7 | 13·7 | 20·6 | 19·9 | 16·9 | 18·5 | 25·8 | 17·7 | 22·3 |
| 24 | 27·3 | 20·8 | 25·1 | 12·3 | 08·9 | 11·2 | 19·0 | 14·7 | 15·9 | 13·7 | 04·8 | 09·7 | 16·9 | 09·7 | 12·4 | 17·7 | 14·5 | 15·6 |
| 25 | 25·2 | 18·1 | 22·1 | 12·1 | 10·1 | 11·0 | 25·7 | 19·0 | 22·9 | 04·8 | 97·7 | 99·8 | 09·7 | 05·2 | 07·3 | 16·3 | 10·6 | 14·0 |
| 26 | 18·1 | 10·8 | 13·2 | 10·1 | 06·3 | 07·5 | 27·5 | 25·1 | 26·3 | 02·2 | 98·0 | 00·6 | 05·5 | 98·9 | 02·6 | 15·9 | 08·5 | 10·8 |
| 27 | 17·5 | 11·3 | 14·7 | 09·1 | 06·9 | 07·9 | 28·4 | 26·0 | 27·2 | 03·1 | 99·2 | 00·9 | 07·3 | 97·0 | 02·1 | 18·2 | 13·9 | 16·3 |
| 28 | 17·2 | 01·0 | 12·3 | 06·9 | 04·6 | 05·8 | 27·2 | 21·8 | 24·6 | 03·6 | 00·2 | 01·7 | 07·6 | 04·5 | 06·3 | 19·5 | 12·2 | 15·5 |
| 29 | 07·3 | 88·1 | 00·3 | | | | 23·9 | 20·6 | 21·8 | 03·1 | *97·3* | *99·3* | 08·8 | 06·3 | 07·3 | 21·2 | 19·2 | 20·1 |
| 30 | 07·9 | 87·8 | *97·8* | | | | 27·9 | 23·9 | 26·4 | 12·5 | 03·1 | 08·3 | 08·5 | 02·5 | 05·8 | 25·5 | 19·8 | 22·8 |
| 31 | 12·7 | 02·7 | 09·0 | | | | 27·5 | 23·1 | 25·2 | | | | 03·8 | *94·6* | *99·8* | | | |
| Mean | 23·55 | 13·84 | 18·96 | 18·94 | 11·31 | 15·11 | 17·81 | 12·40 | 15·01 | 20·73 | 14·86 | 17·64 | 14·99 | 10·60 | 12·66 | 16·83 | 10·36 | 13·46 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | millibars | | | | | | | | | | | | | | | | | |
| 1 | 26·3 | 21·6 | 24·4 | *21·5* | 18·5 | *20·3* | 09·8 | 05·2 | 07·3 | 18·4 | 12·6 | 15·2 | 15·2 | 10·4 | 11·8 | 14·7 | 03·7 | 09·4 |
| 2 | 21·6 | 13·3 | 16·6 | 18·5 | 13·3 | 15·2 | 07·9 | 06·1 | 07·1 | 18·4 | 13·7 | 17·0 | 17·7 | 11·8 | 15·0 | 06·7 | 01·7 | 05·0 |
| 3 | 16·1 | 04·9 | 12·2 | 15·7 | 13·9 | 14·9 | 06·1 | 92·6 | 99·1 | 16·1 | 12·7 | 14·3 | 23·6 | 17·1 | 19·9 | 01·7 | *94·7* | 96·7 |
| 4 | 09·5 | 03·3 | 07·1 | 15·6 | 11·9 | 14·1 | 98·9 | *91·4* | *93·9* | 17·2 | 14·0 | 16·1 | 29·3 | 23·2 | 26·1 | 12·9 | 97·6 | 05·6 |
| 5 | 21·7 | 08·4 | 14·7 | 12·5 | 07·8 | 10·0 | 05·7 | 98·6 | 01·0 | 15·7 | 13·5 | 14·3 | 34·2 | 29·0 | 31·7 | 14·1 | 10·4 | 12·2 |
| 6 | 31·0 | 21·7 | 26·2 | 15·1 | 11·9 | 13·9 | 07·3 | 04·9 | 06·1 | 19·3 | 13·3 | 16·4 | *34·3* | 28·8 | *32·3* | 13·5 | 10·5 | 12·3 |
| 7 | *32·0* | 30·2 | *31·2* | 14·6 | 10·5 | 12·1 | 10·7 | 06·6 | 09·3 | 24·2 | 19·0 | 21·3 | 28·8 | 16·6 | 22·3 | 11·7 | 95·5 | 00·5 |
| 8 | 31·7 | 28·4 | 30·1 | 11·8 | 02·3 | 06·4 | 11·4 | 05·5 | 07·1 | 27·6 | 24·1 | 26·2 | 16·6 | 11·3 | 13·8 | 96·6 | 71·1 | *82·5* |
| 9 | 29·7 | 27·0 | 28·7 | 06·8 | 98·6 | 04·9 | 21·1 | 11·4 | 17·5 | 28·2 | 26·6 | 27·4 | 15·2 | 11·4 | 13·5 | 01·3 | 73·1 | 87·3 |
| 10 | 28·8 | 25·9 | 27·4 | 08·5 | *90·6* | 97·5 | 21·7 | 13·6 | 19·2 | *29·3* | 27·6 | *28·2* | 22·5 | 12·9 | 18·4 | 13·1 | 01·3 | 09·3 |
| 11 | 26·1 | 19·8 | 22·5 | 13·2 | 08·5 | 11·8 | 17·9 | 10·6 | 13·3 | 27·8 | 24·7 | 26·2 | 22·3 | 20·8 | 21·7 | 11·4 | 99·8 | 05·2 |
| 12 | 19·8 | 14·5 | 16·6 | 09·5 | 96·6 | 02·8 | 20·0 | 14·6 | 18·1 | 25·7 | 19·9 | 22·9 | 21·0 | 07·8 | 14·5 | 21·8 | 09·9 | 17·1 |
| 13 | 14·5 | 06·7 | 09·7 | 18·2 | 96·4 | 10·9 | 14·6 | 11·0 | 12·1 | 20·3 | 18·4 | 19·4 | 09·3 | 06·0 | 08·3 | 30·3 | 21·8 | 26·5 |
| 14 | 09·7 | 06·5 | 08·0 | 17·6 | 13·5 | 15·0 | 13·5 | 07·9 | 11·1 | 20·7 | 19·2 | 19·8 | 06·0 | 99·3 | 01·1 | 34·9 | 29·7 | 31·9 |
| 15 | 10·3 | 04·7 | 08·7 | 14·9 | 12·6 | 13·9 | 19·6 | 08·9 | 16·2 | 23·5 | 20·0 | 21·8 | 99·9 | 95·5 | 97·6 | *41·4* | 34·9 | *39·0* |
| 16 | 04·7 | *97·2* | *00·1* | 12·6 | 03·8 | 08·3 | 19·1 | 15·5 | 17·4 | 24·9 | 22·3 | 23·2 | 04·2 | 98·3 | 02·0 | 40·9 | 36·2 | 38·3 |
| 17 | 05·6 | 02·9 | 03·8 | 14·3 | 03·0 | 08·5 | 15·5 | 08·9 | 11·4 | 22·6 | 19·5 | 21·3 | 03·2 | *82·1* | 91·1 | 36·4 | 34·4 | 35·6 |
| 18 | 06·9 | 04·0 | 05·0 | 15·3 | 12·1 | 13·6 | 11·7 | 98·2 | 05·5 | 20·0 | 12·4 | 16·7 | 94·2 | 84·1 | 89·0 | 36·3 | 32·3 | 34·8 |
| 19 | 12·6 | 06·7 | 09·5 | 12·1 | 08·4 | 09·7 | 13·0 | 02·7 | 09·4 | 12·4 | 02·3 | 06·5 | 93·9 | 88·5 | 91·5 | 32·3 | 22·1 | 26·3 |
| 20 | 15·3 | 12·4 | 13·5 | 15·5 | 08·4 | 11·7 | 11·5 | 84·3 | 96·1 | 02·5 | *99·1* | *00·2* | 90·7 | 82·2 | *86·1* | 25·2 | 23·4 | 24·2 |
| 21 | 16·6 | 14·2 | 15·6 | 19·2 | 15·1 | 16·3 | *24·4* | 11·5 | *21·4* | 06·5 | 00·3 | 02·8 | 92·2 | 88·6 | 90·3 | 24·7 | 20·2 | 23·0 |
| 22 | 18·2 | 12·6 | 14·4 | 19·3 | 17·8 | 18·6 | 23·4 | 15·0 | 19·1 | 14·5 | 06·5 | 10·3 | 15·1 | 87·9 | 99·3 | 20·2 | 09·6 | 14·6 |
| 23 | 20·0 | 14·4 | 18·0 | 18·8 | 14·1 | 16·9 | 15·0 | 12·8 | 13·7 | 20·3 | 14·5 | 17·1 | 15·9 | 07·0 | 12·2 | 09·6 | 03·0 | 05·4 |
| 24 | 15·4 | 09·3 | 11·4 | 14·1 | 09·3 | 11·0 | 17·8 | 14·8 | 16·8 | 22·7 | 20·0 | 21·3 | 07·0 | 97·4 | 01·8 | 17·3 | 04·5 | 12·1 |
| 25 | 20·3 | 15·4 | 18·9 | 09·6 | 06·9 | 08·3 | 21·4 | 16·5 | 19·0 | 22·4 | 16·7 | 20·0 | 03·4 | 97·3 | 99·3 | 16·5 | 03·3 | 08·7 |
| 26 | 19·4 | 04·3 | 11·6 | 11·1 | 09·3 | 10·2 | 21·3 | 16·4 | 18·4 | 16·7 | 05·9 | 11·2 | 08·5 | 97·7 | 03·0 | 07·4 | 95·5 | 02·8 |
| 27 | 19·7 | 08·7 | 13·7 | 10·5 | 03·4 | 08·9 | 22·0 | 16·1 | 19·0 | 12·4 | 03·8 | 07·1 | 08·2 | 02·2 | 04·0 | 12·1 | 97·2 | 03·7 |
| 28 | 20·3 | 12·6 | 18·3 | 03·4 | 91·6 | *95·2* | 22·2 | 17·4 | 20·2 | 22·2 | 12·4 | 16·6 | 03·1 | 96·8 | 00·2 | 21·7 | 12·1 | 17·2 |
| 29 | 16·2 | 11·5 | 13·6 | 03·6 | 92·2 | 98·6 | 17·4 | 12·4 | 14·5 | 24·4 | 22·1 | 23·1 | 01·9 | 93·2 | 95·8 | 24·0 | 17·3 | 21·9 |
| 30 | 16·1 | 09·8 | 12·8 | 07·6 | 03·5 | 05·3 | 19·1 | 15·5 | 17·6 | 22·4 | 19·0 | 20·6 | 04·7 | 98·3 | 02·2 | 17·3 | 12·0 | 14·7 |
| 31 | 19·9 | 13·8 | 16·8 | 10·2 | 07·3 | 08·9 | | | | 22·4 | 15·2 | 19·8 | | | | 12·0 | 01·1 | 05·8 |
| Mean | 18·58 | 12·47 | 15·52 | 13·26 | 06·87 | 10·12 | 15·37 | 08·23 | 11·93 | 20·05 | 15·20 | 17·56 | 11·40 | 03·45 | 07·19 | 18·71 | 09·03 | 13·86 |
| | | | | | | | | | Annual | 17·52 | 10·73 | 14·10 | | | | | | |

## PRESSURE AT STATION LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

177 KEW OBSERVATORY: $h_b$ = 10·4 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | millibars | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 18·83 | 18·72 | 18·89 | 18·98 | 18·97 | 18·91 | 18·99 | 19·21 | 19·57 | 19·95 | *20·12* | 20·06 | 19·70 | 19·20 | 18·93 | 18·77 | 18·69 | 18·59 | 18·51 | 18·45 | 18·41 | 18·35 | 18·35 | 18·29 | *18·21* | 18·96 |
| Feb. | 15·85 | 15·77 | 15·64 | 15·44 | 15·27 | 15·15 | 15·02 | 14·98 | 15·09 | 15·10 | 14·96 | 14·97 | 14·85 | 14·55 | 14·39 | *14·30* | 14·43 | 14·61 | 14·99 | 15·21 | 15·33 | 15·50 | 15·54 | 15·75 | *15·99* | 15·11 |
| Mar. | 15·05 | 14·97 | 14·79 | 14·65 | 14·63 | 14·67 | 14·81 | 15·05 | 15·25 | 15·42 | 15·39 | 15·33 | 15·14 | 14·82 | 14·58 | 14·37 | *14·35* | 14·51 | 14·85 | 15·18 | 15·42 | 15·52 | 15·56 | *15·65* | 15·61 | 15·01 |
| Apr. | 18·21 | 17·99 | 17·83 | 17·75 | 17·63 | 17·76 | 18·02 | 18·23 | 18·32 | *18·43* | 18·22 | 18·01 | 17·78 | 17·52 | 17·17 | 16·79 | *16·65* | 16·58 | 16·78 | 17·07 | 17·51 | 17·68 | 17·77 | 17·86 | 17·82 | 17·64 |
| May | *13·48* | 13·18 | 13·09 | 12·88 | 12·78 | 12·78 | 12·92 | 13·02 | 13·02 | 13·05 | 12·82 | 12·75 | 12·59 | 12·37 | 12·19 | 12·02 | 11·83 | *11·80* | 11·90 | 12·18 | 12·61 | 12·84 | 13·00 | 13·01 | 12·97 | 12·66 |
| June | 13·30 | 13·10 | 12·90 | *12·79* | 12·86 | 13·02 | 13·21 | 13·45 | 13·60 | 13·59 | 13·47 | 13·40 | 13·33 | 13·25 | 13·28 | 13·33 | 13·26 | 13·30 | 13·46 | 13·64 | 13·94 | 14·29 | *14·45* | 14·40 | 14·26 | 13·46 |
| July | 16·14 | 15·90 | 15·77 | 15·54 | 15·45 | 15·53 | 15·66 | 15·75 | 15·85 | 15·78 | 15·65 | 15·54 | 15·39 | 15·25 | 15·17 | 15·06 | 14·98 | *14·80* | 14·97 | 15·23 | 15·50 | 15·91 | *15·98* | 15·97 | 15·97 | 15·52 |
| Aug. | 10·50 | 10·36 | 10·15 | 10·02 | 09·07 | 09·90 | 10·07 | 10·19 | 10·24 | 10·25 | 10·15 | 09·99 | 10·01 | 09·90 | *09·80* | 09·82 | 09·83 | 09·87 | 10·03 | 10·24 | 10·53 | 10·54 | *10·57* | 10·38 | 10·17 | 10·12 |
| Sept. | 12·21 | 12·28 | 12·07 | 11·87 | 11·78 | 11·87 | 12·06 | 12·23 | 12·37 | 12·49 | 12·29 | 12·09 | 11·91 | 11·62 | 11·40 | 11·18 | *10·99* | 11·08 | 11·36 | 11·80 | 12·04 | 12·29 | 12·45 | 12·50 | *12·50* | 11·93 |
| Oct. | 17·75 | 17·63 | 17·49 | 17·29 | 17·21 | 17·27 | 17·40 | 17·68 | 17·91 | *18·07* | 18·03 | 17·87 | 17·59 | 17·34 | 17·15 | *17·04* | 17·11 | 17·25 | 17·53 | 17·91 | 17·78 | 17·88 | 17·80 | 17·66 | 17·65 | 17·56 |
| Nov. | *08·14* | 07·99 | 07·87 | 07·63 | 07·44 | 07·29 | 07·19 | 07·25 | 07·41 | 07·51 | 07·33 | 07·09 | 06·72 | 06·47 | 06·20 | *06·15* | 06·31 | 06·50 | 06·80 | 07·05 | 07·32 | 07·64 | 07·71 | 07·76 | 07·79 | 07·19 |
| Dec. | 14·02 | 13·96 | 14·02 | 13·91 | 13·80 | 13·70 | 13·79 | 13·88 | 14·09 | 14·33 | *14·37* | 14·21 | 13·84 | 13·53 | 13·31 | *13·22* | 13·35 | 13·49 | 13·59 | 13·80 | 13·95 | 14·00 | 14·14 | 14·22 | 14·23 | 13·86 |
| Annual | 14·46 | 14·33 | 14·21 | 14·07 | 13·98 | 13·99 | 14·10 | 14·25 | 14·41 | *14·51* | 14·41 | 14·29 | 14·08 | 13·83 | 13·64 | *13·52* | 13·49 | 13·54 | 13·74 | 13·97 | 14·20 | 14·38 | 14·45 | 14·46 | 14·43 | 14·10 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

## PRESSURE REDUCED TO MEAN SEA LEVEL

Monthly and annual means of hourly values in millibars at exact hours, G.M.T.

178 KEW OBSERVATORY: $h_b$ = 10·4 m.

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | millibars | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 20·14 | 20·02 | 20·17 | 20·29 | 20·29 | 20·22 | 20·30 | 20·52 | 20·89 | 21·27 | *21·43* | 21·37 | 21·00 | 20·50 | 20·24 | 20·07 | 20·00 | 19·90 | 19·81 | 19·75 | 19·71 | 19·66 | 19·65 | 19·60 | *19·52* | 20·27 |
| Feb. | 17·15 | 17·06 | 16·94 | 16·73 | 16·56 | 16·45 | 16·31 | 16·28 | 16·38 | 16·39 | 16·25 | 16·25 | 16·13 | 15·83 | 15·67 | *15·59* | 15·71 | 15·89 | 16·28 | 16·50 | 16·62 | 16·79 | 16·84 | 17·03 | *17·28* | 16·40 |
| Mar. | 16·35 | 16·27 | 16·10 | 15·95 | 15·94 | 15·97 | 16·11 | 16·35 | 16·56 | 16·72 | 16·68 | 16·63 | 16·43 | 16·11 | 15·86 | 15·65 | *15·63* | 15·80 | 16·14 | 16·48 | 16·71 | 16·82 | 16·86 | *16·94* | 16·91 | 16·30 |
| Apr. | 19·49 | 19·28 | 19·12 | 19·04 | 18·92 | 19·05 | 19·32 | 19·52 | 19·60 | *19·71* | 19·49 | 19·27 | 19·04 | 18·78 | 18·42 | 18·05 | 17·91 | *17·84* | 18·05 | 18·34 | 18·78 | 18·96 | 19·05 | 19·15 | 19·10 | 18·92 |
| May | *14·76* | 14·46 | 14·38 | 14·17 | 14·06 | 14·07 | 14·20 | 14·29 | 14·29 | 14·31 | 14·08 | 14·02 | 13·84 | 13·62 | 13·45 | 13·27 | 13·08 | *13·05* | 13·14 | 13·44 | 13·87 | 14·11 | 14·27 | 14·29 | 14·24 | 13·93 |
| June | 14·56 | 14·37 | 14·16 | *14·05* | 14·13 | 14·29 | 14·48 | 14·71 | 14·86 | 14·85 | 14·72 | 14·65 | 14·56 | 14·49 | 14·52 | 14·57 | 14·50 | 14·55 | 14·70 | 14·89 | 15·19 | 15·55 | *15·71* | 15·66 | 15·53 | 14·72 |
| July | *17·39* | 17·16 | 17·02 | 16·80 | 16·71 | 16·79 | 16·91 | 16·99 | 17·10 | 17·02 | 16·89 | 16·78 | 16·63 | 16·49 | 16·41 | 16·29 | 16·21 | *16·04* | 16·21 | 16·49 | 16·74 | 17·15 | 17·22 | 17·21 | 17·21 | 16·76 |
| Aug. | 11·76 | 11·61 | 11·40 | 11·27 | 11·13 | 11·16 | 11·33 | 11·45 | 11·49 | 11·49 | 11·39 | 11·23 | 11·25 | 11·14 | *11·03* | 11·05 | 11·07 | 11·11 | 11·26 | 11·48 | 11·77 | 11·78 | *11·82* | 11·63 | 11·43 | 11·37 |
| Sept. | 13·47 | 13·54 | 13·33 | 13·13 | 13·05 | 13·13 | 13·32 | 13·49 | 13·63 | 13·74 | 13·54 | 13·33 | 13·15 | 12·87 | 12·64 | 12·43 | *12·23* | 12·32 | 12·61 | 13·05 | 13·29 | 13·54 | 13·70 | 13·75 | *13·76* | 13·18 |
| Oct. | 19·03 | 18·92 | 18·77 | 18·58 | 18·49 | 18·55 | 18·69 | 18·96 | 19·19 | *19·35* | 19·31 | 19·14 | 18·85 | 18·61 | 18·42 | *18·31* | 18·38 | 18·51 | 18·80 | 18·98 | 19·06 | 19·16 | 19·07 | 18·93 | 18·93 | 18·83 |
| Nov. | *09·41* | 09·27 | 09·15 | 08·90 | 08·72 | 08·56 | 08·47 | 08·52 | 08·69 | 08·79 | 08·61 | 08·37 | 07·99 | 07·73 | 07·47 | *07·42* | 07·58 | 07·77 | 08·07 | 08·33 | 08·59 | 08·92 | 08·99 | 09·03 | 09·07 | 08·46 |
| Dec. | 15·33 | 15·27 | 15·33 | 15·22 | 15·11 | 15·01 | 15·10 | 15·19 | 15·40 | 15·64 | *15·68* | 15·31 | 15·14 | 14·83 | 14·61 | *14·52* | 14·65 | 14·79 | 14·89 | 15·11 | 15·26 | 15·31 | 15·45 | 15·53 | 15·54 | 15·16 |
| Annual | 15·70 | 15·61 | 15·49 | 15·35 | 15·26 | 15·27 | 15·38 | 15·53 | 15·69 | *15·78* | 15·68 | 15·56 | 15·35 | 15·09 | 14·90 | 14·78 | *14·75* | 14·80 | 15·01 | 15·24 | 15·47 | 15·65 | 15·73 | 15·74 | 15·71 | 15·37 |

The initial 9 or 10 of the value is omitted, i.e. 1001·42 is printed 01·42.

The monthly and annual values of pressure reduced to mean sea level are computed from the corresponding monthly and annual means of pressure at station level and of temperature. See General Introduction to the Meteorological Tables, 1938.

## TEMPERATURE

Monthly and annual means of readings in degrees Absolute at exact hours, G.M.T.

179 KEW OBSERVATORY: North-wall screen: $h_t$ = 3·0

| | Hour G.M.T. 0 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | degrees Absolute | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 76·57 | 76·45 | 76·31 | 76·22 | 76·10 | 76·05 | 75·91 | 75·78 | *75·57* | 75·68 | 76·17 | 76·69 | 77·20 | 77·64 | *77·85* | 77·78 | 77·54 | 77·18 | 76·97 | 76·91 | 76·87 | 76·90 | 76·83 | 76·81 | 76·86 | 76·65 |
| Feb. | 79·05 | 79·10 | 78·96 | 78·92 | 78·79 | 78·84 | 78·79 | 78·76 | 78·81 | 79·31 | 79·71 | 80·54 | 81·12 | 81·40 | 81·43 | *81·51* | 81·33 | 80·94 | 80·48 | 80·12 | 79·80 | 79·33 | 79·06 | 78·90 | *78·70* | 79·78 |
| Mar. | 77·01 | 76·74 | 76·59 | 76·31 | 76·22 | *76·00* | 76·01 | 76·11 | 76·72 | 77·60 | 78·57 | 79·41 | 80·28 | 80·64 | 80·99 | *81·10* | 80·96 | 80·62 | 79·97 | 79·28 | 78·62 | 78·28 | 77·84 | 77·51 | 77·24 | 78·30 |
| Apr. | 81·37 | 80·91 | 80·63 | 80·23 | 79·98 | *79·75* | *79·75* | 80·94 | 81·82 | 83·29 | 84·65 | 85·57 | 86·51 | 86·96 | 87·45 | *87·75* | 87·34 | 87·47 | 86·65 | 85·39 | 84·23 | 83·45 | 82·62 | 81·97 | 81·51 | 83·62 |
| May | 81·83 | 81·48 | 81·05 | 80·93 | *80·78* | 80·95 | 81·75 | 82·54 | 83·50 | 84·41 | 85·16 | 85·72 | 86·44 | 87·13 | 87·53 | *87·69* | 87·65 | 87·61 | 87·31 | 86·31 | 84·91 | 83·94 | 83·11 | 82·33 | 81·83 | 84·25 |
| June | 85·10 | 84·87 | 84·60 | 84·36 | *84·21* | 84·42 | 85·01 | 85·70 | 86·60 | 87·30 | 87·93 | 88·45 | 88·91 | 89·38 | 89·52 | *89·60* | 89·48 | 89·19 | 88·91 | 88·40 | 87·43 | 86·70 | 86·13 | 85·68 | 85·31 | 86·99 |
| July | 87·92 | 87·48 | 87·20 | 86·81 | *86·71* | 86·91 | 87·76 | 88·70 | 89·71 | 90·67 | 91·51 | 92·35 | 92·95 | 93·36 | 93·65 | *93·76* | 93·66 | 93·63 | 93·18 | 92·43 | 91·08 | 89·95 | 89·15 | 88·41 | 87·82 | 90·37 |
| Aug. | 86·75 | 86·44 | 86·23 | 85·91 | 85·86 | *85·76* | 86·21 | 86·84 | 87·78 | 88·71 | 89·43 | 89·98 | 90·43 | 90·85 | 91·20 | *91·36* | 91·28 | 90·90 | 90·56 | 89·53 | 88·65 | 87·98 | 87·50 | 87·15 | 86·74 | 88·48 |
| Sept. | 86·25 | 86·11 | 86·01 | 85·87 | 85·71 | 85·55 | *85·51* | 85·85 | 86·81 | 87·70 | 88·45 | 88·73 | 89·26 | *89·61* | 89·54 | 89·51 | 89·32 | 88·94 | 88·23 | 87·46 | 87·13 | 86·88 | 86·67 | 86·56 | 86·29 | 87·40 |
| Oct. | 82·71 | 82·58 | 82·37 | 82·28 | 82·29 | *82·10* | *82·10* | 82·28 | 82·83 | 83·67 | 84·56 | 85·29 | 85·74 | *86·06* | 86·18 | 85·98 | 85·54 | 84·96 | 84·47 | 84·02 | 83·67 | 83·35 | 82·96 | 82·64 | 82·49 | 83·78 |
| Nov. | 81·04 | 80·98 | 80·87 | *80·86* | 80·91 | *80·86* | *80·86* | 80·87 | 80·97 | 81·31 | 81·75 | 82·29 | 82·67 | 82·97 | *83·07* | 82·96 | 82·68 | 82·23 | 82·02 | 81·87 | 81·70 | 81·51 | 81·35 | 81·21 | 81·03 | 81·66 |
| Dec. | 75·70 | 75·43 | 75·36 | 75·31 | 75·29 | *75·27* | 75·45 | 75·45 | 75·47 | 75·74 | 76·25 | 76·72 | 77·25 | *77·65* | 77·66 | 77·55 | 77·10 | 76·79 | 76·57 | 76·31 | 76·02 | 75·91 | 75·92 | 75·70 | 75·55 | 76·15 |
| Annual | 81·77 | 81·55 | 81·35 | 81·17 | 81·07 | *81·04* | 81·26 | 81·66 | 82·22 | 82·96 | 83·69 | 84·32 | 84·91 | 85·32 | 85·52 | *85·56* | 85·34 | 85·05 | 84·62 | 84·01 | 83·35 | 82·86 | 82·44 | 82·08 | 81·79 | 83·13 |

The initial 2 or 3 of the readings is omitted, i.e. 275·00 degrees Absolute is printed 75·00

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

Maximum, minimum and daily mean values in degrees Absolute for each day 0h. to 24h., G.M.T.
The initial 2 or 3 of the values is omitted, i.e. 275·0° is printed 75·0°. Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$

180 KEW OBSERVATORY: North-wall screen: $h_t$(height of thermometer bulb above ground) = 3·0 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | degrees Absolute | | | | | | | | | | | | | | | | | |
| 1 | 74·4 | 71·9 | 73·4 | 83·2 | 80·0 | 81·6 | 76·0 | 71·7 | 73·7 | 89·4 | 77·9 | 83·3 | 91·2 | 80·7 | 86·3 | 88·0 | 83·0 | 85·3 |
| 2 | 74·0 | 73·1 | 73·3 | 82·2 | 78·0 | 80·3 | 75·2 | 73·3 | 74·0 | 92·8 | 79·6 | 85·4 | 90·1 | 81·5 | 85·5 | 89·9 | 82·8 | 85·7 |
| 3 | 73·3 | 69·0 | 71·7 | 85·0 | 80·5 | 82·7 | 76·0 | 72·5 | 74·2 | *96·6* | 81·2 | *88·8* | 88·5 | 80·2 | 84·0 | 90·0 | 83·3 | 86·3 |
| 4 | 77·1 | 69·9 | 74·1 | 82·9 | 78·5 | 80·9 | 75·6 | 71·2 | *73·6* | 96·0 | 82·2 | 88·1 | 88·1 | 79·5 | 83·3 | 87·4 | 81·1 | 85·1 |
| 5 | 80·9 | 76·0 | 79·2 | 83·3 | 78·6 | 80·6 | 76·3 | 74·8 | 75·5 | 85·2 | 78·8 | 82·7 | 84·8 | 77·3 | 80·5 | 90·3 | 85·1 | 87·0 |
| 6 | 81·4 | 79·2 | 80·2 | *86·1* | 78·1 | 81·7 | 75·3 | 74·0 | 74·8 | 84·9 | 76·7 | 80·6 | 86·4 | 76·3 | 82·2 | 92·1 | 83·8 | 87·2 |
| 7 | 80·5 | 75·4 | 78·4 | *86·1* | 81·9 | *84·5* | 76·7 | 74·0 | 75·2 | 88·2 | 76·8 | 82·3 | 90·5 | 82·0 | 85·7 | 94·0 | *80·1* | 87·7 |
| 8 | 81·3 | 79·1 | 80·4 | 85·5 | 75·5 | 83·5 | 75·1 | 71·5 | 73·9 | 86·9 | 78·7 | 83·0 | 84·1 | 79·6 | 81·8 | 90·1 | 85·6 | 87·5 |
| 9 | 83·3 | 81·2 | 82·4 | 81·0 | 76·9 | 78·9 | 76·3 | 71·2 | 73·8 | 85·1 | 78·0 | 81·3 | 88·1 | 79·1 | 83·3 | 88·6 | 82·9 | 85·8 |
| 10 | 84·9 | 81·1 | 82·9 | 83·6 | 77·2 | 80·3 | 79·2 | *70·1* | 74·3 | 82·7 | 75·0 | *78·7* | 91·0 | 79·6 | 85·4 | 88·4 | 82·8 | 86·1 |
| 11 | *85·9* | 82·7 | *84·8* | 82·5 | 78·2 | 80·3 | 78·4 | 70·6 | 75·4 | 86·1 | *73·0* | 80·2 | 88·1 | 80·5 | 83·3 | 87·7 | 81·4 | *83·8* |
| 12 | 83·2 | 78·9 | 81·0 | 83·6 | 79·5 | 81·5 | 83·1 | 75·8 | 79·0 | 87·7 | 77·3 | 82·3 | 91·4 | 79·8 | 84·7 | 89·1 | 80·6 | 84·9 |
| 13 | 79·0 | 74·2 | 77·4 | 83·1 | 80·8 | 81·9 | 79·6 | 76·1 | 77·9 | 90·2 | 76·8 | 83·9 | 85·9 | 79·3 | 82·3 | 91·6 | 81·4 | 86·2 |
| 14 | 76·5 | 72·9 | 74·7 | 83·3 | 80·9 | 82·1 | 77·2 | 75·3 | 76·1 | 90·7 | 77·9 | 84·5 | 82·6 | 77·7 | 80·2 | 91·4 | 82·5 | 86·8 |
| 15 | 76·0 | 73·0 | 74·7 | 81·9 | 80·8 | 81·2 | 76·4 | 74·5 | 75·6 | 91·3 | 77·5 | 85·0 | 86·2 | 75·1 | 80·6 | 90·9 | 85·0 | 86·6 |
| 16 | 76·6 | 72·0 | 74·3 | 84·2 | 80·7 | 82·2 | 75·1 | 73·0 | 74·2 | 92·4 | 79·8 | 85·5 | 85·0 | 76·9 | *80·0* | 89·8 | 84·0 | 86·3 |
| 17 | 74·3 | 72·6 | 73·4 | 83·1 | 77·5 | 80·0 | 78·4 | 71·5 | 75·7 | 89·5 | 82·6 | 85·6 | 87·4 | *74·9* | 82·1 | 89·9 | 84·7 | 86·8 |
| 18 | 74·0 | 71·1 | 72·5 | 83·3 | 78·0 | 81·5 | 83·0 | 77·9 | 80·7 | 85·1 | 78·8 | 83·0 | 87·7 | 81·2 | 84·3 | 90·2 | 83·9 | 86·5 |
| 19 | 75·5 | 69·9 | 73·2 | 85·2 | 80·1 | 82·4 | 85·2 | 79·8 | 82·4 | 87·4 | 75·6 | 81·8 | 89·4 | 78·6 | 83·8 | 87·8 | 82·2 | 84·6 |
| 20 | 72·5 | *68·0* | *70·1* | 81·0 | 75·0 | 79·2 | 86·1 | 76·4 | 82·1 | 90·1 | 76·0 | 83·7 | 89·5 | 78·7 | 84·9 | 89·1 | 82·1 | 85·5 |
| 21 | 72·7 | 68·5 | 70·9 | 77·8 | 73·8 | 75·8 | 85·6 | 81·5 | 82·8 | 87·1 | 80·5 | 83·8 | 87·9 | 80·9 | 84·9 | 92·1 | 82·0 | 87·2 |
| 22 | 76·0 | 72·0 | 73·9 | 80·6 | 71·7 | 76·4 | 83·1 | 79·5 | 81·8 | 87·4 | 78·3 | 82·8 | 91·9 | 80·1 | 85·5 | 93·6 | 82·9 | 89·3 |
| 23 | 76·1 | 73·8 | 74·9 | 83·2 | 75·7 | 79·7 | 85·2 | 77·8 | 81·1 | 88·1 | 77·3 | 83·5 | *92·4* | 81·1 | 87·1 | *96·2* | 86·6 | *90·6* |
| 24 | 77·1 | 73·6 | 75·1 | 79·6 | 73·9 | 76·5 | 83·4 | 77·4 | 80·5 | 85·3 | 79·5 | 82·9 | 90·4 | 83·1 | 86·2 | 93·0 | 87·5 | 89·9 |
| 25 | 79·1 | 76·1 | 78·1 | 78·0 | 74·4 | 76·1 | 86·7 | 74·5 | 80·2 | 85·2 | 80·7 | 83·2 | 89·4 | 82·8 | 86·2 | 91·3 | 83·8 | 87·8 |
| 26 | 79·1 | 77·4 | 78·4 | 76·6 | 73·2 | 75·0 | 89·3 | 73·4 | 81·4 | 87·3 | 81·9 | 84·7 | 88·7 | 83·9 | 85·7 | 94·2 | 85·5 | 89·2 |
| 27 | 79·0 | 73·0 | 76·0 | 76·5 | 71·6 | 73·7 | 90·6 | 75·1 | 82·2 | 90·4 | 83·0 | 86·2 | 89·9 | 83·9 | 86·2 | 90·4 | 84·1 | 87·4 |
| 28 | 82·6 | 76·5 | 79·3 | 77·0 | *69·9* | *73·4* | 89·8 | 75·8 | 83·2 | 87·0 | 81·5 | 83·6 | 91·0 | 81·0 | 86·3 | 92·8 | 85·8 | 88·6 |
| 29 | 84·3 | 78·7 | 80·9 | | | | *91·5* | 79·8 | *84·6* | 84·0 | 81·3 | 82·7 | 91·9 | 82·8 | *87·3* | 91·2 | 85·9 | 88·2 |
| 30 | 83·0 | 75·4 | 78·1 | | | | 89·8 | 80·0 | 83·8 | 91·4 | 80·2 | 85·5 | 91·9 | 81·4 | 87·2 | 93·1 | 87·2 | 89·9 |
| 31 | 82·6 | 75·5 | 78·6 | | | | 88·8 | 79·7 | 83·6 | | | | 87·4 | 82·2 | 85·1 | | | |
| Mean | 78·6 | 74·6 | 76·7 | 82·1 | 77·2 | 79·8 | 81·5 | 75·2 | 78·3 | 88·4 | 78·8 | 83·6 | 88·7 | 80·1 | 84·3 | 90·8 | 83·7 | 87·0 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean | Max. | Min. | Mean |
| | degrees Absolute | | | | | | | | | | | | | | | | | |
| 1 | 98·6 | 88·7 | 92·5 | 94·0 | 84·1 | 88·8 | 91·1 | 83·5 | 86·9 | *93·6* | 84·1 | *88·9* | 80·4 | 77·1 | *78·7* | *84·0* | 78·2 | *80·4* |
| 2 | 00·8 | 87·3 | *94·9* | 94·8 | 87·9 | 90·9 | 90·4 | 84·6 | 87·1 | 93·0 | 84·3 | 88·6 | 81·9 | *75·3* | 78·8 | 82·2 | 77·2 | 80·3 |
| 3 | 00·2 | 88·3 | 94·3 | 95·4 | 87·5 | 91·2 | 89·4 | 85·5 | 87·3 | 92·0 | 84·9 | 88·6 | 86·2 | 81·9 | 84·0 | 80·8 | 76·0 | 78·4 |
| 4 | 93·3 | 86·3 | 90·7 | 98·2 | 85·0 | 92·2 | 89·2 | 86·7 | 87·5 | 89·7 | 83·8 | 86·7 | *89·9* | 77·8 | 84·1 | 79·9 | 75·3 | 77·2 |
| 5 | 91·9 | 85·9 | 88·8 | *99·2* | 86·8 | *93·2* | 90·7 | 85·4 | 87·9 | 88·4 | 85·3 | 86·8 | 83·1 | 76·6 | 80·3 | 77·6 | 73·0 | 75·7 |
| 6 | 93·4 | 85·2 | 89·2 | 94·7 | 88·7 | 91·0 | 90·1 | 83·2 | 86·1 | 87·1 | 80·5 | 85·1 | 83·4 | 78·0 | 81·0 | 80·3 | 72·8 | 77·1 |
| 7 | 94·6 | 82·8 | 89·5 | 93·4 | 86·7 | 90·1 | 89·6 | 81·5 | 86·6 | 88·3 | 76·4 | 82·2 | 82·5 | 77·3 | 79·2 | 79·6 | 71·5 | 76·6 |
| 8 | 95·1 | 84·2 | 89·8 | 92·1 | 85·6 | 88·3 | 89·5 | 86·0 | 87·5 | 88·1 | 77·2 | 83·2 | 82·9 | 79·5 | 81·0 | 79·6 | 74·6 | 77·7 |
| 9 | 98·1 | 83·9 | 91·6 | 92·4 | 84·8 | 88·2 | 90·1 | 84·3 | 87·1 | 86·6 | 81·5 | 84·4 | 81·0 | 79·3 | 80·4 | 78·7 | 77·0 | 78·0 |
| 10 | 99·1 | 85·5 | 92·4 | 91·9 | 85·6 | 88·7 | 89·9 | 84·0 | 87·0 | 87·3 | 83·8 | 85·2 | 82·7 | 79·0 | 80·8 | 78·4 | 72·0 | 75·5 |
| 11 | 99·1 | 86·6 | 93·3 | 91·8 | 82·9 | 87·9 | 89·5 | 86·6 | 87·9 | 89·6 | 82·0 | 85·2 | 82·1 | 80·1 | 81·1 | 81·9 | 73·0 | 78·5 |
| 12 | *01·2* | 88·4 | 94·8 | 92·0 | 86·5 | 88·8 | 90·5 | 82·7 | 87·1 | 86·0 | 82·6 | 84·2 | 83·6 | 80·6 | 82·0 | 77·8 | 72·2 | 75·0 |
| 13 | 99·5 | 89·7 | 94·7 | 93·0 | 86·3 | 89·0 | 89·2 | 83·5 | 86·5 | 85·8 | 83·4 | 84·4 | 84·4 | 80·1 | 82·1 | 75·2 | 70·9 | 73·0 |
| 14 | 92·5 | 84·4 | 89·2 | 92·8 | 85·5 | 87·7 | 88·6 | 82·4 | 86·1 | 84·4 | 82·5 | 83·2 | 83·0 | 80·4 | 82·1 | 79·6 | 74·2 | 77·1 |
| 15 | 91·8 | 83·1 | 87·4 | 91·1 | 83·9 | 86·8 | 90·4 | 84·1 | 87·4 | 83·2 | 81·3 | 82·2 | 84·4 | 81·2 | 81·8 | 77·4 | 70·4 | 73·6 |
| 16 | 88·1 | 82·2 | *84·9* | 90·0 | *79·8* | *85·7* | 89·2 | *79·6* | *85·3* | 84·7 | 80·7 | 82·8 | 82·3 | 79·9 | 81·2 | 74·0 | 70·8 | 72·2 |
| 17 | 90·3 | *80·1* | 85·6 | 88·4 | 84·0 | 86·3 | 89·3 | 83·8 | 86·6 | 86·7 | 82·1 | 84·0 | 83·2 | 77·6 | 80·6 | 75·5 | 72·4 | 73·9 |
| 18 | 90·9 | 86·9 | 88·4 | 91·4 | 79·9 | 86·1 | 89·1 | 84·6 | 86·6 | 86·0 | 81·6 | 83·7 | 83·0 | 79·1 | 80·8 | 74·8 | 72·1 | 73·2 |
| 19 | 90·7 | 86·3 | 88·4 | 90·6 | 84·5 | 87·6 | 88·7 | 83·5 | 85·9 | 91·0 | 83·5 | 86·4 | 84·3 | 79·0 | 81·1 | 75·2 | 72·5 | 73·7 |
| 20 | 91·0 | 86·6 | 88·4 | 89·7 | 85·0 | 87·1 | 89·6 | 81·8 | 87·0 | 90·0 | 84·6 | 87·5 | 86·8 | 82·8 | *84·7* | 74·2 | 70·4 | 72·2 |
| 21 | 92·1 | 86·2 | 88·6 | 92·5 | 83·3 | 87·4 | 89·1 | 81·7 | 85·5 | 89·5 | 83·7 | 86·5 | 84·2 | 79·3 | 82·3 | 70·9 | *66·0* | *68·8* |
| 22 | 95·9 | 86·9 | 90·7 | 89·1 | 83·9 | 87·2 | 89·9 | 85·5 | 87·2 | 87·5 | 83·6 | 85·6 | 83·6 | 76·8 | 81·1 | 77·9 | 70·4 | 75·2 |
| 23 | 96·0 | 88·8 | 92·1 | 93·2 | 85·6 | 89·5 | 90·7 | 84·6 | 88·0 | 85·6 | 79·0 | 83·1 | 84·6 | *75·3* | 81·3 | 77·8 | 76·1 | 77·0 |
| 24 | 00·1 | 87·3 | 93·6 | 93·7 | 87·4 | 90·1 | 89·2 | 84·1 | 86·4 | 82·1 | 76·7 | 80·2 | 84·6 | 82·9 | 83·5 | 77·7 | 73·0 | 76·0 |
| 25 | 95·1 | 85·2 | 90·4 | 94·0 | 86·0 | 89·2 | 91·7 | 85·1 | 88·9 | 79·9 | 74·7 | *77·2* | 84·7 | 82·0 | 83·5 | 81·0 | 71·0 | 77·9 |
| 26 | 99·0 | 84·7 | 91·0 | 92·2 | 84·8 | 88·0 | 94·7 | 87·4 | 90·4 | 82·9 | 77·0 | 80·4 | 83·5 | 79·7 | 81·5 | 79·9 | 76·2 | 78·0 |
| 27 | 92·1 | 86·0 | 89·2 | 90·2 | 82·6 | 86·9 | 94·3 | 86·3 | 89·9 | 82·8 | 77·7 | 80·9 | 85·0 | 79·8 | 83·7 | 80·6 | 75·9 | 71·2 |
| 28 | 92·2 | 84·3 | 88·0 | 90·7 | 85·9 | 88·1 | *95·8* | 85·9 | *91·0* | 83·5 | 75·5 | 80·0 | 84·2 | 82·7 | 83·5 | 81·1 | 76·7 | 78·4 |
| 29 | 94·2 | 87·0 | 90·1 | 89·7 | 85·3 | 87·2 | 92·3 | 87·4 | 89·8 | 82·7 | *73·5* | 78·0 | 83·8 | 80·8 | 82·4 | 78·1 | 75·0 | 76·5 |
| 30 | 93·2 | 87·3 | 90·3 | 90·0 | 84·5 | 87·0 | 91·9 | 84·1 | 87·7 | 83·6 | 77·3 | 80·8 | 84·2 | 79·2 | 81·1 | 81·1 | 73·0 | 78·3 |
| 31 | 91·6 | 85·7 | 88·7 | 89·4 | 84·8 | 86·7 | | | | 82·7 | 79·1 | 80·7 | | | | 80·7 | 72·1 | 77·2 |
| Mean | 94·9 | 85·9 | 90·4 | 92·3 | 85·0 | 88·5 | 90·5 | 84·3 | 87·4 | 86·6 | 80·8 | 83·8 | 83·8 | 79·4 | 81·7 | 78·5 | 73·3 | 76·1 |
| | | | | | | | | | Annual | 86·4 | 79·8 | 83·1 | | | | | | |

## MEAN RELATIVE HUMIDITY AND VAPOUR PRESSURE FOR EACH DAY

Mean percentages from readings at exact hours 0h. to 24h., G.M.T.; vapour pressure from daily mean temperature and relative humidity

181 KEW OBSERVATORY: North-wall screen: $h_t$ = 3·0 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. | Rel. hum. | Vap. press. |
| | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. | % | mb. |
| 1 | 81·7 | 5·1 | 86·0 | 9·6 | 81·5 | 5·2 | 59·7 | 7·5 | 64·7 | 9·9 | 79·4 | 11·4 | 82·0 | 18·6 | 72·6 | 13·0 | 82·5 | 13·1 | 77·6 | 14·0 | 84·7 | 7·8 | 80·3 | *8·3* |
| 2 | 70·3 | 4·4 | 84·0 | 8·6 | 82·2 | 5·4 | 63·5 | 9·1 | 66·3 | 9·6 | 70·8 | 10·4 | 76·7 | 20·2 | 81·0 | 16·6 | 80·0 | 12·9 | 83·7 | 14·9 | 93·5 | 8·6 | 79·0 | 8·1 |
| 3 | 79·1 | 4·3 | 86·4 | 10·4 | 84·7 | 5·7 | 57·7 | 10·3 | 71·7 | 9·4 | 67·7 | *10·3* | 74·7 | 18·9 | 70·3 | 14·7 | 90·3 | 14·7 | 92·0 | 16·3 | 92·6 | 12·2 | 81·2 | 7·3 |
| 4 | 84·5 | 5·6 | 79·6 | 8·5 | *93·1* | 5·9 | 66·9 | *11·5* | 65·9 | 8·3 | 80·8 | 11·4 | 77·3 | 15·7 | 75·2 | 16·7 | 91·0 | 15·0 | 83·4 | 13·1 | 86·5 | 11·4 | 77·7 | 6·4 |
| 5 | 86·7 | 8·2 | 72·3 | 7·5 | 91·9 | 6·7 | 81·7 | 9·8 | 70·6 | 7·3 | 82·1 | 13·1 | 69·2 | 12·4 | 72·8 | *17·2* | 82·1 | 13·9 | 81·4 | 12·8 | *96·7* | 9·9 | 91·8 | 6·9 |
| 6 | 87·9 | 8·9 | 86·3 | 9·7 | 78·4 | 5·5 | 63·4 | 6·6 | 70·5 | 8·2 | 69·7 | 11·3 | 63·2 | 11·7 | 73·1 | 15·0 | 90·1 | 13·6 | 72·7 | 10·3 | 86·6 | 9·3 | 87·7 | 7·2 |
| 7 | 89·0 | 8·0 | 85·6 | *11·6* | *58·2* | 4·2 | 60·9 | 7·1 | 66·5 | 9·8 | *64·1* | 10·7 | 62·5 | 11·7 | 73·3 | 14·3 | 89·0 | 13·9 | 83·3 | 9·7 | 87·3 | 8·4 | 90·3 | 7·1 |
| 8 | 89·6 | 9·2 | 86·0 | 10·9 | 59·3 | *3·9* | 75·5 | 9·3 | 86·4 | 9·8 | 84·3 | 13·9 | 69·4 | 13·3 | 78·6 | 13·7 | *94·4* | 15·6 | 81·7 | 10·2 | 82·0 | 8·8 | 87·3 | 7·5 |
| 9 | 89·5 | 10·6 | 61·5 | 5·7 | 64·7 | 4·2 | 57·7 | 6·3 | 59·3 | 7·4 | 80·2 | 11·9 | 70·1 | 15·1 | 79·8 | 13·8 | 77·9 | 12·5 | 75·0 | 10·1 | 83·5 | 8·6 | 86·2 | 7·5 |
| 10 | 84·4 | 10·3 | 82·9 | 8·5 | 77·2 | 5·2 | 60·1 | *5·5* | *55·8* | 8·0 | 80·3 | 12·1 | 68·8 | 15·5 | 84·4 | 15·1 | 80·4 | 12·8 | 65·9 | 9·4 | 78·7 | 8·3 | 90·8 | 6·6 |
| 11 | 91·6 | *12·7* | 79·2 | 8·1 | 82·5 | 6·0 | 63·1 | 6·4 | 69·5 | 8·7 | 83·0 | 10·8 | 74·2 | 17·7 | 77·3 | 13·1 | 83·5 | 14·1 | *63·9* | 9·1 | 81·9 | 8·8 | 91·2 | 8·2 |
| 12 | 74·9 | 8·0 | 87·3 | 9·7 | 75·3 | 7·0 | 68·3 | 8·0 | 69·6 | 9·6 | 79·3 | 11·1 | 66·7 | 17·4 | 79·2 | 14·2 | 83·0 | 13·3 | 77·4 | 10·3 | 80·6 | 9·2 | 95·2 | 6·7 |
| 13 | 75·5 | 6·3 | *94·8* | 10·8 | 85·4 | 7·4 | 71·9 | 9·4 | 60·8 | 7·1 | 68·8 | 10·4 | 65·2 | 16·9 | *65·9* | 12·0 | 75·3 | 11·6 | 79·0 | 10·6 | 75·7 | 8·7 | *98·5* | 6·0 |
| 14 | *61·3* | 4·2 | 92·8 | 10·7 | 79·0 | 6·0 | 70·3 | 9·5 | 65·0 | 6·6 | 72·7 | 11·5 | 61·9 | 11·4 | 76·5 | 12·8 | 89·7 | 13·5 | 78·5 | 9·8 | 94·2 | 10·9 | 95·7 | 7·8 |
| 15 | 64·1 | 4·4 | 86·7 | 9·4 | 72·7 | 5·4 | 68·3 | 9·6 | 62·3 | *6·5* | *85·2* | 13·3 | *56·5* | 9·3 | 75·1 | 11·9 | *73·3* | 12·0 | 74·3 | 8·7 | 92·7 | 10·5 | *69·0* | 4·4 |
| 16 | 74·7 | 5·0 | 81·5 | 9·5 | 61·7 | 4·1 | 69·7 | 10·1 | 80·4 | 8·1 | 85·1 | 13·0 | *85·0* | 11·8 | 77·7 | *11·4* | 83·5 | 11·9 | 74·9 | 9·1 | 89·5 | 9·7 | 69·7 | *4·0* |
| 17 | 69·7 | 4·4 | 75·6 | 7·6 | 78·3 | 5·8 | 74·0 | 10·8 | 71·1 | 8·2 | 78·2 | 12·3 | 81·7 | 11·9 | 80·0 | 12·2 | 85·3 | 13·3 | 74·3 | 9·7 | 92·3 | 9·6 | 74·3 | 4·8 |
| 18 | 69·3 | *4·1* | 83·0 | 9·2 | 92·4 | 9·7 | 69·3 | 8·5 | 70·9 | 9·5 | 70·5 | 10·9 | 81·4 | 14·2 | 78·1 | 11·8 | 91·5 | 14·2 | 72·6 | 9·3 | *70·3* | *7·4* | 75·6 | 4·7 |
| 19 | 76·5 | 4·7 | 75·1 | 8·9 | 77·8 | 9·2 | 59·5 | 6·7 | 81·8 | 10·6 | 78·6 | 10·7 | 82·4 | 14·4 | 86·9 | 14·5 | 81·4 | 12·1 | 84·6 | 13·0 | 92·8 | 10·0 | 86·2 | 5·5 |
| 20 | *95·1* | 4·6 | 56·3 | 5·3 | 72·8 | 8·4 | 62·2 | 8·0 | 73·0 | 10·2 | 75·8 | 11·0 | 72·9 | 12·7 | 83·6 | 13·5 | 85·5 | 13·6 | 90·7 | *15·0* | 90·8 | *12·5* | 80·2 | 4·6 |
| 21 | 91·3 | 4·7 | *55·3* | 4·1 | 81·5 | 9·9 | *56·9* | 7·4 | 75·6 | 10·5 | 72·8 | 11·8 | 75·9 | 13·5 | 70·1 | 11·5 | 77·0 | *11·2* | 93·5 | 14·5 | 83·5 | 9·8 | 94·3 | 4·1 |
| 22 | 89·1 | 5·8 | 66·0 | 5·1 | 90·7 | 10·3 | 60·0 | 7·3 | 74·2 | 10·8 | 68·1 | 12·6 | 84·9 | 17·2 | *91·3* | 14·8 | 85·1 | 13·8 | *95·3* | 13·9 | 75·7 | 8·2 | 94·3 | 6·7 |
| 23 | 81·0 | 5·7 | 65·0 | 6·4 | 73·5 | 7·9 | 76·0 | 9·7 | 68·3 | 11·0 | 74·5 | 15·0 | 77·9 | 17·2 | 89·1 | 16·7 | 83·8 | 14·3 | 79·5 | 9·8 | 91·3 | 10·0 | 88·7 | 7·2 |
| 24 | 91·2 | 6·5 | 58·8 | 4·6 | 86·0 | 8·9 | 71·9 | 8·8 | 81·6 | 12·4 | 76·9 | 14·8 | 74·6 | 18·1 | 85·3 | 16·6 | 83·4 | 12·8 | 64·8 | 6·6 | 91·0 | 11·5 | 91·3 | 6·9 |
| 25 | 93·8 | 8·2 | 75·7 | 5·8 | 78·1 | 7·9 | 88·1 | 11·0 | 71·7 | 10·9 | 75·7 | 12·8 | 66·2 | 13·1 | 80·0 | 14·7 | 90·9 | 16·4 | 66·5 | *5·5* | 86·1 | 10·9 | 92·7 | 8·0 |
| 26 | 94·3 | 8·5 | 92·0 | 6·5 | 67·0 | 7·4 | 80·2 | 11·0 | *89·4* | *13·1* | 79·7 | 14·7 | 78·2 | 16·2 | 72·3 | 12·3 | 87·8 | *17·5* | 87·5 | 9·0 | 81·5 | 9·1 | 89·8 | 7·8 |
| 27 | 90·8 | 6·9 | 76·6 | 4·9 | 69·7 | 8·1 | 75·0 | 11·4 | 85·2 | 12·9 | 80·8 | 13·3 | 72·6 | 13·4 | 78·9 | 12·5 | 89·4 | 17·2 | 88·8 | 9·5 | 89·7 | 11·5 | 88·1 | 7·8 |
| 28 | 92·9 | 8·9 | 69·6 | *4·4* | 79·1 | 9·9 | 89·4 | 11·4 | 79·5 | 12·1 | 74·1 | 13·1 | 75·2 | 12·8 | 81·8 | 14·0 | 81·2 | 16·8 | 76·7 | 7·7 | 86·4 | 11·0 | 85·0 | 7·6 |
| 29 | 76·8 | 8·2 | | | 77·2 | *10·5* | *94·3* | 11·3 | 77·3 | 12·6 | 71·0 | 12·3 | 70·0 | 13·6 | 76·4 | 12·4 | 89·5 | 17·1 | 81·7 | 7·1 | 88·6 | 10·5 | 94·1 | 7·4 |
| 30 | 71·1 | 6·3 | | | 79·1 | 10·2 | 73·5 | 10·7 | 79·6 | 12·9 | 83·0 | *16·0* | 77·9 | 15·4 | 76·2 | 12·2 | 87·2 | 14·6 | 73·5 | 7·8 | 87·8 | 9·5 | 91·3 | 8·1 |
| 31 | 87·0 | 7·9 | | | 63·0 | 8·1 | | | 80·5 | 11·4 | | | 67·2 | 12·0 | 84·4 | 13·2 | | | 77·4 | 8·1 | | | 86·8 | 7·2 |
| Mean* | 82·4 | 6·8 | 77·9 | 7·9 | 77·2 | 7·1 | 69·6 | 9·0 | 72·4 | 9·8 | 76·4 | 12·3 | 73·0 | 14·6 | 78·3 | 13·8 | 84·8 | 14·0 | 79·1 | 10·5 | 86·5 | 9·8 | 86·6 | 6·7 |

* Mean of the column.

## RELATIVE HUMIDITY

Monthly and annual means of values at exact hours, G.M.T.

182 KEW OBSERVATORY: $h_t$ = 3·0 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | per cent. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 85·2 | 85·0 | 84·8 | 84·7 | 84·9 | 84·2 | 84·5 | 84·2 | 84·6 | 84·9 | 83·9 | 81·1 | 78·2 | 75·9 | *75·2* | 75·3 | 77·2 | 79·3 | 81·9 | 83·3 | 84·7 | 84·4 | *85·5* | *85·5* | 85·0 | 82·4 |
| Feb. | 81·1 | 81·4 | 82·5 | 82·5 | 83·7 | 84·3 | 85·1 | 85·5 | *85·6* | 83·0 | 80·3 | 76·3 | 72·0 | 69·6 | 69·7 | 68·6 | *68·4* | 70·5 | 72·7 | 74·3 | 76·1 | 78·4 | 79·5 | 79·6 | 80·4 | 77·9 |
| Mar. | 84·8 | 85·7 | 86·2 | 86·5 | 86·6 | *87·5* | 86·5 | 86·3 | 84·5 | 80·7 | 76·1 | 70·9 | 66·9 | 65·3 | 64·3 | *63·3* | 64·1 | 66·4 | 69·7 | 73·1 | 76·3 | 78·2 | 80·9 | 83·2 | 84·8 | 77·2 |
| Apr. | 79·4 | 82·2 | 83·5 | 85·1 | 86·3 | 86·5 | *87·6* | 84·8 | 79·6 | 72·1 | 65·7 | 59·9 | 55·4 | 53·6 | 51·1 | *50·5* | 50·9 | 51·0 | 55·6 | 61·5 | 67·1 | 70·5 | 74·4 | 76·4 | 79·8 | 69·6 |
| May | 82·5 | 85·1 | 86·7 | 87·1 | *87·6* | 87·5 | 85·6 | 81·4 | 77·5 | 73·3 | 70·2 | 66·8 | 63·6 | 61·0 | 58·5 | 57·2 | 56·6 | *55·3* | 55·6 | 61·0 | 67·7 | 71·9 | 77·2 | 80·9 | 82·5 | 72·4 |
| June | 86·8 | 89·1 | 90·2 | 90·4 | *90·7* | 89·9 | 88·0 | 84·9 | 78·9 | 73·3 | 69·0 | 66·9 | 63·9 | 63·3 | 63·3 | *62·0* | 62·5 | 64·7 | 67·2 | 70·0 | 74·4 | 78·1 | 82·2 | 84·8 | 86·9 | 76·4 |
| July | 83·8 | 85·9 | 86·7 | 88·4 | *88·8* | 88·7 | 86·5 | 81·5 | 75·9 | 72·3 | 67·8 | 63·9 | 61·0 | 59·3 | 58·6 | *58·5* | 58·9 | 58·9 | 60·3 | 63·1 | 69·3 | 74·7 | 78·2 | 81·0 | 83·6 | 73·0 |
| Aug. | 87·8 | 88·6 | 89·7 | *90·7* | 90·6 | 90·5 | 89·7 | 86·8 | 82·3 | 77·8 | 73·6 | 70·9 | 69·0 | 66·9 | 63·8 | *62·6* | 63·4 | 64·2 | 67·1 | 73·3 | 77·7 | 81·6 | 83·9 | 86·5 | 88·0 | 78·3 |
| Sept. | 90·2 | 91·1 | 91·5 | 92·1 | 92·0 | 92·5 | *93·3* | 91·7 | 88·4 | 84·2 | 79·1 | 78·3 | 75·3 | *72·8* | 74·2 | 74·1 | 75·6 | 77·6 | 81·8 | 85·9 | 87·5 | 88·5 | 88·8 | 89·4 | 90·1 | 84·8 |
| Oct. | 85·3 | 85·8 | 86·2 | 86·7 | 86·9 | *87·3* | 86·7 | 86·3 | 84·3 | 80·7 | 76·5 | 72·6 | 69·5 | 68·0 | *67·2* | 67·9 | 69·5 | 72·3 | 75·7 | 77·6 | 78·9 | 81·2 | 81·9 | 84·2 | 85·2 | 79·1 |
| Nov. | 89·0 | 89·7 | *89·9* | 89·3 | 88·9 | 88·8 | 89·3 | 89·3 | 89·7 | 87·8 | 85·9 | 84·6 | 82·2 | 80·8 | *79·6* | 80·4 | 82·1 | 84·1 | 86·4 | 86·5 | 87·5 | 87·5 | 87·8 | 88·6 | 89·1 | 86·5 |
| Dec. | 88·6 | 88·3 | 88·9 | 89·4 | *89·8* | 89·0 | 88·5 | 88·6 | 88·5 | 87·5 | 86·3 | 84·9 | 82·3 | 81·2 | *80·5* | 80·8 | 83·5 | 84·8 | 85·5 | 86·9 | 88·7 | 88·4 | 88·7 | 88·7 | 88·7 | 86·6 |
| Annual | 85·4 | 86·5 | 87·2 | 87·8 | *88·1* | 88·1 | 87·6 | 85·9 | 83·3 | 79·8 | 76·3 | 73·1 | 69·9 | 68·1 | 67·1 | *66·7* | 67·7 | 69·1 | 71·6 | 74·7 | 78·0 | 80·3 | 82·4 | 84·1 | 85·4 | 78·7 |

## VAPOUR PRESSURE

Monthly and annual means of values at exact hours, G.M.T., computed from corresponding mean values of temperature and relative humidity

183 KEW OBSERVATORY: $h_t$ = 3·0 m.

| | Hour G.M.T. 0 | 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* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | millibars | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 6·7 | 6·7 | 6·6 | 6·5 | 6·5 | 6·4 | 6·3 | 6·3 | *6·2* | 6·3 | 6·4 | 6·5 | 6·5 | 6·5 | 6·5 | 6·5 | 6·5 | 6·5 | 6·6 | 6·7 | 6·8 | 6·8 | *6·9* | 6·9 | 6·9 | 6·6 |
| Feb. | 7·5 | 7·7 | 7·7 | 7·7 | 7·7 | 7·8 | 7·9 | 7·9 | 7·9 | *7·9* | 7·9 | 7·9 | 7·8 | 7·7 | 7·7 | 7·6 | 7·5 | 7·5 | 7·5 | 7·5 | 7·5 | 7·5 | 7·5 | 7·4 | *7·4* | 7·7 |
| Mar. | 6·9 | 6·9 | 6·8 | 6·7 | 6·7 | 6·6 | 6·6 | *6·6* | 6·7 | 6·9 | 6·9 | 6·8 | 6·9 | 6·8 | 6·9 | 6·9 | 6·9 | 6·9 | 7·0 | 7·0 | 6·9 | 7·0 | 7·0 | *7·0* | 7·0 | 6·9 |
| Apr. | 8·7 | 8·8 | 8·7 | 8·7 | 8·6 | 8·5 | 8·6 | *9·1* | 9·0 | 9·0 | 9·0 | 8·7 | 8·6 | 8·5 | 8·4 | 8·5 | *8·3* | 8·4 | 8·7 | 8·9 | 9·0 | 8·9 | 8·9 | 8·7 | 8·9 | 8·7 |
| May | 9·4 | 9·4 | 9·3 | 9·3 | 9·3 | 9·3 | 9·7 | 9·7 | 9·9 | 9·9 | *9·9* | 9·8 | 9·8 | 9·8 | 9·7 | 9·6 | 9·4 | 9·2 | *9·1* | 9·3 | 9·5 | 9·4 | 9·5 | 9·5 | 9·4 | 9·5 |
| June | 12·2 | 12·4 | 12·3 | 12·2 | 12·1 | 12·0 | 12·3 | *12·5* | 12·3 | 11·9 | 11·7 | 11·7 | *11·6* | 11·8 | 11·9 | 11·7 | 11·7 | 11·9 | 12·2 | 12·2 | 12·2 | 12·3 | 12·4 | 12·5 | 12·5 | 12·1 |
| July | 14·4 | 14·2 | 14·1 | 13·9 | *13·9* | 14·1 | 14·5 | 14·5 | 14·4 | *14·6* | 14·4 | 14·4 | 14·2 | 14·2 | 14·3 | 14·3 | 14·3 | 14·3 | 14·3 | 14·2 | 14·3 | 14·4 | 14·3 | 14·2 | 14·1 | 14·3 |
| Aug. | 13·8 | 13·7 | 13·6 | 13·5 | 13·4 | 13·3 | 13·6 | 13·7 | 13·8 | 13·9 | 13·8 | 13·7 | 13·7 | 13·7 | 13·3 | 13·2 | 13·3 | *13·2* | 13·5 | 13·8 | 13·7 | 13·9 | 13·9 | *14·0* | 13·8 | 13·6 |
| Sept. | 13·7 | 13·8 | 13·7 | 13·7 | 13·5 | *13·4* | 13·5 | 13·6 | 13·9 | 14·1 | 13·9 | 14·0 | 13·9 | 13·8 | 14·0 | 13·9 | 14·0 | 14·1 | *14·2* | 14·1 | 14·1 | 14·1 | 13·9 | 13·9 | 13·8 | 13·9 |
| Oct. | 10·3 | 10·3 | 10·1 | 10·1 | 10·2 | 10·1 | *10·0* | 10·1 | 10·2 | 10·4 | *10·4* | 10·4 | 10·2 | 10·2 | 10·2 | 10·2 | 10·1 | 10·1 | 10·3 | 10·2 | 10·1 | 10·2 | 10·0 | 10·1 | 10·1 | 10·2 |
| Nov. | 9·6 | 9·6 | 9·6 | 9·5 | 9·5 | *9·4* | 9·5 | 9·5 | 9·6 | 9·6 | 9·7 | 9·9 | 9·9 | *9·9* | 9·8 | 9·9 | 9·9 | 9·8 | 9·9 | 9·8 | 9·8 | 9·7 | 9·6 | 9·7 | 9·6 | 9·7 |
| Dec. | 6·6 | 6·4 | 6·5 | 6·4 | 6·5 | *6·4* | 6·5 | 6·5 | 6·5 | 6·5 | 6·7 | 6·8 | 6·8 | *6·9* | 6·9 | 6·8 | 6·8 | 6·8 | 6·7 | 6·7 | 6·7 | 6·7 | 6·7 | 6·6 | 6·5 | 6·6 |
| Annual | 9·7 | 9·7 | 9·5 | 9·5 | 9·5 | *9·4* | 9·6 | 9·7 | 9·7 | 9·8 | *9·8* | 9·8 | 9·7 | 9·8 | 9·7 | 9·7 | 9·7 | 9·7 | 9·8 | 9·8 | 9·8 | 9·8 | 9·7 | 9·7 | 9·7 | 9·7 |

* Mean of values, 1,2,.....23,½(0 + 24).

Amount in millimetres, duration in hours and maximum rate of fall for each day 0h. to 24h., G.M.T.

184 **KEW OBSERVATORY:** $h_r$(height of receiving surface above M.S.L.) = height of station above M.S.L. + height of receiving surface above ground = 5·5 m. + 0·53 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | 0·1 | ... | ... | 6·8 | 2·9 | *54* | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·5 | 1·4 | 35 |
| 2 | ... | ... | ... | 4·8 | 1·9 | 45 | 1·1 | 3·5 | ... | ... | ... | ... | ... | ... | ... | 1·7 | 1·9 | 7 |
| 3 | ... | ... | ... | 8·8 | 9·2 | 45 | 1·3 | 3·9 | ... | ... | ... | ... | 0·4 | 0·9 | ... | 8·7 | 4·2 | 23 |
| 4 | ... | ... | ... | 1·9 | 1·3 | 24 | 3·7 | 8·9 | ... | ... | ... | ... | ... | ... | ... | 1·4 | 2·4 | ... |
| 5 | ... | ... | ... | ... | ... | ... | 4·8 | *13·9* | ... | 5·4 | 9·1 | *16* | 0·2 | 0·2 | 7 | 0·1 | 0·1 | ... |
| 6 | ... | ... | ... | 4·4 | 5·0 | 6 | 0·9 | 4·0 | ... | ... | ... | ... | 0·6 | 1·2 | ... | ... | ... | ... |
| 7 | ... | ... | ... | 0·6 | 1·4 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8 | 0·5 | 2·6 | ... | 7·0 | 4·2 | 30 | ... | ... | ... | ... | ... | ... | *24·4* | *10·5* | 31 | 8·8 | 4·8 | 11 |
| 9 | *10·1* | 7·2 | 7 | 0·3 | 0·6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·8 | 1·1 | ... |
| 10 | 1·5 | 2·2 | 7 | 2·8 | 3·5 | 6 | 0·1 | ... | ... | ... | ... | ... | ... | ... | ... | 2·1 | 2·2 | 21 |
| 11 | 7·3 | 7·0 | 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·2 | 0·3 | 6 | *11·8* | *6·0* | 27 |
| 12 | ... | ... | ... | 0·1 | 0·2 | ... | 0·1 | 0·1 | ... | ... | ... | ... | 1·7 | 1·9 | 7 | 3·0 | 2·0 | 6 |
| 13 | 0·2 | 0·1 | ... | 0·7 | 3·1 | ... | 0·2 | 0·2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·1 | 0·2 | ... |
| 15 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6·7 | 5·4 | 20 |
| 16 | ... | ... | ... | 0·8 | 1·3 | ... | ... | ... | ... | ... | ... | ... | 7·8 | 4·7 | 22 | 2·0 | 2·7 | ... |
| 17 | ... | ... | ... | ... | ... | ... | 0·3 | 0·6 | ... | 1·4 | 2·8 | ... | ... | ... | ... | 0·3 | 1·0 | ... |
| 18 | 0·3 | 1·5 | ... | ... | ... | ... | 0·4 | 1·3 | ... | 0·2 | 0·5 | ... | 4·2 | 0·9 | *54* | 4·1 | 1·5 | *73* |
| 19 | ... | ... | ... | 0·7 | 1·2 | 6 | ... | ... | ... | ... | ... | ... | 18·1 | 6·4 | 28 | 3·3 | 4·5 | 6 |
| 20 | ... | ... | ... | 0·4 | 0·4 | 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·3 | 0·4 | ... |
| 21 | ... | ... | ... | ... | ... | ... | *6·4* | 5·2 | *20* | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 22 | ... | ... | ... | ... | ... | ... | *10·4* | 12·1 | 17 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 23 | 0·1 | 0·5 | ... | 4·7 | 4·4 | 18 | ... | ... | ... | 1·6 | 3·4 | 6 | ... | ... | ... | ... | ... | ... |
| 24 | 0·4 | 0·7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 25 | ... | ... | ... | 0·5 | 1·6 | ... | ... | ... | ... | 5·3 | 10·0 | ... | ... | ... | ... | 1·8 | 2·3 | ... |
| 26 | 2·9 | 6·2 | 6 | *12·0* | *17·3* | ... | ... | ... | ... | 2·3 | 3·7 | ... | 13·9 | 3·7 | 27 | 2·0 | 2·0 | ... |
| 27 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·9 | 0·9 | 9 | 8·2 | 3·2 | 16 | 4·3 | 2·5 | 13 |
| 28 | 4·1 | 4·8 | 8 | 0·1 | ... | ... | ... | ... | ... | 8·6 | 6·0 | 14 | 2·8 | 1·5 | ... | 4·7 | 5·4 | 6 |
| 29 | 4·6 | 3·3 | *45* | | | | ... | ... | ... | *20·5* | *13·9* | 14 | 0·4 | 0·9 | ... | ... | ... | ... |
| 30 | 2·1 | 0·9 | 22 | | | | ... | ... | ... | 2·3 | 1·6 | *16* | ... | ... | ... | ... | ... | ... |
| 31 | 1·0 | 2·9 | 6 | | | | ... | ... | ... | | | | 5·1 | 3·9 | 15 | | | |
| Total | 35·2 | 39·9 | – | 57·4 | 59·5 | – | 29·7 | 53·7 | – | 48·5 | 51·9 | – | 88·0 | 40·3 | – | 70·5 | 54·0 | – |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate | Amount | Duration | Max. rate |
| | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. | mm. | hr. | mm./hr. |
| 1 | ... | ... | ... | ... | ... | ... | 1·0 | 0·2 | 36 | 0·1 | 0·1 | ... | 4·1 | 4·9 | 11 | 5·3 | 4·1 | 8 |
| 2 | ... | ... | ... | ... | ... | ... | 2·2 | 2·4 | 8 | ... | ... | ... | 4·8 | 6·9 | 7 | ... | ... | ... |
| 3 | ... | ... | ... | ... | ... | ... | 6·1 | 5·3 | 31 | *8·5* | 0·6 | *87* | 0·2 | 1·1 | ... | 3·7 | 2·1 | 17 |
| 4 | 5·5 | 4·1 | 7 | ... | ... | ... | 6·6 | *7·9* | 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5 | ... | ... | ... | ... | ... | ... | 0·5 | 0·3 | 15 | 0·1 | 0·2 | 7 | ... | ... | ... | 3·1 | 4·7 | ... |
| 6 | ... | ... | ... | ... | ... | ... | 3·5 | 1·6 | 33 | 0·5 | 1·2 | ... | ... | ... | ... | ... | ... | ... |
| 7 | ... | ... | ... | 4·5 | 1·1 | *62* | 2·4 | 2·8 | 21 | ... | ... | ... | 1·0 | 1·0 | 9 | 2·9 | 3·7 | 9 |
| 8 | ... | ... | ... | 7·5 | 4·8 | 20 | *46·4* | 5·8 | *77* | ... | ... | ... | 2·7 | 2·9 | 13 | *12·5* | *7·5* | 12 |
| 9 | ... | ... | ... | *14·9* | 6·3 | 25 | ... | ... | ... | ... | ... | ... | 1·0 | 1·1 | 7 | 0·3 | 0·4 | 6 |
| 10 | ... | ... | ... | 12·2 | 4·2 | 43 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11 | ... | ... | ... | 0·5 | 0·7 | 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4·1 | 4·3 | 6 |
| 12 | ... | ... | ... | 3·0 | 3·0 | 22 | ... | ... | ... | ... | ... | ... | 0·1 | 0·3 | ... | ... | ... | ... |
| 13 | ... | ... | ... | 1·2 | 1·1 | 13 | 1·6 | 2·0 | ... | ... | ... | ... | ... | ... | ... | 0·1 | ... | ... |
| 14 | 0·5 | 0·4 | 9 | 4·6 | 1·3 | 63 | 1·6 | 2·4 | ... | ... | ... | ... | *17·7* | *14·3* | 27 | ... | ... | ... |
| 15 | 0·9 | 0·8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·9 | 3·0 | 8 | ... | ... | ... |
| 16 | 4·8 | *5·7* | ... | 9·7 | 5·8 | 8 | ... | ... | ... | ... | ... | ... | 0·6 | 1·4 | ... | ... | ... | ... |
| 17 | 2·5 | 1·3 | 33 | 11·8 | *8·3* | 9 | 0·1 | 0·5 | ... | ... | ... | ... | 3·9 | 3·8 | 12 | ... | ... | ... |
| 18 | 4·0 | 1·1 | 27 | ... | ... | ... | 4·7 | 4·8 | 16 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 19 | 0·7 | 0·5 | 16 | 0·8 | 2·0 | ... | 1·9 | 2·6 | ... | 0·8 | 1·1 | 7 | 7·1 | 7·5 | 6 | 4·9 | 7·0 | ... |
| 20 | ... | ... | ... | 2·0 | 2·5 | 7 | 7·6 | 4·6 | 8 | 2·1 | 1·2 | 32 | 3·6 | 3·9 | 31 | ... | ... | ... |
| 21 | 1·5 | 2·0 | 7 | 0·1 | 0·1 | ... | ... | ... | ... | 4·1 | 1·0 | 37 | 17·0 | 3·4 | *76* | ... | ... | ... |
| 22 | ... | ... | ... | 3·6 | 2·7 | 31 | 0·7 | 0·6 | 14 | 8·4 | 4·3 | 24 | 1·6 | 1·1 | 7 | ... | ... | ... |
| 23 | ... | ... | ... | 0·5 | 1·2 | ... | 0·9 | 1·9 | 7 | 0·3 | 0·7 | ... | 5·6 | 7·0 | ... | 0·8 | 1·0 | ... |
| 24 | ... | ... | ... | 3·1 | 0·3 | 42 | ... | ... | ... | ... | ... | ... | 13·0 | 11·3 | 44 | 1·1 | 2·0 | 6 |
| 25 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 0·9 | 1·3 | ... | 0·8 | 1·1 | *20* |
| 26 | *53·3* | 1·9 | *200* | ... | ... | ... | ... | ... | ... | 4·2 | 3·7 | 19 | ... | ... | ... | 3·3 | 1·5 | *20* |
| 27 | 3·5 | 0·4 | 87 | ... | ... | ... | 0·1 | 0·4 | ... | 4·1 | *4·8* | ... | 3·2 | 5·2 | ... | 1·3 | 0·5 | 13 |
| 28 | 1·8 | 2·9 | 11 | 12·9 | 4·7 | 56 | ... | ... | ... | ... | ... | ... | 1·2 | 3·3 | ... | ... | ... | ... |
| 29 | 0·1 | 0·6 | ... | 0·3 | 0·2 | 14 | ... | ... | ... | ... | ... | ... | 7·6 | 3·6 | 23 | ... | ... | ... |
| 30 | ... | ... | ... | 0·3 | 0·2 | ... | 0·1 | 0·5 | ... | ... | ... | ... | 4·3 | 2·9 | 19 | 1·9 | 2·1 | 6 |
| 31 | ... | ... | ... | 1·4 | 0·5 | 26 | | | | 0·5 | 0·5 | 10 | | | | 3·3 | 3·7 | 10 |
| Total | 79·1 | 21·7 | – | 94·9 | 51·0 | – | 88·0 | 46·6 | – | 33·7 | 19·4 | – | 103·1 | 90·4 | – | 49·4 | 45·7 | – |

Monthly and annual totals of amounts in sixty-minute periods between exact hours, G.M.T.

185 KEW OBSERVATORY: $h_r$ = 5·5 m. + 0·53 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *millimetres* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 2·5 | 1·0 | 0·7 | 0·2 | ··· | 0·5 | 0·2 | 0·8 | 0·8 | ··· | ··· | 0·7 | 0·4 | 0·2 | 1·4 | 0·8 | 1·9 | 4·6 | 3·4 | 4·2 | *5·0* | 1·6 | 2·5 | 1·7 | 35·2 |
| Feb. | 1·0 | 2·7 | 2·1 | 1·7 | 2·8 | 2·7 | 2·2 | 3·6 | 4·2 | 4·1 | 1·7 | 1·6 | 2·6 | *4·7* | 2·2 | 2·3 | 1·1 | 2·8 | 1·1 | 1·3 | 0·6 | 0·8 | 3·2 | 4·3 | 57·4 |
| Mar. | 0·6 | 0·9 | 1·5 | 1·6 | 1·7 | 0·8 | 0·2 | 0·2 | 0·6 | 0·5 | 1·9 | 0·7 | 1·9 | 2·3 | 1·3 | *2·4* | 1·3 | 1·1 | *2·4* | 0·9 | 0·9 | 1·3 | 1·5 | 1·2 | 29·7 |
| Apr. | 1·1 | 0·8 | 3·7 | 2·3 | 0·4 | 2·3 | 2·8 | 1·2 | 0·5 | 0·3 | 1·5 | 4·5 | 1·4 | 0·7 | 2·1 | 2·0 | 0·4 | 0·6 | 4·0 | 1·0 | 3·8 | 4·2 | *5·1* | 1·8 | 48·5 |
| May | 7·3 | 4·0 | 6·9 | 1·9 | 6·7 | 6·7 | *8·2* | 4·1 | 3·4 | 5·0 | 4·6 | 1·5 | 2·7 | 1·5 | 1·4 | 1·1 | 0·7 | 0·8 | 0·7 | 2·1 | 1·6 | 5·4 | 3·1 | 6·6 | 88·0 |
| June | 1·8 | 4·2 | 2·5 | 4·8 | 5·1 | 2·0 | 2·1 | 1·5 | 1·0 | 2·0 | 2·5 | 1·5 | 1·4 | 4·3 | 3·7 | *7·5* | 4·3 | 1·9 | 3·6 | 2·1 | 3·8 | 2·0 | 2·3 | 2·6 | 70·5 |
| July | 1·7 | 2·3 | 1·3 | 0·5 | 0·2 | 1·6 | 2·0 | 1·5 | 2·1 | ··· | ··· | 0·4 | 0·8 | 0·7 | 2·1 | *50·6* | 2·7 | ··· | 0·1 | 0·8 | 3·6 | 0·8 | 1·9 | 1·4 | 79·1 |
| Aug. | 8·2 | 7·6 | 3·0 | 3·3 | 6·9 | 2·2 | 2·6 | 2·6 | 1·7 | 1·5 | 1·5 | 3·2 | 4·3 | 1·9 | ··· | 0·1 | 0·3 | 4·9 | 6·8 | 5·5 | 4·2 | 6·0 | *10·3* | 6·3 | 94·9 |
| Sept. | 4·4 | 13·6 | 0·3 | 0·3 | 1·4 | 1·0 | 1·4 | 0·5 | 0·8 | 1·8 | *16·9* | 14·2 | 4·4 | 0·6 | 2·9 | 1·0 | 6·1 | 2·5 | 4·0 | 4·0 | 0·9 | 1·6 | 1·5 | 1·9 | 88·0 |
| Oct. | 5·9 | 0·2 | 0·2 | 0·3 | 0·2 | ··· | 0·7 | 0·8 | 1·2 | 0·9 | 0·6 | 2·3 | 1·1 | 1·4 | 1·1 | *6·8* | 2·2 | 1·4 | 0·7 | 3·1 | 0·5 | 1·8 | 0·3 | ··· | 33·7 |
| Nov. | 2·0 | 3·8 | 2·9 | 2·4 | 1·5 | 1·7 | 4·4 | 4·6 | 5·9 | 3·6 | 8·8 | 3·5 | *9·6* | 5·1 | 3·3 | 4·0 | 8·5 | 6·8 | 8·0 | 3·4 | 2·1 | 2·5 | 2·0 | 2·7 | 103·1 |
| Dec. | 0·6 | 1·1 | 3·0 | 1·2 | 0·7 | 0·3 | 0·6 | 1·4 | 2·3 | 1·5 | 3·2 | 2·2 | 2·3 | 3·9 | 3·0 | 2·3 | 1·5 | *7·2* | 3·5 | 2·2 | 2·2 | 2·2 | 0·2 | 0·8 | 49·4 |
| Annual | 37·1 | 42·2 | 28·1 | 20·5 | 27·6 | 21·8 | 27·4 | 22·8 | 24·5 | 21·2 | 43·2 | 36·3 | 32·9 | 27·3 | 24·5 | *80·9* | 31·0 | 34·6 | 38·3 | 30·7 | 29·2 | 30·2 | 33·9 | 31·3 | 777·5 |

RAINFALL

Monthly and annual totals of durations in sixty-minute periods between exact hours, G.M.T.

186 KEW OBSERVATORY: $h_r$ = 5·5 m. + 0·53 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 1·2 | 1·3 | 1·4 | 0·3 | ··· | 0·6 | 0·1 | 1·4 | 1·1 | ··· | ··· | 0·5 | 0·7 | 0·3 | 0·5 | 1·7 | 2·7 | 5·3 | *6·0* | 5·1 | 3·2 | 3·0 | 2·5 | 1·0 | 39·9 |
| Feb. | 2·5 | 1·6 | 1·5 | 2·8 | 3·5 | 3·8 | 3·6 | *4·4* | 4·1 | 3·8 | 2·5 | 2·1 | 1·8 | 3·1 | 2·7 | 2·4 | 1·4 | 2·4 | 2·3 | 1·4 | 0·8 | 1·4 | 1·6 | 2·0 | 59·5 |
| Mar. | 2·2 | 3·4 | 3·2 | 2·3 | *3·5* | 1·7 | 0·6 | 0·5 | 1·0 | 1·0 | 2·9 | 2·4 | 3·1 | 2·8 | 2·8 | 2·6 | 2·4 | 2·4 | 3·4 | 0·9 | 1·5 | 1·8 | 2·8 | 2·5 | 53·7 |
| Apr. | 1·6 | 2·3 | 3·8 | 2·9 | 0·6 | 3·3 | 2·7 | 1·9 | 1·7 | 1·1 | 1·8 | 2·4 | 1·3 | 0·7 | 1·2 | 2·1 | 1·4 | 1·9 | 2·4 | 2·3 | *3·9* | 2·7 | 2·9 | 3·0 | 51·9 |
| May | 1·3 | 2·6 | 1·9 | 1·7 | 2·1 | 2·6 | 2·6 | *3·1* | 2·6 | 2·3 | 2·1 | 1·3 | 2·5 | 1·1 | 1·3 | 1·6 | 0·9 | 0·5 | 0·4 | 1·0 | 1·0 | 1·5 | 1·3 | 1·0 | 40·3 |
| June | 2·2 | 3·3 | *4·1* | 2·3 | 3·4 | 2·6 | 1·7 | 1·2 | 1·7 | 1·3 | 2·4 | 2·0 | 1·7 | 2·4 | 1·8 | 2·0 | 3·7 | 2·2 | 1·2 | 1·2 | 2·0 | 2·0 | 2·5 | 3·2 | 54·0 |
| July | 1·9 | 1·3 | 1·8 | 1·2 | 0·7 | 2·0 | 1·1 | 0·9 | 0·5 | ··· | ··· | 0·3 | 0·1 | 0·1 | 1·0 | 1·0 | 1·0 | ··· | 0·2 | 0·5 | 0·7 | 1·2 | 2·0 | 2·2 | 21·7 |
| Aug. | 3·5 | 2·7 | 2·2 | 2·9 | 2·5 | 2·6 | 3·1 | 3·2 | 1·5 | 1·7 | 2·0 | 1·7 | 1·4 | 0·3 | ··· | 0·2 | 0·3 | 2·5 | 1·8 | 2·2 | 3·2 | 2·7 | *4·0* | 2·9 | 51·0 |
| Sept. | *3·4* | 2·4 | 1·0 | 0·2 | 2·3 | 1·6 | 2·1 | 1·1 | 0·6 | 1·7 | 3·0 | 1·9 | 2·1 | 1·4 | 2·6 | 1·8 | 2·6 | 2·0 | 1·8 | 2·9 | 2·2 | 1·9 | 1·3 | 2·7 | 46·6 |
| Oct. | 1·0 | 0·5 | 0·2 | 0·6 | 0·4 | ··· | 0·6 | 1·0 | 1·5 | 1·0 | 1·0 | 0·9 | 1·3 | 1·3 | 0·3 | 1·6 | 2·2 | 1·0 | 0·5 | 0·6 | 0·3 | 1·0 | 0·6 | ··· | 19·4 |
| Nov. | 2·6 | 4·1 | 3·2 | 2·5 | 1·9 | 2·5 | 4·9 | 3·4 | 3·2 | 4·0 | *5·6* | 4·8 | 5·5 | 4·3 | 2·7 | 4·7 | 5·5 | 4·3 | 4·6 | 4·2 | 3·2 | 2·4 | 3·2 | 3·1 | 90·4 |
| Dec. | 1·2 | 1·5 | 0·8 | 1·4 | 1·0 | 0·7 | 0·7 | 1·3 | 1·7 | 3·0 | 3·0 | 2·2 | 2·6 | 2·6 | 2·9 | 2·3 | 1·5 | 3·1 | *3·6* | 2·7 | 2·2 | 1·9 | 0·6 | 1·2 | 45·7 |
| Annual | 24·6 | 27·0 | 25·1 | 21·1 | 21·9 | 24·0 | 23·8 | 23·4 | 21·2 | 20·9 | 26·3 | 22·5 | 24·1 | 20·4 | 19·8 | 24·0 | 25·6 | 27·5 | *28·2* | 25·0 | 24·2 | 23·5 | 25·2 | 24·8 | 574·1 |

## NOTES ON RAINFALL

187 KEW OBSERVATORY

**Dry Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more

"Absolute drought": None in 1946
"Partial drought": March 23-April 22
"Dry spell": October 4-19

**Wet Periods**

The following definitions are adopted by the British Rainfall Organization
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. of rain or more

"Rain spell": No occasions
"Wet spell": No occasions

**Rainfall Duration**

| Hours | 0·1-1·0 | 1·1-2·0 | 2·1-6·0 | 6·1-12·0 | >12·0 |
|---|---|---|---|---|---|
| Number of days | 49 | 41 | 72 | 18 | 5 |

**Continuous or Heavy Falls**

The fall of the longest duration occurred on February 26 when 11 mm. fell in 15 hr. On November 14 there was a fall of 15 mm. in 11 hr.

**Heavy Falls in short periods**

On July 26, 10 mm. fell in 3 min., 25 mm. in 12 min., and 50 mm. in 35 min., the latter measurement comes within the category of "Very Rare Falls" as now defined. (See British Rainfall, 1935, p.274). On September 8, 5 mm. fell in 6 min., 10 mm. in 16 min. and 25 mm. in 90 min.

**Rates of Rainfall (Jardi Recorder)**

At 15 hr. 55 min. on July 26 an instantaneous rate of rainfall of 200 mm./hr. is estimated to have occurred. This is the highest rate since records commenced in 1933. The maximum rate exceeded 50 mm./hr. on February 1, May 18, June 18, July 26 and 27, August 7, 14 and 28, September 8, October 3, and November 21.

## DURATION OF BRIGHT SUNSHINE AND TOTAL SOLAR RADIATION FOR EACH DAY

Solar radiation received on a surface perpendicular to the solar beam

188 KEW OBSERVATORY: $h_g$(height of recorder above ground) = 13·3 m.

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation |
| | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ |
| 1 | 1·2 | 15 | 250 | 2·8 | 31 | 250 | ··· | ··· | 80 | 9·5 | 74 | 1300 | 11·8 | 80 | 2030 | 7·0 | 43 | 1080 |
| 2 | ··· | ··· | ··· | 1·4 | 15 | 160 | ··· | ··· | 30 | 9·5 | 73 | 1240 | 0·3 | 2 | 60 | 7·6 | 47 | 840 |
| 3 | 5·0 | 63 | 440 | ··· | ··· | ··· | 0·1 | 1 | 10 | 9·7 | 75 | 1430 | 8·1 | 54 | 1170 | 8·8 | 54 | 1370 |
| 4 | 1·1 | 14 | 150 | 1·2 | 13 | 130 | ··· | ··· | ··· | 7·7 | 59 | 1080 | 11·7 | 78 | 2360 | 0·6 | 4 | 60 |
| 5 | ··· | ··· | ··· | 3·1 | 33 | 520 | ··· | ··· | ··· | ··· | ··· | ··· | 4·1 | 27 | 940 | 4·1 | 25 | 880 |
| 6 | 1·5 | 19 | 160 | 0·4 | 4 | 30 | ··· | ··· | ··· | 11·3 | 85 | 2280 | 4·5 | 30 | 440 | 9·7 | 60 | 1730 |
| 7 | 4·2 | 52 | 470 | ··· | ··· | ··· | 0·6 | 5 | 30 | 9·5 | 72 | 2490 | 8·0 | 53 | 1200 | 8·6 | 53 | 1880 |
| 8 | ··· | ··· | ··· | ··· | ··· | ··· | 2·5 | 22 | 210 | 0·4 | 3 | 20 | ··· | ··· | ··· | 0·2 | 1 | 30 |
| 9 | ··· | ··· | ··· | 7·0 | *73* | 1120 | 1·3 | 11 | 200 | 9·3 | 69 | 1430 | 11·2 | 73 | 2180 | 3·2 | 19 | 620 |
| 10 | 1·0 | 12 | 80 | 2·5 | 26 | 460 | 8·3 | 73 | 1050 | 9·0 | 67 | 1460 | *12·9* | *84* | *2370* | 2·2 | 13 | 270 |
| 11 | ··· | ··· | ··· | 2·0 | 21 | 230 | 0·3 | 3 | 20 | 7·0 | 52 | 1660 | 6·0 | 39 | 1090 | 2·5 | 15 | 480 |
| 12 | *6·8* | *84* | *1240* | ··· | ··· | ··· | 0·3 | 3 | 50 | 11·9 | *88* | 2400 | 8·2 | 53 | 1290 | 6·2 | 38 | 1060 |
| 13 | 2·9 | 35 | 400 | ··· | ··· | ··· | ··· | ··· | ··· | 9·8 | 72 | 1310 | 7·7 | 50 | 1370 | 9·0 | 55 | 1540 |
| 14 | 3·3 | 40 | 370 | ··· | ··· | ··· | ··· | ··· | ··· | 9·0 | 66 | 990 | 3·9 | 25 | 790 | 6·0 | 37 | 1200 |
| 15 | 5·1 | 62 | 620 | ··· | ··· | ··· | ··· | ··· | ··· | 7·0 | 51 | 750 | 8·0 | 51 | 1640 | 3·6 | 22 | 360 |
| 16 | 0·8 | 10 | 60 | 0·3 | 3 | 40 | ··· | ··· | ··· | 10·2 | 74 | 1920 | 4·6 | 29 | 510 | 4·6 | 28 | 820 |
| 17 | 2·1 | 25 | 220 | 5·5 | 55 | 780 | 1·5 | 12 | 100 | 0·5 | 4 | 140 | 12·1 | 77 | 1910 | 5·1 | 31 | 630 |
| 18 | 2·8 | 33 | 250 | ··· | ··· | ··· | ··· | ··· | ··· | 2·8 | 20 | 290 | 3·1 | 20 | 510 | 9·4 | 57 | 2080 |
| 19 | 3·9 | 46 | 450 | 1·9 | 19 | 210 | 1·0 | 8 | 240 | *12·4* | *88* | 2520 | 6·4 | 41 | 1300 | 2·8 | 17 | 270 |
| 20 | ··· | ··· | 40 | 6·8 | 67 | 1130 | 3·1 | 25 | 540 | *12·4* | *88* | *2550* | 4·2 | 26 | 680 | 8·6 | 52 | 1590 |
| 21 | ··· | ··· | ··· | 5·4 | 53 | 890 | 1·3 | 11 | 210 | 10·5 | 75 | 2230 | 9·0 | 57 | 1370 | *11·2* | *67* | *2160* |
| 22 | 0·7 | 8 | 50 | 2·4 | 23 | 310 | ··· | ··· | ··· | 10·7 | 75 | 1700 | 9·4 | 59 | 1940 | 4·5 | 37 | 710 |
| 23 | ··· | ··· | ··· | 5·6 | 54 | 930 | 8·7 | 71 | *2100* | 5·6 | 39 | 1040 | 6·0 | 38 | 730 | 10·4 | 63 | 1570 |
| 24 | 1·7 | 20 | 210 | 7·0 | 67 | *1600* | ··· | ··· | ··· | 1·4 | 10 | 120 | 0·2 | 1 | 30 | 4·8 | 29 | 820 |
| 25 | ··· | ··· | ··· | ··· | ··· | ··· | 8·8 | 71 | 1520 | ··· | ··· | ··· | 2·9 | 18 | 40 | 5·1 | 31 | 930 |
| 26 | ··· | ··· | ··· | ··· | ··· | ··· | 9·6 | *77* | 1910 | ··· | ··· | ··· | ··· | ··· | ··· | 4·9 | 30 | 750 |
| 27 | 3·9 | 45 | 390 | *7·7* | 72 | 1270 | 5·7 | 45 | 710 | 0·9 | 6 | 120 | 4·6 | 29 | 870 | 2·9 | 17 | 600 |
| 28 | 1·5 | 17 | 210 | 4·5 | 42 | 590 | 6·1 | 48 | 880 | ··· | ··· | ··· | 7·9 | 49 | 1640 | 8·6 | 52 | 1570 |
| 29 | 0·3 | 3 | 70 | | | | 7·7 | 61 | 840 | ··· | ··· | ··· | 1·5 | 9 | 190 | 5·8 | 35 | 1170 |
| 30 | 1·6 | 18 | 110 | | | | 7·3 | 57 | 790 | 10·9 | 74 | 2170 | 7·3 | 45 | 1170 | 1·2 | 7 | 160 |
| 31 | ··· | ··· | 20 | | | | *9·8* | 76 | 1430 | | | | 5·3 | 33 | 810 | | | |
| Mean | 1·66 | | 200 | 2·41 | | 380 | 2·70 | | 1120 | 6·62 | | 1160 | 6·16 | | 1060 | 5·64 | | 970 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation | Total for day | Per cent. of possible | Solar radiation |
| | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ | hr. | % | J./cm.$^2$ |
| 1 | 8·0 | 49 | 1130 | 8·0 | 52 | 1520 | 6·9 | 50 | 1380 | 6·7 | 58 | 890 | 1·0 | 10 | 100 | 4·6 | 57 | 750 |
| 2 | 12·7 | 77 | 1420 | 0·2 | 1 | 20 | 2·2 | 16 | 220 | 4·9 | 43 | 610 | 0·3 | 3 | ··· | 0·4 | 5 | 40 |
| 3 | 11·9 | 73 | 2270 | 7·5 | 49 | 990 | ··· | ··· | ··· | ··· | ··· | 20 | ··· | ··· | ··· | 1·4 | 24 | 200 |
| 4 | 1·6 | 10 | 190 | *13·3* | *88* | *3020* | 0·3 | 2 | 10 | 0·7 | 6 | 40 | *7·6* | *80* | *1610* | *5·6* | *70* | *650* |
| 5 | 1·8 | 10 | 220 | 7·1 | 47 | 950 | 8·9 | 68 | 1460 | 0·8 | 7 | 60 | 0·8 | 9 | 80 | ··· | ··· | ··· |
| 6 | 13·7 | *84* | 2760 | 4·6 | 30 | 430 | 0·4 | 3 | 30 | *9·1* | *81* | *1850* | 1·3 | 14 | 150 | 4·2 | 53 | 370 |
| 7 | *13·8* | *84* | 2630 | 4·4 | 29 | 530 | 4·3 | 33 | 770 | 5·5 | 49 | 570 | ··· | ··· | ··· | 1·1 | 14 | 120 |
| 8 | 5·5 | 34 | 720 | 4·6 | 31 | 790 | 0·1 | 1 | 20 | 2·0 | 18 | 170 | 2·2 | 24 | 170 | ··· | ··· | ··· |
| 9 | 12·4 | 76 | 2060 | 2·9 | 19 | 260 | 5·9 | 45 | 1230 | 1·7 | 15 | 90 | ··· | ··· | ··· | ··· | ··· | ··· |
| 10 | 13·3 | 82 | 2700 | 4·8 | 32 | 510 | 4·8 | 37 | 980 | 8·6 | 78 | 1430 | 3·9 | 43 | 420 | 4·8 | 61 | 500 |
| 11 | 13·0 | 80 | 1870 | 7·9 | 53 | 1360 | 0·5 | 4 | 50 | 8·1 | 74 | 1630 | ··· | ··· | ··· | ··· | ··· | ··· |
| 12 | 10·5 | 65 | 1610 | 5·5 | 37 | 590 | 7·3 | 57 | 860 | 0·1 | 1 | ··· | ··· | ··· | ··· | 4·1 | 52 | 490 |
| 13 | 7·1 | 44 | 770 | 6·7 | 46 | 1250 | 3·9 | 30 | 570 | ··· | ··· | ··· | 6·8 | 76 | 1030 | ··· | ··· | 100 |
| 14 | 6·8 | 42 | 1240 | 5·4 | 37 | 950 | 0·2 | 1 | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· |
| 15 | 13·0 | 81 | *3100* | 6·4 | 44 | 890 | *11·3* | *89* | *1950* | ··· | ··· | ··· | 1·4 | 16 | 130 | 1·9 | 24 | 200 |
| 16 | 1·5 | 9 | 130 | 2·4 | 17 | 250 | 4·8 | 38 | 1010 | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· | ··· |
| 17 | 4·7 | 29 | 710 | ··· | ··· | ··· | 2·7 | 22 | 310 | 0·3 | 3 | 30 | ··· | ··· | ··· | 2·0 | 26 | 160 |
| 18 | 1·7 | 11 | 100 | 9·6 | 67 | 1830 | ··· | ··· | ··· | 0·7 | 7 | 170 | 3·5 | 40 | 3 | 3·0 | 39 | 280 |
| 19 | 1·1 | 7 | 130 | 0·4 | 3 | 30 | 0·2 | 2 | 30 | 1·5 | 14 | 160 | ··· | ··· | ··· | ··· | ··· | ··· |
| 20 | 3·1 | 19 | 590 | 0·7 | 5 | 10 | 0·3 | 2 | 30 | 0·4 | 4 | 20 | 1·2 | 14 | 60 | 4·1 | 53 | 500 |
| 21 | 0·7 | 4 | 40 | 7·1 | 51 | 1300 | 8·9 | 73 | 1360 | 2·0 | 19 | 260 | 1·2 | 14 | 120 | ··· | ··· | 30 |
| 22 | 4·5 | 38 | 450 | 0·1 | 1 | 10 | 2·0 | 16 | 220 | ··· | ··· | ··· | 1·0 | 12 | 100 | ··· | ··· | ··· |
| 23 | 6·9 | 44 | 650 | 2·9 | 21 | 420 | 3·6 | 30 | 540 | 0·2 | 2 | 10 | ··· | ··· | ··· | ··· | ··· | ··· |
| 24 | 10·5 | 67 | 1440 | 0·8 | 6 | 110 | 4·0 | 33 | 480 | 5·9 | 58 | 850 | ··· | ··· | ··· | 2·3 | 30 | 310 |
| 25 | 12·9 | 82 | 2700 | 6·6 | 47 | 1110 | 1·5 | 13 | 150 | 5·4 | 54 | 750 | 1·4 | 17 | 80 | ··· | ··· | ··· |
| 26 | 5·5 | 35 | 590 | 7·0 | 50 | 970 | 2·1 | 17 | 240 | ··· | ··· | 10 | 4·2 | 51 | 720 | 3·5 | 45 | 400 |
| 27 | 11·5 | 74 | 2540 | 5·0 | 36 | 940 | 8·6 | 73 | 1630 | ··· | ··· | ··· | 0·2 | 2 | ··· | 1·0 | 13 | 60 |
| 28 | 7·4 | 48 | 1440 | 8·2 | 60 | 1200 | 9·6 | 76 | 1170 | 5·6 | 57 | 470 | ··· | ··· | ··· | 2·8 | 36 | 360 |
| 29 | 12·5 | 81 | 2220 | 5·7 | 42 | 940 | 4·0 | 34 | 520 | 5·1 | 52 | 520 | 0·9 | 11 | 70 | ··· | ··· | 70 |
| 30 | 3·2 | 21 | 200 | 9·4 | 69 | 1410 | 7·4 | 64 | 1680 | 0·3 | 3 | 20 | 0·5 | 6 | 20 | 0·9 | 11 | 60 |
| 31 | 5·7 | 47 | 770 | 3·4 | 25 | 410 | | | | 1·4 | 15 | 100 | | | | 1·8 | 23 | 250 |
| Mean | 7·70 | | 1270 | 5·11 | | 810 | 3·87 | | 630 | 2·48 | | 350 | 1·31 | | 170 | 1·62 | | 190 |
| | | | | | | | Annual Mean | | | 3·93 | | 640 | | | | | | |

See Introduction for corrections to tabulated values of radiation.

## DURATION OF BRIGHT SUNSHINE

Monthly and annual totals between exact hours, local apparent time

189 KEW OBSERVATORY: $h_g$(height of recorder above ground) = 13·3 m.

| | 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 | Per cent. of possible |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *hours* | | | | | | | | | | | | | | | | | | | % |
| Jan. | – | – | – | – | ··· | 1·4 | 6·7 | 7·2 | 9·4 | 8·9 | *10·2* | 6·1 | 1·5 | ··· | – | – | – | – | 51·4 | 20 |
| Feb. | – | – | – | ··· | 1·7 | 5·7 | 6·9 | 9·7 | *10·1* | 8·4 | 9·3 | 8·0 | 6·4 | 1·3 | ··· | – | – | – | 67·5 | 24 |
| Mar. | – | – | ··· | 0·9 | 5·5 | 6·2 | 9·4 | 9·9 | 8·8 | 9·6 | *10·2* | 9·9 | 9·1 | 4·1 | 0·4 | ··· | – | – | 84·0 | 23 |
| Apr. | – | ··· | 1·9 | 9·0 | 14·4 | 18·7 | 18·9 | 18·1 | 19·0 | *19·6* | 18·2 | 18·2 | 16·9 | 15·9 | 8·1 | 2·0 | ··· | – | 198·9 | 48 |
| May | ··· | 0·2 | 4·1 | 6·7 | 11·3 | 12·6 | 13·4 | 14·4 | 14·3 | 17·0 | *17·6* | 17·4 | 16·4 | *17·6* | 14·0 | 11·5 | 2·4 | ··· | 190·9 | 40 |
| June | ··· | 1·1 | 6·2 | 10·4 | 15·3 | *16·7* | 14·3 | 12·9 | 11·7 | 11·8 | 12·2 | 11·2 | 11·3 | 11·9 | 10·0 | 7·8 | 4·4 | ··· | 169·2 | 34 |
| July | ··· | 2·0 | 11·1 | 13·7 | 17·2 | 16·5 | 17·0 | *20·6* | 18·8 | 19·7 | 17·2 | 16·5 | 16·7 | 17·0 | 16·9 | 13·4 | 4·2 | ··· | 238·5 | 48 |
| Aug. | – | ··· | 4·0 | 9·9 | 12·8 | *14·7* | 13·0 | 11·1 | 11·9 | 13·0 | 13·7 | 14·0 | 12·2 | 11·9 | 9·6 | 6·3 | 0·5 | – | 158·6 | 35 |
| Sept. | – | – | 0·1 | 4·0 | 9·1 | 11·1 | *12·9* | 12·7 | 11·0 | 12·7 | 11·0 | 10·1 | 7·7 | 9·2 | 4·2 | 0·3 | – | – | 116·1 | 31 |
| Oct. | – | – | – | ··· | 2·5 | 5·4 | 8·7 | 11·2 | *11·8* | 11·0 | 9·8 | 8·2 | 6·1 | 2·3 | ··· | – | – | – | 77·0 | 23 |
| Nov. | – | – | – | ··· | ··· | 2·9 | 4·3 | 5·2 | *7·4* | 7·3 | 5·5 | 4·9 | 1·6 | 0·3 | – | – | – | – | 39·4 | 15 |
| Dec. | – | – | – | – | ··· | 1·1 | 6·2 | 8·4 | 8·7 | *10·8* | 10·3 | 4·4 | 0·1 | – | – | – | – | – | 50·0 | 21 |
| Annual | ··· | 3·3 | 27·4 | 54·6 | 89·8 | 113·0 | 131·7 | 141·4 | 142·9 | *149·8* | 145·2 | 128·9 | 106·0 | 91·5 | 63·2 | 41·3 | 11·5 | ··· | 1441·5 | 32 |

## SOLAR RADIATION RECEIVED ON A SURFACE PERPENDICULAR TO THE SOLAR BEAM

Monthly and annual totals between exact hours, local apparent time

190 KEW OBSERVATORY: $h_g$ = 13·3 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *joules per square centimetre* | | | | | | | | | | | | | | | | | | |
| Jan. | – | – | – | – | 20 | 210 | 710 | 880 | 1230 | 1140 | 1140 | 740 | 210 | ··· | – | – | – | – | 6260 |
| Feb. | – | – | – | ··· | 270 | 800 | 1240 | 1670 | 1570 | 1400 | 1530 | 1160 | 820 | 190 | ··· | – | – | – | 10650 |
| Mar. | – | – | ··· | 260 | 720 | 930 | 1190 | 1300 | 1440 | 1740 | 1740 | 1630 | 1220 | 640 | 140 | ··· | – | – | 12950 |
| Apr. | – | ··· | 250 | 1320 | 2070 | 3070 | 3440 | 3350 | 3830 | 4010 | 3680 | 3280 | 2910 | 2190 | 1020 | 250 | ··· | – | 34670 |
| May | ··· | 100 | 520 | 760 | 1570 | 2160 | 2370 | 2690 | 2730 | 3190 | 3520 | 3300 | 3190 | 3190 | 2170 | 1360 | 170 | ··· | 32990 |
| June | ··· | 410 | 1080 | 1610 | 2450 | 3060 | 2800 | 2710 | 2240 | 2320 | 2130 | 1940 | 2190 | 1710 | 1350 | 850 | 380 | ··· | 29230 |
| July | ··· | 410 | 1690 | 2200 | 2870 | 2810 | 3140 | 3620 | 3800 | 3570 | 3260 | 2830 | 2650 | 2470 | 2230 | 1430 | 410 | ··· | 39390 |
| Aug. | – | 50 | 650 | 1380 | 2150 | 2380 | 2190 | 1920 | 1880 | 2050 | 2160 | 2300 | 2130 | 1590 | 1450 | 680 | 40 | – | 25000 |
| Sept. | – | – | 40 | 550 | 1550 | 1820 | 2400 | 2280 | 2080 | 2050 | 1690 | 1610 | 1150 | 1070 | 570 | 20 | – | – | 18900 |
| Oct. | – | – | – | ··· | 300 | 480 | 830 | 1660 | 1680 | 1760 | 1530 | 1280 | 870 | 320 | 10 | – | – | – | 10720 |
| Nov. | – | – | – | – | ··· | 240 | 620 | 760 | 1080 | 970 | 680 | 560 | 230 | 50 | – | – | – | – | 5190 |
| Dec. | – | – | – | – | ··· | 90 | 720 | 1020 | 1190 | 1210 | 1070 | 520 | 110 | ··· | – | – | – | – | 5930 |
| Annual | ··· | 970 | 4230 | 8080 | 13970 | 18050 | 21650 | 23860 | 24750 | 25410 | 24130 | 21150 | 17680 | 13420 | 8940 | 4590 | 1000 | ··· | 231880 |

Mean speed and highest instantaneous speed recorded each day (0h. to 24h., G.M.T.) by the pressure-tube anemograph

191 KEW OBSERVATORY: $h_a$(height of anemograph above M.S.L.) = height of ground above M.S.L. + height of anemograph above ground = 5 m. + 23 m.

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust | Mean | Max. gust |
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4·6 | 14 | 8·4 | 21 | 3·7 | 12 | 3·6 | 10 | 4·7 | 13 | 6·1 | 17 | 2·5 | 7 | 3·1 | 13 | 2·8 | 12 | 2·8 | 11 | 2·5 | 11 | 5·3 | 18 |
| 2 | 6·0 | 13 | 7·6 | 20 | 7·1 | *19* | 3·3 | 9 | 5·7 | 13 | 5·3 | 19 | 2·0 | 11 | 4·8 | 15 | 3·9 | 12 | 1·8 | 7 | *0·9* | 6 | 5·0 | 13 |
| 3 | 1·8 | 10 | 7·9 | 21 | 3·8 | 17 | 2·7 | 12 | 6·2 | 16 | 4·2 | 14 | 2·0 | 15 | 2·5 | 9 | 5·3 | 17 | 2·1 | 13 | 3·9 | 12 | 4·1 | 14 |
| 4 | 2·9 | 13 | 6·4 | *28* | 1·9 | 7 | 2·5 | 11 | 6·8 | 16 | 5·6 | 17 | 4·7 | 16 | *1·3* | 7 | *8·3* | 21 | 3·1 | 12 | 1·8 | 11 | 4·2 | 13 |
| 5 | 4·8 | 13 | 5·8 | 20 | 5·1 | 14 | 4·3 | 17 | 6·8 | *23* | *8·8* | 19 | 3·7 | 12 | 1·8 | 11 | 5·6 | 17 | 3·0 | 11 | 0·9 | 7 | 1·5 | 6 |
| 6 | 3·7 | 12 | 3·0 | 13 | 7·8 | 18 | 3·9 | 13 | 7·8 | 18 | 4·9 | 14 | 2·9 | 13 | 4·1 | 13 | 2·4 | 12 | 3·3 | 10 | 2·1 | 6 | 2·8 | 10 |
| 7 | 1·9 | 7 | 6·9 | 18 | 6·5 | 17 | 3·1 | 12 | *8·2* | 21 | *1·0* | 7 | 1·5 | 12 | 4·8 | 15 | 2·7 | 14 | 1·1 | 5 | 3·5 | 15 | 3·6 | 14 |
| 8 | 5·2 | 16 | 9·6 | 26 | 3·0 | 11 | 3·6 | 11 | 3·0 | 13 | 2·2 | 9 | 1·0 | 7 | 3·0 | 16 | *1·9* | 11 | 2·6 | 12 | 7·6 | 19 | 5·3 | 17 |
| 9 | *8·7* | 27 | 6·7 | 22 | 2·1 | 11 | 3·7 | 12 | 6·4 | 14 | 4·2 | 14 | *0·9* | 9 | 4·0 | 15 | 3·1 | 11 | 4·8 | 14 | 5·6 | 15 | 5·7 | 16 |
| 10 | 6·7 | 20 | 3·7 | 13 | 1·6 | 6 | 3·8 | 14 | 6·3 | 16 | 5·3 | *21* | 1·9 | 10 | 5·2 | 20 | 4·5 | 15 | *7·2* | *18* | 4·7 | 14 | 1·8 | 10 |
| 11 | 8·5 | 22 | 3·5 | 13 | 2·7 | 9 | 2·4 | 11 | 6·6 | 15 | 3·3 | 15 | 1·4 | 9 | 3·3 | 14 | 4·6 | 16 | 6·5 | 17 | 2·4 | 8 | 4·4 | 16 |
| 12 | 5·3 | 17 | 1·5 | 7 | 4·8 | 13 | 2·2 | 10 | 5·4 | 13 | 1·6 | 10 | 1·1 | 8 | 7·6 | 21 | 2·6 | 13 | 4·5 | 12 | 4·7 | 15 | 1·1 | 4 |
| 13 | 3·6 | 13 | 0·5 | 3 | *8·1* | 17 | 1·2 | 7 | 7·5 | 17 | 2·6 | 11 | 2·8 | 11 | 5·8 | 18 | 4·3 | 14 | 4·1 | 13 | 3·5 | 10 | *0·5* | 4 |
| 14 | 3·7 | 12 | *0·4* | 3 | 6·9 | 17 | *0·6* | 6 | 4·8 | 15 | 2·4 | 11 | 4·3 | 17 | 3·0 | 13 | 5·6 | 17 | 2·3 | 7 | 2·7 | 7 | 1·1 | 9 |
| 15 | 3·3 | 11 | 1·6 | 7 | 4·9 | 12 | 1·3 | 7 | 1·7 | 10 | 2·9 | 13 | 4·5 | 15 | 1·6 | 8 | 3·9 | 13 | 2·2 | 11 | 1·1 | 5 | 5·8 | 14 |
| 16 | 5·4 | 17 | 3·0 | 15 | 3·9 | 12 | 3·5 | 13 | 1·6 | 12 | 3·5 | 13 | 3·3 | 11 | 3·8 | 13 | 2·6 | 11 | 2·2 | 8 | 2·7 | 8 | 6·6 | 16 |
| 17 | 6·7 | 16 | 2·3 | 8 | 2·4 | 9 | 4·8 | 15 | 2·8 | 11 | 3·7 | 15 | 2·6 | 14 | 5·1 | 18 | 4·3 | 17 | 4·4 | 12 | 4·6 | 17 | *6·9* | 16 |
| 18 | 5·2 | 14 | 2·5 | 9 | 4·8 | 14 | 4·9 | 15 | 4·2 | 13 | 4·3 | 19 | *5·9* | *18* | 2·0 | 11 | 4·5 | 18 | 5·5 | 13 | 5·8 | 18 | 6·3 | 17 |
| 19 | 1·5 | 11 | 5·0 | 16 | 4·8 | 15 | 2·0 | 6 | 3·4 | 12 | 2·6 | 12 | 5·0 | 15 | 3·3 | 13 | 3·9 | 14 | 3·2 | 9 | 2·3 | 10 | 2·9 | 13 |
| 20 | 1·5 | 6 | *8·9* | 26 | 5·1 | 17 | 2·2 | 8 | 3·5 | 13 | 3·3 | 15 | 3·6 | 13 | 2·6 | 12 | 8·1 | *31* | 2·7 | 11 | 6·0 | 16 | 3·4 | 10 |
| 21 | *1·0* | 7 | 5·8 | 16 | 5·3 | 17 | 4·7 | 14 | 4·0 | 14 | 2·2 | 11 | 3·6 | 13 | 2·0 | 10 | 3·7 | 11 | *1·1* | 6 | 7·1 | 21 | 1·8 | 6 |
| 22 | 2·1 | 8 | 4·3 | 15 | 4·9 | 14 | 2·2 | 10 | *1·1* | 6 | 1·5 | 9 | 4·8 | 13 | 2·5 | 12 | 6·5 | 17 | 3·2 | 12 | 6·6 | 19 | 4·0 | 15 |
| 23 | 2·0 | 7 | 8·7 | 27 | 3·8 | 17 | 3·7 | 12 | 2·3 | 11 | 1·4 | 9 | 4·0 | 14 | 1·5 | 7 | 4·1 | 11 | 4·0 | 11 | 5·8 | 19 | 5·1 | 14 |
| 24 | 1·9 | 10 | 3·0 | 12 | *0·7* | 4 | 2·6 | 12 | 3·8 | 12 | 2·5 | 11 | 2·7 | 13 | 1·4 | 7 | 3·3 | 10 | 5·9 | 17 | 8·3 | 18 | 1·8 | 8 |
| 25 | 5·0 | 13 | 1·5 | 7 | 1·2 | 7 | *5·8* | *17* | 5·8 | 13 | 2·6 | 11 | 2·5 | 11 | 1·9 | 14 | 3·5 | 11 | 3·7 | 12 | 7·8 | 20 | 5·6 | 18 |
| 26 | 4·6 | 14 | 6·1 | 15 | 0·9 | 5 | 2·8 | 10 | 3·9 | 11 | 2·8 | 13 | 3·0 | 13 | 1·6 | 7 | 2·1 | 10 | 3·5 | 11 | 5·4 | 15 | 5·2 | *19* |
| 27 | 1·5 | 7 | 3·1 | 12 | 1·8 | 7 | 3·7 | 12 | 4·8 | 17 | 4·4 | 16 | 5·1 | 17 | 1·9 | 9 | 2·2 | 11 | 2·8 | 13 | *8·5* | *21* | 3·1 | 10 |
| 28 | 6·2 | 19 | 1·2 | 6 | 4·5 | 13 | 4·2 | 15 | 3·5 | 15 | 4·0 | 12 | 4·1 | 13 | *8·6* | *27* | 4·6 | 14 | 2·8 | 13 | 6·3 | 17 | 3·3 | 11 |
| 29 | 7·5 | 28 | | | 3·2 | 9 | 2·2 | 10 | 1·4 | 7 | 5·7 | 19 | 4·5 | 13 | 8·4 | 22 | 4·9 | 13 | 1·6 | 8 | 5·0 | 14 | 1·3 | 5 |
| 30 | 6·9 | *28* | | | 3·0 | 9 | 2·7 | 10 | 3·2 | 14 | 4·8 | 13 | 5·9 | 18 | 6·4 | 18 | 2·2 | 11 | 3·0 | 13 | 4·4 | 15 | 2·4 | 9 |
| 31 | 5·6 | 19 | | | 4·6 | 9 | | | 5·7 | 19 | | | 3·8 | 13 | 5·4 | 15 | | | 4·8 | 15 | | | 3·2 | 13 |

WIND

Monthly and annual means of mean wind speed between exact hours, G.M.T.

192 KEW OBSERVATORY: $h_a$ = 5 m. + 23 m.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *metres per second* | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 4·0 | 3·9 | 3·8 | 3·8 | 3·8 | 4·0 | 3·8 | *3·7* | *3·7* | 4·0 | 4·5 | 5·0 | 5·2 | *5·2* | 5·1 | 5·0 | 4·9 | 4·8 | 4·8 | 4·7 | 4·7 | 4·3 | 4·1 | 4·4 | 4·4 |
| Feb. | 4·2 | 4·2 | 4·2 | 4·1 | 4·3 | 4·2 | 4·3 | 4·1 | 4·5 | 5·1 | 5·1 | 5·6 | *5·8* | 5·8 | 5·5 | 5·4 | 4·9 | 4·5 | 4·3 | 4·2 | *4·0* | 4·0 | 4·2 | 4·1 | 4·6 |
| Mar. | 3·1 | *3·1* | 3·2 | 3·2 | 3·2 | 3·3 | 3·5 | 3·5 | 3·8 | 4·4 | 4·7 | 4·9 | 5·0 | *5·3* | 5·2 | 5·3 | 5·0 | 4·7 | 4·3 | 4·1 | 3·8 | 3·7 | 3·3 | 3·3 | 4·0 |
| Apr. | 2·2 | 2·2 | 2·2 | 2·2 | *2·0* | 2·1 | 2·1 | 2·5 | 2·9 | 3·4 | 3·9 | 4·3 | 4·4 | *4·5* | 4·4 | 4·4 | 4·3 | 4·3 | 3·7 | 3·0 | 2·9 | 2·5 | 2·6 | 2·4 | 3·1 |
| May | 3·6 | 3·4 | 3·6 | *3·4* | 3·5 | 3·6 | 4·1 | 4·2 | 4·9 | 5·1 | 5·4 | 5·8 | 5·7 | 5·8 | *5·8* | 5·6 | 5·6 | 5·3 | 4·9 | 4·8 | 4·3 | 4·2 | 4·1 | 3·9 | 4·6 |
| June | *2·4* | 2·5 | 2·6 | 2·6 | 2·7 | 2·8 | 2·9 | 3·4 | 3·7 | 4·3 | 4·5 | 4·6 | 4·8 | 4·8 | 4·9 | *5·1* | 5·1 | 4·8 | 4·2 | 3·9 | 3·2 | 2·8 | 2·5 | 2·5 | 3·7 |
| July | 2·2 | *2·1* | 2·3 | 2·2 | 2·2 | 2·3 | 2·3 | 2·9 | 3·2 | 3·5 | 3·9 | 4·1 | 4·2 | 4·5 | 4·5 | 4·6 | 4·5 | *4·6* | 4·3 | 3·6 | 3·0 | 2·7 | 2·5 | 2·2 | 3·3 |
| Aug. | 2·8 | 2·8 | 2·8 | 2·8 | 2·9 | 2·8 | 2·9 | 3·3 | 3·8 | 4·3 | 4·5 | 4·6 | 4·7 | 4·9 | 5·1 | *5·1* | 5·1 | 4·4 | 3·7 | 3·3 | 3·1 | 3·1 | 2·9 | *2·7* | 3·7 |
| Sept. | 3·5 | 3·4 | 3·4 | 3·3 | 3·2 | 2·8 | *2·8* | 3·2 | 3·8 | 4·7 | 5·0 | 5·2 | 5·6 | *5·8* | 5·5 | 5·2 | 4·8 | 4·4 | 4·0 | 3·9 | 3·7 | 3·7 | 3·5 | 3·3 | 4·1 |
| Oct. | 2·5 | *2·3* | 2·4 | 2·5 | 2·6 | 2·5 | 2·7 | 2·9 | 3·4 | 3·8 | 4·4 | 4·6 | *4·9* | 4·8 | 4·7 | 4·6 | 4·5 | 3·8 | 3·7 | 3·4 | 3·1 | 2·9 | 2·7 | 2·5 | 3·4 |
| Nov. | 3·8 | *3·7* | 3·9 | 3·9 | 4·1 | 4·2 | 4·3 | 4·5 | 4·6 | 4·7 | 5·0 | 5·3 | 5·4 | *5·5* | 5·3 | 4·9 | 4·8 | 4·4 | 4·1 | 4·4 | 4·5 | 4·1 | 4·0 | 3·9 | 4·5 |
| Dec. | *3·2* | 3·2 | 3·3 | 3·3 | 3·3 | 3·5 | 3·5 | 3·6 | 3·8 | 4·1 | 4·4 | 4·5 | 4·5 | *4·6* | 4·5 | 4·1 | 3·7 | 3·7 | 3·7 | 3·5 | 3·5 | 3·3 | 3·3 | 3·3 | 3·7 |
| Annual | 3·1 | *3·1* | 3·1 | 3·1 | 3·1 | 3·2 | 3·3 | 3·2 | 3·8 | 4·3 | 4·6 | 4·9 | 5·0 | *5·1* | 5·0 | 5·0 | 4·8 | 4·7 | 4·1 | 3·9 | 3·6 | 3·4 | 3·3 | 3·2 | 3·9 |

DISTRIBUTION OF WIND SPEED, EXTREME VELOCITIES AS RECORDED BY PRESSURE-TUBE ANEMOGRAPH

193 KEW OBSERVATORY: $h_a$ = 5 m. + 23 m.

| | DISTRIBUTION OF WIND SPEED | | | | | | | | EXTREME VELOCITIES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | More than 17·1 m./sec. | | 10·8 to 17·1 m./sec. | | 5·5 to 10·7 m./sec. | 1·6 to 5·4 m./sec. | Less than 1·6 m./sec. | No record | Highest hourly wind | | | Highest gust | |
| | Dates of occurrence | Duration | No. of days | Duration | Duration | Duration | Duration | Duration | Veer from N. | Speed | Hour ended | Speed | Date |
| | | hr. | | hr. | hr. | hr. | hr. | hr. | ° | m./sec. | day h. | m./sec. | day h. m. |
| Jan. | – | 0 | 4 | 21 | 214 | 378 | 131 | 0 | 260 | 13 | 30 02 | 28 | 30 01 25 |
| Feb. | – | 0 | 5 | 15 | 253 | 276 | 128 | 0 | 300 | 13 | 23 14 | 28 | 4 17 40 |
| Mar. | – | 0 | 0 | 0 | 212 | 383 | 149 | 0 | 360 | 10 | 2 11 | 19 | 2 10 25 |
| Apr. | – | 0 | 0 | 0 | 121 | 416 | 183 | 0 | 40 | 9 | 18 14 | 17 | 25 14 15 |
| May | – | 0 | 0 | 0 | 294 | 335 | 115 | 0 | 210 | 11 | 25 15 | 23 | 5 15 25 |
| June | – | 0 | 0 | 0 | 147 | 434 | 139 | 0 | 20 | 11 | 5 17 | 21 | 10 11 40 |
| | | | | | | | | | 225 | 11 | 5 15 | | |
| July | – | 0 | 0 | 0 | 96 | 473 | 175 | 0 | 220 | 9 | 18 17 | 18 | 18 13 00 |
| Aug. | – | 0 | 3 | 7 | 155 | 419 | 163 | 0 | 205 | 12 | 28 15 | 27 | 28 17 10 |
| Sept. | – | 0 | 1 | 1 | 184 | 438 | 97 | 0 | 330 | 12 | 20 19 | 31 | 20 18 20 |
| Oct. | – | 0 | 0 | 0 | 110 | 496 | 138 | 0 | 55 | 10 | 10 13 | 18 | 10 11 05 |
| Nov. | – | 0 | 1 | 3 | 258 | 339 | 120 | 0 | 210 | 12 | 27 14 | 21 | 27 09 30 |
| Dec. | – | 0 | 0 | 0 | 179 | 419 | 146 | 0 | 200 | 10 | 25 15 | 19 | 26 18 00 |
| Year | – | 0 | 14 | 47 | 2223 | 4806 | 1684 | 0 | 300 | 13 | Feb. 23 14 | 31 | Sept. 20 18 20 |

194 KEW OBSERVATORY

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. | 30 cm. | 122 cm. |
| | | | | | | | | | | | *degrees Absolute* | | | | | | | | | | | | | |
| 1 | 76·5 | 81·1 | 78·4 | 79·2 | 75·6 | 80·0 | 81·6 | 80·5 | 84·6 | 82·9 | 86·6 | 84·7 | 90·3 | 87·1 | 90·2 | 89·0 | 88·8 | 88·5 | 88·8 | 87·7 | 81·0 | 84·7 | 81·1 | 83·1 |
| 2 | 76·0 | 80·9 | 78·6 | 79·1 | 75·3 | 79·9 | 81·3 | 80·6 | 84·9 | 83·1 | 86·7 | 84·8 | 91·2 | 87·2 | 91·0 | 88·9 | 89·0 | 88·2 | 88·5 | 87·8 | 80·8 | 84·4 | 80·9 | 83·1 |
| 3 | 75·7 | 80·8 | 78·8 | 79·2 | 75·6 | 79·7 | 82·0 | 80·8 | 84·6 | 83·1 | 86·7 | 84·9 | 92·0 | 87·3 | 91·0 | 88·9 | 88·9 | 88·2 | 88·8 | 87·8 | 81·3 | 84·9 | 80·2 | 83·1 |
| 4 | 75·3 | 80·6 | 79·6 | 79·2 | 75·4 | 79·6 | 82·8 | 80·9 | 84·5 | 83·2 | 86·8 | 84·9 | 92·5 | 87·4 | 91·3 | 88·9 | 88·6 | 88·2 | 88·1 | 87·9 | 82·3 | 84·3 | 79·2 | 83·0 |
| 5 | 75·2 | 80·2 | 79·0 | 79·4 | 75·6 | 79·5 | 83·7 | 81·0 | 84·3 | 83·2 | 86·8 | 85·0 | 91·0 | 87·6 | 92·1 | 88·9 | 88·7 | 88·2 | 87·9 | 87·8 | 82·0 | 84·1 | 78·2 | 82·9 |
| 6 | 76·6 | 80·2 | 78·7 | 79·4 | 76·0 | 79·4 | 82·2 | 81·1 | 83·6 | 83·3 | 86·9 | 85·1 | 90·3 | 87·8 | 92·0 | 89·0 | 88·3 | 88·1 | 88·0 | 87·9 | 81·8 | 84·1 | 78·0 | 82·7 |
| 7 | 77·3 | 80·1 | 79·7 | 79·5 | 75·6 | 79·2 | 81·6 | 81·2 | 83·8 | 83·3 | 86·8 | 85·1 | 90·6 | 87·9 | 91·6 | 89·0 | 87·9 | 88·1 | 86·7 | 87·8 | 81·0 | 84·1 | 77·3 | 82·3 |
| 8 | 77·5 | 80·0 | 81·0 | 79·7 | 75·5 | 79·1 | 82·0 | 81·3 | 83·9 | 83·3 | 88·0 | 85·1 | 90·9 | 87·9 | 90·6 | 89·1 | 88·1 | 88·3 | 86·0 | 87·6 | 81·0 | 84·1 | 77·5 | 82·1 |
| 9 | 78·6 | 80·0 | 80·2 | 79·9 | 75·2 | 79·1 | 82·2 | 81·4 | 83·4 | 83·3 | 87·8 | 85·1 | 91·1 | 88·0 | 90·0 | 89·1 | 88·0 | 88·1 | 85·9 | 87·5 | 81·2 | 84·0 | 78·0 | 82·0 |
| 10 | 79·5 | 80·0 | 79·0 | 80·0 | 75·0 | 79·1 | 81·6 | 81·5 | 83·8 | 83·3 | 87·7 | 85·2 | 91·8 | 88·1 | 90·1 | 89·1 | 88·1 | 88·1 | 85·8 | 87·3 | 81·0 | 84·0 | 77·8 | 81·9 |
| 11 | 80·5 | 80·1 | 79·1 | 80·1 | 74·9 | 78·9 | 80·8 | 81·6 | 84·1 | 83·3 | 87·0 | 85·3 | 92·7 | 88·1 | 89·5 | 89·0 | 88·2 | 88·0 | 85·6 | 87·2 | 81·0 | 83·9 | 77·1 | 81·6 |
| 12 | 80·9 | 80·2 | 79·0 | 80·1 | 75·5 | 78·9 | 81·3 | 81·7 | 84·3 | 83·4 | 86·8 | 85·4 | 93·2 | 88·2 | 90·0 | 89·1 | 88·0 | 88·0 | 85·2 | 87·0 | 81·1 | 83·7 | 77·1 | 81·4 |
| 13 | 79·4 | 80·3 | 79·8 | 80·1 | 76·8 | 78·8 | 81·7 | 81·6 | 84·8 | 83·4 | 87·1 | 85·5 | 93·4 | 88·2 | 89·5 | 89·0 | 88·2 | 87·9 | 85·3 | 87·0 | 81·6 | 83·8 | 76·3 | 81·2 |
| 14 | 78·0 | 80·4 | 80·2 | 80·1 | 76·9 | 78·8 | 82·1 | 81·7 | 84·6 | 83·5 | 87·7 | 85·5 | 92·8 | 88·3 | 89·5 | 89·0 | 87·4 | 87·7 | 85·1 | 86·9 | 81·3 | 83·5 | 76·2 | 81·2 |
| 15 | 77·0 | 80·3 | 80·3 | 80·2 | 76·6 | 78·8 | 82·3 | 81·7 | 83·8 | 83·5 | 88·2 | 85·5 | 91·6 | 88·6 | 89·7 | 89·0 | 87·8 | 87·9 | 84·9 | 86·6 | 81·9 | 83·4 | 77·0 | 81·1 |
| 16 | 76·1 | 80·3 | 80·1 | 80·2 | 76·0 | 78·7 | 82·6 | 81·9 | 83·7 | 83·6 | 88·6 | 85·8 | 90·9 | 88·6 | 89·1 | 88·9 | 87·6 | 87·8 | 84·6 | 86·6 | 82·0 | 83·4 | 75·9 | 81·0 |
| 17 | 75·9 | 80·2 | 80·2 | 80·3 | 75·7 | 78·8 | 84·0 | 81·9 | 83·7 | 83·6 | 88·5 | 85·8 | 89·2 | 88·7 | 88·5 | 88·8 | 87·5 | 87·8 | 84·5 | 86·4 | 81·7 | 83·3 | 75·3 | 80·9 |
| 18 | 75·2 | 80·1 | 79·9 | 80·4 | 77·0 | 78·9 | 83·8 | 82·1 | 84·5 | 83·5 | 88·7 | 85·9 | 89·9 | 88·6 | 88·0 | 88·9 | 87·5 | 87·7 | 84·2 | 86·3 | 81·2 | 83·4 | 75·1 | 80·7 |
| 19 | 75·1 | 80·1 | 80·3 | 80·5 | 78·5 | 78·8 | 82·6 | 82·1 | 84·6 | 83·6 | 88·0 | 85·9 | 89·6 | 88·5 | 88·8 | 88·6 | 87·2 | 87·6 | 84·2 | 86·1 | 80·9 | 83·3 | 75·0 | 80·4 |
| 20 | 74·9 | 79·8 | 80·1 | 80·5 | 78·8 | 78·8 | 82·8 | 82·2 | 84·5 | 83·6 | 87·5 | 86·0 | 90·0 | 88·4 | 89·0 | 88·3 | 87·6 | 87·5 | 85·0 | 86·1 | 81·7 | 83·2 | 74·9 | 80·3 |
| 21 | 74·8 | 79·6 | 78·8 | 80·6 | 79·9 | 79·1 | 83·5 | 82·3 | 85·0 | 83·8 | 87·7 | 86·1 | 89·9 | 88·5 | 88·4 | 88·3 | 86·9 | 87·4 | 85·6 | 86·1 | 82·0 | 83·2 | 74·6 | 80·1 |
| 22 | 74·7 | 79·4 | 77·4 | 80·6 | 80·3 | 79·1 | 83·3 | 82·3 | 85·1 | 83·9 | 88·4 | 86·1 | 90·0 | 88·2 | 88·8 | 88·2 | 87·1 | 87·3 | 85·9 | 86·0 | 81·6 | 83·1 | 74·6 | 80·1 |
| 23 | 74·8 | 79·2 | 78·1 | 80·5 | 80·0 | 79·3 | 83·1 | 82·3 | 86·4 | 83·9 | 89·4 | 86·1 | 91·0 | 88·3 | 89·0 | 88·3 | 87·8 | 87·3 | 85·8 | 86·0 | 80·6 | 83·1 | 74·8 | 79·9 |
| 24 | 74·9 | 79·2 | 77·8 | 80·5 | 80·0 | 79·4 | 83·7 | 82·5 | 86·4 | 83·9 | 90·5 | 86·2 | 91·1 | 88·3 | 90·0 | 88·2 | 87·5 | 87·3 | 84·6 | 86·0 | 81·8 | 83·1 | 75·0 | 79·8 |
| 25 | 75·0 | 79·1 | 77·4 | 80·3 | 79·5 | 79·6 | 83·5 | 82·6 | 86·3 | 84·0 | 90·1 | 86·3 | 91·7 | 88·3 | 90·5 | 88·2 | 87·8 | 87·3 | 82·7 | 86·1 | 82·0 | 83·1 | 75·0 | 79·7 |
| 26 | 76·2 | 79·1 | 77·7 | 80·3 | 79·6 | 79·7 | 83·5 | 82·6 | 86·4 | 84·1 | 90·1 | 86·4 | 91·2 | 88·5 | 90·6 | 88·3 | 88·5 | 87·4 | 82·0 | 85·9 | 81·9 | 83·1 | 75·8 | 80·3 |
| 27 | 76·7 | 79·0 | 76·9 | 80·2 | 79·9 | 79·9 | 84·0 | 82·7 | 86·1 | 84·2 | 90·0 | 86·7 | 91·1 | 88·9 | 90·0 | 88·4 | 88·8 | 87·4 | 82·1 | 85·8 | 81·4 | 83·0 | 76·1 | 79·3 |
| 28 | 76·4 | 79·1 | 76·2 | 80·1 | 80·0 | 80·0 | 84·2 | 82·9 | 86·2 | 84·3 | 89·7 | 86·9 | 90·6 | 89·0 | 90·0 | 88·6 | 88·8 | 87·3 | 81·9 | 85·6 | 82·1 | 83·1 | 76·2 | 79·3 |
| 29 | 77·7 | 79·1 | | | 80·9 | 80·1 | 84·2 | 82·9 | 86·4 | 84·3 | 90·0 | 86·9 | 90·8 | 88·9 | 89·4 | 88·7 | 89·2 | 87·3 | 80·9 | 85·3 | 82·0 | 83·1 | 76·2 | 79·3 |
| 30 | 78·0 | 79·1 | | | 81·2 | 80·1 | 83·9 | 82·9 | 86·5 | 84·4 | 89·9 | 87·0 | 91·1 | 89·0 | 88·8 | 88·4 | 89·0 | 87·5 | 80·5 | 85·1 | 81·7 | 83·1 | 76·8 | 79·3 |
| 31 | 77·0 | 79·1 | | | 81·5 | 80·3 | | | 87·3 | 84·5 | | | 90·8 | 89·0 | 88·8 | 88·3 | | | 81·0 | 85·0 | | | 76·6 | 79·3 |
| Mean | 76·7 | 79·9 | 79·0 | 80·0 | 77·6 | 79·3 | 82·7 | 81·8 | 84·9 | 83·6 | 88·2 | 85·7 | 91·1 | 88·2 | 89·9 | 88·7 | 88·1 | 87·8 | 85·0 | 86·7 | 81·5 | 83·6 | 76·8 | 81·0 |
| | | | | | | | | | | | | Year | 83·5 | 83·9 | | | | | | | | | | |

MINIMUM TEMPERATURE "ON THE GRASS" DURING THE INTERVAL 21h. TO 9h., G.M.T.

195 KEW OBSERVATORY

| | JANUARY | FEBRUARY | MARCH | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOVEMBER | DECEMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *degrees Absolute* | | | | | | |
| 1 | 64·8 | 79·7 | 65·8 | 73·6 | 74·9 | 79·6 | 87·3 | 77·8 | 76·8 | 79·6 | 77·3 | 73·9 |
| 2 | 71·6 | 76·4 | 70·2 | 71·4 | 79·6 | 81·4 | 81·3 | 85·8 | 82·5 | 78·3 | 70·7 | 77·4 |
| 3 | 63·4 | 78·6 | 72·5 | 74·1 | 80·1 | 80·2 | 81·5 | 84·8 | 84·4 | 81·5 | 78·6 | 73·6 |
| 4 | 63·6 | 79·5 | 65·3 | 75·8 | 76·8 | 76·5 | 88·1 | 79·1 | 85·8 | 77·8 | 77·2 | 71·6 |
| 5 | 73·2 | 76·2 | 74·3 | 80·3 | 72·5 | 84·7 | 82·4 | 80·8 | 83·6 | 84·0 | 72·7 | 66·9 |
| 6 | 76·9 | 74·2 | 72·9 | 70·6 | 73·0 | 80·8 | 80·8 | 84·1 | 77·5 | 83·3 | 73·6 | 69·7 |
| 7 | 68·6 | 80·3 | 73·6 | 69·6 | 80·0 | *71·9* | 76·4 | 86·2 | 74·2 | 70·8 | 71·4 | 66·3 |
| 8 | 73·0 | 83·4 | 65·0 | 71·8 | 79·4 | 84·2 | 78·3 | 80·4 | 82·7 | 74·2 | 76·7 | 69·1 |
| 9 | 80·8 | 74·0 | 64·1 | 69·7 | 76·2 | 79·6 | 78·6 | 79·8 | 80·2 | 75·4 | 78·6 | 76·2 |
| 10 | 78·7 | 72·0 | *62·9* | 66·2 | 76·2 | 84·6 | 79·1 | 86·8 | 79·2 | 80·8 | 75·7 | 69·7 |
| 11 | 84·6 | 72·8 | 65·2 | *64·7* | 78·6 | 77·2 | 81·2 | 77·3 | 84·2 | 78·9 | 79·1 | 71·4 |
| 12 | 77·2 | 75·3 | 73·4 | 70·7 | 78·3 | 75·2 | 82·5 | 85·1 | 75·6 | 78·9 | 79·5 | 66·3 |
| 13 | 72·5 | 79·6 | 75·8 | 69·8 | 77·5 | 73·8 | 83·5 | 85·0 | 84·1 | 83·1 | 75·8 | 69·7 |
| 14 | 67·3 | 78·7 | 74·7 | 70·3 | 74·7 | 75·6 | 85·4 | 84·1 | 76·4 | 81·3 | 76·7 | 71·3 |
| 15 | 67·1 | 78·1 | 74·2 | 70·8 | *67·6* | 83·9 | 79·7 | 81·0 | 81·1 | 80·2 | 79·4 | 73·2 |
| 16 | 65·8 | 79·7 | 72·9 | 71·3 | 69·7 | 80·9 | 82·4 | 74·7 | *72·0* | 75·0 | 79·7 | 64·3 |
| 17 | 69·9 | 72·9 | 65·2 | 81·8 | 70·8 | 82·3 | *73·6* | 84·2 | 80·1 | 81·4 | 74·7 | 70·9 |
| 18 | 69·9 | 73·7 | 77·3 | 80·1 | 78·1 | 83·9 | 85·7 | *73·4* | 82·4 | 78·1 | 77·4 | 68·6 |
| 19 | 64·2 | 80·1 | 80·1 | 67·7 | 78·7 | 79·4 | 84·0 | 81·4 | 81·2 | 81·4 | 75·8 | 69·6 |
| 20 | *61·8* | 75·8 | 69·7 | 68·2 | 70·6 | 78·6 | 85·6 | 84·6 | 84·0 | 79·1 | 83·5 | 65·9 |
| 21 | 65·3 | 71·2 | 79·9 | 73·7 | 77·6 | 77·4 | 84·1 | 79·9 | 76·3 | 79·2 | 78·9 | *60·2* |
| 22 | 71·4 | 66·4 | 80·7 | 70·5 | 71·6 | 77·4 | 85·8 | 79·0 | 83·7 | 81·5 | 75·7 | 66·9 |
| 23 | 72·6 | 75·6 | 73·8 | 69·0 | 75·6 | 83·0 | 87·4 | 81·3 | 87·0 | 82·5 | *69·8* | 75·8 |
| 24 | 70·8 | 69·3 | 73·0 | 72·2 | 80·8 | 84·2 | 81·7 | 83·7 | 78·9 | 75·1 | 82·4 | 72·4 |
| 25 | 69·9 | 67·6 | 70·2 | 76·8 | 81·3 | 77·4 | 78·3 | 84·1 | 80·7 | 69·2 | 80·8 | 65·8 |
| 26 | 77·8 | 74·7 | 68·3 | 80·7 | 82·4 | 84·5 | 78·6 | 81·4 | 85·2 | 74·1 | 77·8 | 73·1 |
| 27 | 68·4 | 70·2 | 69·6 | 80·3 | 83·6 | 78·0 | 84·4 | 75·6 | 81·4 | 74·7 | 74·7 | 72·4 |
| 28 | 72·2 | *61·9* | 69·9 | 81·1 | 75·3 | 85·2 | 79·1 | 84·7 | 82·3 | 73·6 | 81·9 | 73·3 |
| 29 | 76·3 | | 76·3 | 80·6 | 81·6 | 81·9 | 85·0 | 83·6 | 86·9 | *67·0* | 80·1 | 71·3 |
| 30 | 74·3 | | 73·2 | 74·6 | 75·9 | 84·8 | 85·0 | 81·4 | 79·1 | 69·8 | 75·3 | 74·6 |
| 31 | 72·4 | | 73·4 | | 80·7 | | 82·4 | 81·8 | | 72·9 | | 69·2 |
| Mean | 71·2 | 74·9 | 71·7 | 73·3 | 76·8 | 80·3 | 82·2 | 81·7 | 81·0 | 77·5 | 77·1 | 70·3 |
| | | | | | | Year | 76·5 | | | | | |

The initial 2 or 3 of the readings is omitted, i.e. 275·0 degrees is printed 75·0.

The minimum "on the grass" refers to the interval from 21h. on the previous day to 9h. on the day to which it is entered.

Add 0·16° to obtain temperature in degrees Kelvin where $T(°K.) = t(°C.) + 273·16$.

# ELECTRICAL OBSERVATIONS, UNDERGROUND LABORATORY, WILSON METHOD

Mean value for periods of twenty minutes about 14h. 30m.

$F$ = Potential gradient, unit 1 v./cm. $\lambda+$ = Conductivity due to positive ions, unit $10^{-15}$ ohm.$^{-1}$ cm.$^{-1}$
$i$ = Air-earth current, unit $10^{-15}$ amp. cm.$^{-2}$

196 KEW OBSERVATORY

| | JANUARY | | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ |
| 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2 | 6·09 | 23 | 139 | ... | ... | ... | ... | ... | ... | 6·72 | 10 | 70 | 5·78 | 33 | 189 | ... | ... | ... |
| 3 | 7·32 | 13 | 96 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4·32 | 43 | 188 | ... | ... | ... |
| 4 | ... | ... | ... | 7·58 | 28 | 209 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3·46 | 51 | 176 | 1·94 | – | – |
| 7 | 8·44 | 17 | 145 | 2·85 | 30 | 85 | 5·44 | 26 | 141 | ... | ... | ... | 3·34 | 54 | 179 | ... | ... | ... |
| 8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·38 | 45 | 108 | ... | ... | ... | ... | ... | ... |
| 10 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11 | ... | ... | ... | 4·01 | 20 | 79 | ... | ... | ... | 1·45 | 70 | 102 | ... | ... | ... | ... | ... | ... |
| 12 | ... | ... | ... | 3·28 | 20 | 66 | ... | ... | ... | 2·05 | 64 | 132 | ... | ... | ... | 2·61 | 46 | 119 |
| 13 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3·44 | 59 | 205 | 1·50 | 47 | 71 |
| 14 | 6·10 | 20 | 123 | ... | ... | ... | 5·04 | 7 | 37 | ... | ... | ... | ... | ... | ... | 1·35 | 72 | 98 |
| 15 | ... | ... | ... | ... | ... | ... | 6·40 | 15 | 95 | 3·50 | 32 | 113 | 2·13 | 39 | 84 | ... | ... | ... |
| 16 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·31 | 99 | 130 | ... | ... | ... | ... | ... | ... |
| 17 | 5·73 | 24 | 136 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 18 | 9·48 | 15 | 145 | ... | ... | ... | 2·01 | 31 | 63 | 5·34 | 36 | 194 | ... | ... | ... | ... | ... | ... |
| 19 | ... | ... | ... | 2·66 | 46 | 122 | 3·16 | 41 | 131 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 20 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·87 | 94 | 176 | ... | ... | ... |
| 21 | ... | ... | ... | 2·00 | 34 | 69 | ... | ... | ... | ... | ... | ... | 2·01 | 88 | 177 | 1·65 | 64 | 106 |
| 22 | ... | ... | ... | 2·06 | 42 | 85 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·31 | 68 | 89 |
| 23 | 3·66 | 28 | 103 | ... | ... | ... | ... | ... | ... | 1·42 | 79 | 112 | 2·23 | 78 | 174 | ... | ... | ... |
| 24 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1·88 | 59 | 111 | ... | ... | ... | 2·14 | 49 | 104 |
| 25 | 2·19 | 37 | 81 | 3·42 | 24 | 81 | 2·37 | 38 | 90 | ... | ... | ... | ... | ... | ... | 1·57 | 60 | 94 |
| 26 | ... | ... | ... | ... | ... | ... | 2·72 | – | – | ... | ... | ... | ... | ... | ... | 3·46 | 54 | 186 |
| 27 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2·30 | 92 | 212 | ... | ... | ... |
| 28 | 1·84 | 34 | 63 | 4·02 | 26 | 105 | 6·00 | 32 | 192 | ... | ... | ... | 2·44 | 54 | 133 | 1·98 | 78 | 154 |
| 29 | ... | ... | ... | | | | 6·26 | 22 | 141 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 30 | ... | ... | ... | | | | ... | ... | ... | 4·29 | 34 | 145 | 2·21 | 87 | 193 | ... | ... | ... |
| 31 | ... | ... | ... | | | | ... | ... | ... | | | | ... | ... | ... | | | |
| Mean | 5·65 | 23 | 115 | 3·54 | 30 | 100 | 4·38 | 27 | 111 | 3·03 | 53 | 122 | 2·96 | 64 | 174 | 1·95 | 60 | 113 |
| No. of days used | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 10 | 10 | 10 | 12 | 12 | 12 | 10 | 9 | 9 |

| | JULY | | | AUGUST | | | SEPTEMBER | | | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ | $F$ | $\lambda+$ | $i$ |
| 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2 | 1·88 | 83 | 156 | ... | ... | ... | 2·09 | 65 | 136 | 3·18 | 54 | 173 | ... | ... | ... | ... | ... | ... |
| 3 | 1·79 | 83 | 149 | ... | ... | ... | ... | ... | ... | 2·86 | 41 | 117 | ... | ... | ... | 2·54 | 27 | 69 |
| 4 | 2·11 | 52 | 110 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4·42 | 36 | 158 | ... | ... | ... |
| 5 | 1·97 | 53 | 105 | ... | ... | ... | 3·06 | 62 | 189 | ... | ... | ... | ... | ... | ... | 7·69 | – | – |
| 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7·05 | 11 | 81 | 4·44 | 24 | 105 |
| 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8 | 1·77 | 53 | 93 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 9 | 1·61 | 41 | 66 | 2·02 | 70 | 142 | 2·66 | 39 | 104 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10 | 1·70 | 45 | 77 | ... | ... | ... | 3·08 | 49 | 151 | 4·50 | 34 | 153 | ... | ... | ... | 10·24 | – | – |
| 11 | 1·20 | 66 | 79 | ... | ... | ... | ... | ... | ... | 2·82 | 59 | 165 | 3·58 | – | – | ... | ... | ... |
| 12 | 1·26 | 69 | 87 | 2·30 | 86 | 199 | 1·97 | 40 | 78 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 13 | ... | ... | ... | 1·69 | 56 | 95 | ... | ... | ... | ... | ... | ... | 4·84 | 16 | 79 | ... | ... | ... |
| 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15 | 1·49 | 50 | 74 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 16 | 2·14 | 61 | 132 | 6·01 | 30 | 179 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7·66 | 37 | 284 |
| 17 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5·11 | 31 | 156 | ... | ... | ... | 7·46 | 20 | 151 |
| 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6·24 | 14 | 85 | ... | ... | ... | ... | ... | ... |
| 19 | ... | ... | ... | 2·44 | 77 | 187 | 2·56 | – | – | ... | ... | ... | ... | ... | ... | 5·83 | 39 | 228 |
| 20 | ... | ... | ... | 2·38 | 37 | 88 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 21 | ... | ... | ... | 1·81 | 51 | 92 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 22 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4·07 | 32 | 131 | ... | ... | ... |
| 23 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 24 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5·08 | 30 | 155 | ... | ... | ... | ... | ... | ... |
| 25 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3·81 | 25 | 97 | ... | ... | ... | ... | ... | ... |
| 26 | ... | ... | ... | 1·71 | 60 | 103 | 2·87 | 44 | 125 | ... | ... | ... | 5·03 | 24 | 116 | ... | ... | ... |
| 27 | ... | ... | ... | 1·68 | 69 | 116 | 2·19 | 27 | 59 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 28 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3·24 | 24 | 78 | 2·14 | 21 | 44 | 4·07 | 13 | 53 |
| 29 | ... | ... | ... | 1·60 | 74 | 119 | ... | ... | ... | ... | ... | ... | 4·34 | 37 | 163 | ... | ... | ... |
| 30 | ... | ... | ... | 1·95 | 66 | 129 | 2·49 | 45 | 111 | ... | ... | ... | ... | ... | ... | 5·72 | 14 | 78 |
| 31 | ... | ... | ... | ... | ... | ... | | | | ... | ... | ... | | | | 6·89 | 12 | 84 |
| Mean | 1·72 | 60 | 103 | 2·33 | 61 | 132 | 2·55 | 46 | 119 | 4·09 | 35 | 131 | 4·43 | 25 | 110 | 6·25 | 23 | 131 |
| No. of days used | 11 | 11 | 11 | 11 | 11 | 11 | 9 | 8 | 8 | 9 | 9 | 9 | 8 | 7 | 7 | 10 | 8 | 8 |

| Year: | | | | |
|---|---|---|---|---|
| Mean | 3·57 | 42 | 122 |
| No. of days used | 127 | 111 | 111 |

197 KEW OBSERVATORY

| | JANUARY | | FEBRUARY | | MARCH | | APRIL | | MAY | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | 0 | ··· | 1 | 2·9 | 2 | 8·4 | 0 | ··· | 0 | ··· | 1 | 2·2 |
| 2 | 0 | ··· | 1 | 1·5 | 2 | 9·8 | 0 | ··· | 0 | ··· | 1 | 1·4 |
| 3 | 0 | ··· | 2 | 8·5 | 1 | 0·2 | 0 | ··· | 1 | 0·1 | 2 | 3·0 |
| 4 | 0 | ··· | 1 | 1·1 | 2 | 4·7 | 0 | ··· | 0 | ··· | 1 | 0·1 |
| 5 | 0 | ··· | 0 | ··· | 1 | 2·0 | 2 | 12·7 | 2 | 7·6 | 0 | ··· |
| 6 | 0 | ··· | 1 | 1·0 | 1 | 2·8 | 0 | ··· | 2 | 4·8 | 0 | ··· |
| 7 | 0 | ··· | 0 | ··· | 0 | ··· | 0 | ··· | 0 | ··· | 1 | 0·3 |
| 8 | 1 | 1·8 | 2 | 4·5 | 0 | ··· | 0 | ··· | 2 | 5·4 | 2 | 4·1 |
| 9 | 2 | 6·4 | 1 | 1·6 | 0 | ··· | 1 | 0·1 | 0 | ··· | 1 | 0·6 |
| 10 | 1 | 0·4 | 1 | 2·8 | 0 | ··· | 1 | 1·3 | 0 | ··· | 1 | 1·0 |
| 11 | 2 | 5·9 | 0 | ··· | 1 | 0·3 | 1 | 0·2 | 0 | ··· | 2 | 5·5 |
| 12 | 0 | ··· | 1 | 0·5 | 1 | 0·2 | 1 | 0·3 | 1 | 1·6 | 2 | 3·6 |
| 13 | 1 | 0·5 | 1 | 1·1 | 1 | 0·2 | 1 | 0·3 | 0 | ··· | 1 | 0·1 |
| 14 | 0 | ··· | 1 | 0·7 | 0 | ··· | 1 | 0·4 | 1 | 0·4 | 0 | ··· |
| 15 | 0 | ··· | 1 | 0·8 | 0 | ··· | 0 | ··· | 1 | 2·3 | 2 | 3·4 |
| 16 | 0 | ··· | 1 | 1·5 | 0 | ··· | 0 | ··· | 2 | 5·4 | 1 | 0·8 |
| 17 | 0 | ··· | 0 | ··· | 1 | 0·9 | 1 | 2·6 | 1 | 0·3 | 1 | 0·1 |
| 18 | 0 | ··· | 0 | ··· | 0 | ··· | 1 | 1·0 | 1 | 2·3 | 1 | 0·9 |
| 19 | 2 | 4·1 | 1 | 1·2 | 0 | ··· | 0 | ··· | 2 | 6·0 | 2 | 6·0 |
| 20 | 1 | 2·3 | 1 | 1·2 | 0 | ··· | 0 | ··· | 0 | ··· | 1 | 0·6 |
| 21 | 0 | ··· | 0 | ··· | 2 | 3·9 | 1 | 0·3 | 0 | ··· | 0 | ··· |
| 22 | 1 | 2·6 | 0 | ··· | 2 | 10·3 | 1 | 1·3 | 0 | ··· | 0 | ··· |
| 23 | 1 | 0·4 | 2 | 4·9 | 0 | ··· | 1 | 1·6 | 0 | ··· | 1 | 1·2 |
| 24 | 1 | 0·1 | 0 | ··· | 1 | 1·0 | 0 | ··· | 1 | 1·7 | 1 | 0·2 |
| 25 | 1 | 1·7 | 0 | ··· | 1 | 0·8 | 2 | 4·1 | 0 | ··· | 1 | 0·4 |
| 26 | 2 | 7·8 | 2 | 13·0 | 1 | 0·8 | 1 | 1·8 | 2 | 8·6 | 1 | 1·5 |
| 27 | 0 | ··· | 1 | 1·3 | 0 | ··· | 2 | 4·1 | 1 | 2·8 | 1 | 0·7 |
| 28 | 2 | 5·5 | 1 | 0·6 | 0 | ··· | 2 | 10·6 | 1 | 1·7 | 1 | 1·0 |
| 29 | 2 | 5·4 | | | 0 | ··· | 1 | 2·9 | 1 | 1·5 | 0 | ··· |
| 30 | 1 | 1·5 | | | 0 | ··· | 1 | 0·4 | 0 | ··· | 0 | ··· |
| 31 | 1 | 0·1 | | | 0 | ··· | | | 2 | 4·3 | | |
| Total | – | 46·5 | – | 50·7 | – | 46·3 | – | 46·0 | – | 56·8 | – | 38·7 |
| No. of days used | – | 31 | – | 28 | – | 31 | – | 30 | – | 31 | – | 30 |
| Mean | – | 1·5 | – | 1·8 | – | 1·5 | – | 1·5 | – | 1·8 | – | 1·3 |

| | JULY | | AUGUST | | SEPTEMBER | | OCTOBER | | NOVEMBER | | DECEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient | Character | Duration of negative potential gradient |
| | | hr. | | hr. | | hr. | | hr. | | hr. | | hr. |
| 1 | 0 | ··· | 0 | ··· | 1 | 1·9 | 1 | 1·1 | 2 | 3·7 | 2 | 4·0 |
| 2 | 0 | ··· | 0 | ··· | 1 | 0·2 | 0 | ··· | 2 | 3·4 | 0 | ··· |
| 3 | 1 | 0·1 | 0 | ··· | 2 | 3·7 | 1 | 0·8 | 1 | 0·1 | 1 | 0·8 |
| 4 | 1 | 0·4 | 1 | 0·7 | 1 | 2·0 | 0 | ··· | 0 | ··· | 0 | ··· |
| 5 | 0 | ··· | 1 | 0·1 | 1 | 0·3 | 1 | 0·2 | 0 | ··· | 1 | 2·5 |
| 6 | 0 | ··· | 0 | ··· | 1 | 1·1 | 1 | 0·1 | 0 | ··· | 0 | ··· |
| 7 | 0 | ··· | 1 | 0·8 | 1 | 1·5 | 0 | ··· | 2 | 7·4 | 2 | 3·9 |
| 8 | 0 | ··· | 1 | 0·9 | 2 | 3·0 | 0 | ··· | 2 | 12·0 | 2 | 8·0 |
| 9 | 0 | ··· | 2 | 5·2 | 0 | ··· | 0 | ··· | 2 | 5·1 | 2 | 3·1 |
| 10 | 0 | ··· | 1 | 2·9 | 0 | ··· | 0 | ··· | 1 | 0·8 | 1 | 0·3 |
| 11 | 0 | ··· | 1 | 0·2 | 0 | ··· | 0 | ··· | 0 | ··· | 2 | 7·9 |
| 12 | 0 | ··· | 1 | 1·8 | 0 | ··· | 0 | ··· | 0 | ··· | 1 | 1·7 |
| 13 | 0 | ··· | 1 | 1·0 | 1 | 0·7 | 0 | ··· | 0 | ··· | 0 | ··· |
| 14 | 1 | 0·8 | 1 | 2·4 | 1 | 0·5 | 0 | ··· | 2 | 11·9 | 1 | 0·5 |
| 15 | 1 | 0·1 | 0 | ··· | 0 | ··· | 0 | ··· | 1 | 0·3 | 0 | ··· |
| 16 | 2 | 5·2 | 2 | 5·3 | 0 | ··· | 0 | ··· | 2 | 5·0 | 0 | ··· |
| 17 | 1 | 2·6 | 2 | 8·8 | 1 | 0·4 | 0 | ··· | 1 | 2·9 | 0 | ··· |
| 18 | 1 | 0·9 | 0 | ··· | 1 | 1·5 | 0 | ··· | 0 | ··· | 0 | ··· |
| 19 | 1 | 0·2 | 1 | 0·4 | 1 | 0·1 | 1 | 0·3 | 0 | ··· | 1 | 2·7 |
| 20 | 0 | ··· | 1 | 2·1 | 1 | 2·2 | 1 | 1·0 | 2 | 3·0 | 1 | 0·8 |
| 21 | 0 | ··· | 1 | 0·2 | 0 | ··· | 2 | 3·0 | 2 | 3·4 | 0 | ··· |
| 22 | 0 | ··· | 1 | 0·8 | 1 | 0·7 | 2 | 8·3 | 1 | 1·3 | 2 | 3·5 |
| 23 | 0 | ··· | 0 | ··· | 1 | 0·2 | 1 | 2·4 | 2 | 8·0 | 1 | 1·5 |
| 24 | 0 | ··· | 1 | 0·5 | 0 | ··· | 0 | ··· | 2 | 7·8 | 1 | 1·6 |
| 25 | 0 | ··· | 1 | 1·2 | 0 | ··· | 0 | ··· | 1 | 1·2 | 1 | 1·0 |
| 26 | 1 | 2·9 | 0 | ··· | 1 | 0·3 | 2 | 3·1 | 0 | ··· | 1 | 1·2 |
| 27 | 1 | 1·1 | 0 | ··· | 1 | 0·1 | 2 | 4·5 | 1 | 2·0 | 1 | 0·9 |
| 28 | 1 | 0·3 | 2 | 4·7 | 1 | 0·7 | 1 | 0·2 | 1 | 2·5 | 1 | 0·1 |
| 29 | 0 | ··· | 1 | 0·6 | 0 | ··· | 0 | ··· | 2 | 3·5 | 0 | ··· |
| 30 | 0 | ··· | 1 | 0·4 | 1 | 0·1 | 0 | ··· | 1 | 1·7 | 1 | 1·1 |
| 31 | 0 | ··· | 1 | 0·8 | | | 1 | 0·7 | | | 2 | 3·9 |
| Total | – | 14·6 | – | 41·8 | – | 21·2 | – | 25·7 | – | 87·0 | – | 51·0 |
| No. of days used | – | 31 | – | 31 | – | 30 | – | 31 | – | 30 | – | 31 |
| Mean | – | 0·5 | – | 1·3 | – | 0·7 | – | 0·8 | – | 2·9 | – | 1·6 |

Annual values: Character 0 1 2
No. of days 149 154 62

Duration: Total 526·3 hr.
No. of days 365
Mean 1·44 hr.

POTENTIAL GRADIENT (reduced to level surface, Paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

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| | JANUARY, factor 4·42 | | | | FEBRUARY, factor 4·29 | | | | MARCH, factor 4·39 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | | | | | | *volts per metre* | | | | | | |
| 1 | 790 | 500 | 585 | 500 | 95 | 265 | -200 | 345 | -105 | -145 | 200 | 135 |
| 2 | 430 | 540 | 710 | 585 | 640 | 280 | 160 | 425 | 120 | 240 | -350 | -15 |
| 3 | 350 | 655 | 695 | 1210 | 120 | -120 | 0 | 265 | 65 | 200 | 320 | 430 |
| 4 | 570 | 890 | 515 | 570 | 255 | 530 | 800 | 585 | 160 | 120 | -25 | 455 |
| 5 | 360 | 320 | 415 | 585 | 335 | 560 | 360 | 690 | 480 | 575 | 350 | 200 |
| 6 | 360 | 430 | 530 | 555 | 490 | 225 | 335 | 650 | -230 | 415 | 415 | 495 |
| 7 | 360 | 570 | 710 | 610 | 120 | 265 | 255 | 240 | 350 | 615 | 615 | 900 |
| 8 | 335 | 210 | 460 | 220 | 145 | 80 | 40 | 40 | 695 | 615 | 480 | 805 |
| 9 | 110 | 70 | 140 | -915 | 105 | 410 | 215 | 505 | 550 | 775 | 430 | 685 |
| 10 | 155 | 405 | 390 | 220 | 295 | 305 | 385 | 665 | 655 | 495 | 350 | 775 |
| 11 | 95 | 55 | -30 | 290 | 295 | 545 | 385 | 585 | 160 | 480 | 510 | 535 |
| 12 | 210 | 515 | 350 | 610 | 265 | 385 | 370 | 240 | 200 | 575 | 350 | 430 |
| 13 | 350 | -165 | 445 | 710 | 305 | 295 | 370 | 65 | 430 | 480 | 350 | 455 |
| 14 | 655 | 1240 | 220 | 945 | 280 | 225 | 345 | 410 | 175 | 510 | 510 | 525 |
| 15 | 655 | 985 | 555 | 985 | 160 | 135 | 265 | 255 | 415 | 655 | 455 | 750 |
| 16 | 415 | 1015 | 695 | 860 | 265 | 335 | -65 | 280 | 310 | 725 | 590 | 440 |
| 17 | 430 | 850 | 625 | 530 | 265 | 240 | 305 | 200 | 510 | 295 | 0 | 390 |
| 18 | 320 | 445 | 790 | 475 | 225 | 345 | 225 | 225 | 160 | 255 | 240 | 135 |
| 19 | 155 | 360 | 460 | 30 | 240 | 295 | 295 | 360 | 120 | 430 | 320 | 550 |
| 20 | 125 | 475 | 140 | 540 | 135 | 0 | 320 | 105 | 375 | 360 | 320 | 360 |
| 21 | 280 | 790 | 685 | 555 | 215 | 360 | 200 | 255 | 120 | 280 | 240 | 105 |
| 22 | 1000 | 860 | 195 | 250 | 255 | 360 | 175 | 400 | -360 | -190 | -940 | 400 |
| 23 | 140 | 290 | 335 | 280 | -65 | -240 | 370 | 480 | 400 | 350 | 255 | 965 |
| 24 | 125 | 725 | 500 | 460 | 265 | 625 | 240 | 585 | 640 | 375 | 215 | 280 |
| 25 | 210 | 320 | 235 | 55 | 465 | 345 | 335 | 600 | 135 | 400 | 240 | 390 |
| 26 | 55 | 125 | 180 | -945 | -295 | 80 | -320 | 120 | 40 | 255 | 270 | 845 |
| 27 | 155 | 930 | 530 | 655 | 160 | 280 | 450 | 680 | 240 | 430 | 565 | 725 |
| 28 | 220 | 475 | 210 | -320 | 255 | 585 | 400 | 785 | 360 | 430 | 550 | 310 |
| 29 | 125 | 305 | 85 | -55 | | | | | 360 | 440 | 645 | 525 |
| 30 | 85 | 485 | -210 | 390 | | | | | 390 | 280 | 695 | 615 |
| 31 | 305 | 530 | 265 | 180 | | | | | 455 | 495 | 510 | 710 |
| (a) | 320 | 545 | 436 | 513 | 256 | 321 | 304 | 394 | 324 | 433 | 393 | 511 |
| (b) | 320 | 523 | 400 | 375 | 225 | 285 | 251 | 394 | 270 | 394 | 312 | 494 |
| Mean | | (a) 454 | (b) 405 | | | (a) 319 | (b) 289 | | | (a) 415 | (b) 367 | |

| | APRIL, factor 4·40 | | | | MAY, factor 4·33 | | | | JUNE, factor 4·28 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | | | | | | *volts per metre* | | | | | | |
| 1 | 395 | 555 | 610 | 780 | 420 | 620 | 420 | 555 | 145 | 260 | 380 | 455 |
| 2 | 385 | 490 | 620 | 500 | 290 | 570 | 580 | 555 | 40 | 285 | 130 | 365 |
| 3 | 330 | 580 | 170 | 670 | 240 | 500 | 450 | 555 | 15 | 285 | 195 | 250 |
| 4 | 580 | 460 | 225 | 370 | 290 | 490 | 275 | 390 | 340 | 170 | 195 | 115 |
| 5 | 185 | -490 | -305 | 290 | 120 | -40 | -160 | 265 | 90 | 115 | 220 | 220 |
| 6 | 240 | 185 | 250 | 395 | 25 | 120 | 355 | 265 | 220 | 250 | 210 | 185 |
| 7 | 265 | 330 | 225 | 555 | 160 | 460 | 370 | 395 | 315 | 485 | 170 | 130 |
| 8 | 265 | 185 | 265 | 420 | Z± | Z- | 120 | 580 | 210 | 365 | Z± | 25 |
| 9 | 305 | 540 | 265 | 475 | 290 | 555 | 250 | 530 | 185 | 275 | 170 | 250 |
| 10 | 250 | 275 | 275 | 345 | 355 | 595 | 490 | 460 | 90 | 155 | -25 | 315 |
| 11 | 395 | 395 | 145 | 185 | 185 | 460 | 595 | 460 | 235 | -235 | Z± | Z± |
| 12 | 240 | 345 | 185 | 170 | -380 | 65 | 435 | 540 | 560 | 325 | 315 | 470 |
| 13 | 225 | 370 | 160 | 490 | 170 | 305 | 240 | 315 | 315 | 285 | 185 | 235 |
| 14 | 145 | 250 | 90 | 130 | 145 | 275 | 185 | 410 | 185 | 315 | 170 | 365 |
| 15 | 185 | 315 | 345 | 90 | 265 | 370 | 185 | 805 | 170 | 25 | 250 | 40 |
| 16 | 120 | 250 | 120 | 250 | 105 | 935 | 725 | Z- | 195 | 260 | -25 | 220 |
| 17 | 90 | 200 | 200 | -1000 | 275 | 290 | 225 | 355 | 220 | 315 | 210 | 250 |
| 18 | 250 | 460 | 420 | 580 | 395 | 450 | -395 | 540 | 195 | 250 | Z- | 405 |
| 19 | 330 | 435 | 170 | 105 | 210 | -715 | 700 | 435 | 210 | 0 | 220 | 485 |
| 20 | 170 | 250 | 145 | 170 | 345 | 290 | 185 | 385 | 260 | 300 | Z± | 445 |
| 21 | 80 | 130 | 130 | 160 | 265 | 210 | 200 | 410 | 285 | 315 | 155 | 340 |
| 22 | -25 | 305 | 120 | 145 | 410 | 420 | 185 | 330 | 260 | 405 | 145 | 80 |
| 23 | 210 | 355 | 145 | 160 | 145 | 200 | 225 | 315 | 195 | 365 | 130 | 640 |
| 24 | 265 | 420 | 240 | 240 | 130 | 120 | 450 | 460 | 195 | 340 | 185 | 130 |
| 25 | 120 | 185 | 225 | -65 | 265 | 330 | 355 | 370 | 195 | 350 | 145 | 210 |
| 26 | 15 | 265 | 265 | 765 | 80 | 200 | -15 | -160 | 115 | 115 | 220 | 155 |
| 27 | 200 | 620 | 410 | -120 | 55 | 15 | 225 | 515 | 315 | 275 | 195 | Z- |
| 28 | Z± | -200 | 55 | 145 | 515 | 210 | 240 | 160 | 115 | 315 | 220 | 195 |
| 29 | 25 | 290 | Z+ | 105 | 420 | 55 | 225 | 420 | 275 | 260 | 210 | 285 |
| 30 | Z+ | 730 | 435 | 805 | 450 | 515 | 240 | 160 | 115 | 115 | 155 | 325 |
| 31 | | | | | 185 | 240 | -1015 | 555 | | | | |
| (a) | 232 | 363 | 247 | 352 | 248 | 352 | 338 | 427 | 209 | 261 | 199 | 271 |
| (b) | 230 | 321 | 226 | 270 | 232 | 282 | 231 | 402 | 202 | 246 | 181 | 268 |
| Mean | | (a) 299 | (b) 262 | | | (a) 341 | (b) 287 | | | (a) 235 | (b) 224 | |

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, nagative 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, Paddock site)
Kelvin electrograph standardized by Wilson readings, underground laboratory
Mean values for periods of sixty minutes between exact hours, G.M.T.

198 KEW OBSERVATORY

| | JULY, factor 4·29 | | | | AUGUST, factor 4·33 | | | | SEPTEMBER, factor 4·29 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 280 | 240 | 240 | 320 | 330 | 450 | 150 | 220 | 255 | 340 | -40 | 355 |
| 2 | 320 | 210 | 185 | 265 | 110 | 330 | 205 | 175 | 140 | 255 | 225 | 310 |
| 3 | 210 | 330 | 175 | 345 | 190 | 275 | 165 | 285 | 155 | 300 | -15 | 170 |
| 4 | Z± | 55 | 175 | 280 | 300 | 315 | 175 | 260 | 115 | 170 | 185 | 115 |
| 5 | 160 | 290 | 200 | 305 | 245 | 275 | 175 | 220 | 15 | 370 | 255 | 480 |
| 6 | 370 | 290 | 175 | 265 | 205 | 205 | 175 | 275 | 395 | 410 | 370 | 665 |
| 7 | 175 | 265 | 135 | 290 | 190 | 275 | 190 | 355 | 495 | 425 | 225 | -30 |
| 8 | 120 | 345 | 240 | 185 | 340 | -150 | 245 | 395 | 15 | 370 | 225 | 210 |
| 9 | 290 | 265 | 160 | 135 | 300 | 425 | 165 | -315 | 170 | 425 | 270 | 410 |
| 10 | 345 | 570 | 200 | 210 | 80 | 205 | 0 | 435 | 255 | 440 | 255 | 325 |
| 11 | 265 | 385 | 135 | 200 | 315 | 395 | 135 | 505 | 140 | 325 | 270 | 455 |
| 12 | 135 | 225 | 105 | 120 | 195 | 275 | 220 | 190 | 185 | 370 | 185 | 325 |
| 13 | 175 | 210 | 145 | 120 | 40 | 165 | 175 | 340 | 140 | 325 | 300 | 510 |
| 14 | 160 | 200 | 95 | 185 | 80 | 380 | 165 | 330 | 310 | 425 | 70 | 125 |
| 15 | 175 | 240 | 120 | 225 | 285 | 435 | 165 | 260 | 125 | 300 | 200 | 325 |
| 16 | -65 | -200 | 175 | 160 | 370 | 545 | 450 | -220 | 325 | 465 | - | 240 |
| 17 | 480 | 410 | 305 | -120 | 380 | -820 | 300 | 520 | 310 | 355 | 270 | 425 |
| 18 | 95 | 175 | 185 | 345 | 600 | 520 | 135 | 275 | 310 | 380 | 70 | 200 |
| 19 | 145 | 120 | 210 | 290 | 300 | 285 | 205 | 190 | 225 | 580 | 270 | 525 |
| 20 | 225 | 225 | 175 | 290 | 55 | 95 | 245 | 190 | 70 | 170 | 170 | 170 |
| 21 | 185 | 255 | 160 | 280 | 330 | 340 | 205 | 220 | 270 | 525 | 240 | 355 |
| 22 | 95 | 225 | 160 | 255 | 205 | 395 | 205 | 380 | 115 | 225 | 170 | 240 |
| 23 | 225 | 345 | 255 | 290 | 435 | 435 | 245 | 410 | 100 | 210 | 285 | 480 |
| 24 | 240 | 290 | 200 | 200 | 220 | 370 | 220 | 425 | 140 | 255 | 225 | 370 |
| 25 | 265 | 400 | 175 | 240 | 300 | 245 | 205 | 380 | 185 | 225 | 225 | 440 |
| 26 | 280 | 480 | Z- | -135 | 230 | 370 | 175 | 315 | 240 | 325 | 270 | 455 |
| 27 | 240 | 55 | 80 | -95 | 330 | 370 | 165 | 380 | 965 | 395 | 225 | 455 |
| 28 | 360 | 305 | 210 | 255 | 125 | 245 | -25 | 355 | 185 | 380 | 425 | 480 |
| 29 | 160 | 265 | 210 | 255 | 95 | 165 | 175 | 315 | 200 | 285 | 340 | 200 |
| 30 | 185 | 225 | 80 | 200 | 175 | 275 | 190 | 340 | 140 | 395 | 255 | 525 |
| 31 | 240 | 360 | 160 | 265 | 230 | 300 | 300 | 600 | | | | |
| (a) | 193 | 275 | 174 | 242 | 245 | 323 | 197 | 332 | 223 | 347 | 240 | 357 |
| (b) | 181 | 259 | 174 | 217 | 245 | 271 | 190 | 194 | 219 | 343 | 221 | 347 |
| Mean | (a) 221 | | (b) 208 | | (a) 274 | | (b) 250 | | (a) 292 | | (b) 283 | |

| | OCTOBER, factor 4·28 | | | | NOVEMBER, factor 4·35 | | | | DECEMBER, factor 4·33 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2-3h. | 9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. | 2-3h. | 8-9h. | 14-15h. | 20-21h. |
| | *volts per metre* | | | | | | | | | | | |
| 1 | 205 | 410 | 310 | -230 | -250 | 390 | 220 | 340 | 305 | 555 | 435 | -570 |
| 2 | 500 | 500 | 335 | 500 | Z- | 445 | 470 | 390 | 145 | 450 | 435 | 490 |
| 3 | 180 | 460 | 310 | 425 | 65 | 195 | 350 | 535 | 185 | 685 | 410 | 950 |
| 4 | 335 | 540 | 310 | 515 | 445 | 300 | 470 | 455 | 370 | 540 | 475 | 620 |
| 5 | 245 | 310 | 155 | 310 | 480 | 755 | 615 | 420 | 595 | 605 | 765 | -460 |
| 6 | 140 | 295 | 205 | 460 | 315 | 350 | 690 | 560 | 410 | 830 | 435 | 675 |
| 7 | 310 | 475 | 220 | 360 | 235 | 455 | 25 | -220 | 580 | 395 | 530 | 675 |
| 8 | 345 | 385 | 410 | 670 | -340 | -155 | -210 | 235 | 450 | 105 | Z- | 185 |
| 9 | 450 | 475 | 460 | 360 | 235 | -25 | 0 | 65 | 185 | 80 | 330 | 475 |
| 10 | 285 | 435 | 450 | 515 | 185 | 250 | 260 | 50 | 540 | 715 | 860 | 105 |
| 11 | 335 | 515 | 515 | 680 | 340 | 430 | 365 | 535 | -265 | 55 | -105 | 765 |
| 12 | 385 | 410 | - | 205 | 405 | 405 | 340 | 260 | 790 | 1005 | 925 | -275 |
| 13 | 75 | 310 | 435 | 530 | 105 | 470 | 405 | 615 | 1875 | 1890 | 1135 | 755 |
| 14 | 260 | 410 | 385 | 410 | 275 | -90 | -1435 | 105 | 460 | 925 | 950 | 355 |
| 15 | 220 | 360 | 490 | 680 | 520 | 520 | 325 | 510 | 90 | 370 | 420 | 530 |
| 16 | 630 | 565 | 490 | 810 | 185 | -40 | 470 | 535 | 290 | 555 | 740 | 385 |
| 17 | 410 | 385 | 450 | 565 | 315 | 90 | 90 | 380 | 355 | 885 | 805 | 715 |
| 18 | 400 | 385 | 460 | 550 | 315 | 390 | 350 | 650 | 490 | 990 | 605 | 845 |
| 19 | 360 | 400 | 460 | 400 | 405 | 520 | 640 | 445 | 450 | 550 | 0 | 475 |
| 20 | 220 | 130 | 285 | 590 | 185 | -470 | 315 | 210 | 460 | 715 | 780 | 530 |
| 21 | 310 | 435 | 310 | 155 | 260 | -860 | 510 | 445 | 715 | 965 | 975 | 1530 |
| 22 | 75 | 65 | 0 | -130 | 130 | 210 | 170 | 860 | 675 | 355 | 305 | 130 |
| 23 | -15 | 640 | 515 | 320 | 950 | 535 | 220 | -130 | 120 | 305 | 355 | 420 |
| 24 | 115 | 460 | 515 | 655 | -145 | -105 | 25 | 575 | 250 | 315 | 660 | 740 |
| 25 | 590 | 605 | 385 | 760 | 155 | 315 | 300 | 285 | 530 | 275 | 55 | 635 |
| 26 | 515 | 605 | 490 | 680 | 315 | 535 | 495 | 745 | 370 | 435 | 395 | 460 |
| 27 | 565 | -1155 | -15 | 360 | 170 | 155 | 115 | -25 | 460 | 635 | 475 | 55 |
| 28 | 155 | 205 | 385 | 500 | 145 | 170 | 170 | 325 | 305 | 355 | 265 | 395 |
| 29 | 460 | 695 | 565 | 605 | 50 | 260 | 285 | 250 | 355 | 620 | 725 | 645 |
| 30 | 605 | 745 | 410 | 695 | 420 | 485 | 285 | 615 | 145 | 595 | 540 | 410 |
| 31 | 260 | 345 | 155 | 410 | | | | | 460 | 65 | 475 | 925 |
| (a) | 331 | 432 | 375 | 506 | 293 | 374 | 321 | 422 | 447 | 575 | 561 | 567 |
| (b) | 318 | 380 | 362 | 470 | 237 | 222 | 237 | 367 | 423 | 591 | 539 | 479 |
| Mean | (a) 411 | | (b) 383 | | (a) 353 | | (b) 266 | | (a) 537 | | (b) 508 | |

The factor used for converting the potential at the collector to potential gradient in volts per metre in the open is given for each month.

| Annual means | | | | |
|---|---|---|---|---|
| (a) | 277 | 383 | 315 | 408 |
| (b) | 258 | 343 | 277 | 356 |
| | (a) 346 | | (b) 309 | |

## POTENTIAL GRADIENT (reduced to level surface): DIURNAL INEQUALITIES

The departures from the mean of the day are adjusted for non-cyclic change†

199 KEW OBSERVATORY — Selected quiet days

| | 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 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† | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *volts per metre* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | −107 | −168 | −139 | −147 | *−175* | −152 | −105 | −62 | +58 | +52 | +15 | +27 | +4 | +5 | +29 | +116 | +137 | *+198* | +179 | +134 | +54 | +24 | +47 | −23 | −50 | 589 |
| Feb. | −34 | −48 | −74 | −96 | *−115* | −94 | −71 | +8 | +49 | +58 | −5 | +11 | −8 | −37 | −55 | −32 | −25 | +57 | *+125* | +84 | +93 | +103 | +79 | +29 | ··· | 346 |
| Mar. | −58 | −88 | −79 | −87 | −93 | −94 | *−111* | −71 | −14 | +24 | +49 | +22 | +12 | +22 | +33 | +19 | +97 | +76 | +35 | +65 | *+130* | +58 | +43 | +12 | +72 | 466 |
| Apr. | −46 | −47 | −42 | −66 | *−75* | *−100* | −75 | −36 | +31 | +38 | +29 | −9 | −30 | −38 | −12 | +1 | +7 | +62 | +54 | *+97* | +90 | *+97* | +68 | +4 | −29 | 321 |
| May | −69 | −78 | −95 | *−102* | −100 | −61 | −16 | +68 | +76 | *+85* | +56 | +13 | −19 | −30 | +3 | +18 | −5 | +25 | +69 | +80 | +67 | +30 | +4 | −17 | −33 | 351 |
| June | −1 | −3 | −9 | +5 | +29 | +36 | +40 | *+61* | +45 | +2 | −8 | −31 | −35 | −26 | −29 | *−47* | −35 | −38 | −35 | +13 | +16 | +15 | +34 | 0 | ··· | 220 |
| July | +8 | −4 | −3 | −6 | −1 | +2 | +26 | +65 | *+98* | +82 | +27 | −5 | −37 | −56 | −64 | *−72* | *−72* | −59 | −48 | −8 | +21 | +43 | +42 | +18 | +2 | 231 |
| Aug. | +11 | −1 | +9 | +4 | −11 | +19 | *+64* | *+110* | +106 | +67 | −9 | −58 | −88 | −92 | *−98* | −93 | −86 | −66 | −37 | +5 | +51 | +93 | +74 | +24 | ··· | 265 |
| Sept. | −62 | −74 | −76 | *−72* | −58 | −32 | +22 | +86 | *+103* | +48 | +7 | −40 | −67 | −58 | −56 | *−73* | −19 | −13 | −122 | *−157* | −107 | −41 | −15 | −37 | ··· | 311 |
| Oct. | −63 | −97 | *−106* | −96 | *−72* | −64 | −29 | +8 | +47 | +45 | −4 | −41 | −34 | −59 | −45 | −10 | +27 | +91 | *+148* | +132 | +110 | +73 | +47 | −8 | −26 | 461 |
| Nov. | −32 | −54 | −58 | −80 | *−94* | −54 | −37 | −11 | +5 | +35 | −21 | −31 | −85 | −41 | +20 | +30 | +44 | +82 | +96 | *+105* | +92 | +67 | +26 | +4 | ··· | 463 |
| Dec. | −37 | −63 | −133 | −135 | −137 | *−157* | −116 | −4 | +91 | +73 | +21 | −58 | +1 | +11 | +55 | *+102* | *+102* | +66 | +49 | +55 | +89 | +63 | +42 | +19 | ··· | 597 |
| Year | −41 | −60 | −67 | −73 | *−75* | −63 | −34 | +19 | +58 | +51 | +13 | −17 | −32 | −33 | −18 | −3 | +14 | +40 | +43 | +50 | *+59* | +52 | +41 | +2 | ··· | 385 |
| Winter | −53 | −83 | −101 | −115 | *−130* | −115 | −82 | −17 | +51 | +55 | +3 | −13 | −22 | −15 | +12 | +54 | +65 | +101 | *+112* | +95 | +82 | +64 | +49 | +7 | ··· | 499 |
| Equinox | −57 | −77 | −76 | *−80* | −75 | −73 | −48 | −3 | +42 | +39 | +20 | −17 | −30 | −33 | −20 | −16 | +28 | +54 | +29 | +34 | *+56* | +47 | +36 | −7 | ··· | 390 |
| Summer | −13 | −21 | −25 | −25 | −21 | −1 | +29 | +76 | *+81* | +59 | +17 | −20 | −45 | −51 | −47 | *−49* | *−49* | −35 | −13 | +23 | +39 | +45 | +39 | +6 | ··· | 267 |

Winter: January, February, November, December
Equinox: March, April, September, October
Summer: May to August

† See p. 10, *Observatories' Year Book, 1938*.

## AIR POLLUTION: HOURLY MEANS FOR EACH MONTH

200 KEW OBSERVATORY — Complete days only

| | 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 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 | Mean | No. of days used |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *milligrams per cubic metre* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 0·12 | 0·10 | 0·07 | 0·05 | 0·05 | *0·03* | 0·05 | 0·08 | 0·16 | 0·24 | 0·24 | 0·22 | 0·17 | 0·16 | 0·16 | 0·19 | 0·19 | 0·22 | 0·27 | 0·27 | *0·28* | 0·26 | 0·23 | 0·17 | 0·17 | 31 |
| Feb. | 0·10 | 0·07 | 0·07 | 0·06 | *0·06* | 0·06 | 0·07 | 0·10 | 0·15 | 0·14 | 0·13 | 0·11 | 0·10 | 0·10 | 0·11 | 0·11 | 0·11 | 0·14 | 0·16 | 0·17 | 0·18 | *0·18* | 0·16 | 0·11 | 0·12 | 28 |
| Mar. | 0·17 | 0·17 | 0·14 | 0·13 | 0·11 | 0·11 | 0·11 | 0·15 | 0·22 | 0·21 | 0·19 | 0·15 | 0·13 | *0·10* | *0·10* | *0·10* | 0·11 | 0·13 | 0·17 | 0·19 | 0·23 | *0·24* | 0·21 | 0·17 | 0·16 | 31 |
| Apr. | 0·10 | 0·11 | 0·11 | 0·12 | 0·12 | 0·10 | 0·13 | 0·15 | *0·16* | 0·12 | 0·08 | 0·06 | 0·05 | 0·05 | *0·04* | 0·04 | 0·06 | 0·07 | 0·12 | 0·11 | 0·13 | 0·14 | 0·12 | 0·11 | 0·10 | 30 |
| May | 0·03 | 0·03 | 0·04 | 0·04 | 0·05 | 0·05 | 0·06 | *0·08* | 0·07 | 0·06 | 0·05 | 0·06 | 0·03 | 0·03 | 0·03 | *0·03* | 0·03 | 0·04 | 0·04 | 0·05 | 0·06 | 0·05 | 0·03 | 0·03 | 0·05 | 31 |
| June | 0·02 | 0·02 | 0·02 | 0·02 | 0·02 | 0·01 | *0·02* | *0·02* | 0·01 | *0·00* | *0·00* | *0·00* | 0·01 | 0·01 | 0·01 | 0·01 | 0·01 | 0·01 | 0·02 | 0·01 | *0·02* | 0·02 | 0·02 | 0·02 | 0·01 | 30 |
| July | 0·00 | *0·00* | *0·00* | 0·00 | 0·01 | 0·01 | 0·02 | *0·02* | 0·01 | 0·01 | 0·01 | 0·00 | 0·00 | 0·00 | *0·00* | 0·00 | 0·00 | 0·01 | 0·01 | *0·00* | 0·00 | 0·01 | 0·01 | 0·00 | 0·01 | 31 |
| Aug. | 0·01 | 0·01 | 0·01 | *0·00* | 0·01 | 0·02 | 0·03 | *0·04* | 0·04 | 0·02 | 0·01 | 0·01 | *0·00* | *0·00* | *0·00* | 0·01 | 0·01 | 0·01 | 0·01 | 0·02 | 0·02 | 0·02 | 0·02 | 0·01 | 0·01 | 31 |
| Sept. | 0·01 | *0·01* | 0·01 | 0·02 | 0·01 | 0·02 | 0·03 | *0·04* | 0·03 | 0·03 | 0·01 | 0·01 | *0·01* | 0·01 | 0·01 | 0·01 | 0·02 | 0·02 | *0·04* | 0·03 | 0·02 | 0·02 | *0·01* | *0·01* | 0·02 | 30 |
| Oct. | 0·07 | *0·05* | *0·05* | 0·06 | *0·05* | 0·06 | 0·07 | 0·08 | 0·10 | 0·10 | 0·07 | 0·07 | 0·06 | 0·07 | 0·07 | 0·08 | 0·09 | 0·14 | 0·17 | *0·19* | *0·19* | 0·15 | 0·10 | 0·10 | 0·09 | 31 |
| Nov. | 0·05 | *0·03* | 0·03 | *0·03* | *0·03* | 0·03 | 0·03 | 0·05 | 0·05 | 0·05 | 0·06 | 0·07 | 0·09 | 0·09 | 0·10 | 0·11 | 0·14 | *0·15* | 0·14 | 0·13 | 0·11 | 0·10 | 0·08 | 0·06 | 0·07 | 30 |
| Dec. | 0·15 | 0·11 | 0·09 | 0·07 | 0·07 | *0·07* | 0·07 | 0·12 | 0·14 | 0·18 | 0·15 | 0·15 | 0·16 | 0·17 | 0·18 | 0·20 | 0·25 | 0·26 | 0·29 | *0·33* | 0·30 | 0·28 | 0·24 | 0·20 | 0·18 | 31 |
| Year | 0·07 | 0·06 | 0·05 | 0·05 | 0·05 | *0·05* | 0·06 | 0·08 | 0·09 | 0·10 | 0·08 | 0·08 | 0·07 | 0·07 | 0·07 | 0·07 | 0·09 | 0·10 | 0·12 | 0·13 | *0·13* | 0·12 | 0·10 | 0·08 | 0·08 | 365 |
| Winter | 0·11 | 0·08 | 0·07 | 0·05 | 0·05 | *0·05* | 0·05 | 0·09 | 0·13 | 0·15 | 0·15 | 0·14 | 0·14 | 0·14 | 0·14 | 0·15 | 0·17 | 0·19 | 0·21 | *0·23* | 0·22 | 0·21 | 0·18 | 0·13 | 0·13 | 120 |
| Spring | 0·13 | 0·14 | 0·13 | 0·13 | 0·11 | 0·11 | 0·12 | 0·15 | *0·19* | 0·17 | 0·13 | 0·11 | 0·09 | 0·07 | *0·07* | *0·07* | 0·09 | 0·10 | 0·15 | 0·15 | 0·18 | *0·19* | 0·17 | 0·14 | 0·13 | 61 |
| Autumn | 0·04 | *0·03* | *0·03* | 0·04 | *0·03* | 0·04 | 0·05 | 0·06 | 0·07 | 0·07 | 0·04 | 0·04 | 0·03 | 0·04 | 0·04 | 0·05 | 0·05 | 0·08 | 0·11 | *0·11* | 0·11 | 0·09 | 0·05 | 0·05 | 0·05 | 61 |
| Summer | 0·01 | 0·01 | 0·02 | 0·01 | 0·02 | 0·02 | 0·03 | *0·04* | 0·03 | 0·02 | 0·02 | 0·02 | *0·01* | *0·01* | *0·01* | 0·01 | 0·01 | 0·02 | 0·02 | 0·02 | 0·03 | 0·03 | 0·02 | 0·01 | 0·02 | 123 |