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(1938-39, 1950)

(Annual sum.)

# National Oceanic and Atmospheric Administration

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March 04, 2010

*Annual Summary*  
1938

**RESULTS OF THE MAGNETICAL AND METEOROLOGICAL OBSERVATIONS**

Taken at the <sup>Mauritius</sup> Royal Alfred Observatory, Mauritius, Latitude  $20^{\circ}5'39''S$  ;  
Longitude  $3^{\text{h}}50^{\text{m}} 12.6 \text{ E}$ .

(Standard time 4h. fast on Greenwich Mean Time)

The Observatory is about 3 miles from the west coast of the Island and stands on a plain which is about 179 English feet above mean sea level. It is about 7 miles by rail from Port Louis.

The institution is fully equipped as a first class Meteorological and Magnetical Station.

As an Astronomical Station, it possesses a 6 inch equatorial, a photoheliograph, a transit telescope and several minor instruments.

The mean values of the Magnetic elements of the Observatory for the year 1938 were as follows :

|                  |     |     |     |                 |     |           |
|------------------|-----|-----|-----|-----------------|-----|-----------|
| Declination      | ... | ... | ... | ... West        | ... | 13°35'.08 |
| Dip              | ... | ... | ... | ... South       | ... | 53° 0'.57 |
| Horizontal Force | ... | ... | ... | ... C.G.S. unit | ... | .22462    |
| Vertical Force   | ... | ... | ... | ... C.G.S. unit | ... | .29818    |
| Total Force      | ... | ... | ... | ... C.G.S. unit | ... | .37331    |

The monthly and yearly means and extremes of the Meteorological Elements for the year 1938 are given in the table on the next page

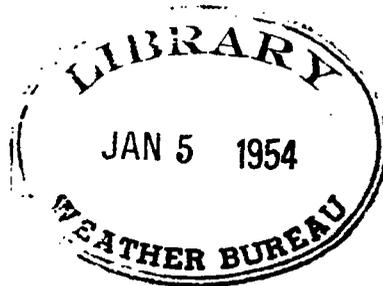
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TABLE XVII.—MONTHLY AND YEARLY MEANS AND EXTREMES OF THE METEOROLOGICAL ELEMENTS FOR THE YEAR 1938.

| Month 1938. | Atmospheric Pressure.<br>mbs. | Temperature of the Air  |                         |                        |                                  |                                  |                                  |              | Excess of Air Temperature over Evaporation Temperature.<br>°c. | Temperature of the Dew Point.<br>°c. | Relative Humidity.<br>% | Vapour Pressure.<br>mbs. | Rainfall.   |                    | Mean Minimum on grass.<br>°c. |
|-------------|-------------------------------|-------------------------|-------------------------|------------------------|----------------------------------|----------------------------------|----------------------------------|--------------|--|--------------------------------------|-------------------------|--------------------------|---|--------------------|-------------------------------|
|             |                               | Absolute Maxima.<br>°c. | Absolute Minima.<br>°c. | Absolute Range.<br>°c. | Mean of the Daily Maxima.<br>°c. | Mean of the Daily Minima.<br>°c. | Mean of the Daily Ranges.<br>°c. | Mean.<br>°c. |  |                                      |                         |                          | Amount recorded by the Beckley pluviograph.<br>mms. | Duration.<br>mins. |                               |
| Jan. ...    | 1005.7                        | 32.0                    | 20.2                    | 11.8                   | 29.7                             | 22.8                             | 6.9                              | 25.8         | 2.9  | 21.3                                 | 76.7                    | 25.5                     | 133.3   | 705                | 20.1                          |
| Feb. ...    | 1003.0                        | 32.1                    | 20.7                    | 11.4                   | 30.2                             | 23.0                             | 7.2                              | 26.2         | 2.7  | 22.3                                 | 78.9                    | 26.9                     | 223.3   | 1959               | 20.7                          |
| Mar. ...    | 1003.2                        | 31.0                    | 20.0                    | 11.0                   | 29.2                             | 23.1                             | 6.1                              | 25.8         | 2.4  | 22.2                                 | 80.7                    | 26.9                     | 161.7   | 1430               | 21.2                          |
| April. ...  | 1007.7                        | 29.2                    | 15.6                    | 13.6                   | 27.6                             | 21.0                             | 6.6                              | 23.9         | 2.2  | 20.5                                 | 81.6                    | 24.3                     | 117.9   | 1050               | 18.6                          |
| May ...     | 1009.2                        | 28.9                    | 16.4                    | 12.5                   | 26.7                             | 19.6                             | 7.1                              | 22.7         | 2.3  | 19.0                                 | 79.7                    | 22.0                     | 79.3  | 905                | 16.8                          |
| June ...    | 1013.1                        | 25.6                    | 14.0                    | 11.6                   | 24.1                             | 17.4                             | 6.7                              | 20.5         | 2.9  | 15.6                                 | 74.0                    | 17.8                     | 21.7  | 550                | 14.3                          |
| July ...    | 1013.7                        | 25.7                    | 10.9                    | 14.8                   | 23.8                             | 17.4                             | 6.4                              | 20.3         | 2.4  | 16.2                                 | 77.4                    | 18.5                     | 45.4  | 1110               | 15.0                          |
| Aug. ...    | 1012.7                        | 25.8                    | 12.3                    | 13.5                   | 24.2                             | 15.8                             | 8.4                              | 19.7         | 3.0  | 14.5                                 | 72.1                    | 16.6                     | 30.7  | 645                | 12.7                          |
| Sept. ...   | 1014.0                        | 26.5                    | 15.1                    | 11.4                   | 25.1                             | 17.2                             | 7.9                              | 20.6         | 3.2  | 15.2                                 | 71.6                    | 17.4                     | 27.4  | 695                | 14.4                          |
| Oct. ...    | 1013.4                        | 28.5                    | 16.9                    | 11.6                   | 26.6                             | 19.1                             | 7.5                              | 22.2         | 3.6  | 16.3                                 | 69.8                    | 18.6                     | 21.0  | 565                | 17.2                          |
| Nov. ...    | 1011.3                        | 29.3                    | 16.5                    | 12.8                   | 27.9                             | 19.4                             | 8.5                              | 23.2         | 3.9  | 16.9                                 | 67.8                    | 19.2                     | 19.6  | 635                | 17.8                          |
| Dec. ...    | 1007.9                        | 31.9                    | 18.3                    | 13.6                   | 29.1                             | 20.9                             | 8.2                              | 24.6         | 3.6  | 19.0                                 | 71.3                    | 22.0                     | 44.3  | 670                | 19.1                          |
| Year..      | 1009.6                        | 28.9                    | 16.4                    | 12.5                   | 27.0                             | 19.7                             | 7.3                              | 23.0         | 2.9  | 18.3                                 | 75.1                    | 21.3                     | 925.6   | hrs. 182.0         | 17.3                          |
| Max ...     | 1019.9<br>July 29th.          | 32.1<br>Feb. 2nd.       | ...                     | 14.8<br>July           | 30.2<br>Feb.                     | ...                              | 8.5<br>Nov.                      | ...          | 9.8<br>Oct. 30th.  | 26.6<br>Jan. 28th.                   | 99.3<br>April 10th.     | 34.8<br>Jan. 28th.       | 154.7 mms. ending 23hrs. on Feb. 17th.              |                    | ...                           |
| Min. ...    | 995.8<br>March 15th.          | ...                     | 10.9<br>July 17th.      | 11.0<br>Mar.           | ...                              | 15.8<br>Aug.                     | 6.1<br>Mar.                      | ...          | 0.1<br>April 10th.   | 6.2<br>Oct. 30th.                    | 30.0<br>Oct. 30th.      | 9.5<br>Oct. 30th.        | ...   | ...                | 7.5<br>July 17th.             |

| Month 1938. | Mean Daily Amount of Evaporation.<br>mms. | Temperature of the Soil. |                             |                  |                  | Mean amount of Cloud.<br>(0-10) | Daily Duration of Bright Sunshine.<br>hrs. | Percentage of Possible Sunshine.<br>% | Observed Wind Velocity.<br>m.p.s. | Number of Days. |                    |                |
|-------------|---|--------------------------|-----------------------------|------------------|------------------|---------------------------------|--|---------------------------------------|-----------------------------------|-----------------|--------------------|----------------|
|             |   | 1ft<br>°c.               | Feet<br>5<br>°c.            | Feet<br>2<br>°c. | ins<br>12<br>°c. |                                 |  |                                       |                                   | Rain.           | Lightning.         | Thunder-storm. |
| Jan. ...    | 6.8                                       | 24.49                    | 26.15                       | 28.22            | 28.55            | 5.7                             | 9.18                                       | 69.8                                  | 3.52                              | 19              | 3                  | ...            |
| Feb. ...    | 6.6                                       | 24.73                    | 26.71                       | 28.70            | 28.99            | 5.6                             | 8.66                                       | 68.0                                  | 2.97                              | 15              | 4                  | ...            |
| Mar. ...    | 5.5                                       | 25.19                    | 27.07                       | 28.46            | 28.63            | 5.9                             | 8.55                                       | 70.2                                  | 3.26                              | 20              | 4                  | ...            |
| April ...   | 4.1                                       | 25.51                    | 26.97                       | 27.38            | 27.11            | 5.6                             | 6.74                                       | 58.1                                  | 2.63                              | 16              | 3                  | 1              |
| May ...     | 4.1                                       | 25.65                    | 26.48                       | 25.86            | 25.42            | 4.4                             | 7.99                                       | 71.8                                  | 2.79                              | 17              | 1                  | ...            |
| June ...    | 4.2                                       | 25.60                    | 25.35                       | 23.80            | 22.98            | 3.8                             | 8.60                                       | 78.8                                  | 4.02                              | 12              | ...                | ...            |
| July ...    | 3.5                                       | 25.38                    | 24.59                       | 22.60            | 22.01            | 5.5                             | 6.41                                       | 58.4                                  | 3.87                              | 18              | ...                | ...            |
| Aug. ...    | 4.5                                       | 25.13                    | 24.03                       | 22.48            | 22.14            | 5.0                             | 7.73                                       | 67.8                                  | 3.37                              | 14              | ...                | ...            |
| Sept. ...   | 5.4                                       | 24.68                    | 23.92                       | 23.07            | 23.05            | 5.7                             | 7.73                                       | 64.6                                  | 3.73                              | 23              | ...                | ...            |
| Oct. ...    | 6.9                                       | 24.48                    | 24.11                       | 24.39            | 24.82            | 5.5                             | 8.93                                       | 71.4                                  | 4.17                              | 20              | ...                | ...            |
| Nov. ...    | 7.8                                       | 24.44                    | 24.79                       | 26.03            | 26.55            | 5.4                             | 8.74                                       | 67.3                                  | 3.68                              | 18              | ...                | ...            |
| Dec. ...    | 7.8                                       | 24.50                    | 25.54                       | 27.48            | 28.01            | 5.3                             | 8.75                                       | 65.9                                  | 3.48                              | 16              | ...                | ...            |
| Year ...    | 5.6                                       | 24.98                    | 25.48                       | 25.71            | 25.69            | 5.3                             | 8.17                                       | 67.7                                  | 3.46                              | 208             | 15                 | 1              |
| Max. ...    | 10.0<br>Oct. 30th.                        | 25.8<br>April.           | 27.3<br>Mar. & April.       | 29.1<br>Feb.     | 30.2<br>Feb.     | ...                             | 12.4<br>Nov. 20th.                         | 97<br>March 31st.                     | 10.6<br>Feb. 17th.                | 23<br>Sept.     | 4<br>Feb. & March. | 1<br>April.    |
| Min. ...    | 0.6<br>April 14th.                        | 24.3<br>Oct. & Nov.      | 23.9<br>Aug. & Sept. & Oct. | 22.1<br>Aug.     | 21.6<br>July.    | ...                             | 0.0<br>often.                              | 0<br>often.                           | ...                               | 12<br>June.     | ...                | ...            |

Annual Summary  
1939



Results

RESULTS OF THE MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1939

Taken at the Royal Alfred Observatory, Mauritius, Latitude  $20^{\circ}5'39''S$  ;  
Longitude  $3^{\text{h}}50^{\text{m}} 12^{\text{s}}.6$  E.

(Standard time 4h. fast on Greenwich Mean Time)

The Observatory is about 3 miles from the west coast of the Island and stands on a plain which is about 179 English feet above mean sea level. It is about 7 miles by rail from Port Louis.

The institution is fully equipped as a first class Meteorological and Magnetical Station.

As an Astronomical Station, it possesses a 6-inch equatorial, a photoheliograph, a transit telescope and several minor instruments.

The mean values of the Magnetic elements of the Observatory for the year 1939 were as follows :

|                  |     |     |     |                 |     |           |
|------------------|-----|-----|-----|-----------------|-----|-----------|
| Declination      | ... | ... | ... | ... West        | ... | 13°47'.28 |
| Dip              | ... | ... | ... | ... South       | ... | 53° 4'.12 |
| Horizontal Force | ... | ... | ... | ... C.G.S. unit | ... | .22437    |
| Vertical Force   | ... | ... | ... | ... C.G.S. unit | ... | .29850    |
| Total Force      | ... | ... | ... | ... C.G.S. unit | ... | .37345    |

The monthly and yearly means and extremes of the Meteorological Elements for the year 1939 are given in the table on the next page.

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MONTHLY AND YEARLY MEANS AND EXTREMES OF THE METEOROLOGICAL ELEMENTS  
FOR THE YEAR 1939.

| Month 1939. | Atmospheric Pressure.<br>mbs. | Temperature of the Air. |                         |                        |                                  |                                  |                                  |              | Excess of Air Temperature over Evaporation Temperature.<br>°c. | Temperature of the Dew Point.<br>°c. | Relative Humidity.<br>%         | Vapour Pressure.<br>mbs.            | Rainfall.   |                    | Mean Minimum on grass.<br>°c. |
|-------------|-------------------------------|-------------------------|-------------------------|------------------------|----------------------------------|----------------------------------|----------------------------------|--------------|--|--------------------------------------|---------------------------------|-------------------------------------|---|--------------------|-------------------------------|
|             |                               | Absolute Maxima.<br>°c. | Absolute Minima.<br>°c. | Absolute Range.<br>°c. | Mean of the Daily Maxima.<br>°c. | Mean of the Daily Minima.<br>°c. | Mean of the Daily Ranges.<br>°c. | Mean.<br>°c. |  |                                      |                                 |                                     | Amount recorded by the Dines pluviograph.<br>mms. | Duration.<br>mins. |                               |
| Jan. ...    | 1006.0                        | 33.0                    | 18.7                    | 14.3                   | 31.1                             | 21.9                             | 9.2                              | 26.0         | 3.7  | 20.3                                 | 71.1                            | 23.9                                | 39.7  | 890                | 20.2                          |
| Feb. ...    | 1006.0                        | 34.1                    | 20.6                    | 13.5                   | 30.8                             | 23.3                             | 7.5                              | 26.6         | 3.1  | 21.9                                 | 75.9                            | 26.4                                | 125.6   | 1975               | 22.0                          |
| Mar. ...    | 1003.6                        | 30.9                    | 21.7                    | 9.2                    | 29.1                             | 23.4                             | 5.7                              | 25.8         | 1.8  | 23.2                                 | 85.6                            | 28.4                                | 386.7   | 4240               | 22.0                          |
| April ...   | 1007.7                        | 29.7                    | 19.4                    | 10.3                   | 28.0                             | 22.0                             | 6.0                              | 24.6         | 2.4  | 20.9                                 | 80.0                            | 24.8                                | 109.8   | 1825               | 20.1                          |
| May ...     | 1010.9                        | 28.5                    | 16.6                    | 11.9                   | 26.6                             | 19.6                             | 7.0                              | 22.6         | 2.6  | 18.5                                 | 77.8                            | 21.4                                | 43.9  | 1005               | 16.9                          |
| June ...    | 1012.6                        | 26.0                    | 13.2                    | 12.8                   | 24.4                             | 16.7                             | 7.7                              | 20.4         | 2.6  | 16.0                                 | 76.4                            | 18.4                                | 91.2  | 2245               | 13.6                          |
| July ...    | 1012.7                        | 26.4                    | 14.6                    | 11.8                   | 24.2                             | 17.6                             | 6.6                              | 20.4         | 2.2  | 16.8                                 | 80.3                            | 19.3                                | 96.7  | 2140               | 14.6                          |
| Aug. ...    | 1014.6                        | 25.7                    | 11.8                    | 13.9                   | 23.7                             | 16.2                             | 7.5                              | 19.7         | 2.8  | 14.9                                 | 74.1                            | 17.1                                | 28.8  | 1250               | 14.1                          |
| Sept. ...   | 1013.8                        | 28.1                    | 12.3                    | 15.8                   | 25.6                             | 17.9                             | 7.7                              | 21.3         | 2.6  | 17.0                                 | 77.0                            | 19.5                                | 47.9  | 1285               | 16.0                          |
| Oct. ...    | 1012.1                        | 28.0                    | 15.0                    | 13.0                   | 26.2                             | 18.2                             | 8.0                              | 21.8         | 3.1  | 16.7                                 | 73.7                            | 19.1                                | 27.6  | 1050               | 15.5                          |
| Nov. ...    | 1009.4                        | 30.6                    | 15.7                    | 14.9                   | 28.6                             | 19.5                             | 9.1                              | 23.6         | 3.4  | 18.2                                 | 71.8                            | 21.0                                | 28.3  | 570                | 16.6                          |
| Dec. ...    | 1007.6                        | 32.8                    | 20.0                    | 12.8                   | 30.1                             | 22.2                             | 7.9                              | 25.6         | 2.6  | 21.8                                 | 79.9                            | 26.2                                | 230.8   | 2750               | 19.4                          |
| Year..      | 1009.8                        | 29.5                    | 16.6                    | 12.9                   | 27.4                             | 19.9                             | 7.5                              | 23.2         | 2.7  | 18.9                                 | 77.0                            | 22.1                                | 1257.0  | his. 353.8         | 17.6                          |
| Max ...     | 1019.1<br>August 18th.        | 34.1<br>Feb. 23rd.      | ...                     | 15.8<br>Sept.          | 31.1<br>Jan.                     | ...                              | 9.2<br>Jan.                      | ...          | 10.1<br>Nov. 26th.   | 25.2<br>Dec. 26th.                   | 10.0<br>Mar. 20th<br>Dec. 16th. | 32.1<br>Dec. 26th.                  | 129.9 mms.<br>ending 13 hrs.<br>on Mar. 20th.     |                    | ...                           |
| Min ...     | 983.0<br>Dec. 16th.           | ...                     | 11.8<br>Aug. 13th.      | 9.2<br>Mar.            | ...                              | 16.2<br>Aug.                     | 5.7<br>March                     | ...          | 0.0<br>Mar. 20th.<br>&<br>Dec. 16th.                           | 8.2<br>Aug. 31st<br>&<br>Sept. 1st   | 34.1<br>Nov. 26th.              | 10.9<br>Aug. 31st<br>&<br>Sept. 1st | ..  | ...                | 8.6<br>Aug. 31st.             |

| Month 1939. | Mean Daily Amount of Evaporation.<br>mms. | Temperature of the Soil. |                         |               |                | Mean amount of Cloud.<br>(0-10) | Daily Duration of Bright Sunshine.<br>hrs. | Percentage of Possible Sunshine.<br>% | Observed Wind Velocity.<br>m.p.s. | Number of Days.      |                            |                |
|-------------|---|--------------------------|-------------------------|---------------|----------------|---------------------------------|--|---------------------------------------|-----------------------------------|----------------------|----------------------------|----------------|
|             |   | Feet 10<br>°c.           | Feet 5<br>°c.           | Feet 2<br>°c. | ins. 12<br>°c. |                                 |  |                                       |                                   | Rain.                | Lightning.                 | Thunder-storm. |
| Jan. ...    | 8.1                                       | 24.72                    | 26.42                   | 29.04         | 29.78          | 5.0                             | 9.52                                       | 72.3                                  | 2.79                              | 16                   | ...                        | ...            |
| Feb. ...    | 7.1                                       | 25.18                    | 27.10                   | 29.51         | 29.95          | 5.4                             | 8.90                                       | 70.0                                  | 3.18                              | 18                   | 4                          | 2              |
| Mar. ...    | 5.4                                       | 25.55                    | 27.44                   | 28.12         | 27.97          | 7.0                             | 6.43                                       | 53.0                                  | 3.04                              | 22                   | 4                          | 1              |
| April ...   | 5.1                                       | 25.85                    | 27.22                   | 27.61         | 27.53          | 5.4                             | 8.54                                       | 73.6                                  | 3.58                              | 23                   | 1                          | ...            |
| May ...     | 4.5                                       | 25.49                    | 26.60                   | 25.97         | 25.60          | 4.7                             | 8.77                                       | 78.7                                  | 3.51                              | 18                   | ...                        | ...            |
| June ...    | 3.5                                       | 25.37                    | 25.72                   | 23.92         | 23.17          | 5.1                             | 7.12                                       | 65.3                                  | 3.02                              | 14                   | 1                          | ...            |
| July ...    | 3.3                                       | 25.08                    | 24.59                   | 22.78         | 22.44          | 5.0                             | 7.25                                       | 65.9                                  | 3.22                              | 22                   | ...                        | ...            |
| Aug. ...    | 4.6                                       | 24.77                    | 24.09                   | 22.42         | 22.10          | 4.9                             | 7.95                                       | 69.8                                  | 3.81                              | 20                   | ...                        | ...            |
| Sept. ...   | 5.2                                       | 24.37                    | 23.83                   | 23.15         | 23.34          | 5.1                             | 7.31                                       | 61.4                                  | 3.45                              | 16                   | ...                        | ...            |
| Oct. ...    | 5.9                                       | 24.11                    | 24.03                   | 23.84         | 24.05          | 5.2                             | 7.84                                       | 62.8                                  | 3.38                              | 14                   | ...                        | ...            |
| Nov. ...    | 6.9                                       | 24.12                    | 24.62                   | 25.92         | 26.35          | 4.5                             | 8.42                                       | 64.8                                  | 2.82                              | 16                   | ...                        | ...            |
| Dec. ...    | 6.5                                       | 24.13                    | 25.45                   | 27.20         | 27.57          | 5.6                             | 7.81                                       | 58.8                                  | 3.26                              | 21                   | 4                          | 1              |
| Year ...    | 5.5                                       | 24.90                    | 25.60                   | 25.79         | 25.82          | 5.2                             | 7.99                                       | 66.4                                  | 3.25                              | 220                  | 14                         | 4              |
| Max ...     | 10.5<br>Jan. 14th.                        | 26.0<br>April.           | 27.7<br>March.          | 30.2<br>Feb.  | 31.6<br>Jan.   | ...                             | 12.9<br>Dec. 31st.                         | 98<br>Feb. 17th.                      | 20.1<br>Dec. 16th.                | 23<br>April.         | 4<br>Feb. March.<br>& Dec. | 2<br>Feb.      |
| Min. ...    | 1.1<br>Feb. 26th<br>&<br>May 9th.         | 24.1<br>often.           | 23.8<br>Aug.<br>& Sept. | 21.9<br>Aug.  | 21.2<br>Aug.   | ...                             | 0.0<br>often.                              | 0<br>often.                           | ...                               | 14<br>June<br>& Oct. | ...                        | ...            |



## The Royal Alfred Observatory—Mauritius

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The Royal Alfred Observatory, in latitude  $20^{\circ}5'39''\text{S}$ ., and longitude  $3\text{h. } 50\text{m } 12^{\circ}6\text{s. E}$ ., is situated about three miles from the west coast on a plain in the northern half of the Island. The various buildings stand in eleven acres of Crown land. The reference mark at the entrance of the main building is 178 feet above mean sea level.

From west-south-west through west to north there is a more or less uninterrupted view of the sea, and from north through east to south-east the ground generally rises to Mount Piton, the summit of which is about four miles to the east-south-east and is 917 feet above mean sea level. Between south-east and south-west there stands a chain of mountains, the highest peak of which, Pieterboth, is about six miles almost due south and has an altitude of 2,690 feet. The nearest extremities of two spurs which run north and north-west from Pieterboth are at a distance of three to four miles and have an elevation of 560 feet.

The Observatory is equipped as a first-order meteorological and magnetic station. Recording of atmospheric electrical potential was discontinued in 1941. Ten years' records having been obtained, it is not proposed to resume recording for the time being.

The administrative and forecasting centre and a second-order meteorological station are situated at Vacoas, 1,393 feet above mean sea level, there is a meteorological office at Plaisance airport at 184 feet and a third-order station at Curepipe at 1,850 feet, while there are 157 rainfall stations.

There are four meteorological stations in the Dependencies; at Rodrigues,  $19^{\circ}41'\text{S}$ ., and  $63^{\circ}27'\text{E}$ ., 140 feet; Diego Garcia,  $07^{\circ}14'\text{S}$ ., and  $72^{\circ}26'\text{E}$ ., 7 feet; Agalega,  $10^{\circ}33'\text{S}$ ., and  $56^{\circ}45'\text{E}$ ., 10 feet; St. Brandon,  $16^{\circ}25'\text{S}$ ., and  $59^{\circ}33'\text{E}$ ., 10 feet.

The daily weather maps cover, as far as possible, the whole of the Indian Ocean north of latitude  $50^{\circ}\text{S}$ .. In addition to the collective messages from Meteorological Services of other countries, and the reports of Mauritius and its Dependencies, about 400 reports a month are received from ships.

Meteorological reports are issued several times daily for the use of ships and of the Meteorological Services of other countries. These include information about tropical cyclones. Cyclone warnings are issued for Mauritius and the Dependencies whenever necessary.

From April to October a summary of the weather during the week is despatched every week to the Director-General of India Observatories in connection with monsoon predictions. Occasional telegrams are sent to the Directors of the Rhodesian and the Indonesian Meteorological Services for their long range rainfall forecasts. Ships and other synoptic reports were supplied to the United States Weather Bureau. Magnetic data were supplied to several authorities.

The printing of the war-time arrears of the Monthly Bulletins continues but those for 1939 to 1942 and part of 1943 are still outstanding.

18th July, 1951.

N. R. McCURDY,  
*Director.*

## Results of the Magnetical and Meteorological Observations

TAKEN AT THE ROYAL ALFRED OBSERVATORY, MAURITIUS, LATITUDE 20°5'39"S;  
LONGITUDE 3<sup>h</sup> 50<sup>m</sup> 12.6<sup>s</sup>.E.

(Standard time 4<sup>h</sup> fast on Greenwich Mean Time)

The Observatory is about three miles from the west coast of the Island and stands on a plain which is about 179 feet above mean sea level. It is about 7 miles by rail from Port Louis.

The institution is fully equipped as a first class Meteorological and Magnetical Station.

The mean values of the Magnetic elements of the Observatory were as follows:---

|                  |     |             |     | 1949     | 1950     |
|------------------|-----|-------------|-----|----------|----------|
| Declination      | ... | West        | ... | 15°30'14 | 15°39'61 |
| Dip              | ... | South       | ... | 53°39'01 | 53°42'41 |
| Horizontal Force | ... | C.G.S. unit | ... | .22326   | .22321   |
| Vertical Force   | ... | C.G.S. unit | ... | .30337   | .30395   |
| Total Force      | ... | C.G.S. unit | ... | .37667   | .37711   |

The monthly and yearly means and extremes of the Meteorological Elements for the year 1950 are given in the table on the next page.

TABLE XVII. Monthly and Yearly Means and Extremes of the Meteorological Elements for the Year 191

| Month         | Atmospheric Pressure | Temperature of the Air |                  |                |                          |                          |                          |      | Excess of Air Temperature, over Evaporation Temperature | Temperature of the Dew Point | Relative Humidity (Sat. = 100) | Vapour Pressure | Rainfall                                   |             | Mean daily Amount of Evaporation |
|---------------|----------------------|------------------------|------------------|----------------|--------------------------|--------------------------|--------------------------|------|---|------------------------------|--------------------------------|-----------------|--|-------------|----------------------------------|
|               |                      | Absolute Maxima        | Absolute Minima  | Absolute Range | Mean of the Daily Maxima | Mean of the Daily Minima | Mean of the Daily Ranges | Mean |   |                              |                                |                 | Amount recorded by the Dines' pluviograph  | Duration    |                                  |
|               | mbs.                 | °C                     | °C               | °C             | °C                       | °C                       | °C                       | °C   | °C  | °C                           | %                              | mbs.            | mms.                                       | mins        | mms.                             |
| January ...   | 1003.2               | 34.0                   | 19.1             | 14.9           | 31.4                     | 23.3                     | 8.1                      | 27.0 | 4.1   | 20.8                         | 68.9                           | 24.6            | 126.6                                      | 1290        | 7.3                              |
| February ...  | 1005.4               | 32.7                   | 21.0             | 11.7           | 30.2                     | 22.9                     | 7.3                      | 26.2 | 4.3   | 19.6                         | 67.1                           | 22.8            | 58.2                                       | 775         | 7.2                              |
| March ...     | 1007.2               | 31.2                   | 20.2             | 11.0           | 29.0                     | 22.3                     | 6.7                      | 25.3 | 2.7   | 21.2                         | 78.0                           | 25.2            | 355.6                                      | 3540        | 4.6                              |
| April ...     | 1007.9               | 29.8                   | 18.9             | 10.9           | 27.4                     | 21.2                     | 6.2                      | 24.1 | 3.0   | 19.5                         | 75.7                           | 22.7            | 153.9                                      | 3035        | 4.3                              |
| May ...       | 1008.6               | 28.6                   | 12.4             | 16.2           | 26.4                     | 17.2                     | 9.2                      | 21.5 | 2.4   | 17.6                         | 78.5                           | 20.1            | 75.3                                       | 870         | 3.2                              |
| June ...      | 1011.9               | 27.3                   | 14.6             | 12.7           | 24.9                     | 17.8                     | 7.1                      | 21.2 | 2.9   | 16.5                         | 74.6                           | 18.8            | 63.4                                       | 1375        | 3.0                              |
| July ...      | 1014.4               | 25.3                   | 12.5             | 12.8           | 23.4                     | 16.4                     | 7.0                      | 19.6 | 3.5   | 13.5                         | 68.0                           | 15.5            | 45.5                                       | 1185        | 3.3                              |
| August ...    | 1012.6               | 25.8                   | 10.5             | 15.3           | 24.1                     | 16.5                     | 7.6                      | 20.0 | 2.9   | 15.1                         | 73.5                           | 17.2            | 38.5                                       | 1495        | 3.5                              |
| September ... | 1015.0               | 27.2                   | 11.5             | 15.7           | 24.8                     | 16.6                     | 8.2                      | 20.4 | 4.6   | 12.3                         | 59.6                           | 14.3            | 34.4                                       | 1225        | 5.0                              |
| October ...   | 1010.8               | 28.5                   | 12.0             | 16.5           | 27.2                     | 18.4                     | 8.8                      | 22.5 | 4.7   | 14.6                         | 60.8                           | 16.6            | 36.8                                       | 1205        | 6.3                              |
| November ...  | 1008.3               | 31.7                   | 15.4             | 16.3           | 29.5                     | 19.1                     | 10.4                     | 24.0 | 4.8   | 16.2                         | 61.7                           | 18.4            | 11.0                                       | 295         | 7.5                              |
| December ...  | 1007.7               | 33.1                   | 19.5             | 13.6           | 30.3                     | 21.9                     | 8.4                      | 25.7 | 4.9   | 18.0                         | 62.4                           | 20.6            | 66.8                                       | 2115        | 7.1                              |
| Year ...      | 1009.4               | 29.6                   | 15.6             | 14.0           | 27.4                     | 19.5                     | 7.9                      | 23.1 | 3.7   | 17.1                         | 69.1                           | 19.7            | 1066.0                                     | 306.7 hours | 5.2                              |
| Maximum ...   | 1019.5<br>March 3rd  | 34.0<br>Jan. 2nd       | —                | 16.5<br>Oct.   | 31.4<br>Jan.             | —                        | 10.4<br>Nov.             | —    | —   | —                            | —                              | —               | 84.4 mms. ending<br>0400 hrs. on March 9th |             | 10.8<br>Dec. 22nd                |
| Minimum ...   | 994.4<br>Jan. 13th   | —                      | 10.5<br>Aug. 3rd | 10.9<br>April  | —                        | 16.4<br>July             | 6.2<br>April             | —    | —   | —                            | —                              | —               |  |             | 1.2<br>June 20th                 |

| Month         | Mean Minimum on Grass | Temperature of the Soil |                  |                  |                 | Daily Duration of Bright Sunshine           | Percentage of Possible Sunshine                      | Observed Wind Velocity | Number of days of |            |              |
|---------------|-----------------------|-------------------------|------------------|------------------|-----------------|---|--|------------------------|-------------------|------------|--------------|
|               |                       | Feet 10                 | Feet 5           | Feet 2           | Inches 12       |   |  |                        | Rain              | Lighting   | Thunderstorm |
|               | °C                    | °C                      | °C               | °C               | °C              | hours                                       | %  | m.p.s.                 |                   |            |              |
| January ...   | 21.2                  | 24.61                   | 25.93            | 27.57            | 29.22           | 8.36  | 63.6   | 3.47                   | 15                | —          | —            |
| February ...  | 20.4                  | 25.18                   | 26.49            | 27.88            | 28.97           | 9.74  | 76.5   | 4.48                   | 16                | —          | 1            |
| March ...     | 20.4                  | 25.23                   | 25.56            | 27.26            | 28.12           | 5.81  | 47.7   | 3.11                   | 25                | 3          | 6            |
| April ...     | 19.0                  | 25.61                   | 26.67            | 26.51            | 27.32           | 7.64  | 65.7   | 3.64                   | 21                | —          | —            |
| May ...       | 14.1                  | 25.65                   | 25.98            | 25.00            | 25.41           | 7.94  | 71.3   | 2.64                   | 11                | —          | 1            |
| June ...      | 14.2                  | 25.35                   | 24.97            | 23.22            | 23.54           | 7.10  | 65.0   | 3.32                   | 20                | —          | —            |
| July ...      | 13.0                  | 24.89                   | 24.27            | 22.18            | 22.47           | 7.96  | 72.4   | 4.11                   | 22                | —          | —            |
| August ...    | 13.6                  | 24.19                   | 23.44            | 21.68            | 22.33           | 6.58  | 57.8   | 3.76                   | 15                | —          | —            |
| September ... | 12.8                  | 23.87                   | 23.18            | 21.87            | 22.79           | 8.00  | 67.0   | 4.02                   | 19                | —          | —            |
| October ...   | 14.5                  | 23.85                   | 23.15            | 23.26            | 24.72           | 8.61  | 69.6   | 3.67                   | 12                | —          | —            |
| November ...  | 14.9                  | 23.79                   | 23.96            | 24.86            | 26.65           | 9.56  | 73.5   | 3.34                   | 9                 | —          | —            |
| December ...  | 19.1                  | 23.85                   | 24.75            | 26.41            | 27.88           | 9.53  | 71.8   | 3.93                   | 20                | —          | 1            |
| Year ...      | 16.4                  | 24.67                   | 24.86            | 24.81            | 25.76           | 8.07  | 66.8   | 3.62                   | 205               | 3          | 9            |
| Maximum ...   | —                     | 25.9<br>April           | 27.9<br>February | 29.9<br>February | 30.1<br>January | 12.6<br>January 27th<br>and<br>December 4th | 97<br>January 27th<br>February 21st<br>February 28th | 10.8<br>January 13th   | 25<br>March       | 3<br>March | 6<br>March   |
| Minimum ...   | 8.0<br>August 3rd     | 23.6<br>November        | 23.0<br>October  | 21.1<br>August   | 21.6<br>August  | 0.0<br>often                                | 0<br>often   | —                      | 9<br>November     | —          | —            |