

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for October 1967—continued

| Station | Height of Station Above M.S.L. | Air Temperatures in Degrees (Fahrenheit) | | | | | | Rainfall in Inches | | | | | Bright Sunshine | | |
|-----------------------------|--------------------------------|--|----------|-----------------|------------------------|------------------------------|--------|--------------------|------|------------|------------------|------------------------|-----------------|--------------|---------|
| | | Means of | | Mean of A and B | Difference From Normal | Absolute Maximum and Minimum | | | | Total Fall | No. of Rain Days | Difference From Normal | | Maximum Fall | |
| | | A Max. | B Min. | | | Maximum | Date | Minimum | Date | | | | | Amount | Date |
| Otematata .. | Ft. 920 | °F. 65.8 | °F. 39.5 | °F. 52.6 | +0.3 | °F. 75.1 | 29 | °F. 32.2 | 4 | In. 1.92 | 9 | +0.3 | In. 0.78 | 3 | Hrs. .. |
| Oamaru Aerodrome .. | 99 | 60.3 | 41.6 | 51.0 | .. | 74.5 | 18 | 34.8 | 4 | 1.57 | 6 | .. | 0.79 | 3 | .. |
| Tara Hills, Oamarua .. | 1,600 | 63.6 | 35.6 | 49.6 | +0.4 | 76.2 | 25 | 28.3 | 5 | 1.67 | 7 | -0.1 | 0.84 | 29 | 246 |
| Lake Hawea .. | 1,147 | 61.4 | 42.0 | 51.7 | +0.1 | 69.2 | 25 | 34.9 | 5 | 2.35 | 11 | -0.4 | 0.66 | 18 | .. |
| Naseby Forest .. | 2,000 | 60.6 | 34.7 | 47.6 | +0.3 | 70.0 | 29 | 27.2 | 2, 3 | 2.19 | 9 | -0.1 | 0.60 | 29 | .. |
| Herbert Forest .. | 200 | 63.9 | 36.7 | 50.3 | .. | 78.0 | 24, 29 | 32.0 | 5 | 1.53 | 6 | .. | 0.50 | 2 | .. |
| Cherry Farm, Waikouaiti .. | 21 | 61.5 | 40.0 | 50.8 | +1.1 | 72.2 | 18 | 30.2 | 2 | 1.42 | 10 | -0.6 | 0.31 | 19 | .. |
| Taieri .. | 80 | 62.2 | 40.7 | 51.4 | +0.8 | 76.9 | 29 | 30.0 | 2 | 2.31 | 11 | -0.2 | 0.73 | 22 | .. |
| Berwick Forest .. | 60 | 62.6 | 41.1 | 51.8 | +0.8 | 76.2 | 29 | 24.8 | 2 | 1.93 | 7 | -0.6 | 0.56 | 14 | .. |
| Dunedin Airport .. | 4 | 62.5 | 40.8 | 51.6 | -0.3 | 77.8 | 29 | 28.1 | 2, 5 | 2.16 | 9 | .. | 0.61 | 14 | 190 |
| Oamaru .. | 99 | 62.4 | 43.4 | 52.9 | .. | 76.0 | 29 | 38.3 | 2 | 1.84 | 9 | .. | 0.60 | 3 | 215 |
| Musselburgh, Dunedin .. | 5 | 60.4 | 44.6 | 52.5 | +0.4 | 73.0 | 18 | 37.4 | 21 | 2.13 | 11 | -0.4 | 0.42 | 14, 22 | 172 |
| West Arm, Lake Manapouri .. | 590 | 56.3 | 42.0 | 49.2 | +1.9 | 64.4 | 29 | 34.3 | 23 | 15.72 | 19 | +1.3 | 2.87 | 2 | .. |
| Queenstown .. | 1,080 | 62.0 | 40.3 | 51.2 | +0.5 | 70.6 | 26 | 34.2 | 23 | 4.17 | 13 | +1.2 | 1.16 | 18 | 203 |
| Cromwell .. | 698 | 64.9 | 40.4 | 52.6 | -0.1 | 74.9 | 25 | 31.9 | 5 | 1.49 | 8 | +0.1 | 0.41 | 2 | .. |
| Ophir .. | 1,000 | 63.0 | 37.0 | 50.0 | -0.3 | 70.7 | 17 | 29.5 | 2 | 1.55 | 7 | .. | 0.48 | 2 | .. |
| Moa Creek .. | 1,400 | .. | 32.5 | .. | .. | .. | .. | 25.6 | 2 | 1.55 | 9 | +0.2 | 0.50 | 2 | .. |
| Earnsclough .. | 500 | 65.3 | 35.8 | 50.6 | -1.0 | 74.2 | 28 | 27.5 | 24 | 1.20 | 9 | -0.1 | 0.25 | 2 | .. |
| Alexandra .. | 461 | 64.4 | 40.7 | 52.6 | -0.2 | 73.4 | 17 | 32.9 | 2 | 1.06 | 10 | -0.1 | 0.25 | 2 | 230 |
| Roxburgh Hydro .. | 350 | 64.3 | 39.3 | 51.8 | -1.2 | 73.8 | 28 | 30.0 | 2, 5 | 1.49 | 8 | -0.3 | 0.37 | 19 | .. |
| Moa Flat, West Otago .. | 1,345 | 58.0 | 38.9 | 48.4 | +0.1 | 67.3 | 28 | 30.4 | 2 | 2.40 | 11 | -0.1 | 0.54 | 14 | .. |
| Lake Mahinerangi .. | 1,300 | 57.4 | 38.4 | 47.9 | .. | 68.8 | 28 | 28.3 | 2 | 2.79 | 11 | -0.5 | 0.49 | 18 | .. |
| Tapanui .. | 740 | 60.2 | 41.0 | 50.6 | +0.4 | 71.2 | 28 | 31.5 | 6 | 2.93 | 12 | .. | 0.75 | 14 | .. |
| Rankleburn Forest .. | 835 | 59.8 | 41.1 | 50.4 | +1.2 | 68.0 | 7, 29 | 31.4 | 21 | 3.50 | 10 | +1.5 | 0.78 | 14 | .. |
| Taieri Mouth .. | 50 | 60.4 | 39.7 | 50.0 | .. | 73.1 | 29 | 30.0 | 2 | 2.69 | 12 | .. | 0.75 | 14 | .. |
| Otautau .. | 180 | 60.4 | 40.4 | 50.6 | +0.2 | 68.0 | 29 | 29.0 | 2 | 2.56 | 9 | -0.7 | 0.47 | 21 | 192 |
| Gore .. | 235 | 61.2 | 41.4 | 51.3 | -0.1 | 73.8 | 29 | 31.4 | 2 | 2.52 | 11 | -0.2 | 0.94 | 14 | 194 |
| Winton .. | 145 | 60.2 | 41.3 | 50.8 | .. | 70.8 | 29 | 33.0 | 1 | 2.41 | 11 | .. | 0.51 | 14, 30 | 209 |
| Pebble Hills .. | 150 | 61.6 | 41.4 | 51.5 | +0.8 | 72.0 | 29 | 32.0 | 2 | 3.42 | 12 | +0.3 | 0.67 | 14 | .. |
| Invercargill Airport .. | 1 | 58.8 | 41.4 | 50.1 | +0.4 | 70.0 | 29 | 30.7 | 2 | 3.55 | 16 | +0.2 | 0.57 | 14, 21 | 181 |
| Milton .. | 60 | 61.5 | 40.8 | 51.2 | .. | 73.9 | 29 | 30.9 | 5 | 2.46 | 10 | +0.2 | 0.75 | 14 | .. |
| Balclutha .. | 20 | 61.4 | 42.1 | 51.8 | .. | 72.8 | 29 | 33.0 | 2 | 2.64 | 12 | .. | 0.82 | 14 | 187 |
| Rarotonga .. | 15 | 76.1 | 67.6 | 71.8 | -1.6 | 81.0 | 25 | 62.5 | 7 | 5.40 | 18 | +0.3 | 1.96 | 11 | 138 |
| Raoul Island .. | 126 | 68.8 | 59.5 | 64.2 | +0.6 | 72.8 | 30 | 54.6 | 11 | 4.08 | 15 | +0.6 | 1.60 | 24 | 192 |
| Chatham Islands .. | 157 | 54.9 | 45.3 | 50.1 | -0.1 | 60.4 | 29 | 34.9 | 3 | 1.50 | 11 | -0.4 | 0.67 | 22 | 141 |
| Campbell Island .. | 49 | 47.6 | 39.2 | 43.4 | .. | 55.1 | 28 | 27.3 | 3 | 4.57 | 30 | .. | 0.52 | 11 | 83 |
| Scott Base, Antarctica .. | 45 | .. | .. | -11.7 | .. | 18.7 | .. | -51.2 | .. | .. | .. | .. | .. | .. | .. |

LATE RETURNS

| | | | | | | | | | | | | | | | |
|--|-----|------|------|------|------|------|----|------|----|------|----|------|------|----|-----|
| Whatawhata, Sept. 1967 .. | 340 | 59.3 | 43.3 | 51.3 | -0.5 | 65.9 | 18 | 30.2 | 7 | 4.00 | 16 | -1.0 | 0.93 | 8 | 160 |
| Palmerston North, D.S.I.R. Sept. 1967 .. | 110 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 146 |
| Makara, Sept. 1967 .. | 915 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 148 |
| Blenheim, Sept. 1967 .. | 17 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 165 |
| Ashburton, Sept. 1967 .. | 330 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 143 |
| Invercargill, Sept. 1967 .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 134 |

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-50, and for sunshine 1935-60. No normals are available for stations with only short records.

*Sunshine recorder is not located at the station but is in the near vicinity.

NOTES ON THE WEATHER FOR OCTOBER 1967

General: October was warm and sunny, especially in the North Island. It was also mainly dry. In the north there were many reports of good growth, sufficient in some places for cutting hay; but in most of these areas the dry weather was commencing to affect growth by the end of the month. In parts of South Canterbury and North Otago rainfall was not adequate after the dry winter and early spring, and there was a serious shortage of feed. Conditions were also rather too dry over the remainder of Canterbury.

Rainfall: In northern and some western districts of the North Island and in parts of Wairarapa, Marlborough, and North Canterbury rainfall was less than half the average value. In parts of Northland, Auckland, and Waikato it was less than a quarter; some stations received their lowest October rainfall in many years of record. Over the remainder of the country rainfall was mainly somewhat below average. However, it was up to 50 percent wetter than usual in most of Southland, Central Otago, and Hawke's Bay, and in parts of Central Canterbury and Gisborne.

Temperatures: Temperatures were mainly 2-4 degrees above average in the North Island and 1-2 degrees above average in the South Island. Highest departures were in Rotorua, Waitomo, and parts of Taranaki; and lowest departures were in Westland, Otago, and Southland.

A brief cold change which crossed the country from the 21st to the 23rd brought some snow on the ranges in the South Island.

Sunshine: Sunshine was above average by 20-60 hours except in Bay of Plenty, where it was close to average. Northland and western districts of the North Island were particularly favoured.

Weather Sequence: On the 1st an anticyclone was centred over the North Tasman Sea. A depression lay to the south-east of Tasmania, and pressures were also low to the south of the Chatham Islands. In the westerly to south-westerly flow showers were reported on the Southland coast, in Fiordland, and the Southern Lakes district, also in Waikato and Auckland. During the next two days the depression deepened and passed far to the south, while the associated trough crossed the country. Rain was fairly general but did not affect Northland and parts of Bay of Plenty. On the 4th an anticyclone brought fair or fine weather.

The anticyclone soon moved away to the east and a shallow depression over the eastern Tasman Sea moved southwards on the 5th and 6th. The moist northerlies brought rain to northern and western districts from Bay of Plenty and Waitomo to Marlborough and Westland. During the next three days a trough of low pressure moved over the South Island and became stationary over the North Island, with rain from Waitomo and the East Coast to Northern Manawatu and Southern Hawke's Bay, also on the West Coast. By the 10th the trough lay to the north but was still affecting Gisborne and the East Coast.

From the 11th to the 13th an anticyclone was moving over the North Island. The weather was fair or fine apart from some rain on the 12th on the West Coast and the Alps and in Nelson, associated with the passage of a trough of low pressure. A depression passed to the south during the 14th and 15th. The more vigorous trough associated with this depression brought rain to western and southern districts of the South Island, and western and central districts of the North Island. A ridge of high pressure brought better weather on the 16th and 17th, but the trough still affected South Auckland at times and there was also some rain in Fiordland.

Another trough of low pressure moved on to the South Island on the 18th and became almost stationary during the next two days, with wave formation. Considerable rain developed on the West Coast and in the Alps with some rain over most other parts of the South Island, later spreading also to the North Island, except for Northland and the East Coast. Another trough of low pressure crossed the country from the 21st to the 23rd, bringing a brief temporary change to cold southerlies with snow on the ranges in the South Island and fairly general rain.

From the 24th to the 28th an anticyclone moved slowly from the Tasman Sea across the country and to the east of the North Island. The weather was fine except for some light rain in Northland on the 27th and 28th with the passage of a small depression to the north.

During the last three days of the month a very deep depression passed close to Macquarrie Island, and several troughs of low pressure crossed New Zealand. Rain was fairly general except in Canterbury.

J. F. GABITES, Director.