

## LATE RETURNS

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for February 1964—continued

| Station                 | Height of Station Above M.S.L. | Air Temperatures in Degrees (Fahrenheit) |        |                 |                        |                              |      |         |       | Rainfall in Inches |                  |                        |              | Bright Sun-<br>shine |      |
|-------------------------|--------------------------------|--|--------|-----------------|------------------------|------------------------------|------|---------|-------|--------------------|------------------|------------------------|--------------|----------------------|------|
|                         |                                | 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 |
|                         | Ft.                            | °F.                                      | °F.    | °F.             |                        | °F.                          |      | °F.     |       | In.                |                  |                        | In.          |                      | Hrs. |
| Ruatoria, Jan 1964      | 200                            | 73.9                                     | 54.3   | 64.1            | ..                     | 87.0                         | 31   | 45.8    | 19    | 1.58               | 7                | ..                     | 0.55         | 13                   | ..   |
| Waimihia, Jan 1964      | 2,400                          | 65.1                                     | 44.2   | 54.6            | -2.6*                  | 79.0                         | 30   | 30.3    | 23    | 6.07               | 16               | +1.2*                  | 1.17         | 15                   | ..   |
| Taumarunui, Jan 1964    | 562                            | 71.6                                     | 50.5   | 61.0            | -2.8                   | 84.0                         | 30   | 41.0    | 2     | 4.22               | 15               | +0.3                   | 1.32         | 10                   | 204  |
| Manaia, Jan 1964        | 320                            | 65.8                                     | 51.6   | 58.7            | ..                     | 71.9                         | 26   | 38.6    | 14    | 3.19               | 15               | ..                     | 1.12         | 10                   | ..   |
| Onawe, Akaroa, Jan 1964 | 150                            | 71.0                                     | 52.1   | 61.6            | -0.4                   | 85.5                         | 26   | 46.0    | 7, 11 | 0.90               | 12               | -1.7*                  | 0.27         | 2                    | 258  |
| Temuka, Jan 1964        | 80                             | 71.4                                     | 46.9   | 59.2            | ..                     | 83.1                         | 26   | 39.0    | 23    | 0.82               | 4                | ..                     | 0.46         | 12                   | ..   |
| Earnsclough, Jan 1964   | 500                            | 71.6                                     | 45.8   | 58.7            | -1.3                   | 87.2                         | 30   | 31.0    | 13    | 0.53               | 5                | -1.2*                  | 0.27         | 7                    | ..   |

NOTE—At stations where departures from normal have an asterisk, the temperature record has been maintained for less than 10 years, the rainfall record for less than 20 years. Rainfall normals have been revised and now refer to the standard period 1921-50. Where observations are not available for the whole period, or where the site of the rain gauge has been changed, the normals are partly interpolated.

## NOTES ON THE WEATHER FOR FEBRUARY 1964

**General:** The severe drought in Northland was alleviated by rain during the week beginning on the 9th, and during the last four days of the month. While appreciable totals of over 4 in. fell near Whangarei and Kerikeri, in other areas in the north, west, and south of the district the amount was much less, and was insufficient for a lasting improvement to pasture and soil moisture in many places. In the Bay of Plenty - Rotorua district, drought conditions were developing in many places, with stock feed and water in short supply and milk production falling. However, rain towards the end of the month brought an improvement. In most other districts in the North Island conditions were becoming very dry with water and feed shortages developing, but stock was generally reported in good condition. Rain near the end of the month brought a renewal of pasture growth. In Canterbury, Otago, and Southland pastures became very dry and bare in many places. In Canterbury and the Manawatu crops were generally good and the dry weather suited harvesting operations.

Frosts caused some damage to potato and tomato crops in central areas of the North Island between the 22nd and 24th.

**Rainfall:** Rainfall totals for the month were below average in most of the country, less than a quarter of the average rainfall being recorded in large areas in Southland, North and Central Otago, and Central Canterbury where in several areas the rainfall for the month was one of the lowest on record.

In some areas in Nelson Province the rainfall was more than double the February average, and the only other areas with above average totals were Central Marlborough, North Taranaki, Rotorua, Western Bay of Plenty, the Waikato, and some small areas in Hawke's Bay and Northland.

Most of the rain came in the second half of the month and in many places it was mainly in the last four days. At Whangamomona in North Taranaki, 6.7 in. fell on the 27th resulting in severe flooding in that area.

Much of the month's rain was associated with thunderstorms and was very unevenly distributed, especially in the north and east of the North Island. There was some local damage resulting from brief heavy rains and from lightning in a number of places in the Auckland Province, Hawke's Bay, Nelson, and Marlborough in two periods from the 14th to 16th and the 27th to 29th.

**Temperatures:** In most of the country it was 1 to 2 degrees warmer than average, but in coastal areas of South Canterbury and Otago, and from Napier north it was 1 to 2 degrees cooler than the normal. There was a marked cold period from the 20th to about the 24th in southern and eastern districts and in Wellington Province. Light snowfalls were reported on the Otago Ranges on the 20th and some snow fell on Ruapehu. Some frosts of unusual severity for the time of year were reported in central areas of the North Island on the 22nd to 24th.

**Sunshine:** Sunshine was above average in most of the country, but east coast areas of the South Island had near average values. The far north and north-east of the North Island and the north and west of the South Island were 10 to 20 hours above normal, while in most other districts sunshine exceeded the normal by 30 to 50 hours. At New Plymouth there were 284 hours of sunshine, i.e., 90 hours above normal. This was the highest February total since records began in 1915. Wanganui, with 74 hours above normal, had more sunshine than in any other February since records began in 1937.

**Weather Sequence:** On the 1st and 2nd a cold front which moved over the country from the south brought scattered rain to the South Island and to the south and east of the North Island. Another weak cold front moved rapidly over the country from the south-west on the 6th, with rain confined mainly to the West Coast of the South Island, and another weak cold front which moved on to Westland and Southland on the 9th gave some rain in Fiordland and Westland.

Otherwise, during the first half of the month, anticyclones centred over or near New Zealand were accompanied by generally fine warm weather. During the 9th to 12th, however, there was a shallow depression north of New Zealand which gave rise to easterlies accompanied by widespread but mainly light rain in the Auckland Peninsula.

On the 14th a cold front moved over the South Island from the south-west, reaching central areas of the North Island by the 16th and then weakening. It was accompanied by rain in most of the South Island and in the Wellington area. During this period there were brief periods of heavy rain with thunderstorms in some places in Marlborough, Nelson, Waikato, and Bay of Plenty.

On the 17th rain had commenced again in Westland with the approach of the next trough of low pressure from the west, and on the 18th a depression was crossing the south of the South Island with an associated cold front moving eastwards over the more northern parts of the country. This system brought heavy rain in Westland and moderate falls in other South Island areas except Canterbury, and the west of the North Island from Wellington to Taranaki. On the 19th the front had weakened and moved away to the north-east and a narrow ridge of high pressure gave a period of fine weather in most places, but new cold fronts reached the south-west of the South Island on the 19th and 20th. These fronts were accompanied by only light rainfalls, mainly in the far south, but the second one marked a change to much colder air in districts exposed to the south and east, and some snow fell in the mountains in both islands.

During the 21st a depression which formed on the front as it moved away to the east of New Zealand caused a freshening of the southerly airstream over the North Island and the north-east of the South Island, maintaining cloudy cool weather with scattered showers in these areas until the 22nd. Then an anticyclone spreading over the country from the west brought a gradual clearance with rising temperatures.

On the 26th a rather slow-moving depression was approaching central New Zealand from the Tasman Sea and the centre of the anticyclone was moving off to the east. This depression remained just west of New Zealand for the remainder of the month, slowly losing intensity, but maintaining a warm, moist, unstable, northerly airstream over New Zealand. Rain commenced on the 26th in Westland, Nelson, Taranaki, and Northland, and on the 27th it was widespread from Canterbury northwards with heavy falls in Taranaki, the south of the Auckland Province, and in central areas of the North Island. Some severe flooding occurred in North Taranaki. On the 28th and 29th rain was still rather widespread in the same areas but generally lighter, apart from some local heavy falls and thunderstorms which caused some minor flooding in a number of places in the North Island.

R. G. SIMMERS, Director.

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*The Standards Act 1941—Draft Amendment to the New Zealand Standard Specification for Electric Connector Boxes (N.Z.S.S. 843:1951)*

PURSUANT to subsection (3) of section 8 of the Standards Act 1941, notice is hereby given that the above draft amendment is being circulated under the reference No. D 7784.

All persons who may be affected by this amendment and who desire to comment thereon may, on application, obtain

copies free of charge from the New Zealand Standards Institute, Bowen State Building, Bowen Street, or Private Bag, Wellington C. 1.

The closing date for receipt of comment is 3 April 1964.

Dated at Wellington this 11th day of March 1964.

A. C. DAVYS,  
Acting Executive Officer, Standards Council.

(S.I. 114/2/8)