

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for January 1965—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.			Maxi-mum	Date	Mini-mum	Date				Amount		Date
Balclutha .. ..	Ft. 20	°F. 68.2	°F. 50.7	°F. 59.4	..	°F. 81.7	13	°F. 39.4	27	In. 2.40	13	..	In. ..	..	Hrs. 144
Raoul Island .. ..	126	74.2	66.5	70.4	..	78.6	21	62.2	15	1.90	12	..	1.26	17	220
Chatham Island .. ..	157	67.5	55.5	61.5	+4.2	71.5	24	49.1	3	1.22	10	-1.6	0.44	22	216
Campbell Island .. ..	49	56.5	44.4	50.4	..	69.4	19	30.3	9	3.44	16	..	0.82	3	146
Scott Base, Antarctica .. ..	45	..	..	+25.7	..	+38.3	..	+9.5	..	..	..	..	..	..	..

Supplementary data, sunshine: Foxton, .. hrs.

LATE RETURNS

Owairaka, Dec 1964 ..	133	70.4	57.0	63.7	+0.1	75.9	31	46.9	10	5.57	9	+1.9	2.28	12	..
Whakatane, Dec 1964 ..	6	72.3	56.0	64.2	+1.2	77.0	23	42.0	1	3.78	14	+0.4	0.67	13	239
Te Teko, Dec 1964 ..	100	72.8	54.1	63.4	..	82.0	27	37.8	1	3.86	15	..	0.70	13	226
Tarawera Forest, Dec 1964 ..	200	73.5	50.9	62.2	..	82.0	6	35.4	1	6.53	13	..	1.12	13	..
Taumarunui, Nov 1964 ..	562	67.2	47.0	57.1	0.0	77.0	20	37.3	14	2.95	15	-1.6	0.87	8	160
Taumarunui, Dec 1964 ..	562	73.2	51.5	62.4	+1.3	84.0	28	38.0	1	8.01	15	+4.1	0.91	18	178
Greymouth, Dec 1964 ..	13	65.9	54.6	60.2	+2.0	73.7	12	46.0	6	7.70	17	-1.2	1.31	15	149
West Arm, Lake Manapouri, Dec 1964 ..	590	64.5	48.8	56.6	..	78.8	29, 30	41.3	5	11.11	19	..	2.65	6	..
Otautau .. ..	180	67.2	47.2	57.2	+1.8	79.0	30	36.0	22	3.06	16	-0.5	0.72	20	172

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.

NOTES ON THE WEATHER FOR JANUARY 1965

**General:** January was marked by an unusually high frequency of north-easterly winds. Canterbury received some relief from the dry weather, especially on the 21st, and many farmers in this area found January a good month. In most other parts of the country the combination of warmer than usual temperatures with good rains produced exceptional growth; but some farmers found the growth too lush for fattening lambs. In many districts, especially in the North Island, conditions proved too wet and unsettled for haymaking.

**Rainfall:** Rainfall was above average over the greater part of the country. It was double the normal value in southern Northland, Coromandel, and parts of Bay of Plenty; also over considerable areas of Central and South Canterbury (mainly inland), and in northern Central Otago. The principal areas with rainfall below average, by 20 to 50 per cent, were coastal Hawke's Bay and parts of Southern Manawatu, Wairarapa, Wellington, the Kaikoura coast, and Buller.

As in December, there was excessive thunderstorm activity, especially over the North Island, with some heavy short-period downpours. Many thunderstorms were reported over the North Island from 12-15 January and 28-31 January; and over the South Island, 22-24 January. Some exceptionally heavy hail accompanied a thunderstorm in the Ashburton area on the 24th.

**Temperatures:** Temperature departures showed unusually large variations. The greater part of the country was 1-3 degrees warmer than average. However, it was particularly warm in most western districts from Waitomo southward, also in Wellington and Nelson, on the Canterbury coast, and around Dunedin; departures in these areas ranged from 3 to 5 degrees. On the other hand, parts of the South Island high country were a degree cooler than normal.

A fall of snow was reported on the South Island ranges on the 24th.

**Sunshine:** In the South Island sunshine was more than 20 hours below average, except in Marlborough. It was 50-120 hours below average over most of the South Island high country and the West Coast. Record low totals for January in over 30 years of observation were received at Lake Tekapo (187 hours) and Queenstown (161 hours).

The North Island was for the most part favoured with 10-30 hours more sunshine than average; the surplus was somewhat greater in southern Manawatu and Wellington. The only part of the North Island with sunshine appreciably below average was the Bay of Plenty-Taupo area, with a deficiency of 20-60 hours.

**Weather Sequence:** On the 1st, as during the last days of the previous month, an anticyclone remained centred to the east. In the north-easterly airstream showers were reported in the Auckland Province and in Nelson, but elsewhere the weather was fair or fine. A weak trough associated with a depression passing to the south-west crossed the country from the 2nd to the 4th. Rain affected

western districts from Taranaki southward; and showers were reported in Auckland Province, Southland, and coastal Otago. An anticyclone moved on to the North Island on the following day, with generally fair weather.

During the 6th and 7th a small depression with its associated trough crossed most of the South Island. Heavy rain was reported on the West Coast, in the Alps, in the Southern Lakes district, and in parts of Central Otago. Other districts in the southern half of the South Island also received some rain.

Pressures remained high to the east, with an anticyclone centred far to the south-east; and the depression and trough soon retreated to the eastern Tasman Sea. Thus commenced a period of persistent northerly or easterly winds, from the 8th to the 19th. For the first three days the main rain areas were Northland, Gisborne, and Hawke's Bay, and parts of the West Coast. From the 11th the circulation was intensified by the arrival of a deeper depression over the Tasman Sea from south-eastern Australia. As this depression moved southward its associated trough crossed the country. From the 11th to the 13th considerable rain affected the high country of both Islands and many surrounding areas, especially Rotorua and the West Coast; frequent thunderstorms were reported, especially in the North Island. On the 14th a small depression formed on the trough over the South Island, where some rain spread also to the Canterbury Plains and Marlborough. The depression soon moved to North Cape and remained almost stationary for the next five days, causing strong north-easterly to easterly winds over the Auckland Province, with rain mainly in that area, heavy at times.

The period from the 20th to the 24th was particularly wet in parts of the South Island; and the 21st was wet over the whole country, Canterbury in particular benefiting from many falls of over an inch. On the 20th a trough associated with a deep depression to the south moved on to the country; and on the 21st a small depression formed on this trough. A complex depression soon formed off the Southland coast and remained almost stationary there. Temperatures became much cooler for a few days in the southerlies, and snow was reported well down on the South Island ranges.

Fair weather was general on the 25th and 26th as the trough moved away and pressures rose to the south-east. Another depression had moved into the Tasman Sea, and as it approached on the 27th the weather deteriorated again in the Rotorua-Taupo area. Pressures were still high to the east; and as the depression moved slowly northward there was yet another spell of northerly to north-easterly winds during the remaining days of the month. This spell was very wet in the Auckland Province, especially Northland, Bay of Plenty, and Taupo. Nelson also received heavy rain; and in many other districts the weather was unsettled, though clearing in the south on the 30th and 31st.

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