

Temperatures—Temperatures were above normal by $\frac{1}{2}^{\circ}\text{C}$ over most of the country, and only slightly below in parts of Nelson, Canterbury, Otago, and Southland. There were three warm spells during the month, from the 3rd to 8th, 17th to 20th and from the 27th to the end of the month. Maximum temperatures were above normal by 4° to 10°C on the 18th and 19th on the east coasts of the North and South Islands. The greatest departures were in Wellington, Canterbury, Otago and Southland. On the 18th a maximum temperature of 26.5°C was recorded at Kelburn (Wellington), the highest December maximum since 1948 (29.1°C).

Sunshine—The only areas with sunshine hours considerably below normal were parts of Taranaki, the West Coast, South Canterbury, Otago, and Southland. Many parts of the North Island had 30–50 hours more sunshine than normal, but some areas of Otago and Southland were below normal by the same amount.

WEATHER SEQUENCE, DECEMBER 1978

The anticyclone that had become established over New Zealand at the end of November persisted until the afternoon of the 5th. A weak cold front moved quickly across the country on the 2nd bringing isolated showers to both Islands. Another cold front moved across the North Island on the 4th and some heavy showers were reported in central districts. By the morning of the 6th pressures had become low in the south Tasman Sea as a depression moved east towards New Zealand. A cold front associated with this depression brought heavy rain to Westland and Buller, and moderate falls to districts west of the main ranges. Early on the 7th another depression had formed in the Tasman Sea to the north of the depression moving towards the country. As these depressions and their associated cold fronts crossed the country on the 7th and 8th, rain was recorded in most areas of New Zealand, the heaviest falls being in Westland. During the first week of the month temperatures were slightly warmer than normal.

Pressures remained low over the whole country as a trough of low pressure moved across the country on the 9th and 10th. During the afternoon of the 10th an active cold front brought severe thunderstorms to parts of Canterbury, and districts in the southern half of the North Island. Some stations recorded in excess of 10 mm in a period of 10 minutes during the passage of this active cold front. A ridge of high pressure extended northwards into the Tasman Sea from south of New Zealand early on the 11th but weakened rapidly. A small depression formed off the West Coast during the morning of the 12th and moved slowly across the South Island. Moderate falls were recorded in both Islands the heaviest falls, of more than 30 mm, being about Christchurch and Banks Peninsula. At Living Springs (Banks Peninsula) more than 70 mm was recorded in the 24 hours up to 9 a.m. on the 13th.

Temperatures were considerably cooler than usual throughout the whole of the country from the 11th to 14th.

By the 14th a ridge of high pressure extended onto the South Island from an anticyclone centred near Tasmania. A complex depression had formed in the north Tasman Sea, and by the afternoon of the 14th was moving slowly eastwards. Pressures were high over New Zealand on the 16th as an anticyclone moved quickly eastwards over the country. Only a few isolated showers were reported in Northland. During the afternoon of the 17th the depression had moved onto New Zealand and a cold front ahead of it had crossed onto Northland. Moderate to heavy rain was reported over most of the northern half of the North Island, the heaviest falls being in the Bay of Plenty.

A trough of low pressure moved slowly eastwards across New Zealand from the morning of the 18th to the morning of the 20th. This was followed by a complex low pressure system, with associated cold fronts, which crossed the South Island and was lying near the Chatham Islands by the morning of the 22nd. Heavy rain was reported on the West Coast, Canterbury and South Canterbury, also in central districts of the North Island. Moderate falls were recorded over most of the country with lighter falls in parts of Northland, Poverty Bay, and Hawke's Bay. Twenty-four hour totals of more than 40 mm were measured in areas around Christchurch and Timaru. Maximum temperatures were exceptionally high on the east coasts of both islands on the 18th and 19th.

A weak cold front moved across the country on the 23rd bringing light to moderate rain to most of the country. By the morning of the 24th a ridge of high pressure extended onto the South Island from the Tasman Sea, and later in the day an anticyclone had moved onto the country. The anticyclone persisted until the morning of the 28th giving fine weather to most of New Zealand. Only a few isolated showers were reported during this period. Early on the 28th a cold front associated with a depression moving to the south of the country moved onto the South Island. This front weakened as it moved northwards and moderate to heavy showers were reported on the West Coast and in Canterbury, Otago and Southland. A ridge of high pressure extended over the North Island until the morning of the 30th.

On the 30th a cold front moved northwards across the South Island, and moderate rain was reported in Fiordland and Westland, with lighter falls in many districts of Otago and Southland. This front later weakened as it moved across the country on the 31st. Temperatures were above normal over the whole of New Zealand from the 27th to 31st.

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