

THE NEW ZEALAND WEATHER IN DECEMBER 1983

General—December was a cool, changeable month and many areas recorded very high rainfalls. A deep low, which moved slowly southwards across the New Zealand area between the 6th and 13th, made a large contribution to the high rainfall totals. Flooding occurred in parts of the Coromandel Peninsula, the Bay of Plenty and the Nelson area, closing roads and damaging bridges. Warm north-easterlies associated with the low gave high temperatures in some central parts of New Zealand during this period.

Strong winds were more frequent than usual, especially at Auckland where the highest December frequency of strong winds since 1958 was recorded. South-westerlies were more frequent than usual over the whole country and south-easterlies were unusually common at Invercargill.

During the 14th large hailstones (the size of marbles) were reported in parts of Marlborough and in the Whakatane district, causing serious damage to crops. Hailstorms on Christmas Eve and on Boxing Day caused some damage at Oamaru and Weston.

Farmers reported good pasture and crop growth in most areas although some western parts of the North Island were a little dry. Farms on the east coast of the North Island are reported to be recovering from the drought of last summer and autumn.

Rainfall—Rainfalls varied widely from area to area during December but many parts of the country, particularly the north of the North Island, recorded very high rainfalls. For example Warkworth, Auckland, Whakatane and Kawerau all recorded their highest December rainfalls in at least 10 years while Nelson and Invercargill recorded more rain than in any December since the early 1940s. On the other hand much of the central North Island, and some inland parts of the South Island, recorded considerably less rain than usual. Kinleith, with little more than half of its usual December rain, recorded its lowest December total since 1973.

Temperature—Overall, temperatures were cooler than usual in most places, although Palmerston North was slightly warmer than normal. Inland parts of the South Island recorded temperatures between 1°C and 2°C cooler than usual. The remainder of the South Island experienced temperatures between 0.5°C and 1°C below average while over the North Island temperatures ranged between average and 1°C below average.

For most of the month temperatures throughout New Zealand were cool. On the 9th and 10th maximum temperatures in many parts of the South Island were between 9°C and 12°C below average. However there were some warm periods early in the month and on the 8th south-western parts of the North Island recorded maximum temperatures between 5°C and 9°C above average.

Sunshine—Although parts of the Waikato, Taranaki, and Canterbury recorded a little more sunshine than usual, December was a cloudy month in most parts of New Zealand. Dunedin and Invercargill recorded only about 80 percent of their usual December sunshine and Invercargill's total of 145 hours was its lowest for December since 1959.

THE WEATHER SEQUENCE, DECEMBER 1983

1-7 December

A large anticyclone moved slowly north-east off New Zealand during the 1st and 2nd as a cold front moved on to the South Island. The front gave some rain to southern and western parts of the South Island during the 1st and 2nd and more widespread rain over New Zealand during the 3rd. The front became slow-moving over Northland and the Bay of Plenty during the 4th, bringing further rain to these areas while the weather over the remainder of the country became fine, although cool. An anticyclone intensified over the South Island during the 5th, giving fine weather to most of New Zealand. However a deep low which had formed in the Coral Sea moved gradually south-east towards New Zealand and during the 6th rain became widespread over the North Island. The rain spread over the South Island on the 7th, while gale force north-easterlies affected northern and eastern areas of the North Island.

8-14 December

The low moved slowly south during the 8th and warm, moist north-easterlies gave further rain in most places. On the 9th the low became slow-moving west of New Zealand and a strong cold southerly airstream spread over the South Island and the south of the North Island. The low remained slow-moving west of the South Island during the 10th, 11th and 12th before crossing the South Island and moving away to the south-east on the 13th. During this period the weather remained unsettled and cool, with rain in most parts of the country and some areas received heavy falls. During the 14th a cold front moved quickly north-east across the South Island giving further rain in most places.

15-21 December

The cold front moved quickly north-east off the North Island on the 15th and a narrow ridge spread over New Zealand giving generally fine, cool weather. However a cold front moved across the South Island on the 16th, bringing widespread rain. The front moved quickly east across the North Island during the 17th with some showers in western areas but fine weather elsewhere. Another cold front moved across the South Island during the 18th and over the North Island during the 19th bringing further rain to western areas but only a few showers east of the main ranges. A cool southerly airstream spread over New Zealand as the front moved away and apart from a few showers in eastern areas the weather over New Zealand became fine.

22-31 December

A series of cold fronts moved quickly north-east across New Zealand during the 22nd, 23rd, and 24th in a strong south-westerly flow, giving some heavy rain about and west of the South Island high country but only a few showers over the North Island. Apart from a few showers about and west of the Southern Alps the weather on Christmas Day was dry, but cool. During the 26th a cold front moved across the South Island bringing rain to areas about and west of the high country but fine, warm weather in the east. A south-westerly flow spread over the country as the low moved away to the east on the 27th. During the 28th a cold front moved north-east across New Zealand, followed by a cool southerly airstream which gave a few showers to eastern areas but fine weather elsewhere. A large anticyclone spread over the country on the 30th and apart from a few isolated showers the weather on the final two days of 1983 was fine.

(N.Z. Met.S. Pub. 107)

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