

THE NEW ZEALAND WEATHER IN OCTOBER 1983

General—October was a mild and cloudy month, with more rain than usual in most places. Rainfalls in Hawkes Bay were about twice the October average, alleviating the drought which had affected the area for many months.

The high rainfalls and very cloudy conditions recorded in eastern areas were the result of an unusually high frequency of winds from the easterly quarter. Strong north-easterlies were especially common in the north, while north-westerlies were less frequent than usual over whole country. Invercargill recorded its lowest frequency of strong winds in October since 1958. Because of the lack of strong winds in the south the Penrod 78 drilling rig was able to drill its first well in the Great South Basin without interruption by weather and sea conditions.

Heavy rain over the northern half of the South Island on the 21st gave the Nelson-Marlborough area its second major flood this year, and also led to flooding on the West Coast. Many areas were isolated by slips and floodwaters, and some homes had to be evacuated. Thousands of hectares of farmland were flooded.

While some parts of the country, notably Wellington and Dunedin, enjoyed their warmest Labour Day in many years, Auckland and the Bay of Plenty were battered by strong winds and heavy rain.

Farmers throughout the country reported very good pasture and crop growth, but wet conditions in many areas have made the use of agricultural machinery difficult.

Rainfall—Although the Manawatu region received only about 75 percent of its usual October rainfall, most of the North Island experienced a very wet month. The Bay of Plenty received 2 to 3 times its usual October rainfall, with Rotorua recording 346 mm—its highest total for any month since recordings began in 1962. Similarly Kawerau recorded its highest ever October rainfall. Rainfalls were also well above average in Hawkes Bay; Napier recorded its highest October total (130 mm) since 1971.

Fiordland and coastal Southland recorded below average rainfalls, while parts of Canterbury and coastal Marlborough received only about half their usual October rain. Rainfalls over the remainder of the South Island ranged from about average to one and a half times the October average.

Temperature—Night-time temperatures throughout New Zealand were above average during October, with some inland parts of the North Island recording mean daily minimum temperatures some 2.5°C above average.

Daytime temperatures were also above average in western parts of both islands, but in the east the mean daily maximum temperatures were cooler than usual. Parts of South Canterbury and Otago recorded daytime temperatures about 1.5°C cooler than usual, while some areas in Westland experienced temperatures up to 1.5°C above average.

Temperatures varied greatly throughout the month. A cold spell occurred between the 10th and the 18th, and mean temperatures between 5°C and 6°C below average were recorded in many places.

Between the 24th and 30th above average temperatures were recorded over most of the country. The North Island experienced mean temperatures 5°C to 6°C above average during this period and on Labour Day, Wellington recorded its highest October maximum temperature (20.7°C) since 1962.

Sunshine—October was a very cloudy month, especially in eastern areas. Gisborne and Paraparaumu recorded their lowest ever October sunshine totals, while Blenheim and Wellington recorded their lowest October totals since 1947 and 1951 respectively.

Many western areas however were only slightly cloudier than usual, and parts of Westland and Southland recorded sunshine totals that were about average for October.

THE WEATHER SEQUENCE—OCTOBER 1983

1-7 October

A cold front, which had moved over most of the South Island on the 30 September, crossed the North Island on 1 October, followed by a brief cool southerly which gave a few showers to eastern and southern areas. The flow over New Zealand rapidly turned westerly again on the 2nd as another cold front advanced across the Tasman Sea. This front crossed the South Island on the 3rd, giving rain in western areas.

Another southerly change, with showers, spread up the east coast behind the front. On the 4th the front moved slowly north-east onto the North Island, becoming stationary over the Waikato and Bay of Plenty areas during the 5th, before weakening on the 6th. The front brought widespread rain to the North Island during the 4th and 5th breaking the prolonged drought in the Gisborne and Hawkes Bay area.

During the same period an anticyclone spread over the South Island, bringing fine but cold weather. A deep low which had formed on the front in the mid Tasman Sea moved slowly south-east during the 5th, 6th and 7th. Warm moist northerlies ahead of the low gave rain in the west of both islands during the latter part of the 6th and during the 7th, with some heavy falls occurring on the West Coast.

8-14 September

The low moved south-eastwards across the south of the South Island on the 8th, giving further heavy rain to western South Island areas, while warm northerlies brought rain to many parts of the North Island and especially the Bay of Plenty. Cool south-westerlies spread over the country during the 9th, with a few showers in western areas. Disturbances in the south-westerlies gave a period of more widespread showers on the 11th.

During the 12th a low formed east of the North Island and the flow over northern and central parts of the country turned south-easterly as a large anticyclone spread onto the South Island. Cold south-easterlies brought showers to eastern North Island and north-eastern South Island areas during the 12th, 13th and 14th, while remaining parts of the country remained fine.

15-21 October

During the 15th the anticyclone moved onto central New Zealand and the weather over most of the country became fine, but cool, for the next few days. However, south-easterlies continued to bring a few showers to eastern areas at times. During the 19th the anticyclone moved off to the north-east of the North Island and a front passed quickly south-east across the South Island, bringing rain to western areas south of about Taranaki.

A strong, warm north-westerly flow behind this front gave further showers to western areas on the 20th. Rain became widespread over the north and west of the South Island late in the day, with some very heavy falls occurring as a complex frontal system moved onto the South Island. The rain became general over much of New Zealand as the front moved eastwards during the 21st.

22-31 October

The front became almost stationary over the North Island on the 22nd and continued to give rain to the northern half of the North Island through until the 29th before finally moving off to the east. An anticyclone moved quickly east across the South Island on the 23rd, giving mainly fine weather. However a low which had formed on the front, west of the North Island, moved south-east across the South Island during the 24th and 25th bringing some rain to most places.

Another depression moved across the South Island on the 26th, with further rain, followed by a clearance as an anticyclone spread across the island during the latter part of the day. This anticyclone continued to bring fine, warm weather to the South Island during the 28th and much of the 29th. Another low moved quickly, east, across the South Tasman Sea and southern New Zealand on the 30th bringing rain to much of the South Island, while its associated cold front gave rain to most North Island areas. Early on the 31st the low lay east of central New Zealand and a cool south-westerly flow was giving showers in many parts of the country.

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