

THE WEATHER IN NEW ZEALAND IN MAY 1983

General—May was generally a cool, windy month. South-westerly winds were more frequent than usual over the whole country, and there were very few north-easterlies recorded this month. There were more strong winds than usual, especially in the north. The frequency of strong winds (mean speed 15 m/s or more) at Auckland was the highest for any month since July 1974.

A severe storm affected the Cook Strait region between the 20th–22nd May. This storm was most remarkable for its duration; southerly winds above 40 knots were recorded for 32 consecutive hours between 2 a.m. on the 21st and 10 a.m. on the 22nd at Wellington Airport, with an earlier period of 15 hours of similar winds between 3 a.m. and 8 p.m. on the 20th. This event is unprecedented since recording began at the airport in 1960. All flights and ferry sailings were cancelled during the 3 day period, disrupting the travel arrangements of 20 000 people (the storm coincided with the end of the May vacation).

Farmers in most areas report average conditions for the time of year, with reasonable recovery in most of the areas previously suffering from drought.

Rainfall—Rainfall was below normal in the North Island apart from Wairarapa, southern Taranaki, Manawatu and some central areas, which had up to twice normal rainfall for May. Especially dry areas were parts of Northland, Bay of Plenty and Gisborne where less than 30 percent of normal rainfall was recorded.

In the South Island northern districts, eastern districts as far south as Oamaru and central Otago had between 50 and 100 percent of normal rainfall. The rest of the South Island was wetter than usual, especially northern and southern Westland, coastal Otago and the high country.

Some local flooding occurred in parts of Dunedin, Balclutha, Milton and low-lying areas of the Tapanui basin after heavy rain on the 17th and 18th. Some 48-hour rainfalls in the Dunedin area included 114 mm at Dunedin Airport, 164 mm at Ross Creek, and 178 mm at Whare Flat, these falls all having a return period of about 10 years. The rain was accompanied by extensive snowfall. State Highway 87 was closed at Middlemarch by 1 m of snow and chains were needed on State Highway 90.

Temperature—Monthly mean temperatures over the whole country were close to normal this month, apart from areas around Christchurch, Marlborough and southern Hawke's Bay which were between 0.5°C and 1°C warmer than usual, while parts of Bay of Plenty and some western areas were 0.5°C to 1°C cooler than usual.

The first 10 days of the month were very mild. On the 5th and 6th maximum temperatures in eastern and northern areas of both Islands reached between 20°C and 25°C, while mean temperatures for most of the country were 5°C to 8°C above average on these days. Temperatures were again high in northern and eastern areas on the 9th, with many stations in these areas reaching 20°C–23°C.

The rest of the month was generally cool. There were very extensive frosts towards the end of the month, especially in the South Island on the 22nd and 23rd and inland areas of both Islands on the 24th.

Temperatures became milder during the last 2 days of the month when mean temperatures were 3°C–4°C above average in most areas, and maximum temperatures exceeded 20°C in some northern and eastern areas.

Sunshine—Northern areas of both Islands had between normal and 10 hours less sunshine than normal, while central and western areas of both Islands and the south of the South Island had between 25 and 40 hours less sunshine than normal. Eastern areas between Gisborne and Timaru had up to 25 hours more sunshine than usual for May.

Among those areas with the greatest departures this month were: Dunedin (–41 hours), New Plymouth (–37 hours), Invercargill (–35 hours), and Taupo (–32 hours).

THE WEATHER SEQUENCE, MAY 1983

1–7 May

An extensive belt of high pressure lay south-west north-east across the country on the 1st, with generally fine weather prevailing. By the second a strong south-westerly flow had developed to the south, but apart from light showers in some south-western areas the weather remained fine and mild until the 4th. A deep depression developed off the south-east coast of Australia during the 4th and associated fronts brought some heavy rain to the west of the South Island and lighter falls in other western and southern areas. During the 5th rain became widespread and heavier, especially in western areas, as the depression, which had developed into a trough, began to move onto the country. However, temperatures remained mild, especially in eastern areas, in the accompanying strong north-westerly flow. By the 7th the rain had cleared from most of the South Island, although showers persisted in some northern areas, and a westerly flow developed over the country.

8–14 May

Disturbances within the westerly flow brought rain to Westland and Fiordland on the 8th. Heavier rainfalls developed in western areas on the 9th with lighter rain elsewhere in the South Island. Temperatures remained very mild. During the 10th a trough began to move onto the country and by the 11th light rain was widespread. Temperatures became cool. Rain cleared from the South Island on the 12th, but showery weather continued in the North Island. The trough had moved away to the east by the 13th. Fine, generally cool conditions prevailed during the 13th and 14th as an extensive anticyclone began to move onto the country.

15–21 May

The anticyclone continued to bring fine weather to the whole country on the 15th and the North Island and east of the South Island on the 16th but a depression within a trough had begun to move onto the west of the South Island during the 16th bringing rain to the west and north of the South Island. Most districts had rain and cool temperatures as the trough crossed the country during the 17th and 18th, with some particularly heavy falls in the Dunedin area. A strong southerly flow developed over the country on the 19th as an anticyclone moved into the Tasman Sea to the west of New Zealand and the depression became slow moving off the East coast. Rain fell in the south of the North Island and in other areas exposed to the south and east during the 19th to 21st, and gale force winds affected the Cook Strait region throughout this period. However weather in western and southern areas was mainly fine due to ridging from the anticyclone to the west.

22–31 May

Showery conditions continued in many southern and eastern areas of the North Island on the 22nd but by the 23rd the anticyclone had moved eastward to cover most of New Zealand and showers were confined to the East Cape - Gisborne region. Temperatures were cool and there were extensive frosts. The whole country had fine, cool weather on the 24th but showers developed in western areas of both Islands as a cold front moved onto the west of the South Island on the 25th. There were further light showers in isolated areas, particularly Northland and the south and west of the South Island, on the 26th. An extensive anti-cyclone centred near Tasmania led to a strong south-westerly flow onto the country on the 27th and 28th. Temperatures were cool and there were isolated showers. By the 29th the anticyclone had moved north-east and a complex trough began to move onto New Zealand. Rain was widespread apart from the east coasts of both Islands on the 29th and 30th and Northland on the 30th. Heavy rain became widespread apart from East Cape, Wellington and the east of the South Island on the 31st.

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J. S. HICKMAN, Director.