

## THE WEATHER IN NEW ZEALAND IN MARCH 1983

**General**—March was cool and wet in the south and west of the South Island but mild and dry elsewhere.

Winds from the south-west were most frequent in the north, with the highest frequency of winds from this direction for March since 1969 reported at Auckland. In contrast Invercargill reported the highest frequency of north-westerly winds for March since recording began 28 years ago. There were also more strong winds than normal in the south.

Severe shortages of stock feed developed in northern and eastern areas of the North Island where extremely dry conditions persisted for the 4th consecutive month.

Farmers continued drying off herds early and some stock from the Gisborne region was transported out of the area in an attempt to ease the feed situation. Farmers in northern and eastern areas of the South Island also reported low feed reserves.

Local flooding from blocked drains occurred in Christchurch on the 3rd when a hailstorm was followed by rain. There was minor hail damage to some crops and market gardens.

**Rainfall**—Rainfall was below normal or normal for the whole of the North Island except Horowhenua, where it was slightly wetter than usual.

Conditions in eastern areas between East Cape and Napier continued very dry, with less than 15 percent of normal rainfall in most areas. For the 4-month period December 1982 to March 1983, rainfall at Gisborne Airport has been only 37mm, the lowest total for 4 months since the station opened in 1937. Water became scarce and emergency procedures were implemented for maintenance of urban and industrial water supply.

In the South Island eastern and northern areas had between 50 percent and 90 percent of normal rainfall while western, central, and southern areas had between 100 percent and 250 percent of their usual March rainfall.

Heavy rainfall in Fiordland, Southland, and Otago on the 9th and 10th led to extensive surface flooding of low-lying areas in Southland and Otago. The main railway and several major roads in the area were closed by floods and some homes and business premises in the Strath Taieri area were also affected by floodwaters.

**Temperature**—Mean temperatures in the North Island were between normal and 2°C above normal apart from Horowhenua and southern Manawatu where they were between normal and 0.5°C below.

Temperatures were also between normal and 2°C above normal in the north and east of the South Island as far south as Timaru, while the rest of the South Island was between normal and 2°C below normal.

Temperatures in the Gisborne - Hawke's Bay area were particularly mild. The mean temperature at Gisborne was the second highest for March since recording began in 1938 and the maximum temperature of 35.1°C recorded on the 10th was the highest for March on record. The maximum temperature of 31.8°C at Napier on the 9th was the second highest for March since 1868, being exceeded only in March 1945.

In contrast, the south of the country was very cool. Invercargill had its lowest mean temperature for March since records began in 1948 and Dunedin its second coldest March since recording began at the airport in 1963.

**Sunshine**—Sunshine hours were normal or above normal in most of the North Island apart from central and some south-western areas. In the South Island northern and eastern areas as far south as Oamaru were also sunnier than usual, while southern and western areas had less sun than usual. Invercargill had its lowest March sunshine total since the station opened in 1948. Among those stations recording the greatest departures from normal were:

Gisborne Airport (+41 hours), Christchurch Airport (+41 hours), Blenheim (+35 hours), Invercargill (-57 hours), Hokitika (-42 hours), and Westport (-39 hours).

## THE WEATHER SEQUENCE—MARCH 1983

## 1-7 March

A southeast airstream covered the country and a weak cold front lay over central New Zealand on the 1st; this passed off to the east during the second bringing a few showers to the west. A second cold front moved onto Southland on the 3rd accompanied by scattered showers and cool temperatures. It passed quickly over New Zealand, lying to the east by the 4th.

A large anticyclone, which had been stationary over the western Tasman Sea at the beginning of the month advanced slowly towards the North Island, bringing fine, cool weather to the country. A cold front reached Southland during the 6th and lay east of the country early on the 7th. The front brought scattered rain to the south of the country, and was followed by an intensification of the anticyclone in the central Tasman Sea.

## 8-14 March

The anticyclone moved northwards as a weak cold front in the south-west Tasman Sea moved onto New Zealand on the 8th. Rain fell in Westland and Fiordland. A trough of low pressure developed near Tasmania during the 10th and by the following day lay west of Taranaki. This depression and associated fronts brought widespread rain to the South Island and southern parts of the North Island.

The depression began to weaken on the 11th as it moved eastwards, with showers falling in northern areas of the North Island. An anticyclone which lay to the south and west moved north-eastward and by the 13th lay north of Chatham Island. A cold front, with rain, approached the South Island from the west.

## 15-21 March

The cold front moved onto New Zealand during the 14th and lay across central New Zealand early on the 15th where it became slow moving and weakened. Rain fell, mainly in the South Island. Another cold front moved onto the country late on the 15th and by the 17th both fronts lay east of the country. Rain was widespread.

A ridge of high pressure followed the fronts and an anticyclone crossed central New Zealand on the 19th. This lay well to the east by the 21st. A westerly to south-westerly flow developed to the south of the anticyclone and scattered showers fell in Fiordland from the 19th as weak cold fronts affected the south of the country.

On the 21st a large ridge of high pressure extended from an anticyclone in the South Australian Bight and the strong westerly flow over southern New Zealand weakened.

## 22-31 March

A belt of high pressure extended across the country by the 22nd and apart from showers in some northern areas the weather was generally fine and mild. A depression which had lain over south-eastern Australia moved over the Tasman Sea during the 23rd and a front preceding this brought rain to southern and western areas as it crossed the country during the 23rd and 24th.

The depression developed into a trough of low pressure and as this crossed the country over the next 3 days there were showers in western and southern areas of both Islands. Showers persisted in some western areas on the 29th as a disturbed westerly flow followed the trough.

An extensive anticyclone began to move onto the country during the 30th, bringing a clearance to most areas. A front approached the South Island on the 31st, bringing rain in some southern and western areas.

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