

## THE WEATHER IN NEW ZEALAND IN JANUARY 1982

*General*—Over the North Island and north and east of the South Island sunny warm and dry weather prevailed. In the remainder of the country, wet cool and cloudy weather was experienced.

Pressures were lower than average over the country, especially in the south and to the southeast of New Zealand. There were slightly more westerly winds than usual with a high frequency of strong ones at Invercargill.

Because of the dry weather over many parts of New Zealand farmers reported negligible pasture growth, but stock health was good. In the wet areas of the South Island farmers noted that conditions were poor for hay making although there was plenty of grass for animal feed.

*Rainfall*—Over the North Island and north and east of the South Island, dry conditions were experienced with many northern and eastern areas having less than 40 percent of their usual January rainfall. In the remainder of the country, rainfall was above normal with over 200 percent of the average rainfall being measured in some areas.

At Milford Sound 1500 mm of rain fell, making it the wettest January since records began in 1930, and only the second highest total for any month. Otira measured 906 mm during the month; this being the highest January total since 1931 and the second wettest since rainfall measures started in 1906. The monthly total of 215 mm at Invercargill was the highest since records started in 1939.

Heavy rainfalls along the West Coast during 21–22 January resulted in flooding at the township of Otira and slips closed the Otira Gorge road. The daily rainfall at Otira on the 22nd was 241 mm, which corresponds to a maximum rainfall of return period about 3 years. There were further heavy rains along the West Coast during 25–26 January: Milford Sound recorded 193 mm, Otira 252 mm, Hari Hari 233 mm, Inchbonnie 228 mm and Whatoroa 291 mm.

*Temperatures*—Temperatures were above normal over most of the country. Areas having lower mean temperatures than usual were South Westland, Fiordland and the coastal areas of Southland and Otago. In these areas temperatures were about 0.5°C below the January normals. Over the rest of New Zealand mean temperatures were about 1.0°C above normal.

During a cold spell over the South Island on the 4th and 5th of the month snow was reported on the Remarkables around Queenstown.

At times during the month, eastern districts had high temperatures associated with northwesterly conditions, with some stations recording over 30°C. On the 13th Gisborne recorded 32.0°C, Napier 34.9°C, Christchurch 35.5°C, Winchmore 32.2°C, Hororata 33.9°C and Timaru 31.8°C. On the 21st and 26th further warm conditions were experienced especially over the South Island.

*Sunshine*—In many areas there were appreciable departures in the hours of sunshine from the January normals. Southern areas of the country had large shortfalls: Dunedin 39 hours, and Invercargill 37 hours. Those areas to record over 40 hours more than usual include Kaitaia (53 hours), Auckland City (51 hours), Gisborne (45 hours), Kelburn, Wellington (47 hours), Nelson (46 hours) and Timaru (42 hours).

## THE WEATHER SEQUENCE—JANUARY 1982

## 1–7 January

A cold front across central North Island on the 1st January brought rain to central and northern areas of the North Island. Rain cleared from the north on the 2nd as an anticyclone moved onto the country, although a cold front associated with a depression near Tasmania brought rain to western and southern areas of the South Island. A disturbed westerly airstream developed over the country on the 3rd and was maintained until the 7th. Fronts travelling within this flow crossed the country on the 3rd, 4th and 6th bringing rain at times to most districts except those to the east, and some heavy falls were recorded in western parts of the South Island. Temperatures were very cool during this period and snow was reported on the hills around Queenstown on the 4th and 5th.

## 8–14 January

Weather in the second week of January was dominated by the development of a belt of high pressure across New Zealand. The weather was generally fine but cool during the first two days and became fine and warm during the rest of the week. Maximum temperatures above 30°C were recorded in many eastern districts on the 12th and 13th and minimum temperatures were also high during this period. A cold front associated with a depression near Macquarie Island brought rain to Fiordland, Southland and South Otago on the 13th and this spread to Westland on the 14th. Temperatures were cooler in southern districts but remained warm elsewhere.

## 15–21 January

Light rain fell in some eastern districts on the 15th as the cold front which lay over the South Island on the 14th moved eastward off the country. A belt of high pressure covered the north of the North Island and extended a ridge onto the South Island bringing fine weather to the rest of the country. Fine, warm weather continued until the 18th when a cold front extending across the Tasman Sea from Australia to Campbell Island brought rain and cooler temperatures to western and southern areas. Rain fell in central and eastern areas on the 19th as this frontal system crossed the country. Temperatures were cool. Rain cleared on the 20th as an anticyclone moved onto New Zealand but a front passing to the south on the 21st again brought heavy rain to southern and western districts of the South Island.

## 22–31 January

A westerly to south-westerly airstream developed across New Zealand between the 22nd and 24th. Cold fronts within this flow brought rain on the 22nd and 23rd to the whole country apart from the east coast northward from Christchurch. Temperatures were generally cool. An anticyclone in the north Tasman Sea brought fine weather to the North Island on the 25th, but temperatures remained cool and rain continued in the South Island. As the anticyclone moved onto the North Island there was a north-westerly wind change with high temperatures recorded in northern and eastern areas. Heavy rain continued to fall in western and southern areas of the South Island on the 26th and 27th and in some central areas of the North Island on the 27th as a trough crossed the country. An extensive anticyclone began to move onto New Zealand on the 28th and brought fine weather to most of the country until the end of the month, although Fiordland and Southland had further rain on the last two days.

J. S. HICKMAN, Director.

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