

## WEATHER NOTES FOR FEBRUARY 1979

*General*—During February pressures were below normal throughout the whole of New Zealand, and were very low to the south of the country. Over the North Island there was a greater frequency than usual of both westerly and south-easterly winds. In the South Island westerly winds prevailed and were considerably stronger than normal for the month. The only February with a higher frequency of strong winds in recent years occurred in 1965. Over most of the North Island it was a cloudy wet month, but in the South Island it was drier and sunnier than normal.

On the 3rd and 4th cyclone Henry moved down the west coast of the North Island, and gale force winds were recorded in Northland and Auckland. At Cape Reinga a maximum wind gust of 92 knots was recorded at about midnight on the 3rd.

Rain during the middle of the month improved grass growth in most areas that had been experiencing dry conditions for the previous 2 months. In the South Island at the end of the month some districts still required substantial rain to improve growth. Stock was in good condition in most areas.

*Rainfall*—The only areas in the North Island with below normal rainfall during the month were parts of Northland, Poverty Bay, Taranaki, Manawatu, Hawke's Bay, Wairarapa, and Wellington. In Northland, Auckland, Bay of Plenty, and northern Hawke's Bay totals were above normal by at least 100 percent. The only areas with above normal rainfall in the South Island were parts of Nelson, Marlborough, inland Otago, Fiordland, and a few isolated areas in Canterbury and Southland.

On the 4th and 5th heavy rain was recorded in the Bay of Plenty region. In many places between 150 and 200 mm fell in a 48 hour period up to 9 a.m. on the 6th. At Matahina more than 230 mm were measured in this period, and in excess of 190 mm at Te Puke.

Torrential rain caused major flooding in the Auckland area on the 17th and 18th. Roads were blocked and many motorists were stranded. One factory in Manurewa was flooded to a depth of 60 cm. The heaviest falls were between noon and 8 p.m. on the 17th. At Albert Park (Auckland) 142 mm were recorded in the 24 hours to 9 a.m. on the 18th. The previous highest recorded one-day fall for February at this station was 162 mm in 1936, and also the same amount in 1869. Nearly 108 mm were recorded in 6 hours and 133 mm in 12 hours during the afternoon of the 17th.

*Temperatures*—Temperatures were below or near normal throughout the whole of New Zealand, the only areas slightly above being parts of Poverty Bay, Taranaki, and Canterbury. In Bay of Plenty, Westland, and Fiordland they were below normal by nearly 1°C. The last 8 days of the month were unusually cold, with maximum temperatures on the 20th, 22nd, and 23rd between 4°C and 7°C below normal.

*Sunshine*—The only areas with sunshine hours above normal were Westland, parts of Nelson, Canterbury, and inland Otago. Christchurch had 30 hours more sunshine than normal, but Te Kuiti and Taumarunui had 60 hours less. Other districts with appreciably less sunshine than usual were Bay of Plenty, Poverty Bay, and Hawke's Bay.

## WEATHER SEQUENCE

The anticyclone that was nearly stationary over New Zealand at the end of January weakened and moved eastwards on the 3rd. Pressures were low to the north-west as a depression of tropical origin moved towards the country. Isolated showers were reported in some areas, but most districts had fine weather and warm temperatures during the first 3 days of the month. As the depression moved southwards down the west coast of the North Island, gale force winds were reported in parts of Northland and Auckland.

land. At Cape Reinga a maximum gust of 92 knots was recorded at about midnight on the 3rd. Moderate to heavy rain was reported in Northland and also parts of Bay of Plenty and Central Districts.

By the afternoon of the 4th the depression was lying to the west of the South Island and weakening. A front associated with the depression moved onto the country late on the 4th bringing heavy rain to parts of Fiordland and Westland, and light to moderate falls to many parts of New Zealand. On the 5th a ridge of high pressure extended onto the South Island from the Tasman Sea, with pressures low to the north of the country. Most areas had fine weather until the 7th when a cold front associated with a depression to the south of New Zealand brought rain to Southland and the West Coast and later to other districts of both the North and South Islands. Temperatures were slightly cooler than usual in many parts of the country.

From the 8th to 10th an anticyclone covered New Zealand, but on the morning of the 11th a cold front associated with a depression lying to the south-west of the South Island moved onto the country. As this front moved northwards most areas west of the main ranges had moderate to heavy rain, the heaviest falls being recorded on the West Coast. Parts of Waikato recorded falls of more than 60 mm in 24 hours. A further cold front brought heavy rain to Fiordland and parts of Westland early on the 13th.

On the 13th a depression which had formed to the south of Tasmania moved towards New Zealand and deepened. By the morning of the 14th this depression was lying near Campbell Island, and an associated cold front had moved onto the South Island. Gale force westerly winds preceded this front as it moved northwards, and heavy rain was reported in many areas, especially west of the main ranges. At Milford Sound nearly 100 mm were recorded in the 24 hours up to 9 a.m. on the 15th. Another depression had moved towards the South Island from the Tasman Sea by the morning of the 16th, and a cold front ahead of this depression brought further heavy rain to the West Coast. This front moved slowly northwards across the country, and by the morning of the 18th a wave depression had formed on the front in the Northland/Auckland area. More than 100 mm were recorded in parts of Auckland and Bay of Plenty in the 24 hours up to 9 a.m. on the 18th.

During the 19th a further cold front moved across the country, and this brought heavy rain to Fiordland, and later to parts of Northland, Auckland, Bay of Plenty, Poverty Bay, and Hawke's Bay. On the 29th an anticyclone moved onto New Zealand from the Tasman Sea, and most areas had fine weather, apart from some isolated showers, until the afternoon of the 22nd. Parts of Poverty Bay, Hawke's Bay, and Wairarapa had substantial falls of rain on the 22nd when a small wave depression moved down the east coast of the North Island. Between 30 and 40 mm were recorded in 24 hours in some areas.

The anticyclone persisted until the morning of the 27th when it weakened and started to move to the east of the country. Pressures were low to the south of New Zealand on the morning of the 27th when a depression moved from the Tasman Sea south of the country. A cold front associated with this depression crossed onto the South Island early on the 27th, and moved northwards across the country. More than 60 mm of rain were reported in Fiordland in 24 hours, and heavy falls were also reported in Westland, Marlborough, Wellington and parts of Manawatu. Light to moderate falls were recorded throughout the whole of New Zealand. Temperatures were considerably cooler than normal on the east coasts of both Islands from the 22nd to the 26th.

On the 28th a ridge of high pressure extended from the Tasman Sea onto the South Island, and the cold front moved slowly across the North Island.

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