

WEATHER NOTES FOR FEBRUARY 1980

General—February was the third consecutive month with pressures below normal over the whole of New Zealand, although they were higher than usual to the south of the country. There was a greater frequency than usual of south-west winds over the North Island, but in the South Island both wind direction and speed frequencies were about normal for the month. Apart from Northland, conditions were dry in most districts, and cooler than average in the South Island. From the 14th to the 16th a depression lying to the north-west of Northland caused north-easterly winds gusting to more than 130 km/h (70 knots). Many yachts in the around - the North Island Race had to shelter in bays in the area north of Mangonui.

Most farmers throughout the country reported good grass growth and stock in good condition. Milk production was higher than in February last year in many areas, but lamb fattening was slow. Shearing and haymaking were delayed by rain towards the end of the month.

Rainfall—The only areas with rainfall totals appreciably above normal were Northland, Auckland, parts of Hawke's Bay, and Banks Peninsula. In Northland totals ranged from 100 percent to more than 300 percent above average. In eastern Bay of Plenty, parts of Manawatu, and southern Wairarapa less than 25 percent of the normal February rainfall was recorded, and in Poverty Bay and some areas of Canterbury less than 50 percent.

The depression that caused the strong winds in Northland also brought heavy rain to the area between the 13th and 17th. From 9 a.m./13th to 9 a.m./18th inclusive the following rainfall totals were recorded: Cape View 256 mm, Kaitaia 199 mm, Aupouri 134 mm, Kaikohe 235 mm, and Whangarei 255 mm. At Cape Reinga in the same period more than 350 mm were recorded, and the total for the month was the highest at this station for any February since reporting began in 1941. Many stations in Northland recorded falls in excess of 120 mm in the 24-hour period up to 9 a.m. on the 14th, and this caused flooding over a widespread area.

Temperatures—Temperatures were near or above normal throughout the North Island, but in Poverty Bay and Hawke's Bay they were above by 1.0°C. In the South Island parts of Marlborough, Canterbury, and Otago were below normal by 0.5°C to 1.0°C. Most of New Zealand had cooler day time temperatures, but in the South Island nighttime temperatures were also below average. There were two cold spells during the month from 11th to 14th and 22nd to 29th with maximum temperatures below average by 5.0°C in eastern districts.

Sunshine—The only areas with above normal sunshine were the West Coast and parts of Southland. In Northland, Auckland, Taranaki, Manawatu, Wellington, and Marlborough the totals for the month were 30 to 40 hours less than usual. In Wellington this was the lowest February sunshine since 1966.

WEATHER SEQUENCE FOR FEBRUARY 1980

An anticyclone which had moved onto New Zealand at the end of January became almost stationary and persisted until late on the 3rd, most districts experiencing fine warm weather. During the evening of the 3rd a cold front associated with a depression moving to the south of the country moved onto the South Island and later crossed the North Island. Very heavy rain was recorded in Fiordland and Westland with moderate falls in Otago, Southland, and parts of Canterbury. More than 120 mm were reported in 24 hours at Milford Sound, and in excess of 50 mm in parts of Westland. The front

became weak as it moved across the North Island, and only light showers were reported in some areas. Early on the 5th an anticyclone moved onto the country from the Tasman Sea but progressed quickly eastwards. On the 7th a cold front moved across the country bringing moderate rain to most of the South Island and lighter falls to the North Island. Temperatures were warmer than usual during the first week of the month, maximum temperatures being more than 5°C above normal along the east coast.

On the 8th an anticyclone had become established over the country and this persisted until early on the 9th, when a cold front moved onto the South Island. Parts of Fiordland, Westland, and Buller had more than 50 mm of rain in 24 hours. The only areas that did not record rain were parts of Northland, Bay of Plenty, Poverty Bay, Wairarapa, Manawatu, and Marlborough. Elsewhere light to moderate falls were reported. An anticyclone brought fine weather to most districts as it crossed New Zealand between the 10th and 12th. Temperatures were very cold on the 11th and 12th throughout most of the country. In some eastern districts maximum temperatures were below normal by more than 5°C.

Early on the 13th a trough of low pressure was approaching the North Island and had moved onto Northland later in the day. During the morning of the 14th a depression formed within the trough to the north-west of the country, and began to move slowly southwards. In the 24 hours up to 9 a.m. on the 14th some stations in Northland recorded more than 140 mm, and many measured more than 100 mm. Many parts of the North Island and northern districts of the South Island had moderate to heavy falls. The depression continued to lie near the North Island until early on the 19th. Heavy rain was reported in Northland until late on the 18th, and some stations recorded more than 250 mm in 72 hours during the period that the depression was almost stationary. Most of the South Island and southern areas of the North Island had fine weather as a ridge of high pressure extended onto the country from the east.

A ridge of high pressure extended onto the country from an anticyclone centred in the Tasman Sea from late on the 19th to the morning of the 21st. A cold front associated with a depression to the South of the country, brought heavy rain to Fiordland and Westland as it passed over these districts. Light to moderate rain was recorded throughout New Zealand as the front moved northwards. On the 22nd a depression that had formed near Tasmania was lying to the west of the South Island and moving eastwards. Early on the 23rd the depression moved across the South Island, bringing heavy rain to Westland and later to central districts of the North Island. The only areas that did not record rain were parts of Northland, Poverty Bay, Hawke's Bay, Fiordland, and inland Otago. On the 23rd and 24th an anticyclone moved quickly across the country, and was replaced by a trough of low pressure early on the 25th. Temperatures were very cold on the 24th throughout the whole of the country.

As the trough of low pressure moved across New Zealand it brought heavy rain to the West Coast, and light to moderate falls to areas west of the main ranges. In Fiordland and Westland some stations recorded 24 hour falls of more than 100 mm. The trough had moved to the east of the country by the evening of the 26th and was replaced by a ridge of high pressure early on the 27th. A cool southerly airflow ahead of the ridge brought cooler temperatures to most districts. The ridge persisted until early on the 29th and most of the country had fine weather apart from some eastern districts where isolated showers were reported. By the afternoon of the 29th a depression of tropical origin was moving towards the North Island from the north Tasman Sea. Temperatures were colder than normal throughout most of the country from the 26th to 29th.

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