THE WEATHER IN NEW ZEALAND IN NOVEMBER 1987

General—The weather during the first week of November was dominated by disturbed westerlies; at Invercargill, on the 1st, 200 houses were reported to be without electric power, for 50 minutes, when gale force north-west winds caused damage to power lines. From the 7th there was a period of warm moist northerlies, with some ridging over the South Island. This intensified over Southland from the 17th to the 19th when an intense anticyclone was almost stationary over the area. Pressures remained lower over the North Island from the 16th through to be 25th, during which time a trough of low pressure developed over the north of the North Island. Another trough spread onto New Zealand from the 26th, accompanied by disturbed west to southwesterlies.

The frequency of strong winds over the South Island was less than usual and north-easterlies occurred with their highest frequency for November at Invercargill for over 10 years. This was due to the high frequency of low pressures over the north of New Zealand and ridging to the south. Easterlies were consequently more frequent than usual over the North Island.

Rainfall—Totals for the month were twice normal in Northland, East Cape, Gisborne, Buller, and along the Kaikoura Coast. Approximately 120 mm were recorded at Gisborne, which was the highest for November for at least 25 years. It was also wetter than normal in Auckland, Coromandel, Bay of Plenty, King Country, Wanganui and Manawatu, as well as east coast regions of the North Island, Nelson and inland Canterbury.

Drier conditions were recorded in Taranaki, Horowhenua, coastal areas of Canterbury, South Westland, Fiordland, Otago and Southland, where in most places rainfall was 40 to 60 percent of normal. It was very dry in Timaru, with only 8 mm (15 percent of normal). This was the lowest November rainfall since records began there in 1956.

Temperatures—some extremely high temperatures, for November, were recorded in Canterbury and Otago, in north-westerly conditions on the afternoon of the 3rd. In many places

new records were established. Temperatures of 32°C were recorded at Herbert Forest, Fairlie, Peel Forest, Geraldine, Waimate and Christchurch Airport. The maximum of 31°C recorded at Musselburgh, Dunedin was the highest there for November in over 120 years of record. A new record maximum temperature of 27°C was recorded at Hokitika on the 23rd; being the highest there since records began in 1963. Severe ground frost occurred at Dunedin Airport on the morning of the 17th, when -6.3°C was recorded; the lowest for at least 25 years.

Mean temperatures were 1 to 1.5°C above normal in most western regions of the North Island south of Auckland, and in Westland, Fiordland and Southland. Elsewhere they were near or just above normal.

In much of Westland and Fiordland mean daily maximum temperatures were $2^{\circ}C$ above normal. At Milford Sound they averaged $18^{\circ}C,$ and were the 3rd warmest since records began in 1934.

Sunshine—Rather cloudy conditions predominated in Northland, and along the east coast of the North Island, where hours of bright sunshine were 70 to 80 percent of normal. Only 157 hours were recorded at Gisborne Airport; the lowest since records began in 1937. It was also cloudier in Auckland and Marlborough. Sunnier conditions prevailed in west coast regions of New Zealand south of Auckland, especially Westland, Fiordland, Otago and Southland, where hours were over 120 percent of normal. A total of 236 hours (140 percent of normal) was recorded at Invercargill Airport; the highest since records began in 1935.

J. S. HICKMAN, Director.

© Crown Copyright 1987. All rights reserved. N.Z. Meteorological Service.