

THE WEATHER IN NEW ZEALAND—JULY 1982

General—Over the country, July was generally a dry, cool and sunny month.

There was a predominance of south-westerly winds over the South Island. Over the North Island, winds were generally lighter than usual, and there was also a higher frequency than normal of north-east winds.

In the nine months from November 1981 to July 1982, many areas of the Canterbury Plains experienced extremely dry conditions. Some places on the plains, especially those in Mid-Canterbury, received less than half their average rainfalls during this period.

Heavy rain and high winds affected northern districts during the 28th and 29th of July. At the height of the storm during the afternoon of the 28th, Cape Reinga recorded a maximum gust of 95 knots.

Rainfall—Apart from Northland and Southland, below average rain fell over the country during July. Previous dry conditions in Canterbury continued again this month, with areas of coastal South Canterbury and North Otago recording less than 15 mm of rain. This was the driest July for at least 10 years. Those locations to record less than 15 mm include: Oamaru (5 mm), Orari (9 mm), Geraldine (8 mm), Timaru (8 mm), Aviemore (6 mm), Waitaki (6 mm), Duntroon (0.8 mm), Tengawai (13 mm), and "Heatherleigh" Cave (8 mm).

Snow fell to low levels in Otago and Southland on the 14th, and many roads in these regions were seriously affected by it.

Heavy rains, and high winds, affected Northland, Auckland and the Bay of Plenty during the last week of July. In a three-day period from the 27th to 29th (but 28th–30th in Bay of Plenty) stations to record over 100 mm include Paparoa (102 mm), Kawakawa (319 mm), Waitangi (148 mm), Glenbervie (107 mm), Coromandel (147 mm), Te Arika Falls (129 mm), and Mahoetahu (134 mm).

Temperature—Mean temperatures over the country were below the July average. This largely resulted from night-time minimum temperatures being cooler than is normal.

During a spell of anticyclonic weather conditions from the 10th to the 13th, the minimum temperatures over northern and eastern districts of the North Island fell below freezing. Auckland Airport on the 12th recorded a minimum of -0.7°C , this being the extreme July value since 1965. Other places to record low temperatures during this period include Warkworth, Hamilton, Whakatane, Kinleith, Rotorua, New Plymouth, and Napier.

Sunshine—Bright sunshine hours were normal or above normal over the country.

Some areas were particularly sunny and Kelburn, Wellington recorded 154 hours, its highest total ever for July since 1928 when records were started. Timaru with 163 hours also had its sunniest July since 1930.

Among those stations with greatest departures this month were: Kelburn (+49 hours), Ohakea (+47 hours), Timaru (+39 hours), New Plymouth (+33 hours), and Christchurch (+29 hours).

THE WEATHER SEQUENCE—JULY 1982

1st–7th July

The large intense anticyclone centred just east of Canterbury drifted slowly south-west to lie near Macquarie Island by the end of the period. The shallow depression in the central Tasman Sea remained slow moving, but extended a trough of low pressure to the area north of the country. While fine frosty weather occurred over much of New Zealand during this period, a moist east to north-east airflow over northern districts brought showers to Northland and Gisborne.

8th–14th July

The anticyclone moved slowly northwards into the central Tasman Sea, and the trough of low pressure moved eastwards away from the country. A disturbed west to south-west airstream became established over New Zealand as the anticyclone moved north. Weak cold fronts in the airflow brought showers chiefly to the south and south-west of the South Island, but mostly fine cool weather predominated elsewhere.

A cold front in the south-west Tasman Sea on the 13th moved over New Zealand on the 14th. Some rain with the front fell on many areas of the country. Colder showery southerlies followed, and snow fell to low levels in parts of Otago and Southland.

15th–21st July

A strong cold south to south-west airstream covered the country until the 17th, bringing showery periods to western areas of the North Island. By the 18th the strong airflow had turned westerly as a very deep depression moved over Campbell Island. An associated cold front in the westerlies moved onto the South Island. Rain was recorded along the West Coast and in Southland, and showers fell in western areas of the North Island.

On the 19th, the deep depression continued to move slowly away from Campbell Island, and a trough of low pressure extended towards the north-west Tasman Sea. A shallow depression formed within the trough on the cold front, and on the 20th lay over central New Zealand. Rain fell in many regions, with some heavy falls over central districts. The depression lay east of the country by mid-day on the 21st, causing a cold showery southerly airstream to flow over New Zealand.

22nd–31st July

A large anticyclone covering the Tasman Sea moved north-eastwards bringing fine frosty weather, and on the 25th lay east of the North Island, remaining almost stationary until the end of the month.

A trough of low pressure entered the Tasman Sea from the west late on the 24th, and a shallow depression developed during the 25th near Lord Howe Island. It moved slowly towards Northland, bringing rain to the northern districts from the 28th. The depression deepened rapidly late on the 28th, lying just west of Northland. Gale force winds and heavy rain affected the northern half of the North Island. The depression decayed quickly during the afternoon of the 29th, but a trough of low pressure persisted over the Tasman Sea.

A cold front generated within this system crossed New Zealand during the night of the 30th, bringing showers to the west of the country, and followed on the 31st by a cool westerly airstream.

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