

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for July 1975—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Celsius)								Rainfall in Millimetres				Bright Sunshine	
		Means of		Mean of A and B	Difference From Normal	Absolute Maximum and Minimum				Total Fall	No. of Rain Days	Difference From Normal	Maximum Fall		
		A Max.	B Min.			Maximum	Date	Minimum	Date				Amount		Date
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Raoul Island, April 1975 ..	38	23.2	18.6	20.9	+0.2	25.2	3	14.5	29	50	17	-74	15	11	159
Raoul Island, May 1975 ..	38	22.4	16.2	19.3	+0.5	23.6	1	13.6	7	214	17	+69	93	4	167
Raoul Island, June 1975 ..	38	20.4	15.0	17.7	+0.4	22.5	26	9.0	30	275	23	+125	62	24	126

The "normal" refers to the present site of the instruments. Standard periods for normals are: Temperature 1941-70, Rainfall 1941-70, Sunshine 1941-70. No normals are available for stations with only short records.

*Indicates that the sunshine recorder is not located at the station but is in the near vicinity.

A rain day is a day with rainfall equal to or greater than 0.1 mm.

Where the extremes of temperature and rainfall have occurred more than once during the month, the date of the first occurrence is given.

NOTES ON THE WEATHER FOR JULY 1975

General—July was marked by an unusually high frequency of winds from west to south-west. There were two very cold spells, the one in the third week bringing exceptional snow to parts of the North Island.

In some areas feed was short due to comparatively frosty weather this winter and in a few places this shortage combined with wet ground conditions adversely affected the health of stock.

Gales were widespread east of the ranges during the last 5 days of the month. On the 31st north-westerly winds reached storm to hurricane force over Central and North Otago, uprooting many trees and blowing roofs off buildings. This storm was to extend to Canterbury, Marlborough, and Wairarapa on 1 August.

On the 14th a small local tornado caused some damage in New Plymouth.

Rainfall—Rainfall was above normal on the West Coast, in Southland, and nearly the whole of Otago; also in western districts of the North Island from Wellington to Waitomo. The percentage excess was greatest in the South Island. Eastern Southland with parts of Central Otago had more than double the normal value.

Most northern and eastern districts of both Islands received less than three-quarters of the normal rainfall. Eastern and northern Northland, Coromandel, most of Gisborne and eastern Bay of Plenty, and also the Kaikoura Coast with the coast of Central Marlborough, received less than half.

The heaviest rains in the month were recorded on the 14th in the Alps and parts of the West Coast, with daily falls of 100 to 160 mm.

Temperatures—Temperatures were mainly $\frac{1}{2}$ °C below normal in the North Island and western and northern districts of the South Island, and the same amount above normal in eastern and inland districts of the South Island. However, they were more than a degree below normal in Gisborne with parts of Bay of Plenty and Taupo.

The coldest days of this winter to date were the 21st to the 23rd, when unusually heavy snow covered the high country of the central North Island and lighter falls were reported to low levels in the southern part of the North Island; while in the South Island parts of Canterbury were affected. An earlier cold spell with snow in parts of the South Island and some also in the central North Island was reported on the 3rd and 4th.

By contrast, most of the last week of the month was unusually warm, especially in eastern districts of the South Island.

Sunshine—Sunshine was from 20 to 60 hours above normal over most of the North Island south of Auckland and also over most of Marlborough and parts of Nelson. Central and northern Hawke's Bay were especially favoured. Napier's 184 hours equalled the previous highest for July.

Sunshine was 15-25 hours below normal over Southland and most of Otago.

Weather sequence—At the beginning of July a deep depression passed close to Campbell Island and the associated trough of low pressure crossed the country, with rain west of the ranges. As this depression moved away, small secondary centres developed, one east of the North Island and another near north Westland. During the 2nd and 3rd there was a southerly change bringing cold temperatures. Rain became general and snow was reported on the high country of both islands, besides being down to low levels in

parts of Southland and Otago. During the next 3 days an anticyclone centred initially to the south-west extended over the South Island. The weather remained cold with showers in some eastern districts. By the 7th the anticyclone covered most of New Zealand and the weather was fine, except in parts of Southland and coastal Otago.

From the 8th to the 10th pressures remained high to the south-west and also to the north-east, while a small depression from the Central Tasman Sea crossed Cook Strait. Light rain was reported in western districts from Waikato to South Westland. Pressures remained rather low over the country during the next 2 days, with a depression passing close to Northland and a trough of low pressure affecting parts of the South Island. Rain was reported in eastern Northland and Gisborne in the north, and in Fiordland and on the Southland coast in the south. From the 13th to the 15th a very deep depression over Tasmania moved south-eastward while the associated trough of low pressure crossed the country, bringing a change from north-westerly to westerly winds. Considerable rain was reported but only light falls affected eastern districts. Temperatures became warm, especially in the east. During the next 2 days a small depression formed over the South Island and moved eastward. The distribution of rain remained rather similar but moderate falls were reported in Otago, Nelson, and parts of Marlborough and Wairarapa. An improvement came to many districts on the 18th and 19th with pressures low to the east of the country, and also near Campbell Island. However, some light rain was still reported in Southland and on the West Coast besides some showers in western districts of the North Island.

On the 20th an anticyclone was centred to the south-west and another one to the north-east, while a depression lay to the east of the Chatham Islands. As another depression moved south-eastward across the North Island southerlies developed, and the period from the 21st to the 24th was the coldest so far this winter. Rain affected mainly the North Island on the 20th and 21st, but some eastern areas of the South Island were also affected. Snow fell over the high country of the North Island on the 21st and 22nd, and it was also reported to low levels in some southern districts of the North Island. As the depression moved away on the 22nd snow also affected parts of Canterbury, especially Christchurch. With rising pressures during the next 2 days the weather improved rapidly but some showers were still reported, especially in Gisborne and Wellington.

From the 25th to the 28th pressures were high to the north and very low to the south. Westerly conditions prevailed and it was unusually warm for July, especially in the east. Rain was reported mainly on the West Coast and in parts of Southland but other districts were affected at times such as Otago, Wellington, and central districts of the North Island. On the following day a trough of low pressure associated with a deep depression near Campbell Island brought a change to south-westerlies and a period of general rain. On the 30th a ridge of high pressure extended over the country from an anticyclone over the Tasman Sea, bringing fair weather and also temporarily cooler temperatures. On the last day of the month a very deep depression passed to the south of Campbell Island and the associated trough of low pressure was approaching the South Island. Considerable rain was once more reported on the West Coast and in the Alps with some also in Southland and Otago. Temperatures became very warm once again and north-westerly gales developed over eastern districts of the South Island and about Cook Strait.

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