

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for August 1979—continued  
LATE RETURNS AND CORRECTIONS—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	
Balmoral Forest, July 1979	198	11.0	0.4	5.7	+1.2	16.2	18	..	..	91	9	+27	20	5	..
Eyrewell Forest, July 1979	158	11.4	0.9	6.2	+1.6	17.0	18	-5.2	23	80	13	+14	36	14	..
Christchurch, June 1979 ..	7	12.6	1.8	7.2	+0.9	19.6	19	-3.9	9	61	3	+5	40	15	..
Lincoln, July 1979 ..	11	11.7	2.0	6.9	+1.5	17.8	18	-4.5	23	96	13	+38	36	14	124
West Arm, Manapouri, July 1979	232	7.0	3.8	5.4	+2.2	9.5	8	0.5	15	337	20	..	46	2	..
Queenstown, June 1979 ..	329	10.2	1.9	6.1	+1.8	16.0	18	-0.9	25	37	6	-29	16	22	80
Queenstown, July 1979 ..	329	8.5	1.2	4.9	+1.2	12.9	17	-1.5	7	49	16	-15	14	24	80
Fineland, Balclutha, July 1979	6	10.3	2.4	6.4	+1.8	14.6	17	-2.1	6	37	18	..	14	25	103
Rarotonga Airport, July 1979	7	24.5	18.9	21.7	+0.0	29.0	16	14.2	30	104	16	+7	32	1	137
Campbell Island, April 1979	15	10.3	6.1	8.2	+1.1	14.6	4	0.0	13	110	29	-12	27	9	21
Campbell Island, May 1979	15	8.0	3.7	5.9	-0.2	10.2	3	-0.5	14	81	30	-59	12	27	24
Campbell Island, June 1979	15	8.1	4.3	6.2	+1.4	9.8	17	-0.3	20	76	27	-54	16	24	3
Campbell Island, July 1979	15	8.1	4.0	6.1	+1.5	9.7	13	0.1	29	131	30	+24	27	23	10
Nandi Airport, Fiji, July 1979	15	28.3	17.8	23.1	-0.5	32.1	31	13.3	27	14	4	..	12	9	230
Totokoitu, Rarotonga, July 1979	9	24.0	19.0	21.5	..	28.2	5	14.5	20	134	18	..	54	1	..

The "normal" refers to the present site of the instruments. Standard period for normals is 1941-1970. 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.

WEATHER NOTES FOR AUGUST 1979

**General**—August was the first month since February this year that pressures were below normal over the whole of New Zealand. There were significantly fewer easterly winds over the northern part of the country than in the previous two months. In the south of the country westerly winds were markedly lighter than usual. Most of New Zealand experienced cloudy, wet, cool conditions throughout the month.

The soil was reported to be very wet in many districts in the North Island and along the east coast of the South Island. Warmer, drier conditions and more sunshine will be needed to repair stock damage to pastures and to improve grass growth. Stock was generally reported to be in fairly good condition, but heavy rain and cold temperatures resulted in many lamb losses in the Wairarapa at the end of the month.

**Rainfall**—The only areas with rainfall totals below normal were parts of Northland, Bay of Plenty, Taranaki, Nelson, the West Coast and Southland. In Wairarapa and Canterbury some places had departures of between 50 and 100 percent above the monthly average.

A complex depression brought heavy rain to many areas on the 14th/15th. At Kaitaia more than 34 mm were recorded in 12 hours on the 14th, and at Kelburn, Wellington 47 mm fell in a period of 24 hours.

From the 21st to the 27th many districts in the North Island and parts of Canterbury experienced heavy rain as a depression moved slowly southwards across New Zealand. At Albert Park, Auckland, 45 mm were recorded in 48 hours from the 21st to the 23rd (30 mm of this in only 6 hours), and at Waingawa, Masterton, 55 mm occurred from the 24th to the 27th. Some airports were closed by heavy rain and low cloud on numerous occasions over a period of 4 days.

At Kelburn, Wellington, there were 23 days in the month with more than 0.1 mm of rain. This is the greatest number in any August since 1941 at this station.

**Temperatures**—After a mild June and July, the August temperatures were cooler than normal over most of New Zealand, except for parts of Auckland, Bay of Plenty, Taranaki, Nelson and Marlborough. The greatest departures were on the West Coast, Otago and Southland where temperatures were about 1°C below normal. Daytime maximum temperatures were considerably cooler in most areas.

There was one long cold spell from the 15th to the 22nd inclusive when daily mean temperatures ranged from 1°C to 2°C below normal.

**Sunshine.** The only areas with above normal sunshine were Poverty Bay, parts of Hawke's Bay and the West Coast. In Taranaki, Manawatu, Wellington, Canterbury and Otago there were 30 to 40 hours less sunshine than usual. At Palmerston North only 69 hours sunshine were recorded for the month, this being the lowest for any August since the station began in 1931.

WEATHER SEQUENCE

The depression and associated cold front that brought heavy rain to Northland and Auckland at the end of July continued to move southeast. Many areas reported falls in excess of 50 mm in 24 hours throughout the northern half of the North Island, and moderate to heavy rain was recorded as far south as Canterbury. By the 2nd the depression had moved to the east of New Zealand, and a depression that had formed near Tasmania was moving southeast towards the country. On the 3rd and 4th this latter depression moved across the South Island. Moderate to heavy rain was recorded in Westland and Fiordland and central districts of the North Island, with lighter falls over the rest of the country. Temperatures were above normal along the east coast of the country at the beginning of the month.

A ridge of high pressure extended onto New Zealand from an anticyclone moving east from the Australian continent on the 5th. The ridge persisted until the morning of the 6th, when a cold front moved onto the South Island. A depression had developed on a cold front in the Tasman Sea on the 7th, and this moved eastwards towards the North Island. Most of the country had moderate falls apart from some areas in Poverty Bay, Hawke's Bay, Westland and Fiordland. Late on the 9th a depression was lying to the east of New Zealand, and a complex trough of low pressure had become established in the south Tasman Sea. Temperatures were considerably colder than usual from the 7th to the 9th.

By the morning of the 11th the situation in the Tasman Sea had developed into a complex low pressure system, with multiple centres and cold fronts. The main centre developed in the north Tasman Sea and began to move towards the North Island on the 13th. The whole system did not move to the east of New Zealand until late on the 15th. During the passage of the various small depressions and cold fronts across the country, moderate to heavy rain was reported in most areas west of the main ranges. The heaviest falls occurred in Westland, Fiordland, Buller, Wellington, Wanganui and northern Wairarapa. Most of these areas had 24 hour falls of between 30 mm and 50 mm.

On the morning of the 16th an anticyclone centred off the Australian coast extended a ridge of high pressure onto New Zealand. Early on the 17th a cold front moved onto the South Island bringing heavy rain to Fiordland, and moderate falls to Southland and