CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for January 1979—continued LATE RETURNS AND CORRECTIONS—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees Celsius								Rainfall in Millimetres					
		Means of		Mean of A	Differ-	Absolute Maximum and Minimum				Total	No.	Differ- ence	Maximum Fall		Bright Sun- shine
		A Max.	B Min.	and B	Fron Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	Sinino
Opotiki, December 1978 Maioro Forest, December 1978	Metres 6 52	°C 20.8 21.0	°C 12.5 12.9	°C 16.7 17.0	°C -0.1 +0.2	°C 22.6 27.7	31 7	°C 7.0 9.0	14 12	mm 75 102	18 14	mm -29 +5	mm 29 18	17 9	Hrs 224
Lower Retaruke, March	223	23.7	9.4	16.6	+1.0	30.2	15	2.3	26	51	7		23	28	
Lower Retaruke, April 1978	223	21.3	10.4	15.9	+3.3	25.1	12	5.0	24	141	13	••	30	16	١
Pakaraka, November 1978 Pakaraka, December 1978 Kapiti Island, November 1978	152 152 16	18.8 20.9 17.9	9.8 11.9 11.8	14.3 16.4 14.9	+0.9	25.4 25.9 25.0	28 28 29	2.5 7.5 8.0	6 13 5	63 73 115	8 11 6	+31	35 18 43	11 15 12	
Kapiti Island, December 1978	16	19.9	13.1	16.5	+0.6	23.8	6	9.5	14	94	10	+8	35	12	
Taita, Lower Hutt, December 1978	65	19.5	11.8	15.7	+0.3	26.1	18	5.8	14	149	13	+47	32	10	232
Waiouru, December 1978 Kahui, Taihape, December 1978	823 518	17.3	6.9	12.1	+0.2	20.9	29 	1.0	14 	97 104	20 15	-10 ··	13 23	11 14	
Greymouth, December 1978 Appleby, December 1978 Winchmore, December 1978 Christchurch, November	4 17 160 7	18.4 23.6 19.2 19.5	11.8 13.1 9.6 9.0	15.1 18.4 14.4 14.3	$+0.5 \\ +2.4 \\ +0.2 \\ +0.3$	22.3 30.5 29.5 31.1	18 10 28 28	7.0 6.8 5.4 2.0	24 5 11 16	269 25 124 27	20 4 17 5	+56 -41 +48 -19	41 12 34 12	20 4 21 15	146  
1978 Christchurch, December 1978	7	20.2	11.5	15.9	+0.4	27.3	29	6.8	23	138	14	+82	36	12	
Lincoln, December 1978 Ranfurly, December 1978 Taieri, Invermay, November 1978	11 427 30	19.9 19.0 17.6	10.2 7.4 7.3	15.1 13.2 12.5	+0.2	26.7 29.9 26.5	19 28 19	4.6 1.0 2.9	4 11 15	149 86 25	14 11 11	+91 .:	44 39 8	12 10 1	204 173 198
Taieri, Invermay, December 1978	30	17.3	9.6	13.5		27.5	19	4.5	12	122		••		• •	150
Mahinerangi Dam, December 1978	396	15.6	7.6	11.6	+0.0	23.8	18	3.1	11	130	17	+39	28	21	
Winton, December 1978 Nugget Point, December 1978	44 129	17.8 14.8	8.6 8.9	13.2 11.9	$-0.2 \\ -0.1$	26.8 20.4	18 19	4.4 5.7	16 12	104 79	18 18	$^{+38}_{+3}$	25 15	30 29	145
Rarotonga Airport, Dec- ember 1978	7	28.1	22.3	25.2	+0.4	30.0	25	19.3	10	38	12	188	15	5	205
Nandi Airport, Fiji, December 1978	15	31.4	21.4	26.4	-0.2	34.2	16	17.9	8	67	7	••	27	2	273
Totokoitu, Rarotonga, December 1978	9	27.6	22.4	25.0	••	29.5	5	19.5	10	45	11	••	23	21	•••

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 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 JANUARY 1979

General—Pressures were slightly above normal over the North Island, but exceptionally low to the south of New Zealand during January. Winds were mainly westerly, stronger in the south than the north of the country, most of the country had warm, dry, sunny conditions, apart from areas on the West Coast, Otago, and Southland which were cooler and wetter than normal. Many farmers in the North Island reported that the continuing dry weather had affected grass growth and reduced dairy production by as much as 25 percent, some farmers only milking once a day. Conditions were good for haymaking, producing good crops in most areas.

Rainfall—The only areas with rainfall above normal for the month were parts of Westland, Fiordland, Otago, and Southland. Some districts in Southland were above by more than 150 percent. In parts of Auckland, Bay of Plenty, Hawke's Bay, Taranaki, Wairarapa, Wellington and Canterbury, many stations recorded less than 25 percent of their normal month's total. Some inland stations in Bay of Plenty and southern Hawke's Bay had less than 5 percent of their usual January rainfall. At Rangitaiki no rainfall was recorded throughout the month. At Christchurch Airport only 9 mm were measured, and this is the lowest recorded there in January since 1954 (8 mm).

A partial state of emergency was declared in Mataura on the 27th when the Waimumu stream threatened to overflow its banks. Continuous heavy rain on the 26th and 27th caused many rivers in Southland to rise rapidly. The Te Anau-Milford road was closed, and the railway line between Dipton and Benmore was scoured out in places. At Gore 84 mm were recorded from 5 p.m. on the 26th to 9 a.m. on the 28th.

Temperatures—The only areas with below normal temperatures were the West Coast, Otago and Southland, where deficits were as much as ½°C to 1°C. Over the rest of New Zealand mean temperatures were above normal by at least 1°C. In some eastern districts of both islands they were above by ½°C to 2°C.

On the 11th temperatures were considerably higher than usual in Poverty Bay and Hawke's Bay. The maximum temperature of 38.1°C recorded at Gisborne was the highest January temperature since the station began in 1938. Christchurch Airport recorded a maximum of 35.9°C on the 21st, and this has not been exceeded in January since measurements began there in 1954.

At Wairoa (Hawke's Bay) there were 7 days in the month with

maximum temperatures above 30°C.

Sunshine—Sunshine hours were above normal over the whole country apart from the West Coast where they were slightly below. Many areas had between 30 and 60 hours more sunshine than usual. At Gisborne Airport a total of 316 hours was recorded and this is the highest January total since the station began. One of the largest departures above normal occurred at Christchurch Airport which had more than 30 percent excess, and the highest January total since 1957 for that station.

## WEATHER SEQUENCE

At the beginning of January pressures were high in the Tasman Sea, with a ridge of high pressure extending onto the North Island. Early on the 2nd a cold front moved onto the South Island and brought heavy rain to the West Coast. Parts of Fiordland and Westland recorded more than 90 mm in 24 hours and there were moderate falls throughout the country as the front moved northwards. Temperatures were warmer than normal over most of