

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for June 1976—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
Craigieburn Forest, May 1976	914	10.2	-0.1	5.1	+0.2	14.9	3	-5.6	13	134	10	-3	56	18	..
Ashley Forest, May 1976	107	..	4.8	..	..	..	..	0.0	23	34	10	-50	11	9	145
Eyrewell Forest, May 1976	158	14.3	1.6	8.0	+0.1	19.0	19	-4.1	23	33	9	-48	10	12	..
Invermay, Taieri, May 1976	24	13.8	2.9	8.4	+0.8	19.5	29	-2.1	17	73	12	+12	48	19	..
Taieri, Invermay No. 2, May 1976	30	13.6	3.6	8.6	..	19.0	29	-2.0	23	82	14	..	52	19	..
Moa Creek, May 1976	427	11.4	-0.9	5.3	+1.2	16.3	30	-5.7	11	54	15	+26	17	25	..
Raoul Island, January 1976	38	25.8	20.8	23.3	+1.7	28.3	19	15.5	22	192	11	+101	135	3	206
Raoul Island, February 1976	38	24.8	21.0	22.9	+0.5	27.6	12	17.4	18	277	21	+122	70	11	108
Raoul Island, March 1976	38	24.6	20.4	22.5	+0.6	27.3	30	17.7	4	270	26	+138	55	21	109
Raoul Island, April 1976	38	23.0	18.3	20.7	+0.0	24.7	24	14.3	29	539	19	+415	105	13	111
Raoul Island, May 1976	38	20.9	15.1	18.0	-0.8	22.9	1	12.0	31	74	17	-71	26	9	175
Totokoitu, Rarotonga, May 1976	9	26.2	21.5	23.9	..	29.6	1	19.1	24	255	21	..	41	6	..

The "normal" refers to the present site of the instruments. Standard period for normals is 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 JUNE 1976

**General**—June was marked by a high frequency of southerly to south-westerly winds, and it was a cold month. The health of stock was reported to be good, but the cold weather cut back growth. During the coldest period, on the 20th and 21st, southerly winds reached storm force in Cook Strait, disrupting the ferry service.

**Rainfall**—Rainfall was above normal in western and southern districts of both islands. In the South Island it was also above normal over most of the high country and in the area around Christchurch. In part of northern Manawatu rainfall was more than double the normal value. On the other hand, Northern and Central Hawke's Bay received less than half the normal rainfall. Most other northern and eastern districts received about three-quarters of the normal. Serious flooding was reported around Feilding and in parts of Palmerston North on the 29th as a result of heavy rain on the 28th, amounting mainly to 80-110 mm.

**Temperatures**—Mean temperatures for the month were below normal over the whole country, with departures averaging nearly 1°C over the North Island but only ½°C over the South Island. Highest departures were recorded in Northland, where it was the coldest June for nearly 30 years. Temperatures showed considerable variations during the month. They were unusually high for the first three days; and on the 2nd many stations in Canterbury and a few in Otago, Marlborough and Nelson experienced their warmest June day on record. Kaikoura's maximum of 24.0°C was the highest temperature so far recorded in June anywhere in New Zealand. The period from the 20th to the 25th was particularly cold; and over the country as a whole the 21st was one of the coldest days experienced for many years. Widespread snow to low levels was reported from the 20th to the 22nd in the South Island and also over considerable areas of the North Island. Another fall affected many parts of the South Island east of the ranges on the 29th and 30th. On the 23rd, for the first time ever in 28 years of observation, Kaitiaki aerodrome registered an air temperature below freezing: -0.5°C. Other stations which recorded new extreme minimum temperatures for June on various dates were Paeroa, Tauranga aerodrome, and Ngaumu Forest (Wairarapa).

**Sunshine**—Considerable areas were favoured with sunshine 10-30 hours above normal, notably the Southland plain with parts of South Otago; the Canterbury Plains; the North Taranaki-King Country-Waikato area; and Northland. Gore's total of 112 hours was the highest recorded there in June for 30 years. Eastern districts from Pahiatua to Wairoa received 10-30 hours less sun than normal, as did also Wanganui.

#### WEATHER SEQUENCE

On the first two days of the month an anticyclone was centred to the north of New Zealand and pressures were low far to the south. A depression developed just west of Southland. Temperatures were exceptionally warm, especially in the east. Rain soon spread over western districts of both islands and also other parts of the South Island but falls were only light on the Canterbury and Marlborough coasts. Some very heavy rain was reported in the

Alps. On the following day, as the depression moved eastward and pressures rose rapidly to the south, a trough of low pressure crossed the country bringing a change to cold southerlies in the far south. The rain became lighter on the West Coast but rather heavy in western districts of the North Island. Snow was reported in some areas, including Dunedin. On the 4th, with the continued eastward movement of this depression, the cold southerlies swept over the remainder of the South Island but the rain became lighter and rather scattered. On the following day the trough continued its movement over the North Island and light rain was reported from Christchurch and Hokitika northward but in the North Island only west of the main ranges. During the 6th and 7th an anticyclone covered the country and the weather was mainly fine though cold. However, some patches of light rain were still reported.

On the 8th the anticyclone was centred to the east of New Zealand while a complex trough moved on to the South Island associated with a deep depression over the Southern Ocean. Rain set in on the West Coast, affecting also the Alps and the high country besides the Nelson area, while temperatures became warmer over the South Island. On the following day, with the eastward movement of this trough over the country, rain affected the whole area west of the ranges in both Islands, besides Southland and Otago. On the 10th a colder southwesterly change moved on to the South Island bringing a clearance in most areas. During the next three days a small depression off the Westland coast crossed the North Island with an associated trough of low pressure. Light falls of rain were reported mainly from New Plymouth northward, while in the South Island the weather was fine but very frosty.

On the 14th an anticyclone crossed the North Island while a trough of low pressure moved on to the South Island. Rain was reported on the West Coast. During the following two days the trough remained almost stationary but comparatively weak through Cook Strait, while a depression developed on it over the North Tasman Sea. Rain was reported mainly in Buller and North Canterbury. During the 17th and 18th this depression crossed the North Island and deepened, bringing rain there; while in the South Island the weather was fine but frosty. By the following day the depression was centred east of the North Island. A trough associated with a depression far to the south moved on to the South Island, causing rain there in most districts.

On the 20th the trough moved northeastward over the country and pressures rose rapidly to the southwest, while an anticyclone was centred to the south of Tasmania. Winds turned to very cold southerlies and snow was reported in parts of the South Island, including Dunedin. Elsewhere rain was fairly general, especially in the North Island, but there was a clearance on the West Coast. On the following day cold southerlies spread over the whole country, with snow reported in many parts of the South Island, and also in some North Island areas. Strong southerly gales affected some areas, especially around Cook Strait, on both of these days, causing disruption to the Wellington-Picton ferry service. Rain became much lighter and was restricted mainly to eastern districts.