

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for March 1967—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches				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
	Ft.	°F.	°F.	°F.	°F.	°F.	°F.		In.		In.		Hrs.		
Dunedin Airport ..	4	67.9	45.1	56.5	+1.8	81.4	24	32.8	3	2.25	9	0.0	0.91	5	162
Musselburgh, Dunedin ..	5	64.9	51.0	58.0	+1.6	77.7	17	41.8	3	2.21	10	-0.3	0.67	5	144
Oamaru ..	47	67.3	50.2	58.8	..	76.0	5	40.1	12	0.72	7	..	0.53	10	146
West Arm, Lake Manapouri	590	60.9	47.1	54.0	+0.2	69.3	4	33.8	14	13.96	19	..	3.88	10	..
Queenstown ..	1,080	66.5	47.4	57.0	+0.4	76.5	18	40.0	3	3.72	12	+0.6	1.56	10	160
Cromwell ..	720	71.0	47.4	59.2	+0.8	82.2	16, 18	38.7	27	0.95	6	-0.5	0.40	10	..
Ophir ..	1,000	60.2	46.0	53.1	-2.2	76.6	10	34.5	27	1.06	5	-0.4	0.68	10	..
Moa Creek ..	1,400	..	40.6	..	..	..	..	30.2	21	1.00	6	..	0.53	10	..
Earnsclough ..	500	70.4	43.6	57.0	+0.6	83.0	16	31.5	27	1.29	7	-0.1	0.65	9	..
Alexandra ..	461	69.7	48.0	58.8	+0.9	81.8	16	39.2	27	1.57	9	+0.4	0.87	9	179
Roxburgh Hydro ..	350	70.3	45.9	58.1	+0.4	82.1	16	37.4	3	0.85	6	-1.0	0.36	10	..
Moa Flat, West Otago ..	1,345	64.4	44.2	54.3	+1.8	72.4	24	35.0	1, 20	2.12	10	-0.6	0.61	10	..
Lake Mahinerangi ..	1,300	63.1	44.2	53.6	..	74.0	24	32.5	20	2.50	8	..	1.20	5	..
Tapanui ..	740	65.8	46.1	56.0	+1.2	77.0	23	35.0	21	2.51	11	-0.8	0.69	10	..
Rankleburn Forest ..	835	65.2	45.6	55.4	+1.6	78.0	24	34.4	21	2.20	11	..	0.70	5	..
Taiieri Mouth ..	50	64.7	48.0	56.4	..	75.6	9	35.5	1	2.17	8	..	0.95	5	..
Otautau ..	180	65.9	42.4	54.2	+0.3	74.0	22, 24	30.0	21	2.95	12	-1.0	0.90	10	175
Gore ..	230	66.2	45.8	56.0	+0.3	74.9	24	31.2	3	2.00	11	-1.2	0.72	10	168
Winton ..	150	66.0	45.0	55.5	..	75.4	24	31.6	3	2.92	12	..	1.15	10	169
Pebble Hills ..	138	66.9	45.4	56.2	+1.3	77.0	23	31.0	3	2.70	14	-1.1	1.10	10	..
Invercargill Airport ..	1	63.8	44.3	54.0	+0.2	73.6	24	30.7	20	2.36	14	-1.9	0.88	10	161
Milton ..	60	67.0	45.9	56.4	..	80.2	24	29.8	1	1.99	7	-0.5	0.80	5	..
Balclutha ..	20	66.0	46.4	56.2	..	79.8	8	34.5	3	2.05	9	..	0.93	5	166
Rarotonga ..	15	83.2	73.1	78.2	0.0	85.3	14	67.3	11	8.17	20	-1.7	1.33	3	171
Raoul Island ..	126	77.3	69.6	73.4	+2.2	81.2	7	64.4	30	3.56	19	-1.6	1.11	15	190
Chatham Islands ..	157	63.4	51.9	57.6	+0.7	68.9	6	41.9	4	1.54	9	-1.1	1.04	25	159
Campbell Island ..	49	52.7	43.6	48.2	..	62.7	23	37.6	15	3.96	27	..	0.38	11	56
Scott Base, Antarctica ..	45	..	..	-4.2	..	23.2	..	-34.2	..	..	..	..	..	..	..

LATE RETURNS

Waipukurau, Feb 1967 ..	450	..	..	..	..	..	..	..	..	..	..	..	..	..	212
Waihi Dec 1966 ..	1,400	69.9	54.3	62.1	-0.3	77.3	14	45.0	11	4.71	12	-0.6	2.08	8	209
Waihi Jan 1967 ..	1,400	69.9	55.6	62.8	-1.9	80.9	24	45.9	30	5.69	12	-0.2	2.27	17	208

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-59, and for sunshine 1935-60. No normals are available for stations with only short records.

*Sunshine recorder is not located at the station but is in the near vicinity.

NOTES ON THE WEATHER FOR MARCH 1967

General: March was cloudy and warm with an unusually high frequency of north-easterly winds. Over almost all the North Island moisture was adequate, as in previous months, and growth was unusually good in many districts. On the other hand, in the South Island the dry conditions of previous months persisted, especially in Otago and Southland, where the feed was getting short in some areas.

Rainfall: Rainfall was above average over most of the North Island and in western and many inland districts of the South Island. It was more than double the average value on the Coromandel Peninsula, in parts of Waikato, and eastern Bay of Plenty, and also over most of Westland.

Rainfall was below average by 25 percent or more over most of Southland, North Otago, North Canterbury, and Marlborough; also parts of Taihape and South Taranaki.

During a thunderstorm at Whakatane on the evening of the 1st, very heavy rain was recorded—half an inch in 10 minutes, and 4 inches in two hours. Flooding caused some damage.

A spell of northerly winds from the 8th to the 10th with a slow-moving trough over the South Island caused persistent heavy rain on the West Coast and in the Alps, with totals over the three days of 20 inches and more. Serious flooding was reported in Greymouth.

Flooding also occurred in parts of Bay of Plenty after heavy rain on the 23rd and 24th, with two-day rainfalls of up to 10 inches.

Temperatures: For the first time since March 1966 temperatures were warmer than average over the whole country, mainly by 1-2 degrees. The warmest period was 4-11 March, in a spell of persistent northerly winds.

Sunshine: Sunshine was close to average or below average over the whole country. Greatest deficiencies of about 40 hours were recorded in Northland, Nelson, Gisborne, and Hawke's Bay.

Weather Sequence: At the beginning of the month a slow-moving trough was crossing the North Island with rain. Some thunderstorms were reported, and at Whakatane very heavy rain over a period of a couple of hours caused flooding. As the trough moved away on the 2nd a depression developed to the north-east, and winds were mainly southerly, with still some rain in eastern districts of the North Island, Bay of Plenty, and Coromandel. On the following day an anticyclone covered most of the country but there was still some rain in Gisborne, Northland, and Auckland.

By the 4th an anticyclone was centred to the east of the Chatham Islands. Pressures were low over and to the south of the Tasman Sea and warm northerlies developed over most of the country, persisting with only slight interruption for about a week. On the 4th and 5th a trough of low pressure brought rain to the greater part

of the South Island with some heavy falls in south Westland, while some light rain was still being reported on the east coast of Northland and in Auckland, Coromandel, and Gisborne. On the 6th and 7th winds were mainly north-easterly, with rain becoming heavier in some northern districts of the North Island and Gisborne but with an improvement in weather over most of the South Island. By the 8th the anticyclone was centred far to the east of the Chatham Islands. As pressures fell once again over the south Tasman Sea winds became more northerly over the greater part of the country but remained north-easterly in northern districts. A depression from the north Tasman Sea moved towards Cook Strait and a trough of low pressure progressed slowly north-eastward over the South Island. Copious rain fell on the West Coast and in the Alps, with flooding at Greymouth. Most other districts received some rain, the main exceptions being Hawke's Bay and the Kairourou Coast. On the 11th the trough reached the North Island and started to move more rapidly, while the weather cleared over the southern half of the South Island.

From the 12th to the 18th a large anticyclone crossed the country, with mainly fine weather. However, on the 17th increased westerlies in the south brought rain to Fiordland and the Southland coast.

During the 19th a trough moved northward, to become stationary through Auckland on the following day. Rain commenced in the South Island soon covering most districts there, and spread to areas east of the ranges in the North Island. On the 21st and 22nd the trough was still stationary, while a depression lay off the west coast of Northland. The rain then spread to northern districts of the North Island, but the weather cleared in the south. During the next two days the depression moved southward. The first trough moved off the country and another one crossed from west to east, with a change from north-easterly winds to northerlies or north-westerlies. Rain now covered the whole of the North Island and also western and northern districts of the South Island. Some heavy falls were recorded in Coromandel, Bay of Plenty, and Taupo, with flooding in places. The weather cleared in most districts on the 25th with rising pressures. The main exceptions were Fiordland and south Westland, Southland, and Gisborne.

An anticyclone brought fine weather on the 26th. During the next three days the weather remained fine over most of the country. However, with pressures low to the north, easterlies brought showers at times to parts of Gisborne, Coromandel, and Northland.

On the last two days of the month the greater part of the South Island was affected by a slow-moving trough. Showers were also still reported from Northland.

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