



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 18 FEBRUARY 1982

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CLIMATOLOGICAL TABLE

FOR DECEMBER 1981

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for December 1981—continued

Station	Height of Station Above M.S.L.	Air Temperature 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	°C	mm	mm	mm		Hrs	
Fairlie	304	21.6	10.2	15.9	..	33.1	20	2.3	11	29	10	..	15	24	..
Twizel	457	22.4	9.0	15.7	+1.6	29.3	26	0.5	11	30	12	..	9	7	..
Ikawai	70	20.0	11.1	15.6	+2.0	28.0	13	2.5	11	60	14	..	19	31	..
Geraldine	119	21.7	11.8	16.8	..	29.4	20	4.7	11	56	15	..	16	27	..
Orari Estate	81	22.0	11.6	16.8	+2.7	31.0	13	4.3	11	41	14	-40	11	27	..
Temuka	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timaru Airport	26	20.5	11.2	15.9	+1.9	28.1	13	2.8	11	43	10	-23	18	27	..
Adair	85	19.7	11.7	15.7	+1.8	27.8	13	6.5	11	68	19	-1	20	31	..
Timaru	17	20.0	12.6	16.3	+1.6	28.0	13	5.9	11	62	17	-7	24	27	130
Waimate	61	20.5	12.0	16.3	+1.7	28.8	13	6.0	11	68	19	-3	28	31	..
Kurow	207	21.9	12.0	17.0	..	32.0	20	6.5	11	44	16	..	13	24	..
Oamaru Airport	30	18.8	11.7	15.3	+1.8	27.6	13	5.5	11	50	15	-8	11	31	109
Tara Hills, Omarama	488	22.3	9.4	15.9	+1.8	28.2	26	1.4	11	46	13	-10	13	24	189
Lake Hawea	350	20.6	11.9	16.3	+0.9	28.1	26	6.6	9	69	12	+11	20	7	..
Wanaka	296	22.4	11.0	16.7	+1.3	29.8	26	4.4	4	57	12	+6	18	7	..
Queensberry	277	22.5	11.7	17.1	..	30.7	26	6.2	11	47	13	..	27	7	..
Bendigo	200	23.5	12.2	17.9	..	31.3	26	7.9	8	40	12	..	15	7	..
Naseby Forest	610	20.4	7.3	13.9	+1.7	27.5	20	-0.6	4	28	13	-30	5	31	..
Windsor	88	19.8	11.2	15.5	..	28.0	12	4.6	11	62	14	..	12	4	..
Ranfurly	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herbert Forest	61	19.4	10.7	15.1	+2.0	28.0	13	4.6	11	121	19	+55	28	3	..
Palmerston	21	19.7	10.8	15.3	+2.2	28.4	12	3.5	11	65	19	..	11	27	105
Cherry Farm Hospital	6	19.1	11.1	15.1	+2.0	26.6	12	5.0	11	63	21	+7	11	16	..
Taiaroa Head	72	16.5	11.4	14.0	+1.6	24.4	13	8.9	9	63	16	+2	16	7	..
Invermay, Taieri	30	19.2	10.8	15.0	..	27.8	12	6.6	9	66	16	..	20	16	126
Berwick Forest	18	20.3	10.8	15.6	+2.4	29.4	20	6.5	9	55	12	-16	15	16	..
Dunedin Airport	1	19.9	10.5	15.2	+1.9	27.6	12	6.0	9	63	14	+7	14	16	129
Musselburgh, Dunedin	2	17.9	11.7	14.8	+1.0	26.0	12	8.6	9	82	20	+11	19	16	125
Te Anau	215	19.5	10.0	14.8	+2.0	26.6	26	5.0	10	149	14	+60	35	7	153
West Arm, Manapouri	232	17.8	9.4	13.6	+1.1	26.1	26	3.5	10	413	17	..	70	7	..
Borland Burn	183	18.8	9.0	13.9	..	25.0	19	4.0	4	161	21	..	34	7	..
Queenstown	329	21.0	11.1	16.1	+1.8	28.9	26	5.6	9	96	14	+32	42	7	175
Queenstown Airport	349	19.9	9.5	14.7	+1.0	26.7	26	4.8	30	70	14	+15	26	7	..
Otama	183	18.9	9.5	14.2	..	25.8	20	5.6	10	106	17	+32	19	16	..
Cromwell	213	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Northburn	210	22.9	11.5	17.2	..	30.5	26	5.1	4	33	13	..	14	7	..
Lauder	370	22.1	9.8	16.0	..	28.5	26	1.4	5	46	20	..	23	23	..
Clyde Dam	160	22.7	11.9	17.3	..	30.0	19	5.7	11	37	14	..	9	7	..
Ophir	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moa Creek	427	22.0	8.1	15.1	+1.8	28.5	26	-1.0	11	41	..	+0	15	23	..
Earnsclough	152	23.1	10.9	17.0	+2.0	29.8	19	2.7	11	36	14	+3	11	7	..
Alexandra	141	22.8	11.7	17.3	+1.4	30.5	19	5.0	4	33	15	+3	9	7	177
Roxburgh Power Station	110	22.3	10.7	16.5	+1.5	30.0	20	5.0	4	31	12	-15	10	16	..
Deep Stream	396	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beaumont	46	20.9	10.8	15.9	..	28.7	20	5.1	9	101	16	+12	27	1	..
Mahinerangi Dam	396	17.8	9.1	13.5	+1.9	24.5	20	5.0	8	82	19	-9	22	16	..
Tapau	226	19.2	9.6	14.4	+0.9	26.6	29	5.5	4	92	16	+13	18	16	..
Taiari Mouth	15	18.0	10.5	14.3	+2.1	24.5	20	5.2	9	75	14	+14	18	16	..
Tuatapere	27	18.7	10.0	14.4	..	24.1	20	5.5	10	122	17	..	20	7	..
Otautau	55	18.7	10.3	14.5	+1.5	25.5	29	4.9	19	121	16	+37	21	7	105
Winton	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gore	123	18.8	10.3	14.6	+1.3	25.7	20	6.0	4	107	19	..	23	7	136
Hokonui Forest	46	19.7	10.2	15.0	+1.5	25.4	29	4.5	25	155	17	+66	45	7	..
Woodlands	47	19.3	10.3	14.8	+1.7	26.9	29	5.9	25	145	24	..	25	7	..
Invercargill Airport	0	18.1	10.7	14.4	+1.8	25.8	29	4.5	25	152	19	+63	24	6	146
Tiwai Point, Bluff	5	17.5	11.3	14.4	+1.1	23.3	20	6.6	25	144	16	..	24	7	..
Stewart Island	3	16.4	10.3	13.4	..	20.8	12	4.8	10	147	25	..	23	16	..
Milton	18	19.8	10.4	15.1	+1.8	27.2	20	3.7	9	67	16	-2	18	16	..
Finegand, Balclutha	6	19.4	11.1	15.3	+2.1	27.6	20	6.4	9	62	14	..	19	16	137
Owaka	5	18.2	10.4	14.3	..	27.4	20	5.0	19	78	16	..	23	16	..
Nugget Point	129	16.6	10.0	13.3	+1.3	24.9	12	6.4	8	77	18	+1	22	16	..
Tautuku	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nandi Airport, Fiji	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rarotonga Airport	7	27.8	22.2	25.0	+0.2	29.4	20	19.1	3	217	24	-9	48	8	114
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoui Island	38	23.7	20.1	21.9	+1.4	25.7	23	18.3	8	42	10	-24	15	10	191
Campbell Island	15	11.7	7.6	9.7	+1.1	15.1	23	3.3	28	166	21	+64	56	2	87
Waitangi, Chatham Island	44	16.7	11.9	14.3	+0.9	19.8	7	8.2	5	40	13	-26	15	25	110
Scott Base, Antarctica	16	-1.1	-8.4	-4.8	+0.5	+4.2	29	-13.5	2

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		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	B			Maximum	Date	Minimum	Date				Amount	Date	
		Max.	Min.	°C	°C	°C	°C	°C	°C	mm	mm	mm	Hrs		
LATE RETURNS AND CORRECTIONS															
Kerikeri M A F 10/1981	79	17.7	8.4	13.1	..	20.6	31	4.0	9	81	7	..	46	23	..
Kerikeri M A F 11/1981	79	18.7	11.2	15.0	..	21.9	30	7.4	5	280	..	..	108	28	..
Kerikeri Downs 10/1981	79	17.7	8.3	13.0	..	20.4	3	4.3	9	81	8	..	45	23	..
Kerikeri Downs 11/1981	79	18.8	11.1	15.0	..	21.9	13	7.0	5	261	..	..	103	28	..
Waipoua Forest 10/1981	88	17.5	7.6	12.6	-0.7	24.0	16	3.3	10	101	14	-49	28	23	..
Marsden Power Station 11/1981	3	20.2	..	..	..	26.0	29	..	..	143	17	..	38	28	..
Port Fitzroy 11/1981	4	19.3	12.1	15.7	-0.3	24.3	30	8.0	25	236	22	+109	65	15	..
Huntly 10/1981	34	17.8	8.7	13.3	..	21.5	25	4.1	29	75	..	..	..	..	..
Huntly 11/1981	34	20.3	12.1	16.2	..	24.9	30	8.7	18	62	..	..	..	..	..
Port Taharoa 10/1981	27	17.1	10.5	13.8	-0.2	21.6	23	5.0	29	103	..	..	..	..	..
Port Taharoa 11/1981	27	19.5	12.9	16.2	+0.6	24.3	30	7.9	24	94	..	..	..	..	..
Omata 08/1981	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waingawa, Masterton 10/1981	114	16.9	7.2	12.1	+0.3	22.0	31	1.5	12	128	18	+54	59	24	178
Waingawa, Masterton 11/1981	114	18.8	8.2	13.5	-0.1	24.0	13	3.4	21	78	11	+9	24	7	158
Manutuke Gisborne 11/1981	9	20.1	10.3	15.2	+0.0	26.1	5	5.0	26	66	8	+5	34	29	..
Whararata Forest 11/1981	439	16.8	8.4	12.6	..	22.2	5	4.4	24	109	11	..	66	29	..
Portland Island 11/1981	78	17.3	11.9	14.6	-0.5	22.4	6	8.8	2	26	9	-17	10	30	..
Wharite Peak 10/1981	914	9.0	3.1	6.1	-0.3	13.8	5	-1.6	29	162	..	-18	..	..	..
Wharite Peak 11/1981	914	11.5	4.9	8.2	+0.0	15.8	16	0.7	2	100	..	-63	..	..	..
Kairanga Palmerston North 11/1981	15	18.8	8.8	13.8	+0.0	22.7	15	2.9	2	36	9	..	9	29	196
Palmerston North D S I R 11/1981	34	18.8	10.4	14.6	+0.4	22.6	16	3.9	2	34	9	-45	11	29	159
Foxton 11/1981	3	..	..	..	..	..	..	..	..	57	8	-9	15	9	..
Titahi Bay 11/1981	30	..	..	..	..	..	..	..	..	71	12	..	49	7	..
Stratford Dem. Farm 07/1981	311	11.0	3.4	7.2	+0.2	13.7	3	-1.2	21	236	19	+15	29	15	..
Stratford Dem. Farm 08/1981	311	11.7	..	..	..	14.0	24	..	..	181	20	-32	38	17	..
Manaia Dem. Farm 11/1981	98	17.4	8.9	13.2	-0.1	23.5	30	3.6	19	90	17	-1	38	7	182
Normanby 11/1981	122	17.3	8.9	13.1	..	21.0	8	3.0	19	47	13	..	27	7	..
Kahui, Taihape 11/1981	518	18.2	7.7	13.0	+0.2	23.9	30	3.4	3	43	8	..	28	29	..
Wanganui Airport 11/1981	9	19.0	9.8	14.4	..	24.0	29	3.8	24	73	9	..	27	9	..
Arapito 11/1981	20	17.6	10.6	14.1	..	25.8	30	8.0	19	160	14	..	44	6	88
Otira Substation 11/1981	383	16.6	..	..	..	25.0	30	..	..	343	16	-201	110	16	..
Puyssegur Point 11/1981	43	14.2	8.9	11.6	..	19.8	15	4.4	8	88	22	-115	19	2	..
Stephens Island 11/1981	187	14.5	10.4	12.5	..	18.1	30	7.3	11	63	12	-1	24	7	..
Moutere Hills 11/1981	110	17.6	10.4	14.0	+0.2	21.2	29	7.8	19	146	14	+62	38	14	..
Waihopai Power Station 11/1981	262	18.7	8.1	13.4	-0.2	26.8	5	3.1	2	120	12	+44	38	7	..
Mt John 11/1981	1027	14.7	5.6	10.2	+0.7	21.5	5	-0.2	1	16	11	-32	4	17	..
Ashley Forest 10/1981	107	16.7	6.6	11.7	+0.3	25.0	3	2.1	28	66	7	+8	22	16	189
Ashley Forest 11/1981	107	18.1	7.9	13.0	-0.3	28.0	5	4.2	9	68	8	+2	17	17	172
Bromley, Christchurch 09/1981	9	14.9	4.6	9.8	+0.1	20.0	19	-1.0	1	16	10	-27	5	16	..
Herbert Forest 11/1981	61	18.1	6.5	12.3	+0.8	27.4	3	1.8	10	27	8	-60	8	19	..
Taiaroa Head 11/1981	72	15.0	9.4	12.2	+0.9	24.4	5	5.8	8	19	9	-47	5	1	..
Berwick Forest 11/1981	18	18.7	8.3	13.5	+1.5	25.2	5	2.0	8	30	11	-39	10	23	..
Lauder 10/1981	370	16.9	5.0	11.0	..	23.0	3	-1.2	12	33	10	..	19	23	..
Lauder 11/1981	370	19.7	6.4	13.1	..	28.0	30	-1.6	18	17	10	..	5	23	..
Nandi Airport, Fiji 11/1981	19	32.0	21.2	26.6	+0.6	35.3	10	18.0	3	125	9	..	81	28	245
Totokoitu, Rarotonga 10/1981	9	26.0	20.9	23.5	..	29.1	29	17.7	10	181	17	..	94	15	..
Totokoitu, Rarotonga 11/1981	9	27.4	22.2	24.8	..	29.4	11	20.6	20	245	22	..	51	24	..
Raoul Island 11/1981	38	20.5	15.9	18.2	-0.6	22.6	11	13.0	1	140	13	+59	50	18	149
Campbell Island 11/1981	15	10.2	4.6	7.4	+0.2	13.7	30	-0.9	23	104	22	-3	23	16	102

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 rainday 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.

THE WEATHER IN NEW ZEALAND, DECEMBER 1981

General—December was warm but cloudy and dull over most of the country.

Farmers in drier areas reported good hay crops while in areas receiving adequate rainfalls this month grass growth was exceptional and stock health was reported as good. There were some reports of facial eczema in central areas of the North Island and fly strike caused problems in many areas.

Thunderstorms were frequent this month with widespread reports of thunderstorms on the 1st, 23rd and 24th in the North Island and 6th, 8th and 10th in the South Island. Several sheep were killed by lightning near Balclutha on the 2nd.

Pressures were higher than normal over the whole country but particularly in the north-east. North-west winds predominated over New Zealand.

Rainfall—Rainfalls were below normal over most of the North Island and in the north and north-east of the South Island. For the rest of the South Island and Waikato and Wairarapa in the North Island rainfalls were up to 150 percent of normal and 170 percent of normal in Southland.

Eastern areas of both islands were very dry. Some areas around Gisborne had less than 10 percent of their normal December rainfall, and Gisborne Airport had only 5 mm of rain for the month. This is the lowest December rainfall total recorded at Gisborne since the station opened in 1937, the previous lowest being 8 mm in 1957. The Kaikoura and Canterbury coasts received less than half their normal December rainfall, and parts of Auckland and Northland were also very dry. Heavy showers, often associated with thunderstorms, contributed to the high rainfalls in Southland this month.

Temperatures—Temperatures were above normal by an average of 1.5°C in the North Island and 2.0°C in the South Island. Mean minimum temperatures were nearly 2.5°C above average for the whole country. For many stations this was the second warmest December on record, mean temperatures this month being exceeded only by the record December temperatures of 1974.

Some high temperatures were recorded in southern and eastern districts of the South Island on the 19th and 20th, with temperatures above 30°C recorded at Alexandra on the 19th and Christchurch and Hororata on the 20th. Temperatures were warm between the 24th and 30th with mean temperatures generally 3° to 6° higher than average over the whole country during this period.

Sunshine—Sunshine totals were low for December, particularly in western areas of both islands, central North Island and Southland, these districts having between 70 percent and 80 percent of normal sunshine. Hokitika had its least sunny December since 1964 when recording began at the current site and its second lowest since 1930 using records from an earlier site. Invercargill had its lowest December sunshine since 1959 and its second lowest for December since the station opened in 1932. Among those stations recording large deficits this month were: Taupo (55 hours), New Plymouth (48 hours) Paraparaumu (63 hours), Hokitika (60 hours) and Invercargill (41 hours).

THE WEATHER SEQUENCE, DECEMBER 1981

1st–7th December

A depression lay to the west of New Zealand at the beginning of December. It moved south-eastwards during the first 4 days of the month and its associated frontal system crossed the country during

the 2nd. Rain fell in most districts on the 1st, with heavy falls in south-western and some northern areas. By the 3rd, the rain had cleared apart from light falls in Fiordland, Southland and Central Otago, and an anticyclone to the west of the North Island brought fine weather to all other areas on the 3rd and 4th. A depression developed in the Tasman Sea on the 4th and by the 5th lay off the West Coast of the South Island. This moved across the country during the 5th and 6th and was followed by further cold fronts within a broad, complex trough covering the Tasman Sea. Apart from some eastern coastal areas rain was widespread and heavy falls were recorded in Westland and Fiordland.

8th–14th December.

Following the trough, which crossed the country at the end of the first week, a strong westerly flow developed across the country. Fronts within this flow brought showers to many districts between the 8th and 10th. An anticyclone centred close to Lord Howe Island on the 11th, moved eastward onto the country and brought fine, warm weather to all districts apart from south Westland and Fiordland, which had some showers. Fine weather continued to the end of this week although a cold front crossing the country on the 13th brought heavy rain and cool temperatures to western and southern parts of the South Island.

15–21st December.

The anticyclone which brought fine weather during the second week had moved away to the east by the 15th, but a belt of high pressure lay over northern New Zealand and the north Tasman Sea. On the 16th a centre of high pressure developed over the north of the North Island and this brought fine weather to most North Island and northern South Island districts. A cold front crossed the South Island during this period and rain fell in southern and western districts on the 16th. Rain became more widespread on the 17th and 18th with the passage of a second cold front. An anticyclone developed in the south Tasman Sea below the front on the 18th and moved across New Zealand to lie near Chatham island on the 20th. Fine, mild weather prevailed over most of the country. A cold front lay off the West Coast on the 20th and heavy rain fell in Westland and Fiordland on the 20th, spreading north to central areas as the front crossed the country during the 21st.

22nd–31st December.

The weather between the 22nd and 24th was dominated by a series of weak cold fronts, which brought rain to most areas as they crossed the country. By the 24th a ridge of high pressure associated with an anticyclone to the east covered New Zealand and the weather became fine and mild in most areas. Dry, mild weather continued during the next 4 days as this ridge intensified into an anticyclone. A cold front associated with a depression in the Tasman Sea brought light rain to Westland, Fiordland and parts of Central Otago on the 29th. Most other districts had some rain on the 30th or 31st as this front moved onto the country. Some heavy falls were recorded in northern and central North Island districts on the 31st. Temperatures were warm throughout the last 10 days of the month.

(N.Z. Met.S. Pub. 107)

J. S. HICKMAN, Director.

