



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 8 MAY 1980

Published by Authority

WELLINGTON: WEDNESDAY, 14 MAY 1980

CLIMATOLOGICAL TABLE FOR MARCH 1980

NEW ZEALAND METEOROLOGICAL SERVICE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for March 1980

Station	Height of Station Above M.S.L.	Air Temperature in Degrees Celsius							Rainfall in Millimetres					Bright Sunshine Hrs	
		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	mm	Hrs		
Cape Reinga	191	20.4	14.5	17.5	-0.7	24.5	31	12.6	28	102	17	+33	68	14	..
Kaitaia Airport	80	21.4	14.0	17.7	-1.1	24.3	4	9.5	28	63	13	-21	21	15	175
Aupouri Forest	69	21.2	15.0	18.1	-0.9	25.0	9	11.5	22	70	11	-9	23	14	..
Kerikeri Aerodrome	150	21.4	12.3	16.9	..	25.3	11	8.2	22	178	16	..	85	14	..
Umawera	50	21.5	12.7	17.1	..	27.7	13	7.5	28	81	16	..	24	14	..
Kaikohe	204	20.0	13.0	16.5	-1.1	25.1	4	8.3	22	143	18	..	49	14	145
Waiotemarama	229	19.0	13.1	16.1	..	23.1	10	10.6	19	88	18	..	27	15	..
Waipoua Forest	88	20.6	12.4	16.5	-0.8	24.5	10	9.5	13	89	20	-18	26	15	..
Dargaville	20	20.6	13.0	16.8	-1.0	24.5	10	7.4	25	110	17	+31	26	14	150
Waitangi Forest	55	21.9	13.3	17.6	-1.2	24.3	29	7.5	22	101	12	+4	40	14	171
Glenbervie Forest	107	20.8	11.7	16.3	-0.4	24.8	11	3.5	22	270	15	+120	96	14	..
Whangarei Airport	37	21.3	13.9	17.6	-1.0	25.2	30	7.6	22	218	15	+101	67	14	..
Whangarei	29	21.7	12.6	17.2	-1.1	26.0	11	6.4	22	173	13	..	53	5	158*
Marsden Power Station	3	22.0	14.2	18.1	-1.0	26.2	11	8.5	22	152	19	..	59	5	..
Mokohinau	102	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Te Hana	10	21.9	10.9	16.4	..	25.5	6	4.0	22	148	12	..	59	14	..
Leigh	27	20.9	14.1	17.5	-1.1	23.0	11	9.5	18	100	17	+6	31	7	170
Warkworth	72	21.0	12.4	16.7	-0.6	25.1	1	5.3	22	167	19	..	77	15	..
Oyster Point	0	20.9	12.8	16.9	..	24.1	6	5.9	22	150	19	..	59	15	..
Woodhill Forest	30	21.2	12.7	17.0	-0.7	25.2	1	6.0	22	179	16	+88	64	15	..
Riverhead Forest	28	21.1	12.1	16.6	-0.3	25.5	1	4.5	22	162	13	+58	79	15	..
Kumeu	32	20.9	12.0	16.5	..	25.1	1	4.0	22	151	16	..	59	15	..
Whenuapai	26	21.3	12.8	17.1	-0.4	25.2	1	5.8	22	172	16	+78	83	15	..
Albert Park, Auckland	49	21.4	14.4	17.9	-1.0	24.8	11	10.1	18	156	16	+70	81	15	163*
Owairaka, Auckland	41	21.0	13.3	17.2	-0.8	24.7	11	7.4	22	194	13	+103	88	15	..
Port Fitzroy	4	21.2	14.8	18.0	-0.6	25.2	4	9.9	22	174	22	+39	51	14	..
Coromandel	43	21.1	13.1	17.1	..	25.1	4	5.6	22	216	18	..	85	15	..
Whangapoua Forest	4	22.0	12.8	17.4	+0.1	26.9	4	5.0	22	141	19	-27	31	15	..
Thames	3	21.5	13.9	17.7	-0.7	25.8	1	6.3	22	77	16	-20	21	15	152
Tairua Forest	3	21.7	12.4	17.1	-0.6	26.0	4	5.5	22	211	13	+56	110	15	..
Paeroa	4	22.7	11.7	17.2	-0.1	27.4	4	3.8	22	102	16	-5	44	15	..
Waihi	91	21.0	12.0	16.5	-0.5	25.8	4	2.3	22	256	15	+78	143	15	168
Te Aroha	12	21.9	12.8	17.4	-0.5	27.1	4	5.5	22	98	18	-24	41	15	..
Katikati	2	21.6	11.8	16.7	..	26.4	4	4.5	22	215	13	..	120	15	..
Tauranga	2	21.5	13.2	17.4	-0.6	26.5	4	6.0	16	189	13	..	118	15	..
Tauranga Airport	4	21.8	12.2	17.0	-0.6	26.4	3	4.2	18	185	13	+71	117	15	158
Te Puke	91	21.9	11.3	16.6	-0.6	26.4	3	3.1	18	153	14	..	82	15	..
Rotoehu Forest	72	21.3	10.1	15.7	-0.6	25.6	3	2.3	18	113	11	-24	56	15	..
Edgecumbe	5	..	10.9	..	..	..	..	5.3	22	135	11	..	57	15	..
Whakatane	2	22.0	11.7	16.9	-0.9	26.5	3	5.5	22	100	15	-17	57	15	202
Whakatane Airport	6	21.7	10.7	16.2	..	26.7	3	3.4	22	106	10	..	59	15	..
Port Ohope	9	21.6	12.7	17.2	..	25.1	4	6.1	22	94	13	..	45	15	194
Kinleith	383	19.4	9.7	14.6	-0.8	24.2	19	0.9	18	118	16	+25	37	15	..
Tokoroa	305	20.4	9.1	14.8	-0.8	24.4	3	0.5	18	124	14	..	37	15	..
Tikitere	338	19.3	10.9	15.1	..	22.5	3	4.5	18	101	11	..	32	15	..
Kawerau	30	..	11.1	..	..	..	..	4.0	18	138	10	-17	47	15	..
Te Teko	8	23.0	10.0	16.5	-1.1	26.9	20	3.1	18	93	14	-39	45	15	182
Whakarewarewa	307	20.0	10.6	15.3	-0.7	23.2	3	3.6	22	105	15	-12	43	15	..
Rotorua Airport	287	20.0	10.3	15.2	-0.9	22.7	3	3.7	22	80	13	-39	31	15	169
Tarawera Forest	61	22.1	9.7	15.9	-0.4	25.5	4	1.0	22	172	12	-11	75	1	..
Waiotapu Forest	435	18.4	8.7	13.6	-1.2	21.5	3	0.5	22	115	13	+8	56	15	..
Atiamuri Power Station	253	20.2	8.9	14.6	-1.0	23.6	11	1.0	18	93	14	+0	32	15	..
Kaingaroa Forest	544	18.2	8.1	13.2	-1.3	21.1	11	1.7	22	128	16	+16	52	15	..
Murupara	198	20.8	9.2	15.0	..	23.9	9	1.7	18	89	12	+0	36	15	..
Broadlands	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairapukao Forest	437	19.0	6.1	12.6	-1.7	22.6	11	-2.7	22	110	15	+13	43	15	..
Taupo	376	19.4	9.1	14.3	-1.2	22.3	23	1.0	22	127	16	+51	57	15	149
Wairakei Power Station	342	19.7	9.1	14.4	-1.2	23.0	20	1.6	22	116	16	+32	57	15	..
Wairakei Research Station	402	20.0	8.0	14.0	-0.8	22.9	2	-1.0	22	115	13	+34	61	15	..
Minginui Forest	366	19.4	7.7	13.6	-1.1	23.5	11	-2.0	18	121	12	+17	31	2	..
Taupo Airport	407	18.7	8.8	13.8	..	21.7	3	-0.7	18	108	13	..	51	15	..
Waimihia Forest	743	15.5	7.3	11.4	-1.4	18.5	11	-1.0	18	167	15	+58	55	15	..
Opotiki	6	21.3	11.5	16.4	-1.0	24.9	3	3.7	18	124	13	-3	64	15	187
Waimana	37	21.7	9.6	15.7	-1.4	25.7	20	1.7	18	99	13	-58	42	15	..
Mangere, Auckland	4	20.8	13.8	17.3	-0.9	24.6	5	6.7	22	157	16	+73	79	15	161
Otara, Auckland	12	21.3	12.5	16.9	-0.8	24.7	11	4.4	22	160	17	+74	83	15	..
Orere Point	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Auckland Airport	8	20.7	13.9	17.3	-1.0	24.1	5	9.4	22	140	14	+59	63	15	171
Ardmore	30	21.1	11.6	16.4	-1.2	25.2	11	3.4	22	127	13	+33	54	15	..
Pukekohe	82	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maioro Forest	52	20.8	12.9	16.9	-0.8	24.4	6	6.0	22	143	15	+54	50	15	..
Hunua	122	20.2	10.6	15.4	..	23.9	4	2.5	22	114	15	..	39	15	..
Mercer	35	21.1	11.7	16.4	..	24.5	1	4.4	22	126	15	..	55	15	..
Maramarua Forest	38	21.4	10.4	15.9	-0.8	25.3	4	2.0	22	130	15	+33	65	15	..

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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 Max.	B Min.			Maximum	Date	Minimum	Date				Amount	Date	
	Metres	°C	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	Hrs	
Manaia Dem. Farm	98	18.1	10.8	14.5	-1.2	21.2	10	3.3	18	165	19	+84	33	2	126
Normanby	122	18.4	10.3	14.4	..	22.1	5	3.1	18	185	29	..	31	2	..
Patea	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ohakune Junction	629	16.7	7.5	12.1	..	22.1	1	-0.1	22	189	22	..	57	15	..
Karioi	648	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waiouru	823	15.2	6.7	11.0	-1.1	18.1	11	-2.8	22	168	22	+92	61	15	..
Waiouru Military Camp	823	14.6	6.5	10.6	-1.1	17.8	30	-1.3	22	171	22	+100	62	15	..
Taihape	433	18.8	8.0	13.4	-1.3	23.4	9	-0.2	22	159	16	..	55	15	..
Kahui, Taihape	518	17.8	8.8	13.3	-1.6	21.6	4	1.9	23	142	..	..	44	15	..
Wanganui	22	20.0	12.2	16.1	-0.7	24.7	5	6.4	22	141	16	+80	23	15	139
Wanganui Airport	9	20.7	11.7	16.2	..	27.1	30	5.5	14	133	15	..	24	15	..
Farewell Spit	3	19.7	12.2	16.0	-0.1	22.4	6	3.8	18	126	17	+42	28	1	..
Totaranui	10	19.6	11.5	15.6	..	22.0	5	5.3	18	116	11	..	26	28	..
Westport Airport	2	18.1	11.3	14.7	-0.4	23.0	5	5.5	18	237	21	+80	49	11	125
Cobb Dam	823	14.5	6.2	10.4	-1.4	19.5	30	-0.3	18	206	18	+38	39	11	..
Arapito	20	..	11.0	..	..	..	..	5.0	18	252	18	..	51	31	119
Karamea	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Rotoroa	443	17.4	7.5	12.5	..	22.4	5	0.4	18	174	18	..	30	16	..
Lake Rototiti	634	16.3	6.4	11.4	-1.2	19.5	5	-2.1	18	149	17	+27	34	12	..
Hokitika Airport	39	18.2	9.7	14.0	-0.5	24.5	3	3.8	18	250	18	+11	72	31	135
Reefton	198	18.7	8.8	13.8	-0.8	25.5	5	2.2	18	207	21	+65	36	31	..
Totara Flat	77	19.0	8.5	13.8	-0.8	25.0	5	1.5	18	215	17	+80	46	11	..
Greymouth	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otira Substation	383	16.6	8.1	12.4	..	23.5	5	1.0	18	405	17	+62	94	30	..
Springs Junction	421	17.1	6.7	11.9	..	23.8	6	-1.0	15	234	17	+84	32	16	..
Hari Hari	45	18.7	7.8	13.3	-0.9	24.7	2	0.8	18	251	19	-89	49	30	..
Franz Josef	122	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fox Glacier	152	18.1	8.6	13.4	..	24.0	2	3.2	21	308	19	-120	72	30	..
Milford Sound	3	17.6	7.6	12.6	-0.9	23.6	2	3.8	18	607	18	-23	109	30	..
Puyssegur Point	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stephens Island	187	16.6	11.6	14.1	..	18.8	12	6.8	21	149	17	+91	29	28	..
Riwaka, Motueka	8	20.3	9.5	14.9	-0.8	24.0	10	1.4	18	100	15	-4	21	28	169
Tapawera	146	20.0	7.7	13.9	..	23.9	30	0.2	18	141	15	..	37	12	..
Golden Downs Forest	274	19.0	7.4	13.2	-0.9	23.5	30	-0.7	18	137	15	+38	25	12	..
Appleby	17	19.8	10.1	15.0	-1.1	23.4	7	2.6	18	96	12	+15	36	28	..
Nelson Airport	2	19.9	10.2	15.1	-0.6	23.5	19	2.5	18	69	12	-12	24	28	172
Rai Valley	79	19.6	9.4	14.5	-0.6	22.6	9	1.5	18	164	12	+24	54	30	..
Moutere Hills	110	19.6	11.1	15.4	-0.7	23.2	5	4.2	18	93	13	+4	29	28	..
Blenheim Airport	27	19.6	9.9	14.8	-0.9	25.6	19	1.3	18	93	14	+40	35	1	..
Blenheim	4	20.3	10.5	15.4	-0.6	28.8	30	2.2	18	115	14	+64	45	1	147
Waihopai Power Station	262	18.7	8.9	13.8	-1.4	24.5	22	1.1	18	94	17	+30	23	30	..
Vernon Lagoons	2	19.8	9.9	14.9	-0.6	25.3	19	0.5	18	146	13	..	59	1	144
Lake Grassmere	2	18.5	11.7	15.1	-0.5	26.0	15	4.2	18	270	12	+227	129	2	136
Cape Campbell	3	17.6	12.3	15.0	-0.3	21.2	16	7.3	18	275	12	+227	139	1	..
Hanmer Forest	387	17.4	6.6	12.0	-1.8	23.0	30	-1.5	18	219	16	+128	62	2	116
Molesworth	893	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaikoura	99	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arthurs Pass	738	14.0	5.5	9.8	..	20.6	8	-0.8	18	262	13	-5	76	30	..
Balmoral Forest	198	18.5	8.2	13.4	-1.0	24.5	30	0.0	18	104	14	+53	27	2	..
Hawarden	244	18.1	7.8	13.0	..	25.5	19	-0.6	18	138	13	..	48	2	..
Waiau	137	19.0	8.1	13.6	..	25.6	30	-0.5	18	196	16	..	91	2	..
The Hermitage, Mt Cook	765	15.4	6.2	10.8	-1.5	21.6	6	1.7	28	462	20	+109	160	30	104
Mt John	1027	14.4	5.4	9.9	-1.4	19.1	9	0.0	18	74	13	+26	21	31	186
Craigieburn Forest	914	14.7	4.6	9.7	-1.8	20.2	9	-5.2	25	158	18	+56	20	30	..
Lake Coleridge	364	17.1	7.8	12.5	-1.2	23.3	9	0.6	18	80	16	+22	18	1	..
Highbank Power Station	336	16.5	8.2	12.4	-1.3	21.2	19	3.8	18	167	14	+81	38	2	158
Hororata Substation	192	18.0	7.6	12.8	-1.1	26.8	30	0.5	18	155	16	+84	35	2	..
Winchmore	160	17.5	8.1	12.8	-0.9	23.2	30	1.6	18	109	14	+35	22	1	..
Peel Forest	274	17.0	7.2	12.1	..	24.0	30	-1.0	18	114	20	..	29	2	..
Asburton	101	18.8	8.9	13.9	-0.9	26.6	30	2.4	18	129	13	+53	41	1	144
Waipara	64	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ashley Forest	107	17.5	9.2	13.4	-1.1	25.0	30	3.8	18	269	14	+198	111	2	141
Rangiora	46	18.4	8.5	13.5	-1.0	26.5	30	2.2	18	190	17	+134	75	2	..
Darfield	195	18.7	8.4	13.6	-0.9	25.1	30	2.2	18	149	16	+75	40	2	..
Eyrewell Forest	158	18.1	7.6	12.9	-1.2	24.4	30	1.2	18	183	15	+104	58	2	..
Christchurch Airport	30	18.2	9.6	13.9	-0.7	25.4	30	1.0	18	129	15	+76	49	2	163
Templeton	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Christchurch	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bromley, Christchurch	9	18.0	11.3	14.7	-0.3	26.0	30	2.5	18	91	15	+35	38	2	..
Mt Pleasant	137	17.6	11.4	14.5	-0.5	25.0	30	4.0	18	101	13	+48	40	2	..
Lincoln	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Broadfield, Lincoln	12	..	..	..	..	..	..	..	..	114	16	..	29	2	..
Akaroa	3	18.9	10.2	14.6	..	25.5	30	4.0	18	226	14	..	90	2	..
Lake Tekapo	683	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Pukaki	556	16.8	7.0	11.9	-1.7	22.0	6	1.1	18	64	17	..	14	11	..
Fairlie	304	18.5	5.9	12.2	..	24.7	19	0.0	18	106	15	..	27	2	..
Twizel	457	18.2	5.9	12.1	-0.9	23.5	6	-1.5	18	65	14	..	14	11	..

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		A Max.	B Min.			Maximum	Date	Minimum	Date				Amount		Date
	Metres	°C	°C	°C	°C	°C	°C	°C	°C	mm		mm	mm	31	Hrs
Ikawai	70	17.8	7.3	12.6	-0.6	24.0	20	1.0	18	129	15	..	30	31	..
Geraldine	119	18.5	8.0	13.3	..	26.0	30	0.5	18	202	13	..	57	1	..
Orari Estate	81	17.8	7.7	12.8	-1.1	26.3	30	0.3	18	169	15	+95	40	2	..
Temuka	24	17.9	7.9	12.9	-1.2	26.5	30	0.0	18	126	16	+62	34	2	..
Timaru Airport	26	17.6	7.6	12.6	-1.2	25.2	30	-0.5	18	117	16	+61	39	2	..
Adair	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timaru	17	17.9	8.8	13.4	-0.8	26.2	15	2.0	18	132	17	+74	37	2	124
Waimate	61	17.6	8.7	13.2	-1.2	25.1	30	3.1	18	130	17	+64	37	2	..
Kurow	207	18.7	8.0	13.4	..	24.3	19	2.8	26	97	19	..	30	2	..
Oamaru Airport	30	16.7	8.6	12.7	-0.9	25.4	19	1.9	18	82	14	+29	23	2	124
Tara Hills, Omarama	488	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Hawea	350	17.8	7.7	12.8	-1.6	23.9	7	2.2	18	109	13	+38	59	30	..
Wanaka	296	18.9	7.1	13.0	-1.5	25.7	7	0.8	18	112	11	+51	46	30	..
Queensberry	277	18.8	7.6	13.2	..	25.7	8	0.9	18	134	15	..	60	30	..
Bendigo	200	19.6	7.3	13.5	..	26.5	8	1.0	18	85	14	..	25	30	..
Naseby Forest	610	16.3	4.4	10.4	-1.1	25.1	9	-1.3	26	50	14	-16	19	10	..
Ranfurly	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herbert Forest	61	17.2	7.3	12.3	-0.9	26.0	19	1.3	21	88	16	+10	29	2	..
Palmerston	21	17.4	7.3	12.4	-0.3	25.0	19	1.9	18	108	15	..	34	2	134
Cherry Farm Hospital	6	16.9	7.8	12.4	-0.8	25.6	19	1.9	18	97	20	+39	24	2	..
Taiaroa Head	72	14.4	10.1	12.3	-0.3	23.3	19	5.4	18	75	17	+11	28	2	..
Invermay, Taieri	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Berwick Forest	18	17.6	7.5	12.6	-0.6	26.6	19	3.1	24	67	16	-4	22	2	..
Dunedin Airport	1	17.7	7.2	12.5	-0.4	25.3	19	0.6	28	63	14	-1	24	2	142
Musselburgh, Dunedin	2	16.1	10.0	13.1	-0.6	25.5	19	6.3	18	83	19	+7	22	2	135
Te Anau	215	17.1	6.6	11.9	-0.9	24.2	7	0.5	28	105	14	+6	25	30	150
West Arm, Manapouri	232	15.2	6.5	10.9	-1.5	22.0	8	1.7	28	373	18	..	60	16	..
Borland Burn	183	17.9	4.9	11.4	..	23.7	7	-1.7	28	117	..	..	..	..	..
Queenstown	329	18.6	8.1	13.4	-0.4	24.9	7	2.9	18	114	13	+38	50	30	174
Queenstown Airport	349	17.0	6.7	11.9	-1.1	22.5	7	1.0	18	79	14	+10	38	30	..
Cromwell	213	19.1	6.9	13.0	-1.9	26.8	8	1.0	18	60	11	+19	21	30	164
Northburn	210	19.3	7.2	13.3	..	26.7	8	1.3	18	60	15	..	20	2	..
Clyde Dam	160	19.2	7.6	13.4	..	25.5	7	2.3	26	58	13	..	15	2	..
Ophir	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moa Creek	427	18.2	3.5	10.9	-1.0	25.0	8	-4.0	18	27	9	-16	8	10	..
Earnsclough	152	19.7	6.1	12.9	-0.9	26.3	7	-0.6	26	46	10	+5	16	2	..
Alexandra	141	19.6	7.5	13.6	-1.0	26.4	7	1.5	18	51	11	+13	29	2	166
Roxburgh Power Station	110	19.0	6.8	12.9	-1.3	26.4	7	1.0	18	67	8	+19	33	2	..
Moa Flat	410	16.0	5.6	10.8	-0.9	23.0	7	1.7	18	56	12	-18	18	2	..
Mahinerangi Dam	396	15.4	6.5	11.0	-0.4	22.2	19	1.2	18	58	18	-33	11	2	..
Tapanui	226	16.8	7.0	11.9	-1.0	24.2	7	2.9	18	83	14	-1	24	2	..
Rankleburn Forest	255	16.1	..	11.4	-0.8	24.5	19	2.0	29	127	15	+36	38	2	..
Taieri Mouth	15	15.9	8.2	12.1	-0.4	26.1	19	3.7	24	75	16	+6	18	2	..
Otautau	55	17.4	6.2	11.8	-0.8	24.1	19	1.4	28	92	13	+1	25	16	122
Winton	44	17.6	6.3	12.0	-1.1	24.1	19	0.8	1	75	14	+6	13	30	136
Gore	123	16.5	7.6	12.1	-0.6	22.4	19	3.5	26	92	19	..	23	2	130
Hokonui Forest	46	17.7	7.1	12.4	-0.8	24.6	7	3.1	23	114	13	+20	34	2	..
Woodlands	47	17.3	7.0	12.2	-0.6	23.8	19	2.5	26	129	25	..	34	2	..
Invercargill Airport	0	17.2	7.5	12.4	+0.0	23.9	19	2.5	29	91	22	-3	22	2	141
Tiwai Point, Bluff	5	17.1	8.9	13.0	-0.4	23.0	9	5.5	23	72	19	..	12	17	..
Stewart Island	3	15.2	7.6	11.4	..	21.0	6	1.5	26	79	22	..	23	16	..
Milton	18	16.7	7.3	12.0	-1.0	25.4	19	1.8	28	65	14	+1	15	2	..
Finegand, Balclutha	6	17.2	7.9	12.6	-0.6	25.0	19	2.9	24	63	16	..	18	2	130
Owaka	5	16.3	7.2	11.8	..	24.2	19	2.2	24	83	17	..	31	2	..
Nugget Point	129	14.7	8.7	11.7	-1.1	23.5	19	4.0	18	80	26	+11	16	2	..
Tautuku	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rarotonga Airport	7	30.2	24.0	27.1	+1.4	31.4	9	21.5	31	348	21	+102	71	28	205
Raoul Island	38	24.4	18.8	21.6	-0.3	26.6	13	15.7	26	72	15	-60	39	2	212
Waitangi, Chatham Island	44	17.1	10.2	13.7	-0.5	19.7	10	6.5	22	67	24	-17	17	15	141
Campbell Island	15	11.8	7.3	9.6	+1.1	13.8	9	-0.6	26	104	25	-26	22	15	79
Nandi Airport, Fiji	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scott Base, Antarctica	16	-14.7	-24.4	-19.6	+0.6	-6.1	14	-35.0	28	..	..	..	..	..	..

LATE RETURNS AND CORRECTIONS

Broadlands 02/1980	305	23.8	10.2	17.0	..	29.3	1	3.1	28	44	..	..	..	..	..
Pukekohe 02/1980	82	22.3	14.3	18.3	-0.3	26.3	4	9.3	12	73	14	..	16	14	137
Omata 02/1980	61	21.6	14.2	17.9	-0.2	26.0	17	11.2	25	89	11	..	20	25	..
Chateau, Mt Ruapehu 01/1980	1119	17.6	7.2	12.4	+0.7	24.2	30	2.9	18	453	16	+265	96	22	..
Chateau, Mt Ruapehu 02/1980	1119	17.8	6.8	12.3	+0.1	25.4	1	1.2	24	185	13	-21	40	25	..
Makaretu 02/1980	335	22.8	11.9	17.4	+0.6	30.9	3	5.3	25	57	10	..	32	13	..
Portland Island 02/1980	78	21.8	16.3	19.1	+0.7	26.4	5	10.1	28	27	11	-24	12	13	..
Foxton 02/1980	3	..	..	..	..	..	..	..	..	47	7	-14	14	21	..
Stratford Mountain House 02/1980	846	17.2	7.7	12.5	-0.4	22.0	2	3.5	25	373	15	-64	86	9	..

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for March 1980—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	°C	mm	mm	mm	mm	Hrs		
LATE RETURNS AND CORRECTIONS															
Waiouru Military Camp 02/1980	823	18.7	8.7	13.7	+0.6	24.7	1	0.2	12	51	13	-25	13	26	..
Kahui, Taihape 01/1980	518	..	..	..	..	..	..	..	..	65	..	..	..	..	..
Kahui, Taihape 02/1980	518	21.8	10.9	16.4	-0.2	28.4	10	3.0	12	58	10	..	28	18	..
Wanganui Airport 02/1980	9	22.4	13.6	18.0	..	30.2	9	7.3	24	34	10	..	7	26	..
Karamea 01/1980	5	..	..	..	..	..	..	..	..	222	..	..	42	18	..
Springs Junction 02/1980	421	20.3	8.2	14.3	..	26.8	2	0.1	12	255	12	+85	79	9	..
Rai Valley 02/1980	79	21.6	10.2	15.9	-0.5	26.1	5	3.5	24	150	10	+23	44	9	..
Craigieburn Forest 02/1980	914	17.7	6.7	12.2	-1.3	29.1	2	-0.9	12	92	18	-12	27	25	..
Waipara 02/1980	64	23.0	9.9	16.5	..	31.1	6	1.4	12	18	..	..	5	10	..
Lincoln 02/1980	11	21.0	10.7	15.9	-0.5	31.1	3	2.8	12	55	11	-1	18	10	164
Alexandra 02/1980	141	22.2	9.3	15.8	-1.0	28.7	3	2.5	11	42	9	+4	16	18	183
Gore 02/1980	123	18.6	8.6	13.6	-0.8	26.0	1	2.5	11	71	17	..	16	3	159
Stewart Island 01/1980	3	17.0	10.0	13.5	..	24.5	31	3.5	9	183	23	..	69	16	..
Raoul Island 10/1979	38	20.6	15.2	17.9	+0.4	22.5	10	10.2	24	59	14	-27	23	19	188
Raoul Island 11/1979	38	21.5	16.1	18.8	+0.0	24.0	30	12.0	10	30	15	-51	15	15	213
Raoul Island 12/1979	38	23.9	17.5	20.7	+0.2	25.1	31	12.5	9	142	12	+53	57	8	244
Totokoitu, Rarotonga 02/1980	9	29.0	23.6	26.3	..	31.4	29	22.5	8	287	17	..	91	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 rainy 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 MARCH 1980

General—During March pressures were below normal over the whole of New Zealand for the fourth consecutive month. Strong westerly winds were more frequent than usual in the north of the North Island. In the south of the South Island there was a greater frequency than usual of north-easterly winds. Over most of New Zealand March was a wet, cloudy, and cool month. From the 1st to the 3rd a depression of tropical origin moved across central New Zealand bringing rain and gale force winds to many districts. In the Auckland area winds gusting to more than 83 km/h (45 knots) caused yachts to break their moorings and run aground, and many houses lost roofs and had windows smashed. A further storm on the 15th/16th caused damage to yachts, houses, and power lines when winds gusting to 106 km/h (57 knots) were recorded in Auckland. The associated rain caused slips which blocked the main trunk railway north of Auckland.

Although grass growth was good in most areas, ground conditions had become very wet by the end of the month. Stock was in good condition, apart from some cases of bloat in dairy cattle and grass staggers in sheep. Milk production was higher than last year, but lambs were slow to fatten.

Rainfall—The only areas with below normal rainfall were parts of Northland, Bay of Plenty, Nelson, the West Coast, Otago, and Southland. Some areas in these districts had less than 75 percent of their normal March rainfall. The wettest areas were in Hawke's Bay, Wairarapa, Marlborough, the Kaikoura Coast, and North Canterbury. Departures of between 200 and 400 percent above normal were reported in Hawke's Bay and Kaikoura.

During the period from 9 a.m. on the 1st to 9 a.m. on the 5th, 335 mm of rain were recorded at Kaikoura. On the 2nd the 1-day rainfall total was 235 mm, the highest recorded in any month at this station since it began in 1950. The east coast railway line from Picton was closed by numerous slips, and many inland roads were also closed. Some families were evacuated as flood waters rose in western areas of the town. The total for the month of 384 mm was more than 400 percent above normal.

At Albert Park (Auckland) 78 mm of rain were recorded in the 6 hours from 9 a.m. to 3 p.m. on the 15th, this being the fourth highest 6-hour fall in any month since the station began recordings in 1962.

Temperatures—Temperatures were below normal throughout the whole of the country apart from some areas in Southland. In Bay of Plenty they were below average by more than 1.5°C, and in Northland, Auckland, Manawatu, Wellington, Wairarapa, Canterbury, and parts of Otago by 1.0°C. Both daytime maximums and nighttime minimums were lower than usual in most districts. The only warm spell was from the 4th to the 6th and the coldest day was the 18th. Kelburn (Wellington) recorded its lowest March minimum temperature (5.0°C) since 1949 on the 18th of the month.

Sunshine—The only areas with near normal sunshine hours were Northland, Waikato, Canterbury, Otago, and Southland. In Bay of Plenty, Poverty Bay, Manawatu, Wellington, Wairarapa, Hawke's Bay, Marlborough, and the West Coast the totals were between 60 and 80 percent of normal. The following stations recorded their lowest March sunshine hours since they began recordings in the years indicated. Gisborne 146 (1938), Waipukurau 113 (1945), Waingawa (Masterton) 103 (1930), and Blenheim 146 (1930).

WEATHER SEQUENCE FOR MARCH 1980

The depression in the Tasman Sea that had been moving towards New Zealand at the end of February continued to move southwards, but late on the 1st began to move south-east across central districts of the country. Late on the 2nd the depression had moved north-east and was lying to the east of the North Island. Heavy rain was recorded in Wairarapa, Wellington, Marlborough, and the Kaikoura coastal area during the passage of this depression. In the 48 hours up

to 9 a.m. on the 3rd 300 mm of rain were recorded at Kaikoura, and more than 200 mm at Cape Campbell. In other districts falls of between 50 and 100 mm were recorded in the same period. The only areas without rain were parts of Westland, Fiordland, and Southland.

On the 3rd a ridge of high pressure covered the South Island and by the 4th extended onto the North Island. By the evening of the 5th the ridge had moved eastwards, and a weak cold front was approaching the South Island. A small disturbance in the Tasman Sea moved across the north of the North Island late on the 5th and this brought moderate rain to some parts of Northland. Light showers were reported in some eastern districts of the South Island. The ridge of high pressure became re-established over most of the country on the 6th and this then persisted until late on the 9th. Some moderate to heavy rain was recorded in Northland and Poverty Bay as a small depression moved eastwards to the north of the North Island on the 7th. Early on the 10th a trough of low pressure had moved onto the South Island and then moved north. Some heavy rain was reported in Fiordland and Westland, but in other districts light to moderate falls were recorded. Temperatures were cooler than usual throughout the whole of New Zealand during the first 9 days of the month, in some eastern districts daytime temperatures were below normal by 5°C.

By the 13th an anticyclone had moved from the Tasman Sea onto New Zealand, and a depression of tropical origin was moving slowly south-east towards the North Island. Most of the country had fine weather for most of the 13th and 14th. On the 15th the depression had moved onto Northland, and a cold front associated with a depression moving to the south of the country had passed onto the South Island. Heavy rain was recorded in areas north of Wellington and southern Wairarapa, and also on the West Coast. Some stations in the North Island had 24-hour falls of 50 to 100 mm and on the West Coast more than 50 mm were reported. A strong south-west airstream covered the country from the 16th to the 18th and disturbances in this flow brought light to moderate rain to most of New Zealand. Temperatures were cooler than normal until the 18th in most districts.

During the afternoon of the 19th a cold front crossed onto the South Island and moved north-east. More than 100 mm of rain were recorded in 24 hours on the West Coast, with moderate falls west of the main ranges in the South Island and throughout the North Island. By the morning of the 21st a ridge of high pressure extended onto New Zealand from an anticyclone centered in the Tasman Sea. Fine weather prevailed in most districts apart from Poverty Bay, Hawke's Bay, Wairarapa, Fiordland, and Southland. The ridge persisted until the 24th when a trough of low pressure moved onto Fiordland during the evening. Most of the country reported light rain as the trough moved northwards. On the 26th a further trough had crossed onto the South Island and this brought rain to most areas west of the main ranges. The only warm spell during the month occurred on the 19th and 20th, with maximum temperatures 5°C above normal in some districts.

On the 27th the situation became complex, with a ridge of high pressure over the North Island, and depressions developing in a trough of low pressure in the central Tasman Sea. A cold front ahead of one of the depressions brought heavy rain to Taranaki, Waikato, and Bay of Plenty. Some stations recorded 24-hour falls in excess of 40 mm. A cold front associated with a depression moving to the south of New Zealand caused heavy rain in Fiordland and Westland on the 29th and 30th. By the afternoon of the 30th multiple low pressure centres developed in a trough in the Tasman Sea, and this progressed eastwards towards the country. As this complex system crossed the country on the 30th and 31st heavy rain was recorded in Taranaki, Manawatu, Wairarapa, Wellington, Marlborough, and the West Coast. Most other districts of New Zealand reported moderate falls. On the West Coast there were 24-hour falls of more than 100 mm, and in the North Island nearly 50 mm. Temperatures were cooler than usual at the end of the month.

J. S. HICKMAN, Director.

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

