



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 7 AUGUST 1980

Published by Authority

WELLINGTON: WEDNESDAY, 13 AUGUST 1980

CLIMATOLOGICAL TABLE FOR JUNE 1980

NEW ZEALAND METEOROLOGICAL SERVICE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for June 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	°C	mm	mm	mm	mm	Hrs	
Cape Reinga	191	..	..	..	..	..	..	..	..	153	..	+41	..	..
Kaitaia Airport	80	15.9	9.7	12.8	+0.2	18.8	4	4.2	16	183	21	+26	47	3	
Aupouri Forest	69	16.1	10.6	13.4	+0.3	19.8	2	5.4	16	139	20	-16	36	3	
Kerikeri Aerodrome	150	15.5	7.8	11.7	..	19.0	2	2.6	19	267	20	..	55	21	
Umawera	50	15.7	7.6	11.7	..	20.5	2	-0.4	17	255	21	..	122	21	
Kaikohe	204	14.2	8.5	11.4	+0.2	17.8	1	3.1	19	304	22	..	92	21	
Waiotemarama	229	14.3	9.1	11.7	..	17.7	2	2.6	19	243	21	..	82	21	
Waipoua Forest	88	15.6	7.7	11.7	+0.4	20.5	2	-1.0	19	273	24	+75	85	21	
Dargaville	20	15.6	8.0	11.8	+0.2	20.0	2	-1.7	19	222	23	+72	76	21	
Waitangi Forest	55	15.9	8.3	12.1	-0.3	19.8	1	2.9	19	221	17	+69	63	30	
Glenbervie Forest	107	15.0	5.5	10.3	+0.0	20.1	2	-2.1	19	278	20	+77	78	21	
Whangarei Airport	37	15.5	8.1	11.8	-0.2	20.9	2	1.6	19	208	18	+48	70	21	
Whangarei	29	16.2	6.9	11.6	-0.3	22.2	2	-0.2	19	240	17	..	81	21	
Marsden Power Station	3	15.8	8.4	12.1	-0.7	20.5	2	2.0	16	181	23	..	52	21	
Te Hana	10	..	..	..	..	..	..	..	..	..	..	..	..	..
Leigh	27	15.6	9.4	12.5	-0.2	19.8	2	5.0	15	163	14	+20	49	30	
Warkworth	72	14.9	7.0	11.0	+0.1	18.2	2	0.0	19	170	20	..	68	30	
Oyster Point	0	15.1	7.8	11.5	..	18.2	4	0.0	19	154	23	..	33	30	
Woodhill Forest	30	15.4	7.3	11.4	+0.3	18.4	3	0.4	20	168	17	+23	32	3	
Riverhead Forest	28	14.9	..	..	..	18.5	2	..	..	133	16	-30	21	30
Kumeu	32	15.0	6.4	10.7	..	18.0	2	-1.5	16	140	19	..	24	30	
Whenuapai	26	14.9	7.4	11.2	+0.6	18.0	2	0.2	16	126	21	-26	25	30	
Albert Park, Auckland	49	15.2	9.1	12.2	+0.4	19.7	2	5.1	16	107	22	-28	32	30	
Owairaka, Auckland	41	14.8	8.2	11.5	+0.5	18.5	2	1.8	27	106	21	-41	27	30	
Port Fitzroy	4	15.6	9.4	12.5	+0.0	18.7	2	3.1	16	298	21	+87	78	21	
Coromandel	43	15.2	6.8	11.0	..	19.5	4	0.3	15	290	16	..	127	30	
Whangapoua Forest	4	15.5	6.7	11.1	+0.3	19.1	2	-0.7	27	269	16	+53	86	30	
Thames	3	14.8	7.7	11.3	+0.4	20.1	4	0.4	18	116	17	-19	47	30	
Tairua Forest	3	14.8	6.0	10.4	-0.2	18.6	6	0.0	27	265	15	+72	109	30	
Paeroa	4	14.9	5.1	10.0	+0.5	17.9	2	-2.9	27	184	18	+47	38	30	
Waihi	91	13.9	5.7	9.8	+0.2	17.0	6	-3.2	27	262	17	+44	74	30	
Te Aroha	12	14.8	5.5	10.2	+0.2	19.8	4	-1.4	15	155	18	+18	53	30	
Katikati	2	..	5.3	..	..	..	..	-2.4	27	213	12	..	45	30
Tauranga	2	14.6	7.4	11.0	+0.3	18.3	8	2.4	28	145	13	..	43	30	
Tauranga Airport	4	14.7	6.1	10.4	+0.3	18.0	8	0.4	28	132	13	+0	47	30	
Te Puke	91	14.3	5.4	9.9	+0.1	17.9	6	-0.8	28	187	14	..	61	30	
Rotoehu Forest	72	14.2	4.9	9.6	+1.2	18.2	8	-2.0	15	175	11	+25	70	30	
Edgecumbe	5	..	..	..	..	..	..	..	..	209	11	..	78	30
Whakatane	2	15.0	4.7	9.9	+0.1	17.0	4	0.0	28	186	11	+62	67	30	
Whakatane Airport	6	14.4	3.2	8.8	..	17.1	4	-2.7	28	197	13	..	71	30	
Port Ohope	9	14.8	7.0	10.9	..	17.9	7	1.4	15	138	11	..	48	30	
Kinleith	383	11.7	3.7	7.7	+0.6	15.6	4	-2.5	15	134	13	-59	50	30	
Tokoroa	305	12.5	2.0	7.3	+0.1	16.3	4	-5.0	15	173	22	..	54	30	
Tikitere	338	11.9	5.0	8.5	..	15.2	4	-0.5	28	229	11	..	84	30	
Kawerau	30	14.9	4.8	9.9	+0.3	18.1	3	-0.1	13	249	12	+84	85	30	
Te Teko	8	14.9	4.6	9.8	+0.4	18.5	6	-0.8	15	200	13	+58	77	30	
Whakarewarewa	307	12.3	3.9	8.1	+0.1	16.0	8	-2.9	28	189	13	+39	71	30	
Rotorua Airport	287	12.4	3.9	8.2	+0.1	16.0	4	-2.7	28	178	13	+36	69	30	
Tarawera Forest	61	14.5	1.7	8.1	+0.0	18.0	6	-3.0	28	258	11	+62	94	30	
Waiotapu Forest	435	11.1	2.0	6.6	+0.4	15.1	4	-5.9	28	159	14	+14	48	30	
Atiamuri Power Station	253	12.2	3.3	7.8	+0.3	16.2	4	-2.6	18	104	14	-37	35	30	
Kaingaroa Forest	544	10.5	1.6	6.1	-0.3	14.3	4	-5.0	28	168	14	+23	47	30	
Murupara	198	12.8	2.6	7.7	..	16.8	8	-4.3	27	147	13	+25	58	30	
Broadlands	305	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairapukao Forest	437	11.3	-0.5	5.4	-0.4	15.1	4	-8.5	28	148	15	+11	44	30	
Taupo	376	11.7	3.1	7.4	+0.2	15.0	4	-2.6	15	123	15	+1	32	30	
Wairakei Power Station	342	11.7	2.9	7.3	-0.1	16.0	4	-3.0	27	139	14	+9	43	30	
Wairakei Research Station	402	11.7	2.0	6.9	+0.2	15.6	8	-4.0	15	147	13	+23	47	30	
Minginui Forest	366	11.7	1.5	6.6	+0.4	16.2	4	-6.2	28	154	17	+9	54	30	
Taupo Airport	407	11.3	2.1	6.7	..	15.5	4	-4.7	15	91	14	..	23	30	
Waimihia Forest	743	8.5	1.2	4.9	+0.2	13.0	4	-4.5	28	139	14	-34	44	30	
Opotiki	6	14.9	4.8	9.9	+0.1	17.8	22	-1.0	15	158	12	+23	58	30	
Waimana	37	14.8	2.2	8.5	+0.0	17.6	6	-4.7	28	228	13	+60	78	30	
Mangere, Auckland	4	14.8	8.4	11.6	+0.6	18.2	2	1.5	27	104	16	-31	26	30	
Otara, Auckland	12	15.0	7.0	11.0	+0.5	19.6	2	0.7	16	132	20	+2	38	3	
Orere Point	30	..	..	..	..	..	..	..	..	..	..	..	..	..
Auckland Airport	8	14.4	8.4	11.4	+0.4	17.9	2	2.8	27	100	19	-32	22	30	
Ardmore	30	14.8	6.4	10.6	+0.3	19.2	2	0.7	15	145	14	+0	39	30	
Pukekohe	82	14.1	7.1	10.6	+0.5	18.0	2	2.5	27	151	19	..	32	30	
Maio Forest	52	14.8	7.5	11.2	+0.3	17.0	3	1.8	27	163	18	+13	43	30	
Hunua	122	14.2	5.3	9.8	..	19.1	7	-1.6	27	149	15	..	46	30	
Mercer	7	..	..	..	..	..	..	..	..	..	..	..	..	..
Maramarua Forest	38	14.2	4.1	9.2	-0.1	17.7	4	-3.6	15	150	15	+18	42	30	
Te Kauwhata	32	14.4	6.2	10.3	+0.5	20.0	7	0.3	27	136	22	+1	26	30	

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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	mm	mm	mm	mm	mm		
Ruakura, Hamilton	40	14.0	4.3	9.2	+0.3	17.5	2	-3.9	27	152	14	+20	53	30	98
Whatawhata	104	13.8	5.4	9.6	+0.0	17.2	2	-1.8	27	192	19	+1	46	30	100
Rukuhia	66	13.9	5.1	9.5	+0.2	17.5	4	-1.9	27	126	15	-11	35	30	103
Hamilton Airport	50	14.1	3.7	8.9	+0.4	18.0	8	-4.5	27	136	16	+4	40	30	..
Cambridge	76	13.7	4.7	9.2	..	17.6	4	-2.8	15	116	15	..	43	30	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Station Mokau	46	13.7	6.6	10.2	-0.1	17.4	4	1.5	15	148	11	-37	33	6	..
Arapuni Power Station	123	13.4	3.9	8.7	+0.1	16.5	2	-2.3	15	129	15	-26	42	30	..
Waikeria	46	13.6	3.5	8.6	..	17.5	4	-4.2	27	95	18	..	26	30	..
Te Kuiti	61	13.5	4.1	8.8	+0.1	17.3	4	-2.0	18	140	19	-28	28	30	87
Pureora Forest	549	10.5	1.9	6.2	+0.2	14.5	2	-5.0	15	143	16	-53	45	30	..
Taumarunui	171	12.5	3.1	7.8	+0.0	17.2	4	-3.2	20	86	20	-66	24	30	69
Omata	61	14.4	8.6	11.5	+0.4	17.5	2	4.6	15	246	18	..	79	11	..
New Plymouth	55	14.2	7.2	10.7	..	17.9	2	0.3	27	284	16	..	75	30	..
New Plymouth Airport	27	13.9	6.9	10.4	+0.7	17.4	2	1.6	27	161	14	-7	40	11	131
Tikorangi	77	13.3	6.2	9.8	..	17.4	2	0.5	27	156	16	..	30	4	..
Te Wera Forest	180	..	2.8	..	..	..	..	-5.6	27	164	15	-16	34	11	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	11.6	2.5	7.1	+0.0	15.4	23	-5.0	27	138	14	..	28	30	104
Chateau, Mt Ruapehu	1119	7.5	-0.6	3.5	+0.3	11.6	23	-6.0	15	242	21	-50	45	4	..
Mangamutu, Pahiatua	116	12.1	2.7	7.4	-0.2	16.5	3	-3.9	27	77	20	-63	28	11	..
Mt Bruce Reserve	305	11.0	3.0	7.0	+0.5	17.8	3	-5.0	28	151	21	..	38	11	..
Waingawa, Masterton	114	12.3	3.0	7.7	+0.1	17.5	3	-2.5	27	91	21	-16	29	11	71
Kopua	311	10.7	2.8	6.8	-0.6	16.5	3	-2.3	28	97	21	-7	15	21	..
Waipukurau	137	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dannevirke	207	11.6	3.1	7.4	-0.2	16.5	3	-3.9	28	67	20	-35	23	11	65
Castlepoint	3	..	..	..	..	..	..	..	..	86	19	-23	32	11	..
Ngaumu Forest	244	11.7	2.5	7.1	+0.5	17.2	3	-3.6	28	148	21	+13	24	11	..
Tauherenikau, Alloa	43	12.8	3.0	7.9	-0.3	18.0	3	-2.1	28	110	18	-2	46	11	..
Gladstone, Arahura	116	12.3	2.5	7.4	-0.1	17.5	2	-3.6	28	101	17	-11	32	11	..
Waiorongomai	21	12.2	4.4	8.3	-0.1	16.9	3	-0.8	14	213	20	+45	64	11	..
Cape Palliser	10	..	..	..	..	..	..	..	..	133	17	+24	46	11	..
East Cape	17	14.8	7.9	11.4	-0.7	18.8	3	3.2	29	212	25	+60	60	21	..
Ruatoria	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mangatu Forest	182	13.3	4.7	9.0	+0.1	18.5	2	-1.5	28	227	21	+90	50	16	..
Manutuke Gisborne	9	14.1	5.4	9.8	+0.4	20.1	2	-1.2	27	241	22	+139	43	7	..
Gisborne Airport	4	14.2	5.3	9.8	+0.1	20.6	2	0.2	28	185	22	+73	48	21	97
Onepoto, Waikaremoana	643	9.3	3.7	6.5	-0.3	15.5	3	-0.4	28	378	22	+190	65	21	..
Wharerata Forest	439	11.5	..	..	..	..	..	..	..	462	..	..	..	..	..
Esk Forest	427	10.5	4.2	7.4	-0.2	16.9	2	-2.4	27	270	17	+105	51	7	..
Kaweka Forest	414	11.0	5.0	8.0	-0.3	18.8	2	0.6	27	114	17	..	27	21	..
Napier Airport	2	13.3	4.2	8.8	..	17.5	2	..	..	129	19	+32	26	22	..
Napier	2	13.4	4.6	9.0	-0.6	18.1	2	-2.0	28	122	19	+33	20	21	94
Hastings	12	13.0	3.7	8.4	-0.6	17.3	3	-2.0	28	106	19	+27	26	21	..
Havelock North	9	13.2	2.5	7.9	-0.3	17.6	3	..	..	119	19	+35	26	21	92
Gwavas Forest	335	11.0	2.2	6.6	+0.0	16.0	2	-2.8	28	121	19	+9	28	21	..
Makaretu	335	11.5	2.3	6.9	-0.7	17.3	2	-3.0	28	85	19	..	23	21	..
Mohaka Forest	286	11.7	4.2	8.0	-0.3	18.0	3	-2.0	28	343	21	+208	51	21	..
Frasertown, Wairoa	8	14.0	5.7	9.9	+0.4	20.0	2	-0.7	28	270	21	+135	40	18	..
Wairoa	20	..	5.7	..	..	..	..	-0.1	28	228	19	..	38	14	70
Portland Island	78	..	..	..	..	..	..	..	..	101	20	-8	18	21	..
Kapiti Island	16	11.7	8.1	9.9	+0.0	14.9	4	4.5	28	140	18	+33	51	11	..
Paraparaumu Aerodrome	7	13.0	5.1	9.1	+0.2	17.4	4	-1.3	28	123	15	+19	45	11	118
Flockhouse, Bulls	9	13.4	2.7	8.1	-0.7	17.4	2	-2.9	16	62	12	-27	29	11	..
Ohakea	48	12.9	4.5	8.7	-0.4	17.4	2	0.5	15	62	12	-29	33	11	102
Wharite Peak	914	6.0	2.0	4.0	+0.2	13.6	4	-1.6	15	131	21	-72	26	11	..
Kairanga Palmerston North	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston North Airport	45	13.0	3.3	8.2	+0.1	17.4	3	-2.4	27	55	14	-34	19	11	..
Palmerston North D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Massey University	61	12.4	4.4	8.4	..	16.3	2	-1.0	27	59	12	-40	22	11	..
Foxton	3	..	..	..	..	..	..	..	..	91	13	+0	32	11	..
Waitarere Forest	3	13.0	3.7	8.4	+0.0	16.0	3	-2.1	17	91	14	+5	32	11	..
Levin	46	13.0	4.9	9.0	+0.1	16.7	4	-0.3	28	97	16	-12	29	11	97
Taita, Lower Hutt	65	12.6	5.2	8.9	+0.3	15.7	30	-0.2	28	201	20	+59	59	11	81
Avalon, Lower Hutt	15	12.8	5.0	8.9	+0.2	16.5	30	1.3	28	195	19	+30	61	11	..
Kelburn, Wellington	125	12.0	6.7	9.4	+0.5	15.9	30	2.7	27	199	18	+64	61	11	106
Somes Island	43	12.3	7.0	9.7	..	16.5	30	3.5	21	143	19	..	55	11	..
Gracefield, Lower Hutt	34	12.6	6.2	9.4	+0.1	17.1	30	1.8	27	169	18	+19	67	11	..
Wainuiomata	82	12.2	4.3	8.3	+0.1	16.6	30	-0.6	21	247	21	..	80	11	..
Wellington Airport	6	12.7	7.3	10.0	+0.4	17.3	30	1.8	21	181	18	+74	55	11	..
Kaitoke	223	11.6	2.9	7.3	+0.5	16.2	3	-4.0	28	219	20	-2	54	11	69
Wallaceville	56	12.9	3.1	8.0	+0.1	16.5	2	-3.0	28	177	23	+45	46	11	87
Cape Egmont	8	..	..	..	..	..	..	..	..	135	12	-25	60	11	..
Stratford Mountain House	846	7.7	2.0	4.9	+0.4	12.2	2	-2.5	27	827	22	+131	165	30	..
Stratford Dem. Farm	311	..	..	..	..	..	..	..	..	369	15	+148	140	11	..
Manaia Dem. Farm	98	12.8	5.3	9.1	-0.1	17.9	2	-1.7	27	127	17	-18	45	11	88
Normanby	122	12.6	4.8	8.7	..	17.9	2	-2.0	20	146	20	..	62	11	..

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Metres	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	mm	Hrs		
Patea	43	13.3	6.7	10.0	+0.1	18.0	2	0.5	20	109	13	-3	51	11	..
Ohakune Junction	629	9.1	1.6	5.4	..	15.4	4	-3.7	27	80	17	..	19	11	..
Karioi	648	10.0	1.5	5.8	+0.3	17.9	4	-3.2	27	54	17	-73	18	13	..
Waiouru	823	8.3	0.2	4.3	+0.0	14.4	2	-5.4	27	67	22	-55	17	13	..
Waiouru Military Camp	823	7.9	0.4	4.2	+0.2	13.9	2	-5.1	27	70	20	-52	16	30	..
Taihape	433	11.3	0.4	5.9	-0.5	17.2	2	-5.6	28	42	16	..	16	13	..
Kahui, Taihape	518	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wanganui	22	..	4.9	..	..	..	..	-0.8	20	65	12	-26	39	11	98
Wanganui Airport	9	13.8	5.3	9.6	..	18.0	2	0.6	20	65	11	..	46	11	..
Farewell Spit	3	..	..	..	..	..	..	..	..	150	10	+33	38	3	..
Totaranui	10	13.1	5.1	9.1	..	16.3	23	0.9	19	306	13	..	99	4	..
Westport Airport	2	13.1	5.1	9.1	+0.4	16.4	6	-0.2	16	156	16	-32	36	10	120
Cobb Dam	823	8.4	-0.7	3.9	+0.0	10.8	3	-5.1	18	275	13	+79	92	4	..
Arapito	20	13.5	4.2	8.9	..	17.7	4	-1.0	16	167	13	..	56	4	107
Karamea	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Rotoroa	443	9.2	0.4	4.8	..	15.4	4	-4.8	17	185	13	..	57	4	..
Lake Rotoiti	634	8.8	-1.8	3.5	+0.2	11.8	3	-6.6	22	136	14	-6	57	4	..
Hokitika Airport	39	12.3	3.6	8.0	+0.5	16.4	6	-1.5	18	190	15	-39	77	10	119
Reefton	198	9.1	0.5	4.8	+0.0	15.1	3	-6.5	20	157	16	-13	55	10	..
Barrytown	30	13.3	7.2	10.3	..	17.2	3	3.5	16	195	13	..	76	10	..
Totara Flat	77	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Greymouth	4	12.3	4.5	8.4	+0.1	15.5	3	0.6	22	191	16	-5	77	10	101
Otira Substation	383	9.2	0.9	5.1	..	12.5	6	-3.0	23	306	16	-65	185	10	..
Springs Junction	421	8.3	-1.3	3.5	..	12.6	3	-8.2	22	136	13	-42	63	10	..
Hari Hari	45	12.7	0.4	6.6	+0.6	17.7	6	-5.6	20	237	16	-17	94	10	..
Franz Josef	122	12.0	2.6	7.3	+0.3	16.5	6	-1.5	17	290	14	-7	108	10	..
Fox Glacier	152	12.0	2.6	7.3	..	17.1	6	-1.3	20	326	15	+9	110	10	..
Milford Sound	3	9.2	1.5	5.4	-0.3	16.1	6	-3.1	20	339	15	-80	83	10	..
Puysegur Point	43	11.3	5.9	8.6	..	15.8	29	2.0	16	186	21	-25	43	9	..
Stephens Island	187	..	..	..	..	..	..	..	..	93	11	+17	48	11	..
Riwaka, Motueka	8	13.2	2.4	7.8	+0.3	16.8	23	-1.7	18	226	11	+107	61	4	129
Tapawera	146	12.0	-0.6	5.7	..	16.4	5	-5.3	20	141	10	..	56	4	..
Appleby	17	13.1	3.1	8.1	+0.3	16.4	23	-1.3	18	189	10	+108	67	30	..
Nelson Airport	2	13.0	2.6	7.8	+0.8	15.9	4	-2.4	18	151	10	+72	51	4	138
Rai Valley	79	12.4	1.7	7.1	+0.8	16.7	2	-4.1	15	224	9	+61	94	4	..
Moutere Hills	110	12.2	5.7	9.0	+0.7	15.3	23	1.7	15	218	10	+124	84	30	..
Blenheim Airport	27	12.7	2.2	7.5	+0.5	17.6	3	-2.3	27	112	12	+51	34	4	..
Blenheim	4	13.1	2.7	7.9	+0.5	18.4	3	-1.6	27	94	12	+36	23	4	112
Waihopai Power Station	262	11.0	1.7	6.4	+0.0	17.2	3	-2.0	17	138	11	+69	49	30	..
Vernon Lagoons	2	12.9	2.1	7.5	+0.5	18.5	3	-3.0	28	84	13	..	19	4	103
Lake Grassmere	2	11.4	4.7	8.1	+0.4	16.9	3	-0.4	27	117	12	+66	35	4	110
Cape Campbell	3	12.2	7.2	9.7	+0.7	15.0	3	4.0	27	113	14	+47	36	4	..
Hanmer Forest	387	9.2	-1.2	4.0	-0.2	18.5	3	-5.7	28	120	14	+21	40	10	87
Molesworth	893	6.9	-3.8	1.6	-0.7	15.0	3	-10.6	20	84	11	+36	25	30	..
Kaikoura	99	11.1	5.6	8.4	+0.0	19.6	10	2.8	16	97	14	+31	31	15	105
Arthurs Pass	738	6.8	-2.5	2.2	..	10.0	3	-8.1	19	226	15	-64	118	10	..
Balmoral Forest	198	10.3	-1.2	4.6	-0.3	17.6	3	-7.0	22	55	10	+4	22	4	..
Hawarden	244	10.5	-0.5	5.0	..	18.4	3	-6.2	27	67	13	..	24	4	..
Waiau	137	10.3	-0.8	4.8	..	19.0	3	-6.9	22	69	14	..	18	4	..
The Hermitage, Mt Cook	765	7.7	-1.7	3.0	+0.1	14.5	23	-5.3	18	246	14	-5	134	10	72
Mt John	1027	..	..	..	..	..	..	..	..	93	6	+52	48	10	..
Craigieburn Forest	914	6.9	-1.6	2.7	+0.3	14.6	3	-5.5	18	151	20	+39	88	10	..
Lake Coleridge	364	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Highbank Power Station	336	9.7	1.3	5.5	-0.9	17.7	3	-2.5	28	104	11	+43	40	10	118
Hororata Substation	192	10.8	-1.4	4.7	-0.2	16.4	24	-6.8	21	107	15	+51	45	4	..
Winchmore	160	9.9	0.3	5.1	-0.1	15.4	10	-3.2	16	76	12	+20	41	4	..
Peel Forest	274	10.1	-0.7	4.7	..	16.2	10	-4.5	18	55	12	..	21	4	..
Ashburton	101	10.5	0.4	5.5	-0.3	15.8	24	-4.7	20	86	12	+30	45	4	120
Waipara	64	12.1	..	..	..	17.6	10	..	..	57	9	..	29	4	..
Ashley Forest	107	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rangiora	46	10.7	0.0	5.4	-0.5	17.3	10	-6.1	28	90	13	+49	41	4	..
Darfield	195	10.8	0.9	5.9	+0.4	17.3	24	-3.5	28	92	12	+34	40	4	..
Eyrewell Forest	158	10.1	-0.7	4.7	-0.6	17.2	30	-5.5	22	94	11	+36	38	4	..
Christchurch Airport	30	10.8	-0.3	5.3	-0.6	16.9	10	-5.1	27	76	14	+20	39	4	128
Templeton	46	10.1	0.8	5.5	..	16.0	24	-5.0	27	82	11	..	40	4	..
Christchurch	7	11.5	0.9	6.2	-0.1	16.4	3	-3.1	27	94	13	+38	41	4	..
Bromley, Christchurch	9	11.0	1.9	6.5	-0.3	15.6	10	-4.1	27	72	12	+19	38	4	..
Mt Pleasant	137	11.2	4.8	8.0	-0.1	16.5	24	1.7	22	89	12	+23	42	4	..
Lincoln	11	10.7	0.6	5.7	-0.1	15.9	10	-4.8	27	79	13	+21	37	4	105
Broadfield, Lincoln	12	..	..	..	..	..	..	..	..	83	17	..	36	4	..
Akaroa	3	12.1	1.6	6.9	..	17.0	29	-0.5	12	137	12	..	65	4	..
Lake Tekapo	683	..	-1.7	..	..	..	..	-6.8	20	113	7	+65	62	10	106
Lake Pukaki	556	6.7	-1.8	2.5	+0.2	13.6	23	-5.3	20	123	11	..	44	10	..
Fairlie	304	9.2	-3.1	3.1	..	16.2	3	-7.4	17	101	8	..	43	4	..
Twizel	457	6.9	-4.2	1.4	-0.4	14.5	23	-9.2	21	114	9	..	41	4	..
Ikawai	70	10.7	-0.7	5.0	-0.1	16.0	3	-5.5	21	130	5	..	82	4	..
Geraldine	119	10.1	-0.2	5.0	..	15.0	10	-4.6	18	87	10	..	42	4	..

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for June 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	mm		mm	mm	Hrs		
Orari Estate	81	9.8	0.2	5.0	+0.4	13.0	10	-4.0	18	84	11	+41	44	4	..
Temuka	24	10.5	0.3	5.4	+0.0	15.5	24	-4.0	22	104	8	+66	57	4	..
Timaru Airport	26	10.3	-0.4	5.0	-0.3	16.8	24	-4.5	22	102	8	+66	65	4	..
Adair	85	10.0	2.4	6.2	-0.3	16.0	23	-1.2	19	114	7	+78	73	4	..
Timaru	17	10.0	1.3	5.7	-0.2	15.8	24	-3.0	21	87	9	+51	55	4	116
Waimate	61	11.0	1.8	6.4	-0.2	16.6	24	-2.8	21	129	7	+88	85	4	..
Kurou	207	10.3	0.0	5.2	..	15.8	24	-4.1	28	83	5	..	56	4	..
Oamaru Airport	30	10.1	1.1	5.6	-0.1	16.0	24	-3.2	27	68	8	+35	56	4	114
Tara Hills, Omarama	488	7.0	-3.6	1.7	-0.6	15.1	23	-8.1	21	87	9	+57	27	5	121
Lake Hawea	350	7.2	0.1	3.7	-0.5	13.4	23	-4.1	28	96	10	+38	35	10	..
Wanaka	296	8.1	-1.4	3.4	-0.4	14.2	3	-5.5	28	92	11	+41	31	4	..
Queensberry	277	6.7	-0.7	3.0	..	13.9	24	-5.2	17	49	15	..	18	10	..
Bendigo	200	7.4	-1.0	3.2	..	14.8	3	-5.8	27	36	11	..	17	4	..
Naseby Forest	610	7.0	-2.4	2.3	+0.1	13.3	3	-6.8	20	67	8	+29	39	4	..
Ranfurly	427	7.0	-3.3	1.9	..	13.4	3	-8.4	28	53	9	..	32	4	95
Herbert Forest	61	10.4	0.2	5.3	-0.3	16.8	3	-4.0	19	135	10	+95	94	4	..
Palmerston	21	10.7	-0.8	5.0	-0.2	16.1	3	-6.9	21	135	10	..	93	4	117
Cherry Farm Hospital	6	10.3	0.5	5.4	-0.7	14.4	10	-2.7	21	159	13	+106	109	4	..
Taiaroa Head	72	..	..	..	..	..	..	..	..	86	12	+28	53	5	..
Invermay, Taieri	30	9.8	0.5	5.2	..	16.7	3	-5.3	21	253	11	..	151	4	95
Berwick Forest	18	9.4	0.8	5.1	-0.1	14.3	10	-6.0	21	135	15	+74	77	4	..
Dunedin Airport	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Musselburgh, Dunedin	2	9.9	3.5	6.7	-0.1	15.0	3	-1.5	19	195	15	+129	119	4	99
Te Anau	215	8.5	1.1	4.8	+0.3	13.4	3	-3.8	16	86	15	-23	26	10	47
West Arm, Manapouri	232	6.3	1.3	3.8	-0.6	13.0	23	-3.5	20	262	17	..	53	10	..
Borland Burn	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown	329	7.9	0.4	4.2	-0.1	13.2	23	-3.4	20	113	12	+47	41	10	76
Queenstown Airport	349	7.6	-1.6	3.0	-0.1	13.5	23	-7.5	20	102	12	+50	42	4	..
Cromwell	213	6.8	-1.5	2.7	-0.8	14.4	24	-6.8	27	53	13	+25	36	4	67
Northburn	210	7.1	-0.9	3.1	..	14.0	24	-5.1	27	33	15	..	18	4	..
Clyde Dam	160	6.7	-1.6	2.6	..	15.6	24	-5.1	20	51	13	..	36	4	..
Ophir	305	7.4	-4.7	1.4	-0.9	13.8	3	-10.0	19	40	7	+15	18	4	..
Moa Creek	427	7.4	-4.2	1.6	+0.0	13.2	3	-9.2	21	38	7	+15	21	4	..
Earnsclough	152	7.3	-2.6	2.4	-0.4	16.0	24	-7.6	27	31	10	+8	20	4	..
Alexandra	141	7.2	-2.1	2.6	-0.7	14.5	3	-6.9	27	28	10	+8	16	4	68
Roxburgh Power Station	110	8.4	1.5	5.0	+0.1	15.0	3	-2.5	21	54	11	+18	26	4	..
Moa Flat	410	7.4	-0.8	3.3	-0.3	12.0	3	-6.0	21	68	12	+10	28	4	..
Mahinerangi Dam	396	8.3	-0.6	3.9	+0.0	..	..	..	..	233	15	+154	156	4	..
Tapanui	226	9.0	0.7	4.9	-0.3	14.1	30	-3.8	20	181	15	+92	114	4	..
Rankleburn Forest	255	8.1	0.4	4.3	-0.7	13.2	3	-6.2	18	209	15	+110	109	4	..
Taieri Mouth	15	10.0	1.9	6.0	-0.2	14.6	10	-4.2	21	114	15	+43	55	4	..
Otautau	55	9.3	0.5	4.9	-0.6	13.7	3	-6.4	20	93	16	-19	27	4	63
Winton	44	9.7	0.7	5.2	-0.5	13.2	3	-6.1	18	74	13	+0	29	4	99
Gore	123	8.3	0.8	4.6	+0.1	12.9	3	-5.1	20	84	19	..	32	4	102
Hokonui Forest	46	9.4	1.1	5.3	-0.1	13.8	3	-6.8	20	85	14	-6	31	4	..
Woodlands	47	9.4	1.4	5.4	-0.3	13.3	3	-5.2	20	92	25	..	18	12	..
Invercargill Airport	0	9.3	1.3	5.3	-0.2	13.4	3	-5.5	20	92	18	-15	20	4	91
Tiwai Point, Bluff	5	9.8	3.0	6.4	-0.3	13.3	3	-3.4	20	97	20	..	21	12	..
Stewart Island	3	9.3	1.5	5.4	..	13.5	3	-7.3	21	134	24	..	32	4	..
Milton	18	8.9	0.6	4.8	-0.1	15.0	10	-7.3	20	213	13	+147	102	4	..
Finegand, Balclutha	6	9.3	1.4	5.4	+0.1	15.1	3	-5.4	20	147	16	..	76	4	85
Owaka	5	10.0	1.2	5.6	..	16.4	3	-7.8	19	183	19	..	81	4	..
Nugget Point	129	..	..	..	..	..	..	..	..	99	14	+13	46	4	..
Tautuku	61	10.2	3.2	6.7	..	16.9	13	-2.6	18	191	19	..	72	4	..
Rarotonga Airport	7	25.2	18.9	22.1	-0.3	27.2	8	16.1	28	113	17	+16	32	17	145
Raoul Island	38	21.0	15.3	18.2	+0.9	23.1	1	13.2	28	130	19	-20	94	19	173
Waitangi, Chatham Island	44	10.7	5.4	8.1	-0.6	13.8	11	1.7	30	110	20	+16	30	5	71
Campbell Island	15	8.7	3.6	6.4	+1.6	11.0	17	-2.5	25	68	27	-62	10	27	27
Nandi Airport, Fiji	15	29.1	17.9	23.5	-0.8	31.9	20	14.8	1	64	4	..	46	15	214
Totokoitu, Rarotonga	9	25.0	19.1	22.1	..	27.4	7	16.6	27	169	17	..	46	29	..
Scott Base, Antarctica	16	-22.0	-34.7	-28.4	-2.2	-12.8	25	-44.8	16	..	..	..	..	..	..

LATE RETURNS AND CORRECTIONS

Whangarei 05/1980	29	18.0	8.5	13.3	-0.5	21.5	14	2.0	30	50	11	..	17	18	127*
Thames 05/1980	3	16.7	9.6	13.2	+0.0	18.7	18	3.4	30	23	10	-99	6	21	114
New Plymouth 05/1980	55	16.5	8.2	12.4	..	19.5	10	4.2	30	88	11	..	28	21	..
Kapiti Island 03/1980	16	18.3	13.0	15.7	-0.6	22.8	2	7.6	18	206	20	+130	60	30	..
Ohakea 05/1980	48	15.6	7.9	11.8	+0.5	18.5	18	3.8	30	37	9	-44	20	21	127
Wharite Peak 05/1980	914	8.0	4.2	6.1	+0.4	12.5	18	2.0	1	62	18	-134	13	21	..
Totaranui 05/1980	10	16.1	7.5	11.8	..	19.8	24	..	..	77	7	..	47	18	..
Lincoln 05/1980	11	15.0	3.4	9.2	+0.7	22.4	14	-1.7	22	8	6	-68	2	24	140
Berwick Forest 05/1980	18	13.4	4.0	8.7	+1.2	18.1	16	-0.7	28	83	13	+19	19	25	..
Mahinerangi Dam 05/1980	396	11.3	3.9	7.6	+1.8	15.5	9	-0.1	27	117	16	+36	29	23	..
Raoul Island 01/1980	38	25.3	19.7	22.5	+0.9	26.9	14	15.5	19	43	13	-48	14	17	264
Raoul Island 02/1980	38	25.7	20.9	23.3	+0.9	27.2	19	17.8	29	213	19	+58	112	4	137
Raoul Island 03/1980	38	24.4	18.8	21.6	-0.3	26.6	13	15.7	26	72	15	-60	39	2	206

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for June 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															
Raoul Island 04/1980	38	23.4	18.3	20.9	+0.2	25.3	9	15.5	30	71	15	-53	14	2	163
Totokoitu, Rarotonga 05/1980	9	25.5	20.9	23.2	..	34.4	28	16.7	23	469	22	..	77	12	..

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.

WEATHER NOTES FOR JUNE 1980

General—Throughout New Zealand June was generally wetter and milder than usual. This was the third consecutive month with mean monthly pressures above normal. Pressures were especially high to the south and east. There was a greater frequency than usual of easterly winds.

Grass growth was good at the beginning of the month in most districts, but severe frosts during the latter half of the month retarded growth significantly. The majority of farmers reported that stock condition had remained good. Some heavy stock losses were reported in Otago at the beginning of the month, when heavy rain caused major flooding of the Taieri Plains area.

Rainfall—The only areas with below normal rainfall were parts of Auckland, Bay of Plenty, Wanganui, Manawatu, Wairarapa, the West Coast, and Southland. In Wanganui and Manawatu some areas had less than 50 percent of their usual June rainfall. The wettest areas were Poverty Bay, northern Hawke's Bay, Nelson, Marlborough, southern Canterbury, and Otago. In the latter provinces some stations recorded more than 250 percent of the average rainfall.

During the early morning of the 4th heavy rain began to fall in southern Canterbury, Otago and parts of Southland, and this resulted in major flooding of the Taieri Plain between Mosgiel and Henley, and also near the mouth of the Clutha River. At Outram the Taieri River breached its banks, and approximately 2000 people were evacuated from their homes on the Taieri Plains. At one stage during the peak of the flooding 700 dairy cows were herded onto the flood free main highway at Henley. Flood waters cut most of the state highways and minor roads in the area, and Momona Airport was closed when the runway and buildings became flooded. At Musselburgh (Dunedin) 119 mm of rain were recorded during the period from 9 a.m. on the 4th to 9 a.m. on the 5th, this being the highest one day fall in any month since April 1923 (229 mm). At Islay Downs, Glendale, and Ross Creek more than 120 mm were measured during the same period.

Widespread heavy rain during the afternoon of the 11th caused flooding in Wellington and New Plymouth. Worst affected were the central business area in New Plymouth, and two suburbs to the south and west of the city. At Brooklands Park (New Plymouth) more than 70 mm were recorded between 9 a.m. on the 11th and 9 a.m. on the 12th, and the following stations also recorded heavy falls; Inglewood (89 mm), Omata (79 mm), and Stratford Power Station (92 mm).

Temperatures—Generally, temperatures were warmer than usual by approximately 0.5°C apart from some areas in Northland, Hawke's Bay, the West Coast, Canterbury, Otago, and Southland which were below normal by the same amount. Both day time and night time temperatures were cooler than usual in the south of the South Island.

During a warm spell from the 2nd to the 7th inclusive daily maximum temperatures were 2.0°C to 5.0°C above average.

Sunshine—Sunshine hours were near normal over most of New Zealand. The largest deficits were in Taupo (25 hours), Gisborne (35 hours), and Blenheim (35 hours). At Invercargill the highest June total since 1974 was recorded and with 91 hours it was the third highest in June since 1946 (103 hours) at this station.

WEATHER SEQUENCE FOR JUNE 1980

On the 1st the depression that had formed in the Tasman Sea at the end of May, began to move eastwards onto the South Island. The depression and associated cold front crossed the country on the 2nd, bringing heavy rain to the West Coast and moderate rain to western districts of both Islands. The only areas without rain were parts of

Hawke's Bay and Wairarapa. Early on the 3rd a depression formed within a trough of low pressure in the north Tasman Sea, and by the morning of the 4th had deepened and moved southwards towards the South Island. By the afternoon of the 4th the situation had become complex as the depression moved slowly eastwards and continued to deepen. Heavy rain fell in Otago, Southland, Canterbury, Nelson, Marlborough, parts of Taranaki, and Bay of Plenty. The heaviest falls were recorded in South Canterbury, Otago, and Southland where 24-hour falls to 9 a.m. on the 5th were in the range 50 mm to more than 100 mm. Most of New Zealand had moderate to heavy rain apart from some areas in Hawke's Bay and Northland.

A further depression developed to the west of the South Island on the 5th, and this had moved across the country by the morning of the 7th. Heavy rain was reported in inland Otago in the 24 hours up to 9 a.m. on the 6th, some stations measuring more than 50 mm in this period. No rain was reported in Hawke's Bay and Wairarapa, and mainly light falls throughout the North Island. On the 8th a ridge of high pressure extended onto New Zealand from an anticyclone in the Tasman Sea. The ridge persisted until the afternoon of the 9th, but then weakened rapidly as a trough of low pressure moved onto the South Island. Very heavy rain was recorded in Fiordland and Westland as the trough moved north-east across the country. In the 24 hours up to 9 a.m. on the 11th more than 100 mm were recorded in parts of Westland. As the trough continued to move north heavy rain was also reported to have fallen in Wellington, southern Wairarapa, Manawatu, Wanganui, and Taranaki. Some of these districts having 24-hour falls in excess of 50 mm. Temperatures were warmer than usual in most districts during the first 11 days of the month.

By the morning of the 12th the trough had moved to the east of New Zealand and was replaced by a weak ridge of high pressure. Small disturbances in a cold southerly airstream over New Zealand brought showery conditions to most districts on the 13th and 14th. The ridge of high pressure and associated anticyclone had moved onto the country by the 15th and this brought fine weather to most areas of New Zealand, apart from some places to the east of the main ranges where light showers were reported. Early on the 18th a depression had formed in the north Tasman Sea and had begun to move southeast towards the North Island. On the 20th the anticyclone was lying to the east of the country, and the depression moved onto Northland during the afternoon. As the depression moved southeast moderate to heavy rain was reported in Northland (where 24-hour falls of 70 mm were measured), Auckland, Bay of Plenty, Poverty Bay, Hawke's Bay, and northern Wairarapa.

Conditions were fine throughout the South Island.

A ridge of high pressure had moved onto New Zealand by the morning of the 23rd, but a cold front associated with a depression moving to the south of the country was approaching the South Island. As the front moved northwards across the country light rain was reported in most districts. On the 24th an anticyclone had become established over the country and this brought fine weather until the 28th. A depression that had developed near Tasmania on the 26th had moved east, and by the 29th was lying in the south Tasman Sea and progressing towards the South Island. A cold front ahead of this depression had moved onto New Zealand by the morning of the 29th and this brought heavy rain to Fiordland, Westland, Nelson, Bay of Plenty, Auckland, and Northland. In the latter three districts 24-hour falls of between 50 mm and 100 mm were reported, but in eastern districts of both islands there were mainly light showers. Temperatures were cooler than usual throughout New Zealand from the 25th until the end of the month.

J. S. HICKMAN, Director.

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

