



LAND & DEEDS OFFICE
- 1 DEC 1980
GISBORNE

SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 13 NOVEMBER 1980

Published by Authority

WELLINGTON: WEDNESDAY, 19 NOVEMBER 1980

CLIMATOLOGICAL TABLE FOR SEPTEMBER 1980

NEW ZEALAND METEOROLOGICAL SERVICE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 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	16.1	10.7	13.4	+0.5	18.5	4	8.2	15	85	20	+4	29	8	..
Kaitaia Airport	80	16.5	10.4	13.5	+0.5	18.2	2	7.4	15	158	22	+36	53	8	157
Aupouri Forest	69	16.6	11.4	14.0	+0.7	19.0	19	8.6	15	118	16	+15	39	8	..
Kerikeri Aerodrome	150	17.0	8.4	12.7	..	19.0	12	4.4	16	115	21	..	22	3	..
Umawera	50	16.9	9.8	13.4	..	19.1	2	5.5	1	118	16	..	26	3	..
Kaikohe	204	15.4	9.8	12.6	+0.7	17.5	19	7.1	14	97	21	..	12	8	138
Waiotemarama	229	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waipoua Forest	88	16.3	8.8	12.6	+0.8	19.0	19	5.0	1	157	23	+20	19	1	..
Dargaville	20	16.5	9.6	13.1	+0.9	19.0	3	3.1	3	51	19	-46	10	1	135
Waitangi Forest	55	17.7	9.0	13.4	+0.4	19.9	30	5.2	14	120	19	-2	32	4	162
Glenbervie Forest	107	16.5	8.2	12.4	+1.3	18.9	9	4.1	19	130	21	-22	39	4	..
Whangarei Airport	37	17.1	9.4	13.3	+0.5	19.5	3	6.6	14	108	20	-11	25	4	..
Whangarei	29	17.5	9.1	13.3	+0.8	19.9	12	5.8	14	117	17	..	25	4	146*
Marsden Power Station	3	17.7	9.6	13.7	+0.8	20.5	2	6.5	16	82	23	..	14	13	..
Poua	97	15.7	9.8	12.8	..	18.6	19	6.1	15	90	21	..	12	4	..
Leigh	27	16.0	9.9	13.0	+0.1	17.8	18	6.4	15	83	21	-17	26	4	132
Warkworth	72	16.2	8.9	12.6	+0.9	19.2	3	4.0	3	96	21	..	22	4	..
Oyster Point	0	16.1	10.3	13.2	..	18.7	19	7.1	19	66	22	..	12	19	..
Woodhill Forest	30	16.1	9.9	13.0	+1.0	18.9	5	6.6	19	66	21	-33	10	19	..
Riverhead Forest	28	16.3	9.2	12.8	+0.8	19.0	20	6.0	3	84	17	-28	15	4	..
Kumeu	32	16.2	9.8	13.0	..	19.0	4	6.0	3	81	20	..	14	4	..
Whenuapai	26	16.3	9.6	13.0	+1.3	18.4	3	6.2	3	75	21	-29	11	4	..
Albert Park, Auckland	49	16.9	10.7	13.8	+0.8	19.4	2	7.9	14	74	20	-20	18	4	147*
Owairaka, Auckland	41	16.3	9.8	13.1	+1.0	18.8	2	6.1	9	83	23	-19	13	4	..
Port Fitzroy	4	16.6	11.1	13.9	+0.9	18.4	4	7.9	1	156	21	+9	42	2	..
Coromandel	43	16.4	10.3	13.4	..	19.6	3	6.8	3	111	22	..	14	4	..
Whangapoua Forest	4	17.4	9.8	13.6	+1.8	20.1	3	4.9	3	113	24	-27	18	13	..
Thames	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tairua Forest	3	17.0	8.9	13.0	+1.1	21.0	3	3.8	15	85	20	-70	21	5	..
Paeroa	4	17.4	8.6	13.0	+1.5	21.0	19	3.4	15	97	24	-15	19	5	..
Waihi	91	16.1	9.0	12.6	+1.3	19.3	3	3.1	3	105	23	-83	17	5	119
Te Aroha	12	16.5	9.9	13.2	+1.2	19.3	19	5.2	15	109	20	-10	18	5	..
Katikati	2	16.7	9.4	13.1	..	19.0	20	5.3	3	95	19	..	20	5	..
Tauranga	2	16.3	9.9	13.1	+0.9	19.5	25	3.5	15	84	17	..	20	6	..
Tauranga Airport	4	16.3	8.6	12.5	+0.9	19.2	25	2.2	15	89	18	-18	20	5	121
Te Puke	91	16.4	7.6	12.0	+0.5	21.2	25	1.6	1	109	17	..	19	19	..
Rotoehu Forest	72	16.1	5.8	11.0	+0.6	20.0	25	-2.0	15	94	17	-36	21	5	..
Edgecumbe	5	17.0	6.8	11.9	+0.6	20.6	24	0.9	15	95	16	..	36	5	..
Whakatane	2	16.8	7.7	12.3	+0.4	20.0	25	0.1	15	98	15	+4	34	5	160
Whakatane Airport	6	16.4	6.9	11.7	..	19.2	30	-0.5	15	97	14	..	36	5	..
Port Ohope	9	16.4	8.7	12.6	..	20.0	23	2.2	15	103	15	..	36	4	158
Kinleith	383	13.8	6.2	10.0	+0.7	17.3	25	0.1	1	149	21	+12	21	13	..
Tokoroa	305	14.6	5.7	10.2	+1.1	18.2	25	-1.4	1	159	24	..	34	13	..
Tikitere	338	13.7	6.9	10.3	..	18.3	25	1.5	15	93	14	..	14	5	..
Kawerau	30	16.7	7.5	12.1	+0.3	21.0	25	-0.1	15	91	13	-46	27	5	..
Te Teko	8	17.4	6.5	12.0	+0.6	22.1	25	1.0	15	93	15	-21	29	5	146
Whakarewarewa	307	14.5	6.5	10.5	+0.5	19.2	25	-0.5	15	95	19	-32	18	5	..
Rotorua Airport	287	14.4	6.4	10.4	+0.3	17.9	25	0.3	15	87	17	-35	17	5	143
Tarawera Forest	61	16.8	6.0	11.4	+1.0	21.3	25	-2.1	15	116	..	-44	..	..	..
Waiotapu Forest	435	13.5	5.2	9.4	+0.4	19.1	9	-0.7	15	99	19	-25	18	5	..
Atiamuri Power Station	253	14.4	5.6	10.0	+0.3	19.0	25	-2.0	15	136	20	+21	17	13	..
Kaingaroa Forest	544	12.8	4.1	8.5	+0.0	18.9	25	-2.5	1	115	19	-20	21	5	..
Murupara	198	15.9	..	..	..	21.2	25	..	..	90	18	-24	15	27	..
Broadlands	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairapukao Forest	437	14.1	2.7	8.4	+0.2	20.0	25	-5.6	15	119	17	+2	20	13	..
Taupo	376	13.6	5.5	9.6	+0.4	16.5	25	-0.2	1	108	18	+6	16	13	134
Wairakei Power Station	342	14.3	5.4	9.9	+0.4	19.3	25	-1.5	1	114	19	+7	15	3	..
Wairakei Research Station	402	14.2	4.8	9.5	+0.6	19.6	25	-2.0	1	116	19	+12	18	13	..
Minginui Forest	366	14.7	3.5	9.1	+0.5	20.9	25	-4.4	15	133	19	+3	21	13	..
Taupo Airport	407	13.5	5.5	9.5	..	17.5	25	-2.2	15	87	16	..	13	13	..
Waimihia Forest	743	10.5	3.1	6.8	+0.0	16.0	25	-3.0	15	167	17	+25	18	5	..
Opotiki	6	16.2	6.3	11.3	-0.1	19.2	23	-0.5	8	119	18	+17	31	5	147
Waimana	37	16.8	5.6	11.2	+0.3	21.1	25	-1.6	15	128	16	+1	36	5	..
Mangere, Auckland	4	15.8	11.0	13.4	+1.1	18.0	3	7.2	9	59	20	-32	10	4	119
Otara, Auckland	12	16.2	9.6	12.9	+1.2	18.8	2	4.5	9	95	21	+4	39	4	..
Orere Point	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Auckland Airport	8	15.9	10.4	13.2	+0.8	18.5	22	6.5	9	56	20	-33	10	4	127
Ardmore	30	16.1	8.9	12.5	+1.0	18.5	2	5.2	15	84	19	-15	24	4	..
Pukekohe	82	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maioro Forest	52	15.6	10.2	12.9	+0.9	17.6	3	5.4	9	91	24	-8	20	4	..
Hunua	122	15.3	8.1	11.7	..	18.3	2	2.1	16	91	22	..	17	4	..
Maramarua Forest	38	16.3	7.7	12.0	+1.2	18.8	2	2.0	15	98	22	-4	14	3	..
Te Kauwhata	32	16.3	9.1	12.7	+0.9	19.3	3	5.6	9	79	26	-10	16	4	121
Ruakura, Hamilton	40	16.0	7.9	12.0	+1.1	18.7	3	1.0	15	83	21	-14	19	4	121

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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		
Whatawhata	104	15.1	9.1	12.1	+0.9	17.4	3	3.8	9	124	25	-3	26	4	103
Rukuhia	66	16.1	8.4	12.3	+1.0	18.3	3	4.1	30	83	23	-16	19	4	106
Hamilton Airport	50	16.0	6.4	11.2	+0.7	18.2	2	0.0	15	96	24	-1	19	4	..
Cambridge	76	15.6	7.1	11.4	..	18.2	3	-0.6	15	104	22	..	15	13	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Station Mokau	46	14.3	9.3	11.8	+0.4	15.3	10	4.8	15	197	21	+67	64	4	..
Arapuni Power Station	123	15.9	7.1	11.5	+0.5	19.3	25	-0.1	15	126	23	+12	26	13	..
Waikeria	46	15.8	7.1	11.5	..	18.7	2	-0.3	15	113	21	..	21	4	..
Te Kuiti	61	15.5	7.4	11.5	+0.6	18.4	2	0.7	15	151	25	+24	19	4	91
Pureora Forest	549	11.7	4.2	8.0	+0.1	17.5	25	-1.4	1	199	24	+49	25	19	..
Taumarunui	171	15.1	6.3	10.7	+0.1	19.5	25	1.1	15	185	28	+68	25	13	91
Omata	61	14.7	9.7	12.2	+0.5	16.5	3	6.5	14	144	22	..	26	4	..
New Plymouth	55	14.9	8.9	11.9	..	17.0	25	2.9	7	106	24	..	18	19	..
New Plymouth Airport	27	15.0	8.9	12.0	+1.1	16.9	29	3.2	6	118	23	+6	25	1	142
Tikorangi	77	14.6	7.6	11.1	..	17.5	25	2.3	15	164	22	..	24	1	..
Te Wera Forest	180	14.0	6.1	10.1	+0.8	18.5	26	-0.3	7	253	21	+108	33	16	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	13.4	4.8	9.1	-0.2	17.6	25	-2.1	15	165	21	..	19	4	138
Chateau, Mt Ruapehu	1119	7.2	0.0	3.6	-1.0	15.5	25	-4.4	6	384	25	+140	41	13	..
Mangamutu, Pahiatua	116	14.4	7.5	11.0	+1.0	18.5	25	-1.0	15	190	22	+86	27	13	..
Mt Bruce Reserve	305	14.0	6.0	10.0	+1.5	17.0	29	-2.0	15	302	27	..	61	20	..
Waingawa, Masterton	114	16.0	6.2	11.1	+1.1	21.0	30	-1.1	7	47	15	-27	12	27	174
Kopua	311	14.6	6.1	10.4	+1.1	18.4	3	-0.6	15	59	14	-5	9	27	..
Waipukurau	137	16.2	5.2	10.7	+0.8	20.5	3	-1.0	1	20	10	-31	5	4	180*
Dannevirke	207	15.0	7.0	11.0	+1.0	19.5	25	0.1	15	96	20	+20	17	17	125
Porangahau	8	16.6	7.5	12.1	..	21.1	3	2.5	15	27	9	..	7	9	..
Castlepoint	3	15.9	9.4	12.7	+1.1	18.5	18	5.1	14	16	9	-58	3	4	..
Ngaumu Forest	244	15.7	5.0	10.4	+1.6	19.9	25	-2.2	15	23	11	-66	7	27	..
Tauherenikau, Alloa	43	16.1	6.8	11.5	+1.2	21.1	25	-0.1	15	71	14	-18	15	12	..
Gladstone, Arahura	116	15.7	5.5	10.6	+0.7	19.1	25	-1.4	15	20	9	-54	8	13	..
Waiorongomai	21	15.2	8.1	11.7	+1.5	19.4	25	-0.8	15	96	13	-34	38	13	..
Cape Palliser	10	16.2	10.2	13.2	+1.4	21.4	30	5.2	7	31	9	-43	17	13	..
East Cape	17	16.8	9.8	13.3	+0.7	19.2	12	3.0	15	99	16	-3	33	5	..
Ruatoria	61	18.7	7.2	13.0	+1.2	24.3	26	-0.4	15	125	15	-17	60	5	..
Mangatu Forest	182	17.0	6.7	11.9	+1.1	21.6	30	-0.9	15	79	12	-35	38	5	..
Manutuke Gisborne	9	17.9	6.8	12.4	+1.0	23.0	30	-0.7	15	50	9	-21	39	5	..
Gisborne Airport	4	18.0	7.3	12.7	+1.2	23.0	26	1.0	15	53	9	-21	38	5	209
Onepoto, Waikaremoana	643	14.2	5.1	9.7	+1.1	20.2	24	-0.5	15	61	18	-89	22	5	..
Wharerata Forest	439	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esk Forest	427	14.9	6.3	10.6	+1.1	20.0	26	1.6	15	47	10	-70	22	5	..
Kaweka Forest	414	15.5	6.6	11.1	+0.9	19.5	26	1.8	15	46	13	..	11	5	..
Napier Airport	2	18.0	6.6	12.3	..	23.5	26	1.3	1	25	10	-26	19	5	..
Napier	2	18.0	7.6	12.8	+1.1	21.0	2	-1.0	15	24	6	-27	17	5	204
Hastings	12	18.7	6.7	12.7	+1.5	22.8	26	-0.9	15	30	6	-16	18	5	..
Havelock North	9	17.9	4.8	11.4	+1.0	21.3	26	-1.5	15	27	6	-21	16	5	192
Gwavas Forest	335	16.0	3.4	9.7	+1.0	20.6	26	-1.7	1	26	12	-48	5	5	..
Makaretu	335	15.6	5.3	10.5	+1.0	19.3	27	-1.2	15	24	15	..	5	4	..
Mohaka Forest	286	16.5	6.7	11.6	+1.3	23.3	26	0.0	15	38	11	-54	17	5	..
Frasertown, Wairoa	8	18.4	7.3	12.9	+1.2	25.5	26	1.0	15	52	8	-45	37	5	..
Wairoa	20	..	7.0	..	..	..	..	0.5	15	72	7	..	58	5	209
Portland Island	78	15.5	10.1	12.8	+1.2	19.3	26	7.3	15	46	5	-12	25	5	..
Kapiti Island	16	14.4	9.5	12.0	+1.0	17.6	29	4.9	15	100	13	+16	23	27	..
Paraparaumu Aerodrome	7	14.4	8.6	11.5	+0.9	16.2	29	1.4	15	102	17	+18	16	13	157
Flockhouse, Bulls	9	14.8	8.4	11.6	+1.1	16.8	25	2.8	1	103	19	+42	17	13	..
Ohakea	48	14.9	8.6	11.8	+0.8	18.5	25	4.1	1	115	17	+49	21	13	135
Wharite Peak	914	7.6	2.8	5.2	+0.4	14.0	25	-0.8	15	166	27	+24	22	27	..
Kairanga Palmerston North	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston North Airport	45	15.0	6.9	11.0	+0.5	19.0	25	1.1	15	128	20	+64	20	13	..
Palmerston North D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Massey University	61	14.8	8.1	11.5	..	18.4	25	1.8	15	126	21	+55	19	13	..
Foxton	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waitarere Forest	3	14.6	8.6	11.6	+1.0	16.3	25	2.3	15	93	16	+27	17	27	..
Levin	46	14.3	8.3	11.3	+0.6	16.9	25	2.5	15	107	17	+23	17	27	108
Taita, Lower Hutt	65	14.7	7.8	11.3	+0.9	17.7	29	-0.3	15	84	16	-28	17	13	160
Avalon, Lower Hutt	15	14.8	8.6	11.7	+0.9	17.6	29	1.2	15	93	15	-21	22	13	..
Kelburn, Wellington	125	14.3	8.4	11.4	+1.0	17.4	23	3.2	15	75	13	-27	21	3	182
Somes Island	43	14.2	9.1	11.7	..	16.4	29	3.6	15	50	12	..	14	13	..
Gracefield, Lower Hutt	34	14.7	9.3	12.0	+1.1	16.5	25	1.8	15	90	..	-22	..	..	..
Wainuiomata	82	14.4	7.3	10.9	+0.8	18.3	29	-0.5	15	92	12	..	27	13	..
Wellington Airport	6	15.0	9.3	12.2	+1.1	16.9	18	3.9	15	67	14	-17	18	3	..
Kaitoke	223	14.0	6.5	10.3	+1.4	18.5	25	-3.6	15	175	17	+2	35	16	144
Wallaceville	56	14.7	7.1	10.9	+0.9	18.2	25	-2.0	15	103	16	-1	26	13	157
Cape Egmont	8	14.7	10.4	12.6	+0.9	16.3	18	5.6	7	162	23	+45	27	19	..
Stratford Mountain House	846	9.7	2.3	6.0	+0.3	15.3	25	-1.8	1	723	24	+162	106	16	..
Stratford Dem. Farm	311	13.5	5.0	9.3	+0.2	17.4	25	0.8	7	179	15	-4	29	16	143
Manaia Dem. Farm	98	14.6	7.3	11.0	+0.8	17.5	25	2.6	1	118	20	+21	20	13	131
Normanby	122	14.3	7.7	11.0	..	17.7	25	3.9	7	154	28	..	23	4	..

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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	mm	Hrs		
Temuka	24	17.5	2.8	10.2	+1.5	24.5	30	-2.0	16	3	3	-43	1	2	..
Timaru Airport	26	16.8	2.6	9.7	+1.4	24.3	30	-3.0	9	3	4	-38	1	2	..
Adair	85	16.3	5.7	11.0	+2.3	24.0	30	0.6	14	12	7	-29	5	8	..
Timaru	17	16.9	5.2	11.1	+1.9	24.0	30	-0.2	9	8	4	-33	4	8	171
Waimate	61	17.4	5.3	11.4	+2.0	25.9	30	-0.9	14	13	7	-33	5	13	..
Kurou	207	16.3	4.7	10.5	..	22.3	29	1.4	28	15	12	..	5	21	..
Oamaru Airport	30	16.3	4.3	10.3	+2.0	23.8	26	-0.2	14	10	4	-28	8	13	138
Tara Hills, Omarama	488	14.0	2.0	8.0	+1.0	19.9	29	-2.8	14	58	9	+22	21	21	162
Lake Hawea	350	12.8	4.3	8.6	+0.3	16.9	26	-1.6	14	134	15	+63	30	21	..
Wanaka	296	14.5	4.1	9.3	+1.0	19.7	30	-1.4	8	109	16	+48	31	21	..
Queensberry	277	14.7	4.8	9.8	..	19.7	30	-1.4	14	101	15	..	52	21	..
Bendigo	200	15.4	5.2	10.3	..	20.5	30	-0.8	14	38	13	..	18	21	..
Naseby Forest	610	13.0	1.7	7.4	+1.3	19.2	30	-5.1	9	12	6	-26	6	4	..
Ranfurly	427	13.9	2.3	8.1	..	20.7	30	-2.3	14	11	7	..	4	8	122
Herbert Forest	61	16.4	3.0	9.7	+1.7	24.7	30	-1.4	14	9	7	-42	4	4	..
Palmerston	21	16.1	2.8	9.5	+1.6	24.0	26	-1.6	8	11	7	..	5	4	116
Cherry Farm Hospital	6	15.9	3.7	9.8	+1.5	24.5	30	-0.5	11	11	12	-25	4	4	..
Taiaroa Head	72	12.7	6.9	9.8	+1.4	24.5	30	2.2	7	23	11	-15	5	4	..
Invermay, Taieri	30	15.0	4.1	9.6	..	23.8	30	1.0	9	31	14	..	8	3	104
Berwick Forest	18	15.9	3.7	9.8	+1.5	25.3	30	-0.5	11	39	13	-4	12	3	..
Dunedin Airport	1	15.7	4.2	10.0	+1.6	24.7	30	-0.2	25	25	12	-13	9	4	128
Musselburgh, Dunedin	2	14.6	5.8	10.2	+1.0	25.0	30	3.0	9	39	19	-9	9	12	103
Te Anau	215	12.1	4.8	8.5	+0.9	17.5	30	-0.5	14	151	23	+57	22	1	126
West Arm, Manapouri	232	9.6	3.6	6.6	-0.1	13.5	25	0.0	14	635	27	..	57	21	..
Borland Burn	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown	329	13.5	4.0	8.8	+0.7	20.6	30	-0.8	14	135	18	+59	37	21	134
Queenstown Airport	349	12.7	3.3	8.0	+0.6	19.6	30	-2.0	9	104	17	+47	26	21	..
Otama	183	13.2	4.1	8.7	..	20.6	30	-0.1	14	56	19	+8	10	8	..
Cromwell	213	15.4	4.1	9.8	+1.0	22.2	30	-1.5	9	39	13	+11	10	21	161
Northburn	210	15.2	4.4	9.8	..	22.1	30	-0.8	9	32	15	..	10	21	..
Clyde Dam	160	15.7	4.8	10.3	..	22.6	30	-1.0	9	41	14	..	11	12	..
Ophir	305	14.9	3.1	9.0	+1.5	20.2	29	-4.6	14	20	8	-8	12	4	..
Moa Creek	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Earnsclough	152	16.4	3.5	10.0	+1.8	23.4	30	-2.2	9	26	13	+3	6	11	..
Alexandra	141	16.2	4.1	10.2	+1.4	23.6	30	-2.2	9	22	13	+2	5	4	146
Roxburgh Power Station	110	15.6	..	..	..	22.0	30	..	..	21	16	-7	5	22	..
Mahinerangi Dam	396	12.1	2.9	7.5	+1.2	21.0	30	-0.8	14	60	13	+4	12	4	..
Tapanui	226	13.1	4.1	8.6	+0.1	22.0	30	-0.2	14	62	20	+6	13	5	..
Rankleburn Forest	255	13.1	3.6	8.4	+0.6	22.0	30	-0.4	14	98	22	+34	17	8	..
Taieri Mouth	15	14.2	4.8	9.5	+1.5	24.7	30	1.9	11	41	14	-2	10	4	..
Otautau	55	14.1	4.3	9.2	+1.0	21.3	30	-1.6	9	80	22	+4	15	8	109
Winton	44	13.5	4.3	8.9	+0.4	22.5	30	-0.4	9	52	19	+1	11	12	95
Gore	123	13.2	5.1	9.2	+1.1	20.0	30	0.7	14	54	20	..	9	5	94
Hokonui Forest	46	13.7	4.9	9.3	+0.7	22.2	30	0.7	9	73	21	+7	12	12	..
Woodlands	47	13.3	5.0	9.2	+1.0	21.1	30	0.6	9	104	28	..	14	12	..
Invercargill Airport	0	13.1	5.0	9.1	+0.9	21.1	30	1.5	14	98	24	+24	12	10	83
Tiwai Point, Bluff	5	12.7	5.7	9.2	+0.4	17.7	30	2.1	23	156	23	..	33	10	..
Stewart Island	3	12.1	5.5	8.8	..	20.1	30	0.7	14	216	29	..	33	12	..
Milton	18	14.3	4.2	9.3	+1.1	24.0	30	0.5	2	42	16	-1	13	4	..
Finegand, Balclutha	6	14.3	5.1	9.7	+1.5	22.6	30	1.0	14	54	20	..	11	4	106
Owaka	5	13.7	6.1	9.9	..	22.3	30	1.2	25	87	21	..	21	6	..
Nugget Point	129	12.3	5.5	8.9	+1.2	21.8	30	1.0	14	98	20	+45	18	6	..
Tautuku	61	13.8	5.2	9.5	..	22.6	30	1.6	14	138	22	..	23	10	..
Alofi, Niue Island	21	27.5	19.8	23.7	+0.2	30.0	7	17.0	24	47	10	-83	14	18	..
Rarotonga Airport	7	26.0	20.1	23.1	+1.0	27.5	10	16.7	16	42	8	-67	9	18	213
Raoul Island	38	19.9	13.9	16.9	+0.6	21.6	11	11.2	15	60	12	-57	27	4	198
Waitangi, Chatham Island	44	12.2	7.6	9.9	+0.8	14.5	13	2.1	1	59	18	-2	8	13	122
Campbell Island	15	8.1	3.8	6.4	+0.9	10.7	4	-0.4	10	156	28	+54	19	24	46
Nandi Airport, Fiji	19	29.6	20.2	24.9	+0.3	31.8	23	17.9	1	74	12	..	29	14	175
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scott Base, Antarctica	16	-22.4	-32.9	-27.7	+0.5	-10.6	3	-42.4	17	..	..	..	..	..	..

LATE RETURNS AND CORRECTIONS

Waiotemarama 08/1980	229	13.4	7.5	10.5	..	16.1	26	3.4	15	143	20	..	41	27	..
Woodhill Forest 08/1980	30	14.4	6.0	10.2	-0.4	17.5	26	-0.5	15	92	15	-48	25	27	..
Kumeu 08/1980	32	14.6	5.3	10.0	..	17.8	15	-1.5	15	90	19	..	20	27	..
Thames 07/1980	3	14.0	6.9	10.5	+0.3	17.1	2	0.2	17	108	16	-19	37	20	115
Tarawera Forest 08/1980	61	14.2	2.4	8.3	-0.2	17.5	20	-3.7	19	136	13	-80	43	27	..
Wairapukao Forest 08/1980	437	11.3	-0.7	5.3	-1.0	14.9	25	-8.2	11	120	17	-7	33	27	..
Opotiki 08/1980	6	14.1	3.8	9.0	-1.1	17.2	20	-1.5	18	118	14	-22	48	27	136
Pureora Forest 08/1980	549	9.5	1.6	5.6	-0.6	13.0	25	-4.8	19	185	21	+20	34	1	..
Lower Retaruke 08/1980	223	12.0	2.6	7.3	-0.5	15.8	25	-4.6	19	185	22	..	40	16	..
Tauherenikau, Alloa 08/1980	43	13.3	3.5	8.4	-0.1	18.3	25	-2.8	11	144	17	+45	41	26	..
Hastings 08/1980	12	..	3.4	..	..	..	..	-2.8	11	66	10	-20	16	27	..
Kapiti Island 08/1980	16	11.8	7.4	9.6	-0.1	14.2	24	3.7	19	97	19	+3	35	26	..
Wharite Peak 08/1980	914	5.2	0.7	3.0	-0.7	9.6	26	-3.5	18	165	..	-20	47	26	..

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 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	
		°C	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	Hrs		
LATE RETURNS AND CORRECTIONS															
Kairanga Palmerston North 08/1980	15	13.1	4.2	8.7	+0.1	17.4	26	-2.6	18	80	13	..	27	1	124
Palmerston North D S I R 08/1980	34	12.8	4.7	8.8	-0.3	17.6	26	-1.5	18	95	17	+11	37	1	80
Waiouru 08/1980	823	8.1	0.0	4.1	-0.6	13.5	27	-6.6	11	147	22	+48	26	26	..
Wanganui Airport 08/1980	9	13.3	6.1	9.7	..	17.8	25	1.2	21	88	11	..	26	1	..
Karamea 08/1980	5	..	..	..	..	..	..	..	..	318	..	..	..	..	..
Franz Josef 08/1980	122	11.8	1.8	6.8	-0.8	14.5	28	-2.0	4	544	18	+163	145	15	..
Ashley Forest 08/1980	107	13.6	3.2	8.4	+1.2	20.5	12	-1.0	22	36	6	-38	14	15	163
Lincoln 08/1980	11	12.9	2.4	7.7	+1.0	19.2	25	-4.2	10	48	8	-8	15	2	171
Adair 08/1980	85	13.2	2.9	8.1	+1.3	18.6	11	-1.2	10	19	7	-22	7	25	..
Wanaka 08/1980	296	11.3	-0.5	5.4	+0.2	15.3	24	-5.8	10	92	8	+41	39	15	..
West Arm, Manapouri 08/1980	232	7.7	1.7	4.7	+0.2	12.0	31	-2.0	9	732	22	..	111	25	..
Otama 08/1980	183	10.6	1.3	6.0	..	17.4	15	-5.0	9	123	18	+80	47	25	..
Ophir 08/1980	305	11.6	-1.5	5.1	+0.8	16.6	25	-8.6	10	59	6	+39	25	15	..
Tautuku 08/1980	61	11.4	3.7	7.6	..	17.3	11	-2.8	9	175	21	..	34	25	..
Alofi, Niue Island 08/1980	21	26.2	18.9	22.6	-0.3	29.5	5	14.5	30	340	12	+259	87	22	..
Scott Base, Antarctica 02/1980	16	-6.1	-13.9	-10.0	+0.6	1.1	11	-23.5	28	..	..	..	..	..	..
Scott Base, Antarctica 03/1980	16	-15.3	-24.4	-19.9	+0.3	-6.1	14	-35.0	28	..	..	..	..	..	..
Scott Base, Antarctica 04/1980	16	-16.6	-26.7	-21.7	+2.6	-8.8	28	-40.6	18	..	..	..	..	..	..
Scott Base, Antarctica 05/1980	16	-16.5	-27.8	-22.2	+6.2	-7.1	16	-41.3	27	..	..	..	..	..	..
Scott Base, Antarctica 06/1980	16	-22.0	-35.0	-28.5	-2.3	-12.8	25	-44.8	16	..	..	..	..	..	..
Scott Base, Antarctica 07/1980	16	-20.2	-31.7	-26.0	+3.8	-10.3	20	-47.5	17	..	..	..	..	..	..

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 SEPTEMBER 1980

General—September in New Zealand was windier and milder than usual with an exceptionally high frequency of north-westerly winds. Consequently, western and southern areas of the country were considerably wetter than normal.

Farmers in the north of the country generally reported seasonable pasture growth, but in most other areas growth was poor. In the wettest areas stock and crop losses occurred, but in many eastern areas farmers were pleased by high lambing percentages.

During the early hours of the 10th, violent thunderstorms were reported in western North Island areas, and a tornado in north Taranaki caused extensive damage to farm buildings, power blackouts, and loss of stock.

Snow avalanches have been cutting the Milford to Te Anau highway since the middle of August, and a further five major ones were reported in September. There was an estimated drop of 25 to 35 percent in tourist traffic to these areas.

Rainfall—Rainfall was above the September normal in the far north and south of the country and in western areas. The Southern Alps, and the West Coast received more than 150 percent of average. Over the rest of New Zealand rainfall was below normal. In many eastern South Island districts, little or no rain fell during September, while in the east of the North Island rainfall was less than 30 percent of normal at many sites.

Kaikoura West reported no rainfall for September, this being the only month since 1889 when records began where no rain was measured. Lynnford (Canterbury) recorded less than 2 mm, this being the driest year since 1913 when recording started and the second ever driest for any month of the year. Other South Island east coast sites to report less than 5 mm of rain include, Christchurch Airport (1.5 mm), Hapuku (0.8 mm), Mikonui (nil), Conway Flat (0.5 mm), Dunsandel (3.8 mm), Windsor (2.5 mm), Lyttelton (nil), Duntroon (2.6 mm), and Coldstream (3.7 mm).

Elsewhere in the South Island 1065 mm fell at Otira giving it the wettest September since 1970, this figure having been exceeded only three times before since 1906. West Coast stations to exceed 800 mm for the month include Milford Sound (1010 mm), Paringa (884 mm), and Inchbonnie (881 mm). It was also the wettest September since 1970 at Lake Coleridge (129 mm), and at Nelson (121 mm). For some West Coast stations rain fell every day of the month, but for the majority of sites 26 to 28 raindays occurred. On the 25th heavy rain fell in Fiordland and spread up the West Coast on the 26th. Stations to record large falls include Whataroa (208 mm), Milford Sound (132 mm), Fox Glacier (123 mm), Ross (122 mm), Lake Kaniere (103 mm), and Kowhitirangi (100 mm). An exceptional fall occurred at Harihari which recorded 210 mm in the 24 hours from 9 a.m. on the 26th. A daily fall of this value occurs about once in 4 years. During this time surface flooding was reported on some farms.

Temperatures—Mean temperatures were slightly cooler than usual along the West Coast of the South Island, but were above average elsewhere. Many areas in the east of both islands were more than 1.5°C above the September normal.

Maximum temperatures in eastern South Island areas during the latter part of the month were on most days over 5°C warmer than normal. These departures were due to foehn heating in the strong westerly airflow. Consequently, night-time minima were also considerably above the average.

Sunshine—Sunshine hours were above average in the east of New Zealand and about Cook Strait. Elsewhere they were below average and in some areas the deficit was greater than 30 hours. The largest surpluses were recorded at Christchurch (41 hours), Gisborne (33 hours), and Timaru (31 hours). Largest deficits occurred at Hokitika (76 hours), Tauranga (58 hours), Westport (57 hours), and Invercargill (54 hours). At both Christchurch and Timaru, it was the sunniest September since 1958. It was the least sunny September at Hokitika since records were started in 1964; on 14 days, one hour or less of sunshine was recorded. Tauranga had the lowest September sunshine total since 1970 and the second lowest since records began in 1932.

WEATHER SEQUENCE FOR SEPTEMBER 1980

A cold front over the Tasman Sea had crossed New Zealand by the 2nd, and another moved over the country during the 3rd. Both fronts brought rain to most of the country with heavy falls of rain reported in Westland and Fiordland on the 1st, 2nd, and 3rd.

A trough of low pressure over the Tasman Sea moved slowly on to the country on the 5th, and persisted until the 8th. Rain fell in many districts during this time.

A disturbed westerly airflow behind the trough covered the Tasman Sea and New Zealand during the 8th, bringing showers chiefly to the west of both islands and to the south of the country. These westerly conditions lasted until the 24th. Mobile cold fronts with more widespread rain crossed New Zealand on the 8th, 10th, 13th, 15th, 16th, 19th, 20th, 21st, and 22nd. Heavy falls of rain in excess of 50 mm were recorded in parts of Westland and Fiordland on the 9th, 10th, 11th, 12th, 14th, 16th, 21st, and 22nd.

An anticyclone over Australia on the 23rd, moved onto the Tasman Sea on the 24th extending a ridge towards New Zealand, and mostly dry weather was reported. By the 25th the anticyclone lay north of the country and a cold front in the Tasman Sea was preceded by a moist north-west airflow, again bringing rain to the far south-west. The front moved on to New Zealand during the 26th, accompanied over much of the country by rain, and passed to the east by the 28th. Heavy falls of rain in excess of 100 mm were reported in parts of Westland, and Fiordland during the 25th and 26th.

From the 28th to the end of the month a disturbed westerly airflow became established over the country. A cold front in this flow affected southern districts on the 28th, bringing further heavy rain to Fiordland.

J. S. HICKMAN, Director.

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

