SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 29 JANUARY 1981

Published by Authority

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CLIMATOLOGICAL TABLE
FOR NOVEMBER 1980

NEW ZEALAND METEOROLOGICAL SERVICE

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

Station	Height of Station Above M.S.L.	Air Temperature in Degrees Celsius: Means of A Max.	Means of B Min.	Mean of A and B	Difference From Normal	Absolute Maximum and Minimum: Maximum	Date	Minimum	Date	Rainfall in Millimetres: Total Fall	No. of Rain Days	Difference From Normal	Maximum Fall: Amount	Date	Bright Sunshine
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Cape Reinga	191	18.0	11.7	14.9	−0.3	20.9	2	9.2	17	22	14	−39	4	2	..
Kaitaia Airport	80	19.3	11.8	15.6	−0.3	22.8	30	7.2	11	45	18	−57	7	2	194
Aupouri Forest	69	18.7	13.1	15.9	−0.2	23.4	30	9.5	24	35	11	−57	9	4	..
Kerikeri Aerodrome	150	20.5	10.2	15.4	..	23.7	20	6.3	11	31	15	..	8	2	..
Umawera	50	19.3	11.3	15.3	..	22.8	30	4.4	11	53	11	..	11	7	..
Kaikohe	204	18.4	11.0	14.7	−0.3	22.3	30	7.5	11	58	19	..	12	7	213
Waiotemarama	229	16.7	11.0	13.9	..	20.8	4	7.6	11	99	21	..	14	16	..
Waipoua Forest	88	18.3	10.6	14.5	−0.2	24.0	30	3.5	11	147	22	+33	35	7	..
Dargaville	20	18.7	11.6	15.2	+0.1	24.5	4	5.0	11	101	19	+17	15	15	176
Waitangi Forest	55	21.2	10.9	16.1	−0.3	25.0	15	6.5	11	29	8	−55	15	2	225
Glenbervie Forest	107	19.5	9.9	14.7	+0.3	22.9	4	1.6	11	53	16	−64	8	7	..
Whangarei Airport	37	20.1	11.6	15.9	−0.3	24.0	4	6.9	11	43	17	−54	14	7	..
Whangarei	29	20.2	11.0	15.6	−0.5	24.5	4	5.6	11	55	18	..	14	7	220*
Marsden Power Station	3	20.9	11.6	16.3	−0.3	26.0	4	6.6	11	80	20	..	20	7	..
Pouto	97	17.9	11.4	14.7	..	25.2	2	8.1	26	110	17	..	16	7	..
Leigh	27	18.9	12.3	15.6	+0.0	22.1	20	8.9	26	83	18	+9	40	7	218
Warkworth	72	18.9	10.5	14.7	−0.6	22.5	4	3.4	11	104	23	..	23	7	..
Oyster Point	0	18.7	11.3	15.0	..	24.1	4	4.9	11	110	21	..	25	7	..
Woodhill Forest	30	18.4	11.9	15.2	+0.1	23.9	4	5.9	4	154	23	+60	41	7	..
Riverhead Forest	28	18.5	10.6	14.6	−0.1	23.4	4	3.3	11	140	21	+38	34	7	..
Kumeu	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whenuapai	26	18.7	11.3	15.0	+0.0	23.1	4	5.2	11	173	22	+76	46	4	..
Albert Park, Auckland	49	19.4	12.4	15.9	−0.3	23.1	20	8.9	11	141	23	+57	49	7	223*
Owairaka, Auckland	41	18.6	12.0	15.3	−0.1	22.0	20	7.8	4	167	23	+73	52	7	..
Port Fitzroy	4	19.7	12.7	16.2	+0.2	22.5	20	7.4	11	66	11	−61	19	7	..
Coromandel	43	19.2	11.8	15.5	..	23.8	4	4.9	11	125	20	..	53	7	..
Whangapoua Forest	4	20.0	11.4	15.7	+0.5	23.6	20	3.7	11	144	20	+35	44	7	..
Thames	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tairua Forest	3	19.6	11.1	15.4	−0.2	24.2	20	5.1	11	128	14	+31	23	7	..
Paeroa	4	20.6	10.7	15.7	+0.4	25.2	4	5.4	11	137	22	+48	32	7	..
Waihi	91	18.9	9.8	14.4	−0.7	22.7	20	3.8	4	156	19	+24	41	7	195
Te Aroha	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Katikati	2	19.4	10.9	15.2	..	23.7	20	5.3	4	109	19	..	25	7	..
Tauranga	2	19.4	11.5	15.5	−0.2	24.2	20	7.3	11	99	15	..	20	7	..
Tauranga Airport	4	19.6	10.3	15.0	−0.3	25.2	20	4.2	12	104	17	+20	21	4	217
Te Puke	91	19.4	9.4	14.4	−0.7	25.2	20	4.0	2	138	16	..	31	4	..
Rotoehu Forest	72	19.7	8.6	14.2	−0.1	26.6	20	1.7	2	116	16	+14	38	4	..
Edgecumbe	5	21.0	9.0	15.0	+0.0	29.9	20	3.7	27	97	15	..	22	30	..
Whakatane	2	20.9	10.7	15.8	+0.2	28.5	15	5.8	12	110	15	+26	22	10	226
Whakatane Airport	6	20.7	9.5	15.1	..	29.3	20	3.3	2	88	14	..	17	2	..
Port Ohope	9	19.8	11.0	15.4	..	27.0	15	6.9	12	81	15	..	16	10	223
Kinleith	383	..	7.8	..	..	..	..	2.2	11	257	19	+123	74	30	..
Tokoroa	305	18.1	7.6	12.9	−0.5	23.5	15	0.9	11	256	19	..	55	30	..
Tikitere	338	16.9	8.8	12.9	..	21.7	20	4.7	2	148	16	..	51	4	..
Kawerau	30	21.0	10.1	15.6	−0.3	32.0	20	4.4	2	130	15	+16	27	30	..
Te Teko	8	21.7	7.1	14.4	−1.0	31.0	20	0.1	19	80	15	−14	22	9	213
Whakarewarewa	307	18.2	8.6	13.4	−0.5	24.9	20	3.1	2	119	17	+15	35	30	..
Rotorua Airport	287	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tarawera Forest	61	20.1	9.1	14.6	+0.0	27.8	20	3.2	2	172	15	+40	39	30	..
Waiotapu Forest	435	17.0	7.1	12.1	−1.0	24.0	20	2.4	2	139	17	+40	25	9	..
Atiamuri Power Station	253	18.0	7.3	12.7	−1.3	24.7	20	2.0	2	191	21	+66	56	30	..
Kaingaroa Forest	544	16.8	6.1	11.5	−1.0	25.2	20	0.0	11	152	20	+43	38	4	..
Murupara	198	19.8	7.3	13.6	..	28.7	20	1.7	2	131	16	+34	34	4	..
Broadlands	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairapukao Forest	437	17.9	4.0	11.0	−1.7	27.2	20	−2.3	2	163	17	+54	28	30	..
Taupo	376	17.7	7.0	12.4	−0.9	24.4	19	−0.1	11	132	17	+48	37	30	225
Wairakei Power Station	342	18.5	7.3	12.9	−0.8	26.0	20	−0.5	11	133	18	+42	40	30	..
Wairakei Research Station	402	18.0	6.7	12.4	−0.4	26.1	20	−1.2	11	147	18	+58	40	30	..
Minginui Forest	366	18.9	5.9	12.4	−0.5	29.0	20	−1.6	2	162	19	+48	34	4	..
Taupo Airport	407	17.1	7.6	12.4	..	23.1	20	−0.5	17	125	16	..	28	30	..
Waimihia Forest	743	14.4	4.9	9.7	−1.1	23.0	20	−1.0	11	226	19	+91	43	30	..
Opotiki	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waimana	37	20.5	8.0	14.3	−0.7	30.2	20	2.6	2	157	16	+45	33	9	..
Mangere, Auckland	4	18.1	12.7	15.4	−0.3	22.2	4	7.6	10	126	24	+40	31	7	201
Otara, Auckland	12	18.7	11.9	15.3	+0.2	21.9	20	5.7	11	126	22	+45	36	7	..
Orere Point	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Auckland Airport	8	18.3	12.5	15.4	−0.4	22.5	4	9.0	4	118	24	+34	29	7	220
Ardmore	30	18.5	10.8	14.7	−0.2	21.8	4	3.5	11	132	21	+38	30	7	..
Pukekohe	82	17.7	10.6	14.2	−0.6	21.3	4	5.5	11	155	24	..	31	7	181
Maioro Forest	52	17.8	11.7	14.8	−0.2	23.7	4	6.4	4	154	23	+60	31	4	..
Hunua	122	17.7	9.8	13.8	..	21.3	4	4.4	4	130	20	..	25	7	..
Maramarua Forest	38	18.8	9.8	14.3	−0.2	23.2	4	1.5	11	126	22	+35	22	7	..
Te Kauwhata	32	18.7	10.9	14.8	−0.4	23.7	4	5.0	11	121	24	+32	24	7	191
Ruakura, Hamilton	40	18.4	10.0	14.2	−0.2	23.1	4	3.2	11	132	21	+41	19	7	205

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	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Whatawhata	104	17.3	10.4	13.9	−0.6	22.9	4	3.7	11	208	22	+89	36	30	186
Rukuhia	66	18.4	9.9	14.2	−0.5	23.2	4	4.4	11	144	23	+45	22	30	191
Hamilton Airport	50	18.6	8.8	13.7	−0.4	23.2	4	2.2	2	157	21	+66	26	30	..
Cambridge	76	18.4	9.4	13.9	..	23.3	4	2.2	11	141	20	..	17	30	..
Port Taharoa	27	18.4	10.7	14.6	−1.0	24.4	4	0.5	10	172	..	..	..	..	..
Mohakatino Station Mokau	46	16.4	10.6	13.5	−0.9	19.8	4	4.9	11	188	25	+41	57	30	..
Arapuni Power Station	123	18.6	8.7	13.7	−1.2	24.3	4	3.5	11	188	19	+71	40	30	..
Waikeria	46	18.3	9.0	13.7	..	22.8	4	1.3	11	141	19	..	27	30	..
Te Kuiti	61	18.2	9.1	13.7	−0.8	22.5	4	3.2	11	230	23	+111	48	30	163
Pureora Forest	549	15.0	5.9	10.5	−1.0	20.0	20	−1.3	11	239	20	+84	56	30	..
Taumarunui	171	18.5	8.4	13.5	−1.1	23.5	20	1.2	11	205	24	+81	51	30	169
Omata	61	16.3	10.8	13.6	−0.7	18.7	5	6.4	17	178	22	..	36	30	..
New Plymouth	55	16.7	10.3	13.5	..	19.2	5	4.5	11	191	20	..	49	30	..
New Plymouth Airport	27	16.9	10.4	13.7	+0.0	18.8	4	4.0	11	136	20	+19	30	30	198
Tikorangi	77	16.8	9.2	13.0	..	19.4	13	3.6	11	170	22	..	40	30	..
Te Wera Forest	180	16.5	7.7	12.1	−0.7	21.5	19	0.5	11	167	20	+10	29	30	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	17.6	7.4	12.5	−0.8	26.0	20	1.1	17	222	18	..	75	30	201
Chateau, Mt Ruapehu	1119	12.1	..	..	..	22.7	20	..	..	401	..	+139	110	30	..
Mangamutu, Pahiatua	116	16.4	8.6	12.5	−0.8	22.0	4	−0.5	10	239	21	+132	50	30	..
Mt Bruce Reserve	305	16.6	7.3	12.0	+0.0	24.4	19	0.2	11	306	24	..	78	27	..
Waingawa, Masterton	114	17.9	7.5	12.7	−0.9	25.4	19	1.6	11	131	18	+62	31	8	208
Kopua	311	17.0	8.0	12.5	−0.7	24.8	20	0.4	11	72	17	+1	28	8	..
Waipukurau	137	19.1	7.8	13.5	−0.4	28.5	20	1.5	11	55	12	+2	14	30	209*
Dannevirke	207	16.9	8.6	12.8	−0.8	23.4	19	0.6	11	117	23	+31	24	8	179
Porangahau	8	18.8	9.5	14.2	..	26.1	20	3.3	3	67	13	..	13	30	..
Castlepoint	3	17.8	10.5	14.2	−0.5	22.7	15	5.5	11	61	15	+8	25	16	..
Ngaumu Forest	244	17.6	7.3	12.5	−0.1	24.8	19	0.5	11	74	15	+3	21	8	..
Tauherenikau, Alloa	43	17.9	7.6	12.8	−1.1	25.7	19	3.0	11	153	21	+72	41	8	..
Gladstone, Arahura	116	..	7.4	..	..	..	..	1.9	27	96	18	+38	20	8	..
Waiorongomai	21	16.5	9.0	12.8	−0.7	22.1	19	3.5	11	175	17	+61	24	8	..
Cape Palliser	10	17.3	10.3	13.8	−0.5	28.0	19	6.5	11	92	18	+34	14	16	..
East Cape	17	19.1	11.0	15.1	−0.8	28.4	15	6.5	12	70	15	−14	13	30	..
Ruatoria	61	21.6	9.2	15.4	−0.3	32.1	15	3.9	12	44	15	−70	16	9	..
Mangatu Forest	182	20.3	8.9	14.6	−0.4	32.5	20	3.5	11	43	11	−54	9	9	..
Manutuke Gisborne	9	20.5	8.9	14.7	−0.5	28.9	15	3.5	27	55	13	−6	16	16	..
Gisborne Airport	4	21.3	9.0	15.2	−0.4	30.0	15	4.0	11	64	14	+6	25	16	251
Onepoto, Waikaremoana	643	17.9	7.1	12.5	+0.0	26.6	20	2.0	12	138	15	−9	22	9	..
Wharerata Forest	439	18.3	8.0	13.2	..	26.5	15	2.5	11	96	10	..	39	9	..
Esk Forest	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaweka Forest	414	18.7	8.3	13.5	−0.3	30.0	20	2.1	10	64	15	..	14	5	..
Napier Airport	2	21.4	8.9	15.2	..	27.6	15	2.6	11	31	8	−17	9	4	..
Napier	2	21.6	9.7	15.7	−0.3	26.7	15	3.6	11	28	8	−15	8	4	249
Hastings	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Havelock North	9	20.6	7.4	14.0	−0.5	25.9	15	1.2	11	42	8	−4	18	8	232
Gwavas Forest	335	18.7	6.1	12.4	−0.5	30.2	20	−0.3	11	75	9	−1	22	8	..
Makaretu	335	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohaka Forest	286	19.7	8.3	14.0	−0.2	29.0	20	2.0	11	105	12	+8	29	9	..
Frasertown, Wairoa	8	20.9	9.5	15.2	−0.6	30.0	20	4.0	11	108	10	+17	47	9	..
Wairoa	20	..	9.5	..	..	..	..	3.5	11	107	12	..	48	9	251
Portland Island	78	18.0	11.6	14.8	−0.3	22.1	20	7.5	10	50	12	+7	11	9	..
Kapiti Island	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paraparaumu Airport	7	16.3	10.0	13.2	−0.6	19.3	13	4.8	11	167	22	+83	31	4	206
Flockhouse, Bulls	9	16.4	9.6	13.0	−0.9	21.6	4	0.9	10	135	20	+64	20	30	..
Ohakea	48	16.6	9.7	13.2	−1.1	22.7	20	3.3	10	121	19	+52	21	24	204
Wharite Peak	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kairanga Palmerston North	15	17.0	9.4	13.2	−0.6	22.4	4	2.4	10	120	17	..	24	30	184
Palmerston North Airport	45	16.7	8.4	12.6	−1.1	22.1	4	0.9	10	124	20	+50	22	30	..
Palmerston North D S I R	34	16.9	9.7	13.3	−0.9	22.1	20	2.2	10	146	19	+67	32	30	145
Massey University	61	17.1	..	..	..	21.8	4	..	..	153	21	+72	35	30	..
Foxton	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waitarere Forest	3	16.5	10.0	13.3	−0.9	20.0	4	3.5	10	164	17	+95	34	25	..
Levin	46	16.3	9.5	12.9	−1.0	19.6	4	2.0	10	179	19	+95	33	4	166
Taita, Lower Hutt	65	16.4	9.0	12.7	−0.9	21.7	19	3.9	10	128	17	+24	18	4	195
Avalon, Lower Hutt	15	16.6	10.2	13.4	−0.6	21.1	19	5.7	10	118	17	+24	20	4	..
Kelburn, Wellington	125	15.9	9.4	12.7	−0.7	19.6	15	4.4	10	128	14	+44	34	25	230
Somes Island	43	15.6	10.0	12.8	..	19.1	19	3.3	28	101	15	..	23	25	..
Gracefield, Lower Hutt	34	16.6	10.3	13.5	−0.5	20.6	19	5.4	10	130	14	+36	21	24	..
Wainuiomata	82	16.2	9.2	12.7	−0.6	21.0	19	3.9	11	146	16	..	20	4	..
Wellington Airport	6	17.0	10.2	13.6	−0.8	20.9	15	5.1	10	118	13	+49	40	25	..
Kaitoke	223	15.5	7.9	11.7	−0.3	21.5	19	1.0	11	254	21	+84	39	24	174
Wallaceville	56	16.4	8.9	12.7	−0.7	19.8	19	2.5	2	156	18	+54	26	24	189
Cape Egmont	8	16.5	11.3	13.9	−0.4	18.6	22	4.2	11	101	24	−1	19	4	..
Stratford Mountain House	846	13.0	4.6	8.8	−0.4	23.9	19	−1.2	11	480	22	−33	120	30	..
Stratford Dem. Farm	311	15.9	..	..	..	20.7	15	..	..	174	15	+9	38	30	193
Manaia Dem. Farm	98	16.3	8.8	12.6	−0.7	22.6	15	1.7	11	107	23	+16	15	30	168
Normanby	122	16.1	10.0	13.1	..	21.8	20	5.6	26	100	27	..	15	4	..

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	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Patea	43	16.5	10.8	13.7	−0.4	22.5	20	4.5	11	126	17	+33	24	8	..
Ohakune Junction	629	14.6	3.9	9.3	..	22.5	19	−4.0	14	211	24	..	46	4	..
Karioi	648	15.1	5.3	10.2	−1.2	22.7	19	−1.5	11	149	20	+47	28	30	..
Waiouru	823	13.8	3.8	8.8	−1.2	21.2	20	−3.9	11	80	20	−17	16	4	..
Waiouru Military Camp	823	13.1	4.0	8.6	−1.0	20.7	20	−3.4	11	111	21	+22	18	30	..
Taihape	433	16.9	6.7	11.8	−0.5	24.2	19	−1.3	11	108	23	..	21	4	..
Kahui, Taihape	518	15.9	6.9	11.4	−1.4	22.9	19	0.7	11	95	16	..	22	30	..
Wanganui	22	17.3	10.4	13.9	−0.8	25.0	20	4.8	10	125	17	+56	23	8	197
Wanganui Airport	9	17.5	10.2	13.9	..	24.8	20	4.6	10	127	16	..	21	24	..
Farewell Spit	3	17.8	9.2	13.5	+0.1	21.8	19	3.0	10	83	10	−1	16	4	..
Totaranui	10	18.3	8.0	13.2	..	21.4	19	2.5	10	118	11	..	36	4	..
Westport Airport	2	14.8	8.3	11.6	−1.2	17.6	19	3.6	26	182	23	−19	42	27	143
Cobb Dam	823	12.4	4.3	8.4	−1.1	24.6	19	−2.0	10	165	16	−10	40	27	..
Arapito	20	15.4	8.0	11.7	..	19.5	19	2.5	10	244	21	..	66	27	128
Karamea	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Rotoroa	443	..	4.8	..	..	..	..	−2.1	10	194	19	..	40	24	..
Lake Rotoiti	634	14.1	4.0	9.1	−1.6	26.8	19	−3.4	10	122	18	−2	27	24	..
Hokitika Airport	39	14.5	7.8	11.2	−1.0	18.5	19	1.7	10	283	22	+6	65	2	155
Reefton	198	15.2	6.4	10.8	−2.1	23.9	19	−0.5	10	208	22	+12	27	24	..
Barrytown	30	14.6	8.8	11.7	..	19.0	19	4.5	26	302	25	..	64	28	..
Totara Flat	77	15.4	6.7	11.1	−1.8	22.7	19	0.1	10	242	23	+54	33	27	..
Greymouth	4	14.4	8.5	11.5	−1.2	16.5	19	3.1	26	289	25	+53	62	2	103
Otira Substation	383	12.5	4.8	8.7	..	21.6	19	0.0	10	577	26	+33	116	21	..
Springs Junction	421	13.4	4.7	9.1	..	24.6	19	−1.9	10	295	23	+71	46	27	..
Hari Hari	45	15.2	7.0	11.1	−1.1	21.0	19	0.5	26	430	21	+11	76	27	..
Franz Josef	122	14.4	6.3	10.4	−1.3	20.0	19	2.0	2	504	20	−9	108	27	..
Fox Glacier	152	14.2	6.2	10.2	..	21.2	19	1.9	26	493	20	+33	119	2	..
Milford Sound	3	13.7	5.9	9.8	−1.6	17.7	19	1.8	26	548	18	−90	156	27	..
Puysegur Point	43	12.4	6.6	9.5	..	21.5	19	3.0	4	226	28	+23	41	3	..
Stephens Island	187	14.6	9.4	12.0	..	17.1	19	2.4	10	68	14	+4	14	4	..
Riwaka, Motueka	8	18.7	7.4	13.1	−0.9	25.0	20	1.2	10	95	12	+6	29	4	250
Tapawera	146	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Appleby	17	18.1	8.1	13.1	−1.0	23.6	15	2.5	10	94	13	+23	28	4	..
Nelson Airport	2	17.8	8.1	13.0	−0.6	24.1	15	1.1	10	75	15	+1	30	4	248
Rai Valley	79	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moutere Hills	110	17.4	8.8	13.1	−0.7	22.2	15	3.7	10	104	12	+20	33	8	..
Blenheim Airport	27	18.9	7.3	13.1	−1.0	27.6	20	−0.5	10	70	13	+12	29	4	..
Blenheim	4	19.3	8.3	13.8	−0.7	25.2	18	0.5	10	56	12	+8	24	4	242
Waihopai Power Station	262	17.8	7.0	12.4	−1.2	27.6	19	0.4	10	81	15	+5	20	8	..
Vernon Lagoons	2	18.6	7.0	12.8	−0.9	24.4	20	−1.4	10	59	12	..	16	4	232
Lake Grassmere	2	17.7	9.4	13.6	−0.7	24.9	20	3.8	17	52	10	+6	16	4	240
Cape Campbell	3	16.6	10.0	13.3	+0.0	21.3	21	6.3	10	51	13	+5	13	4	..
Hanmer Forest	387	16.9	4.3	10.6	−1.7	28.0	19	−0.5	29	111	16	+22	38	8	164
Molesworth	893	15.0	2.4	8.7	−1.5	25.9	19	−4.4	2	38	8	−20	10	30	..
Kaikoura	108	16.1	8.4	12.3	−0.9	25.5	14	3.6	9	76	12	+10	30	8	212
Arthurs Pass	738	10.8	2.9	6.9	..	21.0	19	−1.8	10	356	21	−66	65	21	..
Balmoral Forest	198	18.1	6.1	12.1	−0.7	30.2	19	0.4	2	61	11	+10	19	7	..
Hawarden	244	17.9	5.0	11.5	..	28.0	19	−0.7	29	72	8	..	21	7	..
Waiau	137	19.1	6.3	12.7	..	30.4	19	0.5	2	67	11	..	24	8	..
The Hermitage, Mt Cook	765	13.4	3.4	8.4	−2.0	25.7	19	−0.2	26	401	19	+2	82	2	112
Mt John	1027	..	..	..	..	..	..	..	..	51	..	+3	..	..	..
Craigieburn Forest	914	14.0	2.3	8.2	−1.3	29.0	19	−3.0	10	159	23	+19	39	7	..
Lake Coleridge	364	16.7	5.4	11.1	−1.2	29.6	19	0.5	10	106	15	+30	26	7	..
Highbank Power Station	336	15.7	5.8	10.8	−1.7	28.9	19	0.8	10	140	14	+43	29	8	193
Hororata Substation	192	18.2	5.8	12.0	−0.8	26.6	19	−2.7	2	106	19	+37	25	25	..
Winchmore	160	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peel Forest	274	16.2	4.6	10.4	..	27.7	19	−1.0	2	135	20	..	43	7	..
Ashburton	101	18.2	7.0	12.6	−1.1	27.3	18	0.0	2	99	18	+30	34	7	173
Waipara	64	18.8	6.6	12.7	..	26.7	20	2.5	29	83	9	..	29	7	..
Ashley Forest	107	17.2	6.8	12.0	−1.3	25.5	20	1.4	2	68	10	+2	21	25	197
Rangiora	46	18.2	6.5	12.4	−1.0	27.5	20	−1.2	2	76	16	+28	22	7	..
Darfield	195	18.1	5.9	12.0	−1.4	25.6	18	0.9	2	121	15	+52	36	7	..
Eyrewell Forest	158	18.0	..	..	..	25.8	18	..	..	110	13	+36	34	7	..
Christchurch Airport	30	17.9	7.4	12.7	−1.1	25.5	20	1.4	2	65	15	+22	13	7	213
Templeton	46	17.5	6.7	12.1	..	25.2	20	0.4	2	84	15	..	16	6	..
Christchurch	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bromley, Christchurch	9	17.1	8.6	12.9	−1.1	25.0	20	4.5	10	86	14	+40	25	7	..
Mt Pleasant	137	16.7	8.5	12.6	−1.1	23.4	18	4.0	10	88	17	+42	17	25	..
Lincoln	11	17.2	6.9	12.1	−1.0	25.7	20	−0.9	2	85	15	+32	17	25	188
Akaroa	3	17.7	6.9	12.3	..	25.6	20	3.0	2	99	15	..	28	7	..
Lake Tekapo	683	14.7	4.1	9.4	−2.1	28.0	19	−1.5	10	58	12	+7	13	7	183
Lake Pukaki	556	15.1	3.9	9.5	−2.3	28.7	19	−0.5	26	126	17	..	34	7	..
Fairlie	304	17.7	4.3	11.0	..	33.7	19	−0.9	10	118	11	..	31	7	..
Twizel	457	16.2	3.7	10.0	−1.3	29.5	19	−0.8	2	95	15	..	25	7	..
Ikawai	70	16.8	5.6	11.2	−1.1	25.5	19	0.0	10	80	11	..	26	20	..
Geraldine	119	17.3	6.2	11.8	..	28.5	19	0.3	10	134	16	..	44	7	..
Orari Estate	81	17.0	5.7	11.4	−1.7	27.5	19	0.0	10	128	18	+57	42	7	..

CLIMATOLOGICAL TABLE—*Summary of the Records of Temperature, Rainfall, and Sunshine for November 1980*—continued

Station	Height of Station Above M.S.L.	Air Temperature in Degrees Celsius: Means of A Max.	Means of B Min.	Mean of A and B	Difference From Normal	Absolute Maximum and Minimum: Maximum	Date	Minimum	Date	Rainfall in Millimetres: Total Fall	No. of Rain Days	Difference From Normal	Maximum Fall: Amount	Date	Bright Sunshine
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Temuka	24	16.8	6.0	11.4	−1.4	24.9	19	1.5	2	103	16	+39	40	7	..
Timaru Airport	26	16.7	5.5	11.1	−1.4	25.8	19	−0.1	10	98	17	+45	31	7	..
Adair	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timaru	17	17.2	7.3	12.3	−0.9	26.9	19	1.0	10	84	19	+26	28	7	196
Waimate	61	16.9	7.1	12.0	−1.3	24.0	18	2.6	10	86	15	+22	31	7	..
Kurow	207	17.1	6.1	11.6	..	31.2	19	−0.2	10	98	15	..	32	20	..
Oamaru Airport	30	16.0	6.4	11.2	−0.8	26.6	19	1.1	26	56	14	+3	16	20	167
Tara Hills, Omarama	488	16.1	3.6	9.9	−2.0	29.0	19	−4.5	10	52	13	+4	11	2	200
Lake Hawea	350	14.8	4.9	9.9	−3.0	24.2	19	0.5	26	87	11	+16	20	2	..
Wanaka	296	16.9	5.6	11.3	−1.7	27.0	19	0.2	26	79	..	+18	..	..	..
Queensberry	277	16.5	5.6	11.1	..	28.1	19	0.5	17	54	13	..	12	7	..
Bendigo	200	17.4	5.6	11.5	..	28.4	19	−0.1	29	49	11	..	14	7	..
Naseby Forest	610	14.1	1.7	7.9	−2.5	28.1	19	−3.9	10	115	14	+62	23	20	..
Ranfurly	427	15.3	2.9	9.1	..	29.0	19	−3.2	10	75	11	..	23	30	139
Herbert Forest	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston	21	16.1	4.9	10.5	−1.2	22.0	21	−1.5	2	70	20	..	15	7	156
Cherry Farm Hospital	6	15.5	5.4	10.5	−1.4	23.4	19	0.5	2	85	22	+27	15	21	..
Taiaroa Head	72	13.3	7.1	10.2	−1.1	24.0	19	3.3	10	73	20	+7	17	24	..
Invermay, Taieri	30	15.1	5.3	10.2	..	25.7	14	−0.9	2	98	20	..	16	24	136
Berwick Forest	18	15.8	5.2	10.5	−1.5	27.2	19	−1.1	10	78	22	+9	12	24	..
Dunedin Airport	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Musselburgh, Dunedin	2	14.6	6.7	10.7	−1.8	22.0	27	3.0	3	117	22	+46	29	24	141
Te Anau	215	14.4	4.7	9.6	−1.5	24.5	19	−1.2	10	117	16	+20	29	24	148
West Arm, Manapouri	232	12.5	4.9	8.7	−1.7	22.0	19	0.5	26	431	23	..	73	27	..
Borland Burn	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown	329	16.0	5.7	10.9	−1.4	26.0	14	1.5	10	72	16	−4	15	22	166
Queenstown Airport	349	14.9	4.7	9.8	−1.8	25.6	19	0.0	2	59	16	+5	12	27	..
Otama	183	14.6	4.6	9.6	..	26.0	19	−0.8	10	83	24	+12	24	24	..
Cromwell	213	17.5	5.0	11.3	−2.5	30.9	19	0.1	2	40	13	+4	12	7	198
Northburn	210	17.4	5.2	11.3	..	29.0	19	0.9	26	32	11	..	9	7	..
Clyde Dam	160	17.7	5.6	11.7	..	31.4	19	1.3	26	46	16	..	16	7	..
Ophir	305	16.0	3.4	9.7	−2.7	26.1	19	−2.1	29	50	11	+12	11	7	..
Moa Creek	427	15.8	..	..	..	25.0	19	..	..	54	14	+16	12	7	..
Earnscleugh	152	17.9	4.5	11.2	−1.7	30.5	19	−1.0	2	43	12	+10	19	7	..
Alexandra	141	17.9	5.7	11.8	−2.0	31.0	19	0.5	2	41	11	+8	17	7	170
Roxburgh Power Station	110	17.5	4.6	11.1	−2.2	31.0	19	−0.5	10	57	13	+11	17	7	..
Mahinerangi Dam	396	12.2	2.9	7.6	−2.5	28.0	19	−2.0	10	105	23	+16	16	24	..
Tapanui	226	13.9	3.9	8.9	−2.9	26.5	19	−1.0	10	105	23	+24	27	24	..
Rankleburn Forest	255	13.9	4.0	9.0	−2.1	25.8	19	−0.5	2	161	23	+67	24	27	..
Taieri Mouth	15	14.5	5.6	10.1	−1.0	23.5	19	1.0	24	93	18	+14	29	24	..
Tuatapere	27	15.1	5.1	10.1	..	27.0	19	1.5	9	124	19	..	35	24	..
Otautau	55	14.7	4.9	9.8	−1.6	26.4	14	−0.5	2	114	21	+23	23	24	127
Winton	44	14.5	4.7	9.6	−2.3	25.3	19	−0.2	10	123	23	+52	43	24	136
Gore	123	14.1	5.2	9.7	−1.9	26.3	19	−0.7	10	154	25	..	41	24	116
Hokonui Forest	46	14.9	5.0	10.0	−2.0	25.3	19	−1.3	10	163	24	+66	37	24	..
Woodlands	47	14.4	5.1	9.8	−1.6	25.2	19	0.2	10	171	30	..	36	24	..
Invercargill Airport	0	13.8	5.6	9.7	−1.5	25.6	19	−0.4	10	130	26	+36	22	24	137
Tiwai Point, Bluff	5	13.5	6.7	10.1	−1.9	24.5	19	2.7	2	155	25	..	25	22	..
Stewart Island	3	12.8	5.5	9.2	..	26.5	19	1.3	10	187	28	..	26	27	..
Milton	18	15.2	5.4	10.3	−1.7	26.0	19	−2.0	10	89	22	+20	28	24	..
Finegand, Balclutha	6	15.5	5.8	10.7	−1.1	25.6	19	0.3	2	96	19	..	29	24	138
Owaka	5	14.2	6.1	10.2	..	26.8	19	0.4	2	113	26	..	20	24	..
Nugget Point	129	12.8	5.6	9.2	−1.5	21.3	19	2.9	2	112	28	+33	20	24	..
Tautuku	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nandi Airport, Fiji	19	31.6	21.3	26.5	+0.5	33.5	3	18.5	6	161	12	..	48	17	235
Rarotonga Airport	7	27.7	21.9	24.8	+0.8	29.4	25	17.0	3	130	6	−22	73	6	205
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Island	38	21.4	15.4	18.4	−0.4	23.2	9	13.2	13	34	14	−47	10	17	217
Campbell Island	15	9.1	3.1	6.1	−1.1	12.0	3	−3.4	2	134	29	+27	20	19	143
Waitangi, Chatham Island	44	13.6	7.6	10.6	−1.0	16.6	5	3.5	12	80	21	+19	24	26	181
Scott Base, Antarctica	16	−7.2	−14.6	−10.9	+1.1	−1.8	21	−20.9	19	..	..	..	..	..	..
LATE RETURNS AND CORRECTIONS															
Dargaville 10/1980	20	18.3	11.1	14.7	+1.0	..	..	3.8	20	38	15	−71	10	5	148
Foxton 10/1980	3	..	..	..	..	..	..	..	..	87	16	+11	21	17	..
Mt John 10/1980	1027	..	..	..	..	..	..	..	..	47	..	+4	..	..	..
Craigieburn Forest 10/1980	914	14.2	4.1	9.2	+1.5	20.4	23	−1.6	5	140	17	+5	29	31	..
Winchmore 10/1980	160	18.6	6.4	12.5	+1.9	27.3	27	0.0	6	47	10	−14	17	17	..
Lincoln 10/1980	11	19.6	7.0	13.3	+2.1	29.0	24	−0.5	5	13	9	−35	4	3	225
Berwick Forest 10/1980	18	17.6	6.7	12.2	+1.7	27.5	27	−2.0	6	43	12	−13	23	9	..
Moa Creek 10/1980	427	..	..	..	..	..	..	..	..	33	9	−3	11	9	..
Tuatapere 10/1980	27	..	..	..	..	..	..	..	..	0	0	..	0	..	..
Tautuku 10/1980	61	16.3	6.5	11.4	..	23.9	27	−0.5	5	74	21	..	18	9	..
Nandi Airport, Fiji 10/1980	19	30.6	20.9	25.8	+0.5	34.2	23	17.3	4	108	12	..	42	6	232
Rarotonga Airport 10/1980	7	26.7	21.2	24.0	+1.0	28.6	26	19.2	3	64	21	−66	35	27	186
Totokoitu, Rarotonga 10/1980	9	25.8	21.0	23.4	..	28.8	26	18.0	24	137	23	..	56	12	..

CLIMATOLOGICAL TABLE—*Summary of the Records of Temperature, Rainfall, and Sunshine for November 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		mm		mm	mm		Hrs
LATE RETURNS AND CORRECTIONS															
Raoul Island 07/1980	38	18.7	13.9	16.3	+0.1	21.6	4	10.2	27	321	24	+158	157	19	153
Raoul Island 08/1980	38	18.3	12.6	15.5	−0.5	20.7	28	9.7	20	84	18	−53	21	16	145
Raoul Island 09/1980	38	19.9	13.9	16.9	+0.6	21.6	11	11.2	15	60	12	−57	27	4	195
Raoul Island 10/1980	38	20.5	15.4	18.0	+0.5	22.9	10	11.1	15	114	19	+28	52	8	169
Campbell Island 05/1980	15	8.7	3.6	6.2	+0.1	11.0	17	−2.5	25	68	27	−72	10	27	21
Campbell Island 06/1980	15	7.4	3.4	5.4	+0.6	10.3	3	−4.3	14	96	28	−34	10	20	4
Campbell Island 09/1980	15	8.1	3.9	6.0	+0.5	10.7	1	−0.4	10	156	28	+54	19	25	39
Campbell Island 10/1980	15	9.1	4.4	6.8	+0.6	10.9	26	−0.4	31	111	29	−6	19	28	54
Waitangi, Chatham Island 10/1980	44	13.3	7.8	10.6	+0.4	17.1	26	2.4	24	37	11	−19	14	18	163

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 NOVEMBER 1980

General—November in New Zealand was generally wetter, windier, and cooler than usual with a very high frequency of south-westerly winds.

Farmers reported reasonable stock health despite slow to moderate pasture growth. In the South Island frosts during the month caused damage to the orcharding areas, and some observers noted that it had been a poor season for whitebait.

Thunderstorms during the 4th and 5th affected western parts of the North Island from Northland to Taranaki. Hailstones to 3 cm diameter were reported in New Plymouth. In Auckland the storm disrupted power, caused faults to fire alarms, and extensive damage to orchards and vineyards.

On three separate occasions during the month heavy snow falls were recorded in the mountains of both islands, and reached low levels in Otago and Southland.

Rainfall—Rainfall was below average in the far north of the country, about Gisborne and Hawkes Bay, and in parts of Fiordland, but elsewhere rainfall was above the November normal. After 2 dry months in parts of Canterbury, November rainfall was over 150 percent of normal making it the wettest November south of Banks Peninsula since at least 1967.

Cape Reinga with 12 mm of rain had the second lowest November total since 1945 when 11 mm were measured. At Waingawa (Masterton) 133 mm of rain fell; this was the highest November total since 1952. It was also the wettest November in Dunedin since 1971 and in Invercargill since 1964.

The highest daily rainfalls during the month occurred along the West Coast on the 27th. The 24 hour totals (9 a.m. to 9 a.m.) for selected sites included Milford Sound (156 mm), Fox Glacier (95 mm), Whataroa (91 mm), Hari Hari (78 mm) Lake Kaniere (64 mm), Maori Gully (Dobson) (84 mm) and Bainham (82 mm).

Temperatures—Mean temperatures were below average over the country with areas of the South Island more than 1.5°C below their November normals. Apart from a period during the middle of the month maximum temperatures were generally below average. During a very cold spell from the 24th to 26th when some mean temperatures in the south of the country were at least 7°C below average, snow fell to low levels in parts of Otago and Southland, with fresh snow on other alpine areas of both islands.

Sunshine—Sunshine hours were above average in the east of the country and about Cook Strait. Elsewhere they were below average. Invercargill with 34 hours sunshine less than usual had its lowest total since 1973 when only 129 hours were recorded. Above normal sunshine occurred at Gisborne (23 hours), Kelburn, Wellington (26 hours), and Timaru (27 hours).

WEATHER SEQUENCE DURING NOVEMBER 1980

During November the disturbed westerly conditions which prevailed during the previous 3 months continued and there were frequent changes in the weather in most areas.

A trough of low pressure accompanied by a cold front moved over the country on the 1st, bringing rain to most districts. Heavy rain fell along the West Coast with over 100 mm in 24 hours measured in some southern Westland areas. Another cold front accompanied by rain spread onto the south-west from the Tasman Sea on the 3rd, while a depression developed over the north Tasman Sea and crossed central areas of New Zealand on the 5th. Rain was widespread during this time with moderate falls reported over the North Island.

Another depression formed over the mid-Tasman Sea on the 7th and crossed the South Island on the 8th, while an associated trough of low pressure moved north-eastwards over the North Island during the 9th. Moderate falls of rain were reported over most of the country. An anticyclone near Tasmania on the 10th extended a ridge of high pressure on to southern New Zealand behind the earlier trough, and on the 12th the ridge lay north of New Zealand. A disturbed west to south-west airflow covered the country from the 12th to 19th. Cold fronts in this flow brought rain to western and southern areas on the 14th and 19th, and to most areas on the 16th, with heavy falls occurring in Fiordland.

A cold front crossed New Zealand during the 20th bringing rain to most of the South Island and to the west of the North Island. Another cold front on the 21st brought rain to the west and south of the South Island, but as it crossed the rest of New Zealand it became weak, and dry conditions were reported in the east and north of the North Island. A strong disturbed west to south-west airflow followed this front and persisted over the country until early on the 25th. Showery conditions prevailed over New Zealand during this time and local heavy falls were measured in Fiordland (22nd, 23rd), Westland (22nd, 24th), and Buller (24th).

On the 24th a trough of low pressure south-west of the country advanced over New Zealand on the 25th and 26th, and brought rain to most districts. A cold showery southerly airflow spread over the country on the 26th, but the airstream turned westerly ahead of a cold front in the Tasman Sea. The cold front crossed New Zealand on the 27th bringing rain to the country and heavy falls to the West Coast.

A depression formed south-west of the South Island on the 27th and passed over southern districts during the 28th. Its associated cold front accompanied by rain moved over the country and lay to the east by early on the 29th. During the 29th and 30th, a ridge of high pressure, from an anticyclone north of Norfolk Island, moved over New Zealand with mostly dry weather. However, a complex trough of low pressure near Lord Howe Island on the 29th moved towards central New Zealand on the 30th.

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