



SUPPLEMENT  
TO THE  
NEW ZEALAND GAZETTE  
OF  
THURSDAY, 19 JANUARY 1984

*Published by Authority*

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WELLINGTON: WEDNESDAY, 25 JANUARY 1984

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CLIMATOLOGICAL TABLE  
FOR NOVEMBER 1983



CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1983—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	mm	Hrs			
Ruakura Hamilton	40	20.1	9.5	14.8	+0.4	23.2	17	3.8	24	52	9	-39	19	7	181
Whatawhata	104	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rukuhia	66	20.2	9.8	15.0	+0.3	23.5	8	5.0	24	66	13	-33	22	7	184
Hamilton Airport	50	20.6	8.6	14.6	+0.5	23.5	8	2.4	24	52	10	-39	16	7	..
Cambridge	76	20.5	9.5	15.0	..	23.9	17	3.2	24	46	10	..	11	8	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Stn Mokau	46	17.9	10.2	14.1	-0.3	20.2	28	6.2	20	147	10	+0	52	5	..
Arapuni Power Stn	123	20.6	8.9	14.8	-0.1	24.6	4	3.0	24	56	10	-61	19	7	..
Waikeria	46	20.2	8.7	14.5	..	22.7	8	2.1	25	56	9	..	36	7	..
Te Kuiti	61	19.9	9.1	14.5	+0.0	23.4	8	..	..	59	10	-60	18	7	168
Wairere	122	19.0	8.0	13.5	..	22.2	8	1.3	25	94	14	-38	30	7	..
Pureora Forest	549	16.6	6.2	11.4	-0.1	20.7	17	0.8	25	98	16	-57	33	7	..
Mangakahu Valley	397	17.9	7.4	12.7	..	21.3	8	2.3	17	94	16	..	37	7	..
Taumarunui	171	20.2	8.0	14.1	-0.5	24.2	8	1.9	16	120	12	-4	23	27	157
Tokirima	152	19.6	6.9	13.3	..	23.1	6	0.3	16	135	11	..	48	7	..
Omata	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Plymouth	55	18.1	9.7	13.9	..	21.4	27	3.8	16	108	12	..	46	7	..
New Plymouth Airport	27	17.7	9.7	13.7	+0.0	20.0	30	3.4	16	101	12	-16	44	7	210
North Egmont	955	12.4	4.4	8.4	..	15.7	6	0.8	21	777	15	..	169	5	..
Te Wera Forest	180	17.5	7.0	12.3	-0.5	21.2	6	0.4	16	166	12	+9	54	7	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	18.1	7.8	13.0	-0.3	21.6	17	1.1	25	151	11	..	63	7	163
Chateau, Mt Ruapehu	1097	13.4	3.4	8.4	..	17.3	17	-2.1	24	221	13	..	66	5	..
Hukanui	235	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mt Bruce Res	305	17.7	7.2	12.5	+0.5	23.2	17	-1.5	2	142	15	..	37	5	..
Waingawa Masterton	114	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kopua	311	17.2	7.8	12.5	-0.7	23.5	11	0.1	2	32	10	-39	12	8	..
Waipukurau	137	18.4	8.1	13.3	-0.6	24.8	11	0.5	2	38	11	-15	15	8	162*
Dannevirke	207	18.3	8.5	13.4	-0.2	23.6	11	0.5	2	42	12	-44	12	7	159
Porangahau	8	18.7	9.9	14.3	..	23.4	19	4.0	16	34	13	..	7	22	..
Castlepoint	3	17.4	11.5	14.5	-0.2	23.1	11	5.7	2	49	15	-4	13	8	..
Ngaumu Forest	244	17.8	7.1	12.5	-0.1	23.0	9	-0.1	2	59	11	-12	23	8	..
Tauherenikau, Alloa	43	18.8	8.3	13.6	-0.3	23.7	9	1.0	2	86	14	+5	23	8	..
Waiorongomai	21	16.8	9.3	13.1	-0.4	19.7	9	1.8	2	165	14	+51	36	5	..
Cape Palliser	10	17.8	11.2	14.5	+0.2	21.4	4	5.5	2	43	13	-15	13	21	..
East Cape	17	18.1	12.8	15.5	-0.4	22.2	12	9.1	17	55	15	-29	16	14	..
Ruatoria	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mangatu Forest	182	19.6	9.4	14.5	-0.5	26.4	10	2.5	16	47	14	-50	8	7	..
Manutuke Gisborne	9	19.5	10.6	15.1	-0.1	27.5	10	3.9	2	47	14	-14	28	14	..
Gisborne Airport	4	19.9	10.3	15.1	-0.5	28.2	10	1.8	2	50	12	-8	27	14	164
Onepoto, Waikaremoana	643	17.0	7.5	12.3	-0.2	25.3	17	1.6	2	143	17	-4	43	14	..
Wharerata Forest	439	15.5	9.0	12.3	..	24.4	11	2.5	16	121	18	..	43	14	..
Esk Forest	427	17.5	8.7	13.1	-0.2	24.2	10	0.5	2	48	12	-56	9	12	..
Kaweka Forest	414	17.6	8.9	13.3	-0.5	25.8	11	2.7	2	38	12	..	8	12	..
Napier Airport	2	19.4	10.3	14.9	..	27.3	11	2.3	2	16	10	-32	4	27	..
Napier	2	20.1	10.9	15.5	-0.5	27.4	11	3.3	2	22	10	-21	5	20	156
Hastings	16	19.9	10.1	15.0	..	27.4	11	2.7	2	28	10	..	17	8	..
Whakatu	6	19.2	9.8	14.5	..	25.9	11	2.3	2	18	9	..	8	8	..
Gwavas Forest	335	17.6	7.3	12.5	-0.4	24.3	11	-0.1	2	30	10	-46	8	7	..
Makaretu	335	18.0	7.9	13.0	-0.3	24.7	11	-0.4	16	28	16	..	9	8	..
Mohaka Forest	286	18.6	9.3	14.0	-0.2	26.5	10	2.1	2	61	14	-36	14	14	..
Frasertown, Wairoa	8	19.8	..	..	..	28.0	10	..	..	92	15	+1	19	28	..
Wairoa	20	19.6	11.3	15.5	-0.3	27.6	11	4.3	2	66	14	..	22	28	172
Kapiti Is	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paraparaumu Airport	7	16.9	10.0	13.5	-0.3	19.8	27	3.5	2	128	11	+44	31	7	187
Flockhouse Bulls	9	18.2	8.2	13.2	-0.7	22.5	8	1.7	2	38	9	-33	14	8	..
Ohakea	48	18.3	9.3	13.8	-0.5	22.3	11	1.6	2	37	10	-32	19	8	189
Wharite Peak	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kairanga Palmerston N	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston N Airport	45	18.6	8.6	13.6	-0.1	22.6	11	2.0	2	48	12	-26	16	8	..
Palmerston N D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiritea	100	17.6	8.8	13.2	..	22.1	8	3.6	2	59	11	..	14	8	..
Waitarere Forest	3	17.7	8.7	13.2	-1.0	22.0	8	0.9	29	72	8	+3	18	3	..
Levin	46	17.5	9.3	13.4	-0.5	21.1	8	3.6	2	95	9	+11	33	3	184
Titahi Bay	31	17.4	10.3	13.9	..	21.3	7	2.8	2	133	15	..	45	4	..
Avalon, Lower Hutt	15	17.0	10.0	13.5	-0.5	20.0	7	4.4	2	214	15	+120	70	4	..
Kelburn, Wellington	125	16.0	10.0	13.0	-0.4	19.2	7	5.0	2	111	13	+27	33	4	217
Somes Is	43	16.0	10.5	13.3	..	19.5	7	6.0	2	118	14	..	33	4	..
Gracefield Lower Hutt	34	16.7	10.3	13.5	-0.5	19.6	7	3.8	2	176	12	+82	59	4	..
Wainuiomata	82	16.4	9.0	12.7	-0.6	18.7	9	2.8	2	176	13	..	51	4	..
Wellington Airport	6	16.9	11.2	14.1	-0.3	19.4	26	6.8	2	85	12	+16	25	4	..
Rimutaka Forest	37	17.0	8.6	12.8	..	19.6	7	1.8	2	132	15	..	28	4	..
Kaitoke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wallaceville	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape Egmont	8	17.4	10.7	14.1	-0.2	19.5	27	4.5	16	95	12	-7	26	3	..

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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		mm	mm	mm		Hrs	
Stratford Mtn House	846	12.2	4.6	8.4	-0.8	15.9	6	-1.0	16	479	15	-34	104	7	..
Stratford Dem Farm	311	15.9	7.8	11.9	-0.3	19.6	6	1.3	16	214	10	+49	60	7	198
Kapuni	173	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manaia Dem Farm	98	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Normanby	122	16.9	7.7	12.3	..	21.0	8	1.3	29	36	16	..	13	7	..
Patea	43	17.5	9.0	13.3	-0.8	21.0	17	4.5	2	71	8	-22	24	7	..
Ruatiti	354	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ohakune Junction	629	16.0	6.2	11.1	..	21.5	17	-0.4	16	66	16	..	18	8	..
Karioi	648	16.6	5.8	11.2	-0.2	21.6	17	0.0	16	49	12	-53	14	7	..
Waiouru	823	..	..	..	..	..	..	..	..	57	13	-40	19	21	..
Waiouru Military Camp	823	15.0	5.1	10.1	+0.5	21.2	17	-0.6	28	59	11	-30	19	21	..
Ahu Ahu Valley	85	19.1	7.8	13.5	..	24.5	17	1.8	16	65	13	..	21	7	..
Taihape	433	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kahui, Taihape	518	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wanganui	22	18.7	10.3	14.5	-0.2	23.1	11	4.6	2	35	12	-34	12	8	199
Wanganui Airport	9	18.6	9.7	14.2	..	22.2	8	1.8	2	36	9	..	13	8	..
Farewell Spit	3	17.9	10.4	14.2	+0.8	20.6	14	5.0	15	90	17	+6	27	4	..
Totaranui	10	17.9	9.3	13.6	..	21.8	6	3.0	21	170	13	..	51	4	..
Westport Airport	2	16.8	9.8	13.3	+0.5	19.0	27	5.5	21	145	17	-56	44	4	208
Cobb Dam	823	14.0	4.8	9.4	-0.1	19.5	9	0.6	16	126	21	-49	43	4	..
Arapito	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Rotoroa	443	17.4	6.3	11.9	..	22.3	9	-0.5	15	140	23	..	57	4	..
Lake Rotoiti	634	16.7	5.1	10.9	+0.2	23.0	9	-1.6	15	106	20	-18	36	4	..
Hokitika Airport	39	16.9	8.8	12.9	+0.7	20.0	22	4.1	21	312	16	+35	166	17	217
Punakaiki	4	18.1	10.6	14.4	..	21.6	27	7.1	15	223	16	..	70	17	..
Reefton	198	19.0	8.0	13.5	+0.6	23.8	28	-3.0	21	125	19	-71	41	4	..
Barrytown	30	17.1	10.2	13.7	..	20.2	4	7.3	15	194	15	..	60	17	..
Totara Flat	77	19.6	8.0	13.8	+0.9	23.3	27	1.8	15	88	13	-100	23	4	..
Greymouth	4	16.6	9.7	13.2	+0.5	19.8	28	5.0	21	205	16	-31	61	17	196
Otira Substation	383	16.6	6.7	11.7	..	21.2	28	1.5	21	465	19	-79	95	17	..
Springs Junction	421	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pukekura	86	16.9	7.2	12.1	..	21.0	27	0.9	21	320	16	..	127	17	..
Hari Hari	45	..	8.2	..	..	..	..	2.1	21	369	19	-50	129	17	..
Okarito	10	16.7	8.1	12.4	..	18.8	28	3.6	23	267	14	..	122	17	..
Franz Josef	155	16.4	7.9	12.2	..	21.0	27	3.7	20	487	19	..	187	17	107
Fox Glacier	152	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Milford Sound	3	16.2	7.3	11.8	+0.4	21.1	4	3.7	15	628	15	-10	186	16	..
Puyssegur Point	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stephens Is	187	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Riwaka Motueka	8	19.3	9.1	14.2	+0.2	24.6	5	3.5	15	47	12	-42	24	4	212
Tapawera	146	19.4	7.4	13.4	..	23.2	18	1.4	15	58	15	..	15	4	..
Craik Bay Pelorus Sd	13	17.1	10.8	14.0	..	20.6	14	6.3	2	227	14	..	76	3	..
Appleby	17	18.2	9.5	13.9	-0.2	21.0	5	4.4	15	68	13	-3	19	24	..
Nelson Airport	2	18.0	9.5	13.8	+0.2	21.1	5	4.4	15	55	16	-19	13	4	211
Rai Valley	79	18.0	8.8	13.4	+0.1	20.7	9	2.5	13	252	15	+84	125	4	..
Moutere Hills	110	17.8	10.0	13.9	+0.1	20.4	6	5.9	15	48	16	-36	12	24	..
Blenheim Airport	27	18.6	8.8	13.7	-0.4	24.0	9	2.1	15	40	9	-18	15	14	..
Brancott Valley	64	18.8	8.1	13.5	..	23.3	9	1.3	15	37	7	..	15	14	..
Blenheim	4	19.2	9.1	14.2	-0.3	23.9	4	2.1	15	32	7	-16	9	14	199
Wither Hills Blenheim	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waihopai Power Stn	262	18.7	7.1	12.9	-0.7	24.0	16	1.5	15	32	10	-44	7	7	..
Vernon Lagoons	2	19.0	8.6	13.8	+0.1	23.0	11	0.7	24	22	8	..	9	14	193
Lake Grassmere	2	18.0	10.4	14.2	-0.1	22.6	4	5.1	24	19	6	-27	8	7	193
Cape Campbell	3	16.6	11.0	13.8	+0.5	19.8	6	7.9	2	24	8	-22	10	7	..
Boyle River Lodge	600	17.1	5.6	11.4	..	24.8	27	-0.5	15	145	..	..	..	..	..
Hanmer Forest	387	17.9	6.7	12.3	+0.0	25.6	17	-1.0	21	66	13	-23	20	21	153
Molesworth	893	15.4	4.0	9.7	-0.5	23.0	16	-2.4	20	47	13	-11	17	8	..
Kaikoura Flats	24	17.3	8.2	12.8	..	27.3	5	3.2	2	39	10	..	7	22	..
Kaikoura	108	16.5	9.9	13.2	+0.0	25.0	10	6.3	2	40	10	-26	7	27	193
Arthurs Pass	738	13.8	5.0	9.4	..	18.5	8	-1.4	21	416	17	-6	86	17	..
Culverden	174	18.8	7.7	13.3	..	26.2	17	0.2	21	22	9	..	6	14	..
Balmoral Forest	198	18.8	8.4	13.6	+0.8	25.8	16	0.2	21	23	11	-28	6	21	..
Waiau	137	19.1	7.9	13.5	..	27.4	5	1.3	21	20	6	..	7	27	..
Cheviot	85	18.2	8.1	13.2	..	27.2	5	1.9	15	28	8	..	13	21	196
The Hermitage Mt Cook	765	15.9	5.3	10.6	+0.2	22.1	8	1.0	15	532	16	+133	137	17	160
Mt John	1027	13.8	4.4	9.1	-0.4	18.9	4	0.7	22	23	8	-25	9	2	..
Craigieburn Forest	914	14.4	4.2	9.3	-0.2	23.9	9	-1.4	21	135	22	-5	24	17	..
Lake Coleridge	364	17.2	7.0	12.1	-0.2	25.0	9	1.7	21	57	16	-19	18	21	..
Highbank Power Stn	336	15.9	7.4	11.7	-0.8	21.0	4	2.9	15	35	13	-62	11	14	164
Hororata Substation	192	18.4	7.3	12.9	+0.1	24.9	10	0.4	21	35	14	-34	12	21	..
Winchmore	160	17.6	7.7	12.7	+0.2	24.0	10	1.5	15	27	10	-39	8	13	..
Peel Forest	274	17.3	6.7	12.0	..	24.5	16	0.1	21	63	20	..	12	12	..
Ashburton	101	18.5	8.6	13.6	-0.1	27.0	10	1.9	15	27	11	-42	7	14	162
Waipara	64	19.0	9.0	14.0	..	26.2	16	1.9	15	21	10	..	13	21	..
Ashley Forest	107	17.6	8.3	13.0	-0.3	25.7	10	3.2	21	14	4	-52	6	22	176

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Metres	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	Hrs			
Rangiora	46	19.1	7.9	13.5	+0.1	28.4	5	2.5	12	22	14	-26	6	21	..
Darfield	195	19.1	7.7	13.4	+0.0	24.4	13	1.8	21	66	10	-3	42	21	..
Eyrewell Forest	158	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Christchurch Airport	30	18.8	8.9	13.9	+0.1	27.4	10	1.7	21	29	11	-14	16	21	191
Templeton	46	18.3	8.3	13.3	..	25.8	16	1.5	15	21	11	..	7	21	..
Christchurch	7	18.7	9.4	14.1	+0.1	27.2	5	5.0	15	46	9	+0	23	21	..
Bromley Christchurch	9	18.2	10.2	14.2	+0.2	28.0	5	6.4	15	14	10	-32	6	21	..
Mt Pleasant	137	17.5	10.0	13.8	+0.1	26.0	5	6.3	15	22	12	-24	8	21	..
Lincoln	11	18.1	8.4	13.3	+0.2	25.5	10	2.0	12	21	14	-32	4	13	179
Quail Island	75	16.8	9.4	13.1	..	25.4	10	6.8	19	38	13	..	23	21	..
Akaroa	3	18.5	8.7	13.6	..	27.5	10	3.4	21	34	5	..	24	21	..
Lake Tekapo	683	15.4	5.6	10.5	-1.0	20.4	4	0.5	15	21	7	-30	8	2	..
Lake Pukaki	556	16.5	6.6	11.6	-0.2	20.6	4	2.1	15	37	12	..	12	17	..
Fairlie	304	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Twizel	457	17.6	5.8	11.7	+0.4	23.0	4	-0.3	15	37	15	..	10	17	..
Ikawai	70	17.4	7.5	12.5	+0.2	25.0	10	2.0	21	19	6	..	9	19	..
Geraldine	119	18.2	7.9	13.1	..	25.5	5	2.4	15	21	7	..	9	13	..
Orari Estate	81	17.9	7.7	12.8	-0.3	27.0	10	2.2	15	34	9	-37	15	14	..
Temuka	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timaru Airport	26	17.3	7.3	12.3	-0.2	26.2	10	2.0	15	36	8	-17	17	13	..
Adair	85	16.9	8.1	12.5	-0.2	25.2	10	4.0	21	28	12	-28	8	3	..
Timaru	17	17.9	8.9	13.4	+0.2	26.1	10	4.8	2	47	12	-11	16	13	181
Waimate	61	17.7	8.6	13.2	-0.1	26.1	10	4.2	21	13	9	-51	4	19	..
Aviemore	241	18.2	6.9	12.6	..	24.1	16	-4.4	4	15	9	-31	8	19	..
Kurow	207	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oamaru Airport	30	16.8	8.2	12.5	+0.5	25.3	18	3.9	15	19	6	-34	11	19	158
Knobs Flat	360	17.5	5.8	11.7	..	22.4	4	-0.9	15	181	11	-32	56	16	..
Tara Hills Omarama	488	17.9	6.1	12.0	+0.1	22.8	4	0.7	15	24	8	-24	9	17	189
Lake Hawea	350	17.1	7.4	12.3	-0.6	21.0	6	1.9	15	50	10	-21	19	17	..
Wanaka	296	19.6	7.5	13.6	+0.6	23.5	8	1.2	20	47	8	-14	17	10	..
Queensberry	277	18.6	7.9	13.3	..	22.8	4	1.7	20	39	9	..	13	10	..
Bendigo	200	19.8	7.8	13.8	..	23.8	8	0.5	15	20	8	..	8	17	..
Naseby Forest	610	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windsor	88	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oamaru	5	16.9	8.9	12.9	..	24.8	10	4.5	20	19	6	..	12	19	..
Ranfurly	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herbert Forest	61	17.4	7.4	12.4	+0.9	25.7	10	2.2	19	27	7	-60	9	20	..
Palmerston	21	17.1	7.6	12.4	+0.7	25.7	10	0.6	22	40	11	..	21	19	161
Cherry Farm Hospital	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taiaroa Head	72	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Invermay, Taieri	30	17.1	7.0	12.1	..	24.7	10	2.1	2	40	15	..	21	19	172
Berwick Forest	18	17.6	6.7	12.2	+0.2	25.5	10	0.8	22	30	9	-39	16	19	..
Dunedin Airport	1	17.6	6.8	12.2	+0.3	25.0	10	-0.5	22	24	10	-34	12	19	166
Musselburgh Dunedin	2	16.1	9.0	12.6	+0.1	25.0	10	4.5	15	38	13	-33	20	19	175
Te Anau	215	17.1	6.6	11.9	+0.8	23.5	4	0.4	15	72	8	-25	30	16	188
West Arm, Manapouri	232	16.1	7.0	11.6	+1.2	24.0	4	1.7	15	275	18	..	62	16	..
Borland Burn	183	16.7	4.2	10.5	..	24.5	4	-2.5	11	46	13	..	20	10	..
Queenstown	329	18.7	7.8	13.3	+1.0	25.0	16	3.1	20	58	10	-18	19	10	214
Queenstown Airport	349	17.3	6.6	12.0	+0.4	23.6	16	1.0	15	41	8	-13	16	17	..
Otama	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cromwell Sub Stn	213	20.0	7.4	13.7	..	24.2	4	0.6	15	17	8	..	7	17	..
Cromwell	213	20.0	7.3	13.7	-0.1	24.0	4	1.0	15	23	14	-13	8	17	237
Northburn	210	19.9	7.5	13.7	..	24.0	4	1.4	15	20	13	..	8	17	..
Lauder	370	18.1	6.5	12.3	..	22.9	4	-0.5	15	18	12	..	9	19	..
Clyde Dam	160	19.5	7.7	13.6	..	25.0	4	2.4	15	17	13	..	4	19	..
Ophir	305	18.9	5.7	12.3	-0.1	23.4	4	-1.8	15	28	10	-10	9	22	..
Moa Creek	427	17.9	4.7	11.3	+0.5	22.3	4	-2.8	15	29	9	-9	11	19	..
Alexandra	141	20.1	8.3	14.2	..	26.1	4	4.0	13	17	5	..	8	19	225
Clyde	171	19.3	7.1	13.2	..	24.7	4	0.8	15	16	14	..	4	19	..
Roxburgh Power Stn	110	18.9	6.3	12.6	-0.7	25.0	4	1.0	22	26	10	-20	8	19	..
Ettrick	83	19.9	6.5	13.2	..	25.5	4	1.0	22	30	5	..	17	19	..
Deep Stream	396	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beaumont	46	18.2	6.7	12.5	..	25.6	4	0.5	22	35	12	-56	16	19	..
Mahinerangi Dam	396	15.0	5.1	10.1	+0.0	21.5	10	-0.1	2	43	11	-46	24	19	..
Tapanui	226	16.5	6.1	11.3	-0.5	23.4	4	1.5	22	51	10	-30	26	19	..
Taiari Mouth	15	16.0	6.8	11.4	+0.3	25.2	10	2.3	22	28	9	-51	14	19	..
Tuatapere	27	17.1	6.6	11.9	..	25.0	4	1.5	15	39	14	..	8	13	..
Otautau	55	16.6	6.1	11.4	+0.0	24.8	4	0.7	15	32	11	-59	7	19	173
Winton	44	17.0	6.1	11.6	-0.3	25.8	4	2.1	23	30	11	-41	9	13	182
Gore	123	16.4	6.7	11.6	+0.0	25.4	4	1.6	22	25	13	..	5	13	169
Hokonui Forest	46	17.8	6.1	12.0	+0.0	25.5	4	1.0	23	48	13	-49	23	19	..
Woodlands	47	16.9	6.0	11.5	+0.1	26.0	4	1.8	15	64	20	..	19	19	..
Invercargill Airport	0	16.4	6.4	11.4	+0.2	24.7	4	1.2	29	50	15	-44	19	25	176
Tiwai Point, Bluff	5	16.6	7.8	12.2	+0.2	24.6	5	1.7	26	51	16	..	11	19	..
Stewart Is	3	15.0	7.2	11.1	..	22.1	10	2.9	29	71	23	..	8	17	..

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1983—continued

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			mm	mm	mm		Hrs		
Milton	18	17.4	6.5	12.0	+0.0	25.4	10	0.5	22	36	8	-33	17	19	...
Finegand Balclutha	6	16.9	7.0	12.0	+0.2	25.0	10	2.5	27	18	6	..	10	13	147
Owaka	5	16.1	6.4	11.3	..	24.5	10	0.8	22	63	12	..	32	19	..
Nugget Point	129	14.9	7.7	11.3	+0.6	23.8	10	4.4	2	52	17	-27	29	19	..
Tautuku	61	16.3	6.7	11.5	..	25.5	10	3.1	29	69	19	..	24	19	..
Nandi Airport, Fiji	19	31.6	21.9	26.8	+0.8	35.9	21	19.6	20	130	10	..	28	9	230
Rarotonga Airport	7	27.6	21.0	24.3	+0.3	29.7	29	17.2	8	22	11	-130	4	16	237
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Is	38	20.7	16.5	18.6	-0.2	23.9	21	14.6	2	97	7	-16	44	26	145
Campbell Is	15	10.9	5.1	8.0	+0.8	13.8	30	-1.9	25	109	23	+2	33	18	99
Waitangi, Chatham Is	44	14.6	9.3	12.0	+0.4	17.8	19	4.8	16	145	16	+84	26	22	69
Scott Base Antarctica	16	-9.0	-13.1	-11.1	+0.9	-4.2	30	-20.0	12	..	..	..	..	..	..
LATE RETURNS AND CORRECTIONS															
Aupouri Forest 10/1983	69	18.1	11.7	14.9	+0.1	20.9	25	6.4	15	109	19	-24	27	27	..
Dargaville 10/1983	20	18.6	10.9	14.8	+1.1	23.1	24	4.0	15	155	19	+46	43	6	146
Little Barrier Is 10/1983	2	18.0	11.9	15.0	..	20.0	28	8.0	14	245	20	+138	76	23	..
Thames 04/1983	3	19.7	12.6	16.2	+0.4	23.5	16	4.6	11	131	20	+17	27	26	..
Thames 05/1983	3	17.0	9.2	13.1	-0.1	22.3	5	3.0	24	68	18	-54	15	12	..
Thames 06/1983	3	14.6	8.3	11.5	+0.6	18.0	9	0.4	4	118	22	-17	31	8	..
Thames 07/1983	3	..	..	..	..	..	..	..	..	34	5	-93	25	9	..
Thames 08/1983	3	15.2	6.9	11.1	+0.0	18.0	2	1.6	29	60	12	-64	26	20	..
Thames 09/1983	3	17.0	9.6	13.3	+0.6	20.0	10	4.5	16	105	18	+3	27	9	..
Port Ohope 10/1983	9	17.7	11.1	14.4	..	20.5	2	5.8	17	104	19	..	19	21	137
Huntly 09/1983	34	16.5	8.5	12.5	..	19.0	10	2.8	5	87	23	..	23	9	..
Taupiri 08/1983	23	15.2	3.9	9.6	..	17.0	3	-3.1	16	83	16	..	40	20	..
Taupiri 09/1983	23	16.9	6.1	11.5	..	19.0	9	-0.7	5	148	21	..	30	9	..
Whatawhata 10/1983	104	..	10.3	..	..	..	..	3.0	14	210	20	+60	46	5	117
New Plymouth 10/1983	55	17.2	10.6	13.9	..	22.0	29	3.4	18	172	20	..	33	24	..
Lower Retaruke 10/1983	223	17.3	8.7	13.0	+1.1	25.1	29	-0.5	18	149	21	..	33	4	..
Waingawa Masterton 10/1983	114	17.2	8.2	12.7	+0.9	25.2	29	1.4	18	72	18	-2	15	4	122
East Cape 10/1983	17	17.2	12.0	14.6	+0.6	20.6	1	7.1	19	73	15	-34	23	5	..
Wharite Peak 10/1983	914	9.6	4.8	7.2	+0.8	17.0	29	-0.5	14	203	24	+23	51	4	..
Titahi Bay 10/1983	31	16.1	10.3	13.2	..	21.2	24	4.0	16	69	19	..	11	11	..
Manaia Dem Farm 08/1983	98	13.1	5.4	9.3	+0.4	18.9	6	-0.3	27	54	14	-63	18	24	127
Manaia Dem Farm 09/1983	98	14.8	8.0	11.4	+1.2	18.4	10	1.5	16	115	22	+18	32	14	126
Manaia Dem Farm 10/1983	98	16.1	8.6	12.4	+0.6	20.4	29	2.1	18	90	18	-22	21	22	136
Westport Airport 10/1983	2	16.2	8.9	12.6	+1.0	22.7	23	3.5	14	175	20	-8	54	20	136
Springs Junction 10/1983	421	15.5	..	..	..	..	..	..	..	273	17	+65	73	20	..
Cape Campbell 10/1983	3	15.0	9.9	12.5	+0.7	18.3	21	5.8	16	25	16	-26	7	14	..
Boyle River Lodge 10/1983	600	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaikoura Flats 10/1983	24	15.9	7.2	11.6	..	25.5	21	0.9	6	138	12	..	65	14	..
Craigieburn Forest 09/1983	914	9.8	0.0	4.9	-0.5	16.3	30	-4.5	16	281	23	+144	53	23	..
Craigieburn Forest 10/1983	914	13.3	3.0	8.2	+0.5	21.6	29	-3.6	4	250	22	+115	87	20	..
Ashley Forest 10/1983	107	15.3	6.7	11.0	-0.4	24.2	21	0.5	4	50	11	-8	17	11	148
Eyrewell Forest 08/1983	158	12.8	0.9	6.9	+0.9	19.7	7	-3.9	27	26	10	-43	11	24	..
Bromley Christchurch 10/1983	9	15.9	8.6	12.3	+0.6	23.0	21	2.2	5	26	12	-17	8	11	..
Knobs Flat 10/1983	360	..	..	..	..	..	..	..	..	115	..	-119	33	5	..
Windsor 10/1983	88	15.0	6.2	10.6	..	21.6	21	0.3	14	75	16	..	12	21	..
Ranfurlly 06/1983	427	..	-1.9	..	..	..	..	-7.0	8	13	8	..	6	22	85
Ranfurlly 07/1983	427	..	-2.9	..	..	..	..	-7.1	15	34	6	..	15	9	..
Ranfurlly 08/1983	427	..	-1.2	..	..	..	..	-9.0	13	13	8	..	6	21	..
Ranfurlly 09/1983	427	11.8	1.4	6.6	..	18.6	29	-4.4	15	62	13	..	17	30	..
Ranfurlly 10/1983	427	15.7	4.1	9.9	..	22.0	24	-3.6	14	62	15	..	20	21	..
Taiaroa Head 10/1983	72	12.1	7.5	9.8	-0.5	17.5	2	3.5	4	58	15	+7	14	30	..
Borland Burn 09/1983	183	11.7	1.0	6.4	..	17.5	20	-3.5	15	165	17	..	47	23	..
Borland Burn 10/1983	183	15.6	4.2	9.9	..	22.5	24	-4.1	4	68	17	..	15	24	..
Moa Creek 10/1983	427	..	..	..	..	..	..	..	..	67	12	+31	20	19	..
Deep Stream 10/1983	396	14.8	3.5	9.2	..	21.2	28	-4.4	15	74	16	..	20	25	..
Rarotonga Airport 10/1983	7	26.0	20.5	23.3	+0.3	28.2	27	15.8	10	308	17	+178	89	3	135
Totokoitu, Rarotonga 09/1983	9	25.5	19.8	22.7	..	28.2	18	16.2	2	67	10	..	22	29	..
Totokoitu, Rarotonga 10/1983	9	25.5	20.4	23.0	..	28.8	16	15.3	8	674	19	..	230	21	..
Raoul Is 10/1983	38	20.1	14.9	17.5	+0.0	22.1	31	10.7	1	91	10	+5	40	29	170
Campbell Is 04/1983	15	8.9	4.7	6.8	-0.3	12.7	6	0.0	16	108	26	-14	28	11	32
Campbell Is 05/1983	15	7.3	2.4	4.9	-1.2	10.9	16	-2.7	28	131	30	-9	29	6	17
Campbell Is 06/1983	15	7.0	2.6	4.8	+0.0	10.3	10	-3.6	18	110	28	-20	17	28	4
Campbell Is 07/1983	15	7.0	3.3	5.2	+0.6	9.1	20	-0.6	8	57	27	-50	6	31	5
Campbell Is 08/1983	15	8.0	3.6	5.8	+0.8	11.2	9	-1.4	6	133	27	+24	23	18	11
Campbell Is 09/1983	15	7.0	2.6	4.8	-0.7	9.7	18	-2.4	18	137	24	+35	35	23	28
Campbell Is 10/1983	15	9.1	4.4	6.8	+0.6	12.4	20	0.0	26	85	25	-32	35	2	73

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.

## THE NEW ZEALAND WEATHER IN NOVEMBER 1983

*General*—November was a rather dry month, with generally mild and sunny weather in the west, but cloudy and cool conditions in many eastern areas.

Winds from the east were more frequent than usual and there was a marked lack of strong winds. South-easterlies were especially common over the North Island; Auckland recorded its highest frequency of south-easterlies in November for almost 30 years. Both south-easterlies and north-easterlies were more frequent than usual over the South Island.

Onion crops at Pukekohe were damaged by hail, and power supplies at Warkworth were disrupted by lightning, during thunderstorms which affected Auckland and Northland on the 22nd.

Farmers in most areas reported good growth during the first half of November but rather dry conditions towards the end of the month.

*Rainfall*—In spite of the high frequency of easterlies, eastern areas received less rain than usual. Rainfalls at Whangarei, Auckland, Napier, and Alexandra (amounting to 24 percent, 29 percent, 33 percent, and 33 percent respectively of their normal November rainfalls), were among the lowest ever recorded at these places. Most other parts of the country also received below average rainfalls. However, Wellington and parts of Westland and the Alps, recorded more rain than usual, although the rainfall distribution at these places was irregular; Wellington had received 80 percent of its rainfall for the month by the 10th and more than half of Hokitika's rain was the result of one heavy fall—on the 17th.

*Temperatures*—As a result of the frequent south-easterlies temperatures in eastern North Island areas and some inland parts of Canterbury and Otago were about 0.5°C below average. On the other hand the remainder of the country, and especially Westland and the central North Island, experienced temperatures at least 0.5°C above average.

Temperatures were well above average in most parts of the country between the 4th and 6th, and on the 19th. However there were prolonged periods with below average temperatures—from the 12th to the 16th and from the 20th to the 30th.

*Sunshine*—Eastern areas, from East Cape to Kaikoura, experienced a cloudy November due to the frequent east to south-east winds. Gisborne recorded only 164 hours of bright sunshine, making this its cloudiest November since 1952. Western areas however, received average or above average sunshine totals and Westland experienced a very sunny month. Hokitika recorded 217 hours of bright sunshine—almost 130 percent of its usual November total.

## THE WEATHER SEQUENCE—NOVEMBER 1983

*1-7 November*

A cool south-westerly flow gave a few showers to eastern areas on the morning of the 1st, but the showers cleared as a ridge spread over the country during the afternoon. A north-westerly airstream spread over the South Island on the 2nd, bringing rain to western areas and a few showers east of the alps. The rain became more widespread on the 3rd, affecting western areas from Taranaki southwards, while an anticyclone gave mainly fine weather to the

remainder of the country. A deep low moved south-east from near Tasmania, into the area south of the South Island during the 4th, causing the warm north-westerlies to become much stronger, while a broad front gave heavy rain to western South Island areas and to Wellington. The deep low moved away to the south-east on the 5th and the flow over New Zealand turned south-westerly, bringing further showers to western areas of both islands. A ridge spread over the country and gave fine mild weather in most places during the 6th, although a shallow low in the north Tasman Sea brought some showers to Northland. The low deepened and moved towards Northland on the 7th, bringing widespread rain to the North Island, while the weather remained fine and mild over the South Island.

*8-14 November*

The low moved south-east across the North Island on the 8th, giving further widespread rain there and a few showers in eastern parts of the South Island. A strong disturbed north-westerly flow spread on to the South Island during the 9th, bringing rain to Westland and the Alps, but generally fine weather elsewhere. A cold front moved east across the country on the 11th, followed by south-westerlies and clearing weather, although a few showers persisted along the West Coast. During the 12th a ridge spread across New Zealand from an anticyclone in the mid Tasman Sea and although a few isolated showers persisted, the weather became fine and cool over most of the country. A cold front moved across the south Tasman Sea and on to the south of the South Island on the 13th, bringing rain to the south and west of the island. The front and its associated rain moved over most of the North Island on the 14th and a cool southerly airstream spread over New Zealand.

*15-21 November*

The southerlies died out and strong north-westerlies spread over the South Island as an anticyclone moved quickly east across the country during the 15th. On the 17th a cold front moved across most of the South Island, bringing heavy rain to western areas. The front moved across the North Island on the 18th with showers in western areas. Meanwhile a deep low, which had formed in the mid Tasman Sea, moved south-east across southern New Zealand bringing further rain to Westland and Fiordland. Eastern areas of both islands however, remained fine and very warm. Another cold front moved quickly east across New Zealand during the 19th, bringing rain to western South Island areas while the remainder of the country experienced fine weather. A ridge of high pressure spread across central New Zealand on the 20th and gave fine cool weather to most of the country. However a low developed near East Cape on the 21st and cool southerlies brought showers to eastern areas of both islands.

*22-30 November*

The low gradually deepened and moved slowly south-east across the Chatham Islands between and 22nd and 24th, maintaining a cool southerly flow over New Zealand with scattered showers in eastern areas but fine weather elsewhere. An anticyclone spread over the country as the low moved away and the weather remained generally fine and cool for the remainder of the month. However a shallow trough brought showers to northern and central North Island areas between the 26th and 29th.

J. S. HICKMAN, Director.

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

