



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 20 SEPTEMBER 1984

*Published by Authority*

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WELLINGTON: FRIDAY, 21 SEPTEMBER 1984

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CLIMATOLOGICAL TABLE  
FOR JULY 1984



CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for July 1984—continued

Station	Height of Station Above M.S.L.	Air Temperature in Degrees Celsius								Rainfall in Millimetres				Bright Sun—shine	
		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.			Maxi-mum	Date	Mini-mum	Date				Amount		Date
Metres	°C	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	Hrs		
Huntly	34	..	..	..	..	..	..	..	..	..	..	..	..	..	
Taupiri	23	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ruakura Hamilton	40	..	..	..	..	..	..	..	..	..	..	..	..	..	
Whatawhata	104	..	..	..	..	..	..	..	..	..	..	..	..	..	
Rukuhia	66	14.7	4.8	9.8	+1.2	18.8	6	-2.3	28	117	21	-15	22	31	122
Hamilton Airport	50	14.7	3.1	8.9	+1.1	18.7	6	-3.4	18	106	14	-27	20	22	..
Cambridge	76	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Stn Mokau	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arapuni Power Stn	123	14.0	3.6	8.8	+0.7	18.5	6	-2.5	18	135	17	-23	23	14	..
Waikeria	46	14.3	4.2	9.3	+1.4	18.5	6	-3.5	18	121	13	..	20	14	..
Te Kuiti	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairere	122	13.4	4.4	8.9	..	16.5	31	-2.6	19	186	18	+16	30	14	..
Pureora Forest	549	10.4	2.7	6.6	+1.2	13.5	2	-6.5	27	188	20	-13	25	14	..
Mangakahu Valley	397	11.3	3.8	7.6	..	15.0	3	-3.0	16	160	15	..	29	14	..
Taumarunui	171	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tokirima	152	12.9	3.4	8.2	..	16.7	6	-3.2	18	216	19	..	33	2	..
Omata	61	14.2	8.5	11.4	+1.1	17.3	23	3.7	18	179	18	+17	32	5	..
New Plymouth	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Plymouth Airport	27	13.7	6.9	10.3	+1.3	16.6	1	1.5	10	165	20	+3	27	14	120
North Egmont	955	7.9	2.1	5.0	..	12.0	3	-2.8	16	888	25	..	124	5	..
Te Wera Forest	180	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	11.4	3.2	7.3	+1.1	15.0	6	-4.4	19	172	20	+1	28	5	116
Chateau, Mt Ruapehu	1097	7.2	0.2	3.7	..	12.2	23	-6.0	18	266	20	..	38	31	..
Hukanui	235	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mt Bruce Res	305	11.4	3.7	7.6	+1.5	15.8	3	-2.0	10	290	19	+40	50	12	..
Waingawa Masterton	114	12.7	4.3	8.5	+1.4	18.0	3	-0.6	10	115	19	+3	33	5	82
Kopua	311	11.4	3.7	7.6	+0.9	16.5	3	-1.8	19	77	17	-43	19	5	..
Waipukurau	137	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dannevirke	207	12.5	4.1	8.3	+1.1	17.2	1	-1.6	28	74	20	-39	17	5	100
Porangahau	8	14.1	5.4	9.8	..	19.1	1	-1.1	20	68	19	..	18	22	..
Castlepoint	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ngaumu Forest	244	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tauherenikau, Alloa	43	13.1	5.0	9.1	+1.6	17.1	1	0.0	10	149	19	+19	38	5	..
Waiorongomai	21	12.3	6.6	9.5	+1.8	15.7	12	2.1	10	312	22	+126	43	14	..
Cape Palliser	10	13.0	8.8	10.9	+1.1	17.2	12	4.3	16	160	20	+40	56	5	..
East Cape	17	15.2	8.9	12.1	+1.1	18.3	1	4.0	16	133	20	-11	19	1	..
Ruatoria	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mangatu Forest	182	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manutuke Gisborne	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gisborne Airport	4	15.0	5.0	10.0	+0.9	19.7	3	0.7	19	68	18	-49	26	15	131
Onepoto, Waikaremoana	643	9.8	4.1	7.0	+0.9	14.7	2	-0.7	17	119	17	-77	17	16	..
Wharerata Forest	439	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esk Forest	427	..	5.3	..	..	..	..	-0.7	28	84	12	-74	19	7	..
Ngamatea	885	8.7	0.9	4.8	..	13.2	6	-5.2	19	62	17	..	12	7	..
Kaweka Forest	414	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Napier Airport	2	14.4	4.8	9.6	+1.1	20.1	1	-2.3	19	43	9	-37	12	5	..
Napier	2	14.8	5.8	10.3	+1.4	20.2	1	-1.5	19	48	13	-32	13	5	135
Hastings	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whakatu	6	14.2	4.0	9.1	..	20.0	1	-2.0	19	47	9	..	15	5	..
Gwavas Forest	335	12.3	2.9	7.6	+1.7	17.7	3	-2.7	19	60	14	-63	16	5	..
Makaretu	335	12.3	3.1	7.7	+0.9	17.9	3	-2.5	19	58	20	-41	17	5	..
Mohaka Forest	286	13.1	5.1	9.1	+1.4	17.5	1	-0.3	19	39	12	-94	9	5	..
Frasertown, Wairoa	8	14.4	5.4	9.9	+1.0	20.4	2	-0.2	19	101	20	-40	25	16	..
Wairoa	20	14.6	5.4	10.0	+1.2	20.0	2	-0.2	19	95	14	-47	25	16	117
Kapiti Is	16	11.6	8.3	10.0	+0.9	14.3	3	4.4	16	182	20	+68	29	6	..
Paraparaumu Airport	7	12.5	6.8	9.7	+1.4	16.1	2	0.6	9	183	22	+69	30	1	83
Flockhouse Bulls	9	13.3	4.2	8.8	+0.8	17.4	1	-1.7	27	107	19	+21	17	5	..
Ohakea	48	13.2	5.3	9.3	+1.0	17.6	1	0.9	16	101	16	+14	18	14	120
Wharite Peak	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kairanga Palmerston N	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston N Airport	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston N D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiritea	100	12.3	6.1	9.2	..	16.7	1	1.4	9	95	21	..	15	5	..
Waitare Forest	3	13.0	5.2	9.1	+1.2	16.7	1	-2.1	27	113	18	+20	16	6	..
Levin	46	12.9	6.1	9.5	+1.2	16.4	22	1.2	27	157	21	+42	20	30	92
Titahi Bay	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Avalon, Lower Hutt	15	12.5	7.1	9.8	+1.5	15.1	1	2.6	10	295	24	+141	59	1	..
Highland Pk Wgtn	120	11.2	7.4	9.3	..	14.3	22	3.0	16	239	22	..	42	6	..
Kelburn, Wellington	125	11.5	7.5	9.5	+1.1	14.5	13	2.3	17	228	21	+85	45	6	69
Somes Is	43	12.0	7.9	10.0	+1.4	14.8	1	4.0	10	252	21	+133	43	6	..
Gracefield Lower Hutt	34	12.3	7.5	9.9	+1.3	15.5	3	3.2	10	284	25	+132	46	6	..
Wainuiomata	82	11.8	6.2	9.0	+1.4	14.6	3	0.5	10	303	23	+106	40	6	..
Wellington Airport	6	12.6	8.7	10.7	+1.8	15.9	1	3.3	10	190	21	+74	38	6	..

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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.			Maxi-mum	Date	Mini-mum	Date				Amount	Date	
Metres	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	Hrs				
Rimutaka Forest	37	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaitoke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wallaceville	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape Egmont	8	14.1	8.3	11.2	+1.3	17.0	2	1.0	17	198	19	+38	41	5	..
Stratford Mtn House	846	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stratford Dem Farm	311	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kapuni	173	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>Manaia Dem Farm</b>	<b>98</b>	<b>13.4</b>	<b>6.1</b>	<b>9.8</b>	<b>+1.4</b>	<b>17.8</b>	<b>2</b>	<b>0.4</b>	<b>9</b>	<b>147</b>	<b>20</b>	<b>+21</b>	<b>31</b>	<b>5</b>	<b>106</b>
Normanby	122	12.6	5.7	9.2	+1.3	16.0	1	-0.2	9	129	24	..	26	5	..
Patea	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ohakune Junction	629	9.8	2.5	6.2	+1.9	14.0	22	-2.6	19	160	20	+20	29	14	..
Karioi	648	10.2	1.7	6.0	+1.0	15.0	2	-2.5	10	116	20	-1	26	14	..
Waiouru	823	9.3	1.6	5.5	+1.7	13.8	6	-4.0	19	103	19	+1	19	14	..
Waiouru Military Camp	823	8.7	1.3	5.0	+1.5	13.5	6	-5.0	19	103	16	-9	25	14	..
Ahu Ahu Valley	85	13.4	4.4	8.9	..	17.5	1	-0.3	19	163	18	..	28	14	..
Taihape	433	12.3	1.3	6.8	+1.3	18.2	17	-4.5	19	73	23	-22	12	14	..
Kahui, Taihape	518	11.1	3.6	7.4	+1.3	16.4	6	-1.3	19	72	17	-19	14	14	..
Wanganui	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wanganui Airport	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totaranui	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Westport Airport	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cobb Dam	823	8.4	0.8	4.6	+1.7	11.5	3	-3.8	18	341	18	+116	67	6	..
Arapito	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Rotoroa	443	9.3	2.1	5.7	..	14.0	23	-2.9	19	216	24	..	33	30	..
Lake Rototiti	634	9.1	0.5	4.8	+1.8	12.5	23	-5.5	18	169	21	+52	29	12	..
Hokitika Airport	39	12.7	4.7	8.7	+1.6	15.7	1	-0.8	17	350	18	+135	63	21	78
Punakaiki	4	13.8	8.4	11.1	..	15.7	4	3.3	17	180	18	..	31	1	..
Reefton	198	11.2	3.0	7.1	+2.5	14.5	1	-3.7	18	229	17	+69	29	1	..
Barrytown	30	13.7	8.2	11.0	..	16.4	1	2.0	16	231	18	+40	28	1	..
Totara Flat	77	11.7	3.1	7.4	+2.1	15.1	21	-4.0	18	185	19	+37	28	30	..
Greymouth	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otira Substation	383	9.4	2.6	6.0	+1.8	12.0	30	-2.0	18	542	23	+219	88	30	..
Spring Junction	421	8.9	1.2	5.1	+1.8	12.6	26	-5.7	9	252	19	+88	58	12	..
<b>Pukekura</b>	<b>86</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
Hari Hari	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Okarito	10	13.0	..	..	..	16.7	7	..	..	347	14	..	137	21	..
Franz Josef	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fox Glacier	152	12.3	4.1	8.2	+1.8	15.8	1	-1.6	16	664	16	+375	239	21	..
Milford Sound	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puysegur Point	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stephens Is	187	11.6	8.3	10.0	+1.3	14.4	1	4.1	16	161	17	+77	39	5	..
Riwaka Motueka	8	12.4	3.8	8.1	+1.2	16.3	13	-1.0	10	314	16	+160	80	2	107
Tapawera	146	12.0	2.2	7.1	..	17.0	23	-3.4	18	187	18	..	46	6	..
Crail Bay Pelorus Sd	13	12.6	7.2	9.9	..	16.0	3	1.2	17	244	20	..	41	5	..
Appleby	17	12.6	4.8	8.7	+1.5	16.0	23	0.5	10	183	15	+89	37	2	..
Nelson Airport	2	12.4	3.9	8.2	+1.8	15.2	31	-1.0	10	163	17	+71	34	2	114
Rai Valley	79	12.7	3.6	8.2	+2.0	16.1	12	-4.5	17	335	15	+151	68	11	..
Moutere Hills	110	11.9	6.0	9.0	+1.1	15.3	23	2.6	20	189	17	+94	35	6	..
Blenheim Airport	27	12.9	3.6	8.3	+1.5	17.4	4	-2.1	17	119	13	+48	27	5	..
Brancott Valley	64	13.0	3.1	8.1	..	17.5	4	-2.2	17	120	14	..	29	5	..
Blenheim	4	13.5	3.2	8.4	+1.2	18.0	1	-2.0	17	107	15	+41	35	5	131
Wither Hills Blenheim	32	13.3	3.8	8.6	+1.3	18.0	10	-1.7	10	115	12	+47	44	5	..
Waihopai Power Stn	262	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Grassmere	2	12.5	5.4	9.0	+1.5	17.0	1	-0.7	17	73	12	+4	44	5	127
Cape Campbell	3	12.3	7.1	9.7	+1.0	16.0	4	0.1	13	79	15	+0	40	5	..
Boyle River Lodge	600	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hanmer Forest	387	10.4	0.8	5.6	+1.8	16.5	31	-4.6	18	162	17	+51	61	6	68
Molesworth	893	7.8	-1.8	3.0	+1.6	13.2	4	-11.0	18	95	11	+32	26	12	..
Kaikoura Flats	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaikoura	108	11.3	5.8	8.6	+0.9	18.0	31	1.0	16	108	9	+17	34	6	99
Arthurs Pass	738	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Culverden	174	11.3	1.0	6.2	..	18.0	21	-4.0	19	71	10	..	24	5	..
Balmoral Forest	198	11.4	1.0	6.2	+1.7	17.7	21	-4.4	27	36	12	-29	11	15	..
Waiiau	137	12.2	0.8	6.5	..	19.2	30	-4.2	19	90	12	..	25	5	..
Cheviot	85	12.1	1.1	6.6	..	19.0	21	-3.7	20	125	11	..	56	5	77
The Hermitage Mt Cook	765	6.9	-0.3	3.3	+1.3	14.4	28	-3.6	18	457	18	+230	149	21	52
Mt John	1027	5.7	0.1	2.9	+1.5	10.5	31	-5.0	16	98	14	+50	62	21	..
Craigieburn Forest	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Coleridge	364	10.1	0.8	5.5	+1.5	15.5	21	-4.6	18	113	18	+40	15	22	..
Highbank Power Stn	336	9.6	3.0	6.3	+0.7	15.5	21	-1.0	18	81	11	+3	26	6	94
Hororata Substation	192	11.1	0.9	6.0	+1.3	17.8	30	-4.4	20	82	13	+13	28	6	81
Winchmore	160	10.4	1.8	6.1	+1.1	16.7	30	-2.5	19	74	11	+8	20	6	..
Peel Forest	274	10.5	0.2	5.4	+1.1	17.0	30	-4.3	19	71	21	+21	17	6	..
Ashburton	101	11.0	1.4	6.2	+0.7	19.1	4	-3.9	19	60	10	-4	15	22	81
Waipara	64	11.8	2.4	7.1	+0.9	18.9	30	-3.2	19	103	13	+44	40	5	..

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Metres	°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	Hrs			
Ashley Forest	107	..	..	..	..	..	..	..	..	..	..	..	..	..	
Rangiora	46	11.3	1.8	6.6	+1.0	18.5	21	-3.5	20	83	14	+18	23	6	
Darfield	195	10.8	2.4	6.6	+1.4	17.3	21	-1.7	19	100	13	+24	23	6	
Eyrewell Forest	158	10.8	1.1	6.0	+1.1	19.2	21	-3.6	20	96	12	+20	33	6	
Christchurch Airport	30	11.1	1.9	6.5	+1.0	18.0	21	-3.4	20	84	14	+18	26	6	
Templeton	46	10.7	2.5	6.6	+0.9	17.5	21	-2.5	9	83	10	..	26	6	
Christchurch	7	11.6	3.4	7.5	+1.4	18.0	21	-1.4	9	75	11	+3	18	16	
Bromley Christchurch	9	..	..	..	..	..	..	..	..	..	..	..	..	..	
Mt Pleasant	137	11.0	5.7	8.4	+0.8	16.5	21	1.3	16	92	14	+13	25	15	
Lincoln	11	..	..	..	..	..	..	..	..	..	..	..	..	..	
Quail Island	75	10.4	4.8	7.6	..	16.5	21	1.7	16	79	14	..	23	16	
Akaroa	3	12.4	3.3	7.9	+1.2	19.0	21	-1.5	20	166	11	..	77	6	
Lake Tekapo	683	6.8	-0.5	3.2	+1.4	12.5	31	-5.0	19	95	13	+43	58	21	
Lake Pukaki	556	7.0	-0.4	3.3	+1.3	11.7	31	-4.0	18	103	14	+52	63	21	
Fairlie	304	9.5	-1.9	3.8	..	15.1	31	-6.9	20	59	10	..	15	21	
Twizel	457	7.2	-2.6	2.3	+1.3	13.0	31	-8.0	19	90	15	+38	51	21	
Ikawai	70	10.3	0.6	5.5	+0.6	17.0	4	-4.5	20	39	11	-15	15	21	
Geraldine	119	10.5	0.7	5.6	+0.8	16.0	4	-3.9	20	45	12	-13	11	21	
Orari Estate	81	9.8	0.7	5.3	+0.7	15.5	31	-4.2	20	49	14	-10	12	21	
Temuka	24	10.5	0.9	5.7	+0.5	16.8	4	-3.6	20	41	11	-9	12	22	
Timaru Airport	26	10.2	0.5	5.4	+0.6	15.8	4	-4.0	20	37	12	-5	11	21	
Adair	85	10.0	3.0	6.5	+0.6	15.9	4	-0.5	20	45	11	+2	16	22	
Timaru	17	9.4	2.0	5.7	+0.4	14.0	31	-2.8	20	43	14	+0	13	21	
Waimate	61	10.8	2.2	6.5	+0.4	16.2	4	-1.6	20	36	12	-15	14	21	
Aviemore	241	9.0	1.3	5.2	..	15.2	31	-3.6	18	33	13	+0	16	21	
Kurow	207	..	..	..	..	..	..	..	..	..	..	..	..	..	
Oamaru Airport	30	10.1	1.9	6.0	+0.7	17.5	31	-3.0	20	50	14	+7	15	21	
Knobs Flat	360	..	..	..	..	..	..	..	..	..	..	..	..	..	
Tara Hills Omarama	488	7.2	-1.3	3.0	+1.5	12.5	31	-6.8	18	60	11	+30	28	21	
Lake Hawea	350	7.8	0.5	4.2	+0.5	12.9	4	-3.4	8	132	14	+75	58	20	
Wanaka	296	8.2	-0.4	3.9	+0.5	12.7	31	-4.4	18	107	15	+56	50	20	
Queensberry	277	7.6	-0.2	3.7	..	14.5	31	-5.8	19	78	15	..	37	20	
Bendigo	200	8.3	-0.9	3.7	..	16.2	31	-6.4	19	41	12	..	12	21	
Naseby	607	..	..	..	..	..	..	..	..	..	..	..	..	..	
Windsor	88	..	..	..	..	..	..	..	..	..	..	..	..	..	
Oamaru	5	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ranfurly	427	..	..	..	..	..	..	..	..	..	..	..	..	..	
Herbert Forest	61	10.6	0.9	5.8	+0.7	16.5	31	-3.8	20	55	15	+0	14	21	
Palmerston	21	10.5	0.8	5.7	+0.9	16.4	31	-5.0	20	75	13	+17	17	15	
Cherry Farm Hospital	6	..	..	..	..	..	..	..	..	..	..	..	..	..	
Taiaroa Head	72	..	..	..	..	..	..	..	..	..	..	..	..	..	
Invermay, Taieri	30	9.9	1.4	5.7	+0.2	..	..	-7.0	5	69	24	+23	13	1	
Berwick Forest	18	10.1	1.0	5.6	+0.8	16.8	31	-3.8	19	52	15	-3	11	15	
Dunedin Airport	1	10.5	1.2	5.9	+1.3	18.5	30	-3.9	19	58	18	+11	15	15	
Musselburgh Dunedin	2	9.9	3.9	6.9	+0.5	17.0	31	-0.4	19	69	17	+3	15	15	
Te Anau	215	8.0	1.7	4.9	+0.8	12.8	4	-2.1	8	75	14	-8	14	30	
West Arm, Manapouri	232	6.5	2.5	4.5	+1.0	10.0	31	-1.2	18	216	17	-32	42	30	
Borland Burn	183	10.0	-0.8	4.6	+1.1	12.8	10	..	..	75	16	-17	20	15	
Queenstown	329	8.1	1.0	4.6	+0.8	13.4	4	-3.3	18	77	14	+18	23	20	
Queenstown Airport	349	..	..	..	..	..	..	..	..	..	..	..	..	..	
Otama	183	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cromwell Sub Stn	213	7.6	-1.2	3.2	..	15.8	31	-7.0	19	48	10	+27	13	20	
Cromwell	213	7.6	-1.6	3.0	+0.1	16.3	31	-7.3	19	49	13	+24	14	20	
Northburn	210	7.8	-0.8	3.5	..	15.6	31	-5.8	19	39	12	..	10	21	
Lauder	370	7.4	-1.9	2.8	..	15.9	31	-7.9	19	47	14	..	19	21	
Clyde Dam	160	7.4	-0.9	3.3	..	16.9	31	-4.9	18	51	12	..	12	20	
Ophir	305	7.5	-3.0	2.3	+0.6	14.4	31	-9.1	19	48	10	+28	16	21	
Clyde	171	7.2	-1.4	2.9	..	15.5	31	-6.4	19	43	14	..	11	20	
Alexandra	141	..	..	..	..	..	..	..	..	..	..	..	..	..	
Roxburgh Power Stn	110	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ettrick	83	..	..	..	..	..	..	..	..	..	..	..	..	..	
Deep Stream	396	..	..	..	..	..	..	..	..	..	..	..	..	..	
Beaumont	46	9.2	0.9	5.1	..	15.1	31	-4.0	18	64	17	-4	13	12	
Mahinerangi Dam	396	7.4	0.5	4.0	+0.7	13.8	30	-4.0	19	91	15	+14	15	29	
Tapanui	226	8.9	1.9	5.4	+0.5	14.0	30	-2.0	18	63	19	-10	7	16	
Taieri Mouth	15	9.7	2.5	6.1	+0.4	15.2	31	-1.1	20	68	15	+11	13	14	
Tuatapere	27	10.1	1.6	5.9	..	14.2	30	-1.7	27	64	19	..	12	14	
Otautau	55	9.6	0.4	5.0	+0.3	15.2	31	-3.9	18	54	15	-27	10	14	
Winton	44	9.8	1.0	5.4	+0.3	15.4	31	-2.8	18	54	18	-1	9	29	
Gore	123	8.6	1.7	5.2	+0.9	15.4	31	-3.4	18	37	17	-20	6	29	
Hokonui Forest	46	9.4	1.3	5.4	+0.4	15.0	31	-3.8	18	45	12	-24	11	29	
Woodlands	47	9.6	1.4	5.5	+0.4	14.1	31	-2.5	18	54	24	-15	8	29	
Invercargill Airport	0	9.8	1.3	5.6	+0.5	13.7	30	-4.6	18	48	17	-24	7	29	
Tiwai Point, Bluff	5	9.7	3.4	6.6	+0.7	13.4	30	-0.5	19	52	21	-30	7	20	
Stewart Is	3	9.7	3.4	6.6	+1.1	12.9	21	-1.2	18	78	31	-24	9	28	

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for July 1984—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	°C	mm	mm	mm	mm	Hrs			
Milton	18	9.3	0.8	5.1	+0.7	15.8	30	-4.2	19	58	17	-1	7	12	..
Clinton School	120	9.0	0.8	4.9	..	14.4	31	-6.8	19	55	20	..	15	14	..
Finegand Balclutha	6	9.5	1.6	5.6	+0.7	15.0	31	-3.0	18	43	12	-4	9	14	71
Owaka	5	10.5	1.3	5.9	+0.4	16.4	31	-3.7	19	65	18	+0	13	1	..
Nugget Point	129	9.1	4.2	6.7	+1.0	13.6	31	1.0	18	68	21	+0	12	14	..
Tautuku	40	10.2	3.2	6.7	+0.9	16.4	30	-1.6	19	75	21	-8	14	1	..
Nadi Airport Fiji	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rarotonga Airport	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Is	38	19.2	14.6	16.9	+0.6	21.3	1	9.1	17	151	22	-26	42	5	103
Campbell Is	15	7.1	2.8	5.0	+0.3	9.1	19	-4.0	8	81	26	-26	17	30	16
Waitangi, Chatham Is	44	10.9	6.1	8.5	+0.7	14.2	7	0.4	17	87	29	+1	13	12	62
Scott Base Antarctica	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
LATE RETURNS AND CORRECTIONS															
Waiotemarama 04/1983	229	18.6	12.5	15.6	-0.1	23.7	19	7.9	29	196	18	..	47	26	..
Waiotemarama 02/1984	229	21.8	13.6	17.7	-0.7	24.8	27	9.9	23	119	17	..	37	18	..
Waiotemarama 03/1984	229	21.1	14.5	17.8	-0.1	24.2	2	10.7	22	245	21	..	97	29	..
Leigh 06/1984	27	15.8	11.1	13.5	+0.6	18.0	30	7.5	1	69	10	-80	24	6	68
Atiamuri Power Stn 06/1984	253	13.6	3.5	8.6	+1.0	16.5	30	-2.8	25	71	12	-56	20	30	..
Whatawhata 06/1984	104	14.6	5.8	10.2	+0.5	17.6	10	-3.2	25	107	19	-71	28	20	72
Mohakatino Stn Mokau 06/1984	46	14.4	8.5	11.5	+1.1	17.9	21	2.5	1	155	18	-6	47	30	..
Taumarunui 06/1984	171	13.5	3.6	8.6	+0.7	19.2	21	-4.0	25	97	20	-43	36	30	52
Te Wera Forest 06/1984	180	13.6	4.3	9.0	+1.5	16.5	21	-3.0	1	92	13	-79	22	30	..
Chateau, Mt Ruapehu 06/1984	1097	8.3	0.6	4.5	..	12.8	7	-7.2	15	184	..	..	62	30	..
Waipukurau 06/1984	137	14.3	2.3	8.3	+0.7	18.6	10	-4.7	17	9	6	-74	3	20	152*
Tauherenikau, Alloa 06/1984	43	15.3	4.0	9.7	+1.5	18.2	18	-3.0	25	26	8	-78	8	30	..
Ruatoria 06/1984	61	16.3	4.6	10.5	+0.3	22.7	9	-2.5	26	361	11	+165	226	6	..
Onepoto, Waikaremoana 06/1984	643	10.5	3.8	7.2	+0.3	14.4	30	-0.2	25	189	14	-13	113	6	..
Esk Forest 06/1984	427	13.3	4.4	8.9	+1.2	18.1	9	-1.7	1	82	9	-101	52	6	..
Cobb Dam 06/1984	823	10.1	1.9	6.0	+2.1	14.7	7	-3.4	23	175	14	-21	115	29	..
Puyssegur Point 06/1984	43	11.4	6.8	9.1	..	14.5	8	1.0	24	138	25	-69	17	11	..
Kaikoura Flats 06/1984	24	13.5	2.6	8.1	..	20.7	8	-3.0	25	17	4	..	12	23	..
Balmoral Forest 06/1984	198	13.4	0.1	6.8	+2.0	18.6	9	-5.7	2	8	7	-42	4	30	..
Mt John 06/1984	1027	8.8	0.7	4.8	+2.3	13.2	7	-5.0	24	14	6	-25	6	8	..
Quail Island 06/1984	75	13.1	4.9	9.0	..	19.5	10	-1.9	24	19	6	..	12	29	..
Knobs Flat 05/1984	360	9.4	-0.6	4.4	..	17.6	28	-6.5	21	253	..	+33	88	4	..
Knobs Flat 06/1984	360	9.1	1.1	5.1	..	12.4	7	-4.9	14	184	..	-1	27	8	..
Borland Burn 06/1984	183	10.9	0.4	5.7	+2.1	14.9	7	-6.8	24	90	18	-11	18	8	..
Ophir 06/1984	305	11.0	-2.9	4.1	+1.9	16.4	12	-11.1	24	31	5	+7	16	2	..
Totokoitu, Rarotonga 06/1984	9	25.6	19.6	22.6	+0.2	29.3	6	15.0	23	78	11	..	48	14	..
Raoul Is 05/1984	38	21.3	16.7	19.0	+0.2	24.7	20	13.4	1	118	17	-24	43	15	112

The "normal" refers to the present site of the instruments. Standard period for normals is 1951-1980. 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 WEATHER IN NEW ZEALAND IN JULY 1984

*General*—July was a mild, cloudy month for most areas.

North-westerly winds were much more frequent than usual in the North of the country, with a corresponding decrease in the number of south-westerlies.

At Auckland Airport the frequency of north-westerly winds was the highest and south-westerlies the lowest for July since 1974. Apart from a slight increase in the frequency of north-easterlies, winds were very close to normal in the South.

Pressures were generally close to normal, being slightly lower than usual in central districts and the west of the South Island and slightly higher than usual elsewhere.

The mild conditions this month suited most farmers. Many North Island stations reported lambing and calving well under way by the end of the month, with fewer losses than usual and all stock in good condition. Farmers in the South Island also reported stock in good condition, although muddy conditions caused problems in some southern areas.

*Rainfall and Snow*—Coastal areas of South Canterbury, Southland and Otago and the north and east of the North Island had average or less rainfall for July, while the rest of the country was wetter than usual. The Cook Strait region and central and south-western areas of the South Island were especially wet with between 150 and 250 percent of normal rainfall.

Skifields throughout the country reported an unseasonable lack of snow at the beginning of the month. However, after two light falls on 2nd and 5–6th, very cold southerly winds between 14–16th brought widespread snow to low levels throughout the country, with reports of light snow as far north as the hills to the east of Kaikohe.

Falls were heavy in the high country and southern areas of the South Island and central areas of the North Island. Many roads were closed in these areas and 100 people were stranded in cars in the Porters Pass (Canterbury) area and about 200 rescued on the Desert Road. The overnight Auckland to Wellington express was halted for 2 hours by snow on the tracks and 2 Cook Strait Ferry sailings were cancelled due to high winds.

*Temperatures*—Temperatures were higher than normal over the whole country this month. The south and south-west of the South Island, East Cape and parts of Northland had mean temperatures between normal and 1° degree above normal and the rest of the country was between 1° and 2° above normal. Many stations in the North and West of the South Island had their warmest July (highest mean temperature) on record. These included (with start of record) Hokitika (1866), Westport (1937) and Nelson (1943). For much of the North Island it was the warmest since 1974.

Apart from the period between 14th and 17th there were few days when mean temperatures fell below average. During the first week of the month some stations in the Gisborne—Hawke's Bay area and North Auckland recorded temperatures of 20°C or above. Riverhead Forest reached 20.1°C on the 2nd, the highest for July since opening in 1928 and the maximum of 20.4°C at Wairoa on the same day was the highest for July since 1967.

*Sunshine*—Apart from the north of the North Island, where sunshine hours were normal or above normal, much of the country was cloudier than usual for July. The west of the South Island and the area about Cook Strait were particularly dull, with stations in these areas recording 30–45 hours less sunshine than usual. Among those stations with greatest departures this month were: Westport (–31 hours) Blenheim (–31 hours), Kelburn (–38 hours), Nelson and Hokitika (–44 hours).

## THE WEATHER SEQUENCE—JULY 1984

1–7 July

A complex trough covered New Zealand at the beginning of July. Two small depressions lay within the trough; these were centred east of North Cape and off the Otago Peninsula. Associated fronts brought rain to most parts of the country on the 1st. The northern

depression moved south-eastwards during the 2nd, bringing heavier rain to western and central areas of both Islands but fine weather to eastern areas.

By the 3rd it lay off Fiordland and a west to north-west flow covered the country. Rain fell in the south-west of the South Island and some western areas of the North Island but the weather was otherwise fine. A depression developed near Lord Howe Island on the 4th. As this moved south-eastwards its associated frontal system brought rain to Northland on the 5th and to the whole country except the far south on the 6th and 7th. Temperatures remained higher than usual throughout this period.

8–14 July

The rain had cleared from most districts by the 8th, although temperatures became cool as a southerly airflow covered the country. An extensive anticyclone centred near Lord Howe Island began to extend a ridge onto the country during the 9th, bringing cool, clear weather to all districts during the 9th and 10th.

A cold front brought showers to many areas on the 11th, although the ridge still covered the country and temperatures were mild. A complex trough developed behind the front and as this moved over New Zealand between the 11th and 14th rain became widespread, with heavy falls at times in some western and central areas.

15–21 July

A second trough developed immediately behind the first and rain continued to fall in many areas on the 15th. Temperatures, which had been mild, fell rapidly as a cold south to south-westerly flow developed behind the trough. Snow fell in many parts of the country between the 14th and 17th with very heavy falls in the ranges and high country of the South Island. By the 18th an anticyclone had moved onto the country.

The weather remained clear and temperatures, which had been 4°–7°C below average, began to rise. A cold front approached the South Island during the 20th and rain fell in the south and west of the South Island and some western and north-western areas of the North Island on the 20th and 21st as the front remained slow moving off the west coast of the country.

22–31 July

A depression developed on the front and as this began to cross the country during the 22nd rain became widespread, with heavy falls in some northern areas of the North Island. The rain cleared from most districts on the 23rd although showers remained in isolated parts of the North Island and a belt of high pressure began to develop over the country as the depression weakened and moved away to the east.

However, further rain developed over the North Island and northern South Island as a cold front began to move onto the country. By the 26th this lay off the east coast and the weather became fine. An anticyclone situated in the Australian Bight moved rapidly eastwards and fine, cool weather prevailed until the 29th. A depression had begun to develop off the coast of Australia during the 28th and this moved eastwards to lie centred in the Tasman Sea on the 30th. An associated frontal system brought rain to most parts of the country apart from some eastern areas as the front crossed the country during the 30th and 31st.

## PROPOSED DISCONTINUATION OF THE WEATHER SEQUENCE

Daily weather information, including maps, is now available through various media. The Meteorological Service is therefore proposing to discontinue publishing this Weather Sequence as above, though the Climatological Table and written summary will continue in the Supplement to the *New Zealand Gazette*.

People having a special need for the Weather Sequence as currently published are invited to write to:

The Director,  
New Zealand Meteorological Service,  
P.O. Box 722,  
Wellington.

by 30 September 1984.

