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SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 13 OCTOBER 1983

*Published by Authority*

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CLIMATOLOGICAL TABLE  
FOR AUGUST 1983

## NEW ZEALAND METEOROLOGICAL SERVICE

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

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	15.4	9.8	12.6	+0.4	18.1	1	6.9	14	69	22	-53	20	20	..
Kaitaia Airport	80	15.5	9.2	12.4	+0.4	17.2	19	3.8	14	69	20	-96	37	20	155
Aupouri Forest	69	15.5	9.6	12.6	+0.3	18.0	19	4.5	14	70	13	-68	34	20	..
Kaitaia	8	16.4	8.3	12.4	..	18.2	30	2.0	14	69	13	..	37	20	..
Kerikeri M A F	79	15.6	8.0	11.8	..	18.5	3	3.4	14	164	19	..	78	20	..
Kerikeri Downs	79	15.4	8.1	11.8	..	18.1	3	3.2	14	160	20	..	76	20	..
Kerikeri Aerodrome	150	15.2	7.2	11.2	..	18.8	3	3.0	14	92	15	..	52	20	..
Umawera	9	16.2	6.6	11.4	+0.3	18.5	3	0.0	26	73	13	-95	31	20	..
Kaikohe	204	14.6	8.0	11.3	+0.5	19.0	6	3.3	14	71	15	..	37	20	118
Waiootemarama	229	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waipoua Forest	88	15.0	7.0	11.0	+0.2	19.4	19	1.6	14	82	20	-109	24	20	..
Dargaville	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waitangi Forest	55	15.9	8.2	12.1	+0.1	18.5	3	3.4	14	135	13	-30	61	20	126
Glenbervie Forest	107	15.0	5.7	10.4	+0.5	18.9	3	-2.3	14	112	17	-101	42	20	..
Whangarei Airport	37	15.3	8.2	11.8	+0.3	19.0	3	1.5	14	81	15	-79	33	20	..
Whangarei	29	15.8	7.4	11.6	+0.3	19.3	3	0.6	14	96	16	..	40	20	119*
Marsden Power Stn	3	..	8.6	..	..	..	..	4.7	16	85	18	..	26	10	..
Poua	97	14.4	9.1	11.8	..	17.8	20	6.1	26	63	15	..	30	20	..
Leigh	27	15.2	10.2	12.7	+0.7	17.8	3	4.2	14	77	11	-59	35	20	146
Warkworth	72	14.9	6.7	10.8	+0.5	17.8	19	1.3	18	69	17	..	34	20	..
Oyster Point	0	15.3	7.0	11.2	..	18.0	19	0.2	14	60	17	..	23	20	..
Woodhill Forest	30	15.1	7.1	11.1	+0.5	17.5	19	2.2	26	73	14	-67	29	20	..
Riverhead Forest	28	15.3	5.4	10.4	+0.2	17.6	19	-1.0	14	49	9	-103	30	20	..
Kumeu	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whenuapai	26	15.2	6.2	10.7	+0.3	17.6	1	0.0	14	53	16	-92	27	20	..
Albert Park Auckland	49	15.2	8.6	11.9	+0.3	17.5	3	4.0	14	54	18	-88	36	20	155*
Owairaka, Auckland	41	14.9	7.6	11.3	+0.6	17.1	3	1.6	14	48	14	-102	29	20	..
Port Fitzroy	4	15.6	9.1	12.4	+0.4	17.8	10	4.2	14	154	18	-59	47	20	..
Little Barrier Is	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rotorua Is	30	14.1	9.3	11.7	..	16.5	3	4.3	14	79	10	..	56	20	..
Coromandel	43	15.5	6.5	11.0	..	18.3	10	-0.6	14	110	13	..	45	20	..
Whangapoua Forest	4	16.0	6.4	11.2	+0.8	18.3	1	-0.1	26	125	13	-76	62	20	..
Thames	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tairua Forest	3	15.3	5.6	10.5	+0.2	18.2	3	0.6	18	109	12	-92	34	20	..
Paeroa	4	15.4	4.6	10.0	+0.1	17.6	3	-2.0	17	67	16	-70	26	20	..
Waihi	91	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Te Aroha	18	15.2	6.1	10.7	+0.4	17.2	3	-0.4	17	75	13	-80	23	20	..
Katikati	2	15.6	5.5	10.6	..	18.2	3	0.4	17	50	11	..	29	20	..
Tauranga	2	15.2	7.1	11.2	+0.5	18.5	11	2.6	26	39	13	..	23	20	..
Tauranga Airport	4	15.1	5.4	10.3	+0.1	17.8	11	1.8	14	40	12	-97	22	20	164
Te Puke	91	15.0	4.9	10.0	+0.2	17.4	3	-0.6	14	99	10	..	56	20	155
Rotoehu Forest	72	15.1	2.7	8.9	+0.2	17.2	30	-2.5	14	91	10	-82	54	20	..
Whakatane Airport	6	15.1	3.7	9.4	..	17.3	11	-0.7	14	76	7	..	53	20	159
Te Kaha	6	15.3	7.7	11.5	..	17.4	12	3.4	17	85	8	..	35	21	..
Port Ohope	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kinleith	383	12.3	3.5	7.9	+0.2	14.8	3	-1.0	15	137	13	+6	61	20	..
Tikitere	338	12.7	4.4	8.6	..	14.8	11	0.6	18	114	10	..	64	20	..
Kawerau	30	15.8	4.8	10.3	+0.3	18.7	9	-0.5	14	119	7	-66	66	20	..
Te Teko	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rotorua Airport	287	13.3	3.7	8.5	+0.1	16.0	31	-0.7	26	83	10	-64	38	20	146
Waioatapu Forest	435	12.1	2.0	7.1	+0.2	14.6	3	-6.7	19	74	12	-56	36	20	..
Atiamuri Power Stn	253	..	2.3	..	..	..	..	-2.7	16	99	12	-29	42	20	..
Kaingaroa Forest	544	11.3	1.1	6.2	-0.5	13.5	11	-3.2	18	85	11	-57	39	20	..
Murupara	198	14.0	2.0	8.0	..	16.9	31	-2.0	17	93	9	-24	29	20	..
Wairapukao Forest	437	12.1	0.0	6.1	-0.2	14.4	3	-4.7	18	82	11	-45	33	20	..
Taupo	376	12.2	2.9	7.6	+0.2	15.7	1	-2.0	17	80	11	-29	46	20	121
Wairakei Power Stn	342	13.0	2.6	7.8	+0.2	15.5	1	-1.5	16	80	12	-37	48	20	..
Wairakei Research Stn	402	13.0	1.6	7.3	+0.2	15.4	31	-3.5	16	87	10	-27	50	20	..
Minginui Forest	366	12.5	0.2	6.4	-0.2	16.0	7	-5.5	19	88	10	-49	39	20	..
Taupo Airport	407	11.7	2.1	6.9	..	14.3	1	-2.5	17	73	10	..	42	20	..
Waimihia Forest	743	9.0	1.4	5.2	+0.2	12.0	11	-3.5	18	135	11	-22	62	20	..
Opotiki	6	15.1	4.4	9.8	-0.3	18.4	31	0.6	13	112	12	-28	51	20	150
Waimana	37	15.0	2.2	8.6	-0.3	18.8	31	-3.0	17	136	10	-37	53	20	..
Mangere Auckland	4	15.0	7.4	11.2	+0.4	17.1	19	1.3	14	47	15	-88	28	20	138
Otara Auckland	12	15.2	6.0	10.6	+0.2	17.7	3	-1.3	14	66	15	-69	42	20	..
Auckland Airport	8	14.6	7.7	11.2	+0.3	17.1	3	3.1	14	50	10	-82	26	20	138
Ardmore	30	15.0	5.2	10.1	-0.2	17.5	3	-1.6	14	77	14	-65	54	20	..
Pukekohe	82	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maioara Forest	52	14.9	6.7	10.8	+0.1	16.7	2	1.2	14	53	9	-87	26	20	..
Hunua	122	14.2	5.0	9.6	..	16.5	3	-2.1	14	70	17	..	34	20	..
Maramarua Forest	38	15.0	3.5	9.3	-0.1	19.6	30	-2.2	14	59	14	-63	40	20	..
Te Kauwhata	32	14.6	4.8	9.7	-0.4	17.2	3	-1.1	14	78	16	-39	41	20	123
Huntly	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taupiri	23	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ruakura Hamilton	40	14.7	4.3	9.5	+0.1	16.9	3	-2.2	17	69	11	-48	39	20	129

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

Station	Height of Station Above M.S.L. Metres	Air Temperature in Degrees Celsius								Rainfall in Millimetres				Bright Sunshine Hrs	
		Means of		Mean of 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
				°C	°C					°C	°C	°C			
Whatawhata	104	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rukuhia	66	14.8	5.2	10.0	+0.3	17.2	3	-0.3	18	74	13	-48	35	20	118
Hamilton Airport	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cambridge	76	14.5	4.3	9.4	..	16.8	3	-2.1	26	77	13	..	42	20	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Stn Mokau	46	13.9	6.7	10.3	+0.1	16.4	30	2.0	14	84	12	-68	25	20	..
Arapuni Power Stn	123	14.3	4.0	9.2	+0.1	16.7	3	-1.7	15	96	11	-39	56	20	..
Waikeria	46	14.5	3.5	9.0	..	16.8	2	-2.9	26	76	12	..	31	20	..
Te Kuiti	61	14.5	4.4	9.5	+0.4	17.4	30	-0.6	26	77	15	-73	39	20	104
Wairere	122	13.9	4.0	9.0	..	17.2	30	-1.8	26	77	15	-68	29	20	..
Pureora Forest	549	10.8	2.1	6.5	+0.3	12.8	30	-3.0	17	94	13	-71	41	20	..
Mangakahu Valley	397	11.8	3.3	7.6	..	14.7	1	-2.0	26	93	18	..	51	20	..
Taumarunui	171	14.2	3.4	8.8	+0.3	17.6	1	-2.6	26	87	14	-37	29	20	108
Tokirima	152	14.0	2.7	8.4	..	16.9	1	-3.9	26	73	17	..	30	20	..
Omata	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
New Plymouth	55	14.4	6.8	10.6	..	17.2	30	1.4	14	119	16	..	38	20	..
New Plymouth Airport	27	14.0	6.1	10.1	+0.4	15.5	2	0.4	14	75	16	-72	25	20	167
North Egmont	955	8.4	1.5	5.0	..	13.5	7	-2.4	14	590	21	..	203	20	..
Te Wera Forest	180	13.3	4.1	8.7	+0.9	16.1	7	-2.3	27	115	14	-53	38	20	..
Lower Retaruke	223	13.3	3.7	8.5	+0.7	16.7	1	-2.3	27	90	13	..	33	20	..
Turangi	366	12.1	2.3	7.2	+0.0	15.3	1	-2.8	18	112	14	..	54	20	135
Chateau, Mt Ruapehu	1097	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hukanui	235	11.6	4.5	8.1	..	14.9	3	-1.0	27	118	21	-57	32	20	..
Mt Bruce Res	305	11.9	3.8	7.9	+1.1	15.3	5	-2.0	27	127	17	..	26	20	..
Waingawa Masterton	114	13.2	3.4	8.3	+0.2	18.1	9	-1.0	27	40	16	-51	10	3	107
Kopua	311	11.6	4.1	7.9	+0.3	18.0	3	-0.1	23	30	14	-82	8	3	..
Waipukurau	137	12.9	3.3	8.1	+0.0	19.5	3	0.0	10	17	11	-69	4	24	117*
Dannevirke	207	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Porangahau	8	14.0	5.6	9.8	..	21.1	3	1.0	23	55	12	..	17	13	..
Castlepoint	3	13.3	8.1	10.7	+0.8	17.5	1	2.9	14	34	11	-70	12	13	..
Ngaumu Forest	244	12.2	3.4	7.8	+0.8	17.0	1	-1.5	6	44	14	-93	15	13	..
Tauherenikau, Alloa	43	13.5	4.2	8.9	+0.4	18.8	7	-0.8	27	42	13	-57	9	24	..
Waiorongomai	21	12.5	5.7	9.1	+0.7	16.2	7	0.4	5	133	18	-9	25	20	..
Cape Palliser	10	13.2	7.6	10.4	+0.4	17.7	8	3.0	5	50	15	-54	15	3	..
East Cape	17	14.6	8.7	11.7	+0.1	17.2	22	3.7	15	82	18	-70	20	25	..
Ruatoria	61	15.2	5.9	10.6	+0.5	19.0	3	1.4	13	96	16	-122	27	21	..
Mangatu Forest	182	13.7	5.1	9.4	+0.5	17.7	9	0.7	7	143	15	-7	82	13	..
Manutuke Gisborne	9	14.7	4.9	9.8	+0.0	18.9	3	0.0	7	62	16	-47	21	13	..
Gisborne Airport	4	14.6	5.3	10.0	+0.1	19.3	3	0.2	13	51	17	-66	14	13	132
Onepoto, Waikaremoana	643	..	3.3	..	..	..	..	-0.5	14	125	17	-101	21	30	..
Wharerata Forest	439	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esk Forest	427	11.6	4.3	8.0	+0.4	16.9	7	-0.3	15	75	13	-108	15	24	..
Kaweka Forest	414	11.9	5.1	8.5	+0.3	19.1	1	2.0	27	43	12	..	10	30	..
Napier Airport	2	14.4	4.5	9.5	..	21.3	1	-0.7	7	17	11	-69	5	30	..
Napier	2	14.8	5.0	9.9	+0.1	20.9	1	0.0	7	31	13	-50	11	24	138
Hastings	16	14.8	3.5	9.2	..	21.4	1	-0.5	18	23	12	..	8	30	..
Havelock North	9	14.5	2.8	8.7	-0.1	21.3	1	-1.5	19	25	13	-59	9	30	126
Whakatu	6	14.2	3.5	8.9	..	20.7	1	-0.8	7	29	10	..	9	30	..
Gwavas Forest	335	12.2	1.9	7.1	+0.3	18.4	3	-1.7	15	21	13	-111	5	30	..
Makaretu	335	12.7	3.3	8.0	+0.4	19.0	3	-0.6	18	21	18	..	3	3	..
Mohaka Forest	286	12.8	4.7	8.8	+0.4	17.7	8	1.5	14	55	10	-110	16	30	..
Frasertown, Wairoa	8	14.4	6.5	10.5	+0.6	19.7	3	1.9	13	103	14	-52	21	25	..
Wairoa	20	14.2	5.2	9.7	-0.2	19.7	3	0.5	13	105	12	..	21	24	121
Kapiti Is	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paraparaumu Airport	7	12.6	5.7	9.2	+0.1	14.6	2	0.3	27	105	16	+14	35	20	136
Flockhouse Bulls	9	13.3	4.7	9.0	+0.1	16.6	3	-0.3	17	68	12	-13	29	20	..
Ohakea	48	13.2	5.8	9.5	+0.2	17.4	3	1.2	27	51	13	-30	23	20	122
Wharite Peak	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kairanga Palmerston N	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston N Airport	45	13.3	5.2	9.3	+0.6	17.5	3	-0.1	18	47	9	-32	24	20	..
Palmerston N D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiritaea	100	12.6	6.1	9.4	..	16.5	3	1.2	14	73	12	..	27	20	..
Waitare Forest	3	13.2	4.9	9.1	+0.3	15.2	3	-1.8	26	52	10	-24	19	20	..
Levin	46	13.1	6.0	9.6	+0.4	14.7	3	1.1	15	70	15	-27	25	20	115
Titahi Bay	31	12.8	5.8	9.3	..	15.0	7	-2.0	28	91	18	..	23	20	..
Avalon, Lower Hutt	15	12.6	6.0	9.3	+0.4	15.8	7	1.2	27	110	16	-45	24	20	..
Kelburn, Wellington	125	11.7	6.5	9.1	+0.2	14.7	1	1.5	27	106	15	-18	41	3	119
Somes Is	43	11.9	6.8	9.4	..	15.0	7	1.0	14	104	15	..	35	3	..
Gracefield Lower Hutt	34	12.4	6.9	9.7	+0.3	15.6	7	2.2	5	111	15	-29	28	3	..
Wainuiomata	82	12.2	4.9	8.6	+0.4	15.9	7	-1.4	27	159	15	..	40	3	..
Wellington Airport	6	12.7	7.2	10.0	+0.4	15.6	1	1.8	27	84	15	-18	32	3	..
Rimutaka Forest	37	12.5	4.9	8.7	..	15.7	7	-1.5	27	107	16	..	39	3	..
Kaitoke	223	11.5	3.7	7.6	+0.3	15.5	7	-2.6	5	154	20	-47	29	20	68
Wallaceville	56	12.7	4.4	8.6	+0.5	16.2	7	-2.0	5	103	19	-16	25	20	106
Cape Egmont	8	13.7	7.3	10.5	+0.2	15.5	1	0.5	14	117	15	-23	33	20	..



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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	mm	mm	mm	mm		Hrs
Rangiora	46	13.0	1.6	7.3	+0.5	21.0	9	-2.8	27	23	16	-30	13	24	..
Darfield	195	12.9	2.5	7.7	+1.1	18.9	17	-2.2	27	28	12	-36	8	24	..
Eyrewell Forest	158	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Christchurch Airport	30	12.7	2.0	7.4	+0.7	19.8	7	-2.3	15	27	13	-26	14	24	156
Templeton	46	12.5	3.1	7.8	..	20.0	7	-1.5	15	16	4	..	12	24	..
Christchurch	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bromley Christchurch	9	12.3	4.2	8.3	+0.8	19.1	8	0.0	5	28	13	-23	13	24	..
Mt Pleasant	137	12.3	5.7	9.0	+0.9	19.8	7	2.5	14	38	11	-23	17	24	..
Lincoln	11	12.5	2.8	7.7	+1.0	19.5	7	-1.9	15	32	14	-24	12	24	139
Quail Island	75	11.7	5.1	8.4	..	19.6	7	2.5	5	58	10	..	30	23	..
Akaroa	3	13.0	..	..	..	20.0	7	..	..	82	11	..	16	23	..
Lake Tekapo	683	8.9	-0.7	4.1	+0.5	13.8	9	-4.0	26	51	6	+3	22	21	..
Lake Pukaki	556	9.3	0.2	4.8	+1.3	13.9	19	-3.1	27	51	8	..	26	21	..
Fairlie	304	12.4	-1.2	5.6	..	17.7	8	-4.7	27	27	4	..	17	21	..
Twizel	457	10.4	-2.4	4.0	-0.1	14.3	7	-5.8	26	38	7	..	20	21	..
Ikawai	70	12.5	1.3	6.9	+0.8	19.0	19	-3.0	27	20	5	..	15	22	..
Geraldine	119	12.8	1.3	7.1	..	19.9	7	-2.0	27	30	7	..	18	21	..
Orari Estate	81	12.1	1.4	6.8	+1.1	20.1	7	-2.2	27	29	9	-27	16	21	..
Temuka	24	12.5	1.3	6.9	+0.7	19.0	7	-8.3	27	24	5	-19	16	21	..
Timaru Airport	26	12.2	0.7	6.5	+0.7	18.7	19	-2.3	27	24	6	-17	15	21	..
Adair	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timaru	17	11.4	2.4	6.9	+0.1	18.1	19	-0.9	27	36	10	-2	20	21	147
Waimate	61	12.6	2.8	7.7	+0.6	19.9	19	-0.9	27	22	5	-19	14	21	..
Kurow	207	12.5	1.8	7.2	..	18.3	9	-1.0	4	18	8	..	14	21	..
Oamaru Airport	30	11.9	2.3	7.1	+1.0	18.1	19	-1.3	27	10	5	-23	5	21	140
Knobs Flat	360	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tara Hills Omarama	488	10.3	-1.4	4.5	+0.8	14.4	9	-4.8	28	24	7	-6	11	9	171
Lake Hawea	350	10.0	1.1	5.6	+0.0	13.4	19	-2.2	4	80	10	+22	34	9	..
Wanaka	296	11.1	0.0	5.6	+0.4	14.9	9	-3.5	27	66	10	+15	26	9	..
Queensberry	277	10.8	0.5	5.7	..	15.0	19	-2.6	27	45	9	..	17	9	..
Bendigo	200	11.6	0.1	5.9	..	16.6	9	-4.2	26	26	9	..	12	21	..
Naseby Forest	610	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windsor	88	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oamaru	5	12.4	3.0	7.7	..	19.0	19	-1.3	27	17	6	..	10	21	..
Ranfurlly	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herbert Forest	61	13.0	0.9	7.0	+0.8	19.5	19	-2.7	27	27	10	-16	13	23	..
Palmerston	21	12.8	1.1	7.0	+1.0	18.6	17	-4.0	27	19	7	..	6	21	130
Cherry Farm Hospital	6	12.9	1.8	7.4	+1.0	19.3	17	-1.8	6	30	9	-6	13	23	..
Taiaroa Head	72	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Invermay, Taieri	30	12.2	1.9	7.1	..	18.0	19	-3.0	27	56	14	..	21	23	111
Berwick Forest	18	12.3	1.7	7.0	+0.7	17.7	8	-3.8	27	48	10	+7	15	23	..
Dunedin Airport	1	12.3	1.3	6.8	+0.6	17.8	8	-4.0	27	44	11	+6	16	23	121
Musselburgh Dunedin	2	11.6	4.4	8.0	+0.7	17.6	19	0.5	27	35	11	-11	9	2	96
Te Anau	215	10.4	2.0	6.2	+0.9	14.0	18	-2.5	14	115	14	+29	41	9	118
West Arm, Manapouri	232	7.9	2.7	5.3	+0.8	11.6	16	-0.5	4	271	19	..	63	9	..
Borland Burn	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown	329	10.6	1.5	6.1	+0.6	14.8	7	-1.4	27	54	12	-7	19	9	117
Queenstown Airport	349	9.9	-0.3	4.8	-0.1	14.8	9	-3.5	27	42	11	-3	12	21	..
Otama	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cromwell Sub Stn	213	11.4	-1.0	5.2	..	15.8	9	-4.8	27	23	6	..	10	21	..
Cromwell	213	11.5	-0.9	5.3	+0.1	15.9	19	-4.5	27	24	10	+1	11	21	169
Northburn	210	11.5	-0.1	5.7	..	16.6	19	-3.8	27	20	7	..	8	21	..
Lauder	370	10.7	0.2	5.5	..	16.6	9	-3.5	27	27	10	..	15	21	..
Clyde Dam	160	11.8	0.0	5.9	..	17.0	9	-3.1	27	19	8	..	9	21	..
Ophir	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moa Creek	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alexandra	141	12.3	-0.3	6.0	+0.7	18.4	9	-4.2	27	23	10	+8	10	21	155
Clyde	171	11.6	-0.6	5.5	..	17.0	9	-4.9	27	19	9	..	8	21	..
Roxburgh Power Stn	110	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ettrick	83	13.3	0.6	7.0	..	18.0	9	-4.5	27	30	11	..	6	11	..
Deep Stream	396	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beaumont	46	12.7	1.1	6.9	..	17.8	9	-3.0	18	56	12	+0	15	11	..
Mahinerangi Dam	396	9.4	0.5	5.0	+0.8	14.2	19	-5.5	27	67	12	+16	19	23	..
Tapanui	226	11.1	2.1	6.6	+0.3	15.6	9	-2.0	26	38	12	-13	6	12	..
Taieri Mouth	15	11.4	2.8	7.1	+0.7	16.8	19	-1.0	27	46	11	+8	11	23	..
Tuatapere	27	12.6	2.8	7.7	..	16.9	9	-0.4	31	91	20	..	13	23	..
Otautau	55	12.1	1.9	7.0	+1.0	16.1	9	-2.9	26	69	15	-7	15	11	110
Winton	44	12.0	2.3	7.2	+0.8	16.7	9	-2.3	26	55	14	+7	9	11	127
Gore	123	11.2	2.8	7.0	+1.4	16.7	9	-1.8	27	42	18	..	9	23	132
Hokonui Forest	46	12.0	3.0	7.5	+1.2	17.2	9	-2.6	26	49	13	-12	9	11	..
Woodlands	47	12.0	3.3	7.7	+1.1	16.5	9	-2.0	27	69	21	..	15	23	..
Invercargill Airport	0	11.7	3.1	7.4	+1.2	16.4	9	-2.7	26	58	20	-8	12	11	105
Tiwai Point, Bluff	5	11.5	5.0	8.3	+1.1	16.4	9	0.4	26	59	17	..	12	11	..
Stewart Is	3	11.2	4.4	7.8	..	14.9	9	0.0	26	81	27	..	15	11	..
Milton	18	11.6	1.7	6.7	+0.8	17.4	19	-4.1	27	37	11	-1	13	23	..

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for August 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		mm	mm	mm		Hrs		
Finegand Balclutha	6	11.9	2.5	7.2	+1.1	16.2	9	-2.0	27	25	7	..	10	23	102
Owaka	5	11.9	2.9	7.4	..	16.2	17	-4.0	27	48	13	..	9	23	..
Nugget Point	129	10.7	4.6	7.7	+1.3	16.2	8	1.1	13	40	13	-11	8	12	..
Tautuku	61	11.8	4.3	8.1	..	15.8	17	-0.5	26	52	16	..	8	12	..
Nandi Airport, Fiji	19	28.3	18.4	23.4	-0.2	30.9	29	14.4	19	79	9	..	64	25	185
Rarotonga Airport	7	24.4	17.8	21.1	-0.4	27.1	28	13.8	4	89	15	-33	33	8	180
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Is	38	18.1	13.3	15.7	-0.3	20.4	4	10.9	19	134	17	-3	50	26	159
Campbell Is	15	7.9	3.5	5.7	+0.7	11.2	9	-1.4	6	133	27	+24	23	18	12
Waitangi, Chatham Is	44	10.7	6.0	8.4	+0.3	13.8	9	1.5	14	33	13	-56	10	21	68
Scott Base Antarctica	16	-21.7	-36.7	-29.2	+2.0	-7.7	25	-53.2	13	..	..	..	..	..	..
LATE RETURNS AND CORRECTIONS															
Kerikeri M A F 07/1983	79	14.6	5.7	10.2	..	17.9	10	1.7	7	73	15	..	34	9	..
Kerikeri Downs 07/1983	79	14.3	5.8	10.1	..	17.3	8	2.3	7	70	14	..	34	9	..
Umawera 07/1983	9	15.3	2.5	8.9	-1.6	18.5	10	-2.0	28	85	10	-72	52	9	..
Dargaville 05/1983	20	17.4	10.2	13.8	+0.3	22.2	6	2.1	24	74	15	-58	15	12	101
Dargaville 06/1983	20	15.3	8.4	11.9	+0.3	17.5	12	-3.0	4	160	21	+10	51	8	89
Dargaville 07/1983	20	14.3	4.5	9.4	-1.2	18.8	8	-2.5	27	58	11	-74	31	9	133
Port Fitzroy 07/1983	4	14.4	6.3	10.4	-1.2	17.6	9	1.7	5	50	10	-151	26	9	..
Little Barrier Is 06/1983	2	15.4	10.0	12.7	..	18.2	9	5.4	4	115	21	-53	28	9	..
Little Barrier Is 07/1983	2	14.1	7.7	10.9	..	17.8	9	4.3	4	63	12	-92	17	9	..
Opotiki 07/1983	6	14.0	2.9	8.5	-0.9	17.5	13	-2.3	4	41	5	-106	29	9	175
Pukekohe 05/1983	82	15.8	8.4	12.1	-0.4	18.7	5	2.0	21	105	19	..	23	31	101
Pukekohe 06/1983	82	14.0	7.2	10.6	+0.5	18.3	9	0.4	4	125	23	..	28	27	82
Pukekohe 07/1983	82	13.0	4.1	8.6	-0.9	16.1	8	-0.7	23	42	9	..	32	9	167
Taupiri 07/1983	23	13.7	-0.2	6.8	..	16.4	9	-5.7	27	35	8	..	27	9	..
Whatawhata 06/1983	104	13.7	6.4	10.1	+0.5	17.1	13	-2.2	4	138	18	-53	34	27	95
Whatawhata 07/1983	104	12.8	2.1	7.5	-1.3	15.9	9	-3.0	27	40	5	-123	33	9	153
Port Taharoa 06/1983	27	14.2	8.4	11.3	+0.1	19.1	13	2.1	19	102	18	..	15	19	..
Port Taharoa 07/1983	27	13.3	5.7	9.5	-1.4	16.1	11	2.3	5	40	..	..	..	..	..
Chateau, Mt Ruapehu 07/1983	1097	7.4	-2.1	2.7	..	11.0	29	-7.0	4	111	7	..	50	9	..
Mangatu Forest 07/1983	182	11.7	3.0	7.4	-0.9	17.0	30	-1.6	6	93	13	-49	15	11	..
Kairanga Palmerston N 07/1983	15	11.6	2.1	6.9	-0.7	17.0	10	-4.2	26	31	10	..	8	9	98
Palmerston N D S I R 07/1983	34	11.4	3.9	7.7	-0.3	17.1	10	-1.7	27	35	15	-56	8	18	78
Patea 07/1983	43	12.0	5.6	8.8	-0.4	16.5	9	-1.0	27	28	12	-117	5	11	..
Waiouru 07/1983	823	7.3	-0.8	3.3	-0.5	12.3	10	-6.4	26	57	13	-45	22	9	..
Taihape 07/1983	433	10.0	-0.3	4.9	-1.1	18.6	30	-5.7	26	21	15	..	5	17	..
Lake Rotoroa 07/1983	443	8.9	-1.3	3.8	..	12.2	9	-5.6	25	136	10	..	50	9	..
Reefton 07/1983	198	8.9	-0.6	4.2	-0.5	13.1	31	-6.7	5	287	11	+122	145	9	..
Springs Junction 07/1983	421	..	..	..	..	..	..	..	..	224	9	+49	102	9	..
Franz Josef 07/1983	122	11.8	0.5	6.2	-0.5	15.0	9	-3.0	2	477	7	+134	189	31	..
Puyssegur Point 07/1983	43	9.9	5.6	7.8	..	13.8	30	2.0	18	162	28	-11	16	22	..
Molesworth 07/1983	893	..	-2.4	..	..	..	..	..	..	95	9	+34	68	9	..
Craigieburn Forest 07/1983	914	5.3	-2.9	1.2	-0.3	10.9	30	-9.5	25	259	21	+135	115	9	..
Templeton 07/1983	46	9.6	1.5	5.6	..	16.5	31	-3.8	25	63	14	..	32	9	..
Christchurch 07/1983	7	10.1	1.5	5.8	-0.1	16.4	31	-3.4	25	83	13	+25	25	9	..
Akaroa 07/1983	3	10.7	2.2	6.5	..	16.5	30	-3.0	25	145	11	..	34	1	..
Kurow 07/1983	207	9.0	0.3	4.7	..	17.5	31	-4.2	25	45	10	..	23	9	..
Taiaroa Head 07/1983	72	9.4	4.1	6.8	+0.0	16.9	31	0.6	1	70	14	+22	23	10	..
Borland Burn 07/1983	183	6.8	-0.6	3.1	..	14.5	30	-4.5	25	118	16	..	36	8	..
Queenstown 07/1983	329	6.6	-0.8	2.9	-0.8	13.8	28	-4.5	5	64	8	+0	19	30	93
Moa Creek 06/1983	427	..	..	..	..	..	..	..	..	41	9	+18	21	26	..
Moa Creek 07/1983	427	..	..	..	..	..	..	..	..	30	8	+15	11	8	..
Roxburgh Power Stn 07/1983	110	7.3	0.6	4.0	-0.3	15.0	29	-4.6	5	34	8	+9	7	10	..
Deep Stream 07/1983	396	8.0	-2.2	2.9	..	13.7	31	-8.0	14	47	14	..	18	10	..
Gore 07/1983	123	8.1	1.1	4.6	+0.6	14.3	30	-2.5	19	72	20	..	24	7	77
Finegand Balclutha 07/1983	6	9.0	1.2	5.1	+0.5	14.0	29	-4.1	14	60	9	..	23	10	83
Rarotonga Airport 07/1983	7	24.7	18.9	21.8	+0.1	27.0	18	13.8	12	89	13	-8	37	29	186
Totokoitu, Rarotonga 06/1983	9	25.0	19.1	22.1	..	27.4	25	16.0	24	76	16	..	30	9	..
Totokoitu, Rarotonga 07/1983	9	24.3	18.4	21.4	..	27.7	4	14.4	12	194	17	..	86	29	..
Raoul Is 07/1983	38	18.3	12.9	15.6	-0.6	21.4	1	9.4	6	111	26	-52	21	22	150

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.

## THE NEW ZEALAND WEATHER IN AUGUST 1983

*General*—August was a mild month with less rainfall than normal in most parts of New Zealand.

Pressures over the country were 4 to 5 mb higher than normal. North-westerly winds were more frequent than usual over the North Island, while south-westerlies were unusually frequent over the South Island.

Heavy rain on the 2nd and 3rd caused some localised flooding at Wakefield (near Nelson) and rain also disrupted rush hour traffic in Wellington.

On the 13th and 14th heavy snow fell in central North Island areas resulting in the closure of the Napier-Taihape and Napier-Gisborne roads.

Farmers in most northern and eastern districts reported dry conditions with little growth, and some Hawkes Bay farmers lost lambs due to the lack of feed available to ewes.

Elsewhere adequate growth has been reported in spite of rather low rainfalls.

*Rainfall*—As a whole the country received less rain than usual during August, although Paraparaumu and parts of Westland, Southland, Otago and the Alps, recorded rainfalls close to, or slightly above average.

Northern and eastern areas of both islands generally received less than half of their normal August rainfall. Tauranga, Napier and Kaikoura recorded less than 30 percent of their usual totals for the month; Tauranga and Napier had only slightly more than the record low rainfalls of August 1982.

Mount John and Alexandra recorded high, although not unusual rainfalls (respectively 170 percent and 180 percent of their usual August totals).

*Temperature*—Temperatures over New Zealand during August were generally close to, or slightly above average. Northern and central parts of the North Island, and southern and eastern South Island areas recorded monthly mean temperatures 0.5°C to 1°C warmer than usual. Remaining areas experienced near-normal temperatures.

Apart from a cool period from the 5th to the 7th, temperatures were mild between the 1st and the 11th. The following seven days however were cold, with some heavy snowfalls in the central North Island. Between the 19th and 22nd daytime temperatures were generally below average, but with mild nights being experienced in most areas. The last nine days of the month saw a return to cooler temperatures.

*Sunshine*—Most North Island areas received slightly less sunshine than normal during August, although the Bay of Plenty, Waikato and Taranaki regions recorded average or slightly above average

totals. Cloudier than usual conditions were experienced in Southland and Otago, while the remainder of the South Island recorded sunshine totals close to, or slightly higher than normal.

## THE WEATHER SEQUENCE AUGUST 1983

## 1-7 August

A shallow trough moved across New Zealand on the morning of the 1st, bringing rain to western areas while fine mild weather was being experienced in the east. Another trough moved onto the country on the 2nd, bringing rain to much of New Zealand as it gradually crossed the country during the 2nd, 3rd and 4th. This caused some minor flooding in the Nelson area. Cool south-westerlies spread over the country during the 5th with showers in western areas. The flow over New Zealand gradually turned north-westerly during the 6th and 7th, as an anticyclone moved eastwards across the north Tasman Sea. The north-westerlies brought some rain to Fiordland but fine mild weather elsewhere.

## 8-14 August

The anticyclone continued to give fine mild weather to northern and eastern areas on the 8th and 9th while fast moving cold fronts brought periods of rain elsewhere. A shallow trough gave more widespread rain to the North Island on the 10th and 11th, while the high moved off to the east. Another high spread across the Tasman Sea during the 12th, and a strong cold west to north-west flow on the south-eastern flank of the high brought showers to western and southern parts of New Zealand, and gales to Southland. Showers spread onto eastern areas, and the weather cleared in the west, as the flow turned southerly during the 13th and 14th. The southerlies brought heavy snowfalls to some central North Island areas.

## 15-21 August

The anticyclone spread over New Zealand, giving mostly fine weather from the 15th to the 17th. A cold front moved quickly east across the Tasman Sea during the 18th and across the South Island during the 19th, bringing rain to western South Island areas. A depression developed on the front in the mid Tasman Sea during the 19th and moved across central New Zealand on the 21st, bringing rain to most of the country.

## 22-31 August

A cold showery south-west flow spread over the country during the 22nd. Cold southerlies continued to give showers to much of the country, and some snow to the high country until the 25th. By the 26th the showers had become confined to the East Cape-Gisborne area, and an anticyclone had spread onto the country giving fine, cool weather elsewhere.

The high continued to bring fine weather to most of New Zealand for the rest of the month, although a few showers persisted in the Gisborne area and a complex trough, which moved across the north Tasman Sea brought showers to Northland on the 29th and 30th.

(N.Z. Mets. Pub. 107)

J. S. HICKMAN, Director.

