



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 17 MARCH 1983

Published by Authority

WELLINGTON: MONDAY, 21 MARCH 1983

CLIMATOLOGICAL TABLE

FOR JANUARY 1983

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for January 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	°C	°C	mm	mm	mm	mm	Hrs		
Taupiri	23	..	..	..	..	..	..	..	..	..	..	..	..	..
Ruakura, Hamilton	40	21.7	10.3	16.0	-1.5	28.6	11	5.0	3	74	13	+3	21	12	267
Whatawhata	104	20.7	12.1	16.4	-1.2	26.3	11	6.5	2	121	17	+40	35	12	252
Rukuhia	66	22.1	10.5	16.3	-1.7	29.1	11	6.9	3	76	20	+5	18	12	237
Hamilton Airport	50	22.1	9.3	15.7	-1.4	29.0	11	5.0	3	72	14	+1	17	13	..
Cambridge	76	21.9	9.5	15.7	..	28.6	11	4.5	24	74	15	..	17	12	..
Port Taharoa	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mohakatino Station Mokau	46	19.1	12.9	16.0	-1.5	21.7	12	8.1	1	95	14	-7	21	12	..
Arapuni Power Station	123	23.0	9.2	16.1	-2.2	30.0	11	3.0	24	70	12	-11	21	13	..
Waikeria	46	22.1	9.0	15.6	..	28.9	11	2.9	24	86	13	..	24	4	..
Te Kuiti	61	21.4	10.1	15.8	-2.0	28.7	11	5.2	24	103	17	+12	24	18	211
Wairere	122	20.4	9.9	15.2	..	28.4	11	3.9	24	94	16	-3	17	12	..
Pureora Forest	549	18.1	7.9	13.0	-2.0	26.2	11	1.8	24	162	21	+48	30	4	..
Mangakahu Valley	397	18.7	8.9	13.8	..	26.5	11	2.0	28	126	16	..	16	20	..
Taumarunui	171	21.9	9.2	15.6	-2.5	29.3	11	3.5	24	94	19	+5	16	18	209
Tokirima	152	21.4	8.3	14.9	..	28.6	11	2.0	24	113	17	..	23	18	..
Omata	61	19.2	12.7	16.0	-1.4	22.0	12	9.8	2	123	19	..	61	12	..
New Plymouth	55	19.7	12.5	16.1	..	22.9	12	6.1	28	141	17	..	55	12	..
New Plymouth Airport	27	19.4	12.1	15.8	-1.1	21.6	12	5.2	24	118	19	+11	37	12	247
Tikorangi	77	19.7	11.1	15.4	..	22.5	12	5.4	24	126	20	..	39	12	..
North Egmont	955	14.7	6.3	10.5	..	21.0	10	2.0	24	451	19	..	115	12	..
Te Wera Forest	180	..	9.2	..	..	..	..	3.0	24	132	15	+10	32	4	..
Lower Retaruke	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turangi	366	20.8	9.2	15.0	-1.9	30.2	11	1.7	24	109	13	..	38	13	252
Chateau, Mt Ruapehu	1119	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mt Bruce Reserve	305	19.4	9.5	14.5	-1.0	28.3	10	2.2	24	133	19	..	25	15	..
Waingawa, Masterton	114	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kopua	311	20.3	10.7	15.5	-0.7	28.1	11	3.8	2	37	16	-54	15	13	..
Waipukurau	137	23.4	10.5	17.0	-0.4	32.5	11	3.0	2	23	8	-43	18	13	271*
Dannevirke	207	19.9	11.2	15.6	-1.2	26.4	12	4.2	2	52	14	-24	16	13	242
Porangahau	8	23.0	12.0	17.5	..	31.9	11	4.3	2	21	7	..	18	13	..
Castlepoint	3	21.3	13.4	17.4	-0.4	29.0	11	8.4	2	14	3	-50	8	13	..
Ngaumu Forest	244	21.8	9.2	15.5	-0.4	30.5	11	1.6	2	11	7	-63	7	13	..
Tauherenikau, Alloa	43	21.9	11.2	16.6	-0.6	28.8	12	4.9	9	20	7	-56	8	15	..
Waiorongomai	21	19.4	12.2	15.8	-0.8	24.9	29	4.9	2	31	11	-63	14	4	..
Cape Palliser	10	21.8	14.1	18.0	+0.9	30.9	11	8.1	2	13	8	-58	6	22	..
East Cape	17	21.7	13.1	17.4	-1.4	25.3	11	8.6	21	24	6	-65	15	13	..
Ruatoria	61	24.5	11.7	18.1	-0.5	30.9	11	5.8	28	7	2	-120	6	13	..
Mangatu Forest	182	23.9	10.7	17.3	-0.9	33.1	11	4.9	21	5	5	-89	3	25	..
Manutuke Gisborne	9	24.1	10.2	17.2	-1.1	29.2	11	4.5	21	9	4	-62	5	20	..
Gisborne Airport	4	24.9	10.6	17.8	-0.8	30.7	11	3.7	2	11	6	-63	4	20	301
Onepoto, Waikaremoana	643	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wharerata Forest	439	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esk Forest	427	22.3	9.9	16.1	-0.4	31.0	10	2.5	24	9	5	-108	3	13	..
Kaweka Forest	414	22.6	11.4	17.0	+0.1	32.0	11	5.6	1	11	6	..	3	13	..
Napier Airport	2	24.2	11.8	18.0	..	29.8	30	4.4	24	11	4	-45	5	13	..
Napier	2	24.2	12.7	18.5	-0.4	28.1	18	6.6	24	12	5	-39	6	13	286
Hastings	16	24.4	11.6	18.0	..	30.2	11	5.6	24	13	5	..	11	13	..
Havelock North	9	23.8	9.8	16.8	-0.9	29.4	11	3.3	24	13	2	-43	10	13	275
Whakatu	6	24.0	10.5	17.3	..	27.8	18	4.4	25	18	3	..	10	13	..
Gwavas Forest	335	22.4	8.3	15.4	-0.5	33.0	11	1.7	24	20	6	-79	15	13	..
Makaretu	335	22.6	10.4	16.5	+0.0	31.6	11	2.1	24	29	15	..	15	13	..
Mohaka Forest	286	23.7	10.8	17.3	+0.2	31.5	10	4.7	24	7	5	-93	3	26	..
Frasertown, Wairoa	8	24.6	11.0	17.8	-1.0	31.0	11	5.0	21	10	4	-92	6	26	..
Wairoa	20	24.0	10.7	17.4	-1.4	29.2	12	5.8	2	6	3	..	3	13	299
Kapiti Island	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paraparauum Airport	7	18.9	12.4	15.7	-1.1	21.9	31	5.3	1	35	12	-34	11	4	231
Flockhouse, Bulls	9	19.1	11.9	15.5	-1.5	22.9	11	4.3	1	41	11	-23	7	18	..
Ohakea	48	19.1	12.0	15.6	-1.9	23.4	11	6.6	27	55	14	-16	11	18	255
Wharite Peak	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kairanga Palmerston North	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston North Airport	45	19.3	11.0	15.2	-1.7	24.1	12	4.2	27	56	13	-23	13	18	..
Palmerston North D S I R	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiritea	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waitarere Forest	3	18.7	12.7	15.7	-1.5	21.5	12	4.1	27	22	11	-39	8	12	..
Levin	46	18.5	11.8	15.2	-1.6	22.6	12	6.2	1	52	14	-24	9	4	206
Titahi Bay	31	19.1	12.8	16.0	..	22.0	12	7.1	2	26	7	..	7	4	..
Avalon, Lower Hutt	15	19.1	12.6	15.9	-1.0	22.0	29	6.0	1	30	8	-44	13	4	..
Kelburn, Wellington	125	18.9	12.1	15.5	-0.9	23.4	29	8.1	9	15	6	-66	4	4	270
Somes Island	43	18.3	13.0	15.7	..	21.5	12	8.5	1	21	5	..	10	4	..
Gracefield, Lower Hutt	34	19.2	12.9	16.1	-0.9	23.4	29	6.4	1	27	5	-54	13	4	..
Wainuiomata	82	19.0	11.3	15.2	-1.0	23.1	29	4.5	1	23	7	..	13	4	..
Wellington Airport	6	20.2	13.7	17.0	-0.2	23.8	29	10.5	14	14	8	-52	3	4	..
Rimutaka Forest	40	19.3	11.9	15.6	..	24.5	29	5.8	1	9	5	..	5	4	..
Kaitoke	223	18.4	10.6	14.5	-0.7	24.0	12	2.5	2	72	17	-68	30	4	251
Wallaceville	56	19.2	10.9	15.1	-1.4	23.5	29	3.6	1	39	10	-47	16	4	256
Cape Egmont	8	19.2	13.5	16.4	-0.7	22.5	12	8.0	2	101	16	+2	46	12	..

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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	
Stratford Mountain House	846	16.1	6.2	11.2	-1.5	24.2	10	0.3	24	309	17	-108	84	12	..
Stratford Dem. Farm	311	18.8	9.5	14.2	-1.3	23.8	10	3.6	7	122	15	-13	43	12	250
Kapuni	173	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Normanby	122	18.9	10.7	14.8	..	25.0	12	6.0	2	50	20	..	16	12	..
Patea	43	18.9	12.8	15.9	-1.2	23.0	11	8.5	2	90	12	-4	22	18	..
Ruatiti	354	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ohakune Junction	629	17.7	8.3	13.0	..	26.0	11	3.2	24	108	19	..	23	18	..
Karioi	648	18.3	7.6	13.0	-1.7	26.1	10	1.8	24	80	15	+6	18	18	..
Waiouru	823	16.8	6.0	11.4	-1.9	25.0	12	0.0	24	70	15	-6	10	4	..
Waiouru Military Camp	823	16.3	6.3	11.3	-1.6	24.5	11	0.4	27	81	16	+2	13	20	..
Ahu Ahu Valley	85	21.2	10.0	15.6	..	28.5	10	4.2	24	78	15	..	17	18	..
Taihape	433	20.3	8.9	14.6	-1.8	29.5	11	1.8	27	49	18	..	8	16	..
Kahui, Taihape	518	18.8	9.2	14.0	-2.0	26.3	11	2.9	27	45	12	..	9	12	..
Wanganui	22	19.6	12.6	16.1	-1.6	22.9	4	8.0	27	81	15	+12	13	14	239
Wanganui Airport	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Farewell Spit	3	20.3	11.7	16.0	-0.7	24.5	29	6.1	21	83	16	+9	45	12	..
Totaranui	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Westport Airport	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cobb Dam	823	15.2	6.4	10.8	-2.2	24.1	10	0.7	24	150	17	+33	39	12	..
Arapito	20	18.2	10.4	14.3	..	24.0	12	5.2	21	269	18	..	41	12	138
Lake Rotoroa	443	17.4	7.7	12.6	..	25.7	10	2.2	20	231	20	..	35	15	..
Lake Rotoiti	634	18.0	6.7	12.4	-1.9	26.9	10	0.3	21	165	18	+68	31	15	..
Hokitika Airport	39	16.9	10.0	13.5	-1.6	19.1	3	4.7	21	355	25	+124	111	12	167
Punakaiki	9	17.7	11.3	14.5	..	22.4	12	3.3	25	288	24	..	98	4	..
Reefton	198	18.7	8.9	13.8	-2.4	24.2	10	3.8	21	192	22	+42	42	4	..
Barrytown	30	17.8	10.9	14.4	..	22.0	12	7.5	20	322	23	..	98	4	..
Totara Flat	77	18.8	9.3	14.1	-1.8	24.7	11	4.1	21	221	20	+76	50	4	..
Greymouth	4	17.0	10.6	13.8	-1.9	20.7	26	7.0	21	283	24	+85	77	4	126
Otara Substation	383	15.8	8.0	11.9	..	22.0	2	2.9	21	693	25	+294	88	15	..
Springs Junction	421	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pukekura	86	16.6	8.3	12.5	..	20.2	29	2.5	21	550	23	..	161	12	..
Hari Hari	45	16.9	9.3	13.1	-1.9	21.0	26	3.5	21	557	24	+217	110	12	..
Okarito	10	16.3	9.5	12.9	..	20.3	3	5.8	20	605	23	..	141	12	..
Franz Josef	122	16.1	8.4	12.3	-2.5	20.0	1	4.5	20	964	22	+507	200	11	..
Franz Josef	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fox Glacier	152	15.9	8.7	12.3	..	20.3	26	4.2	20	790	24	+385	137	11	..
Milford Sound	3	15.8	8.3	12.1	-2.4	20.8	2	4.5	20	1588	25	+57	324	10	..
Puysegur Point	43	14.8	9.3	12.1	..	21.5	9	6.5	19	287	29	+91	55	18	..
Stephens Island	187	16.9	11.9	14.4	..	21.6	29	7.8	25	38	13	-18	16	12	..
Riwaka, Motueka	8	21.6	9.9	15.8	-1.2	25.7	10	4.8	21	68	10	-6	39	12	283
Tapawera	146	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Crail Bay Pelorus Sd	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Appleby	17	21.0	11.3	16.2	-1.2	25.8	29	6.3	20	59	8	-5	36	12	..
Nelson Airport	2	21.2	11.1	16.2	-0.8	25.6	30	5.5	21	72	9	-2	36	12	290
Rai Valley	79	21.1	9.9	15.5	-1.0	26.5	29	1.6	21	115	8	-20	43	12	..
Moutere Hills	110	20.7	11.6	16.2	-1.1	26.4	29	7.0	20	60	10	-14	31	12	..
Blenheim Airport	27	24.0	11.4	17.7	+0.3	31.5	10	5.1	21	49	8	-4	17	25	..
Brancott Valley	64	23.8	10.2	17.0	..	32.6	10	4.0	20	40	4	..	11	25	..
Blenheim	4	23.9	11.2	17.6	+0.0	31.7	10	5.4	21	36	7	-15	15	18	303
Waihapai Power Station	262	22.5	10.5	16.5	-0.6	31.5	10	3.8	20	64	8	-5	23	12	..
Vernon Lagoons	2	23.1	9.8	16.5	-0.3	28.7	30	3.8	21	20	7	..	7	18	292
Lake Grassmere	2	22.0	12.7	17.4	+0.3	29.5	10	8.8	2	16	7	-32	6	12	280
Cape Campbell	3	20.2	13.1	16.7	+0.8	24.6	22	10.1	20	22	6	-26	7	18	..
Hanmer Forest	387	21.2	8.6	14.9	-0.7	28.5	12	0.5	24	38	11	-48	12	25	207
Molesworth	893	19.6	4.6	12.1	-2.0	27.4	10	-1.4	9	43	6	-10	14	18	..
Kaikoura Flats	24	22.0	8.2	15.1	..	29.7	10	4.1	9	5	6	..	2	12	..
Kaikoura	108	20.6	12.1	16.4	+0.4	28.1	10	8.7	20	8	7	-61	4	25	287
Arthurs Pass	738	13.5	5.9	9.7	..	19.4	2	0.5	21	473	22	+163	64	15	..
Balmoral Forest	198	22.2	9.5	15.9	-0.4	30.0	12	1.6	24	17	8	-29	8	25	..
Waiau	137	24.0	10.6	17.3	..	33.9	12	4.6	14	10	4	..	3	25	..
Cheviot	85	23.2	7.7	15.5	..	32.5	10	2.6	1	11	7	..	3	12	..
The Hermitage, Mt Cook	765	16.3	6.7	11.5	-2.6	25.9	2	1.9	21	690	22	+289	155	11	134
Mt John	1027	16.1	6.6	11.4	-2.0	21.7	2	1.0	24	69	11	+18	37	12	..
Craigieburn Forest	914	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Coleridge	364	19.8	8.2	14.0	-1.5	25.5	3	3.5	20	78	12	+17	21	6	..
Highbank Power Station	336	19.5	8.8	14.2	-1.2	26.6	12	4.4	23	65	11	-24	20	25	253
Hororata Substation	192	22.8	8.6	15.7	-0.3	30.9	12	2.6	1	40	10	-31	12	12	..
Winchmore	160	21.3	8.7	15.0	-0.6	29.7	12	3.1	1	39	8	-22	13	12	..
Peel Forest	274	..	7.6	..	..	..	..	1.6	21	88	16	..	29	25	..
Ashburton	101	22.8	9.3	16.1	-0.6	32.4	3	3.7	14	34	7	-30	12	12	216
Waipara	64	23.0	..	..	..	30.7	12	..	..	9	4	..	5	12	..
Ashley Forest	107	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rangiora	46	22.9	9.2	16.1	-0.4	32.0	10	4.0	14	19	6	-29	8	12	..
Darfield	195	23.0	8.9	16.0	-0.5	30.2	12	3.4	1	29	7	-40	10	25	..
Eyrewell Forest	158	22.9	9.0	16.0	-0.2	32.7	12	3.7	1	30	7	-46	9	13	..
Christchurch Airport	30	22.4	10.0	16.2	-0.4	33.2	12	4.1	1	14	6	-32	9	12	270
Templeton	46	22.4	9.6	16.0	..	33.2	12	4.1	27	11	3	..	9	12	..

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		A Max.	B Min.			Maximum	Date	Minimum	Date				Amount	Date	
		°C	°C	°C	°C	°C	°C	°C	mm	mm	mm	mm	mm		
Christchurch	7	22.4	10.3	16.4	-0.4	33.8	12	5.5	1	22	7	-29	8	12	..
Bromley, Christchurch	9	21.4	11.5	16.5	-0.3	32.4	10	6.5	20	17	6	-31	9	19	..
Mt Pleasant	137	20.5	11.7	16.1	-0.1	30.5	10	6.4	20	30	6	-18	13	19	..
Lincoln	11	21.9	9.6	15.8	-0.5	32.0	10	3.5	1	31	7	-25	15	19	228
Akaroa	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lake Tekapo	683	18.5	7.4	13.0	-2.3	30.0	10	2.8	24	71	12	+20	33	12	..
Lake Pukaki	556	18.9	7.7	13.3	-1.5	25.1	27	3.2	24	93	10	..	67	12	..
Fairlie	304	21.6	6.7	14.2	..	30.6	3	0.5	20	64	8	..	36	12	..
Twizel	457	20.4	7.0	13.7	-1.9	26.7	2	0.7	24	82	13	..	59	12	..
Ikawai	70	20.6	8.1	14.4	-0.7	30.0	10	3.5	14	71	5	..	61	12	..
Geraldine	119	22.1	8.6	15.4	..	30.6	12	3.0	20	46	9	..	29	12	..
Orari Estate	81	22.1	8.4	15.3	-0.7	32.8	12	2.8	20	46	10	-28	30	12	..
Temuka	24	21.2	8.4	14.8	-0.8	31.0	10	2.8	20	39	10	-22	25	12	..
Timaru Airport	26	21.1	8.3	14.7	-0.8	30.0	10	2.8	20	33	9	-25	18	12	..
Adair	85	20.8	9.5	15.2	-0.2	29.5	12	5.0	20	37	10	-21	18	12	..
Timaru	17	20.4	10.1	15.3	-0.7	27.9	10	4.9	21	34	10	-24	15	12	200
Waimate	61	20.7	9.7	15.2	-0.8	30.1	10	4.5	20	45	8	-16	37	12	..
Kurow	207	21.2	9.6	15.4	..	30.7	10	4.0	24	67	9	..	54	12	..
Oamaru Airport	30	19.6	9.3	14.5	-0.5	28.9	10	3.8	20	30	10	-28	20	12	174
Knobs Flat	360	15.8	6.4	11.1	..	24.2	2	0.0	23	577	24	+399	86	10	..
Tara Hills, Omarama	488	19.8	7.4	13.6	-2.2	26.7	10	1.5	24	88	11	+24	67	12	222
Lake Hawea	350	18.2	..	..	..	24.7	1	..	..	135	14	+66	62	12	..
Wanaka	296	20.2	8.9	14.6	-2.1	27.0	10	3.4	8	124	13	+66	58	12	..
Queensberry	277	20.4	8.9	14.7	..	28.2	10	3.9	24	110	16	..	48	12	..
Bendigo	200	21.3	9.5	15.4	..	28.8	10	3.5	24	81	12	..	42	12	..
Naseby Forest	610	18.7	4.2	11.5	-2.1	27.7	10	-1.4	24	85	10	+11	65	12	..
Windsor	88	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oamaru	5	19.2	9.7	14.5	..	30.7	10	4.8	20	57	10	..	49	12	..
Ranfurlu	427	19.0	6.7	12.9	..	28.1	10	-0.8	24	70	9	..	56	12	148
Herbert Forest	61	20.2	8.0	14.1	-0.7	31.2	10	3.1	20	71	12	+7	57	12	..
Palmerston	21	20.0	8.1	14.1	-0.4	31.6	10	2.2	24	92	10	..	77	12	166
Cherry Farm Hospital	6	19.5	8.2	13.9	-0.5	31.2	10	2.8	24	94	18	+36	65	12	..
Taiaroa Head	72	16.5	10.0	13.3	-0.6	25.5	9	5.5	31	90	19	+26	59	12	..
Invermay, Taieri	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Berwick Forest	18	19.8	9.2	14.5	-0.1	30.9	10	3.2	8	100	19	+24	63	12	..
Dunedin Airport	1	19.8	8.3	14.1	-0.5	30.6	10	1.8	1	92	17	+31	66	12	166
Musselburgh, Dunedin	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Te Anau	215	17.2	8.2	12.7	-1.3	24.8	27	1.8	23	228	22	+139	63	12	157
West Arm, Manapouri	232	14.8	7.4	11.1	-2.8	22.3	27	2.9	19	787	27	..	112	10	..
Borland Burn	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown	329	19.2	8.7	14.0	-1.9	28.7	10	4.7	19	140	18	+66	51	12	185
Queenstown Airport	349	18.2	7.5	12.9	-2.5	28.6	10	2.6	24	134	14	+66	61	12	..
Otama	183	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cromwell	213	21.4	8.8	15.1	-2.5	29.8	10	4.2	19	67	14	+24	41	12	223
Northburn	210	20.9	9.0	15.0	..	28.2	10	4.2	24	56	12	..	34	12	..
Lauder	370	19.9	7.8	13.9	..	28.0	10	0.7	24	82	14	..	59	12	..
Clyde Dam	160	21.1	9.4	15.3	..	30.2	10	5.1	24	74	14	..	47	12	..
Ophir	305	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Moa Creek	427	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Earnsclough	152	21.8	8.1	15.0	-1.3	30.6	10	2.6	24	57	12	+11	39	12	..
Roxburgh Power Station	110	20.5	8.4	14.5	-1.8	31.0	10	4.5	27	54	13	+1	39	12	..
Deep Stream	396	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Beaumont	46	19.5	8.0	13.8	..	30.5	10	4.0	20	136	22	+52	42	12	..
Mahinerangi Dam	396	16.6	6.7	11.7	-1.4	26.3	10	2.5	14	125	16	+28	51	12	..
Tapanui	226	17.6	7.6	12.6	-2.0	28.4	10	2.6	14	130	22	+41	37	12	..
Taieri Mouth	15	17.9	8.2	13.1	-0.4	29.8	10	3.4	1	104	16	+25	61	12	..
Tuatapere	27	17.5	8.3	12.9	..	26.2	9	3.7	1	204	25	..	44	12	..
Otautau	55	17.7	7.9	12.8	-1.2	26.7	10	3.3	27	205	19	+114	57	12	124
Winton	44	17.6	8.2	12.9	-1.6	27.0	10	3.7	1	171	20	+107	60	12	130
Gore	123	17.4	8.6	13.0	-1.7	30.6	10	6.0	1	149	26	..	49	12	124
Hokonui Forest	46	18.2	8.4	13.3	-1.4	28.9	10	3.7	1	156	22	+70	50	12	..
Woodlands	47	17.7	8.1	12.9	-0.9	28.1	10	3.9	14	202	25	..	45	12	..
Invercargill Airport	0	17.1	8.4	12.8	-0.9	26.7	10	3.4	1	213	24	+124	45	12	132
Tiwai Point, Bluff	5	16.2	9.4	12.8	-1.4	25.5	9	5.8	1	245	27	..	46	12	..
Stewart Island	3	15.6	8.6	12.1	..	27.0	9	4.2	1	322	29	..	46	10	..
Milton	18	18.9	7.7	13.3	-1.3	28.0	11	2.1	1	77	17	+8	44	12	..
Finegand, Balclutha	6	18.8	8.0	13.4	-1.1	31.8	10	2.0	1	103	21	..	45	12	143
Owaka	5	17.9	7.5	12.7	..	27.5	9	1.5	1	118	24	..	40	12	..
Nugget Point	129	16.6	8.0	12.3	-1.0	27.2	10	5.4	23	117	28	+43	42	12	..
Tautuku	61	17.3	7.8	12.6	..	27.6	9	3.0	1	155	25	..	38	12	..
Nandi Airport, Fiji	19	32.5	22.4	27.5	+0.4	36.0	24	19.0	23	104	15	..	27	29	244
Fenuafala Tokelau	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rarotonga Airport	7	29.3	22.0	25.7	-0.1	31.0	17	18.0	7	38	4	-221	20	12	198
Totokoitu, Rarotonga	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Island	38	24.2	18.0	21.1	-0.5	26.7	20	14.7	1	37	12	-54	10	14	230
Campbell Island	15	11.9	7.1	9.3	+0.0	16.5	11	2.2	19	182	29	+58	52	13	44
Waitangi, Chatham Island	44	16.2	10.4	13.3	-1.1	18.6	19	6.0	3	59	21	+6	16	14	217

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for January 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	
Scott Base, Antarctica	Metres 16	°C -1.0	°C -8.3	°C -4.7	°C +0.4	°C 3.1	°C 5	°C -14.6	31	mm ..	..	mm ..	mm ..	mm ..	Hrs ..
LATE RETURNS AND CORRECTIONS															
Umawera 11/1982	9	21.5	9.5	15.5	-0.2	27.0	10	4.2	14	25	8	-74	9	28	..
Umawera 12/1982	9	22.2	10.1	16.2	-1.2	26.0	19	3.5	31	57	9	-37	27	11	..
Waiotemarama 02/1982	229	22.7	15.2	19.0	..	26.7	1	12.2	8	125	12	..	35	5	..
Waiotemarama 07/1982	229	13.3	7.1	10.2	..	16.5	20	2.5	10	109	18	..	21	20	..
Waiotemarama 08/1982	229	13.5	7.6	10.6	..	15.6	13	3.9	17	78	22	..	14	5	..
Waiotemarama 09/1982	229	14.8	8.5	11.7	..	18.0	21	4.1	16	146	17	..	31	13	..
Waiotemarama 10/1982	229	14.8	8.5	11.7	..	17.7	21	5.2	8	120	20	..	16	21	..
Waiotemarama 11/1982	229	18.1	11.4	14.8	..	22.4	8	7.0	30	64	9	..	26	11	..
Waiotemarama 12/1982	229	18.8	11.8	15.3	..	22.8	9	6.3	2	51	17	..	17	11	..
Marsden Power Station 12/1982	3	23.1	11.8	17.5	-0.6	29.1	20	7.0	2	44	11	..	12	11	..
Kumeu 12/1982	32	20.8	10.8	15.8	..	25.8	11	1.0	2	60	12	..	21	11	..
Opotiki 12/1982	6	20.2	11.5	15.9	-0.9	24.2	24	3.2	1	70	10	-34	23	11	219
Mangakahu Valley 12/1982	397	..	..	..	..	..	..	..	..	140	..	..	41	21	..
Lower Retaruke 11/1982	223	19.3	9.6	14.5	+0.8	25.7	7	1.9	14	98	14	..	19	28	..
Lower Retaruke 12/1982	223	19.7	8.4	14.1	-1.4	24.8	17	0.6	2	152	18	..	30	11	..
Waipukurau 12/1982	137	21.6	9.2	15.4	-0.6	29.0	19	1.1	2	21	6	-55	10	3	181*
Wharerata Forest 12/1982	439	19.4	10.2	14.8	..	26.0	18	2.8	1	32	6	..	19	3	..
Wharite Peak 11/1982	914	11.0	5.4	8.2	+0.0	17.8	11	0.5	30	100	18	-63	36	26	..
Kairanga Palmerston North 12/1982	15	18.5	9.8	14.2	-1.6	22.8	19	0.4	2	148	15	..	35	11	193
Palmerston North D S I R 12/1982	34	18.4	10.3	14.4	-1.7	23.1	19	2.2	2	160	14	+56	33	11	166
Cape Egmont 12/1982	8	18.2	12.4	15.3	-0.5	20.6	19	3.0	2	170	17	+63	48	20	..
Kahui, Taihape 12/1982	518	17.6	8.0	12.8	-1.5	22.6	17	1.5	2	67	12	..	11	30	..
Wanganui Airport 12/1982	9	19.0	11.0	15.0	..	25.0	19	4.8	2	109	15	..	21	20	..
Totaranui 12/1982	10	19.1	9.3	14.2	..	23.5	17	5.0	2	100	12	..	44	11	..
Pukekura 12/1982	86	16.4	7.1	11.8	..	19.1	16	0.5	1	388	21	..	75	10	..
Okarito 12/1982	10	16.2	9.1	12.7	..	19.3	16	4.4	28	351	20	..	74	24	..
Puyssegur Point 12/1982	43	13.7	7.8	10.8	..	19.1	17	4.9	27	185	26	+0	61	10	..
Craigieburn Forest 12/1982	914	15.7	3.8	9.8	-1.8	24.7	16	-2.5	1	146	18	+27	37	24	..
Ashley Forest 12/1982	107	19.7	8.0	13.9	-0.9	29.7	16	1.5	1	55	9	-31	16	29	216
Eyrewell Forest 12/1982	158	20.8	7.3	14.1	-0.7	31.2	16	-0.5	2	78	12	-13	21	11	..
Christchurch 12/1982	7	20.5	8.8	14.7	-0.8	30.2	19	2.6	1	86	16	+30	20	12	..
Lincoln 12/1982	11	19.6	7.7	13.7	-1.2	29.4	16	2.0	1	94	17	+36	21	12	217
Lake Pukaki 12/1982	556	18.2	6.2	12.2	-1.3	24.5	16	0.0	27	47	13	..	20	24	..
Twizel 12/1982	457	19.4	5.6	12.5	-1.6	26.5	17	-1.0	2	39	11	..	21	24	..
Winton 12/1982	44	16.6	7.0	11.8	-1.6	25.4	17	2.2	4	140	21	+74	25	24	151
Tautuku 12/1982	61	15.5	6.8	11.2	..	26.7	17	0.8	1	222	22	..	35	11	..
Rarotonga Airport 12/1982	7	27.8	20.6	24.2	-0.6	29.6	5	16.4	19	20	13	-206	6	11	215
Totokoitu, Rarotonga 12/1982	9	27.2	21.1	24.2	..	28.7	26	16.9	20	13	10	..	5	28	..
Campbell Island 11/1982	15	8.6	3.1	5.9	-1.3	10.8	17	0.0	21	148	28	+41	16	27	79
Campbell Island 12/1982	15	10.3	4.8	7.6	-1.0	12.8	7	1.3	27	72	28	-30	18	2	81

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 WEATHER IN NEW ZEALAND IN JANUARY 1983

General—January was cool and dry in the North Island and the north and east of the South Island and cold and wet in the south and west of the South Island.

South-westerly winds were unusually frequent in the north this month. Eighty-three percent of all winds at Auckland were from this quarter, a total that was the highest on record for January and one that has been equalled only once in any month since recordings began in 1956. In contrast north-westerly winds were most frequent in the South, with the highest frequency of north-westerlies since 1964 recorded at Invercargill.

A tornado on the 19th caused damage estimated at between \$2 million and \$3 million to houses in the Christchurch suburb of Halswell. The tornado formed on the leading edge of a frontal squall and damage, although severe, was limited to an area approximately 400 metres by 100 metres. A hailstorm accompanying the squall produced hailstones of up to 4cm in diameter and caused damage estimated at close to \$10 million to crops, market gardens, glasshouses and vehicles in the Christchurch area.

Low rainfall, gusty winds and warm afternoon temperatures led to several large bush fires on the Coromandel Peninsula. A major forest fire risk developed in the north of the North Island and logging was curtailed in many State forests.

Rainfall—January was drier than usual over the whole of the North Island except parts of Taranaki and some central areas, where rainfalls were normal or slightly above normal. Gisborne and Wellington were very dry, receiving less than 20 percent of their normal rainfall, while most of Hawke's Bay and Wairarapa had between 20 percent and 30 percent of normal rainfall. Northern and eastern areas of the South Island had normal or less than normal rainfall, while western and southern areas were very wet. South Westland, Fiordland, and Southland had between 200 percent and 300 percent of normal rainfall. Milford Sound recorded 1588mm of rain, the highest for January since records began in 1930, and established a new record 72hr fall of 741mm between the 9th and 12th.

The heavy rain in south-western areas between the 9th and 15th led to flooding in Queenstown and Te Anau when lake levels became extremely high. Lake Wakatipu was reported to have reached its highest level since 1878 and business premises in low-lying areas were flooded. Further problems were caused by erosion of the shoreline, disruption to transport and water supplies and damage to market gardens and orchards. In Te Anau the lake reached its highest level since 1957 and the wharf, coffee bar, and tourist centre were flooded. In the week from the 9th to the 15th 330mm of rain fell at Manapouri and 1000mm at Milford Sound, and it is almost certain that falls were higher in the mountains forming the catchment areas for the lakes.

Temperatures—Temperatures were below normal over the whole country except Marlborough and Blenheim, where it was slightly warmer than usual. In the North Island, temperatures were between 0.5°C and 1.0°C below normal in northern and eastern areas and between 1.0°C and 2.0°C below normal in central and western areas.

Taumarunui had its lowest mean temperature for January since recordings began in 1947 and Ohakea the second lowest mean temperature since records began in 1940. In the South Island areas in the south and west were between 1.5°C and 3.0°C cooler than usual while most other areas were between normal and 1°C below normal. On the 10th and 11th temperatures in eastern districts of both Islands exceeded 30°C. Temperatures were particularly high in the Bay of Plenty region on the 11th. Tauranga Airport reached 33.7°C and Kawerau 37.0°C, both record maximum temperatures since these stations opened in 1913 and 1955 respectively.

Sunshine—January was sunny in the North Island and the north and east of the South Island. Some high sunshine totals were

recorded in eastern areas this month, and among those stations with very high departures were Kaikoura (+70 hours), Tauranga (+64 hours), Wairoa (+59 hours), Christchurch (+58 hours), and Gisborne (+53 hours). Apart from western areas, the rest of the North Island and north and east of the South Island had between 20 and 50 hours more sunshine than usual. Western and southern areas of the South Island were cloudy; Greymouth had 65 hours less sunshine than normal and Invercargill 53 hours less than normal.

THE WEATHER SEQUENCE, JANUARY 1983

1-7 January

An extensive anticyclone covered New Zealand on the 1st. The weather was fine and cool in all districts between the 1st and 3rd, with the exception of Fiordland on the 3rd when a front within a trough crossing the Tasman Sea brought some rain to south-western areas. Rain became widespread over most of the South Island and the south and west of the North Island on the 4th as this front moved onto the country. There were further falls of rain in these areas between the 5th and 7th as a disturbed westerly flow developed across New Zealand and several fronts within this flow crossed the country.

8-14 January

There were further showers in isolated areas on the 8th but by the 9th a ridge from an anticyclone centred near Norfolk Island extended southwards onto the country. Fine conditions prevailed except in south Westland, Fiordland, and Southland. These areas continued to have rain under the influence of a strong, moist north-westerly airstream and similar conditions continued during the 10th and 11th. By the 12th a complex trough had begun to move onto western areas and this brought rain to all districts except those on the east of the North Island; some very heavy falls occurred in the west and south of the South Island. There were further widespread but lighter falls on the 13th and 14th as the trough crossed New Zealand and moved away to the south-east.

15-21 January

A disturbed westerly airstream developed behind the trough and this continued to affect most of the country except the north of the North Island until the 18th. During this time cool, showery conditions were experienced over much of the country apart from the north of the North Island and districts to the east of both Islands, which tended to be cool but dry. A trough developed over New Zealand on the 19th and a front within this brought further rain to all areas except the south and east of the North Island and the north-east of the South Island on the 19th and light rain to most districts on the 20th. The trough had moved away by the 21st and a strong south-westerly flow, preceding an anticyclone in the Tasman Sea, developed over New Zealand. There were heavy showers in southern and western areas of the South Island, but fine, slightly cool weather elsewhere.

22-31 January

The anticyclone remained in the Tasman Sea during the 22nd to 24th and a strong south-westerly flow developed over the country. Light rain fell in western areas of both Islands on the 22nd, with fine weather in most areas on the 23rd and heavier falls of rain in western areas on the 24th as a trough approached the South Island. This trough, with its associated depression and cold front crossed New Zealand during the 25th and 26th with widespread light rain and cool temperatures. There was a clearance in the weather during the 27th as an anticyclone moved onto the country. This became slow moving and eventually developed into a belt of high pressure over the north of New Zealand. The weather remained fine, apart from isolated showers in the west and south of the South Island, until the end of the month.

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

J. S. HICKMAN, Director.

