No. 10



SUPPLEMENT

TO THE

NEW ZEALAND GAZETTE

OF

THURSDAY, 17 JANUARY 1985

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CLIMATOLOGICAL TABLE FOR NOVEMBER 1984

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THE NEW ZEALAND GAZETTE

NEW ZEALAND METEOROLOGICAL SERVICE

CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for November 1984

				Air Te	mperature	in Degree	s Celsius								
Station	Height of Station	Ме	ans of	Mean of A	Differ- ence	A		aximum a imum	nd	Total	No.	Differ-	Maxi Fa	mum	Bright Sun-
	Above M.S.L.	A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	of Rain Days	ence From Normal	Amount	Date	shine
	Metres	°C	°C	°C	°C	°C		°C	.	mm		mm	mm		Hrs
Cape Reinga	191	20.2	13.7	17.0	+1.5	23.1	14	8.9	17	73	22	+10	30	15	
Kaitaia Airport	80	21.2	13.4	17.3	+1.4	23.7	29	7.0	21	80	16	-21	22	2	177
Aupouri Forest Kaitaia	69 8	21. 4 22.2	13.7 13.3	17.6 17.8	+1.4	24.5 24.9	6 29	8.1 6.6	17 21	66 95	11	-18	19 23	2 2	••
Kerikeri M A F	79		15.5		•••					••	. 15	••		2 	••
cerikeri Downs	74	a.' é	10.1	17.0	••	a			::	••	• •	••			
lerikeri Aerodrome Imawera	150	21.5	12.4	17.0	•••	25.7	22	7.0	17	55	15	••	12	10	••
aikohe	204		•••		••			••	••	•••	••	••	•••	••	•••
Vaiotemarama	229	21.0	12.2	166		25.2		ċċ	÷	120	12		••		
Vaipoua Forest Dargaville	88 20	21.0	12.2	16.6 16.8	+1.7 +1.4	25.3 25.0	24 24	5.5 6.8	21 22	120 49	16 11	+9 -37	26 14	25 15	152
Vaitangi Forest	55	••	••				••	•••	••				• •		1.52
lenbervie Forest	107	21.1	11.7	16.4	+1.8	24.9	22	3.6	21	151	17	+39	25	ż	••
Vhangarei Airport Vhangarei	37 29	21.5 22.3	13.2 13.3	17.4 17.8	+1.1 +1.6	25.4 26.2	15 15	8.1 8.5	21	79 96	13	-10	16 25	7 7	159*
farsden Power Stn	3	21.9	13.9	17.9	+1.3	27.1	15	8.6	21	85	1.7	6	• • •		139.
outo	97	20.3	14.0	17.2		23.8	24	9.8	17	56	13		10	15	
eigh /arkworth	27 72	19.9 20.6	14.6 12.6	17.3 16.6	+1.4 +1.3	23.6 24.4	13 14	9.4 6.0	17 21	68 71	15 19	-17 -43	26 21	22	165
varkworth lyster Point	0	20.9	12.0	16.9	+1.5+1.6	24.4	24	6.5	21	63	19	-43 -19	15	15	••
Voodhill Forest	30	20.5	12.7	16.6	+1.3	25.8	24	7.6	21	114	14	+16	33	15	••
iverhead Forest umeu	28 32	21.4 21.2	12.7 12.3	17.1 16.8	+2.2 +1.8	26.5 26.2	24 24	6.7 6.0	1	124 128	10 13	+23	38 31	15 15	•••
Vhenuapai	26	21.2	12.5	16.9	+1.6	25.3	24	6.8	21	115	16	+18	39	15	•••
lbert Park Auckland	49	21.5	14.3	17.9	+1.4	25.5	14	8.9	17	111	17	+22	35	2	170*
wairaka, Auckland	41	20.9	13.4	17.2	+1.5	24.7	15	8.0	21	99 108	14	+3	36	$\frac{2}{2}$	••
ort Fitzroy ittle Barrier Is	4 2	21.2 20.7	13.8 14.4	17.5 17.6	+1.3	23.5 22.7	13 13	8.5 9.9	21 17	70	16 15	$^{+4}_{-22}$	30 27	26 2	••
otoroa Is	30	19.7	14.6	17.2		22.1	14	10.5	17	56	iŏ		29	ĩ	
lanukau Heads	244	~	12.2	17 6	••	25.1		-77	•••	107		••		·:	••
oromandel Vhangapoua Forest	43 4	21.8	13.2	17.5	• •	25.1	15	7.6	1	107	15	••	47	2	••
hames	3	••	••		••	••	••	 	••	 	••	••	•••		••
airua Forest	3	21.6	12.6	17.1	+1.4	26.5	14	6.6	1	84	10	-20	27	2	
lgatea aeroa	1 4	22.0 22.1	11.6 12.5	16.8 17.3	+1.5	26.0 26.5	14 14	6.1 7.4	21 21	92 90	14 16	-i	30 21	15 15	••
Vaihi	91	22.1	12.5	17.5	+1.5	20.5		/. 4	21	<i>90</i>		-1	21	15	
e Aroha	18	22.1	13.4	17.8	+1.6	25.7	14	7.8	21	85	14	-15	26	15	••
atikati /aharoa	2 60	22.0 22.0	12.6 11.5	17.3 16.8	. ••	26.0 25.1	14 14	8.0 4.5	17 21	100 102	10 13	••	35 37	2 15	••
auranga	2	21.0	13.7	17.4	+1.5	26.4	13	10.0	1	85	8	-1	23	2	•••
auranga Airport	4	21.0	12.3	16.7	+1.3	26.0	14	7.3	1	67	10	-18	17	3	194
e Puke otoehu Forest	91 72	20.8 20.9	11.2 10.2	16.0 15.6	+0.9 +1.1	26.0 26.3	14 13	5.7 3.6	17 17	151 136	9 9	+20 +30	32 37	3 3	208
Vhakatane Airport	6	20.9	11.2	15.9	+0.8	23.2	12	5.3	17	106	9	+30 +25	38	25	222
e Kaha	6	20.4	13.1	16.8	•••	23.0	12	9.5	18	138	8		66	3	•••
ort Ohope	9 383	20.1	10.9	15.5	+1.8	23.6	14	5.1	2i	82	i3	$-\dot{63}$	26	25	••
inleith	338	19.3	11.3	15.3	+1.6	23.9	7	7.1	17	138	9		20 51	25 25	••
awerau	30	22.4	10.9	16.7	+0.7	28.5	14	5.0	1	131	8	+24	66	25 25	• •
e Teko otorua Airport	8 287	24.2 20.2	11.6 11.4	17.9 15.8	+2.3 +1.8	31.0 24.1	14 7	5.6 6.1	17 17	143 108	9	+42 +11	48	25 25	204 198
Vaiotapu Forest	435	19.8	9.4	14.6	+1.5	23.7	14	4.8	17	106	9	+0	37	25	
tiamuri Power Stn	253	21.4	10.9	16.2	+2.2	25.7	7	4.4	20	68	10	-57	18	25	• •
aingaroa Forest	544 198	19.3 22.4	9.2 9.7	14.3 16.1	+1.7 +1.5	23.7 27.7	7 14	3.0 4.0	28 17	107 70	9 8	-8 -27	36 25	25 25	••
lurupara /airapukao Forest	437	20.4	8.3	14.4	+1.7	25.2	14	1.0	17	80	°9	-29	32	25	••
aupo	376	20.5	10.0	15.3	+1.8	25.0	29	3.0	28	51	8	-40	16	25	191
/airakei Power Stn /airakei Research Stn	342 402	21.1	10.1	15.6	+1.8	25.5	12	3.0	28	58	8	-37	19	25	••
linginui Forest	366	21.3	9.4	15.4	+2.2	26.6	14	0.3	28	83	 9	-46	23	25	••
aupo Airport	407				••										•••
aimihia Forest potiki	743 6	17.4	8.1	12.8	+1.8	22.0	29	1.8	28	90	11	-51	26	4	••
aimana	37	21.6	11.3	16.5	+1.4	26.9	iż	5.6	18	171	iö	+50	53	25	•••
langere Auckland	4	20.9	13.9	17.4	+1.4	25.0	15	9.5	29	111	19	+13	35	15	148
tara Auckland	12	21.1	12.8	17.0	+1.6	25.0	23 15	6.5	21	113	14	+24	54 34	2 2	187
uckland Airport rdmore	8 30	20.8 21.1	13.6 12.8	17.2 17.0	+1.2 +1.9	25.1 24.2	15	9.3 8.0	21 29	122 132	15 17	+39 +32	34 40	$\frac{2}{2}$	18/
ukekohe	82				••		••				••		•••		
faioro Forest	52	20.2	13.1	16.7	+1.4	25.0	24	9.1	1	130	11	+31	49	2	
lunua Iaramarua Forest	122 38	20.7 21.3	11.5 11.2	16.1 16.3	+1.6	23.9 24.6	14 14	5.0 4.7	21 21	110 106	12 14	+13	37 26	15	••
e Kauwhata	32	21.3	12.0	16.7	+1.0 $+1.3$	25.1	24	7.0	21	103	14	+13+18	40	2 15	156
			•				- •								

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THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for November 1984-continued

		Sun	imary 0		mperature			, unu i	Junsnin						
	Height				mperature	r		aximum a	 nd			all in Mill	Maxi	 mum	Bright
Station	Station Above	Mea	ins of	Mean of A and	Differ- ence From			imum	г	Total Fall	No. of Rain	Differ- ence From	Fa	t)] .	Sun- shine
r.	M.S.L.	A Max.	B Min.	B	Normal	Maxi- mum	Date	Mini- mum	Date		Days	Normal	Amount	Date	
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Huntly Taupiri	34 23		••	•••	••	••					••		•••		
Ruakura Hamilton Whatawhata	40 104	21.4	11.6	16.5	+1.8	25.0	24	5.5	21	103	12	+5	33	15	152
Hamilton Airport Cambridge	50 76	 21.5	11.7	16.6	+2.1	24.7	 24	5.3	21	101	i2	+10	39	i5	
Mohakatino Stn Mokau Arapuni Power Stn	46 123	19.0 22.2	13.8 11.1	16.4 16.7	+1.8 +1.7	20.6 26.5	29 30	10.5 6.2	17 21	142 85	13 13	-4 -41	36 18	3 15	
Waikeria Te Kuiti	46 61	21.4 21.3	11.7 12.2	16.6 16.8	+2.2 +2.1	24.9 24.4	24 28	4.9 6.1	21 21	100 118	12 16	-4	24 45	23	122
Wairere Pureora Forest	122 549	20.0 17.9	11.8	15.9	+2.0	23.4 22.1	28 29	6.2 2.8	21 27	99 110	16 14	-34 -41	28 33	33	•••
Mangakahu Valley	397 171	19.2 22.0	9.3 10.4 11.4	14.8 16.7	+1.9	23.0 26.9	29 28 28	5.5 5.7	17 17	94 82	18 16	-52	27 19	24 3	134
Taumarunui Tokirima	152	21.4	11.0	16.2		25.7 21.5	28 27 27	4.8 10.3	17 17 17	87 120	15 14	-5	22 41	2 2 2	
Omata New Plymouth	61 55 27	18.8	12.9	15.9	+1.4			9.5	29	120	14 14	+40	58	2	 170
New Plymouth Airport North Egmont	27 955	18.6 14.4	12.7 7.4	15.7 10.9	+1.6	20.5 20.4	24 12	9.5 2.8	29 17	501	15	+40	129	24	••
Te Wera Forest Lower Retaruke	180 223			•••							•••				
Turangi Chateau, Mt Ruapehu	366 1097	20.0 14.6	10.8 6.0	15.4 10.3	+1.9	24.5 19.4	13 13	3.4 1.4	27 27	118 137	11 •,•	-20 	42 35	3 25	176
Hukanui Mt Bruce Res	235 305	19.9	8.7	14.3	+1.8	25.1	28	1.6	27	111	ii	-81	39 22	25	
Waingawa Masterton Kopua	114 311	21.3 19.9	8.9 10.6	15.1 15.3	$^{+1.3}_{+2.0}$	26.9 24.6	28 22	3.0 3.8	19 27	75 43	12 8	$^{+2}_{-30}$	33 17	23 3	196
Waipukurau Dannevirke	137 207	20.1	10.9	15.5	+1.7	24.1	28	4.1	27	50		-29	12	16	196
Porangahau Castlepoint	83	22.1 20.4	11.7 13.1	16.9 16.8	+1.9	28.6 26.0	24 29	4.3 6.3	27 12	22 17	6 7	-37	9	3	· · · ·
Ngaumu Forest Tauherenikau, Alloa	244 43	21.4	8.5 9.6	15.5	+1.4	27.6	28 28	0.5 2.4	26 27	23 42	7 9	-34 -48	13 12	4 24	••
Waiorongomai Cape Palliser	21 10	19.7	12.0	15.9	+1.2	27.1	29	7.3	27	27		-39	12	16	· · · ·
East Cape Ruatoria	17 61	20.2	13.6	16.9	+1.2	25.9	22	8.9	17	120	7 8	+43	40	26	• • • •
Mangatu Forest Manutuke Gisborne	182 9	22.5 22.6	11.2	16.9 16.7	+1.8 +1.3	27.5 28.5	22 22	7.4 4.6	21 18	101 61	6	+27 +5	39 31	25 25	
Gisborne Airport Onepoto, Waikaremoana	4 643	23.3 20.0	11.2 9.8	17.3 14.9	+1.6 +2.2	29.4 25.6	22 12	4.8 4.5	19 28	62 118	7 10	+7 -16	-30 51	25 25	252
Wharerata Forest Esk Forest	439 427	18.4	10.8	14.6	 	26.1	22	5.5	17	60	6	• •	31	25	
Ngamatea Kaweka Forest	885 414	16.6 20.7	6.2 11.4	11.4 16.1	+2.1	22.0 27.3	22 22	-0.3 5.9	28 28	-48 79	8 9	-8	24 41	25 25	••
Napier Airport Napier	· · · 2 · ·	22.8	12.8	17.8	+1.6	28.0	24	7.9	ii	75	7	+31	36	25	219
Hastings Whakatu	16 6	22.9 21.5	11.4 11.1	17.2 16.3		28.7 28.0	24 24	6.0 5.9	21 21	37 43	6 7		16 20	25 25	• • • •
Gwavas Forest Makaretu	335 335	20.9 21.1	8.4 9.4	14.7 15.3	+1.8 +1.8	26.0 26.3	12 22	2.9 2.0	21 28	51 44	7 7	-20 -27	18 18	3	•••
Mohaka Forest Frasertown, Wairoa	286 8	22.0 23.2	11.1 11.8	16.6 17.5	+2.2 +1.5	26.9 27.8	12 22	5.5 6.2	28 28	38 48	6 6	-44 -38	27 36	25 25	••
Wairoa Kapiti Is	20 16	22.9	11.6	17.3	+1.4	28.0	22	5.4	28	43	5	-38	33	25	230
Paraparaumu Airport Flockhouse Bulls	7 9	18.1 19.6	11.6 11.2	14.9 15.4	+0.9 +1.4	22.0 24.6	2 24	4.2 5.5	19 29	83 82	16 11	-8 +9	39 27	24 24	184
Ohakea Wharite Peak	48 914	19.9 	11.6	15.8	+1.3	24.4	24	4.9	27	83	11	+13	24	24	205
Kairanga Palmerston N Palmerston N Airport	15 45	19.8 	10.9 	15.4	+1.5	24.3	24	5.3	27	86 	10 	+14	23	24	197
Palmerston N D S I R Tiritea	34 100	20.1 19.3	11.6 10.9	15.9 15.1	+1.5	24.5 23.9	24 24	7.7 6.2	17 19	80 96	12 12	-2 	22 33	4 4	158
Waitarere Forest Levin	3 46	19.1 18.7	10.9 11.2	15.0 15.0	+0.7 +1.0	23.0 22.6	4 4	3.4 1.7	8 27	88 122	10 17	+20 +31	64 77	24 24	153
Titahi Bay Avalon, Lower Hutt	31 15	18.5 19.1	12.0 12.1	15.3 15.6	+1.5	22.0 21.8	27 15	4.2 4.9	27 19	74 96	13 13	-ii	27 31	24 24	
Highland Pk Wgtn Kelburn, Wellington	120 125	17.9 17.6	11.5 11.7	14.7 14.7	+1.2	21.8 20.6	27 27	6.0 5.6	17 19	64 61	10 12	-32	20 20	24 16	208
Somes Is Gracefield Lower Hutt	43 34	17.6 18.3	12.1 12.3	14.9 15.3	+1.3+1.3	20.7 22.2	28 28	7.0 5.2	17 19	49 72	8 8	$-38 \\ -25$	16 25	24 24	
Wainuiomata Wellington Airport	82	18.4 19.0	10.7 13.1	14.6 16.1	+1.2 +1.7	21.6 21.8	27 28	3.4 7.5	27 17	71 41	10 12	-46 -36	22 15	24 24	
Rimutaka Forest Kaitoke	37 223	19.1	10.5	14.8		23.0	28	1.9	27	54	11 	••	16	24	•••

THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for November 1984-continued

CLIMATOLOGICA					mperature							all in Milli	,		
Station	Height of Station	Mea	ins of	Mean	Differ-	At		aximum a mum	nd		No.	Differ-	Maxir Fa		Bright Sun-
	Above M.S.L.	A Max.	B Min.	of A ence and From B Normal	Maxi- mum	Date	Mini- mum	Date	Total Fall	of Rain Days	ence From Normal	Amount	Date	shine	
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs
Wallaceville	56 [.] 8			••		••	••	••	••	••	••	••	••	••	••
Cape Egmont Stratford Mtn House	846	15.4	6.8	n.i	+1.6	19.3	12	1.7	21	452	i3	-58	130	24	••
Stratford Dem Farm Kapuni	311 173	18.1	9.6	13.9	+1.4	21.2	14	3.0	21	175	12	+4	47	24	170
Manaia Dem Farm Normanby	98 122	19.0 19.3	10.7 10.4	14.9 14.9	+1.4 +1.7	22.3 22.6	14 14	5.4 5.9	27 27	103 100	-9 14	+18	26 39	24 24	205
Patea	43		••						••	••	•••	••		•••	••
Pipiriki Ohakune Junction	80 629	17.8	11.9 9.4	13.6	+2.1	22.2	28	7.0 2.0	21 27	94 104	14 13	-27	30 35	24 16	•••
Karioi Waiouru	648 823	18.3 17.4	8.6 7.8	13.5 12.6	+1.8 +2.5	22.2 21.2	28 14	3.5 1.5	17 27	60 41	11 12	-43 -39	26 10	16 3	••
Waiouru Military Camp	823	17.1	7.8	12.5	+2.5	21.2	28	0.2	ĩ7	37	12	-52	12	ž	••
Ahu Ahu Valley Taihape	85 433	 	•••	••	••	••		••		•••	••	••	••	•••	• • •
Kahui, Taihape	518	20.2			••			7.2						24	
Wanganui Wanganui Airport	22 9		12.6	16.4	+1.5	24.8	15		27		10 	+6	26	••	212
Totaranui Westport Airport	10	20.1	10.5	15.3	••	26.3	12	5.4	19	39	8	-109	12	3	
Cobb Dam	823	16.3	7.0	11.7	+2.1	22.3	28	1.8	19	113	13	-70	30	22 21	
Arapito Lake Rotoroa	20 443	18.7	10.5	14.6	••	22.3	29 	6.1	28 	236 142	13 10	••	85 44	22	159
Lake Rotoiti Hokitika Airport	634 39	18.1 16.6	6.4 9.6	12.3 13.1	+1.4 +0.6	25.0 20.6	28 2	1.0 3.6	17 17	171 2 48	15 19	+12 -23	50 71	22 22	154
Punakaiki	4	17.6	11.4	14.5		20.1	2	7.5	17	273	18		68	23	
Reefton Barrytown	198 30	19.2 17.1	9.0 10.8	14.1 14.0	+1.1	25.5 20.0	28 2	5.0 6.0	17 17	234 321	16 16	+43 +49	62 70	22 23	• •
Totara Flat Greymouth	77 4	19.8	9.1	14.5	+1.5	24.3	28	3.1	28	208	17	+17	54	22	
Otira Substation	383	17.7	7.9	12.8	+1.8	23.9	8	2.0	17	951	` <u>20</u>	+414	201	22	•••
Springs Junction Pukekura	421 86	18.6 17.0	7.5 7.7	13.1 12.4	+1.9	24.5 23.5	8 3	2.2 0.9	28 19	328 298	17 19	+100	85 60	22 21	••
Hari Hari Okarito	45 10	17.8 16.5	8.6 9.3	13.2 12.9	+1.0	24.6 21.4	2 3	0.9 2.8	19 19	359 201	18 17	-29	88 42	14 21	••
Franz Josef	155	16.2	8.4	12.3	•••	22.6	3	3.2	19	444	22		108	. 14	86
Fox Glacier Milford Sound	152	16.4 16.4	8.3 7.9	12.4 12.2	+1.0 +0.6	22.3 22.0	3	2.1 2.6	19 19	389 563	19 18	-62 -17	91 142	14 14	••
Puysegur Point Stephens Is	43 187	14.1 16.3	9.1 11.4	11.6 13.9	+1.3	19.8 17.6	3 28	5.3 8.9	19 19	136 106	23 12	52 + 4 0	23 39	13 24	••
Riwaka Motueka	8	21.2	9.9	15.6	+1.4	27.2	12	4.8	19	33	10	64	10	3	254
Tapawera Crail Bay Pelorus Sd	146 13	21.2 19.1	8.7 11.6	15.0 15.4	••	27.3 23.4	12 13	4.2 6.9	20 19	69 85	9	•••	23	22	•••
Appleby Nelson Airport	17 2	20.3 20.0	11.0 10.9	15.7 15.5	+1.6 +1.5	26.0 26.1	12 12	6.1 6.0	27 20	31 39	10 11	-43 -43	10 14	22 15	244
Rai Valley	79 110	20.5	9.3 11.8	14.9 15.9	+1.4 +1.7	26.6 27.5	12 12	2.4 7.5	20 18	64 52	9 11	-120 -33	22 13	15 16	••
Moutere Hills Wairau Valley	162	20.0 21.4	9.2	15.3		28.6	28	2.8	19	47	10	••	17	15	••
Blenheim Airport Brancott Valley	27 64	21.6 21.9	10.3 9.4	16.0 15.7	+1.7	28.7 28.6	29 29	4.0 3.4	27 19	34 31	9 8	-25	-12 10	33	••
Blenheim Wither Hills Blenheim	4 32	22.0 22.0	10.6 10.8	16.3 16.4	+1.5 +1.9	28.6 29.0	11 28	4.7 4.5	26 27	36 37	9	-15 -13	17 17	32	243
Waihopai Power Stn	262	21.0	9.5	15.3	+1.9 $+1.7$	28.3	28	4.0	17	50	11	-26	15	15	•••
Duntroon Lake Grassmere	350 2	19.8	11.7	15.8	+1.3	26.8	<u>30</u>	2.2	22	67 31	12 4	-1 -6	15 15	15 16	196
Cape Campbell Boyle River Lodge	3 600		••	••	••	••	••	••	••	••	••	••	••	••	••
Hanmer Forest	387	20.7	7.0	13.9	+1.6	27.5	28	-0.6	19	81	ii	-7	27	16	183
Molesworth Kaikoura Flats	893 24	18.4 19.3	4.8 8.6	11.6 14.0	+1.4	24.6 29.5	28 22	-2.2 1.7	19 19	64 48	9	+6	28 40	22 16	••
Kaikoura Arthurs Pass	108 738	18.0 15.4	10.6 6.3	14.3 10.9	+1.1	27.7 21.5	23	3.7 0.2	17 17	42 827	5 17	-15 +390	36 230	16 22	168
Culverden	174	21.0	8.2	14.6	•••	28.0	12	0.8	19	69	7		51	16	•••
Balmoral Forest Waiau	198 137	21.2 22.4	8.5 8.6	14.9 15.5	+1.8	28.3 29.5	12 28	0.7 1.8	19 26	69 48	10 7	+23	40 37	16 16	••
Cheviot	85 765	20.3	8.1	14.2		29.6	28	1.5	26	52	4	••	42	16	213
The Hermitage Mt Cook Mt John	1027	16.8	5.7	11.3	+1.9	22.3	ii	-0.8	19	76	. 9	+25	38	22	••
 Craigieburn Forest Lake Coleridge 	914 364	19.9	7.8	13.9	+1.5	29.3	ii	1.0	19	126	iö	+51	46	<u>żż</u>	••
Highbank Power Stn	336 192	18.9 21.4	8.1 8.3	13.5 14.9	+1.1 +1.9	27.2 29.2		2.7 1.9	19 19	110 104	9	+21 +38	33 41	16 16	208 186
Hororata Substation Winchmore	160	20.3	8.6	14.5	+1.7	29.2	12	1.7	19	69	8	+4	30	16	100
Peel Forest Ashburton	274 101	20.1 21.7	7.4 9.5	13.8 15.6	+2.0 +1.7	28.9 31.4	11 28	-0.5 2.1	19 17	70 47	15 6	-21 -19	21 19	16 16	155
				'			-								

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THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for November 1984-continued

				Air Te	mperature	in Degree	s Celsius			Rainfall in Millimetres			:s		
Station	Height of Station	Mea	ans of	Mean	Differ-	A	bsolute M Mini	aximum a imum	nd	Total	No. of	Differ-	Maximum Fall		Bright Sun- shine
*	Above M.S.L.	A Max.	B Min.	of A and B	ence From Normal	• Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	
······	Metres	°C	°C	°C	°C	°C	<u> </u>	°C	<u> </u>	 	<u> </u>	mm	 		Hrs
Waipara	64		• •		•••		••	••	••	••	••	••	••	••	••
shley Forest Langiora	107 46	20.1	9.4	14.8	+1.4	28.2	22	3.5	 9	121	ii	+67	85	16	
Darfield	195	22.0	8.6	15.3	+1.8	30.7	12	2.0	19	96 90	9 7	+29 +28	37 36	16 16	
yrewell Forest hristchurch Airport	158 30	20.7 20.5	8.6 10.5	14.7 15.5	+1.4 +1.7	28.6 29.3	12 15	2.0 3.5	19 19	90 70	8	+28	41	16	207
empleton	46	20.1	9.5	14.8	+1.7	28.0	15	3.5	19	53	6	+20	24 41	16	
hristchurch fromley Christchurch	79	20.7 19.4	10.7 11.4	15.7 15.4	+1.6 +1.3	28.7 28.1	22 22	4.0 4.9	19 19	66 45	6 7	+20	23	16 16	
At Pleasant	137	19.1	11.0	15.1	+1.4	27.0	22	4.5	19	58	5	+11	27	16	100
lincoln Juail Island	11 75	19.7 18.6	9.3 10.9	14.5 14.8	+1.2	26.8 27.5	15 15	2.6 3.8	19 19	71 57	7	+17	31 32	16 16	188
karoa	3		•					• •	17		.9	••'			
ake Tekapo ake Pukaki	683 556	19.6 19.4	6.8 7.4	13.2 13.4	+1.7 +1.4	28.0 25.2	9 11	0.0 0.4	17	70 68	8	+18 4	36 33	22 22	
airlie	304	20.8	7.4	14.1		30.3	28	-1.1	19	54	7		19	16	
wizel	457 70	20.3 19.4	6.2 8.2	13.3 13.8	+1.5 +1.4	25.5 27.5	11	-2.0 0.1	19 17	63 55	9 8	-15 -1	33 17	22	• •
kawai Geraldine	119	21.1	9.1	15.1	+1.9	29.7	28	1.0	19	57	10	-18	24	15	
Drari Estate	81	21.5 20.5	8.8 8.8	15.2 14.7	+2.4 +1.9	30.0 29.4	12 15	1.0 0.7	19 19	45 60	10 8	$-29 \\ -2$	15 22	23 15	• •
femuka fimaru Airport	24 26				τ ι.9 										•••
Adair	85	19.1	9.5	14.3	+1.6	28.0	15	2.5	19	55 47	11 8	-3 -11	17 16	23 23	198
limaru Vaimate	17 61	19.4 19.5	10.1 9.4	14.8 14.5	+1.2 +1.2	29.1 28.6	15 30	2.2 2.4	19 17	62	9.	-11	16	16	190
Aviemore	241	20.0	8.5	14.3		26.6	. 11	1.8	17	52	10	+5	18	22	• •
Kurow Damaru Airport	207 30	••	••	••		••	•••	••	••	••	••	••	•••	••	• •
Cnobs Flat	360		5.3	•••	•••		••	0.0	26	138	18	-73	30	22	
fara Hills Omarama Lake Hawea	488 350	••	••	••	••	••	••	••	••	••	••	 	••	••	• •
Wanaka	296	•••	••	•••	•••	•••	•••	••	••	•••				•••	
Queensberry	277 200	20.5 20.3	8.2 7.6	14.4 14.0		26.1 25.8	11 10	0.5 0.9	17 17	63 46	11	••	21 14	22 22	•
Bendigo Naseby	607	20.5	7.0	14.0	••	25.8						• • • •			•••
Windsor Damaru	88 5	••	••	••	••	••	••	••	••	••	••	••	••	••	• •
Ranfurly	427	19.4	6.4	12.9	+1.5	25.8	ii	-0.6	iż	69	ii	+28	16	16	180
Herbert Forest	61 21	18.9	8.1	13.5	+1.7	26.9	 30	0.7	iż	36	i2	-16	 11	13	164
Palmerston Cherry Farm Hospital	6	18.4	7.8	13.1	+1.7	27.7	30	0.7	17	57	14	+0	15	16	
Faiaroa Head	72	102	°	122		260		2.5	ió	65	20	 -5	14	22	176
nvermay, Taieri Berwick Forest	30 18	18.3 18.6	8.2 7.4	13.3 13.0	+1.2 +1.0	26.0 24.8	11 15	2.5 2.2	19 26	46	13	-25	14	16	1/0
Dunedin Airport	1	18.7	8.1	13.4	+1.4	24.7	15	1.1	19	42	14	-31	7	22	161
Musselburgh Dunedin Fe Anau	2 215	17.6 18.3	10.0 6.8	13.8 12.6	+1.3 +1.5	26.0 24.9	15 3	3.4 0.6	19 26	52 62	17 15	-21 -36	13 17	24 22	150 221
West Arm, Manapouri	232	16.1	7.5	11.8	+1.2	23.8	3	2.9	19	327	19	-34	62	22	
Borland Burn Dueenstown	183 329	19.2 20.2	5.5 8.5	12.4 14.4	+1.5 +1.8	24.4 25.3	10 3	-1.2 2.7	26 17	72 79	14 11	-22 +8	19 27	22 22	206
Queenstown Airport	349		• •	• • • •				<u> </u>		••					
Gibbston Dtama	366 183	••	•••	•••	••	••	••	••	••	••	••	•••	••	•••	:
Cromwell Sub Stn	213	21.8	8.5	15.2		26.8	28	1.4	17	38	5	+16	12	22	
Cromwell Northburn	213 210	22.1 21.3	7.8 8.3	15.0 14.8	+1.3	27.0 26.2	28 10	1.1 1.8	17 17	45 32	10 11	+12	12 8	21 15	•
auder	370	19.8	6.9	13.4		24.8	28	-0.4	26	82	12		31	5	
Clyde Dam Ophir	160 305	21.9	8.5	15.2	••	27.3	28	2.5	17	46	12	••	12	21	•
Clyde(Dsir)	171	22.1	7.7	14.9		28.0	28	0.6	17	43	12		11	21	
Alexandra Roxburgh Power Stn	141 110	 	••	•••	••	 		••	•••	••	•••	 	•••	 	•
Ettrick	83	•••	•••	••			•••		•••	•••	•••				
Deep Stream Beaumont	396 46	19.6	8.2	13.9		25.0	21	1.5	26	96	15	+15	35	18	•
Mahinerangi Dam	396												••		•
Tapanui Taieri Mouth	226 15	17.5 17.3	7.4 8.3	12.5 12.8	+0.8 +1.5	23.0 23.8	3 15	0.4 2.4	19 19	75 31	13 16	+1 -39	20 8	13 18	•
Tuatapere	27	17.9	8.3 7.6	12.8		24.8	3	1.8	26	75	13		16	13	:
Otautau	55	17.9	7.2	12.6	+1.2	23.8	11	1.1	26	90	11	+6	25 19	18	169 181
Winton Gore	44 123	17.8	7.6	12.7	+1.0	23.6	14	1.8	26	63 	14	-3	19	13	181
Hokonui Forest	46	17.7	7.5	12.6	+0.6	23.0	14	1.0	26	;; ;;	13	-12	16	13	•
Woodlands Invercargill Airport	47 0	17.5 16.9	7.4 8.1	12.5 12.5	+1.0 +1.2	23.2 23.3	3 14	1.5 3.4	26 26	82 64	19 17	-19 -25	18 16	17 17	169

THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE-Summary of the Records of Temperature, Rainfall, and Sunshine for November 1984-continued

				Air Temperature in Degrees Celsius								Rainfall in Millimetres						
	Height			<u> </u>		<u> </u>				<u> -</u>	Kaint	all in Milli	Г — — — — — — — — — — — — — — — — — — —		1			
Station	Station Above M.S.L.	Mea	Means of		Differ- ence	A0.		laximum ai imum	na	Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine			
	M.S.L.	A Max.	B Min.	and B	From Normal	Maxi~ mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date				
	Metres	°C	°C	°C	°C	°C		°C		mm		mm	mm		Hrs			
Tiwai Point, Bluff Stewart Is	5. 3	15.9 15.2	9.4 7.7	12.7 11.5	+0.9 +1.0	22.8 18.8	29 27	5.1 3.2	18	61	17	-32	16	12	••			
Milton	18	18.7	7.8	13.3	+1.0 $+1.3$	24.0	15	3.2 1.2	17 26	102 40	24 14	$-10 \\ -25$	15 7	12 16	•••			
Clinton School Finegand Balclutha	120 6	18.2	8.4	13.3	+1.3	24.5	żż	3.1	19	32	 9	-32	 6	16	167			
Owaka Nugget Point	5 129	17.6 15.5	7.1 8.1	12.4 11.8	+0.7 +0.9	22.8	15	1.2	26	56	14	-18	12	18				
Tautuku	40	••				22.0	15	1.2	19 	57	17	-22	11	18	•••			
Nadi Airport Fiji Rarotonga Airport	19 7	31.4	21.9	26.7	+0.4	34.1	20	19.8	26	80	10	-63	35	29	174			
Totokoitu, Rarotonga Raoul Is	9				••				••	••	••	•••	•••	 	•••			
Campbell Is	38 15	21.6 9.7	16.7 5.1	19.2 7.4	+0.3 +0.2	23.3 11.7	17 21	14.3 -0.5	11 19	··· 2 111	6 28	75 +34	1 17	17 21	192 81			
Waitangi, Chatham Is Scott Base Antarctica	44 - 16	15.1 -6.4	9.4 -15.3	12.3 -10.9	+0.8 +1.0	19.2 -0.8	24 28	4.7 -20.	19 24	37	13	-20	14	16	199			
	10	0.4	15.5			NS AND		-20. ECTION		••	••	••	••	••	••			
Aupouri Forest 10/1984	69	17.9	10.9	14.4	-0.3	21.5	18	6.9	4	14	5	-94	6	7				
Waiotemarama 05/1983 Waiotemarama 07/1984	229 229	15.6 14.3	10.3 8.7	13.0 11.5	0.7 +0.6	18.7 17.0	5 2	5.7 2.5	24 16	132 199	25 24	••	32 25	5 15	••			
Waiotemarama 08/1984 Leigh 10/1984	229 27	14.7 17.6	9.1 11.1	11.9 14.4	+0.6 +0.0	16.8 20.9	20 15	5.0	7	113	16	• •	24	21	•••			
Whangapoua Forest	-	17.0	11.1	14.4	τ0.0	20.9	15	6.6	2	7	8	-87	2	11	224			
09/1984 Whangapoua Forest	4	••	••	••	••	••	••	••	••	186	••	+23	••	••	••			
10/1984 Huntly 09/1984	4 34	19.5 16.4	6.9 8.1	13.2 12.3	0.7	23.0	30	1.3	3	24		-113	8	18	•••			
Huntly 10/1984	34	18.3	8.4	13.4	••	19.2 22.7	2 31	4.1 3.0	1 2	66 40	14	 	14	30	••			
Taupiri 04/1984 North Egmont 10/1984	23 955	21.2	7.3	14.3	••	28.4	1	1.1	20	32 440	15 20	••	14 149	28	••			
Te Wera Forest 09/1984	180	14.7	4.0	9.4	-0.2	19.0	21	-1.3	8	100	13	-52	42	17 26	••			
Te Wera Forest 10/1984 Hukanui 10/1984	180 235	15.9 14.2	6.1 6.5	11.0 10.4	-0.6	20.4 19.6	31 28	-1.8 -1.1	5 5	94 115	17 21	-60 -73	27 20	17 10	••			
Waingawa Masterton 10/1984	114	17.3	6.0	11.7	-0.2	22.5	31	1.0	6	43	14	-33	8	18	218			
Hastings 10/1984	16	19.4	7.3	13.4		25.4	29	1.7	6	8	4	-33	4	8				
Kapiti Is 01/1983 Kapiti Is 02/1983	16 16	20.2	13.4	16.8	-0.7	24.1	18	9.6	6	 9	 	-57	3	 21	•••			
Kapiti Is 03/1983 Kapiti Is 04/1983	16 16	18.2	13.5	15.9	-0.7	22.9	13	9.0	18	114 88	••	+28 -8	32 32	• •	••			
Kapiti Is 05/1983	16	13.7	9.1	11.4	-0.5	16.8	 5	5.2	25	85	· · · ·	-33	52 19	1 17	••			
Kapiti Is 06/1983 Kapiti Is 07/1983	16 16	•••	•••	••	 		••	•••	••	••	••	••	••	••	••			
Kapiti Is 08/1983 Kapiti Is 09/1983	16 16	11.9 13.9	7.8 7.8	9.9 10.9	+0.1 -0.2	13.6 15.5	1 12	3.8 4.8	27	84 179	••	-14	31	20				
Kapiti Is 10/1983	16		••				12 	••	16	••	•••	+89	72 • •	10 	••			
Kapiti Is 05/1984 Patea 08/1984	16 43	13.7 14.8	9.0 7.0	11.4 10.9	-0.5 +1.0	16.5 17.5	- 14	5.0 0.0	. 1	.87 61	13	-31 -33	.33 13	9				
Puysegur Point 10/1984 Wither Hills Blenheim	43	12.6	7.7	10.2	••	15.5	15	4.7	21	154	25	-25	15	7	•••			
10/1984	32	19.0	6.7	12.9	+0.3	24.7	14	-0.5	2	15	5	-40	- 10	17				
Waihopai Power Stn 10/1984	262	••			••		<i>.</i> .			40	7	-43	25	17				
Ashley Forest 10/1984 Herbert Forest 10/1984	107 61	16.6 17.1	6.3 4.3	11.5 10.7	+0.1 +0.5	25.5 24.6	14 17	2.0 0.8	4 21	40 19	9	-23	20	30	215			
Taiaroa Head 06/1984	72	11.7	5.7	8.7	+1.3	16.4	9	1.6	24	30	9 7	-34 -27	10 19	8 30	••			
Deep Stream 04/1984 Otautau 10/1984	396 55	16.0 15.1	3.1 4.6	9.6 9.9	-0.2	22.0 20.6	7 14	-4.0 -1.0	24 - 4	69 111	14 15	+22	50 22	30 15	165			
Gore 10/1984 Clinton School 10/1984	123 120	14.7	5.0 4.2	9.9	-0.2	20.6	17	1.0	21	76	18	-2	13	15	145			
Campbell Is 07/1984	15	<u>7.1</u>	2.8	5.0	+0.3	9.1	i9	0.2 4.0	21 8	90 81	19 26	-26	15 17	21 30	i4			
Campbell Is 08/1984 Campbell Is 09/1984	15 15	7.2 8.7	3.7 4.5	5.5 6.6	+0.3 +1.0	11.8 10.6	11 3	-3.0 -1.3	7 29	99 81	30 24	6 -25	33 27	3 11	8 35			
Campbell Is 10/1984	15	9.3	4.1	6.7		12.0	16	-1.4	21	128	26	+19	21	17	65			

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 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 NOVEMBER 1984

General-November was a mild month, and a little wetter than usual in many places.

There were more north-westerly winds than normal in both the north and south of the country this month, with a corresponding decrease in the frequency of south-westerlies in the north and winds from an easterly quarter in the south. There were slightly more strong winds than usual this month. Gales in the Wellington region caused disruptions to air transport and power supplies on the 23rd. Two houses lost roofs and there were many reports of minor damage.

Farmers in the North Island reported that stock were generally in excellent condition, although very dry conditions are beginning to develop in southern Hawkes Bay and parts of Wairarapa. Fly strike was a problem in many areas. Conditions were also very good in the South Island, although parts of South Canterbury and North Otago were very dry and there were some feed problems locally.

Many observers reported that native shrubs and trees were flowering early and prolifically, with cabbage trees and flax frequently specified.

A severe hailstorm in north-west Auckland on the 4th caused serious damage to orchards, vineyards and glasshouses. Individual farms sustained up to \$50,000 damage to glasshouses and equipment, with total damage estimated at several million dollars. Damaging hailstorms occurred on the same day in Manawatu, causing damage to horticultural crops.

Rainfall—Eastern parts of Northland and north Auckland, Bay of Plenty, some central areas and the Wellington region were drier than usual while most of the rest of the North Island had between normal and 160 percent of normal rainfall. Nelson, Blenheim, Marlborough, Southland and isolated areas of South Westland had between normal and half normal rainfall. The rest of the South Island had up to 180 percent of the usual November rainfall.

Prolonged moderate to heavy rainfall in inland areas and the ranges of northern and central Westland during the 21st to 23rd caused extensive flooding in some low lying coastal areas when rivers and streams overtopped their banks. Much of the commercial area and low-lying residential areas of Greymouth were flooded when the Grey River broke its banks. Among the heavier 72-hour falls recorded between the 21st and 23rd were: Inchbonnie, 415 mm; Lake Kaniere, 296 mm; Kowhitirangi, 237 mm.

Temperature—November was a very mild month, with mean temperatures between 1°C and 2.5°C above average over the whole country, except Westland and Fiordland which were up to 1°C above average. For many parts of the country this was the warmest November since 1972. Maximum temperatures were generally very high, reaching 20°C or more on half the days this month at many stations. For example, in Gisborne there were 26 days with temperatures of 20°C or above of which 10 reached 25°C or more.

Corresponding figures (i.e. days when the maximum reached 20° C or above and the number of those above 25° C) for some other stations were: Blenheim 23, 5; Masterton 23, 2; Hororata 21, 6; Alexandra 20, 10; Napier 20, 6.

There were only two short periods of cool weather this month. Temperatures were $2^{\circ}-6^{\circ}$ below average between the 16th and 19th. The 18th was generally very cold, especially in sheltered and inland areas of the South Island where widespread frosts occurred.

Temperatures were also very cool on the 26th and 27th.

Sunshine—Sunshine hours were average or below average over the North Island apart from some eastern areas which were a little sunnier than usual. In the South Island, Nelson and some southern and eastern areas had average or slightly above average sunshine, otherwise the South Island was also cloudier than usual this month. Among those stations with the greatest departures this month were: Timaru (+24 hours), Gisborne (+22 hours), Nelson (+21 hours), Kaikoura (-41 hours), New Plymouth (-31 hours) and Auckland (-30 hours).

THE WEATHER SEQUENCE, NOVEMBER 1984

1-7 November

Although an extensive high pressure system over the country brought generally fine weather on the 1st a cold front to the west caused showers in the north of the North Island. By the 2nd a small depression had developed on this front and heavy showers fell in the north and west of the North Island on the 2nd and these spread southwards over the North Island and north of the South Island on the 3rd.

By the 4th the rain was confined to central areas of the North Island as the depression crossed the country. The rain had cleared by the 5th although a front to the south brought showers to southern and western areas of the South Island. A belt of high pressure had become established over the country by the 6th and apart from light showers in parts of Northland the weather was generally fine and mild on the 6th and 7th.

8-14 November

The high pressure belt continued to cover the country. The weather was fine and settled in most areas between the 8th and 11th, although a warm front passing to the north brought rain to parts of Northland on the 8th and 9th. Temperatures were very mild at times. Showers fell in parts of Southland and Westland on the 12th as a front passed to the south, but the northerly flow which still covered the country meant temperatures remained very warm. There was further rain in southern and western areas of the South Island and isolated areas of the North Island as a cold front developed between the high pressure belt over New Zealand and an anticylone over Australia.

Temperatures continued to be warm. 15-21 November

The cold front moved onto the country during the 15th and rain became widespread apart from eastern areas of both Islands. Temperatures remained mild. Rain continued in most areas on the 16th, but by the 17th had cleared apart from the south and west of the South Island, and some very light falls in western areas of the North Island. A strong south-westerly flow developed over the

Temperatures were cool and there were showers in many areas on the 18th and 19th as a front within the flow crossed the country. By the 20th an anticyclone extended over the north of the country, with a south-westerly flow remaining to the south. Apart from continuing showers in south Westland and Fiordland the weather was fine. During the 21st a cold front moved onto the south of the South Island, bringing rain to southern and western areas.

22-30 November

country on the 18th.

A strong north-westerly flow associated with a deep depression near MacQuarie Island covered the South Island on the 22nd. A front within this flow brought rain to much of the South Island on the 22nd, with very heavy falls in Westland and Fiordland. Temperatures were very mild, especially in eastern areas. Rain spread to the south of the North Island on the 23rd as the front began to cross the country.

There was further rain from Taranaki southwards on the 24th although falls were very light in eastern areas of the South Island. By the 26th the rain had cleared south of Manawatu and heavy rain was falling from Hawkes Bay northward as the front continued to move north-eastwards. It lay off the east coast by the 27th and an extensive anticyclone with centres east and west of the South Island brought generally fine weather, although showers persisted in northern and eastern areas of the North Island.

The weather became generally mild and settled until the 29th, when a cold front began to move onto the South of the South Island and rain fell in Fiordland and Westland on the 29th, when a cold front began to move onto the South of the South Island and rain fell in Fiordland and Westland on the 29th and 30th, with light falls in some western areas of the North Island and about Cook Strait on the 30th.

J. S. HICKMAN, Director.