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OF THURSDAY, 28 JANUARY 1988

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CLIMATOLOGICAL TABLE

FOR NOVEMBER 1987

NEW ZEALAND METEOROLOGICAL SERVICE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1987

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	Hrs			
Aupouri Forest	69	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaitaia	8	20.4	12.7	16.6	..	22.9	22	7.3	12	186	19	..	68	6	
Kaitaia Observatory	85	19.2	12.5	15.9	..	21.7	22	7.6	12	194	23	..	43	24	
Kerikeri M A F	79	20.6	11.7	16.2	..	23.7	3	7.1	30	229	24	..	74	21	
Kerikeri Aero 2	150	20.3	11.4	15.9	..	24.2	3	7.4	30	282	20	..	72	21	
Panguru	5	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaikohe Dsir Edr	204	..	..	..	..	..	..	..	..	..	..	..	..	..
Waiotemarama	229	17.6	12.1	14.9	+0.3	20.8	24	8.0	19	263	23	..	64	21	
Waipoua Forest	88	19.2	11.4	15.3	+0.4	23.8	13	6.0	9	197	22	+86	75	21	
Dargaville Maf	20	19.5	12.3	15.9	+0.5	23.4	13	5.5	9	96	20	+10	16	21	
Glenbervie Forest	107	..	..	..	..	..	..	..	..	..	..	..	..	..
Whangarei Aero	37	20.2	12.8	16.5	+0.2	23.5	14	9.1	12	76	18	-13	14	20	
Whangarei Hospital	29	20.0	12.0	16.0	-0.2	24.2	14	7.0	9	104	18	..	23	21	
Marsden Power Stn	3	21.2	13.1	17.2	+0.6	24.6	14	9.0	9	83	23	-8	12	25	
Leigh 2	27	19.1	..	..	..	21.2	3	..	..	93	16	+8	24	7
Warkworth	72	19.4	11.4	15.4	+0.1	22.0	23	6.0	12	155	19	+41	27	7	
Woodhill Forest	30	19.8	11.4	15.6	+0.3	22.5	23	5.2	12	103	14	+5	19	27	
Kumeu	32	..	..	..	..	..	..	..	..	..	..	..	..	..
Whenuapai Aero	26	20.0	11.7	15.9	+0.6	22.2	26	5.6	12	109	15	+12	27	7	
Auckland, Rakino Is	60	..	..	..	..	..	..	..	..	..	..	..	..	..
Henderson, River Pk	4	21.6	11.4	16.5	..	24.2	24	5.4	12	106	20	..	29	7	
Auckland Owairaka	41	19.9	12.2	16.1	+0.4	22.5	23	7.8	12	111	17	+15	35	7	
Port Fitzroy	4	19.9	..	..	..	21.8	25	..	..	133	20	+29	26	7
Little Barrier Is	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Rotorua Is	30	18.8	13.7	16.3	..	21.0	25	10.6	18	76	11	..	33	21	
Awaroa Valley	30	19.9	12.4	16.2	..	22.3	23	6.3	12	102	17	..	32	21	
Manukau Heads 2	244	18.6	11.9	15.3	..	22.3	25	8.1	18	115	18	+42	52	7	
Coromandel	43	20.2	12.1	16.2	..	23.4	14	4.7	18	241	21	..	97	21	
Whangapoua Forest	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Thames 2	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Tairua Forest	3	20.3	11.3	15.8	+0.1	23.5	28	4.5	18	166	16	+62	44	21	
Ngatea 3	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Paeroa	4	21.5	11.1	16.3	+0.5	23.9	24	4.6	18	111	17	+20	39	21	
Waihi	91	20.6	11.7	16.2	+0.9	24.6	22	5.8	17	186	17	+56	55	21	
Te Aroha	18	..	..	..	..	..	..	..	..	..	..	..	..	..
Katikati	2	20.7	11.5	16.1	..	23.3	23	5.5	18	146	13	..	50	21	
Waitoa	18	21.3	11.2	16.3	..	25.0	25	4.8	18	79	16	..	26	21	
Tauranga	2	20.2	12.9	16.6	+0.7	23.0	3	8.3	16	146	10	+60	50	8	
Tauranga Aero	4	20.1	11.9	16.0	+0.6	23.6	13	7.6	12	148	12	+63	47	8	
Te Puke	91	20.3	10.4	15.4	+0.3	23.6	3	5.4	30	168	15	+37	52	13	
Te Puke Edr	91	19.9	10.2	15.1	..	23.3	3	5.1	30	248	15	..	76	13	
Whakatane Aero	6	20.6	10.9	15.8	+0.7	24.8	4	5.7	20	96	8	+15	45	13	
Te Kaha	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Port Ohope	9	..	..	..	..	..	..	..	..	..	..	..	..	..
Kinleith 2	383	18.7	9.0	13.9	+0.2	23.0	23	3.2	22	133	12	-12	34	23	
Tikitere	338	18.2	9.9	14.1	+0.4	21.5	23	4.7	20	112	14	..	20	13	
Kawerau	30	21.7	11.4	16.6	+0.6	27.5	4	5.4	30	102	10	-5	26	13	
Te Teko	8	22.3	10.7	16.5	+0.9	26.4	4	5.0	18	87	10	-14	29	13	
Rotorua Aero 2	287	19.0	9.7	14.4	+0.4	21.7	12	5.0	20	89	16	-8	22	8	
Atiamuri Power Stn	253	20.0	8.9	14.5	+0.5	24.2	3	3.0	20	113	14	-12	25	8	
Kaingarua Forest	544	..	..	..	..	..	..	..	..	..	..	..	..	..
Murupara	198	..	..	..	..	..	..	..	..	..	..	..	..	..
Galatea	190	..	..	..	..	..	..	..	..	..	..	..	..	..
Ohaaki	350	19.7	8.7	14.2	..	23.5	12	2.4	20	77	16	..	33	8	
Taupo Nzed	376	18.6	8.6	13.6	+0.1	22.6	12	2.2	20	75	15	-16	16	8	
Wairakei Power Stn	342	19.3	8.0	13.7	-0.1	23.6	1	1.6	20	90	16	-5	16	8	
Wairakei Research Stn	402	..	..	..	..	..	..	..	..	..	..	..	..	..
Minginui Forest	366	19.5	9.5	14.5	+1.3	24.6	12	0.5	20	72	11	-57	26	13	
Taupo Aero	400	18.1	7.9	13.0	-0.4	23.6	23	0.3	20	59	13	-27	18	14	
Waimihia Forest	762	..	..	..	..	..	..	..	..	..	..	..	..	..
Opotiki	6	19.8	12.3	16.1	+1.0	24.9	23	5.8	30	173	14	+78	45	14	
Waimana	37	20.3	10.8	15.6	+0.5	24.8	23	4.3	30	191	15	+70	57	13	
Matawai Maf Edl	580	..	..	..	..	..	..	..	..	..	..	..	..	..
Auckland Mangere	4	20.1	12.9	16.5	+0.5	22.9	25	5.4	12	107	18	+9	39	7	
Auckland Aero	8	19.8	13.0	16.4	+0.4	21.9	23	8.9	12	80	18	-3	31	7	
Ardmore	30	20.3	11.0	15.7	+0.6	23.7	25	5.4	12	92	21	-8	18	21	
Pukekohe Maf	82	19.8	11.3	15.6	+0.6	23.4	25	6.0	30	75	19	..	15	7	
Pukekohe Edr	82	..	..	..	..	..	..	..	..	..	..	..	..	..
Maoro Forest	52	..	12.0	..	..	..	..	8.0	12	60	14	-39	17	7
Hunua	122	20.1	9.5	14.8	..	23.0	25	3.7	12	103	20	..	26	21	
Maramarua Forest	38	20.1	9.9	15.0	+0.3	23.5	25	4.4	17	108	14	+15	50	21	
Te Kauwhata Maf	32	..	..	..	..	..	..	..	..	..	..	..	..	..
Ruakura	40	20.4	10.8	15.6	+0.9	23.2	23	5.3	12	56	15	-42	8	27	
Whatawhata	104	19.7	10.9	15.3	+0.7	23.3	23	5.3	30	105	21	-18	21	13	
Hamilton Aero	50	20.9	9.9	15.4	+1.1	24.4	25	2.9	17	76	15	-16	13	21	

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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	mm	mm	mm	Hrs					
Cambridge	76	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mokau Mohakatino Stn	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arapuni Power Stn	123	20.3	10.6	15.5	+0.5	25.0	23	5.0	30	116	16	-10	29	8	..
Waikeria	46	20.7	10.1	15.4	+1.0	24.8	25	3.5	18	86	16	..	21	30	..
Te Kuiti Wepb	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairere	122	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pureora Forest	549	17.2	7.5	12.4	+0.7	22.7	16	1.5	19	102	18	-49	27	8	..
Mangakahu Valley	397	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taumarunui	171	21.3	8.7	15.0	+0.2	26.0	24	2.0	18	162	20	+28	47	13	146
Tokirima	152	20.6	8.0	14.3	..	25.5	23	1.5	19	156	16	..	62	13	..
Omata	61	19.3	11.8	15.6	+1.1	24.0	23	7.9	1	103	14	-22	28	13	..
New Plymouth	55	19.6	11.1	15.4	+1.0	24.6	23	5.5	6	94	15	-46	24	13	..
New Plymouth Aero	27	18.9	11.3	15.1	+1.0	23.9	22	5.4	6	76	18	-50	29	13	211
North Egmont	955	13.5	5.9	9.7	..	19.6	1	0.8	6	489	18	..	195	13	..
Lower Retaruke	223	20.2	8.3	14.3	+0.4	24.8	23	0.9	19	174	16	+33	48	14	..
Turangi	366	19.2	7.6	13.4	-0.1	23.9	3	0.0	16	164	16	+26	52	13	195
Mt Ruapehu Chateau 2	1097	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ruapehu The Chalet	1941	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tukino	1650	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mt Bruce Res	305	17.5	8.8	13.2	+0.7	23.6	13	0.9	16	198	19	+6	32	4	..
Waingawa	114	19.5	9.0	14.3	+0.5	25.5	3	2.0	16	91	21	+18	14	17	168
Kopua	311	17.5	9.2	13.4	+0.1	22.9	13	2.9	16	133	21	+60	26	14	..
Waipukurau Aero	137	18.9	10.3	14.6	+0.6	24.0	3	3.2	1	109	16	+55	28	8	148*
Dannevirke	207	18.1	9.6	13.9	+0.1	22.7	26	3.7	19	96	21	+17	27	14	156
Porangahau	8	18.7	11.1	14.9	..	24.2	3	5.0	20	81	18	..	18	22	..
Castlepoint Light	3	17.6	12.2	14.9	+0.0	22.5	13	7.0	16	52	17	-2	11	10	..
Ngaumu Forest	244	18.5	8.5	13.5	+0.6	25.0	13	-0.1	16	112	19	+55	18	17	..
Tauherenikau	43	19.6	9.0	14.3	+0.2	25.8	3	2.6	16	70	16	-20	13	13	180
Waiorongomai	21	18.1	10.4	14.3	+0.6	22.1	26	2.7	16	83	19	-40	20	13	..
Martinborough	30	20.4	9.8	15.1	..	26.5	3	2.5	16	58	18	..	22	13	179
Ruatoria	61	19.8	11.8	15.8	+0.0	29.5	4	5.8	1	318	18	+222	65	9	..
Mangatu Forest	182	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gisborne, Manutuke	90	19.9	11.3	15.6	+0.2	26.0	4	4.5	1	139	16	+83	30	22	..
Gisborne Aero	4	20.7	11.6	16.2	+0.5	26.6	4	2.8	1	119	16	+64	27	22	157
Waikaremoana Onepoto	643	16.3	8.5	12.4	-0.3	23.7	4	4.3	18	251	20	+117	39	14	..
Wharerata Forest	439	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tokomaru Bay Maf Edl	244	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Esk Forest	427	17.7	9.6	13.7	+0.2	25.7	3	3.9	20	202	19	+103	42	22	..
Ngamatea Nzfs	885	14.3	5.0	9.7	..	20.0	13	-0.7	16	74	21	..	18	14	..
Kaweka Forest	414	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Napier Aero	2	19.9	10.9	15.4	+0.1	25.0	28	4.2	3	80	13	+33	23	14	..
Napier Nelson Pk	2	20.7	11.9	16.3	+0.1	25.4	28	6.0	1	75	16	+31	21	22	173
Havelock Nth Dsir 2	9	19.9	10.3	15.1	..	24.5	28	3.0	1	91	14	..	19	22	171
Havelock Nth Edr	9	20.2	10.3	15.3	..	..	..	..	..	..	..	..	..	..	..
Hastings Civic Sq.	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whakatu	6	19.7	10.7	15.2	..	24.6	28	4.2	1	78	17	..	22	22	..
Gwavas Forest	335	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Makaretu	335	18.3	9.5	13.9	+0.4	25.0	3	2.8	16	133	24	+62	24	14	..
Ongaonga Thornton	190	19.3	9.0	14.2	..	25.7	4	1.7	1	106	21	..	20	8	..
Mohaka Forest	286	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wairoa Frasertown	8	20.9	10.4	15.7	-0.3	27.3	1	5.4	1	130	17	+44	45	14	..
Wairoa Hospital	20	20.3	12.4	16.4	+0.5	26.5	1	6.3	3	96	13	+15	37	14	166
Kapiti Is	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paraparaumu Aero	7	18.8	10.8	14.8	+0.8	23.5	23	2.3	20	57	12	-34	24	13	225
Bulls Flockhouse	9	20.1	10.2	15.2	+1.2	26.0	26	2.5	16	71	12	-2	23	14	..
Ohakea Aero	48	20.0	10.9	15.5	+1.0	25.5	26	3.8	16	84	12	+14	27	14	222
Palmerston N Kairanga	15	19.7	10.1	14.9	+1.0	25.1	26	2.6	1	51	11	-21	14	14	217
Palmerston N Aero	45	19.5	10.9	15.2	+1.3	25.4	26	3.2	1	72	12	+2	12	13	..
Palmerston N Dsir	34	19.6	11.3	15.5	+1.1	25.9	26	4.5	1	62	16	-20	13	13	199
Foxton	9	20.0	11.0	15.5	..	25.3	26	3.8	18	61	13	..	18	13	207
Waitarere Forest	3	19.3	10.2	14.8	+0.5	24.4	23	-0.6	19	62	12	-6	22	13	..
Levin Maf	46	19.4	10.9	15.2	+1.2	24.8	26	3.2	19	76	14	-15	21	13	185
Titahi Bay Te Pene Av	31	19.3	10.7	15.0	..	25.0	26	3.2	16	73	8	..	45	13	..
Lower Hutt Avalon	15	19.2	10.8	15.0	+0.9	24.8	26	4.5	18	78	16	-29	41	13	..
Wellington Kelburn	125	17.5	10.9	14.2	+0.7	22.4	26	4.9	16	100	14	+7	45	13	221
Somes Is	43	17.8	11.9	14.9	+1.3	23.5	22	7.0	16	77	14	-10	35	13	..
Lower Hutt Gracefield	34	18.2	..	..	..	23.2	22	..	..	66	11	-31	38	13	..
Wainuiomata Coast Rd	82	18.2	9.9	14.1	+0.7	24.6	26	3.0	16	92	15	-25	36	13	..
Wellington Aero	6	18.4	12.3	15.4	+1.0	23.2	22	6.7	20	76	15	-1	37	13	..
Rimutaka Forest	37	18.7	9.8	14.3	..	23.1	22	2.5	16	98	11	..	35	13	..
Kaitoke	223	17.4	8.4	12.9	+0.6	22.1	14	0.9	16	143	20	-40	26	13	169
Wallaceville	56	18.9	10.0	14.5	+1.1	24.1	26	2.0	16	72	16	-35	24	13	184
Stratford Dem Farm	311	17.6	8.2	12.9	+0.4	21.6	26	3.8	1	134	16	-37	51	13	206
Kapuni	173	128	13	..	42	14	..
Manaia Dem Farm	98	18.1	9.0	13.6	+0.1	23.4	26	3.0	19	137	14	+52	54	14	200

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		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	mm		
Akaroa Rue Lavaud	3	19.7	9.0	14.4	+0.7	30.0	3	1.5	17	36	..	..	..	..
Lake Tekapo Nzed	683	..	5.9	..	..	..	..	-0.6	17	57	6	+5	14	13
Fairlie Riverview Tce	304	18.3	6.2	12.3	..	31.6	3	-0.1	8	29	13	..	6	26	
Twizel Substation	451	19.2	6.3	12.8	..	27.5	3	0.3	19	43	12	..	9	4	
Ikawai	70	17.8	7.4	12.6	+0.2	30.0	3	1.5	7	51	5	-5	23	27	
Geraldine Nzfs	119	18.8	8.0	13.4	+0.2	32.3	3	2.5	18	32	11	-43	8	29	
Orari Estate	81	18.4	7.5	13.0	+0.2	32.6	3	1.2	20	19	9	-55	6	28	
Temuka	24	18.1	7.8	13.0	+0.2	32.7	3	2.5	21	15	8	-47	9	29	
Timaru Aero	26	17.9	7.7	12.8	+0.4	31.7	3	1.7	20	8	7	-47	3	29	
Timaru 2	17	..	..	..	..	..	..	..	..	..	..	..	..	..
Waimate	61	17.4	9.2	13.3	+0.0	31.9	3	4.1	17	41	8	-23	23	27	
Benmore Power Stn	253	19.9	9.3	14.6	..	27.2	3	4.6	15	42	10	-1	7	26	
Aviemoire 2	241	18.6	7.5	13.1	..	26.4	3	1.0	15	34	11	-13	16	26	
Kurow	207	..	..	..	..	..	..	..	..	..	..	..	..	..
Knobs Flat	375	..	..	..	..	..	..	..	..	..	..	..	..	..
Tara Hills Edr	488	18.9	6.1	12.5	..	24.6	1	-1.4	8	62	9	..	22	29	
Lake Hawea	350	19.2	7.6	13.4	+0.5	23.4	20	1.7	17	36	7	-32	11	28	
Wanaka	296	20.9	7.1	14.0	+1.1	25.5	20	0.9	17	34	8	-26	14	27	
Queensbury Mwd	277	20.1	7.8	14.0	..	25.7	25	1.6	17	25	10	..	8	4	
Bendigo 2	200	21.9	7.1	14.5	..	27.2	25	0.1	15	16	10	..	5	9	
Naseby Forest 2	607	17.2	4.6	10.9	..	25.8	3	-2.5	17	48	11	..	18	26	
Oamaru Spey St	5	17.2	8.8	13.0	..	30.5	3	4.0	17	54	10	..	20	26	
Ranfurly Maniototo	427	18.8	3.6	11.2	-0.2	28.0	25	-3.4	17	35	8	-6	13	26	
Herbert Forest	61	17.9	..	..	..	32.4	3	..	..	52	10	-29	12	29
Palmerston	21	17.5	7.4	12.5	+0.7	29.7	3	-0.9	17	41	8	-11	12	26	
Cherry Farm Hospital	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Taiaroa Head	72	14.7	9.1	11.9	+0.5	27.3	3	6.4	17	38	9	-26	20	26	
Invermay Edr	30	17.5	6.6	12.1	..	29.8	3	-1.0	17	45	12	..	19	26	
Berwick Forest	18	..	..	..	..	..	..	..	..	..	..	..	..	..
Dunedin Aero	1	18.4	6.1	12.3	+0.3	29.2	3	-2.4	17	30	13	-43	13	26	
Dunedin Musselburgh	2	16.4	9.5	13.0	+0.5	31.3	3	5.5	17	47	14	-26	16	26	
Te Anau Po	215	18.8	6.0	12.4	+1.3	25.5	24	-1.0	17	103	10	+5	41	4	
Manapouri West Arm 2	232	17.2	7.3	12.3	+1.7	24.7	24	2.5	15	217	13	-144	86	3	
Queenstown	329	19.7	8.3	14.0	+1.4	25.2	24	3.4	15	34	9	-37	12	3	
Queenstown Aero	349	18.7	6.1	12.4	+0.8	23.7	24	0.4	15	24	7	-29	8	3	
Burwood Bush	490	16.6	4.1	10.4	..	23.8	24	-4.3	17	64	12	..	17	3	
Cromwell Sub Stn	213	21.7	7.7	14.7	..	27.8	25	2.0	17	35	6	+13	20	29	
Cromwell Mwd	213	..	..	..	..	..	..	..	..	..	..	..	..	..
Northburn	210	21.6	7.6	14.6	..	26.6	25	1.7	15	13	9	..	5	29	
Cromwell 2	213	19.8	7.2	13.5	..	25.9	21	1.0	15	19	9	..	6	29	
Lauder Edr	370	19.7	5.1	12.4	..	26.3	25	-1.3	15	32	13	..	10	27	
Clyde Dam	160	21.2	7.6	14.4	..	27.0	25	1.5	17	18	12	..	5	4	
Ophir 2	305	..	..	..	..	..	..	..	..	..	..	..	..	..
Clyde Dsir	171	21.3	6.9	14.1	..	27.3	22	0.4	15	18	13	..	4	4	
Alexandra B Council	141	21.9	6.7	14.3	..	28.7	25	0.0	17	18	13	..	9	9	
Ettrick No 1	83	20.7	6.1	13.4	..	27.5	25	0.0	18	61	13	..	21	26	
Ettrick No 2	91	..	..	..	..	..	..	..	..	..	..	..	..	..
Beaumont Nzfs	46	..	..	..	..	..	..	..	..	..	..	..	..	..
Mahinerangi Dam	396	16.0	5.3	10.7	+0.5	25.6	3	-2.0	17	41	12	-44	12	21	
Tapanui	215	18.5	5.3	11.9	+0.2	26.9	3	-1.5	18	48	13	-26	15	26	
Taieri Mouth	15	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuatapere	27	..	..	..	..	..	..	..	..	..	..	..	..	..
Codfish Island	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton B Council	44	18.4	6.7	12.6	+0.9	25.7	24	0.3	18	74	14	+8	23	25	
Gore Edr	123	17.8	7.0	12.4	..	23.9	22	2.0	17	119	12	..	46	26	
Wyndham	20	18.9	7.6	13.3	..	26.0	24	2.1	19	91	14	..	31	26	
Invercargill Aero	0	17.4	7.3	12.4	+1.1	25.2	24	2.5	19	56	14	-33	13	3	
Tiwai Point	5	16.5	8.8	12.7	+0.9	22.7	3	3.4	19	67	12	-26	15	26	
Stewart Is	3	15.9	7.6	11.8	+1.3	24.1	3	3.5	7	94	16	-8	34	3	
Clinton School	120	17.6	7.3	12.5	..	25.0	3	3.3	18	44	10	..	20	26	
Balclutha Finegand	6	..	..	..	..	..	..	..	..	38	..	-26	13	26
Owaka	5	..	6.7	..	..	..	..	0.7	7	57	13	-17	18	28
Nugget Point	129	15.3	8.1	11.7	+0.8	26.2	3	5.4	5	48	16	-31	14	28	
Tautuku	40	16.8	7.4	12.1	+1.0	27.4	3	2.9	7	94	..	-22	20	28	
Fiji Nadi Aero	15	31.6	21.9	26.8	+0.5	36.3	20	18.3	3	137	8	-6	83	22	
Ci Rarotonga Aero	7	27.2	21.4	24.3	+0.2	29.5	30	18.7	9	52	11	+103	15	9	
Ci Raro Totokoitu	9	..	..	..	..	..	..	..	..	..	..	..	..	..
Raoul Is	38	22.2	16.9	19.6	+0.7	26.7	29	13.4	5	318	15	+241	215	1	
Campbell Is	15	10.6	5.2	7.9	+0.7	17.8	29	0.1	6	110	25	+3	23	27	
Chatham I Waitangi	44	15.0	9.5	12.3	+0.8	18.1	29	2.6	6	65	17	+8	16	14	
Chatham I Kaiangaroa	41	..	..	..	..	..	..	..	..	..	..	..	..	..
Ant Scott Base	16	-7.9	-17.1	-12.5	-5.2	-2.4	20	-22.6	4	..	..	..	..	..
LATE RETURNS AND CORRECTIONS															
Kaikohe Dsir Edr 10/1987	204	16.1	10.2	13.2	..	20.0	8	6.7	16	860	24	..	100	30	
Galatea 09/1987	190	16.1	4.6	10.4	..	20.0	26	-2.0	7	60	13	..	17	22	
Galatea 10/1987	190	18.6	8.1	13.4	..	23.0	26	0.0	18	99	14	..	22	13	

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for November 1987—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	Differ—ence From Normal	Absolute Maximum and Minimum				Total Fall	No. of Rain Days	Differ—ence 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	
Pukekohe Maf 10/1987	82	17.9	10.5	14.2	+1.0	21.2	8	6.0	15	96	16	..	27	13	110
Lower Retaruke 10/1987	223	17.7	7.4	12.6	+0.5	21.9	18	-0.6	17	155	20	+24	28	13	..
Mt Ruapehu Chateau 2 09/1987	1097	8.0	0.7	4.4	..	18.6	27	-3.7	6	285	..	..	46	11	..
Mt Ruapehu Chateau 2 10/1987	1097	10.7	2.8	6.8	..	15.5	17	-2.4	17	335	21	..	52	9	..
Ruatoria 10/1987	61	18.7	9.8	14.3	+0.5	22.8	25	2.7	15	105	14	-19	22	6	..
Esk Forest 10/1987	427	16.9	7.7	12.3	+0.7	20.5	22	0.0	18	40	11	-84	9	30	..
Ngamatea Nzfs 10/1987	885	13.4	3.0	8.2	..	19.4	23	-4.1	18	41	14	..	10	25	..
Makaretu 08/1987	335	14.4	4.3	9.4	+1.6	20.1	5	-2.0	13	48	12	-53	12	27	..
Makaretu 09/1987	335	14.9	4.4	9.7	+0.1	20.0	30	0.0	6	34	18	-46	6	9	..
Makaretu 10/1987	335	17.9	5.8	11.9	+0.4	22.4	6	-1.1	18	25	17	-59	7	26	..
Ahu Ahu Valley 10/1987	85	18.1	7.4	12.8	..	23.2	27	0.4	16	156	16	..	52	9	..
Timaru 2 10/1987	17	15.1	6.8	11.0	..	24.2	2	-0.1	1	43	10	..	12	13	148
Kurow 10/1987	207	17.0	6.3	11.7	..	23.8	24	0.1	16	45	9	..	9	13	..
Knobs Flat 09/1987	375	12.0	1.3	6.7	..	19.0	26	-2.5	25	269	..	+54	41	29	..
Knobs Flat 10/1987	375	..	..	..	..	..	..	..	..	261	..	+42	..	..	..
Balclutha Finegand 10/1987	6	..	..	..	..	..	..	..	..	62	11	+1	11	10	..
Tautuku 10/1987	40	14.4	5.6	10.0	+0.2	22.6	24	0.7	14	122	..	+28	23	2	..
Raoul Is 10/1987	38	20.1	15.1	17.6	+0.0	22.2	10	11.4	5	68	17	-33	45	2	161
Ant Scott Base 08/1987	16	-24.9	-36.1	-30.5	+0.3	-8.2	12	-44.7	11	..	..	..	..	..	..
Ant Scott Base 09/1987	16	-19.1	-31.1	-25.1	+3.0	-8.5	16	-48.6	25	..	..	..	..	..	..
Ant Scott Base 10/1987	16	-15.7	-26.0	-20.9	+1.8	-5.6	3	-35.8	14	..	..	..	..	..	..

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 1987

General—The weather during the first week of November was dominated by disturbed westerlies; at Invercargill, on the 1st, 200 houses were reported to be without electric power, for 50 minutes, when gale force north-west winds caused damage to power lines. From the 7th there was a period of warm moist northerlies, with some ridging over the South Island. This intensified over Southland from the 17th to the 19th when an intense anticyclone was almost stationary over the area. Pressures remained lower over the North Island from the 16th through to the 25th, during which time a trough of low pressure developed over the north of the North Island. Another trough spread onto New Zealand from the 26th, accompanied by disturbed west to southwesterlies.

The frequency of strong winds over the South Island was less than usual and north-easterlies occurred with their highest frequency for November at Invercargill for over 10 years. This was due to the high frequency of low pressures over the north of New Zealand and ridging to the south. Easterlies were consequently more frequent than usual over the North Island.

Rainfall—Totals for the month were twice normal in Northland, East Cape, Gisborne, Buller, and along the Kaikoura Coast. Approximately 120 mm were recorded at Gisborne, which was the highest for November for at least 25 years. It was also wetter than normal in Auckland, Coromandel, Bay of Plenty, King Country, Wanganui and Manawatu, as well as east coast regions of the North Island, Nelson and inland Canterbury.

Drier conditions were recorded in Taranaki, Horowhenua, coastal areas of Canterbury, South Westland, Fiordland, Otago and Southland, where in most places rainfall was 40 to 60 percent of normal. It was very dry in Timaru, with only 8 mm (15 percent of normal). This was the lowest November rainfall since records began there in 1956.

Temperatures—some extremely high temperatures, for November, were recorded in Canterbury and Otago, in north-westerly conditions on the afternoon of the 3rd. In many places

new records were established. Temperatures of 32°C were recorded at Herbert Forest, Fairlie, Peel Forest, Geraldine, Waimate and Christchurch Airport. The maximum of 31°C recorded at Musselburgh, Dunedin was the highest there for November in over 120 years of record. A new record maximum temperature of 27°C was recorded at Hokitika on the 23rd; being the highest there since records began in 1963. Severe ground frost occurred at Dunedin Airport on the morning of the 17th, when -6.3°C was recorded; the lowest for at least 25 years.

Mean temperatures were 1 to 1.5°C above normal in most western regions of the North Island south of Auckland, and in Westland, Fiordland and Southland. Elsewhere they were near or just above normal.

In much of Westland and Fiordland mean daily maximum temperatures were 2°C above normal. At Milford Sound they averaged 18°C, and were the 3rd warmest since records began in 1934.

Sunshine—Rather cloudy conditions predominated in Northland, and along the east coast of the North Island, where hours of bright sunshine were 70 to 80 percent of normal. Only 157 hours were recorded at Gisborne Airport; the lowest since records began in 1937. It was also cloudier in Auckland and Marlborough. Sunnier conditions prevailed in west coast regions of New Zealand south of Auckland, especially Westland, Fiordland, Otago and Southland, where hours were over 120 percent of normal. A total of 236 hours (140 percent of normal) was recorded at Invercargill Airport; the highest since records began in 1935.

J. S. HICKMAN, Director.

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THESE MAPS ARE MEAN SEA LEVEL ANALYSES FOR 0000 HOURS. THEY WERE PREPARED BY NEW ZEALAND METEOROLOGICAL SERVICE MINISTRY OF TRANSPORT P. O. BOX 722 WELLINGTON









