

NZT7 - SCHEDULE OF ADJUSTMENTS

Location/Site	Agent	Adjustment %C	Period	Impact * (Warming)	Trend	Adj	7SS Period	Reason for Change
<u>Auckland</u>								
1. Government Domain	1427	-				-0.4	1853-68	Unreliable
2. Museum	1427	-				-0.5	1868-09	Unreliable
3. Albert Park	1427	-0.62	1909 - 50	-25.42	F	-0.5	1909-50	Temp
4. Albert Park	1427	-0.65	1951 - 76	-16.25	F	-0.6	1951-75	Period
5. Mangere	1945	0.01	1976 - 98	0.22	F	0.0	1975-98	Period
6. Auckland Aero	1962	0.00	1988 - now	0.00	-	0.0	1998-2002	Period
7. Mangere EWS	22719					0.0	2002-present	Period
<u>Masterton</u>								
1. Waingawa	2473					-0.5	1906-10	Unreliable
2. Waingawa	2473	-	-	-		-0.5	1910-11	Unreliable
3. Waingawa	2473	-	-	-		-0.5	1911-12	Unreliable
4. Waingawa	2473	-	-	-		-0.5	1912-20	Unreliable
5. Waingawa	2473	-0.34	1920 - 42	-7.48	F	-0.2	1920-42	Temp
6. Waingawa	2473	-0.08	1942 - 90	-3.84	A	0.0	1942-90	Temp
7. East Taratahi AWS	2612	0.00	1991 - 2009	0.00	-	0.0	1991-2009	Reference
8. Martinborough EWS	21938	-0.28	2009 - now	0.28	U	-0.3	2009-Present	Temp
<u>Wellington</u>								
1. Observatory	3383	-				-0.1	1862-68	Unreliable
2. Bowen St	3389	-				-0.5	1868-69	Unreliable
3. Bolton St Cemetery	3390	-				-0.5	1869-06	Unreliable
4. Buckle St	3431	-0.73	1909 - 12	-2.19	F	-0.6	1906-12	Temp
5. Thorndon	3391	-0.89	1912 - 27	-13.35	F	-0.1	1912-27	Temp
6. Kelburn	3385	0.00	1928 - 2005	0.00	-	0.0	1928-2005	Reference
7. Kelburn AWS	25354	-0.06	2005 - now	0.30	U	0.0	2005-Present	Decimal

Nelson

1. Nelson City	4244	-	-	-		-0.6	1862-80	Unreliable
2. Nile St E	4244	-1.05	1907-20	-11.55	F	-0.9	1907-20	Temp
3. Cawthron Institute	4244	-0.17	1920-31	-1.87	F	-0.1	1920-31	Decimal
4. Appleby	4239	-0.02	1932 - 96	-1.28	A	0.0	1932-96	Decimal
5. Appleby EWS	12755	-	-	-		0.2	1996-2000	Period
6. Nelson Aero	4241	0.31	1996-97	0.31	F	-	-	Period
7. Nelson Aero	4241	0.00	-	0.00	-	0.2	2000-01	Period
8. Appleby 2 EWS	21937	-	1997 - now	-		1.0	2001-Present	Period

Hokitika

1. Hokitika Town	3907					-0.1	1867-80	Unreliable
2. Hokitika Town	3907	-				-1.3	1894-1912	Unreliable
3. Hokitika Town	3907	-0.36	1912 - 28	5.76	F	-0.3	1912-43	Decimal
3. Hokitika Town	3907	-0.34	1928 - 44	5.44	F	-	-	Period
4. Hokitika South	3907	0.34	1945 - 63	6.12	U	0.3	1943-64	Period
5. Hokitika Aero	3909	0.05	1965 - now	2.25	A	0.0	1965-present	Decimal

Christchurch

1. Christchurch Gardens	4858					-0.7	1864-80	Unreliable
2. Lincoln	4881					-0.5	1881-1904	Unreliable
3. Lincoln	4881	-0.97	1909 - 1915	-5.82	F	-1.0	1905-15	Decimal
4. Lincoln	4881	-0.45	1915 - 23	-3.60	F	-0.8	1915-29	Temp
5. Lincoln	4881	-1.02	1923 - 25	-2.04	F	-	-	Period
6. Lincoln	4881	-0.41	1926 - 43	-6.97	F	-0.3	1929-43	Temp
7. Lincoln	4881	0.22	1944 - 64	4.40	U	0.4	1944-65	Temp
8. Lincoln	4881	-0.10	1964 - 75	-1.10	F	0.2	1965-75	Temp
9. Lincoln	4881	0.02	1976 - 87	0.22	F	0.0	1976-87	Decimal
10. Lincoln Broadfield EDL	4882	0.00	1987 - 99	0.00	-	0.0	1987-99	Reference
11. Lincoln Broadfield EWS	17603	0.00	2000 - now	0.00	-	0.0	2000-present	-

Dunedin

1. Exchange, Princes St	22645					0.5	1853-63	Unreliable
2. Observatory, Roslyn	5378					0.0	1864-86	Unreliable
3. Leith Valley	5380	-0.25	1902 - 1912	0.75	U	0.3	1886-13	Decimal
4. Botanical Gardens	5375	-0.14	1913 - 42	-4.06	F	-0.1	1912-40	Period
5. Botanical Gardens	5375	-	-			0.6	1940-42	Period
6. Beta St Reservoir	5379	0.59	1942 - 47	2.95	U	0.6	1940-47	Period
7. Musselburgh	5402	-0.14	1947 - 60	-1.82	F	-0.2	1947-60	Temp
7. Musselburgh	5402	-0.07	1960 - 97	-2.59	A	0.0	1960-97	Decimal
7. Musselburgh EWS	15752	0.00	1997 - now	0.00	-	0.0	1997-present	Reference

* **Impact on Warming:** Temp adjustment x number of years.

* **Trend Effect:** Prior to 1975, adjustments which reduce temps are favourable (**F**) to a warming trend.

After 1975, such adjustments are unfavourable (U) to that trend. Those which straddle 1975 are apportioned (A).

CHANGES:

Of the 52 adjustments used in the 7SS, only one has been brought forward unchanged to the NZT7.

16 of the pre-1913 7SS adjustments have now been discarded by NIWA as “unreliable”.

In 14 cases, the period has been changed - either a different reference station has been chosen, or the discontinuity date deemed wrong.

In the 21 remaining cases, the temperature adjustment has changed. (Of these, 8 may have resulted from the method change for decimal places).

EFFECTS OF ADJUSTMENTS ON WARMING TREND:

	Auckland	Masterton	Wellington	Nelson	Hokitika	ChCh	Dunedin	Total	
Adjustments - Favourable	3	1.50	2	3.50	2.5	6	2.5	21	73%
- Unfavourable	-	1.50	1	0.50	1.5	1	2.5	8	27%
Years - Favourable	66	55.00	66	66.00	41	57	57	360	
- Unfavourable	1	15.00	21	21.00	62	20	30	153	
Impacts - Favourable	41.67	10.12	15.54	14.59	11.71	19.75	6.92	120.3	88%
- Unfavourable	-	-1.48	-0.3	-0.42	-4.38	-4.4	-5.25	-16.23	12%
Net Impacts of Adjustments	41.67	8.64	15.51	14.17	7.33	15.35	1.67	104.34	