



MONTHLY METEOROLOGICAL SUMMARY
SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

July 1997

WINNIPEG INT'L AIRPORT

Juillet 1997

LAT 49° 54N LONG 97° 17W			ALTITUDE 240 ÉLEVATION 240			METRES (ASL) MÈTRES (NMM)			STANDARD TIME USED: HEURE NORMALE UTILISÉE:				CENTRAL CENTRALE							
DATE	TEMPERATURE TEMPÉRATURE			DEGREE DAYS DEGRÉS-JOURS			REL. HUMIDITY HUMIDITÉ REL.		ORAGE THUNDERSTORM	PRECIPITATION PRÉCIPITATIONS				WINDS VENTS				INSOLATION EFFECTIVE BRIGHT SUNSHINE HEURES HOURS		
	MAXIMALE MAXIMUM	MINIMUM	MOYENNE MEAN	DE CHAUFFE HEATING	DE CROISSANCE GROWING	DE REFRIGÉRATION COOLING	MAXIMALE MAXIMUM	MINIMALE MINIMUM		NEIGE (HAUTEUR) RAINFALL	NEIGE (HAUTEUR) SNOWFALL	PRÉCIP. TOTAL TOTAL PRECIP.	NEIGE AU SOL SNOW ON GROUND	VITESSE MOYENNE AVERAGE SPEED	DIRECTION DOMINANTE PREVAILING DIRECTION	VITESSE MOYENNE MAX SUR 2 MIN & DIRECTION	MAX 2 MIN MEAN SPEED & DIRECTION			
																			°C	°C
1	20.5	10.9	15.7	2.3	10.7		94	68	1	16.0		16.0		28.3	NE	NE	43	0.0		
2	14.6	10.7	12.7	5.3	7.7		95	93	1	28.0		28.0		35.2	N	N	50	0.0		
3	20.7	10.7	15.7	2.3	10.7		95	47		1.0		1.0		20.5	N	NNE	35	0.0		
4	25.4	12.3	18.9		13.9	0.9	85	40		0.5		0.5		18.7	W	WSW	28	0.0		
5	17.3	6.6	12.0	6.0	7.0		93	45		0.5		0.5		25.4	N	N	41	0.0		
6	19.8	2.7	11.3	6.7	6.3		90	38					9.2	W	WNW	13	0.0			
7	16.7	10.8	13.8	4.2	8.8		96	66		8.0		8.0		17.9	S	SE	26	0.0		
8	21.5	13.9	17.7	0.3	12.7		96	62					14.2	SSE	SSW	22	0.0			
9	25.1	14.4	19.8		14.8	1.8	90	66					31.8	S	S	48	0.0			
10	29.9	16.6	23.3		18.3	5.3	89	65					34.9	S	S	41	0.0			
11	29.3	20.1	24.7		19.7	6.7	88	62					20.8	S	S	44	0.0			
12	27.5	19.8	23.7		18.7	5.7	96	72	1	18.5		18.5		14.9	SE	SE	20	0.0		
13	27.5	18.4	23.0		18.0	5.0	98	52	1	TR		TR		7.8	WNW	NW	11	0.0		
14	26.9	17.2	22.1		17.1	4.1	91	50		2.0		2.0		9.4	W	SSW	17	0.0		
15	29.5	16.2	22.9		17.9	4.9	90	57					12.3	W	S	24	0.0			
16	29.9	14.6	22.3		17.3	4.3	95	45					8.7	W	S	24	0.0			
17	28.9	15.2	22.1		17.1	4.1	92	41					10.5	W	NNW	20	0.0			
18	24.5	15.6	20.1		15.1	2.1	92	60					16.1	E	ESE	28	0.0			
19	26.2	14.2	20.2		15.2	2.2	93	71		TR		TR		15.2	NW	SW	22	0.0		
20	25.5	13.5	19.5		14.5	1.5	94	59					12.8	W	N	22	0.0			
21	25.2	13.5	19.4		14.4	1.4	95	55					5.4	NNE	NNE	9	0.0			
22	27.0	15.5	21.3		16.3	3.3	94	61					14.6	S	SSW	22	0.0			
23	25.8	17.4	21.6		16.6	3.6	94	69					25.2	S	S	39	0.0			
24	30.0	17.6	23.8		18.8	5.8	94	68	1	1.5		1.5		16.8	S	S	26	0.0		
25	30.7	17.9	24.3		19.3	6.3	92	58	1	7.0		7.0		11.0	NNE	ESE	19	0.0		
26	25.1	15.4	20.3		15.3	2.3	94	57					18.2	WNW	NW	30	0.0			
27	23.6	12.3	18.0		13.0		91	53					17.6	NW	NW	35	0.0			
28	24.0	9.0	16.5	1.5	11.5		95	48					11.9	NNE	NNE	22	0.0			
29	25.4	7.3	16.4	1.6	11.4		93	42					6.8	SW	SW	11	0.0			
30	28.2	10.4	19.3		14.3	1.3	90	50					16.0	S	S	24	0.0			
31	27.5	19.0	23.3		18.3	5.3	89	66					26.8	S	SSW	37	0.0			
	MEAN 25.2 MOY.	MEAN 13.9 MOY.	MEAN 19.6 MOY.	TOTAL 30.2	TOTAL 450.7	TOTAL 77.9	MEAN 92 MOY.	MEAN 57 MOY.	TOTAL 6	TOTAL 83.0	TOTAL 0.0	TOTAL 83.0		MEAN 17.3 MOY.	PREVAILING S DOMINANTE	MAXIMUM N 50 MAXIMALE	TOTAL MISG			
NORMAL NORMALE	26.1	13.4	19.8	18.5	457.6	73.1			8	72.0	0.0	72.0		15.0	SSE		321.7			
DEGREE DAY SUMMARY/SOMMAIRE DE DEGRÉS-JOURS										DAYS WITH TOTAL PRECIPITATION: JOURS AVEC PRÉCIPITATIONS TOTALES:					DAYS WITH SNOWFALL: JOURS AVEC CHÛTES DE NEIGE:					
BELOW 18°C AU-DESSOUS DE 18°	THIS YEAR ANNÉE EN COURS	PREVIOUS YEAR ANNÉE PRÉCÉDENTE	NORMAL NORMALE	ABOVE 5°C AU-DESSUS DE 5°C	THIS YEAR ANNÉE EN COURS	PREVIOUS YEAR ANNÉE PRÉCÉDENTE	NORMAL NORMALE			mm					cm					
TOTAL FOR MONTH TOTAL DU MOIS	30.2	16.5	18.5		450.7	432.4	457.6			0.5 OR MORE	1.0 OR MORE	2.0 OR MORE	10.0 OR MORE	50.0 OR MORE	0.2 OR MORE	1.0 OR MORE	2.0 OR MORE	10.0 OR MORE	50.0 OR MORE	
ACCUMULATED SINCE JULY 1 ACCUMULÉS DEPUIS LE 1ER JUILLET	30.2	16.5	18.5		ACCUMULATED SINCE APRIL 1 ACCUMULÉS DEPUIS LE 1ER AVRIL	993.0	994.6	1083.5			10 PLUS	8 PLUS	6 PLUS	3 PLUS						

1. Climatological Day/Journée climatologique
2. Normal/Normale 1961-1990
3. TR = Trace
4. M = Missing/Manquant
5. No entry/Pas de valeur = No occurrence/Pas d'événement
6. C = Calm/Calme

Dry Bulb Temperature Summary
Sommaire Des Temperatures Du Thermometre Sec

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Hour ->	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	
D 1	129	137	139	124	118	115	128	150	156	162	161	173	172	170	181	192	175	166	152	148	145	142	141	142	151	
A 2	142	145	140	137	133	130	129	130	129	135	133	135	132	134	132	129	128	124	120	114	113	112	108	107	128	
T 3	110	109	110	110	109	107	111	117	136	151	164	172	185	190	194	202	198	198	202	192	166	133	140	129	151	
E 4	137	129	125	128	128	127	128	153	182	213	234	240	248	248	236	246	244	244	230	223	209	199	186	158	190	
5	153	153	151	145	139	143	145	154	156	153	163	156	152	155	167	162	159	154	156	142	126	93	74	69	143	
6	67	47	40	34	34	48	71	107	135	150	163	164	169	177	184	192	188	188	184	177	163	138	124	117	128	
7	111	125	121	114	115	116	123	139	147	146	153	146	148	158	163	160	156	154	153	153	153	149	148	149	142	
8	147	148	146	139	141	142	144	150	157	166	175	179	191	197	200	208	211	214	205	198	186	170	163	158	172	
9	161	162	163	153	150	146	151	162	184	188	205	207	221	235	233	236	237	246	232	229	217	210	202	198	197	
10	193	188	181	176	171	167	172	181	191	208	225	240	259	275	288	293	292	286	275	266	262	254	242	238	230	
11	231	225	217	209	209	205	204	218	227	250	249	257	270	280	282	286	290	283	280	268	260	261	262	254	249	
12	249	250	247	247	244	240	241	241	234	221	227	242	247	219	255	271	274	253	245	245	243	226	213	205	241	
13	198	196	187	193	193	194	201	204	207	220	229	244	245	258	268	267	269	255	259	258	236	220	218	212	226	
14	209	199	187	181	175	173	173	177	187	196	203	209	224	240	254	248	249	263	266	262	237	215	211	208	214	
15	193	184	176	167	164	167	184	211	238	258	258	271	275	283	291	279	289	282	279	272	243	223	217	207	234	
16	181	180	179	169	154	164	184	214	245	262	269	275	281	289	285	295	296	280	285	271	245	212	203	201	234	
17	183	169	162	166	158	155	170	195	226	247	256	268	278	275	284	284	284	279	265	259	237	207	191	185	224	
18	174	168	165	164	159	170	183	189	196	210	221	216	212	222	222	231	232	234	231	228	220	209	204	205	203	
19	202	191	196	182	177	179	188	195	208	219	235	225	232	226	228	238	249	261	254	236	225	198	164	146	211	
20	154	149	149	154	148	136	147	174	196	216	225	229	246	242	225	233	243	244	231	219	197	182	180	170	195	
21	151	141	142	139	142	149	163	172	188	195	204	217	229	234	246	244	243	247	242	234	219	197	179	178	196	
22	167	179	181	173	168	160	170	182	195	200	218	223	229	247	259	263	258	264	264	249	234	209	202	208	213	
23	202	195	196	184	181	175	177	187	208	220	228	235	238	237	236	247	242	251	251	246	234	223	226	219	218	
24	209	211	213	207	204	205	209	220	225	251	264	273	284	298	290	280	263	244	222	213	216	219	205	186	234	
25	178	185	206	204	203	198	202	224	227	247	263	277	292	293	291	296	301	291	289	267	254	222	202	192	242	
26	189	191	197	197	195	191	195	188	199	201	203	220	235	234	247	244	242	242	237	226	204	180	175	158	208	
27	157	150	157	158	158	149	151	164	184	202	219	224	225	228	230	229	230	223	223	207	178	159	139	136	187	
28	124	121	104	102	96	105	120	152	180	201	200	217	212	223	222	231	227	224	221	207	171	146	132	112	169	
29	105	97	93	90	83	76	100	138	184	212	215	223	226	223	244	239	244	245	238	224	204	169	168	160	175	
30	155	142	136	135	130	119	137	167	202	222	237	247	259	271	273	270	276	266	263	248	226	212	208	201	208	
31	201	197	197	193	193	191	194	195	200	208	206	218	233	255	262	260	265	271	265	258	238	220	212	209	223	
Mean	167	163	161	157	154	153	161	176	191	204	213	220	227	233	238	240	241	238	233	224	208	191	182	175	198	
Moyenne																										

*Temperatures In Tenths of Degrees Celsius
*Temperatures En Dixieme Degres Celsius

Hourly Relative Humidity at:
Humidité Horaire à:

Winnipeg Int'l Airport

Hour ->	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
D 1	82	80	79	86	89	91	87	79	77	75	76	72	73	74	74	68	73	79	87	91	94	93	94	94	82
A 2	95	94	95	95	92	95	95	94	95	94	95	93	95	95	94	95	94	95	95	95	95	95	95	95	95
T 3	95	95	95	94	92	92	91	89	84	79	64	56	51	47	47	49	47	58	56	65	77	86	76	79	74
E 4	74	80	80	79	79	82	85	81	72	64	61	54	47	44	42	40	41	42	48	55	62	63	72	85	64
5	88	88	88	92	92	92	93	81	78	75	65	61	56	56	47	47	49	48	45	50	58	70	80	82	70
6	80	86	89	89	90	86	84	76	66	50	41	41	42	42	42	41	38	46	48	54	67	71	72	62	
7	73	68	71	74	72	72	71	66	67	69	73	78	82	80	81	80	79	94	92	94	95	96	95	81	
8	95	94	95	95	96	96	94	91	87	82	79	77	73	73	69	62	62	62	70	76	76	82	88	82	
9	87	87	83	87	89	90	89	86	80	75	71	72	70	66	67	67	67	67	70	71	76	76	78	77	
10	81	82	84	86	88	89	87	84	82	79	77	76	73	70	68	65	68	72	77	75	75	76	78	79	
11	79	81	85	88	86	88	88	83	81	70	71	68	62	64	64	65	66	66	80	80	81	80	80	83	
12	84	84	85	85	87	87	89	89	92	91	93	94	90	95	83	74	72	80	85	87	90	92	96	88	
13	95	96	97	97	98	98	95	93	92	84	80	77	77	70	64	52	58	59	62	64	66	84	85	85	
14	83	81	90	87	89	90	91	91	86	84	84	83	82	76	69	62	57	51	50	58	70	76	76	81	
15	87	89	90	90	90	86	83	76	70	64	62	60	61	61	57	67	63	67	71	74	74	80	82	86	
16	93	93	91	94	95	94	90	81	69	65	59	61	53	48	45	58	51	62	65	65	80	88	89	84	
17	88	90	90	88	90	92	91	87	79	72	67	58	53	48	45	41	41	41	49	56	67	70	79	74	
18	85	86	88	91	92	89	83	78	72	68	64	69	74	71	71	68	65	60	62	64	67	72	72	70	
19	72	78	76	84	86	87	84	80	76	72	71	71	75	74	79	81	80	73	73	75	76	81	90	93	
20	94	94	92	92	89	92	89	86	81	72	71	63	59	60	67	67	60	63	67	71	79	83	83	87	
21	92	95	93	94	95	95	93	90	83	72	69	64	60	60	55	58	58	57	62	67	76	83	88	91	
22	94	92	90	90	91	93	90	87	85	87	81	81	78	72	63	61	64	61	61	66	75	82	84	82	
23	83	86	85	91	94	94	93	89	80	77	75	72	71	72	73	70	71	69	70	73	79	84	81	83	
24	85	83	82	87	88	89	88	84	84	77	75	72	70	68	74	74	81	81	81	76	69	73	83	90	
25	92	89	84	82	86	86	88	82	84	77	70	68	62	61	64	62	58	63	64	74	71	76	91	91	
26	90	94	94	93	92	91	93	90	88	85	83	81	73	70	60	60	58	58	69	81	82	85	85	90	
27	91	90	87	85	83	88	87	81	79	76	66	60	61	55	56	53	54	53	59	65	76	84	90	90	
28	92	92	95	95	94	94	94	89	82	69	64	58	58	56	54	49	54	55	52	48	63	72	78	84	
29	87	88	88	88	90	93	90	84	68	57	54	47	49	50	46	46	46	42	47	53	57	70	72	75	
30	78	81	84	85	86	90	83	74	67	63	64	61	54	52	51	51	50	51	50	54	60	65	66	70	
31	68	72	74	78	77	77	74	72	73	70	72	72	70	66	66	68	69	69	71	75	81	85	87	89	
Mean	86	87	87	88	89	90	88	84	79	74	71	68	66	64	63	62	61	63	65	69	74	80	83	85	76
Moyenne																									

Note/AVIS: 1. Climatological Day/Journee Climatologique 0001 C.S.T. - 0000 C.S.T.
2. Hours are C.S.T./Les heures sont a l'heure normale de la localite
3. Unit/Unite = percent/pour cent

DAILY WEATHER SUMMARY FOR JULY, 1997 AT WINNIPEG, MANITOBA

1. Variable cloudiness with late evening thundershowers. Maximum temperature below normal, minimum slightly below normal. Winds light increasing to moderate then strong by afternoon.
2. Overcast with showers and thundershowers. Maximum temperature well below normal, minimum slightly below normal. Winds strong decreasing to moderate by afternoon.
3. Mainly cloudy with showers ending early morning. Maximum temperature below normal, minimum slightly below normal. Winds light to moderate.
4. Mainly sunny becoming cloudy with showers overnight. Temperatures near normal. Winds light to moderate.
5. Variable cloudiness with showers ending by morning. Temperatures well below normal. Winds light increasing to moderate mid morning then to strong by afternoon, finally decreasing to light late evening.
6. Mainly sunny. Maximum temperature below normal, minimum well below normal. Winds light.
7. Clear becoming overcast by mid morning, with showers beginning by noon. Maximum temperature well below normal, minimum slightly below normal. Winds light to moderate.
8. Variable cloudiness. Maximum temperature below normal, minimum near normal. Winds light.
9. Variable cloudiness. Temperatures near normal. Winds light overnight, increasing to strong by afternoon, then decreasing to moderate by evening.
10. Variable cloudiness. Temperatures slightly above normal. Winds moderate to strong.
11. Variable cloudiness. Maximum temperature slightly above normal, minimum well above normal. Winds light to moderate.
12. Mainly cloudy with showers and thundershowers. Maximum temperature near normal, minimum well above normal. Winds light.
13. Mainly cloudy with showers and thundershowers late evening. Maximum temperature near normal, minimum above normal. Winds light.
14. Overcast with rain showers ending mid morning, then becoming sunny. Maximum temperature near normal, minimum slightly above normal. Winds light.
15. Variable cloudiness. Temperatures near normal. Winds light.
16. Mainly sunny. Maximum temperature slightly above normal, minimum near normal. Winds light.
17. Mainly sunny. Maximum temperature slightly above normal, minimum near normal. Winds light.
18. Mainly cloudy. Temperatures near normal. Winds light.
19. Variable cloudiness with a brief late afternoon shower. Temperatures near normal. Winds light.
20. Variable cloudiness. Temperatures near normal. Winds light.
21. Mainly cloudy. Temperatures near normal. Winds light.
22. Variable cloudiness. Temperatures near normal. Winds light.
23. Variable cloudiness. Maximum temperature near normal, minimum slightly above normal. Winds light to moderate.
24. Variable cloudiness with an evening thundershower. Temperatures slightly above normal. Winds light to moderate.
25. Mainly cloudy with an evening thundershower. Maximum temperatures above normal, minimum slightly above normal. Winds light.
26. Variable cloudiness. Temperatures near normal. Winds light to moderate.
27. Mainly sunny. Maximum temperature slightly below normal, minimum near normal. Winds light to moderate.
28. Mainly sunny. Maximum temperature slightly below normal, minimum below normal. Winds light.
29. Mainly sunny. Maximum temperature near normal, minimum below normal. Winds light.
30. Mainly sunny. Maximum temperature slightly above normal, minimum slightly below normal. Winds light except for a period of moderate late afternoon to early evening.
31. Cloudy, becoming sunny late afternoon. Maximum near normal, minimum above normal. Winds moderate.