



Environment Canada

Environnement Canada

Atmospheric Environment Service

Service de l'environnement atmosphérique

MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS

JULY

19 93

AT/A

WINNIPEG INT'L AIRPORT

LAT. 049° 054' N		LONG. 097° 017' W		ELEVATION ALTITUDE 240		METRES (ASL) MÉTRES (NMM)		STANDARD TIME USED HEURE NORMALE UTILISÉE: CENTRAL											
DATE	TEMPERATURE TEMPERATURE			DEGREE-DAYS DEGRÉS-JOURS			REL HUMIDITY HUMIDITÉ REL		PRECIPITATION PRÉCIPITATIONS			WIND VENT		BRIGHT SUNSHINE INSOLATION EFFECTIVE HOURS HEURES					
	MAXIMUM MAXIMALE	MINIMUM MINIMALE	MEAN MOYENNE	HEATING DE CHAUFFE	GROWING DE CROISSANCE	COOLING DE REFRIGÉRATION	MAXIMUM MAXIMALE	MINIMUM MINIMALE	THUNDERSTORM ORAGE	RAINFALL PLUIE (HAUTEUR)	SNOWFALL NEIGE (HAUTEUR)	TOTAL PRECIP. TOTALE	SNOW ON GROUND NEIGE AU SOL		AVERAGE SPEED VITESSE MOYENNE	PREVAILING DIRECTION DIRECTION DOMINANTE	MAX 2 HRN MEAN SPEED & DIRECTION VITESSE MOYENNE MAX. SUR 2 HRN & DIRECTION		
	°C	°C	°C	BASE 18.0°C	BASE 5.0°C	BASE 18.0°C	%	%		mm	cm	mm	cm	km/h		km/h			
1	23.0	13.8	18.4		13.4	0.4	100	69	1	6.0		6.0		20.0	S	S 32	7.2		
2	25.2	13.5	19.4		14.4	1.4	94	47						11.4	W	W 20	13.1		
3	24.2	15.2	19.7		14.7	1.7	88	57	1	3.6		3.6		17.3	SE	E 30	4.7		
4	24.7	16.9	20.8		15.8	2.8	94	57		0.8		0.8		32.4	S	ESE 39	6.1		
5	19.7	12.1	15.9	2.1	10.9		94	77		6.4		6.4		24.9	S	S 33	0.0		
6	14.4	10.3	12.4	5.6	7.4		94	82		4.8		4.8		17.6	NW	NW 28	0.0		
7	18.4	6.7	12.6	5.4	7.6		100	56		TR		TR		6.0	S	SE 15	7.0		
8	22.2	11.4	16.8	1.2	11.8		100	53						8.7	S	SSW 15	10.7		
9	25.3	11.3	18.3		13.3	0.3	94	54	1	6.0		6.0		8.6	W	WNW 22	11.5		
10	21.5	11.7	16.6	1.4	11.6		94	49						12.7	W	W 24	9.6		
11	17.1	8.9	13.0	5.0	8.0		88	59		TR		TR		19.1	W	W 26	6.3		
12	19.6	10.6	15.1	2.9	10.1		94	46		0.4		0.4		14.4	NW	WNW 30	11.0		
13	18.6	6.9	12.8	5.2	7.8		94	59		0.2		0.2		7.8	N	N 20	6.5		
14	22.4	8.0	15.2	2.8	10.2		100	43						5.4	WNW	WNW 11	12.2		
15	21.5	11.8	16.7	1.3	11.7		94	56		2.2		2.2		11.5	SE*	ESE 26	1.5		
16	22.5	15.7	19.1		14.1	1.1	94	73		11.2		11.2		9.7	E*	E 20	1.0		
17	25.2	16.6	20.9		15.9	2.9	100	47		7.6		7.6		12.6	W	W 22	14.5		
18	24.8	13.8	19.3		14.3	1.3	100	50	1	6.4		6.4		8.8	WSW	WSW 17	10.7		
19	21.0	12.3	16.7	1.3	11.7		100	49		2.0		2.0		16.5	NW	WNW 30	13.5		
20	20.4	10.5	15.5	2.5	10.5		100	37						9.7	N	N 19	9.3		
21	24.0	10.6	17.3	0.7	12.3		88	41		0.2		0.2		16.4	SSE	S 30	9.8		
22	23.5	16.9	20.2		15.2	2.2	94	64	1	6.6		6.6		29.7	SSE	SSE 41	3.8		
23	21.3	15.5	18.4		13.4	0.4	100	78		1.2		1.2		11.7	S	S 26	0.2		
24	22.0	17.5	19.8		14.8	1.8	100	83		24.2		24.2		9.8	E	ENE 24	1.2		
25	20.0	18.0	19.0		14.0	1.0	100	88		83.6		83.6		21.2	NNE	N 32	0.0		
26	23.9	16.6	20.3		15.3	2.3	94	65		6.8		6.8		18.0	NW	NW 32	6.9		
27	19.7	15.3	17.5	0.5	12.5		100	88		12.4		12.4		15.3	NE	NE 26	0.0		
28	23.0	14.1	18.6		13.6	0.6	100	61		0.8		0.8		20.1	NNW	NNW 32	5.6		
29	27.7	12.8	20.3		15.3	2.3	100	54						7.3	S	S 13	14.3		
30	27.1	17.9	22.5		17.5	4.5	89	51						19.8	S	SSE 41	8.4		
31	26.2	13.5	19.9		14.9	1.9	77	42						18.7	W	SW 28	13.5		
MEAN MOYENNE	22.3	13.1	17.7	TOTAL 37.9	TOTAL 394.0	TOTAL 28.9	95	59	TOT 5	TOTAL 193.4	TOTAL 0.0	TOTAL 193.4		14.9	PREVAILING DIRECTION DOMINANTE S	MAXIMALE SSE 41	TOTAL 220.1		
NORMAL NORMALE	26.1	13.4	19.8	18.5	457.6	73.1			8	72.0	0.0	72.0		15.0	S		321.7		
DEGREE-DAY SUMMARY/SOMMAIRE DE DEGRÉS JOURS										DAYS WITH TOTAL PRECIPITATION JOURS AVEC PRÉCIPITATIONS TOTALES					DAYS WITH SNOWFALL JOURS AVEC CHÛTE DE NEIGE				
BELOW 18°C AU-DESSOUS DE 18°C		THIS YEAR ANNEE EN COURS	PREVIOUS YEAR ANNEE PRÉCÉDENTE	NORMAL NORMALE	ABOVE 5°C AU-DESSUS DE 5°C		THIS YEAR ANNEE EN COURS	PREVIOUS YEAR ANNEE PRÉCÉDENTE	NORMAL NORMALE	0.2 OR MORE	1.0 OR MORE	2.0 OR MORE	10.0 OR MORE	30.0 OR MORE	0.2 OR MORE	1.0 OR MORE	2.0 OR MORE	10.0 OR MORE	30.0 OR MORE
TOTAL FOR MONTH TOTAL DU MOIS		37.9	71.3	18.5	TOTAL FOR MONTH TOTAL DU MOIS		394.0	337.9	457.6	21	16	15	4	1	0	0	0	0	0
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1er JUILLET		37.9	71.3	18.5	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1er AVRIL		930.4	911.6	1083.5										

UDC 551 506 1 ()

Note/Aviz

1. Climatological Day/Journée climatologique 00 01 C S.T. - 23 00 C S.T

2. Normal/Normale 1961-1990

3. TR = Trace

4. M = Missing/Manquant

5. No entry/Pas de valeur - No occurrence/Pas d'événement

6. * Indicates first of more than one prevailing direction and/or maximum 2 minute mean speed (see page 4)/Indique la première de plusieurs des directions dominantes et/ou la vitesse moyenne maximale sur 2 minutes (voir page 4)

7. C = Calm/Calm \$3.00 \$29.50

8. Price single issue annual (Jan to Dec) /Prix numéro individuel annuel (janv à déc)



Temperature/Temperature Precipitation/Precipitation Rapport hauteur de pluie Snowfall/Hauteur de neige Wind speed/Vitesse du vent Station pressure/Pression à la station	THIS MONTH CE MOIS-CI		PREVIOUS YEAR ANNÉE PRÉCÉDENTE		NORMAL NORMALE	RECORD FOR THE MONTH RECORD POUR LE MOIS						DATE DATE
	VALUE RELEVÉ	DAY JOUR	VALUE RELEVÉ	DAY JOUR		HIGHEST EVER MAXIMUM ABSOLU			LOWEST EVER MINIMUM ABSOLU			
						VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	
HIGHEST TEMPERATURE (MAXIMUM) TEMPÉRATURE MAXIMALE	27.7	29	26.7	31		42.2	11	1936				121
LOWEST TEMPERATURE (MINIMUM) TEMPÉRATURE MINIMALE	6.7	7	6.6	10					1.1	3	1972	121
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE	17.7		15.9		19.8	24.2		1936	15.4		1884	121
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE	193.4		110.7		72.0	197.4		1953	13.5		1875	121
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE	0.0		0.0		0.0	0.0		SVRL	0.0		SVRL	121
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE	193.4		110.7		72.0	197.4		1953	13.5		1875	121
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE	21		15		11	21		1993	5		1939	121
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE	83.6	25	26.0	3		133.6	12	1914				121
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE	0.0	0	0.0	0		0.0	0	SVRL				121
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE	83.6	25	26.0	3		133.6	12	1914				121
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN:												
5 MINUTES	5.2	25	5.1	14		17.8	16	1968				40
10 MINUTES	7.5	25	7.5	14		24.6	16	1968				40
15 MINUTES	8.8	25	11.3	14		35.3	16	1968				40
30 MINUTES	15.0	25	17.3	14		39.4	16	1968				40
60 MINUTES	21.1	25	18.2	14		39.4	16	1968				40
24 CONSECUTIVE HOURS HEURES CONSECUTIVES	87.1	25	26.0	3		133.6	12	1914				121
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)	14.9		12.9		15.0	20.9		1952	10.9		1972	72
MAXIMUM SPEED (2 min. mean) (km/h) VITESSE MAXIMALE (moyenne sur 2 min.) (km/h)	SSE 41	22	S 41	14		NW 68	10	1946				54
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)	S 67	22	S 59	14		SSW127	14	1959				46
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION	220.1		247.4		321.7	367.7		1974	178.3		1912	111
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)	98.24		98.48		98.45	98.70		1956	98.20		1975	54
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)	99.50	20	99.34	20		100.30	12	1990				54
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)	95.52	4	97.20	15					95.52	4	1993	54

CLIMATOLOGICAL DATA THIS MONTH FOR THE PAST
DONNÉES CLIMATOLOGIQUES CE MOIS-CI POUR LES

YEARS
DERNIÈRE ANNÉES

YEAR ANNÉE	MAXIMUM TEMP MAXIMALE	MINIMUM TEMP MINIMALE	MEAN TEMP MOYENNE	RAINFALL HAUTEUR DE PLUIE	SNOWFALL HAUTEUR DE NEIGE	TOTAL PRECIP TOTALE	MEAN WIND SPEED VITESSE MOYENNE DES VENTS	MAXIMUM WIND SPEED VITESSE MAXIMALE DES VENTS	SUNSHINE HEURES INSOLATION	HEATING DEGREE-DAYS DEGRÉS-JOURS DE CHAUFFE	GROWING DEGREE-DAYS DEGRÉS-JOURS DE CROISSANCE	COOLING DEGREE-DAYS DEGRÉS-JOURS DE RÉFRIGÉRATION	RAINFALL APRIL 1
1984	31.1	4.6	19.6	38.3	0.0	38.3	14.0	S 39	333.3	14.9	452.5	0.0	338.9
1985	32.3	7.5	18.8	34.0	0.0	34.0	12.0	S 52	357.1	19.9	426.3	0.0	172.8
1986	31.0	9.7	19.5	118.0	0.0	118.0	13.3	SSE 44	291.2	9.7	450.2	0.0	288.7
1987	33.3	9.0	20.0	130.1	0.0	130.1	13.1	ESE 39	266.8	13.8	464.5	75.3	217.7
1988	35.5	6.9	21.1	70.8	0.0	70.8	14.0	ESE 44	347.3	7.9	500.5	105.4	196.0
1989	35.9	12.7	22.1	33.4	0.0	33.4	12.3	SSE 33	342.3	0.4	529.3	126.7	218.4
1990	30.8	7.4	19.2	33.2	0.0	33.2	13.0	ESE 37	332.6	17.9	439.8	54.7	219.2
1991	30.8	7.4	19.2	33.2	0.0	33.2	13.0	ESE 37	332.6	9.0	456.2	62.2	275.1
1992	26.7	6.6	15.9	110.7	0.0	110.7	12.9	S 41	247.4	71.3	337.9	6.2	215.1
1993	27.7	6.7	17.7	193.4	0.0	193.4	14.9	SSE 41	220.1	37.9	394.0	28.9	331.2

Note/Avs 1. Climatological Day/Journée climatologique 00 01 C.S.T. - 23 00 C.S.T.

2. Normal/Normale 1951-1980

3. Extremes for period of record/Extrêmes pour la période de registre

4. Maximum rainfall recorded in: may overlap calendar days/Hauteur de pluie maximale enregistrée en: peut-être pour plus d'une journée du calendrier

5. ** Indicates most recent occurrence/Indique le plus récent

6. * Indicates first of more than one occurrence/Indique le premier de plusieurs

DRY BULB TEMPERATURE SUMMARY
 SOMMAIRE DES TEMPERATURES DU THERMOMETRE SEC

WINNIPEG INT'L AIRPORT

JULY 1993
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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	138	139	141	149	149	152	157	175	191	204	222	225	225	217	207	166	162	162	162	162	163	157	149	145	171
A 2	147	139	146	147	142	138	146	166	185	197	206	221	226	236	245	243	249	249	241	234	220	209	181	167	195
T 3	179	166	170	160	166	166	178	193	214	228	238	238	234	229	224	227	228	228	229	224	179	175	178	201	201
E 4	171	174	178	182	183	185	188	194	196	206	210	215	214	245	244	236	224	213	205	201	206	189	183	175	201
5	169	164	165	167	164	157	155	155	157	155	155	164	166	189	185	178	180	180	171	160	160	147	135	126	163
6	122	114	107	108	111	112	116	119	124	119	129	125	139	129	128	124	122	122	122	125	126	122	124	122	121
7	107	99	89	78	79	73	91	120	138	152	160	164	171	176	175	175	172	167	161	155	149	142	138	139	136
8	136	135	135	130	124	120	128	135	149	167	172	189	194	193	211	218	211	208	200	192	173	165	144	168	168
9	146	140	132	134	120	125	131	150	171	189	206	214	230	235	242	249	234	188	173	198	190	172	162	151	178
10	146	139	134	137	123	123	130	143	158	169	180	180	179	176	195	209	205	198	192	195	173	145	142	132	163
11	129	126	112	105	92	93	96	114	129	147	154	170	163	163	164	159	169	170	166	155	132	130	125	117	137
12	118	118	114	112	112	110	108	118	130	148	168	176	176	179	188	188	186	186	181	179	168	151	134	136	150
13	115	112	95	96	86	80	91	130	144	157	156	161	168	167	162	172	176	182	164	161	146	130	134	131	138
14	122	115	101	94	96	83	98	124	151	167	186	194	192	209	216	206	216	206	213	205	192	177	156	142	161
15	126	123	138	138	127	127	128	146	166	173	171	181	197	197	205	202	196	199	179	168	168	161	161	163	164
16	160	163	161	160	161	161	161	157	164	166	182	185	209	221	215	215	211	215	216	213	196	192	185	178	185
17	181	180	177	173	169	171	176	179	193	204	216	224	233	241	245	249	246	239	242	233	218	194	187	176	206
18	167	157	152	144	141	138	149	168	197	208	222	232	231	237	245	246	237	221	202	165	159	163	156	154	187
19	154	147	135	133	130	132	130	138	147	166	165	171	160	191	188	206	203	203	195	185	164	151	127	127	160
20	126	113	105	114	120	113	119	128	144	155	167	171	171	182	189	189	200	200	196	191	164	146	141	154	154
21	128	117	116	117	116	131	141	150	177	197	206	211	218	226	239	237	221	222	215	209	200	187	185	190	182
22	190	188	184	184	182	181	183	187	197	204	221	222	232	234	226	229	226	205	184	184	177	174	175	174	198
23	169	162	160	159	157	156	157	158	164	175	174	182	194	199	205	207	212	211	205	203	203	196	189	190	181
24	190	184	183	179	182	177	180	187	188	191	192	181	190	197	202	197	199	209	217	215	214	208	198	194	194
25	191	195	191	189	188	187	186	190	195	197	200	198	200	198	196	196	192	191	193	194	192	186	185	183	192
26	180	180	181	180	181	179	178	179	184	186	192	199	216	228	234	235	234	235	219	208	208	199	192	177	200
27	167	172	166	162	164	165	169	177	181	186	186	194	194	192	183	187	185	182	182	181	179	178	177	177	179
28	174	168	169	162	156	151	149	157	161	166	179	189	196	215	214	215	226	222	211	186	171	165	153	183	183
29	147	144	149	132	135	129	146	170	195	212	235	245	255	262	265	265	271	271	268	260	248	234	228	220	212
30	215	201	195	190	189	180	180	195	211	225	239	252	256	260	260	254	263	263	260	257	250	237	232	226	229
31	207	173	162	155	146	139	142	147	175	197	215	226	234	242	248	258	262	261	247	240	216	205	199	175	203

MEAN 155 150 147 144 141 139 144 155 169 180 189 197 201 209 211 212 210 207 201 196 187 174 167 162 177

*TEMPERATURES IN TENTHS OF DEGREES CELSIUS
 *TEMPERATURES EN DIXIEME DEGRES CELSIUS

DEU POINT SUMMARY
 SUMMAIRE DES TEMPERATURES DE ROSEE

WINNIPEG INT'L AIRPORT

JULY 1993
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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	130	132	137	145	145	148	150	156	161	170	176	179	173	170	169	143	148	152	148	141	139	135	134	151	
A	134	130	135	134	131	129	126	135	133	144	142	154	146	132	140	145	143	144	151	160	160	160	138	141	
T	150	147	136	136	133	130	135	137	144	157	164	148	147	151	142	143	145	150	147	142	153	152	146	145	
E	154	159	162	164	165	165	166	169	172	175	179	173	172	156	149	140	136	142	150	142	141	141	145	158	
	146	151	149	149	145	139	132	133	131	131	141	148	153	164	149	145	144	146	144	151	148	131	121	142	
	101	96	95	98	100	97	104	107	99	106	100	101	106	107	114	109	112	108	110	104	106	109	108	105	
	100	94	84	73	76	69	86	100	106	107	92	94	92	92	107	111	107	110	112	111	122	126	127	100	
	124	124	124	118	115	113	118	118	119	121	113	120	110	117	118	123	119	119	121	116	114	126	123	113	
	111	110	104	112	104	108	119	135	147	148	144	150	151	158	142	150	140	157	149	161	159	150	145	137	
	124	115	112	113	105	99	102	97	96	108	101	101	110	101	102	107	108	95	96	103	88	88	87	103	
	85	76	72	69	69	71	74	83	92	97	95	88	94	94	89	100	94	98	98	96	104	97	97	100	
	103	93	97	98	96	90	88	92	100	107	87	84	84	74	84	78	75	87	87	95	97	98	99	96	
	93	103	85	87	75	74	78	104	108	115	106	104	101	101	105	103	96	96	109	106	105	112	111	99	
	108	102	94	91	92	79	92	106	116	116	113	114	100	99	100	95	94	101	113	108	110	111	112	113	
	103	107	96	89	100	100	103	110	114	111	120	123	112	130	126	128	149	139	152	144	146	148	142	140	
	140	138	137	137	138	140	143	149	153	160	172	169	174	176	168	172	168	170	169	175	180	174	171	172	
	172	171	169	167	165	167	171	169	164	168	169	169	146	142	148	146	134	137	147	148	152	155	151	147	
	142	137	135	129	126	126	132	139	154	154	144	147	141	142	142	148	146	165	172	150	153	156	148	145	
	143	142	125	124	125	123	120	118	118	118	109	116	133	104	103	100	103	109	113	114	115	117	113	114	
	113	104	100	106	112	106	112	116	120	108	110	108	107	100	109	109	90	94	45	98	96	90	97	101	
	102	98	101	95	93	100	103	109	116	118	111	106	115	117	122	102	130	121	112	125	135	135	128	114	
	125	124	124	124	125	126	127	130	137	148	156	154	159	161	155	162	164	176	167	161	159	162	159	158	
	153	148	147	148	149	151	153	155	156	161	160	162	164	167	169	172	175	173	176	177	182	178	180	163	
	179	176	175	174	176	172	174	181	181	183	183	167	180	185	187	185	187	191	190	190	190	188	189	185	
	183	184	182	182	181	181	180	183	185	185	186	186	188	186	187	188	184	184	187	187	184	177	176	183	
	173	170	169	167	165	164	162	159	161	163	165	170	181	185	166	177	162	167	175	168	163	164	154	167	
	155	158	156	156	158	156	157	162	165	166	166	165	171	169	173	172	174	172	171	171	168	167	166	168	
	164	160	159	154	147	140	140	147	145	147	148	153	155	151	153	149	157	151	155	149	157	155	148	151	
	142	142	144	127	128	125	139	149	163	177	179	181	173	179	177	172	177	175	181	184	180	179	172	169	
	168	166	164	161	160	157	155	157	162	162	149	159	153	161	173	186	192	200	211	211	214	209	205	200	
	150	134	107	99	96	93	94	102	118	128	140	128	127	123	126	134	129	123	138	139	114	110	98	90	
MEAN	135	132	128	127	126	124	127	132	136	140	140	139	140	140	139	139	138	140	142	143	142	142	139	136	
MOYENNE																								136	

*TEMPERATURES IN TENTHS OF DEGREES CELSIUS
 *TEMPERATURES EN DIXIEME DEGRES CELSIUS

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	DIR.	PEAK WIND SPEED	TIME	
D 17	NE	ENE	E	ESE	NW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	WSW	WSW	SW	SW	SW				
A 4	6	4	4	9	4	4	7	11	17	19	22	17	22	13	20	9	20	17	20	11	13	13	7	13				
Y	18	WSW	WSW	WSW	WSW	W	W	W	WSW	SSW	WSW	W	W	WSW	W	WNW	W	WNW	W	WNW	WNW	WSW	NW	WNW	NW	SW	46	18:05
O	17	11	11	7	9	13	9	13	6	7	15	9	11	9	6	7	9	7	6	4	6	6	4	9				
F	19	NW	N	N	N	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	48	15:30	
M	15	13	9	4	6	13	11	17	19	28	17	15	13	30	28	26	24	28	20	20	11	13	7	9				
O	20	WNW	WNW	W	NW	N	WNW	WNW	NW	N	N	ENE	NNE	NNE	NW	N	NNE	N	NE	NE	NE	E	E	E				
N	13	11	9	7	11	9	11	15	19	13	17	7	11	4	9	11	11	11	7	9	4	4	6	4				
T	21	C	E	C	E	ESE	ESE	E	ESE	ESE	SE	S	SSE	SSE	S	SSE	S	S	SSE	S	SSE	SSE	SE	SE	S	43	09:57	
H	0	2	0	4	4	4	6	9	17	15	19	30	30	28	26	24	22	22	20	20	17	17	13	20				
22	SSE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	67	17:35	
23	S	S	S	S	S	S	SSE	S	SSE	SSE	S	S	S	SW	SSW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	33	01:05	
24	S	C	C	E	C	E	C	E	SE	ESE	ESE	E	E	ENE	E	ESE	E	E	E	ENE	E	ENE	NNE	NE	E	37	11:44	
25	ENE	ENE	NNE	NE	NNE	N	NE	NNE	NNE	NE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	N	44	16:30	
26	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	39	01:06	
27	C	ENE	E	ENE	E	E	ENE	E	E	ENE	E	E	ESE	NE	E	NE	NE	ENE	ENE	NE	ENE	NE	ENE	NE	ENE	33	11:39	
28	NW	N	N	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	N	N	N	N	N	N	N	N	N	N	NNW	43	07:28	
29	SSW	SSW	C	C	C	C	S	S	S	S	S	SSE	S	SSW	SSW	S	SSW	SSW	S	S	SSE	SSE	SSE	SSE				
30	S	S	S	S	S	SSE	S	S	S	S	SSE	S	SSE	S	SSE	S	SSE	S	SSE	S	SSE	SSE	SSE	SSE	SSE	57	09:59	
31	WNW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	SW	41	15:46	

EQUAL TO OR OVER	10	15	20	25	30	35	40	45	50	55	60	65	70	WINDSPEED IS
NUMBER OF HOURS	470	358	234	125	59	17	5	0	0	0	0	0	0	
NUMBER OF DAYS	31	29	25	18	12	3	2	0	0	0	0	0	0	IN KM/HR
MAX CONSECUTIVE HOURS	82	75	36	27	10	5	1	0	0	0	0	0	0	

DAILY WEATHER SUMMARY FOR JULY, 1993 AT WINNIPEG, MANITOBA

1. Overcast with drizzle and fog overnight, showers and thundershowers mid-afternoon ending early evening. Temperatures near normal. Winds light to moderate.
2. Variable cloudiness. Temperatures near normal. Winds light.
3. Mainly cloudy becoming overcast by late morning with showers mid-afternoon, thundershowers and fog late evening. Temperatures near normal. Winds light to moderate.
4. Overcast with showers late morning, becoming mainly cloudy by late afternoon. Maximum temperature near normal, minimum slightly above normal. Winds moderate gusting strong.
5. Overcast with showers. Maximum temperature below normal, minimum near normal. Winds moderate.
6. Overcast with showers and fog, clearing by late evening. Maximum temperature well below normal, minimum slightly below normal. Winds light to moderate.
7. Clear becoming mainly cloudy by late morning, overcast by early evening. Maximum temperature well below normal, minimum below normal. Winds light.
8. Overcast, clearing by early evening. Maximum temperature slightly below normal, minimum near normal. Winds light.
9. Variable cloudiness with thundershowers, clearing by early evening. Temperatures near normal. Winds light.
10. Variable cloudiness. Maximum temperature below normal, minimum near normal. Winds light.
11. Clear becoming overcast by late morning with showers mid-afternoon and late evening. Maximum temperature well below normal, minimum slightly below normal. Winds light.
12. Variable cloudiness with showers ending overnight. Maximum temperature below normal, minimum below normal. Winds light gusting moderate late morning.
13. Clear becoming mainly cloudy by early morning with showers early afternoon. Maximum temperature well below normal, minimum below normal. Winds light.
14. Variable cloudiness. Temperatures below normal. Winds light.
15. Clear becoming overcast overnight with showers late morning to mid-evening. Maximum temperature below normal, minimum near normal. Winds light.
16. Overcast with drizzle, rain and fog throughout the day. Maximum temperature below normal, minimum near normal. Winds light.
17. Overcast with showers and fog, clearing by early morning. Temperatures near normal. Winds light.
18. Clear becoming mainly cloudy with showers and thundershowers by mid-afternoon. Temperatures near normal. Winds light.
19. Overcast with occasional showers, clearing by early evening. Maximum temperature below normal, minimum near normal. Winds light increasing to moderate early afternoon, decreasing to light early evening.
20. Variable cloudiness. Maximum temperature below normal, minimum slightly below normal. Winds light.
21. Clear becoming overcast with showers by mid-afternoon. Maximum temperature near normal, minimum slightly below normal. Winds light to moderate gusting to strong late morning and late evening.
22. Overcast with showers and thunder showers. Maximum temperature near normal, minimum slightly above normal. Winds moderate gusting to strong.
23. Overcast with showers, drizzle and fog. Maximum temperature below normal, minimum near normal. Winds light.
24. Overcast with showers and fog. Maximum temperature below normal, minimum above normal. Winds light. Heavy rains and local flooding reported. 107.0 mm in the St. Vital area.
25. Overcast with showers and fog. Visibility reduced to 1/2 a mile in fog early morning. Maximum below normal, minimum above normal. Winds light to moderate. Heavy rains and local flooding reported. 119.0 mm in the St. Vital area.
26. Overcast with showers, clearing by mid-evening. Maximum temperature near normal, minimum slightly above normal. Winds moderate to light.
27. Overcast with showers and fog. Maximum below normal, near normal. Winds light to moderate.
28. Overcast with showers clearing by late afternoon. Maximum slightly below normal, minimum near normal. Winds light to moderate gusting strong late morning.
29. Mainly sunny. Temperatures near normal. Winds light.
30. Variable cloudiness. Maximum temperature near normal, minimum above normal. Winds light gusting strong late morning.
31. Mainly sunny. Temperatures near normal. Winds light, gusting to moderate late afternoon.

Month: JULY Year: 1993

	CURRENT		NORMAL	
	VALUE	DATE	VALUE	DATE
Mean Maximum	22.3		26.1	
Mean Minimum	13.1		13.4	
Mean	17.7		19.8	
Extreme Maximum and Date	27.7	29	42.2	11/1936
Extreme Minimum and Date	6.7	7	1.1	3/1972
Rainfall (mm)	193.4		72.0	
Snowfall (cm)	0.0		0.0	
Total Precipitation (mm)	193.4		72.0	
Days With Thunder	5		8	
Days With Measurable Precipitation	21		11	
Sunshine Hours	220.1		321.7	
Wind (km/h)	14.9		15	
Heating Degree Days Below 18 C	37.9		18.5	
Growing Degree Days Above 5 C	394.0		457.6	
Heating Degree Days Below 0 C	0.0		0.0	
Cooling Degree Days Above 18 C	28.9		73.1	

Highlights of the Month

The numbers speak for themselves. It was a cool, cloudy and wet month.

How cool, cloudy and wet was it?

1. The mean temperature of 17.7 was 2.1 degrees below normal and ranks as the 11th coldest in over 120 years of temperature records at Winnipeg. The coldest July occurred in 1884 when the mean temperature was only 15.4 degrees.
 2. The mercury did not rise above the 30 degree mark during the month, something that normally occurs 5 times in July. The highest temperature during the month was 27.7 degrees on the 29th.
 3. Sunshine hours were below normal by 101.6 hours. Only one other July this century had less sunshine. July of 1912 was the cloudiest on record with only 178.3 hours of sunshine.
 4. This was the second wettest July on record. The total of 193.4 mm was 269% of normal and was only 4.0 mm short of the record July rainfall of 197.4 mm in 1953.
 5. Measurable rainfall was recorded on 21 days during July setting a new record. The previous record was 18 days while normally, there are only 11 days with measurable rainfall in July.
- The main event during July was the heavy rain that fell on the 24th and 25th. While the two day total of 107.8 mm at the airport represents an event with a return period of about 70 years, and the four day total of 127 mm has a return period of over 100 years, other parts of the city reported one day rainfall totals of over 100 mm on both the 24th and the 25th. In other words, one day rainfall amounts that should be expected once every 100 years fell on consecutive days!