



# MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS MARCH / MARS

19 77

AT/À WINNIPEG INT'L AIRPORT / AEROPORT INTERN. DE WINNIPEG

LAT: 49 ° 54' N		LONG: 97 ° 14' W		ELEVATION: 786 FEET (ASL) / ALTITUDE: 786 PIEDS (MER)		STANDARD TIME USED: CENTRAL / HEURE NORMALE UTILISÉE: CENTRAL															
DATE	TEMPERATURE / TEMPÉRATURE			DEGREE-DAYS / DEGRÉS-JOURS		REL. HUMIDITY / HUMIDITÉ REL.		THUNDERSTORM / ORAGE	PRECIPITATION / PRÉCIPITATIONS			SNOW ON GROUND / NEIGE AU SOL	WIND / VENT			BRIGHT SUNSHINE / INSOLATION EFFECTIVE					
	MAXIMUM / MAXIMALE	MINIMUM / MINIMALE	MEAN / MOYENNE	HEATING / DE CHAUFFE	GROWING / DE CROISSANCE	MAXIMUM / MAXIMALE	MINIMUM / MINIMALE		RAINFALL / PLUIE (HAUTEUR)	SNOWFALL / NEIGE (HAUTEUR)	TOTAL PRECIP. / TOTAL PRECIP. TOTALE		AVERAGE SPEED / VITESSE MOYENNE	PREVAILING DIRECTION / DIRECTION DOMINANTE	MAXIMUM SPEED AND DIRECTION / VITESSE MAXIMALE ET DIRECTION						
	°C	°C	°C	BASE 18.0°C	BASE 6.0°C	%	%		mm	cm	mm		km/h		km/h		HOURS / HEURES				
1	-4.0	-14.5	-9.3	27.3	0.0	89	76		Tr.	Tr.	38	15.2	W	W	22	7.5					
2	-5.9	-21.0	-13.5	31.5	0.0	94	66		Tr.	Tr.	36	6.7	S,SSW	SSW	15	8.0					
3	-3.1	-22.5	-12.8	30.8	0.0	95	77		Tr.	Tr.	36	9.7	NNE	NNE	22	7.9					
4	-3.7	-19.7	-11.7	29.7	0.0	86	65				36	12.9	NNE	N	20	9.7					
5	-2.5	-18.4	-10.5	28.5	0.0	89	64				36	9.6	W	NW	17	9.7					
6	-0.3	-17.1	-8.7	26.7	0.0	90	78		Tr.	Tr.	35	24.8	S	S	43	7.2					
7	3.0	-11.3	-4.2	22.2	0.0	91	68				34	16.8	S	S	31	8.8					
8	5.2	-2.7	1.3	16.7	0.0	90	64		Tr.	Tr.	29	18.0	S	SSW	22	7.8					
9	7.8	-0.7	3.6	14.4	0.0	90	48				17	17.1	WSW	WSW	31	9.6					
10	5.2	-1.9	1.7	16.3	0.0	89	71		Tr.	Tr.	11	15.8	NNE	NNE	22*	1.7					
11	3.0	-3.1	-0.1	18.1	0.0	94	71			1.0	7	22.7	N	N	37	0.6					
12	1.7	-6.1	-2.2	20.2	0.0	97	87			3.6	6	29.1	NNE	NNE	41*	4.1					
13	3.1	0.3	1.7	16.3	0.0	97	90			0.7	4	8.5	NE	NE	20	0.0					
14	7.7	1.2	4.5	13.5	0.0	97	63		Tr.	Tr.	3	22.6	S	SSW	31*	8.9					
15	2.1	-5.0	-1.5	19.5	0.0	88	76			Tr.	Tr.	25.4	WNW	NW	37	1.1					
16	-1.0	-7.6	-4.3	22.3	0.0	83	65			1.0	Tr.	14.7	W,WNW	NW	30	4.9					
17	5.0	-5.6	-0.3	18.3	0.0	86	44			Tr.	Tr.	14.1	SE	SE	28	5.3					
18	2.8	-2.1	0.4	17.6	0.0	93	63			0.5	Tr.	9.8	S,SE	W	20	0.9					
19	-1.1	-6.2	-3.7	21.7	0.0	88	73			Tr.	Tr.	21.2	W	W	30	4.2					
20	-6.1	-12.4	-9.3	27.3	0.0	88	51			0.8	Tr.	19.3	WNW	NW	30*	10.1					
21	4.0	-10.1	-3.1	21.1	0.0	82	45			Tr.	Tr.	24.1	S	S	37	9.5					
22	-7.7	-16.0	-11.9	29.9	0.0	80	50			Tr.	Tr.	27.3	NE	NNE	44	7.6					
23	-3.9	-18.1	-11.0	29.0	0.0	81	42			Tr.	Tr.	11.6	ESE	ESE	26	6.2					
24	5.3	-6.6	-0.7	18.7	0.0	83	42			Tr.	Tr.	39.4	ESE	ESE	54	7.0					
25	5.5	-3.4	1.1	16.9	0.0	97	48			1.5	Tr.	13.5	ESE	ESE	44	4.2					
26	5.0	-0.3	2.4	15.6	0.0	100	79			0.5	2.0	7.1	NNW	N	13*	0.1					
27	11.8	0.0	5.9	12.1	0.9	97	57		Tr.	Tr.	0	16.8	S	S	28	8.3					
28	16.0	0.9	8.5	9.5	3.5	90	32			0	0	23.1	E	ENE	44	9.9					
29	4.8	-0.8	2.0	16.0	0.0	76	46			0	0	55.4	NNE	NNE	67	0.0					
30	3.7	-5.4	-0.9	18.9	0.0	87	33			0	0	40.6	NNE	NNE	52	8.9					
31	7.1	-7.2	-0.1	18.1	0.0	87	30			Tr.	Tr.	29.2	S	SSE	48	10.1					
MEAN MOYENNE	2.3	-7.9	-2.8	TOTAL 644.7	TOTAL 4.4	89	60	TOTAL	TOTAL 7.3	TOTAL 4.3	TOTAL 9.9		20.1	South by hours	MAXIMUM NNE 67	TOTAL 189.8					
NORMAL NORMALE	-2.9	-13.3	-8.1	806.1	5.8			0.1	6.1	21.1	26.2		19.6	SOUTH		170.4					
DEGREE-DAY SUMMARY - SOMMAIRE DE DEGRÉS-JOURS										DAYS WITH TOTAL PRECIPITATION: JOURS AVEC PRÉCIPITATIONS					DAYS WITH SNOWFALL: JOURS AVEC CHÛTE DE NEIGE:						
BELOW 18°C / AU-DESSOUS DE 18°C			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	TOTALS: mm					TOTALS: cm				
TOTAL FOR MONTH / TOTAL DU MOIS			644.7	868.8	806.1	TOTAL FOR MONTH / TOTAL DU MOIS			4.4	N11	5.8	0.2 OR MORE / OU PLUS	1.0 OR MORE / OU PLUS	2.0 OR MORE / OU PLUS	10.0 OR MORE / OU PLUS	50.0 OR MORE / OU PLUS	0.2 OR MORE / OU PLUS	1.0 OR MORE / OU PLUS	2.0 OR MORE / OU PLUS	10.0 OR MORE / OU PLUS	50.0 OR MORE / OU PLUS
ACCUMULATED SINCE JULY 1 / ACCUMULÉE DEPUIS LE 1 <sup>er</sup> JUILLET			5205.6	5079.8	5118.4	ACCUMULATED SINCE APRIL 1 / ACCUMULÉE DEPUIS LE 1 <sup>er</sup> AVRIL			1890.8	1794.0	1808.7	7	4	2	0	0	4	2	1	0	0

UDC 551.506.1 ( ) + By KMS NNE ; \* Indicates more than one occurrence of same speed but not necessarily the same direction.  
 YEARLY SUBSCRIPTION RATES: \$12.00 per year - includes monthly & annual; \$10.00 per year - monthly only; \$2.00 per year - annual only  
 \$1.00 individual copies of monthly

COMPARATIVE RECORDS RELEVÉS COMPARATIFS		MONTH MOIS						MARCH / MARS			19 77		
Temperature/Température Précipitation/Précipitation Rainfall/Hauteur de pluie Snowfall/Hauteur de neige Wind speed/Vitesse du vent Station pressure/Pression à la station	°Celsius — Millimètres (mm) — Millimètres (mm) — Centimètres (cm) — Kilomètres/par heure (km/h) — Kilopascals (kPa)	THIS MONTH CE MOIS-CI		PREVIOUS YEAR ANNÉE PRÉCÉDENTE		NORMAL NORMALE	RECORD FOR THE MONTH RECORD POUR LE MOIS						YEARS OF RECORD ANNÉES D'OBSERVATIONS
		VALUE RELEVÉ	DATE	VALUE RELEVÉ	DATE		HIGHEST MAXIMUM ABSOLU			LOWEST MINIMUM ABSOLU			
							VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	
HIGHEST TEMPERATURE TEMPÉRATURE LA PLUS ÉLEVÉE		16.0	28	6.2	29	8.1	23.3	27	1946	-1.7	24	1899	106
LOWEST TEMPERATURE TEMPÉRATURE LA PLUS BASSE		-22.5	3	-32.7	5	-27.8	-10.6	24	1878	-38.9	10	1880	106
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE		-2.8		-10.0		-8.1	1.6		1878	-16.1		1899	106
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE		7.3		3.8		6.1	67.6		1945	(Nil several)			106
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE		4.3		29.2		21.1	76.2		1904	.8		1946	106
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE		9.9		23.1		26.2	76.2		1904	1.5		1939	106
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE		7		14		10	17		1944	3	(several)		94
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE		3.6	12	2.5	20		32.0	9	1878				106
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE		2.0	26	19.3	2		38.1	4	1935				106
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE		3.6	12	12.2	2		38.1	4	1935				106
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN:													
5 MINUTES		.3	12				.8	10	1973				9
10 MINUTES		.5	12				1.0	10	1973				9
15 MINUTES		.5	12				1.8	10	1973				9
30 MINUTES		1.0	12				2.5	10	1973				9
60 MINUTES		1.5	12				2.5	10	1973				9
24 CONSECUTIVE HOURS HEURES CONSECUTIVES		4.3	12-13	3.5	19-20		32.0	9	1878				106
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)		20.1		16.9		19.6	25.6		1944	12.6		1924	57
MAXIMUM SPEED (1 min.) (km/h) VITESSE MAXIMALE (1 min.) (km/h)		NNE 67	29	N 61	20	55	N 80	4	1966				39
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)		NNE 93	29	N 76	20	78	N113	4	1966				39
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION		189.8		186.1		170.4	217.4		1970	103.0		1903	78
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)		98.30		98.31		98.82	99.83		1947	98.09		1945	39
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)		99.84	23	99.83	1	100.50	101.80	12	1951				39
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)		96.93	27	95.19	20	96.62				95.17	30	1967	39
CLIMATOLOGICAL DATA FOR THE PAST DONNÉES CLIMATOLOGIQUES POUR LES													
ten dix													
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 WINDSPEED VITESSE MOYENNE DES VENTS	MAXIMUM WINDSPEED VITESSE MAXIMALE DES VENTS	HOURS SUNSHINE HEURES INSOLATION	HEATING DEGREE-DAYS DEGRÉS-JOURS DE CHAUFFE	GROWING DEGREE-DAYS DEGRÉS-JOURS DE CROISSANCE		
1968	14.4	-26.1	- 3.8	3.8	11.2	13.2	19.0	N 60	182.0	671.7	7.8		
1969	2.8	-26.1	-10.8	Tr.	10.9	9.9	17.8	N 48	200.6	887.8			
1970	2.2	-31.1	-13.1	Tr.	30.5	27.4	16.4	N,NNE 42	217.4	960.6			
1971	5.6	-23.3	- 6.7	7.4	36.8	43.7	23.3	NW 58	140.5	763.3			
1972	5.0	-31.7	- 8.1	4.6	16.0	20.1	13.8	NNW 48	142.6	805.6			
1973	15.6	-12.2	0.5	3.0	10.2	13.7	17.2	S 52	149.9	540.0	6.1		
1974	2.8	-32.2	-11.2	.8	14.5	15.2	19.3	N 52	182.5	901.7			
1975	3.8	-27.9	-10.8	1.5	19.5	18.9	20.3	NNE 48	192.3	892.0			
1976	6.2	-32.7	-10.0	3.8	29.2	23.1	16.9	N 61	186.1	868.8			
1977	16.0	-22.5	- 2.8	7.3	4.3	9.9	20.1	NNE 67	189.8	644.7	4.4		

March weather was milder and drier than usual in Winnipeg. Temperature readings stayed at or above normal for seventeen days from March 3 to March 19. The monthly mean averaged more than five degrees above normal and the nights of March 9 and 14 were the warmest on record for those dates.

Rainfall amounted to 1.2 mm more than normal, but snowfall was far below normal. Water equivalent of rain and snow amounted to only 9.9 mm compared to the normal amount of 26.2 mm for March

Sunshine totalled 19.4 hours more than usual for March.

DAILY WEATHER SUMMARY FOR MARCH 1977

AT WINNIPEG, MANITOBA

1. Above normal temperatures. Mostly sunny. Snow 8:21 a.m. to 9:48 a.m. Ice crystals 9:26 a.m. to 10:45 a.m. Ice fog 8:33 a.m. to 9:13 a.m. Visibility severely reduced. Light winds.
2. Near normal temperatures. Mostly sunny. Light winds. Ice crystals 8:17 a.m. to 9:47 a.m. Fog 11:40 p.m. continued. Visibility severely reduced.
3. Normal temperatures. Mostly sunny. Ice crystals 9:36 a.m. to 10:55 a.m. Ice fog or fog to 8:45 a.m. Mostly light winds. Visibility severely reduced.
4. Near normal temperatures. Sunny. Light winds.
5. Near normal temperatures. Sunny. Light winds.
6. Above normal temperatures. Partly cloudy. Ice crystals 8:10 a.m. to 9:29 a.m. Light ice fog in morning. Visibility reduced. Gusty south winds in afternoon and evening.
7. Mild. Mostly sunny. Gusty south wind in evening. Light fog in morning.
8. Mild. Partly cloudy. Light rain 07:18 p.m. to 9:20 p.m. Visibility slight reduced in evening. Light winds.
9. Mild. Mostly sunny. Mostly light winds.
10. Mild. Mostly cloudy. Light rain 12:28 p.m. to 12:40 p.m. Mostly light winds.
11. Mild. Cloudy. Light rain 05:06 a.m. to 09:46 a.m. Mostly light winds.
12. Mostly cloudy. Above normal temperatures. Rain 4:34 p.m. to 10:35 p.m. 11:35 p.m. to 11:40 p.m. snow. 10:35 p.m. continued. Visibility slightly reduced in evening. Moderate northeast winds.
13. Overcast. Mild. Snow continuing to 2:16 a.m. Rain 3:21 a.m. to 4:44 a.m. Drizzle 4:44 a.m. to 11:45 a.m. 08:55 p.m. and continuing. Fog 7:34 p.m. to 11:55 p.m. Visibility severely reduced. Light winds.
14. Mostly sunny and mild. Drizzle ending 00:54 a.m. Fog 00:48 to 01:10 a.m. Visibility severely reduced in morning. Mostly light winds.
15. Above normal temperatures. Mostly cloudy. Snow 04:17 a.m. to 5:55 a.m. 10:50 a.m. to 07:30 p.m. Moderate northwest winds in evening.
16. Above normal temperatures. Partly cloudy. Snow 00:53 a.m. to 3:37 a.m. 8:06 a.m. to 1:00 p.m. Visibility slightly reduced. Mostly light winds except gusty northwest wind in early morning.
17. Above normal temperature. Partly cloudy. Mostly light winds, except gusty SSE wind in morning.
18. Above normal temperatures. Cloudy. Snow 4:20 p.m. continued. Visibility reduced. Mostly light winds.
19. Above normal temperatures. Partly cloudy. Snow to 2:40 a.m. 10:40 a.m. to 3:40 p.m. 10:12 p.m. continued. Gusty west wind in morning.
20. Below normal temperatures. Mostly sunny. Snow to 6:10 a.m. visibility restricted. Gusty NNW wind in morning.
21. Above normal temperatures. Mostly sunny. Gusty south wind in morning.
22. Below normal temperatures. Partly cloudy. Snow 8:44 a.m. to 12:11 p.m. Visibility reduced. Gusty NNE wind in early afternoon.
23. Below normal temperatures. Partly cloudy. Mostly light winds.
24. Above normal temperatures. Partly cloudy. Strong gusty ESE winds.
25. Mild. Partly cloudy. Snow 8:05 p.m. to 9:20 p.m. Rain 9:20 p.m. continued. Winds light except gusty ESE wind early morning.
26. Mild. Cloudy. Rain to 1:04 a.m. 6:40 p.m. to 7:25 p.m. Snow 00:07 a.m. to 9:05 a.m. Drizzle 7:25 p.m. to 7:50 p.m. 11:58 p.m. continued. Light fog. Visibility severely restricted in morning.
27. Mild. Partly cloudy. Drizzle to 00:48 a.m. Rain 01:20 a.m. to 2:05 a.m. 4:56 p.m. to 5:15 p.m. Light winds. Light fog in morning. Visibility slightly restricted.
28. Mild. Mostly sunny. Gusty east wind in afternoon.
29. Above normal temperatures. Cloudy. Strong gusty NNE winds. Some property damage.
30. Above normal temperatures. Partly cloudy. Moderate gusty NNE winds.
31. Above normal temperatures. Mostly sunny. Snow flurries 9:35 p.m. to 11:29 p.m. Gusty south winds.

HOURLY TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF MARCH 1977  
 LOCAL STANDARD TIME ALL TEMPERATURES IN DEGREES CELSIUS

DATE	00.	01.	02.	03.	04.	05.	06.	07.	08.	09.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
1.	-13.3	-13.6	-14.2	-13.6	-13.6	-12.7	-12.3	-12.4	-13.6	-12.6	-11.0	-9.5	-7.6	-7.0	-5.4	-4.4	-4.4	-7.1	-8.8	-15.1	-7.3	-8.7	-10.0	-10.6
2.	-11.7	-12.7	-14.3	-14.9	-15.1	-16.1	-16.3	-19.2	-17.2	-16.0	-14.0	-12.0	-9.4	-8.6	-7.0	-6.5	-7.1	-7.1	-8.8	-15.1	-7.3	-8.7	-10.0	-10.6
3.	-21.0	-20.6	-21.9	-21.2	-21.9	-21.6	-21.0	-19.5	-20.2	-19.2	-17.2	-14.8	-11.8	-9.4	-6.3	-4.7	-3.6	-4.0	-6.5	-10.0	-13.5	-13.6	-15.9	-14.4
4.	-15.5	-15.6	-16.9	-17.5	-15.8	-16.9	-16.9	-18.3	-18.1	-15.8	-12.1	-10.0	-8.3	-7.1	-5.0	-4.1	-4.7	-5.0	-6.3	-7.9	-9.8	-11.3	-11.4	-11.9
5.	-14.9	-14.7	-14.3	-15.1	-15.1	-16.7	-17.2	-17.9	-16.7	-14.1	-11.5	-9.8	-8.6	-6.9	-5.2	-3.7	-3.3	-2.8	-5.3	-7.2	-7.7	-7.7	-9.4	-12.3
6.	-12.4	-13.2	-14.1	-16.2	-17.1	-16.2	-16.3	-16.1	-14.3	-11.8	-9.3	-7.0	-4.9	-2.6	-1.4	-1.5	-1.5	-1.8	-1.9	-2.6	-4.3	-5.0	-5.2	-5.5
7.	-5.8	-6.0	-6.5	-8.0	-8.4	-9.0	-10.6	-10.4	-7.5	-5.1	-2.0	0.0	1.9	1.0	1.0	1.6	2.0	2.0	1.0	0.3	-1.5	-2.2	-1.6	-1.6
8.	-2.1	-2.2	-2.5	-1.5	-1.0	-1.5	-1.2	-1.4	-1.2	0.2	1.3	2.8	3.7	4.5	4.4	4.2	3.8	3.9	3.4	3.3	2.7	3.2	4.5	4.2
9.	5.2	4.4	3.9	3.6	3.1	2.7	2.4	1.2	1.0	1.9	3.6	4.4	5.4	6.1	6.7	7.7	7.4	6.8	6.6	2.3	1.7	4.4	0.0	1.0
10	.6	1.6	1.1	-1.0	-1.8	.1	.4	.0	1.3	.5	1.7	2.9	3.2	2.8	4.5	3.2	2.6	3.0	2.9	2.2	1.4	2.0	1.6	1.8
11	2.2	1.4	1.6	1.3	1.1	1.0	.9	.8	1.1	1.7	1.9	2.2	2.3	2.3	2.8	2.7	2.7	1.8	2.0	.2	-1.2	-1.0	-1.7	-2.2
12	-2.9	-3.9	-3.5	-4.2	-4.6	-4.4	-4.6	-5.7	-5.0	-3.6	-2.3	-1.9	-1.0	-2.2	1.4	1.6	1.7	1.2	1.1	1.2	1.2	1.5	1.4	.7
13	.7	.8	.8	.6	.6	.6	.5	.5	1.1	1.5	1.5	1.5	2.3	2.8	2.6	2.9	2.3	2.4	2.0	1.8	1.7	1.6	1.7	1.5
14	1.4	1.5	1.3	1.3	1.4	1.5	1.5	1.4	2.0	2.3	3.2	4.2	4.8	6.1	7.5	6.5	5.8	5.2	4.2	3.1	4.2	3.0	2.8	2.3
15	2.1	1.7	1.3	.8	.7	.6	.3	.2	.4	.3	.4	-.8	-2.1	-1.3	-1.3	-1.6	-2.5	-3.0	-3.3	-3.8	-4.6	-4.8	-4.9	-4.9
16	-5.0	-5.1	-5.1	-5.3	-6.1	-6.5	-7.4	-7.3	-6.0	-5.5	-5.0	-4.4	-4.0	-3.2	-3.0	-1.9	-1.8	-2.2	-2.5	-3.4	-4.8	-4.4	-4.6	-4.8
17	-5.0	-4.6	-4.7	-5.1	-5.1	-4.8	-5.0	-5.3	-3.8	-1.7	-.4	1.0	3.0	3.9	4.2	2.5	3.4	2.8	2.1	2.1	1.6	1.7	1.6	1.3
18	1.1	.5	-.3	-2.1	-1.3	-.6	-.5	-.4	.1	.6	2.3	2.3	1.6	2.1	2.4	1.9	2.2	1.0	.6	.5	.2	-.2	-1.0	-1.1
19	-1.7	-1.9	-2.4	-2.9	-4.2	-4.8	-4.4	-5.6	-4.5	-3.3	-3.1	-2.8	-2.8	-2.8	-1.4	-1.7	-1.7	-1.9	-3.0	-4.0	-5.2	-5.6	-5.7	-5.8
20	-6.2	-6.6	-7.3	-7.5	-8.6	-9.4	-9.9	-11.8	-12.1	-11.7	-11.6	-9.9	-9.2	-8.7	-8.2	-7.2	-7.3	-7.2	-7.2	-8.5	-9.3	-9.9	-9.8	-9.9
21	-9.8	-9.7	-9.6	-9.6	-9.5	-9.5	-9.5	-8.8	-6.5	-4.6	-2.2	1.1	2.1	3.4	3.2	2.2	1.1	1.0	.2	-2.8	-4.2	-6.8	-8.1	-9.5
22	-9.8	-10.7	-10.6	-10.6	-10.9	-11.0	-11.4	-11.3	-11.3	-11.2	-11.6	-11.2	-10.0	-10.0	-9.3	-8.6	-7.9	-8.5	-9.2	-10.7	-12.0	-13.2	-14.1	-15.4
23	-15.6	-16.4	-16.4	-16.9	-17.2	-17.4	-16.6	-16.0	-13.4	-11.1	-9.8	-8.7	-6.6	-5.9	-5.9	-5.0	-5.1	-4.5	-4.5	-4.5	-5.0	-4.6	-4.4	-4.8
24	-5.5	-6.0	-6.5	-5.9	-5.5	-5.1	-5.0	-4.7	-3.8	-2.8	-.9	-.2	1.6	3.2	3.5	3.9	3.8	3.2	2.7	1.5	1.0	.8	.0	-.5
25	-.8	-1.2	-1.6	-2.1	-2.6	-3.1	-3.1	-3.2	-2.1	-.5	2.0	2.1	2.8	5.0	4.6	4.2	3.6	3.0	2.8	2.7	1.3	1.0	.9	.9
26	.5	.4	.1	.0	.0	-.1	-.1	.0	.0	.0	.9	1.8	2.4	3.1	3.5	3.8	4.2	4.2	3.9	2.7	2.4	1.5	.9	1.0
27	.3	1.7	1.4	.6	1.0	.1	.8	.5	1.4	2.7	5.1	7.3	8.5	9.3	11.2	10.5	10.6	10.3	11.4	7.7	5.6	4.6	4.6	3.2
28	2.1	2.9	1.6	1.8	1.2	1.5	2.4	2.3	4.9	7.0	9.7	11.7	13.8	15.3	15.7	15.6	14.9	14.2	13.3	11.4	5.6	8.6	4.3	5.6
29	4.6	4.1	2.9	2.4	2.0	1.5	1.2	.7	.7	1.3	1.6	2.2	2.7	3.3	3.8	3.8	3.8	3.6	3.1	2.1	1.9	1.2	.5	-1.1
30	-.6	-.9	-1.3	-2.0	-2.5	-2.7	-3.4	-4.1	-3.8	-3.7	-1.8	-2.0	.3	.6	2.0	3.1	3.2	3.0	2.7	.5	-4.6	-3.4	-3.3	-4.8
31	-5.2	-6.3	-7.0	-6.2	-6.3	-3.6	-3.2	-3.2	-2.0	.6	3.2	5.0	6.1	6.6	6.0	6.1	6.6	5.8	4.6	2.4	1.3	.8	2.3	2.3
MEAN	-4.5	-4.8	-5.2	-5.6	-5.8	-5.8	-5.9	-6.2	-5.3	-4.3	-2.8	-1.6	-.5	.2	.9	1.1	1.2	.9	.2	-1.2	-2.4	-2.7	-3.1	-3.5

HOURLY WETBULB TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF MARCH 1977 PAGE 5  
 LOCAL STANDARD TIME

ALL TEMPERATURES IN DEGREES CELSIUS

DATE	00.	01.	02.	03.	04.	05.	06.	07.	08.	09.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
1.	-13.4	-13.6	-14.2	-13.6	-13.6	-12.7	-12.7	-12.4	-12.5	-13.6	-12.6	-11.2	-9.9	-8.3	-7.7	-6.2	-5.2	-5.2	-6.5	-7.8	-7.6	-9.0	-10.3	-11.0
2.	-11.8	-12.7	-14.3	-14.9	-15.1	-16.1	-16.3	-19.2	-17.3	-16.1	-14.2	-12.4	-10.2	-9.5	-8.7	-8.0	-7.7	-8.0	-9.6	-15.3	-15.0	-16.8	-17.4	-17.8
3.	-20.9	-20.5	-21.8	-21.1	-21.8	-20.8	-21.4	-20.8	-19.4	-20.1	-19.2	-17.2	-14.9	-9.7	-7.0	-5.5	-4.6	-4.8	-7.1	-10.2	-13.3	-13.7	-15.9	-14.4
4.	-15.5	-15.6	-16.9	-17.5	-15.8	-16.0	-17.0	-18.4	-18.2	-16.0	-12.5	-10.5	-9.0	-8.0	-6.1	-5.4	-5.7	-5.7	-7.4	-9.0	-10.5	-11.7	-11.9	-12.2
5.	-15.0	-14.8	-14.4	-15.2	-15.2	-16.7	-17.2	-17.9	-16.8	-14.3	-12.0	-10.3	-9.5	-7.9	-6.4	-5.1	-4.7	-4.5	-6.7	-8.0	-8.4	-8.2	-9.8	-12.5
6.	-12.4	-13.2	-14.1	-16.1	-17.0	-16.1	-16.2	-16.1	-14.3	-11.9	-9.6	-7.6	-5.7	-3.6	-2.5	-2.6	-1.6	-1.8	-1.9	-3.4	-4.8	-3.4	-5.6	-5.7
7.	-6.0	-6.2	-6.7	-8.1	-8.5	-9.1	-10.6	-10.4	-7.7	-5.9	-3.0	-1.4	.0	-1.1	-1.5	.0	.5	.5	.0	-1.0	-1.2	-.9	-1.4	-2.0
8.	-2.5	-2.6	-3.0	-2.2	-1.9	-2.2	-2.0	-2.0	-2.0	-2.0	.0	1.1	1.8	2.7	2.4	2.4	2.4	2.5	2.3	2.4	2.0	2.1	2.9	2.5
9.	2.7	2.2	1.8	1.5	1.0	.6	.2	-.6	-.7	-.3	1.0	1.7	2.2	2.7	3.2	3.6	3.6	3.4	3.4	.9	.7	.4	.0	.0
10.	-.5	.3	-.2	-1.7	-2.3	-1.0	-.8	-1.2	-.2	-.5	.2	1.2	1.4	1.4	2.5	2.0	1.6	1.6	1.5	1.0	.6	1.0	.7	.8
11.	1.0	.5	.7	.5	.3	.4	.4	.3	.5	.7	.9	1.0	1.0	1.2	1.6	1.5	1.5	.7	.3	.5	1.5	1.5	2.2	2.9
12.	-3.4	-4.2	-4.0	-4.6	-4.9	-4.7	-5.0	-6.0	-5.2	-3.9	-2.7	-2.3	-2.3	-1.5	-.8	.9	1.1	1.3	1.0	.5	.6	.7	.8	.4
13.	.4	.4	.4	.3	.4	.5	.5	.4	.4	1.0	1.3	1.3	2.0	2.3	2.1	2.4	2.0	2.2	1.8	1.6	1.5	1.4	1.5	1.4
14.	1.3	1.4	1.2	1.0	1.1	1.1	1.0	.9	1.0	1.7	2.3	3.0	3.5	4.2	4.8	3.7	3.4	2.7	2.4	1.8	2.4	1.5	1.3	1.0
15.	.9	.7	.4	-.1	-.2	-.1	-.6	-1.0	-.6	-.4	-1.0	-1.7	-3.3	-2.5	-2.5	-2.6	-3.5	-3.9	-4.0	-4.5	-5.2	-5.5	-5.5	-5.7
16.	-5.7	-5.9	-5.7	-6.0	-6.7	-7.1	-7.8	-7.9	-7.0	-6.4	-5.6	-5.1	-4.9	-4.4	-4.3	-3.4	-3.6	-3.6	-4.2	-4.7	-5.3	-5.3	-5.3	-5.6
17.	-6.1	-5.3	-5.5	-5.8	-5.7	-5.4	-5.5	-5.7	-4.6	-3.0	-2.0	-.7	.7	.3	.0	-.2	-.1	-.3	-.4	-.4	1.0	.3	-.8	-.8
18.	-.9	-1.2	-1.5	-2.9	-2.0	-1.4	-1.2	-1.0	-.7	-.5	.0	.3	.3	.7	.8	.3	.5	.4	.3	.0	.2	-.7	-2.0	-2.2
19.	-2.5	-2.5	-3.3	-4.0	-4.9	-5.5	-5.0	-6.0	-5.2	-4.4	-4.1	-3.5	-4.0	-4.0	-2.8	-3.0	-3.6	-2.6	-4.2	-5.0	-5.8	-6.0	-6.1	-6.2
20.	-6.5	-6.9	-7.5	-7.9	-9.0	-9.8	-10.2	-12.3	-12.6	-12.4	-12.6	-10.7	-10.0	-9.8	-9.2	-8.2	-8.3	-8.9	-9.0	-10.1	-9.8	-10.9	-10.8	-11.0
21.	-10.8	-10.4	-10.3	-10.2	-10.1	-10.0	-10.0	-9.4	-7.5	-5.5	-3.6	-.8	-.3	-.6	-.6	-1.2	-2.0	-2.1	-3.0	-4.1	-4.9	-7.6	-8.8	-10.4
22.	-10.6	-11.2	-11.2	-11.2	-11.6	-12.0	-11.8	-11.8	-11.8	-11.6	-11.9	-11.6	-10.7	-11.2	-10.3	-9.6	-9.2	-10.1	-10.8	-11.8	-13.0	-13.8	-14.5	-15.8
23.	-16.0	-16.5	-17.2	-17.3	-17.6	-16.8	-16.2	-14.0	-12.5	-11.5	-10.5	-8.9	-7.9	-7.9	-7.2	-7.1	-5.8	-5.8	-5.8	-6.5	-7.0	-6.5	-6.4	-6.4
24.	-7.4	-7.2	-7.8	-7.4	-6.8	-6.4	-6.4	-6.0	-6.0	-4.8	-3.5	-2.6	-1.5	-.8	-.5	-.2	-.6	-.7	-1.0	-.3	-.5	-.5	-1.0	-2.0
25.	-2.8	-3.4	-4.0	-4.1	-4.3	-4.6	-4.6	-4.6	-3.8	-2.4	-.9	-.6	-.1	1.3	1.0	1.0	.7	.5	.3	.0	-.5	.3	.5	.5
26.	.3	.3	.0	.1	.1	.2	.1	.0	.0	.1	.6	1.3	1.6	2.2	2.4	2.5	3.8	2.9	2.8	1.9	1.8	1.1	.5	-.8
27.	1.1	1.4	1.1	.4	.6	-.1	.4	.0	.5	1.5	2.9	4.7	6.1	6.3	7.2	7.2	7.3	7.6	8.1	5.6	3.8	3.4	3.2	2.0
28.	1.1	2.1	1.1	1.1	.6	.7	1.5	1.2	2.9	4.0	5.7	7.0	7.6	8.3	8.3	8.1	7.6	7.3	6.8	5.9	3.3	4.6	2.4	3.2
29.	2.6	2.2	1.3	.9	.5	.0	-.3	-.8	-.8	-.8	-.8	-.7	-.5	-.3	.0	.0	.1	.1	-.1	-.9	-1.2	-1.8	-1.9	-1.9
30.	-2.4	-2.0	-2.5	-3.2	-3.5	-3.8	-4.6	-5.0	-4.5	-2.8	-.2	-.8	-.5	-1.0	.5	-1.1	-.2	-1.8	-1.8	-2.7	-5.8	-4.8	-4.9	-5.7
31.	-6.0	-6.6	-7.3	-6.7	-7.0	-5.2	-4.7	-4.7	-3.5	-1.1	.6	.5	.6	1.1	.9	.9	1.2	.8	-.2	-1.0	-1.1	-1.1	-.2	.4
MEAN	-5.3	-5.4	-5.9	-6.2	-6.4	-6.4	-6.5	-6.8	-6.1	-5.2	-4.1	-3.1	-2.3	-1.7	-1.1	-1.0	-.9	-1.0	-1.6	-2.6	-3.4	-3.6	-4.1	-4.4

ABSTRACT OF THE WIND AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF MARCH

ALL TIMES ARE C.S.T.

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	PEAK GUSTS	HOUR
1	W 19	W 13	W 15	W 13	W 19	W 15	W 19	W 22	W 19	WSW 15	WSW 9	SSW 11	SSW 9	SSW 17	SSW 13	SSW 19	SSW 15	SSW 17	SSW 15	SSW 17	SSW 15	SSW 17	SSW 15	SSW 15		
2	SW 11	SSW 11	SSW 11	SSW 9	SSW 9	SSW 11	SSW 9	S 9	S 9	SSW 15	S 6	S 6	S 7	S 7	S 4	S 4	SSW 4	SSW 2	SSW 7	C 0	NNE 2	NNE 0	E 4	C 0		
3	C 0	C 0	NE 4	C 4	N 4	N 4	NNE 4	NNE 7	NNE 9	NNE 9	NNE 11	NNE 15	NNE 15	NNE 17	NNE 20	NNE 17	NNE 22	NNE 19	NNE 17	NNE 9	NNE 17	NNE 6	N 9	NNE 7	NNE 33	14 CST
4	NNE 11	NNE 9	NNE 7	NNE 7	NNE 9	NNE 9	NE 9	NNE 7	NNE 7	NNE 13	N 11	N 17	N 13	NNW 6	N 20	N 17	NNW 17	NW 19	NW 19	NW 19	NW 19	NW 15	NW 15	NW 15		
5	NW 11	NW 13	NW 13	NW 17	NW 11	NW 11	NW 9	NW 7	NW 13	NW 9	NW 7	NW 7	NW 13	NW 9	NW 11	NW 15	NW 15	NW 7	NW 11	WSW 4	WSW 11	WSW 9	WSW 2	WSW 6		
6	SW 4	SW 4	SSE 2	S 15	S 15	S 15	S 11	S 15	S 19	S 20	S 26	S 31	S 28	S 30	S 35	S 43	S 33	S 41	S 41	S 30	S 22	S 24	S 33	S 35	S 67	19 CST
7	S 30	S 20	S 17	S 7	S 15	S 15	S 7	SW 7	SW 4	SW 0	SSE 6	SSE 4	SSE 9	SSE 20	S 20	S 22	S 31	S 30	S 30	S 22	S 24	S 24	S 19	S 20	S 39	18 CST
8	S 15	S 19	S 17	S 17	SSW 20	SSW 19	SSW 19	SSW 17	SSW 17	SSW 20	SSW 20	SSW 19	SSW 19	SSW 19	S 20	S 20	S 17	S 19	S 19	SSW 22	SSW 20	SSW 13	SSW 13	SSW 15		
9	W 17	WSW 15	WSW 15	WSW 20	WSW 19	WSW 19	WSW 13	WSW 13	WSW 19	WSW 22	WSW 24	WSW 28	WSW 31	WSW 28	WSW 24	WSW 22	WSW 15	WSW 15	WSW 13	WSW 9	WSW 0	NNE 4	NNE 7	ENE 11	WSW 44	12 CST
10	E 11	ESE 13	E 13	E 17	E 15	E 15	E 17	ENE 19	ENE 19	ENE 13	ENE 15	ENE 15	ENE 15	ENE 15	ENE 13	ENE 22	ENE 22	ENE 20	ENE 17	ENE 9	ENE 19	ENE 15	ENE 17	ENE 17	NNE 31	17 CST
11	NNE 11	NNE 13	NNE 17	NNE 17	NNE 19	NNW 19	NNW 22	NNW 24	NNW 26	NNW 24	NNW 30	NNW 30	NNW 22	NNW 22	NNW 19	NNW 26	NNW 24	NNW 37	NNW 33	NNW 19	NNW 17	NNW 28	NNW 26	NNW 28	N 52	18 CST
12	NNE 22	NNE 19	NNE 24	NNE 28	NNE 31	NNE 24	NNE 28	NNE 30	NNE 35	NNE 41	NNE 35	NNE 41	NNE 37	NNE 37	NNE 30	NNE 31	NNE 28	NNE 24	NNE 24	NNE 26	NNE 26	NNE 28	NNE 28	NNE 24	NNE 52	10 CST
13	NE 20	NE 19	NE 13	NE 11	NE 15	NE 11	NE 11	NNE 7	ENE 7	ENE 7	SE 4	SE 6	S 4	S 4	SSE 2	W 4	W 4	C 0	SE 4	SSE 2	SSE 7	SSE 13	S 15	S 9		
14	S 17	S 22	S 26	S 20	S 26	S 26	S 26	S 26	SSW 28	SSW 28	SSW 28	SSW 26	SSW 28	SSW 31	SSW 31	SSW 28	SSW 26	SSW 22	SSW 15	SSW 11	SSW 19	SSW 20	SSW 11	SSW 15	WSW 50	15 CST
15	SW 11	WSW 11	WSW 19	WSW 19	W 17	W 19	W 20	W 20	W 28	W 24	W 30	W 26	W 24	W 28	W 30	W 31	W 33	W 33	W 35	W 37	W 31	W 30	W 30	W 24	W 56	20 CST

16	WNW	NW	WNW	NW	W	WNW	WNW	W	W	WNW	W	WNW	N	C	SSE	SSE	SSE	SSE	SSE	SSE	NW	44	01 CST	
22	30	26	26	20	19	7	15	17	15	13	7	15	13	15	11	4	0	6	7	13	11	15		
17	SSE	SE	SE	ESE	ESE	SE	SSE	SSE	SE	SE	SSE	SE	SSE	SSE	S	SSE	C	SE	ESE	SE	SSE	41	12 CST	
15	9	13	11	13	15	15	22	26	28	22	26	22	22	22	4	17	11	7	2	0	13	9		
18	SE	SE	SE	SE	C	SE	SE	C	ESE	S	SSW	S	SSE	S	S	SSW	WSW	W	W	W	W	31	23 CST	
6	9	7	4	4	0	4	0	0	6	9	11	11	17	15	19	9	19	9	19	20	20			
19	WNW	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	44	02 CST	
19	24	24	30	22	17	11	15	26	28	24	24	24	22	22	22	22	22	22	19	19	13			
20	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	W	C	S	S	S	S	S	NNW	41	11 CST
11	15	17	17	19	30	30	28	22	30	30	28	22	28	19	20	15	11	0	7	11	15	17		
21	S	SSW	S	S	S	S	S	S	SSW	SSW	SSW	SSW	W	W	NNW	NNW	NNW	W	NE	NE	NE	S	61	10 CST
17	22	26	24	28	24	22	26	37	33	31	30	33	24	15	26	24	17	7	20	22	26			
22	NE	NE	NE	NE	NE	NE	NE	NE	NE	N	NNE	N	NNW	N	NNW	N	NNW	NNW	NNW	NNW	NNW	61	13 CST	
15	17	20	17	24	31	31	35	35	39	37	43	43	44	43	35	31	22	28	13	19	11	9		
23	WNW	C	W	C	C	C	SSW	S	S	SSE	SSE	ESE	ESE	ESE	SE	ESE	E	E	E	ESE	ESE	ESE	41	00 CST
4	0	4	0	0	0	2	4	9	13	13	17	13	17	13	19	19	19	20	19	24	24	26		
24	ESE	E	E	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	SE	ESE	ESE	E	E	E	E	E	ESE	ESE	ESE	76	15 CST
26	28	35	35	33	39	33	43	37	31	44	43	41	54	52	41	41	37	46	43	41	43	37		
25	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SSW	NNW	NNW	NNW	NNW	NNW	ENE	C	ENE	C	NNW	ENE	C	ESE	52	01 CST
44	31	30	22	22	19	20	19	9	15	7	13	6	6	6	11	7	13	11	0	0	6	0		
26	NNW	NNE	N	NNE	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	E	ESE	SE	SW	S	SSW	S	52		
7	6	13	9	9	7	6	7	4	9	13	9	4	4	4	6	4	9	9	2	4	7	9		
27	S	S	S	S	S	S	S	S	SSW	S	SSE	S	S	S	S	S	SSE	ESE	E	E	E	SSE	44	17 CST
11	11	15	11	17	19	20	15	17	20	11	19	22	22	22	28	22	19	15	13	19	9	17		
28	ESE	SE	SE	SE	ESE	ESE	ESE	E	E	E	E	E	E	E	ENE	ENE	E	E	NE	NE	NE	ENE	56	16 CST
15	11	11	11	13	13	15	11	9	15	15	24	31	31	43	39	35	44	31	33	22	24	33		
29	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	93	16 CST
41	43	46	50	48	50	61	56	59	59	57	67	63	65	61	65	65	61	56	57	48	52	48		
30	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	70	03 CST
48	50	46	52	52	52	52	50	52	52	48	46	50	43	43	41	30	17	15	13	7	11			
31	W	SSW	SSW	SSW	S	S	S	S	SSE	S	S	S	S	S	S	S	S	S	S	S	S	S	74	16 CST
6	2	7	13	11	17	20	24	33	31	44	43	48	39	46	43	41	46	31	31	31	44	30		

SUM

MEAN 16.716.317.617.518.618.319.118.720.020.722.123.723.324.224.223.923.622.621.516.917.818.018.617.8

