

# MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS: December/Decembre

1976

STATION: AT/A WINNIPEG INT'L AIRPORT / A L'AEROPORT INTER. DE WINNIPEG, MANITOBA.

LAT: 49° 54' N		LONG: 97° 14' W		ELEVATION: 786 FEET (ASL) / ALTITUDE: 786 PIEDS (MER)		STANDARD TIME USED: CENTRAL / HEURE NORMALE UTILISÉE:													
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 5.0°C	%	%	mm	cm	mm	cm	km/h	km/h	HOURS / HEURES					
1	-15.8	-33.5	-24.7	42.7	0.0	98	59			Tr.	Tr.	15.0	NNE	NNE 30*	7.4				
2	-18.3	-32.3	-25.3	43.3	0.0	83	59			1.8	1.5	21.0	SSE	S 33	0.0				
3	-8.7	-20.7	-14.7	32.7	0.0	89	69			.8	.8	3	SE	SSE 19*	0.5				
4	-7.4	-21.1	-14.3	32.3	0.0	93	65			.3	.3	3	WNW	NNW 30	4.9				
5	-10.1	-27.2	-18.7	36.7	0.0	89	68			1.3	.8	3	SSW	N 41*	0.0				
6	-22.6	-30.8	-26.7	44.7	0.0	97	64			Tr.	Tr.	5	SSW	NNW 22*	7.6				
7	-20.4	-31.9	-26.2	44.2	0.0	100	58			Tr.	Tr.	5	W	NW 17	7.1				
8	-24.1	-34.7	-29.4	47.4	0.0	87	59			Tr.	Tr.	5	ENE	NE 15*	0.1				
9	-18.9	-24.7	-21.8	39.8	0.0	83	72			4.8	4.8	5	E	E 30	0.0				
10	-16.8	-25.9	-21.4	39.4	0.0	86	66			Tr.	Tr.	10	S,NW	S 50	6.6				
11	-2.1	-27.1	-14.6	32.6	0.0	96	66			3.8	3.8	13	NNW	S 46*	5.6				
12	-21.4	-29.9	-25.7	43.7	0.0	97	76			.3	.3	13	W	N 19*	7.1				
13	-1.1	-22.6	-11.9	29.9	0.0	91	74			Tr.	Tr.	13	S	S 46*	1.1				
14	3.0	-14.4	-5.7	23.7	0.0	89	66			Tr.	Tr.	13	W	W 37*	0.6				
15	-4.3	-11.1	-7.7	25.7	0.0	95	79			.3	.3	10	S	S 20	0.0				
16	1.6	-8.7	-3.6	21.6	0.0	93	74					10	S	S 26*	5.8				
17	-1.8	-9.9	-5.9	23.9	0.0	93	75					10	SSE	S 39	2.8				
18	-1.9	-8.3	-5.1	23.1	0.0	94	84					10	WNW	S 33	7.0				
19	-7.1	-25.7	-16.4	34.4	0.0	83	68			Tr.	Tr.	10	NW	N 44	7.4				
20	-17.3	-26.2	-21.8	39.8	0.0	87	66			Tr.	Tr.	10	NNW	NNW 22	5.8				
21	-6.9	-22.5	-14.7	32.7	0.0	93	76			.8	.8	5	S	S 52*	0.5				
22	-10.0	-24.2	-17.1	35.1	0.0	87	72			Tr.	Tr.	5	NW	NNW 41	5.4				
23	-8.8	-24.4	-16.6	34.6	0.0	87	76			Tr.	Tr.	5	S	S 43	2.5				
24	-6.4	-23.3	-14.9	32.9	0.0	91	67			Tr.	Tr.	5	WNW	NNE 28*	0.9				
25	-13.6	-23.2	-18.4	36.4	0.0	88	73			Tr.	Tr.	5	S	WNW 19*	0.9				
26	-14.7	-26.6	-20.7	38.7	0.0	87	77			2.8	2.0	5	SSE	SSE 20	0.2				
27	-14.8	-30.6	-22.7	40.7	0.0	86	70			2.0	1.5	10	NW	N 31	7.4				
28	-21.2	-32.8	-27.0	45.0	0.0	99	73			.3	.3	10	WNW	NW 44	4.5				
29	-20.0	-32.3	-26.2	44.2	0.0	93	70			0.8	.5	10	NNE	ENE 26	0.9				
30	-20.6	-34.1	-27.4	45.4	0.0	86	56			.5	.5	10	S	SSE 33	0.0				
31	-20.1	-31.8	-26.0	44.0	0.0	87	61			Tr.	Tr.	10	WNW	WNW 30*	5.8				
MEAN / MOYENNE	-12.0	-24.9	-18.5	1131.3	0.0	91	69	0.0	0.0	20.6	18.2	19.1	S	S 52	106.4				
NORMAL / NORMALE	-9.2	-18.2	-13.7	981.1	0.0			0.0	0.8	23.9	22.9	19.5	S		86.2				
DEGREE-DAY SUMMARY - SOMMAIRE DE DEGRÉS JOURS										DAYS WITH TOTAL PRECIPITATION: JOURS AVEC PRÉCIPITATIONS TOTALES:					DAYS WITH SNOWFALL: JOURS AVEC CHÔTE 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	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		
TOTAL FOR MONTH / TOTAL DU MOIS	1131.3	995.4	981.1	TOTAL FOR MONTH / TOTAL DU MOIS	0.0	nil	nil	14	5	3	0	0	14	6	4	0	0		
ACCUMULATED SINCE JULY 1 / ACCUMULÉE DEPUIS LE 1 <sup>ER</sup> JUILLET	2522.3	2231.1	2235.6	ACCUMULATED SINCE APRIL 1 / ACCUMULÉE DEPUIS LE 1 <sup>ER</sup> AVRIL	1886.4	1794.0	1802.9												

\* indicates more than one occurrence of same speed but not necessarily the same direction.

COMPARATIVE RECORDS RELEVÉS COMPARATIFS		MONTH MOIS		December / Decembre		19 76											
Temperature/Température Precipitation/Précipitation Rainfall/Hauteur de pluie Snowfall/Hauteur de neige Wind speed/Vitesse du vent Station pressure/Pression à la station	°Celsius Millimetres (mm) Millimetres (mm) Centimetres (cm) Kilometres/par heure (km/h) Kilopascals	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		3.0	14	5.9	4	2.8	11.7	6	1939	-5.0	4	1927	105				
LOWEST TEMPERATURE TEMPÉRATURE LA PLUS BASSE		-34.7	8	-33.7	12	-31.7	-18.3	10	1877	-47.8	24	1879	105				
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE		-18.5		-14.1		-13.7	-3.4		1877	-25.9		1879	105				
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE		Nil		Tr.		0.8	23.4		1877	Nil (several)			105				
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE		20.6		18.9		23.9	101.3		1909	.5		1877	105				
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE		18.2		17.1		22.9	101.3		1909	2.5		1892	105				
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE		14		7		11	17		1909 1955	2 (several)			93				
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE		Nil		Tr.	13*		15.2	22	1877				105				
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE		4.8	9	5.6	12		30.5	26	1916				105				
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE		4.8	9	5.1	12		30.5	26	1916				105				
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN:																	
6 MINUTES																	
10 MINUTES																	
15 MINUTES																	
30 MINUTES																	
60 MINUTES																	
24 CONSECUTIVE HOURS HEURES CONSECUTIVES				Tr.	SVRL		15.2	22	1877				105				
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)		19.1		17.9		19.5	24.6		1943	13.4		1925	56				
MAXIMUM SPEED (1 min.) (km/h) VITESSE MAXIMALE (1 min.) (km/h)		S 52	21	ESE 47	12	55	NW 74	(Several)					38				
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)		S 74	21	S 66	23	76	NW100	11	1946				30				
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION		106.4		96.0		86.2	129.5		1943	31.7		1920	77				
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)		98.61		98.90		98.77	99.12		1963	98.29		1953	38				
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)		100.46	20	100.69	17	100.70	101.22	19	1955 1957				38				
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)		96.39	13	96.16	4	96.43				94.71	17	1967	38				
CLIMATOLOGICAL DATA FOR THE PAST DONNÉES CLIMATOLOGIQUES POUR LES										TEN ANNÉES				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	MAXIM'IM WINDSPEED VITESSE MAXIMALE DES VENTS	HOURS SUNSHINE HEURES INSOLATION	HEATING DEGREE-DAYS DEGRÉS-JOURS DE CHAUFFE	GROWING DEGREE-DAYS DEGRÉS-JOURS DE CROISSANCE						
1967	5.6	-37.8	-11.7	2.5	21.6	21.1	18.8	NW 48	104.4	921.1							
1968	2.2	-33.3	-14.7	Nil	10.9	8.9	19.0	NW 64	71.7	1012.2							
1969	8.3	-27.2	-10.2	Tr.	26.2	18.8	17.1	S 43	71.2	870.0							
1970	0.0	-33.9	-17.3	2.5	27.7	23.4	19.5	WNNW 56	106.1	1092.8							
1971	0.6	-30.0	-15.2	.3	7.1	5.8	19.2	NW 42	79.9	1028.9							
1972	-3.9	-32.8	-19.2	.3	27.7	25.4	16.6	S 51	121.3	1155.0							
1973	1.1	-37.8	-15.8	6.4	15.7	19.1	16.7	NNW 51	87.9	1046.7							
1974	4.4	-21.1	-8.6	Tr.	18.5	13.0	16.1	N 45	94.6	822.8							
1975	5.9	-33.7	-14.1	Tr.	18.9	17.1	17.9	ESE 47	96.0	995.4							
1976	3.0	-34.7	-18.5	Nil	20.6	18.2	19.1	S 52	106.4	1131.3							

\* Other days

METEOROLOGICAL SUMMARY FOR DECEMBER 1976AT WINNIPEG, MANITOBA

December weather featured colder than usual nights and sunnier than usual days. Overnight low temperatures averaged -24.9 C which is the lowest since 1933 when the minimums averaged -26.0 C. Daily mean temperatures were below normal for 26 days in December and averaged -18.5 C. Extremes ranged from 3.0 on December 14 to -34.7 on December 8th.

Precipitation amounted to 18.2 mm which is 4.7 mm less than normal and it came as snow on 14 days during the month.

Sunshine totalled 106.4 hours which is 20.2 hours more than usual for December.

DAILY WEATHER SUMMARY FOR DECEMBER 1976AT WINNIPEG, MANITOBA

1. Cold. Cloudy clearing by mid morning. Snow flurries 6.32 A.M. to 8.35 A.M. Mostly light gusts in morning.
2. Cold. Cloudy. Snow 1.12 P.M. continued. Visibility severely restricted. Gusty SSE wind in afternoon. Drifting snow afternoon and evening.
3. Below normal temperatures. Snow to 1.15 A.M. Ice crystals 1.15 A.M. to 2.25 A.M. Snow 5.29 A.M. continued. Light winds. Visibility reduced.
4. Below normal temperatures. Snow or ice crystals to 11.00 A.M. Visibility reduced. Winds light except NNW gust in morning. Drifting snow in morning.
5. Cold. Cloudy. Snow flurries 11.35 A.M. to 7.10 P.M. Drifting snow afternoon and evening. Light fog in afternoon. Visibility severely reduced. Winds light except moderate North winds late afternoon and early evening.
6. Very cold. Sunny. Light winds. Ice crystals 6.55 A.M. to 8.14 A.M.
7. Very cold. Sunny. Light winds. Ice crystals 3.56 A.M. to 6.18 A.M. Light fog in the east in morning.
8. Very cold. Cloudy. Ice crystals 2.49 A.M. to 4.05 A.M. Light winds.
9. Cold. Cloudy. Snow 5.27 A.M. continued. Visibility severely reduced. Light winds except gusty east wind in morning. Drifting snow.
10. Cold. Mostly sunny. Snow to 1.07 A.M. Drifting snow in morning. Blowing snow 5.47 P.M. continued. Visibility reduced. Strong gusty South winds in evening.
11. Near normal temperatures. Cloudy in morning then clearing. Blowing snow to 3.25 A.M. Drifting snow till afternoon. Snow 00.30 A.M. to 11.30 A.M. 11.25 continued. Visibility reduced in morning. Strong gusty south winds in morning.
12. Cold. Sunny. Light winds. Snow to 04.00 A.M. Ice crystals 04.00 to 05.00 A.M.
13. Above normal temperatures. Cloudy. Snow 00.50 A.M. to 3.15 A.M. Blowing snow 7.40 A.M. to 6.16 P.M. Visibility reduced. Moderate gusty South winds.
14. Mild. Cloudy. Snow flurries 10.22 A.M. to 1.20 A.M. Gusty west wind in the morning.
15. Mild. Cloudy. Heavy fog in the afternoon visibility reduced. Light winds. Snow 5.16 A.M. to 9.40 A.M. Snow or snow grains 2.06 P.M. to 5.45 P.M.
16. Mild. Partly cloudy. Winds light except gusty NW wind in afternoon.
17. Mild. Mostly cloudy. Winds light except gusty south wind in evening.
18. Mild. Mostly sunny. Winds light except gusty south wind in morning.
19. Cloudy, clearing late morning then sunny. Ice crystals 4.31 A.M. to 6.35 A.M. Snow 6.35 A.M. to 08.20 A.M. Gusty north wind in morning.
20. Cold. Cloudy clearing late morning. Snow 4.17 A.M. to 10.20 A.M. Ice crystals 10.33 P.M. to 11.10 P.M. Light winds.
21. Normal temperatures. Cloudy. Snow 2.16 P.M. to 5.30 P.M., 7.20 P.M. to 11.15 P.M. Blowing snow 8.15 A.M. to 11.15 A.M. then drifting snow. Visibility reduced. Strong gusty south winds in the morning.
22. Below normal temperatures. Cloudy clearing by afternoon. Snow 2.50 A.M. to 11.10 A.M. Blowing snow 7.10 A.M. to 12.13 P.M. then drifting snow. Visibility reduced. Gusty NW wind in morning.
23. Below normal temperatures. Cloudy clearing by afternoon. Snow 11.06 A.M. to 12.33 P.M. Drifting snow. Gusty south wind in afternoon. Visibility reduced.
24. Near normal temperatures. Cloudy. Snow flurries 8.09 A.M. to 2.12 P.M. Gusty north wind in morning. Drifting snow.
25. Below normal temperatures. Cloudy. Snow 1.46 A.M. to 7.12 A.M. 09.07 A.M. to 4.41 P.M. 10.25 P.M. continued. Light winds.
26. Below normal temperatures. Cloudy. Snow to 1.23 A.M. 5.35 P.M. continued. Light winds. Visibility reduced in the evening. Light winds.
27. Cold. Cloudy, clearing by late morning. Snow to 4.00 A.M. Visibility reduced. Drifting snow. Gusty NNE wind in morning.
28. Very cold. Sunny, clouding over late afternoon. Light ice fog in morning. Snow or ice crystals 4.11 P.M. continued. Visibility restricted. Blowing snow 7.55 P.M. to 9.05 P.M. Drifting snow. Gusty NW wind in evening.
29. Cold. Cloudy. Ice crystals to 4.24 A.M. Snow 4.24 A.M. to 11.46 A.M. Visibility restricted. Mostly light winds. Drifting snow in evening.
30. Cold. Cloudy. Ice crystals 6.55 A.M. to 7.32 A.M. Snow 1.05 P.M. to 8.15 P.M. Visibility restricted. Blowing snow 7.45 P.M. to 9.15 P.M. Drifting snow before and after. Gusty SSE wind in evening.
31. Cold. Sunny. Ice crystals. 5.48 A.M. to 8.55 A.M. Light ice fog in morning. Mostly light winds, but WNW gust in evening. Drifting snow.

HOUPLY TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF DECEMBER 1976  
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.	-17.7	-17.2	-16.7	-16.4	-16.1	-15.0	-14.1	-17.0	-17.7	-20.0	-21.2	-21.2	-22.1	-22.6	-22.3	-22.0	-23.9	-24.7	-26.0	-29.4	-29.1	-28.7	-32.1	-32.4
2.	-32.2	-32.1	-31.6	-27.0	-26.7	-26.2	-25.8	-25.0	-24.4	-23.9	-23.3	-22.2	-21.7	-21.1	-20.6	-20.1	-20.0	-19.6	-19.6	-19.2	-19.6	-19.3	-18.9	-18.8
3.	-18.6	-18.0	-17.5	-16.4	-16.3	-16.3	-17.9	-17.9	-17.1	-16.2	-16.0	-15.8	-14.8	-14.8	-14.3	-13.8	-13.4	-13.3	-13.2	-12.3	-11.9	-11.9	-10.4	-9.3
4.	-8.9	-8.3	-7.9	-5.3	-6.9	-9.2	-9.9	-10.0	-11.2	-11.1	-12.1	-12.8	-13.5	-13.5	-13.1	-12.4	-13.0	-14.9	-16.7	-18.1	-19.6	-18.1	-19.6	-20.3
5.	-19.4	-18.3	-18.4	-17.8	-17.2	-17.2	-17.3	-16.7	-16.0	-14.3	-14.3	-12.4	-11.4	-11.2	-11.7	-15.2	-17.1	-18.2	-19.3	-20.6	-22.1	-23.6	-26.1	
6.	-27.1	-25.7	-25.9	-25.3	-25.0	-25.0	-30.5	-30.0	-29.1	-26.6	-26.4	-25.8	-24.5	-23.5	-23.2	-23.3	-24.7	-24.9	-25.1	-25.8	-27.8	-27.0	-26.0	
7.	-28.9	-28.7	-30.0	-30.7	-28.4	-28.4	-28.3	-28.3	-28.3	-27.3	-24.9	-24.6	-22.1	-21.0	-21.2	-23.1	-23.9	-24.8	-25.2	-26.8	-28.3	-30.0	-31.0	
8.	-31.7	-30.1	-31.4	-31.6	-32.7	-32.2	-31.9	-31.7	-27.8	-25.4	-24.4	-24.4	-24.4	-24.3	-23.3	-23.3	-24.9	-24.9	-25.2	-25.2	-25.1	-24.9	-24.6	
9.	-24.3	-24.9	-23.9	-23.7	-23.2	-22.8	-22.3	-21.9	-21.7	-21.3	-20.0	-19.4	-19.0	-19.0	-19.4	-19.4	-19.4	-19.4	-19.4	-19.4	-19.4	-19.4	-20.0	
10	-21.0	-21.5	-23.3	-23.0	-24.1	-24.1	-24.9	-25.5	-25.6	-25.4	-25.0	-24.4	-24.1	-23.3	-23.9	-23.7	-23.8	-23.8	-22.2	-21.3	-20.0	-19.4	-17.8	
11	-16.8	-15.6	-14.1	-12.1	-9.4	-7.4	-6.7	-4.3	-2.9	-0.0	-11.8	-14.6	-15.7	-16.7	-17.4	-17.4	-13.0	-20.2	-20.8	-23.9	-25.6	-26.8	-24.1	
12	-22.7	-22.2	-21.9	-21.4	-21.1	-20.7	-20.2	-19.2	-18.5	-18.2	-17.2	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	-16.7	
13	-22.3	-21.4	-21.1	-19.7	-18.4	-16.1	-15.2	-14.1	-13.8	-13.3	-12.8	-11.6	-10.7	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0	
14	-1.1	-1.9	-1.6	0.0	1.7	2.8	1.5	1.7	1.4	2.5	-2.2	-1.4	-3.3	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	
15	-10.6	-10.7	-10.5	-9.9	-9.4	-8.5	-8.3	-8.5	-9.4	-9.4	-10.0	-10.8	-10.5	-9.1	-8.2	-7.5	-7.7	-7.9	-7.4	-7.4	-7.4	-7.4	-7.4	
16	-4.6	-4.4	-4.8	-5.2	-4.8	-5.0	-5.1	-5.1	-4.9	-4.7	-4.1	-1.6	-0.2	0.8	0.6	0.4	-0.7	1.1	1.3	1.3	1.3	1.3	1.3	
17	-7.2	-8.2	-7.6	-6.9	-6.8	-6.8	-6.8	-6.8	-6.8	-6.7	-6.0	-4.7	-3.2	-3.4	-2.7	-2.4	-2.6	-3.1	-3.2	-3.5	-2.2	-2.1	-2.4	
18	-3.6	-3.4	-3.7	-3.9	-4.4	-5.4	-6.7	-4.8	-6.5	-3.8	-3.8	-2.8	-2.7	-2.6	-2.7	-2.3	-3.3	-3.2	-3.4	-6.1	-7.6	-5.4	-5.3	
19	-7.1	-8.4	-9.4	-10.3	-11.0	-11.7	-13.1	-13.2	-13.3	-16.2	-16.6	-17.2	-17.2	-17.1	-16.9	-16.7	-18.3	-19.6	-19.9	-20.3	-21.3	-22.4	-23.5	
20	-25.4	-25.1	-23.3	-24.2	-20.0	-20.0	-20.1	-19.5	-19.4	-19.3	-18.9	-19.1	-18.8	-18.4	-18.3	-18.4	-19.1	-20.0	-21.2	-21.1	-22.2	-22.4	-23.0	
21	-22.2	-21.1	-20.0	-19.9	-18.9	-18.7	-17.9	-17.3	-16.9	-16.5	-16.1	-15.3	-13.6	-12.3	-10.8	-9.9	-8.2	-7.3	-5.8	-9.1	-9.4	-9.9	-10.4	
22	-10.6	-10.4	-11.1	-11.1	-11.4	-11.6	-12.2	-13.2	-14.4	-16.0	-16.6	-17.2	-18.1	-18.2	-18.2	-18.6	-19.3	-19.3	-19.9	-21.0	-21.6	-21.9	-22.8	
23	-23.8	-23.6	-23.3	-23.5	-23.1	-22.9	-22.4	-21.2	-20.7	-19.6	-19.2	-16.9	-15.7	-14.4	-13.2	-12.2	-11.4	-11.7	-10.6	-10.4	-9.8	-10.5	-10.0	
24	-11.7	-11.6	-9.6	-6.3	-7.9	-7.6	-6.7	-8.9	-11.1	-11.3	-13.4	-14.6	-14.6	-14.4	-15.1	-15.1	-15.7	-17.1	-18.3	-21.7	-22.7	-22.1	-22.3	
25	-20.3	-19.6	-18.6	-18.3	-19.7	-19.1	-19.8	-19.5	-19.4	-18.9	-15.3	-17.1	-15.9	-14.8	-14.1	-14.1	-14.3	-15.4	-17.5	-20.3	-22.1	-22.2	-21.2	
26	-21.7	-20.4	-23.2	-23.3	-24.0	-24.5	-25.7	-25.7	-25.7	-24.5	-21.8	-20.4	-19.6	-18.2	-16.0	-15.7	-17.5	-18.7	-18.6	-16.1	-15.7	-15.4	-15.0	
27	-15.0	-15.1	-15.7	-16.8	-17.1	-17.6	-18.9	-20.5	-21.2	-22.3	-22.2	-21.8	-21.6	-21.2	-22.2	-22.4	-24.4	-25.4	-25.4	-25.4	-25.4	-25.4	-25.4	
28	-29.4	-28.5	-29.1	-28.9	-30.6	-30.7	-30.7	-30.0	-28.9	-27.7	-26.3	-25.4	-24.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	
29	-28.6	-25.2	-24.5	-24.0	-23.4	-22.5	-22.1	-21.9	-22.2	-22.7	-21.5	-21.1	-20.5	-20.9	-21.3	-21.7	-21.7	-21.7	-21.7	-21.7	-21.7	-21.7	-21.7	
30	-30.0	-30.2	-33.2	-33.7	-33.0	-32.9	-29.4	-29.4	-29.4	-27.8	-26.6	-25.1	-23.3	-22.2	-21.7	-21.1	-21.1	-21.1	-21.7	-21.6	-22.2	-22.7	-22.8	
31	-25.0	-25.7	-26.1	-26.9	-27.7	-28.1	-28.5	-30.7	-31.1	-29.8	-28.1	-26.6	-25.4	-24.4	-23.7	-23.7	-23.7	-24.4	-24.9	-23.7	-22.2	-21.7	-21.5	

MEAN -18.8 -18.6 -18.6 -18.5 -18.2 -18.2 -18.2 -18.4 -18.5 -18.0 -17.5 -17.0 -16.5 -16.1 -15.9 -16.3 -17.0 -17.5 -18.4 -18.4 -18.4 -18.4 -18.4 -18.4 -18.4

HOURLY METEOROLOGICAL TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF DECEMBER 1976

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.	-17.8	-17.4	-17.0	-16.5	-16.3	-16.1	-16.3	-17.1	-17.7	-20.1	-21.3	-21.4	-22.3	-22.6	-22.4	-22.9	-24.0	-24.7	-25.9	-29.3	-28.9	-29.5	-32.1	-32.4
2.	-32.3	-32.2	-31.8	-27.2	-26.8	-26.3	-25.2	-24.6	-24.1	-23.3	-22.4	-21.9	-21.2	-20.7	-20.6	-20.1	-20.0	-19.8	-19.6	-19.6	-19.3	-18.9	-18.6	-18.6
3.	-18.8	-18.9	-19.2	-18.9	-18.4	-18.3	-18.3	-18.3	-17.9	-17.3	-16.5	-16.3	-16.3	-16.2	-15.1	-14.6	-14.0	-13.6	-13.4	-13.3	-12.4	-12.0	-10.6	-5.4
4.	-9.0	-8.4	-8.1	-8.4	-9.1	-9.6	-10.0	-10.3	-11.3	-11.2	-12.6	-13.2	-13.9	-13.6	-13.6	-13.1	-13.7	-15.1	-16.3	-18.1	-19.6	-19.4	-20.1	-20.1
5.	-19.3	-18.2	-18.3	-17.6	-16.5	-17.2	-17.3	-15.7	-15.6	-14.4	-14.4	-12.5	-11.5	-11.3	-11.7	-11.7	-15.3	-17.2	-15.3	-19.4	-20.7	-22.1	-23.7	-26.2
6.	-27.2	-26.7	-28.9	-27.4	-27.3	-27.0	-29.7	-30.5	-30.0	-29.1	-26.7	-26.5	-25.9	-24.7	-24.0	-23.3	-23.7	-24.6	-24.6	-26.1	-26.8	-27.3	-27.6	-28.4
7.	-28.7	-28.5	-29.9	-30.7	-29.4	-29.7	-27.6	-28.3	-28.3	-28.4	-27.3	-25.0	-23.6	-22.2	-21.3	-21.6	-22.2	-24.0	-24.8	-25.2	-26.4	-27.2	-29.7	-30.6
8.	-31.6	-30.0	-31.4	-31.6	-32.7	-31.1	-32.7	-32.2	-32.0	-31.6	-27.8	-25.4	-24.6	-24.6	-24.5	-24.4	-24.4	-25.0	-25.0	-25.3	-25.3	-25.2	-25.0	-24.7
9.	-24.4	-24.3	-24.0	-23.9	-23.8	-23.3	-22.8	-22.3	-21.9	-21.7	-21.3	-21.0	-20.3	-20.0	-19.4	-19.0	-19.0	-19.4	-19.2	-19.4	-19.4	-19.8	-20.0	-20.8
10	-21.1	-21.6	-23.3	-23.6	-23.6	-24.1	-24.1	-24.9	-25.4	-25.6	-25.6	-25.0	-24.5	-24.2	-23.5	-24.0	-23.7	-23.6	-23.4	-22.3	-21.4	-20.1	-19.5	-17.8
11	-17.0	-15.7	-14.2	-15.2	-9.8	-7.6	-6.9	-4.3	-3.1	-5.2	-11.7	-14.9	-16.1	-16.9	-17.8	-17.8	-15.7	-20.2	-20.6	-23.8	-25.5	-26.8	-28.6	-24.1
12	-22.7	-22.2	-22.2	-21.9	-24.1	-25.7	-27.6	-27.2	-28.3	-28.0	-25.4	-23.6	-22.2	-22.5	-22.6	-23.8	-23.4	-25.6	-27.2	-26.7	-27.8	-27.4	-25.6	-24.3
13	-22.3	-21.9	-21.1	-19.7	-18.5	-17.0	-16.3	-15.4	-14.2	-13.6	-13.4	-13.3	-12.8	-11.6	-10.7	-10.6	-10.0	-9.1	-9.1	-7.1	-6.2	-5.5	-4.3	-2.6
14	-2.2	-2.6	-2.3	-2.6	.0	.9	1.1	.0	.0	.0	.4	.6	2.3	4.4	5.9	6.8	7.3	9.3	11.1	11.6	13.2	12.3	11.2	-11.3
15	-11.1	-11.1	-10.7	-10.1	-9.6	-8.9	-8.6	-8.8	-9.6	-10.0	-10.8	-11.1	-10.7	-9.2	-8.1	-7.5	-7.7	-7.9	-7.4	-7.5	-7.4	-7.5	-7.0	-6.1
16	-5.0	-4.7	-5.1	-5.5	-5.2	-5.6	-5.7	-5.7	-5.5	-5.6	-5.1	-2.9	-1.7	-.2	-.3	-.6	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.2
17	-7.3	-6.2	-7.5	-9.5	-6.4	-7.7	-7.1	-7.1	-6.9	-6.3	-5.2	-3.9	-4.2	-3.7	-3.6	-3.9	-4.1	-4.3	-4.3	-4.2	-4.3	-4.3	-3.5	-3.5
18	-3.9	-3.9	-4.1	-4.3	-4.8	-5.7	-6.8	-5.2	-5.7	-3.9	-4.0	-3.3	-3.1	-3.1	-3.2	-3.0	-3.9	-5.6	-7.0	-8.4	-8.1	-7.5	-5.7	-5.6
19	-7.4	-8.9	-9.8	-10.5	-11.4	-12.3	-13.4	-13.4	-13.7	-16.3	-17.1	-17.4	-17.4	-17.3	-17.2	-17.1	-15.3	-19.6	-19.9	-20.3	-21.3	-22.4	-23.5	-24.3
20	-25.4	-25.1	-23.3	-22.2	-21.3	-20.3	-20.4	-19.7	-19.4	-19.4	-18.9	-19.2	-19.0	-19.6	-18.5	-18.6	-19.2	-20.1	-21.2	-21.1	-22.2	-22.4	-22.3	-22.9
21	-22.2	-21.1	-20.0	-19.5	-18.9	-18.7	-17.9	-17.3	-16.9	-16.5	-16.1	-15.4	-13.9	-12.7	-11.2	-10.0	-8.2	-7.6	-9.2	-9.6	-9.9	-10.3	-10.8	-10.8
22	-10.9	-10.7	-11.6	-11.7	-11.7	-11.9	-12.7	-13.3	-14.4	-16.1	-16.7	-17.2	-16.2	-16.2	-16.2	-15.2	-15.7	-19.3	-20.0	-21.0	-21.6	-22.8	-23.1	-23.1
23	-23.8	-23.5	-23.2	-23.4	-23.0	-22.8	-22.7	-21.1	-20.7	-19.7	-18.3	-17.1	-15.8	-14.7	-13.5	-12.5	-11.7	-11.8	-10.9	-10.7	-10.1	-10.7	-5.7	-10.2
24	-11.8	-11.6	-9.6	-8.8	-8.2	-7.8	-7.0	-9.1	-11.3	-11.8	-14.0	-15.0	-15.0	-14.6	-15.2	-15.1	-15.7	-17.1	-18.3	-21.7	-22.7	-22.1	-22.3	-21.4
25	-20.2	-19.6	-18.8	-18.3	-19.6	-19.1	-19.5	-19.5	-19.3	-18.9	-18.3	-17.2	-16.1	-15.0	-14.5	-14.4	-14.6	-15.6	-15.6	-20.3	-22.1	-22.2	-21.2	-20.5
26	-21.6	-20.4	-23.1	-23.2	-23.9	-24.9	-24.8	-25.6	-25.6	-24.3	-21.8	-20.4	-19.9	-18.3	-18.1	-17.9	-17.6	-16.6	-16.6	-16.1	-15.7	-15.3	-15.1	-15.0
27	-15.1	-15.2	-15.2	-15.7	-16.8	-17.1	-17.8	-18.9	-20.6	-21.2	-22.3	-22.4	-22.4	-22.4	-22.3	-22.4	-24.5	-25.4	-25.2	-24.6	-25.5	-27.5	-29.3	-29.3
28	-29.4	-28.5	-29.0	-28.7	-30.4	-29.4	-29.4	-31.9	-32.3	-30.7	-29.9	-28.9	-27.7	-26.3	-25.4	-24.2	-23.5	-22.9	-22.9	-22.7	-21.7	-22.8	-24.4	-25.9
29	-25.6	-25.2	-24.8	-24.1	-22.5	-22.1	-22.1	-22.2	-22.7	-21.6	-21.1	-20.7	-21.1	-21.4	-21.8	-21.8	-23.0	-24.9	-25.9	-26.5	-29.9	-31.9	-30.5	-30.5
30	-30.0	-30.2	-33.2	-33.6	-33.7	-32.3	-31.4	-29.9	-29.5	-28.4	-27.7	-26.6	-25.2	-23.5	-22.3	-21.7	-21.1	-21.1	-21.7	-21.6	-22.2	-22.7	-22.4	-23.4
31	-25.0	-25.7	-26.1	-26.6	-26.3	-27.5	-26.0	-26.4	-30.5	-31.2	-29.6	-26.1	-26.7	-25.5	-24.6	-23.5	-23.9	-24.4	-24.8	-23.6	-22.2	-21.7	-21.3	-20.6

MEAN -18.9 -18.7 -18.9 -18.6 -18.4 -18.3 -18.3 -18.5 -18.6 -18.2 -17.7 -17.2 -16.7 -16.4 -16.2 -16.5 -17.1 -17.7 -18.2 -18.5 -18.9 -19.1 -19.0

ABSTRACT OF THE WIND AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF DECEMBER 1976

ALL TIMES ARE C.S.T.

HOUR STARTING	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 GUST	HOUR
1	W 7	W 4	C 4	C 0	C 0	W 9	W 17	W 22	W 26	W 30	W 30	W 30	W 26	W 24	W 22	W 22	W 13	W 7	W 7	W 0	W 0	W 0	W 7	37	10 CST	
2	C 0	C 0	C 7	C 15	C 17	C 22	C 24	C 26	C 30	C 33	C 30	C 28	C 28	C 24	C 24	C 28	C 28	C 24	C 28	C 30	C 26	C 28	C 19	44	17 CST	
3	SSE 19	SE 13	SE 15	SE 13	SE 9	SE 7	SE 7	SE 7	SE 9	SE 6	SE 0	SE 0	SE 7	SE 7	SE 7	SE 9	SE 9	SE 11	SE 15	SE 19	SE 19	SE 7	SE 15			
4	WSW 17	WSW 17	WSW 13	WSW 11	WSW 11	WSW 15	WSW 13	WSW 30	WSW 28	WSW 19	WSW 19	WSW 17	WSW 19	WSW 19	WSW 11	WSW 11	WSW 7	WSW 4	WSW 4	WSW 7	WSW 4	WSW 7	WSW 9	43	10 CST	
5	S 9	S 11	S 9	S 15	S 13	S 15	S 19	S 19	S 20	S 15	S 17	S 17	S 17	S 37	S 41	S 41	S 33	S 24	S 30	S 19	S 19	S 19	S 19	48	19 CST	
6	NNW 22	NNW 17	NNW 15	NNW 15	NNW 13	NNW 11	NNW 13	NNW 7	NNW 11	NNW 13	NNW 15	NNW 15	NNW 15	NNW 11	NNW 11	NNW 11	NNW 9	NNW 9	NNW 9	NNW 9	NNW 9	NNW 9	NNW 9			
7	SSW 7	SSW 7	SSW 9	SSW 6	SSW 4	SSW 15	SSW 13	SSW 15	SSW 13	SSW 17	SSW 11	SSW 13	SSW 15	SSW 11	SSW 11	SSW 9	SSW 4	SSW 4	SSW 6	SSW 9	SSW 6	SSW 6	SSW 6			
8	C 0	C 6	C 2	C 2	C 6	C 6	C 4	C 2	C 2	C 0	C 4	C 2	C 6	C 11	C 15	C 9	C 11	C 13	C 15	C 9	C 11	C 15	C 15			
9	ENE 13	E 17	E 19	E 22	E 22	E 28	E 30	E 28	E 26	E 24	E 19	E 13	E 11	E 19	E 15	E 15	E 15	E 20	E 24	E 28	E 24	E 28	E 28	39	09 CST	
10	NW 30	NW 30	NW 28	NW 31	NW 28	NW 20	NW 20	NW 15	NW 9	NW 6	NW 7	NW 19	NW 17	NW 22	NW 33	NW 43	NW 44	NW 50	NW 44	NW 46	NW 46	NW 46	NW 46	72	00 CST	
11	S 46	S 46	S 41	S 37	S 31	S 39	S 41	S 43	S 41	S 46	S 46	S 37	S 39	S 37	S 31	S 33	S 26	S 22	S 24	S 24	S 24	S 24	S 24	67	01 CST	
12	N 19	N 19	N 15	N 13	N 11	N 9	N 6	N 11	N 9	N 15	N 17	N 15	N 7	N 9	N 11	N 2	N 7	N 9	N 15	N 13	N 13	N 15	N 13			
13	SSE 19	SSE 19	SSE 20	SSE 22	SSE 24	SSE 31	SSE 37	SSE 41	SSE 43	SSE 41	SSE 46	SSE 46	SSE 37	SSE 39	SSE 31	SSE 33	SSE 26	SSE 22	SSE 24	SSE 24	SSE 24	SSE 24	SSE 24	63	15 CST	
14	NNW 31	NNW 24	NNW 19	NNW 37	NNW 31	NNW 30	NNW 30	NNW 31	NNW 28	NNW 31	NNW 30	NNW 11	NNW 9	NNW 9	NNW 11	NNW 30	NNW 13	NNW 9	NNW 13	NNW 9	NNW 13	NNW 13	NNW 13	56	06 CST	
15	SE 11	SE 15	SE 17	SE 13	SE 17	SE 11	SE 7	SE 9	SE 17	SE 11	SE 19	SE 0	SE 9	SE 7	SE 6	SE 11	SE 15	SE 20	SE 19	SE 17	SE 15	SE 17	SE 15			



