



Fisheries and Environment Canada

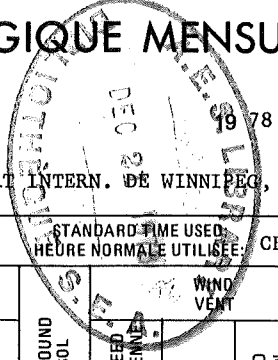
Pêches et Environnement Canada

Atmospheric Environment

Environnement atmosphérique

MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS: NOVEMBER / NOVEMBRE



AT/A WINNIPEG INT'L AIRPORT / A L'AEROPORT INTERN. DE WINNIPEG, MANITOBA

LAT: 49° 54' N		LONG: 97° 14' W		ELEVATION: 239.6 METRES (ASL) ALTITUDE: MÈTRES (NNM)		STANDARD TIME USED: 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 HEURES HEURES				
	MAXIMUM MAXIMALE	MINIMUM MINIMALE	MEAN MOYENNE	HEATING DE CHAUFFE	GROWING DE CROISSANCE	MAXIMUM MAXIMALE	MINIMUM MINIMALE		RAINFALL PLUIE (HAUTEUR)	SNOWFALL NEIGE (HAUTEUR)	TOTAL PRECIP. PRÉCIP. TOTALE		AVERAGE SPEED VITESSE MOYENNE	PREVAILING DIRECTION DOMINANTE		MAXIMUM SPEED AND DIRECTION VITESSE MAXIMALE ET DIRECTION			
	°C	°C	°C	BASE 18.0°C	BASE 5.0°C	%	%		mm	cm	mm		km/h			km/h			
1	17.2	2.0	9.6	8.4	4.6	55	20						17.5	SSW	SSW 28	9.0			
2	17.3	-0.5	8.4	9.6	3.4	68	25						15.4	S	S 28*	9.2			
3	13.1	0.6	6.9	11.1	1.9	59	29		Tr.	Tr.			16.5	WNW	NNW 24	2.4			
4	10.2	-3.2	3.5	14.5	0.0	94	50		8.2	Tr.			8.2	SSE	W 56	0.0			
5	5.6	-1.4	2.1	15.9	0.0	81	51			Tr.			37.0	WNW	W 59*	0.0			
6	8.1	-5.2	1.5	16.5	0.0	89	30						19.4	WSW	SSW 31	7.5			
7	13.5	-1.4	6.1	11.9	1.1	76	36						20.7	SSW	SSW 28*	6.6			
8	11.2	-1.6	4.8	13.2	0.0	77	50						18.9	NW	NW 28	0.7			
9	1.6	-5.3	-1.9	19.9	0.0	87	66						13.7	NNE	NNE 24	0.1			
10	-2.9	-12.2	-7.6	25.6	0.0	84	59						22.5	NE	NNE 37*	0.0			
11	-3.3	-13.6	-8.5	26.3	0.0	82	53			Tr.	Tr.		4.6	W	WNW 11	3.7			
12	-2.5	-9.8	-6.2	24.2	0.0	92	60			6.0	6.8		10.1	S	ESE 19*	2.8			
13	-2.8	-5.3	-4.1	22.1	0.0	97	82			12.2	10.0	6	24.7	NNW	N 37	0.0			
14	-4.1	-10.2	-7.2	25.2	0.0	87	71			0.7	0.5	14	17.5	W	NNW 28	0.1			
15	-2.8	-12.7	-7.8	25.8	0.0	87	67			Tr.	Tr.	12	12.6	SSW	SSW 24	7.9			
16	-5.7	-11.5	-8.6	26.6	0.0	93	79			Tr.	Tr.	12	20.2	S	S 35*	0.8			
17	-3.8	-13.0	-8.4	26.4	0.0	91	80		Tr.	0.2	0.2	12	22.4	N	NNW 39	0.0			
18	-10.8	-18.9	-14.9	32.9	0.0	89	74			2.9	2.9	13	26.7	N	N 41	0.1			
19	-17.6	-26.7	-22.2	40.2	0.0	86	67			Tr.	Tr.	15	12.4	W	WNW 17	7.4			
20	-20.0	-30.7	-25.4	43.4	0.0	79	63					15	9.8	SW	SW 17*	8.1			
21	-13.7	-22.6	-18.2	36.2	0.0	82	62					15	14.6	WSW	SW 19*	4.2			
22	-9.2	-22.6	-15.9	33.9	0.0	91	77			0.6	0.6	15	14.1	S	S 22*	0.0			
23	-7.8	-18.8	-13.3	31.3	0.0	89	82			0.6	0.6	15	3.9	calm	SSE 11	1.2			
24	-6.8	-19.4	-13.1	31.1	0.0	88	72			0.2	0.2	15	7.6	S	NNW 19	1.2			
25	-9.1	-20.0	-14.6	32.6	0.0	86	78			0.2	0.2	15	5.7	N	N 19	3.3			
26	-10.5	-15.8	-13.2	31.2	0.0	87	78			9.8	9.8	15	4.1	calm	SSE 11*	0.0			
27	-10.1	-27.2	-18.7	36.7	0.0	85	74			0.4	0.4	25	18.9	N	N 31	7.3			
28	-10.8	-29.6	-20.2	38.2	0.0	87	75		Tr.	2.4	2.0	25	16.2	S	S 35	0.0			
29	-12.1	-26.1	-19.1	37.1	0.0	82	77		Tr.	0.2	0.2	27	22.5	NW	NNW 56	8.0			
30	-20.6	-29.4	-25.0	43.0	0.0	87	63			Tr.	Tr.	26	9.4	W	WNW 15*	8.0			
31																			
MEAN MOYENNE	-3.0	-13.7	-8.4	TOTAL 791.2	TOTAL 11.0	84	62	TOTAL	TOTAL	TOTAL	TOTAL		16.1	PREVAILING SOUTH DOMINANTE	MAXIMUM W 59	TOTAL 99.6			
NORMAL NORMALE	-0.5	-8.4	-4.4	674.1	2.5					7.1	21.3	27.2	20.3	SOUTH	57	81.2			
DEGREE-DAY SUMMARY - SOMMAIRE DE DEGRÉS-JOURS										DAYS WITH TOTAL PRECIPITATION: JOURS AVEC C PRÉCIPITATIONS TOTALES: mm					DAYS WITH SNOWFALL: JOURS AVEC CHÔTE DE NEIGE: cm				
BELOW 18°C AU-DESSOUS DE 18°C	THIS YEAR ANNÉE EN COURS	PREVIOUS YEAR ANNÉE PRÉCÉDENTE	NORMALE	ABOVE 5°C AU-DESSUS DE 5°C	THIS YEAR ANNÉE EN COURS	PREVIOUS YEAR ANNÉE PRÉCÉDENTE	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	791.2	682.6	674.1	TOTAL FOR MONTH TOTAL DU MOIS	11.0	14.6	2.5	14	6	6	1	0	13	5	5	1	0		
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1 ^{ER} JUILLET	1382.6	1302.4	1263.0	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1 ^{ER} AVRIL	1857.9	1930.7	1787.8												

UDC 551.506.1 (

*) Indicates more than one occurrence of same speed but not necessarily the same direction. Subscription Price: \$1.00 monthly; \$10.00 per calendar year (January to December) / Prix d'abonnement: mensuel \$1.00; annuel \$10.00 (janvier à décembre)

October total normals should be 588.9 not 588.7

COMPARATIVE RECORDS RELEVÉS COMPARATIFS		MONTH MOIS		NOVEMBER / NOVEMBRE		19 78								
Temperature/Température — °Celsius		THIS MONTH CE MOIS-CI		PREVIOUS YEAR ANNÉE PRÉCÉDENTE		NORMAL NORMALE		RECORD FOR THE MONTH RECORD POUR LE MOIS						YEARS OF RECORD ANNÉES OBSERVATIONS
Precipitation/Précipitation — Millimetres (mm)								HIGHEST MAXIMUM ABSOLU			LOWEST MINIMUM ABSOLU			
Rainfall/Hauteur de pluie — Millimetres (mm)		VALUE RELEVÉ	DATE	VALUE RELEVÉ	DATE	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE			
Snowfall/Hauteur de neige — Centimetres (cm)														
Wind speed/Vitesse du vent — Kilometres/par heure (km/h)														
Station pressure/Pression à la station — Kilopascals (kPa)														
HIGHEST TEMPERATURE TEMPÉRATURE LA PLUS ÉLEVÉE		17.3	2	17.8	2	10.6	23.9	5	1975	2.2	5	1972	107	
LOWEST TEMPERATURE TEMPÉRATURE LA PLUS BASSE		-30.7	20	-25.3	24	-21.7	-7.8	12	1899	-36.7	28	1875	107	
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE		-8.4		-4.8		-4.4	1.3		1923	-13.9		1896	107	
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE		8.2		0.6		7.1	62.2		1918	Nil	(Several)		107	
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE		36.4		28.4		21.3	80.3		1955	Tr.		1928	107	
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE		42.6		28.4		27.2	90.2		1955	0.8		1976	107	
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE		14		9		10	20		1955	1		1976 1901	95	
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE		8.2	4	.2	7,29 30		44.5	17	1918				107	
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE		12.2	13*	17.2	20		31.0	10	1919				107	
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE		10.0*	13*	17.2	20		44.5	17	1918				107	
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN:														
5 MINUTES		0.5	4	.2	7		1.3	14	1971				10	
10 MINUTES		0.8	4	.2	7		1.8	14	1971				10	
15 MINUTES		1.0	4	.2	7		2.0	14	1971				10	
30 MINUTES		2.0	4	.2	7		2.8	14	1971				10	
60 MINUTES		3.3	4	.2	7,29 30		3.8	14	1971				10	
24 CONSECUTIVE HOURS HEURES CONSECUTIVES		8.2	4	.2	7,29 30		44.5	17	1918				107	
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)		16.1		19.9		20.3	25.4		1953	13.7		1972	58	
MAXIMUM SPEED (1 min.) (km/h) VITESSE MAXIMALE (1 min.) (km/h)		W59	5	N70	20	57	NW80	5	1940				40	
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)		W106	5	N85	20	82	NNW124	21	1960				33	
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION		99.6		102.1		81.2	139.7		1976	25.1		1944	79	
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)		98.89		98.46		98.63	99.19		1943	98.20		1949	40	
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)		101.52	20	100.25	11	100.55	101.52	20	1978				40	
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)		96.05	8	96.41	2	96.34				94.56	20	1962	40	
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			
1969	14.4	-18.9	-3.3	.2	11.7	9.4	18.5	NW 51	87.9	633.9	5.0			
1970	11.7	-23.3	-4.7	14.2	16.8	26.7	17.5	S 56	70.3	678.3				
1971	4.4	-23.9	-5.6	5.3	18.8	22.4	16.4	S 48	74.3	704.4				
1972	2.2	-21.7	-6.7	1.0	17.0	10.4	13.7	NNW42	51.6	737.2				
1973	3.3	-21.7	-7.5	6.9	37.1	40.1	16.6	W 42	77.6	760.6				
								S 42						
1974	11.7	-18.3	-3.3	.8	10.4	5.6	18.5	NW 45	87.8	635.6	2.2			
1975	23.9	-25.4	-2.0	2.3	15.5	13.0	16.4	S 40	122.9	598.4	28.9			
								NNE40						
1976	13.3	-26.7	-5.9	Tr.	1.7	0.8	20.3	WNW56	139.7	714.7	3.4			
1977	17.8	-25.3	-4.8	0.6	28.4	28.4	19.9	N 70	102.1	682.6	14.6			
1978	17.3	-30.7	-8.4	8.2	36.4	42.6	16.1	W 59	99.6	791.2	11.0			

*Snow - 17.6 Nov. 12-13

*Precipitation - 16.4 Nov. 12-13

November began with a week of warm autumn weather that changed to severe winter conditions with passage of the Arctic cold front November 10 and the first heavy snowfall with near blizzard conditions November 12. The month averaged out to colder than normal with heavier snowfall than usual.

Temperatures averaged four degrees colder than normal with a mean temperature of -8.4 degrees. Coldest day was November 20 with a minimum of -30.7, which was just a fraction of one degree above the lowest ever recorded for that date. Warmest day was November 2 with a mild maximum of 17.3 degrees.

Rainfall was above normal at 8.2 mm and snowfall measured 36.4 CM compared to normal of 21.3 CM. Water equivalent totalled 42.6 mm compared to normal of 27.2 mm.

On November 4 atmospheric pressure took an extreme drop of 1.06 kilopascals in three hours and on November 20 Winnipeg recorded the highest November sea level pressure on record at 104.75 Kps.

DAILY WEATHER SUMMARY FOR NOVEMBER 1978

AT WINNIPEG, MANITOBA

1. Mild. Sunny. Mostly light winds but gusty south wind in the morning. Smoke over the city in the afternoon.
2. Mild. Sunny. Mostly light winds but gusty south winds in early afternoon. Smoke over the city late afternoon.
3. Mild. Cloudy late morning and early afternoon. Mostly light winds but gusty north wind in the morning. Light rain 10:19 a.m. to 10:38 a.m.
4. Above normal temperatures. Cloudy. Rain 9:55 a.m. to 4:33 p.m. Snow 11:28 a.m. to 1:35 p.m. Moderate winds, gale force, Gusty west winds to 91 Kms in evening. Pressure dropped 1.06 Kps. in 3 hours - noon to 3:00 p.m.
5. Above normal temperatures. Cloudy. Snow flurries 9:52 a.m. to 2:50 p.m. Moderate winds. Storm force, Gusty west winds to 106 Km in the morning. Property damage especially in St. Boniface.
6. Above normal temperatures. Mostly sunny. Mostly light winds but gusty southwest winds in the afternoon.
7. Mild. Mostly sunny. Moderate winds. Gusty southwest winds in the afternoon.
8. Above normal temperatures. Cloudy. Light winds except gusty northwest wind in the morning.
9. Above normal temperatures. Cloudy. Light winds.
10. Below normal temperatures. Cloudy. Moderate winds. Gusty northeast winds in morning and afternoon.
11. Below normal temperatures. Mostly cloudy. Light snow 4:20 a.m. to 9:15 a.m. Light winds.
12. Below normal temperatures. Mostly cloudy. Snow 8:48 p.m. continued. Visibility reduced in snow. Light winds.
13. Near normal temperatures. Cloudy. Snow, sometimes heavy, all day. Visibility severely reduced. Roads icy. Numerous traffic accidents. Moderate winds. Gusty north winds in afternoon. Drifting snow.
14. Below normal temperatures. Cloudy. Snow to 4:45 p.m. Visibility reduced. Mostly light winds but gusty NNW winds in morning. Drifting snow. Roads still dangerous.
15. Below normal temperatures. Sunny. Ice crystals 5:00 a.m. to 5:58 a.m. Mostly light winds.
16. Below normal temperatures. Mostly cloudy. Snow grains 9:08 a.m. to 12:15 p.m. Ice crystals 12:15 p.m. to 1:07 p.m. Heavy fog 9:52 a.m. to 11:17 a.m. Light fog till afternoon. Visibility restricted. Moderate winds. Gusty south winds in evening. Drifting snow.
17. Below normal temperatures. Cloudy. Freezing drizzle 10:50 a.m. to 11:20 a.m. Ice crystals 8:50 a.m. to 9:37 a.m. Snow grains 9:20 a.m. to 12:27 p.m. Snow 12:27 p.m. to 4:20 p.m., continued 7:25 p.m. Visibility restricted. Roads icy. Moderate winds. Gusty NNW wind in afternoon. Drifting snow.
18. Cold. Cloudy. Snow or ice crystals all day. Blowing snow 12:05 p.m. to 3:40 p.m. Drifting snow. Moderate winds. Gusty north wind in afternoon. Roads dangerous, visibility restricted.
19. Cold. Sunny. Snow to 00:50 a.m. Ice crystals 11:22 a.m. to 11:31 a.m. Light winds.
20. Very cold. Almost record low temperatures. Sunny. Light winds. Light fog in morning. Visibility reduced.
21. Cold. Mostly sunny. Light winds.
22. Very cold. Cloudy. Snow 05:40 a.m. continued. Light winds. Visibility reduced. Light fog late evening.
23. Below normal temperatures. Cloudy. Light snow to 4:15 p.m. Light fog in morning and heavy fog 8:08 p.m. continued. Visibility severely reduced. Light winds.
24. Below normal temperatures. Mostly cloudy. Light snow 7:33 a.m. to 9:15 a.m., 7:30 p.m. to 11:00 p.m. Heavy fog to 3:55 a.m. Light fog till 9:00 a.m. Visibility severely reduced. Light winds.
25. Cold. Cloudy clearing late afternoon. Light snow or ice crystals 1:50 a.m. to 2:17 p.m. Snow 9:15 p.m. continued. Fog in evening. Visibility reduced. Light winds.
26. Below normal temperatures. Cloudy. Snow all day. Light fog in morning. Visibility reduced most of the day. Light winds.
27. Cold. Mostly sunny. Light snow to 4:40 a.m. Ice crystals 8:55 a.m. to 12:10 p.m. Mostly light winds but gusty north winds in morning. Drifting snow.
28. Cold. Cloudy. Ice crystals 2:57 a.m. to 12:17 p.m. Snow 12:17 p.m. continued. Freezing rain 11:50 p.m. continued. Blowing snow 12:30 p.m. to 7:45 p.m. Mostly light winds but gusty south winds in the evening. Ice fog in morning. Visibility severely restricted from late morning. Roads dangerous.
29. Cold. Mostly sunny. Freezing rain to 00:19 a.m. Snow to 3:07 a.m. Blowing snow 00:45 a.m. to 3:15 a.m. Moderate winds. Gusty NNW wind in morning. Visibility reduced in morning.
30. Very cold. Sunny. Ice crystals 5:26 a.m. to 6:25 a.m. Light winds.

HOURLY TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF NOVEMBER 1978

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.	3.3	3.6	3.0	2.8	2.8	3.1	3.1	2.3	2.1	4.0	7.0	9.4	11.9	15.0	15.9	16.2	15.1	12.0	10.8	9.5	9.0	7.0	6.7	5.8
2.	4.5	3.2	2.9	1.6	1.7	-1.1	-5.5	1.0	1.1	4.5	8.7	11.5	13.6	15.7	16.7	17.0	16.1	13.7	13.4	12.7	12.7	11.8	11.0	10.0
3.	9.0	7.4	6.7	5.7	4.7	5.3	5.6	4.9	6.3	8.6	10.8	9.8	10.7	11.5	11.6	13.0	11.0	9.0	6.4	5.2	4.4	4.7	2.1	2.9
4.	.6	-1.8	-1.6	-2.0	-1.0	.5	-2.2	.8	2.4	3.0	3.2	2.5	2.1	2.4	3.2	4.6	5.1	6.0	5.9	5.8	8.1	9.6	7.2	5.9
5.	5.6	5.5	5.2	4.5	3.3	1.8	1.8	1.5	1.5	1.9	2.1	2.5	3.0	3.1	3.8	3.5	3.8	3.5	2.1	2.0	1.8	1.2	.0	-1.8
6.	-1.8	-2.3	-5	-1.8	-3.3	-4.1	-4.1	-5.1	-4.8	-2.8	.0	2.5	4.5	6.5	7.6	7.7	7.4	6.5	4.8	4.0	4.4	4.2	3.0	2.5
7.	2.0	.9	.4	.0	-1.3	-1.1	-1.0	-1.0	-1.3	.6	2.6	4.2	7.7	9.4	12.2	13.1	13.5	1.5	10.2	10.0	8.3	8.8	7.5	6.8
8.	5.8	7.4	7.8	8.5	9.9	10.6	10.8	8.7	7.4	7.4	7.3	7.6	8.1	7.2	7.4	7.2	7.1	6.2	5.0	4.3	3.8	3.5	2.5	.0
9.	-1.8	-2.0	-2.6	-3.3	-4.6	-5.1	-3.1	-3.6	-4.1	-3.5	-1.3	.0	.8	1.3	1.3	1.5	1.0	.4	-5	-1.6	-2.2	-3.1	-3.5	-3.7
10	-3.9	-4.2	-3.9	-4.2	-4.6	-4.4	-4.2	-4.2	-4.3	-4.2	-3.8	-3.4	-3.2	-3.2	-4.2	-4.4	-4.5	-5.7	-6.7	-8.0	-10.3	-11.3	-11.6	-11.7
11	-11.2	-12.8	-12.4	-12.1	-12.6	-11.7	-9.6	-8.6	-10.6	-10.5	-8.9	-6.1	-4.2	-4.8	-3.3	-4.1	-4.8	-5.7	-7.3	-8.2	-9.1	-9.0	-8.3	-7.5
12	-6.9	-6.8	-7.0	-8.7	-8.6	-8.3	-8.1	-8.5	-9.4	-5.9	-4.3	-3.4	-3.0	-2.9	-2.5	-2.6	-2.5	-2.6	-2.6	-2.6	-2.6	-2.9	-4.0	-3.9
13	-3.9	-3.8	-3.3	-3.0	-3.2	-3.2	-3.2	-3.6	-3.8	-3.8	-3.4	-3.1	-2.9	-3.5	-3.9	-4.4	-4.3	-4.3	-4.0	-3.6	-3.9	-4.0	-5.0	-4.6
14	-5.2	-4.8	-5.2	-5.2	-5.2	-6.0	-7.2	-7.7	-8.3	-6.2	-5.9	-4.7	-4.4	-4.5	-4.5	-4.6	-4.5	-4.4	-4.4	-4.2	-5.3	-8.1	-9.6	-9.9
15	-9.9	-9.0	-9.0	-9.5	-10.2	-9.8	-10.0	-9.8	-9.8	-9.7	-7.6	-7.2	-6.0	-4.6	-4.5	-5.0	-5.5	-8.0	-11.8	-11.7	-11.1	-9.2	-7.6	-5.8
16	-5.8	-6.5	-7.0	-7.4	-7.2	-7.2	-7.4	-7.5	-8.5	-11.1	-11.1	-10.2	-10.2	-9.5	-8.2	-6.3	-6.9	-7.4	-8.1	-8.3	-8.7	-9.1	-9.3	-8.9
17	-9.2	-9.7	-11.2	-11.5	-11.8	-12.2	-12.5	-10.7	-8.3	-6.6	-4.9	-4.3	-3.8	-4.2	-4.4	-4.5	-5.2	-6.3	-7.3	-8.2	-8.7	-9.3	-9.7	-10.6
18	-11.1	-11.8	-12.0	-12.2	-12.6	-13.2	-13.5	-13.6	-14.4	-14.2	-14.3	-14.0	-14.3	-14.6	-14.9	-15.9	-17.0	-18.4	-17.5	-18.4	-17.5	-17.5	-17.2	-17.0
19	-17.9	-18.1	-19.9	-20.6	-21.6	-21.9	-22.2	-23.6	-24.8	-24.9	-23.5	-22.4	-21.8	-20.4	-19.6	-19.4	-20.4	-21.6	-22.1	-22.8	-22.8	-24.9	-25.1	-26.4
20	-26.6	-26.6	-27.1	-27.1	-29.1	-29.1	-29.6	-29.6	-28.5	-26.9	-25.7	-24.5	-23.1	-21.7	-20.6	-20.3	-20.2	-21.1	-21.3	-21.0	-22.2	-22.5	-22.0	-22.3
21	-22.0	-22.2	-21.9	-21.4	-21.5	-20.5	-21.1	-20.7	-19.7	-18.9	-19.2	-17.7	-16.6	-15.3	-14.3	-14.0	-15.4	-15.8	-16.5	-17.5	-19.0	-20.0	-20.0	-20.6
22	-20.4	-21.4	-21.6	-22.4	-22.4	-22.4	-22.4	-19.0	-17.6	-16.2	-14.7	-14.4	-12.3	-11.5	-10.9	-10.5	-10.2	-10.2	-10.2	-10.0	-10.0	-9.8	-9.8	-9.6
23	-9.5	-9.5	-9.4	-9.3	-9.2	-9.2	-9.1	-9.1	-9.1	-9.4	-9.0	-8.8	-8.7	-8.5	-8.6	-8.7	-8.7	-11.2	-12.0	-14.0	-14.6	-15.6	-16.5	-18.2
24	-18.5	-18.6	-19.1	-17.6	-14.9	-12.9	-12.1	-11.6	-11.5	-12.2	-13.5	-13.5	-11.8	-11.0	-9.6	-9.2	-9.6	-9.2	-9.2	-8.7	-8.5	-7.4	-7.0	-10.3
25	-13.6	-12.6	-11.2	-9.8	-9.8	-9.9	-10.4	-10.1	-10.0	-10.0	-10.7	-10.4	-10.0	-10.2	-11.6	-10.9	-12.7	-15.0	-16.2	-18.0	-19.5	-20.0	-16.7	-15.6
26	-15.8	-14.2	-13.9	-13.0	-13.0	-12.6	-12.0	-11.8	-11.0	-10.8	-10.6	-11.0	-11.2	-10.9	-11.0	-11.0	-10.8	-11.0	-11.0	-11.0	-10.8	-11.0	-11.0	-11.8
27	-11.4	-10.2	-10.5	-11.5	-12.3	-13.0	-13.4	-15.9	-17.6	-19.0	-19.4	-19.2	-18.9	-18.0	-17.8	-17.7	-18.5	-20.9	-21.6	-23.1	-23.6	-25.0	-25.6	-26.8
28	-26.1	-27.5	-28.5	-28.8	-29.3	-26.3	-24.5	-24.4	-24.5	-23.2	-21.9	-20.5	-19.3	-17.7	-16.8	-15.9	-14.7	-13.7	-13.7	-13.0	-12.2	-11.6	-11.1	-10.8
29	-12.1	-14.2	-15.0	-16.2	-16.2	-18.6	-18.9	-19.7	-20.8	-21.5	-21.5	-21.2	-20.6	-20.2	-19.8	-20.1	-20.6	-20.1	-22.6	-22.8	-23.7	-24.1	-23.7	-25.4
30	-26.1	-26.9	-26.8	-27.2	-27.8	-28.9	-29.4	-28.0	-27.9	-26.8	-25.5	-24.2	-22.8	-22.1	-21.5	-20.6	-21.7	-24.3	-23.6	-23.6	-23.4	-24.1	-24.6	-25.0

MEAN -8.5 -8.9 -9.1 -9.3 -9.6 -9.7 -9.5 -9.4 -9.5 -9.8 -7.9 -7.1 -6.1 -5.5 -5.0 -4.7 -5.2 -6.5 -6.9 -7.5 -7.8 -8.2 -8.5 -9.0

HOURLY METEOROLOGICAL TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF NOVEMBER 1978

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.	-5	0	-6	-8	-6	-2	-2	-9	-9	3	2	2	3	5	6	6	6	5	4	3	3	2	2	1
2.	8	0	-1	-8	-7	-2	-3	-1	-3	8	3	4	5	6	7	7	7	5	4	3	3	3	2	1
3.	4	2	3	2	1	1	2	1	3	5	5	5	6	6	5	5	4	3	3	3	3	3	2	1
4.	-2	3	-3	-3	-2	-1	-2	-1	-3	4	0	5	1	1	2	2	3	3	3	3	3	3	2	1
5.	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6.	-1	-3	-1	-1	-2	-3	-4	-5	-5	-4	-2	-1	0	5	1	1	1	1	1	1	1	1	1	1
7.	-1	-2	-1	-1	-2	-2	-2	-2	-2	-1	-1	0	3	4	4	4	4	4	4	4	4	4	4	4
8.	3	2	4	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
9.	-2	-3	-3	-4	-4	-5	-5	-5	-5	-4	-2	-1	1	1	1	1	1	1	1	1	1	1	1	1
10.	-4	-4	-4	-5	-5	-5	-5	-5	-5	-4	-2	-1	1	1	1	1	1	1	1	1	1	1	1	1
11.	-11	-13	-12	-12	-12	-12	-12	-12	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	0	0	0
12.	-8	-8	-8	-9	-9	-9	-9	-9	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
13.	-4	-3	-3	-3	-3	-3	-3	-3	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12
14.	-5	-5	-5	-5	-5	-5	-5	-5	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
15.	-10	-9	-9	-10	-10	-10	-10	-10	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5
16.	-6	-7	-7	-7	-7	-7	-7	-7	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
17.	-9	-10	-11	-11	-11	-11	-11	-11	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4
18.	-11	-11	-12	-12	-12	-12	-12	-12	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3
19.	-18	-18	-19	-20	-20	-20	-20	-20	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5
20.	-26	-26	-27	-27	-27	-27	-27	-27	-27	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12
21.	-22	-22	-22	-22	-22	-22	-22	-22	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7
22.	-20	-21	-21	-21	-21	-21	-21	-21	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6
23.	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
24.	-18	-18	-19	-19	-19	-19	-19	-19	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4
25.	-13	-12	-11	-11	-11	-11	-11	-11	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4
26.	-15	-14	-14	-13	-13	-13	-13	-13	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2
27.	-11	-10	-10	-10	-10	-10	-10	-10	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5
28.	-26	-26	-27	-27	-27	-27	-27	-27	-27	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12
29.	-12	-12	-12	-12	-12	-12	-12	-12	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3
30.	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11

31.	-22	-22	-22	-22	-22	-22	-22	-22	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7
32.	-20	-21	-21	-21	-21	-21	-21	-21	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6
33.	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
34.	-18	-18	-19	-19	-19	-19	-19	-19	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4
35.	-13	-12	-11	-11	-11	-11	-11	-11	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4
36.	-15	-14	-14	-13	-13	-13	-13	-13	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2
37.	-11	-10	-10	-10	-10	-10	-10	-10	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5
38.	-26	-26	-27	-27	-27	-27	-27	-27	-27	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12
39.	-12	-12	-12	-12	-12	-12	-12	-12	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3
40.	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11

