

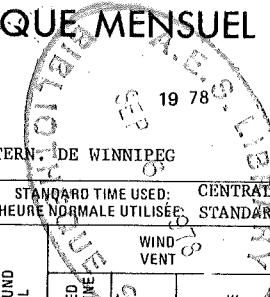


MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS JULY / JUILLET

19 78

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



LAT: 49° 54' N		LONG: 97° 14' W		ELEVATION: 239.6 METRES (ASL) / MÉTRES (NMM)		STANDARD TIME USED: CENTRAL STANDARD													
DATE	TEMPERATURE TEMPERATURE			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			
	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 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	29.4	18.1	23.8	0.0	18.8	85	46					10.2	SE	SSW	22	8.2			
2	28.2	16.0	22.1	0.0	17.1	94	53	0.6		0.6		9.7	S	SSW	20	10.5			
3	29.6	17.9	23.8	0.0	18.8	91	51	Tr.		Tr.		10.9	S	S	33	8.3			
4	25.6	17.6	21.6	0.0	16.6	95	70	13.0	1	13.0		17.3	SSE	W	59	6.2			
5	27.8	18.2	23.0	0.0	18.0	96	56	1.0	1	1.0		11.2	W	WNW	28	10.4			
6	25.7	14.0	19.9	0.0	14.9	87	47	Tr.	1	Tr.		18.6	WNW	NNW	35	12.3			
7	20.0	9.8	14.9	3.1	9.9	81	42					13.5	N	N	20*	13.5			
8	16.4	10.4	13.4	4.6	8.4	96	70	9.8		9.8		15.8	S	N	41*	0.0			
9	19.1	8.9	14.0	4.0	9.0	93	48	Tr.		Tr.		17.3	N	N	31	12.9			
10	21.9	6.5	14.2	3.8	9.2	95	45					7.2	S	SSW	15	13.3			
11	25.4	12.6	19.0	0.0	14.0	85	52					25.6	S	S	37	8.0			
12	28.1	13.0	20.6	0.0	15.6	89	35	5.8	1	5.8		21.2	S,W	NW	37	6.7			
13	24.3	12.3	18.3	0.0	13.3	91	55	Tr.	1	Tr.		16.5	NW	S	33	11.5			
14	22.8	12.6	17.7	0.3	12.7	96	58	Tr.		Tr.		11.9	NNW	NW	22*	8.7			
15	27.8	15.2	21.5	0.0	16.5	94	51	1.0	1	1.0		10.3	SSW, S	W	24	6.8			
16	30.1	15.2	22.7	0.0	17.7	92	35	1.0	1	1.0		5.9	calm	SSW	17	13.1			
17	29.9	17.8	23.9	0.0	18.9	93	63	11.3	1	11.3		19.2	SSE, S	SSSE	35*	4.6			
18	23.7	15.4	19.6	0.0	14.6	96	45					13.5	NNW	NNW	24*	14.5			
19	22.8	12.3	17.6	0.4	12.6	94	41	1.2		1.2		8.2	WNW, NNW	NNW	26	11.8			
20	24.8	12.1	18.5	0.0	13.5	89	40	Tr.		Tr.		11.6	WSW	WSW	20*	13.7			
21	21.5	9.6	15.6	2.4	10.6	94	36	Tr.		Tr.		12.9	NNW	NW	26*	13.4			
22	22.7	8.0	15.4	2.6	10.4	95	45	8.8	1	8.8		8.9	S	S	22	4.6			
23	23.8	11.0	17.4	0.6	12.4	100	45					7.0	W	W	15	13.0			
24	29.6	15.2	22.4	0.0	17.4	92	59	0.2	1	0.2		20.1	S	S	33*	9.6			
25	30.4	16.5	23.5	0.0	18.5	87	40					16.4	W	WNW	39	14.8			
26	21.9	12.0	17.0	1.0	12.0	88	57	Tr.		Tr.		24.6	NW	NNW	46	9.7			
27	22.3	5.8	14.1	3.9	9.1	97	48	Tr.		Tr.		8.6	SSW	S	22	10.3			
28	24.5	14.3	19.4	0.0	14.4	94	62	3.7	1	3.7		26.5	N	S	35	6.6			
29	21.6	10.5	16.1	1.9	11.1	96	31	0.6		0.6		9.2	N, calm	N	28	13.6			
30	23.1	10.2	16.7	1.3	11.7	87	56	Tr.		Tr.		16.8	SSW, NNW	NNW	31	5.7			
31	24.2	10.5	17.4	0.6	12.4	95	43	2.6	1	2.6		9.8	NNW	W	19	9.6			
MEAN MOYENNE	24.8	12.9	18.9	TOTAL 30.5	TOTAL 430.1	92	49	TOTAL 60.6	TOTAL 12	TOTAL 60.6		14.1	PREVAILING DIRECTION DOMINANTE S	MAXIMUM W 59	TOTAL 305.9				
NORMAL NORMALE	25.9	13.5	19.7	20.9	456.9			6.5	80.3	NIL	80.3	16.3	S	52	310.8				
DEGREE-DAY SUMMARY - SOMMAIRE DE DEGRÉS-JOURS										DAYS WITH TOTAL PRECIPITATION: JOURS AVEC 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	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	30.5	11.1	20.9	TOTAL FOR MONTH TOTAL DU MOIS	430.1	445.3	456.9	14	11	7	2	0							
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1 ^{er} JUILLET	30.5	11.1	20.9	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1 ^{er} AVRIL	1106.3	1315.8	1039.0												

Both heating and growing degree day normals are revised.

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)

Revised growing degree days - April 49.8
May 186.5
June 345.8

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

July 5 unconfirmed tornado near Winkler. July 13 unconfirmed tornado near St. Laurent and a funnel cloud at Selkirk. July 17 confirmed mini-tornadoes four miles north of Poplar Point and in the Maples and south St. Vital in Winnipeg.

COMPARATIVE RECORDS RELEVÉS COMPARATIFS		MONTH MOIS				JULY / JUILLET				19 78						
Temperature/Température — °Celsius Precipitation/Précipitation — Millimètres (mm) Rainfall/Hauteur de pluie — Millimètres (mm) Snowfall/Hauteur de neige — Centimètres (cm) Wind speed/Vitesse du vent — Kilomètres/par heure (km/h) Station pressure/Pression à la station — 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	30.4	25	31.6	18	33.9	42.2	11	1936	26.1	22, 24	1884	107				
LOWEST TEMPERATURE TEMPÉRATURE LA PLUS BASSE	5.8	27	8.3	25	6.1	11.7	27, 30	1943	1.1	25 3	1972	107				
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE	18.9		19.4		19.7	24.2		1936	15.4		1884	107				
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE	60.6		85.3		80.3	197.4		1953	13.5		1875	107				
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE	Nil		Nil		Nil	Nil		Nil	Nil							
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE	60.6		85.3		80.3	197.4		1953	13.5		1875	107				
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE	14		10		11	18		1912	5		1926	95				
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE	13.0	4	41.0	13		133.6	12	1938			1939	107				
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE	Nil		Nil		Nil	Nil		Nil	Nil			107				
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE	13.0	4	41.0	13		133.6	12	1914				107				
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN:																
5 MINUTES	2.1	4	7.1	13		17.8	16	1968				20				
10 MINUTES	3.4	4	12.4	13		24.6	16	1968				20				
15 MINUTES	3.9	4	15.2	13		35.3	16	1968				20				
30 MINUTES	4.8	4	19.8	13		39.4	16	1968				20				
60 MINUTES	8.1	22	20.3	13		39.4	16	1968				20				
24 CONSECUTIVE HOURS HEURES CONSECUTIVES	14.0	4-5	41.0	13		133.6	12	1914				107				
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)	14.1		16.1		16.3	20.9		1952	10.9		1972	58				
MAXIMUM SPEED (1 min.) (km/h) VITESSE MAXIMALE (1 min.) (km/h)	W 59	4	ESE 46	2	52	NW 68	10	1946				40				
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)	NNE80	13	W 74	13	86	SSW127	14	1959				34				
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION	305.9		340.5		310.8	367.7		1974	178.3		1912	79				
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)	98.32		98.38		98.47	98.70		1956	98.20		1975	40				
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)	99.43	10	99.85	21	99.54	100.04	4	1972				40				
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)	96.99	12	96.73	11	97.14				96.28	1	1968	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 CHAUFFÉ	GROWING DEGREE-DAYS DEGRÉS-JOURS DE CROISSANCE					
1969	34.4	7.2	18.5	101.3		101.3	14.3	NE 37	298.1	28.9	422.2					
1970	33.9	7.8	20.5	69.6		69.6	17.2	NW 48	318.7	13.9	483.9					
1971	30.6	4.4	16.4	115.1		115.1	16.3	NW 55	309.8	60.0	357.2					
1972	32.2	1.1	17.1	60.2		60.2	10.9	W 35	301.5	50.6	380.0					
1973	29.4	6.1	18.3	122.9		122.9	15.1	WSW 56	313.8	23.9	417.2					
1974	33.3	8.3	21.9	32.0		32.0	16.6	NW 48	367.7	4.4	527.2					
1975	35.5	7.0	21.5	58.2		58.2	15.0	S 47	357.8	12.0	510.6					
1976	31.5	6.1	19.7	36.9		36.9	16.9	NNW 46	348.4	15.7	454.8					
1977	31.6	8.3	19.4	85.3		85.3	16.1	ESE 46	340.5	11.1	445.3					
1978	30.4	5.8	18.9	60.6		60.6	14.1	W 59	305.9	30.5	430.1					

July weather featured almost double the normal number of thunderstorms. There were 12 days with thunder; but rainfall amounted to only 60.6 mm compared to usual July rainfall of 80.3 mm.

Temperatures averaged near normal at 18.9 degrees with afternoon highs at 24.8 and overnight lows averaging 12.9 degrees. Warmest day was July 25 with a maximum of 30.4, but the month ended with a cool spell. July 27 was coolest with a minimum of 5.8, which is the lowest ever recorded for that date.

Sunshine was 5 hours below normal and the wind averaged 14.1 Km/h compared to normal of 16.3 Km/h.

DAILY WEATHER SUMMARY FOR JULY 1978

AT WINNIPEG, MANITOBA

1. Above normal temperatures. Partly cloudy. Mostly light winds but gusty SW wind in the evening. Some heavy showers reported in parts of the city.
2. Above normal temperatures. Mostly sunny. Showers 6:38 p.m. to 7:28 p.m. Light winds.
3. Above normal temperatures. Partly cloudy. Showers 5:13 p.m. to 5:19 p.m. Mostly light winds but gusty south wind in the evening.
4. Above normal temperatures. Partly cloudy. Mostly light winds but gusty west wind to 78 KM in the morning. Thunder 8:58 a.m. to 12:15 p.m. Showers 8:50 a.m. to 11:50 a.m., 11:05 p.m. to 11:55 p.m.
5. Above normal temperatures. Mostly sunny. Mostly light winds but gusty west wind in morning. Thunder 1:59 a.m. to 3:10 a.m. Showers 1:57 a.m. to 3:50 a.m., 11:50 p.m. continued. Unconfirmed tornado about 2:00 a.m. C.S.T. just south of Winkler, some property damage.
6. Near normal temperatures. Mostly sunny. Thunder 00:25 a.m. to 1:32 a.m. Showers to 00:20 a.m., 6:40 p.m. to 6:42 p.m. Mostly light winds but gusty NNW wind in the afternoon.
7. Below normal temperatures. Mostly light winds. Partly cloudy.
8. Below normal temperatures. Cloudy. Light winds except gusty NNE winds in the evening. Showers or rain 8:49 a.m. to 6:48 p.m. Light fog in afternoon. Visibility slightly restricted. Record low maximum temperature.
9. Below normal temperatures. Partly cloudy. Light winds except gusty north wind in the afternoon. Showers 12:26 p.m. to 2:04 p.m.
10. Below normal temperatures. Mostly sunny. Light winds.
11. Near normal temperatures. Partly cloudy. Moderate winds. Gusty south winds morning and afternoon.
12. Near normal temperatures. Moderate winds. Gusty NW winds in evening. Partly cloudy. Thunder 3:29 a.m. to 4:15 a.m., 3:57 p.m. to 4:17 p.m. Showers 2:35 a.m. to 4:22 a.m., 7:30 a.m. to 7:50 a.m., 3:27 p.m. to 4:17 p.m.
13. Below normal temperatures. Partly cloudy. Moderate winds. Gusty NNE winds to 80 KM in the evening. Thunder 8:20 p.m. to 8:43 p.m. Showers 2:46 a.m. to 3:10 a.m., 8:55 p.m. to 9:02 p.m. Unofficial report of tornado at St. Laurent and funnel cloud at Selkirk.
14. Below normal temperatures. Partly cloudy. Light winds except gusty NNW wind early morning. Showers 8:20 a.m. to 8:35 a.m.
15. Above normal temperatures. Partly cloudy. Mostly light winds. Thunder 8:12 a.m. to 8:30 a.m. Showers 6:45 a.m. to 9:51 a.m.
16. Above normal temperatures. Light winds. Mostly sunny. Thunder 10:45 p.m. continued. Showers 10:35 p.m. continued.
17. Above normal temperatures. Mostly cloudy. Thunder to 3:10 a.m., 3:17 p.m. to 4:42 p.m. Showers to 7:53 a.m., 3:41 p.m. to 4:11 p.m. Moderate winds gusting to west 70 KM at Airport. About 4:00 p.m. C.S.T. mini-tornadoes reported four miles north of Poplar point, in Maples at Winnipeg and south St. Vital. No injuries but some houses wrecked, evangelist's tent ruined. Trees uprooted, power outages, flooded basements.
18. Near normal temperatures. Mostly light winds. Mostly sunny.
19. Below normal temperatures. Partly cloudy. Mostly light winds. Showers or light rain 2:54 a.m. to 8:56 a.m.
20. Below normal temperatures. Mostly sunny. Showers 2:50 a.m. to 3:10 a.m., 2:52 p.m. to 4:05 p.m. Heavy showers in some parts of the city in afternoon. Mostly light winds.
21. Below normal temperatures. Cloudy clearing in the afternoon. Showers 3:41 a.m. to 3:45 a.m. Mostly light winds.
22. Below normal temperatures. Mostly cloudy. Thunder 4:57 p.m. to 6:12 p.m. Showers 5:07 p.m. to 7:01 p.m. Mostly light winds but gusty WNW wind late afternoon in thunderstorm.
23. Below normal temperatures. Mostly sunny. Heavy fog, visibility severely restricted 3:45 a.m. to 6:56 a.m. Light winds.
24. Above normal temperatures. Partly cloudy. Thunder 2:54 a.m. to 3:16 a.m., 9:50 a.m. to 10:15 a.m., 9:46 p.m. to 10:15 p.m. Showers 6:08 a.m. to 8:32 a.m., 9:46 p.m. to 10:15 p.m. Moderate winds. Gusty south wind in the afternoon.
25. Above normal temperatures. Mostly sunny. Light winds except gusty WNW wind in the afternoon.
26. Below normal temperatures. Partly cloudy. Moderate winds. Gusty NNW winds morning and afternoon. Showers 5:05 p.m. to 5:58 p.m.
27. Cool. Record breaking low temperature. Mostly sunny. Mostly light winds. Showers 9:45 p.m. to 10:10 p.m.
28. Normal temperature. Partly cloudy. Moderate winds, gusty SSE winds in the morning. Thunder 1:19 a.m. to 4:15 a.m. Showers 00:55 a.m. to 4:18 a.m. Light showers or drizzle 4:44 p.m. to 6:37 p.m. Showers 8:40 p.m. to 10:30 p.m.
29. Below normal temperatures. Mostly sunny. Mostly light winds. Showers 00:46 a.m. to 02:17 a.m.
30. Below normal temperatures. Partly cloudy. Showers 3:49 p.m. to 5:02 p.m. Mostly light winds but gusty NW wind in the afternoon.
31. Below normal temperatures. Mostly light winds but gusty WNW winds in the afternoon. Thunder 3:16 p.m. to 4:45 p.m. Showers 3:16 p.m. to 5:14 p.m. Rare exploding meteor seen north of Winnipeg.

COUPLY TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF JULY 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.	20.0	19.6	20.4	20.0	19.7	18.2	18.8	21.0	21.9	22.8	24.1	25.8	26.1	27.0	27.6	27.6	28.1	27.2	25.8	24.8	23.4	22.0	21.1	20.0
2.	19.8	19.0	17.1	17.5	16.1	17.0	18.5	20.1	21.7	22.7	24.1	24.7	25.8	26.8	27.5	27.4	27.2	26.6	25.8	23.7	23.7	22.6	21.7	20.4
3.	20.1	19.2	18.8	18.6	18.4	18.0	18.6	18.5	20.4	22.0	24.0	24.7	26.0	26.9	27.9	28.6	28.6	27.7	23.6	23.4	21.9	21.3	20.0	19.6
4.	20.2	19.5	19.2	18.7	18.2	18.1	18.9	20.9	21.7	19.4	18.4	18.0	18.5	20.9	22.9	24.5	24.0	24.1	24.8	25.1	24.8	24.5	23.6	24.6
5.	23.5	21.5	20.6	19.6	19.1	18.5	18.2	18.9	19.6	21.4	22.0	22.4	23.6	24.8	25.2	27.0	26.9	27.0	26.6	26.2	24.8	23.3	22.4	22.2
6.	21.9	19.4	17.4	16.0	16.3	16.1	16.5	18.5	20.2	22.1	23.6	23.6	23.9	22.1	24.4	25.0	24.8	24.0	23.8	20.6	19.5	18.7	16.6	14.8
7.	14.0	12.2	11.4	11.5	10.0	10.1	11.7	12.2	13.4	15.9	16.6	18.1	18.9	19.8	18.6	19.0	19.3	19.6	19.4	18.6	17.6	15.6	14.1	14.9
8.	13.0	14.0	13.6	13.9	13.5	14.1	15.1	15.5	15.7	15.4	15.4	15.4	15.4	15.7	15.9	15.4	13.6	13.0	13.0	13.0	13.0	12.6	12.4	11.1
9.	10.4	10.1	10.0	9.4	9.1	9.5	10.4	12.7	14.4	15.4	16.6	17.0	17.2	15.5	17.5	17.8	18.1	17.5	16.9	16.7	15.2	12.8	11.2	10.6
10	9.3	8.9	7.5	7.3	7.6	8.4	9.7	13.1	15.6	17.2	17.9	18.4	19.1	19.9	20.4	20.5	20.1	21.3	20.1	20.1	18.3	16.4	15.2	10.6
11	14.5	13.6	14.3	13.9	13.0	12.8	13.4	15.6	16.7	19.1	21.1	21.7	21.7	23.2	24.4	23.5	23.7	23.6	23.1	23.1	22.7	21.4	20.3	19.7
12	19.6	14.6	14.3	14.6	14.5	14.6	18.5	19.0	19.1	21.4	22.1	23.0	25.4	26.5	27.1	26.4	19.6	20.5	18.9	18.3	16.5	15.4	14.8	14.3
13	13.0	12.3	12.5	12.5	12.5	12.5	12.7	13.6	14.1	15.2	15.8	16.4	17.8	18.0	20.0	20.6	21.8	23.0	24.0	23.4	23.4	23.3	22.6	20.9
14	19.1	17.7	16.1	14.3	13.4	12.8	12.8	12.9	13.5	14.4	15.4	16.2	17.4	18.9	20.0	21.1	22.0	22.1	21.7	21.6	20.7	17.4	17.6	17.7
15	18.2	17.4	16.5	16.7	15.2	15.5	16.0	17.0	18.0	19.5	18.5	21.8	23.2	24.7	26.0	26.9	27.0	25.4	24.2	23.8	23.5	21.9	21.1	20.0
16	18.2	17.2	16.8	16.4	15.8	15.3	16.0	21.5	24.5	25.6	26.6	27.3	27.8	28.9	29.2	29.1	29.7	28.4	28.0	26.6	24.8	23.3	24.4	24.6
17	22.2	17.5	18.2	19.2	19.9	18.4	19.6	19.5	21.0	24.2	24.2	25.9	26.8	27.2	29.1	24.6	22.5	21.5	22.1	22.8	21.6	20.5	19.4	19.5
18	18.8	18.1	17.2	15.1	15.8	15.4	16.5	18.5	20.2	21.4	21.7	22.6	23.1	22.7	23.0	22.6	22.4	21.7	20.8	20.9	18.1	16.5	15.6	16.5
19	16.0	15.3	15.5	15.0	14.6	14.7	15.1	16.1	17.6	18.5	19.8	20.7	21.9	21.6	22.1	22.1	21.7	21.2	20.6	19.4	17.3	14.8	12.6	13.2
20	12.3	13.3	14.9	14.6	13.7	12.5	13.8	16.3	17.7	19.5	20.6	21.4	22.1	23.2	23.9	22.8	22.2	23.0	22.0	22.0	20.5	18.1	17.6	15.4
21	15.1	14.0	14.4	13.9	14.0	13.6	13.6	15.0	17.5	18.2	18.4	19.5	19.6	19.6	20.8	20.7	20.5	20.1	19.5	18.6	15.7	13.5	11.5	9.9
22	9.7	9.1	8.3	4.7	8.7	9.1	9.5	13.5	14.9	15.9	17.6	18.5	19.2	19.5	20.3	21.8	21.3	20.5	14.5	15.2	15.1	15.0	15.4	15.5
23	14.2	14.4	13.6	11.7	11.1	11.1	12.0	13.0	15.4	18.0	18.5	21.2	22.1	22.5	22.9	23.1	23.0	23.1	22.7	21.9	19.4	17.3	15.8	17.4
24	17.0	17.7	16.7	17.6	17.2	15.3	16.2	16.7	17.5	18.6	22.1	24.1	25.2	24.9	27.4	27.9	28.9	29.3	28.9	27.9	25.5	24.6	23.2	21.2
25	22.8	14.7	15.7	14.9	11.2	16.8	16.8	19.6	21.7	23.3	24.2	25.8	27.1	28.1	28.7	29.5	29.6	27.7	26.8	25.4	22.5	20.7	18.6	19.0
26	18.9	17.2	15.7	14.9	14.6	14.3	14.3	16.0	19.2	19.5	20.6	20.7	19.0	18.5	19.6	19.8	21.1	20.5	19.0	18.3	16.9	14.6	14.1	12.6
27	12.2	9.7	8.5	7.9	6.1	6.1	8.0	12.1	15.1	16.5	17.4	19.4	19.1	20.6	21.9	21.5	20.8	20.4	20.0	19.3	19.2	18.8	17.8	17.2
28	17.0	14.8	15.5	15.2	14.5	14.7	15.3	16.5	18.5	18.5	20.0	22.4	23.5	21.7	22.5	21.8	20.5	19.2	16.6	16.2	16.0	15.5	15.3	14.2
29	14.3	14.0	13.4	13.0	12.5	11.7	11.8	12.5	13.2	13.7	15.5	15.5	18.0	19.3	19.8	20.5	20.5	20.5	20.0	20.0	16.8	12.5	12.0	11.5
30	10.7	11.5	11.1	10.5	11.2	11.1	12.0	12.5	15.0	17.5	19.5	18.6	19.4	20.9	22.3	21.0	19.4	19.4	20.0	19.0	17.5	15.1	14.1	13.2
31	12.7	13.0	12.5	11.7	12.5	11.5	11.7	13.7	16.5	18.0	19.5	20.5	20.6	22.5	22.8	22.2	21.6	17.2	19.5	19.5	19.2	17.8	16.7	16.8
MEAN	14.4	15.6	15.1	14.7	14.9	13.5	14.5	16.2	17.7	19.1	20.0	21.1	21.7	22.4	23.3	23.3	22.5	22.5	21.7	21.1	19.8	18.4	17.5	16.9

HOURLY WETBULB TEMPERATURES AT WINNIPEG INTERNATIONAL AIRPORT FOR THE MONTH OF JULY

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	17.8	17.5	17.2	17.1	15.6	17.0	17.9	18.0	18.6	19.0	20.0	20.5	20.1	20.0	20.4	19.7	19.6	20.8	20.1	19.0	19.1	18.9	18.1
2.	18.0	17.6	16.1	15.9	15.6	16.4	17.1	17.9	18.7	18.7	19.5	19.5	20.1	21.0	21.0	20.5	20.6	20.5	20.5	20.7	20.2	19.4	19.0	18.5
3.	18.2	17.8	17.5	17.3	17.4	17.1	17.4	17.9	18.4	19.8	21.0	20.8	21.3	22.0	21.9	21.2	21.3	20.4	19.0	18.6	18.4	17.7	17.3	17.0
4.	18.0	18.3	18.0	17.7	17.5	17.2	18.1	19.5	20.7	17.2	17.4	17.3	17.6	18.8	19.5	20.6	20.3	20.8	21.8	22.1	22.6	22.7	22.4	22.5
5.	21.9	20.6	19.8	19.0	18.7	18.2	17.7	18.0	18.7	18.9	19.0	19.4	20.1	20.5	20.1	21.8	20.9	20.7	20.3	20.2	20.2	20.2	19.3	20.0
6.	19.2	16.9	15.5	14.9	15.0	14.8	15.0	16.5	17.5	18.0	20.0	16.4	19.4	17.2	16.9	17.9	18.5	17.8	17.8	16.8	16.0	14.7	14.0	12.8
7.	11.2	10.4	9.7	9.3	8.5	8.0	9.1	9.9	10.5	11.3	11.5	13.5	14.9	15.7	15.1	15.5	12.2	12.6	13.0	12.5	12.2	11.8	11.0	11.7
8.	11.2	11.0	10.8	11.0	11.2	11.4	11.4	12.5	12.8	13.1	13.3	13.7	14.5	14.6	15.0	14.5	13.2	12.7	12.0	11.1	11.5	11.9	11.6	10.5
9.	9.7	9.6	9.3	8.7	8.4	8.5	9.2	10.7	11.4	11.5	11.8	12.1	11.7	11.1	12.6	12.0	11.9	11.7	11.9	11.9	11.9	11.0	9.9	9.2
10.	8.4	7.9	7.1	6.8	7.0	7.6	9.0	11.4	12.0	12.0	12.1	12.0	12.9	13.9	13.7	13.5	13.5	14.1	13.8	13.8	13.8	12.7	12.4	12.5
11.	12.1	11.6	11.7	11.6	11.4	11.5	12.0	13.1	13.8	15.0	16.0	16.0	16.3	16.8	17.8	17.5	18.0	18.1	17.6	17.6	17.7	17.1	16.9	16.9
12.	16.7	16.5	16.5	16.7	17.4	17.5	17.2	17.9	17.9	19.1	19.2	19.8	18.7	18.3	19.0	16.5	14.9	15.5	15.2	14.9	14.1	13.5	13.5	12.3
13.	11.5	11.3	11.5	11.6	11.8	11.6	11.6	12.0	11.3	11.9	12.3	13.3	13.8	15.1	15.1	15.1	15.3	17.5	18.3	18.3	18.4	18.0	17.8	17.5
14.	17.1	16.9	15.6	13.9	13.1	12.3	12.3	12.1	12.2	12.7	13.4	13.6	14.4	15.0	15.6	15.5	17.0	16.8	17.1	17.4	16.7	15.9	15.6	15.7
15.	16.0	15.7	15.2	15.6	14.6	15.0	15.2	16.0	16.9	17.6	17.2	18.5	18.8	20.1	18.9	19.7	19.8	19.7	19.5	19.3	20.0	18.5	18.8	17.8
16.	17.3	16.4	15.0	15.7	14.8	14.6	15.3	18.5	17.0	17.1	16.6	17.3	17.9	19.7	19.4	19.4	20.0	20.3	20.5	20.9	19.9	19.8	20.1	19.9
17.	20.0	17.1	17.2	17.7	17.8	18.1	18.1	18.3	18.9	20.1	19.3	22.1	22.9	23.2	24.7	24.7	18.6	19.6	20.7	20.6	20.0	19.0	18.5	18.4
18.	17.5	16.9	16.4	15.6	15.2	15.0	15.5	17.3	17.9	18.3	17.7	17.6	16.9	15.8	15.2	15.3	15.3	15.3	15.2	14.8	15.1	14.4	14.2	14.1
19.	14.1	14.0	14.3	14.2	13.7	14.0	14.2	14.4	14.7	15.1	15.2	16.9	15.9	16.2	14.8	15.2	14.2	13.5	13.0	12.9	13.1	12.2	10.8	10.8
20.	10.5	11.6	12.5	12.4	12.3	11.5	12.5	13.3	14.0	15.1	14.3	15.1	14.0	16.2	16.6	15.3	14.4	16.0	14.5	15.8	15.7	15.9	15.3	14.0
21.	13.5	13.1	13.3	13.0	13.2	12.8	13.0	13.7	14.9	15.1	14.5	13.9	13.8	13.9	14.0	12.6	12.2	11.9	12.5	12.4	11.5	10.5	9.7	8.7
22.	8.9	9.7	7.8	8.1	8.1	8.4	8.8	11.4	10.8	11.6	12.5	12.9	12.6	13.2	14.0	14.6	14.1	14.3	13.8	14.1	14.5	14.3	14.4	14.4
23.	14.5	14.0	13.4	11.7	11.1	11.1	11.9	12.9	14.5	16.2	16.4	15.2	15.4	15.4	15.8	15.5	15.7	16.1	15.8	15.0	15.1	14.8	14.4	14.5
24.	14.2	14.7	14.5	13.2	15.2	14.5	14.9	15.7	16.2	17.1	18.6	18.7	20.2	21.1	21.4	22.3	23.2	23.5	23.5	23.3	22.6	21.2	18.8	17.0
25.	16.6	16.3	15.8	15.8	15.3	15.2	15.4	17.4	18.3	19.2	19.3	19.6	19.6	20.2	19.3	20.7	19.8	19.3	19.2	18.8	17.9	17.2	16.6	16.8
26.	15.6	14.1	13.9	13.7	13.1	12.5	12.7	14.2	16.0	15.2	15.5	15.3	14.6	14.7	15.5	15.5	15.9	15.3	15.8	15.7	14.4	12.9	12.4	11.5
27.	10.6	8.2	7.9	7.4	5.9	5.9	7.5	10.8	11.0	12.2	12.4	13.4	13.9	14.2	15.4	14.8	14.4	14.6	14.3	14.4	14.0	14.0	14.0	13.2
28.	13.0	13.1	13.0	13.0	12.6	12.8	13.6	14.5	15.7	16.5	16.7	18.1	18.5	17.2	18.0	18.0	17.2	16.2	16.1	15.0	14.3	14.2	13.9	13.5
29.	13.4	13.5	12.8	12.3	11.7	10.9	11.1	10.7	11.0	11.2	11.8	11.8	10.5	11.5	11.8	12.0	11.3	11.7	11.1	11.6	12.0	9.6	9.5	9.1
30.	8.8	8.8	8.8	8.5	9.0	9.2	9.9	10.5	12.4	14.1	15.5	15.8	15.7	16.7	17.2	15.3	15.0	15.2	14.7	13.9	13.9	13.1	12.5	11.9
31.	11.5	12.0	11.8	11.0	11.9	11.1	11.3	12.6	14.0	15.2	14.8	15.4	15.0	15.0	15.6	14.7	15.1	15.5	16.4	16.4	15.8	15.5	14.3	14.1
MEAN	14.4	14.0	13.6	13.3	13.1	12.9	13.4	14.5	15.1	15.7	15.6	16.4	16.5	16.3	17.1	17.1	16.6	16.7	16.6	16.5	16.2	15.6	15.1	14.7

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

ALL TIMES ARE C.S.T. VELOCITY IN KILOMETERS PER HOUR

HOURLY STARTING	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	S 4	C 0	SSW 6	SSW 6	SE 7	SE 9	SE 9	SE 11	SE 11	SE 15	SSE 15	SE 15	ESE 15	ESE 15	SE 15	SE 15	SE 19	SSW 20	SSW 22	S 17	S 9	SSW 6	SSW 6	SSW 37	18 CST
2	C 0	WSW 4	SSE 4	SSW 4	S 6	S 9	S 7	S 13	S 15	S 13	S 20	SSE 20	SSE 15	SSE 15	SSE 9	SSE 11	SSE 11	SE 7	S 13	S 15	S 15	S 15	S 43	18 CST	
3	S 17	S 15	S 15	SSE 15	SSE 13	SSE 13	SSE 9	WSW 2	WSW 2	E 7	SSE 7	SSE 6	SSE 4	SSE 4	SSE 11	SSE 11	SSE 11	SSE 33	SSE 9	SSE 20	SSE 17	SSE 11	W 78	09 CST	
4	S 9	S 11	SSE 6	SSE 7	SSE 7	SSE 9	SSE 11	SSE 17	SSE 30	SSE 15	SSE 15	SSE 19	SSE 30	SSE 20	SSE 30	SSE 24	SSE 24	SSE 19	SSE 13	SSE 13	SSE 13	SSE 9	W 48	02 CST	
5	N 14	NW 11	NW 13	NW 11	NNE 7	NNE 7	NNE 7	W 7	S 6	SSE 11	SSE 11	SSE 13	SSE 15	SSE 17	SSE 11	SSE 6	SSE 6	W 7	SSE 6	SSE 6	SSE 6	SSE 15	WNW 48	16 CST	
6	NNE 26	NNE 6	NNE 7	NNE 9	NNE 13	NNE 11	NNE 17	NNE 7	NNE 13	NNE 19	NNE 28	NNE 35	NNE 17	NNE 28	NNE 28	NNE 26	NNE 22	NNE 24	NNE 31	NNE 24	NNE 19	NNE 15	NNW 39	15 CST	
7	NNE 19	NNE 13	NNE 15	NNE 17	NNE 15	NNE 11	NNE 17	NNE 19	NNE 17	NNE 20	NNE 20	NNE 19	NNE 17	NNE 13	NNE 19	NNE 15	NNE 15	NNE 13	NNE 9	NNE 6	NNE 0	NNE 2	NNE 69	18 CST	
8	N 7	S 11	S 11	S 15	S 11	S 19	S 17	S 13	S 13	SSE 11	SSE 6	SSE 6	SSE 4	SSE 15	SSE 7	SSE 41	SSE 41	SSE 41	SSE 28	SSE 15	SSE 13	SSE 11	N 54	15 CST	
9	NW 13	NW 15	NW 15	NW 13	NW 15	NW 19	NW 24	NW 26	NW 24	NW 22	NW 26	NW 20	NW 24	NW 31	NW 30	NW 30	NW 19	NW 17	NW 17	NW 14	NW 4	NW 6	S 63	12 CST	
10	NNW 6	NNW 6	NNW 9	NNW 6	NNW 4	NNW 2	NNW 4	NNW 4	NNW 2	NNW 4	NNW 6	NNW 7	NNW 9	NNW 15	NNW 9	NNW 7	NNW 11	NNW 7	NNW 13	NNW 9	NNW 9	NNW 15	NW 59	19 CST	
11	S 19	S 15	S 17	S 19	S 17	S 24	S 20	S 31	S 31	S 33	S 31	S 35	S 37	S 31	S 30	S 30	S 26	S 33	SSE 31	SSE 30	SSE 28	SSE 15	NNE 80	21 CST	
12	S 24	S 26	S 28	S 17	S 13	S 17	S 20	S 15	S 17	S 26	S 20	S 20	S 19	S 19	S 20	S 2	S 2	S 26	S 37	S 24	S 20	S 26	NNW 41	03 CST	
13	NNW 15	NNW 13	NNW 7	NNW 6	NNW 9	NNW 7	NNW 15	NNW 13	NNW 11	NNW 9	NNW 17	NNW 22	NNW 22	NNW 33	NNW 31	NNW 31	NNW 30	NNW 30	NNW 28	NNW 17	NNW 19	NNW 11	NNW 35	10 CST	
14	NW 19	NW 22	NW 20	NW 10	NW 19	NW 17	NW 13	NW 15	NW 9	NW 13	NW 11	NW 9	NW 11	NW 9	NW 15	NW 7	NW 15	NW 6	NW 0	NW 0	NW 0	NW 2			
15	SSW 11	SSW 13	SSW 13	SSW 11	SSW 13	SSW 9	SSW 15	SSW 24	SSW 15	SSW 19	SSW 13	SSW 11	SSW 11	SSW 11	SSW 15	SSW 6	SSW 6	SSW 4	SSW 0	SSW 2	SSW 2	SSW 6			

