

## MONTHLY CLIMATE DATA

WINNIPEG, MANITOBA

Month: OCTOBER Year: 1993

	CURRENT		NORMAL	
	VALUE	DATE	VALUE	DATE
Mean Maximum	8.5		11.3	
Mean Minimum	-2.4		0.1	
Mean	3.1		5.7	
Extreme Maximum and Date	17.7	5	30.5	1/1992
Extreme Minimum and Date	-9.1	30	-20.6	26/1936
Rainfall (mm)	15.2		24.6	
Snowfall (cm)	4.6		4.9	
Total Precipitation (mm)	19.8		29.5	
Days With Thunder	0		*	
Days With Measurable Precipitation	9		9	
Sunshine Hours	127.8		149.8	
Wind (km/h)	17.9		19	
Heating Degree Days Below 18 C	463.9		380.9	
Growing Degree Days Above 5 C	29.3		74.9	
Heating Degree Days Below 0 C	17.8		10.7	
Cooling Degree Days Above 18 C	0.0		0.3	

**Highlights of the Month**

After a summer with record setting rainfall, both September and October have been drier than the long term average. Snowfall in October was close to normal but the rainfall of 15.2 mm was almost 10 mm below normal. With snow and rain combined, October precipitation ranks as the 36th driest in 122 years of records. October was cool as well as dry ranking 21st coldest since 1872. The mean temperature was 2.6 degrees below the 1961 to 1990 normal while the highest temperature during the month was only 17.7 degrees, well below the record high maximum of 30.5 degrees in October, 1992. Also notable is the fact that heating degree days are above normal by 22%.

Days with precipitation were exactly normal but frequently cloudy skies reduced the tally of sunshine by 22 hours below normal.

DIR.	PEAK WIND SPEED	TIME
S	37	16:18
S	43	16:35
S	48	16:38
NW	44	03:13
S	57	23:43
NW	56	01:27
NW	61	22:59
NW	74	02:23
NW	52	06:43
S	43	06:05

WINDSPEED IS IN KM/HR

EQUAL TO OR OVER -----> 10 15 20 25 30 35 40 45 50 55 60 65 70  
 NUMBER OF HOURS -----> 578 459 289 189 123 55 23 13 5 0 0 0 0  
 NUMBER OF DAYS -----> 31 31 27 21 17 9 3 3 1 0 0 0 0  
 MAX CONSECUTIVE HOURS ---> 70 69 45 39 27 22 13 9 3 0 0 0 0

DEU POINT SUMMARY  
 SUIVIAIRE DES TEMPERATURES DE ROSEE

WINNIPEG INT'L AIRPORT

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HOUR->	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
D	-7	-14	-18	-17	-22	-21	-46	-44	-41	-59	-56	-57	-56	-51	-45	-48	-65	-94	-93	-80	-82	-82	-87	-85	-53
A	-81	-83	-84	-96	-99	-100	-101	-103	-92	-73	-71	-62	-54	-35	-31	-14	14	26	31	16	13	16	15	15	-44
T	20	29	33	41	39	44	45	47	59	65	84	93	96	98	83	86	69	45	31	16	7	-2	8	0	47
E	-7	-14	-19	-22	-34	-18	-21	-25	-20	-8	-39	-35	-35	-34	-55	-56	-63	-46	-48	-51	-42	-38	-40	-43	-34
	-46	-46	-45	-39	-35	-37	-34	-37	-33	-22	-23	-19	-14	-15	-6	2	1	9	9	0	4	12	26	30	-15
6	29	26	24	24	23	23	24	23	31	44	66	66	72	58	48	44	32	18	20	10	10	4	-3	-12	29
7	-13	-24	-33	-47	-50	-51	-56	-63	-58	-65	-61	-64	-61	-55	-59	-66	-89	-88	-78	-59	-62	-71	-71	-58	
8	-70	-69	-69	-87	-92	-96	-95	-82	-51	-42	-37	-37	-48	-60	-70	-74	-81	-82	-86	-94	-98	-96	-100	-74	
9	-99	-100	-90	-83	-75	-69	-69	-66	-62	-51	-42	-34	-29	-36	-40	-36	-41	-42	-37	-36	-31	-31	-33	-53	
10	-35	-35	-35	-34	-35	-37	-37	-35	-31	-29	-28	-20	-10	-13	-3	-10	-10	-9	-15	-18	-24	-25	-29	-34	-25
11	-33	-32	-22	-9	-8	-9	-17	-22	-18	-22	-21	-21	-24	-31	-62	-87	-83	-89	-77	-77	-71	-76	-74	-76	-44
12	-70	-75	-72	-67	-62	-63	-68	-71	-62	-38	-47	-35	-45	-40	-41	-48	-49	-44	-46	-39	-45	-49	-51	-47	-53
13	-49	-45	-41	-38	-39	-40	-42	-42	-38	-33	-32	-22	-25	-15	-8	10	10	-5	-6	-7	-1	-1	-14	-22	
14	-16	-17	-22	-20	-30	-32	-41	-50	-40	-18	-8	-30	-41	-53	-50	-50	-46	-46	-26	-15	-27	-37	-46	-34	
15	-57	-61	-60	-58	-53	-41	-34	-29	-21	-13	-14	-13	-12	-11	-5	0	14	43	38	31	32	35	20	13	-11
16	13	10	6	-8	-5	-15	-8	-22	-11	-19	-62	-60	-58	-60	-55	-51	-55	-51	-57	-57	-46	-45	-44	-22	-33
17	-14	-10	-5	-1	0	1	3	4	6	7	9	13	16	21	22	15	15	16	9	5	5	10	9	13	7
18	10	10	10	9	6	3	-4	-7	-9	-3	10	32	40	42	47	51	54	56	52	47	44	43	38	32	26
19	25	12	7	-6	-7	-3	-8	-7	-3	11	25	43	52	53	45	53	59	65	75	93	95	88	76	69	38
20	67	64	64	51	31	31	21	9	-1	0	3	3	3	-8	-20	-23	-7	-6	-4	3	3	-1	0	3	11
21	-12	-17	-16	-17	-17	-12	-23	-19	-19	-21	-23	-16	0	-14	-30	-35	-35	-38	-36	-39	-32	-33	-30	-28	-23
22	-26	-25	-25	-29	-35	-40	-45	-50	-48	-36	-27	-16	-11	-9	-7	0	-4	-4	5	14	9	13	9	3	-6
23	-2	-5	-7	-11	-13	-12	-10	-5	1	16	26	35	23	21	22	11	14	11	6	3	6	0	2	5	16
24	4	2	5	2	0	0	4	4	11	18	27	40	49	45	41	43	46	45	43	45	44	42	42	45	27
25	50	51	42	33	24	19	14	7	26	39	48	52	49	48	45	35	27	26	25	28	21	10	6	-5	30
26	-4	-3	-5	-7	-7	-9	-11	-22	-24	-14	-2	-11	-10	-20	-31	-30	-25	-20	-23	-27	-39	-43	-55	-48	-20
27	-54	-40	-37	-43	-50	-47	-46	-48	-43	-38	-30	-17	-8	-2	7	20	32	36	39	46	54	66	72	30	-4
28	23	8	-2	-6	-11	-22	-31	-39	-53	-60	-57	-75	-62	-68	-65	-58	-57	-62	-61	-61	-58	-70	-59	-44	-44
29	-60	-66	-63	-66	-68	-72	-69	-73	-67	-62	-66	-66	-84	-60	-51	-50	-52	-64	-73	-85	-84	-91	-105	-109	-72
30	-97	-92	-85	-88	-96	-104	-100	-84	-83	-79	-77	-81	-83	-84	-88	-90	-88	-86	-85	-82	-79	-79	-77	-76	-86
31	-75	-79	-80	-81	-79	-78	-79	-77	-75	-73	-71	-64	-60	-55	-50	-50	-50	-48	-46	-49	-54	-56	-60	-61	-65
MEAN	-22	-24	-24	-26	-29	-29	-32	-33	-28	-22	-19	-16	-14	-14	-15	-16	-16	-17	-18	-18	-17	-18	-21	-23	-21
MOYENNE																									

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

COMPARATIVE RECORDS AT RELEVÉS COMPARATIFS A		WINNIPEG INT'L AIRPORT				MONTH MOIS			OCTOBER			93	
Temperature/Temperature Precipitation/Precipitation Rainfall/Hauteur de pluie Snowfall/Hauteur de neige Wind speed/Vitesse du vent Station pressure/Pression à la station		THIS MONTH CE MOIS-CI		PREVIOUS YEAR ANNÉE PRÉCÉDENTE		NORMAL NORMALE	RECORD FOR THE MONTH RECORD POUR LE MOIS						
- ° Celsius - Millimètres millimètres (mm) - Millimètres millimètres (mm) - Centimètres centimètres (cm) - Kilomètres/h / kilomètres/h (km/h) - Kilopascals (kPa)		VALUE RELEVÉ	DAY JOUR	VALUE RELEVÉ	DAY JOUR		HIGHEST EVER MAXIMUM ABSOLU			LOWEST EVER MINIMUM ABSOLU		RECORD ANNÉE	
						VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE	VALUE RELEVÉ	DAY JOUR	YEAR ANNÉE		
HIGHEST TEMPERATURE (MAXIMUM) TEMPÉRATURE MAXIMALE		17.7	5	30.5	1		30.5	1	1992			121	
LOWEST TEMPERATURE (MINIMUM) TEMPÉRATURE MINIMALE		-9.1	30	-10.6	18					-20.6	26	1936	121
MEAN MONTHLY TEMPERATURE TEMPÉRATURE MENSUELLE MOYENNE		3.0		5.0		5.7	12.8	1963	0.3		1887	121	
TOTAL MONTHLY RAINFALL HAUTEUR TOTALE MENSUELLE DE PLUIE		15.4		1.0		24.6	142.0	1898	0.3		1933	121	
TOTAL MONTHLY SNOWFALL HAUTEUR TOTALE MENSUELLE DE NEIGE		4.4		1.8		4.9	38.6	1919	0.0		1965	121	
TOTAL MONTHLY PRECIPITATION PRÉCIPITATION TOTALE MENSUELLE		19.8		2.8		29.5	144.0	1949	2.5		1976	121	
NO OF DAYS WITH MEASURABLE PRECIPITATION NOMBRE DE JOURS AVEC PRÉCIPITATION MESURABLE		9		4		9	16	1984	2		1963	121	
GREATEST RAINFALL IN ONE DAY HAUTEUR DE PLUIE MAXIMALE EN UNE JOURNÉE		12.4	27	1.0	27		74.4	10	1949			121	
GREATEST SNOWFALL IN ONE DAY HAUTEUR DE NEIGE MAXIMALE EN UNE JOURNÉE		2.4	17	1.4	19		24.6	30	1971			121	
GREATEST PRECIPITATION IN ONE DAY PRÉCIPITATION MAXIMALE EN UNE JOURNÉE		12.4	27	1.4	19		74.4	10	1949			121	
MAXIMUM RAINFALL RECORDED IN: HAUTEUR DE PLUIE MAXIMALE ENREGISTRÉE EN													
5 MINUTES		0.0	0	0.1	27		3.3	11	1960			40	
10 MINUTES		0.0	0	1.0	27		3.8	11	1960			40	
15 MINUTES		0.0	0	1.0	27		4.6	15	1968			40	
30 MINUTES		0.0	0	1.0	27		7.4	15	1968			40	
60 MINUTES		0.0	0	1.0	27		10.8	15	1984			40	
24 CONSECUTIVE HOURS HEURES CONSÉCUTIVES		12.4	27	1.0	27		74.4	10	1949			121	
MEAN WIND SPEED (km/h) VITESSE MOYENNE DU VENT (km/h)		18.5		13.8		19.0	25.7	1949	12.7		1925	72	
MAXIMUM SPEED (2 min. mean) (km/h) VITESSE MAXIMALE (moyenne sur 2 min.) (km/h)		NNW 54	28	WNW 48	12		NW 85	10	1949			54	
MAXIMUM GUST SPEED (km/h) POINTE DU VENT MAXIMALE (km/h)		NW 74	28	WNW 65	12		W119	17	1991			46	
TOTAL HOURS OF SUNSHINE TOTAL DES HEURES INSOLATION		127.8		180.4		149.8	235.9	1963	72.4		1917	111	
MEAN STATION PRESSURE (kPa) PRESSION MOYENNE À LA STATION (kPa)		98.57		98.81		98.53	99.11	1957	98.20		1973	54	
GREATEST STATION PRESSURE (kPa) PRESSION MAXIMALE À LA STATION (kPa)		100.02	9	100.03	18		101.21	18	1989			54	
LEAST STATION PRESSURE (kPa) PRESSION MINIMALE À LA STATION (kPa)		95.70	28	97.35	25				93.87	15	1949	54	
CLIMATOLOGICAL DATA THIS MONTH FOR THE PAST DONNÉES CLIMATOLOGIQUES CE MOIS-CI POUR LES													
YEARS DERNIÈRE ANNÉES													
YEAR ANNÉE	MAXIMUM TEMP MAXIMALE	MINIMUM TEMP MINIMALE	MEAN TEMP MOYENNE	RAINFALL HAUTEUR DE PLUIE	SNOWFALL HAUTEUR DE NEIGE	TOTAL PRECIP TOTALE	MEAN WIND SPEED MOYENNE DES VENTS	MAXIMUM WIND SPEED MAXIMALE DES VENTS	SUNSHINE HOURS INSOLATION	HEATING DEGREES-DAYS DE CHAUFFÉ	CROWING DEGREES-DAYS DE CROISSANCE	COOLING DEGREES-DAYS DE REFRIGÉRATION	SNOWFAL SEPT. 1
1984	23.3	-14.3	6.4	86.4	13.0	99.0	18.9	S 67	108.6	362.2	127.4	0.0	19.6
1985	19.2	-7.8	5.1	12.5	14.2	29.2	18.0	SSE 48	168.1	401.6	54.8	0.0	14.2
1986	23.4	-8.5	5.4	11.6	TR	11.6	16.1	NW 50	188.8	390.8	57.0	0.0	0.0
1987	23.1	-10.5	3.4	23.2	10.4	33.4	17.1	NNW 63	158.9	451.7	36.4	0.0	10.4
1988	29.1	-17.0	3.8	13.4	12.6	26.8	17.0	S 56	194.1	442.6	61.9	0.0	12.6
1989	23.0	-9.3	5.8	15.2	1.4	16.6	14.5	S 44	155.9	378.5	77.7	0.0	1.4
1990	23.8	-7.6	5.1	7.6	1.2	8.8	16.0	S 56	170.2	398.8	53.6	0.0	1.2
1991	19.8	-15.5	1.9	57.3	16.8	74.1	23.0	W 74	125.1	500.9	30.0	0.0	16.8
1992	30.5	-10.6	5.0	1.0	1.8	2.8	13.8	WNW 48	180.4	405.4	75.9	1.8	1.8
1993	17.7	-9.1	3.0	15.4	4.4	19.8	18.5	NNW 54	127.8	464.4	29.3	0.0	4.4

Notes/Ank: 1. Climatological Day/Jourée climatologique 0001 C.S.T. - 2300 C.S.T.  
 2. Normal/Normale 1981-1980  
 3. Extremes for period of record/Extrêmes pour la période de registre  
 4. Maximum rainfall recorded in: may overlap calendar days/Hauteur de pluie maximale enregistrée en: peut-être pour plus d'une journée de calendrier  
 5. \*\* Indicates most recent occurrence/indique le plus récent  
 6. \* Indicates first of more than one occurrence/indique le premier de plusieurs