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ANNUAL METEOROLOGICAL SUMMARY 1977

SOMMAIRE METEOROLOGIQUE ANNUEL

WINNIPEG, MANITOBA



UDC: 551.506.1
551.506.3

WINTER FUN IN CLEAR COLD AIR AT ASSINIBOINE PARK

ANNUAL METEOROLOGICAL SUMMARY
SOMMAIRE MÉTÉOROLOGIQUE ANNUEL

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SOMMAIRE MÉTÉOROLOGIQUE ANNUEL

for/pour WINNIPEG INT'L AIRPORT / AEROPORT INTERN, DE WINNIPEG/EAR/ANNÉE: 1977

METEOROLOGICAL DATA FOR THE YEAR / DONNÉES MÉTÉOROLOGIQUE POUR L'ANNÉE												
MONTH MOIS	SUNSHINE / INSOLATION				WIND / VENT							
	DURATION IN HOURS DURÉE (NOMBRE D'HEURES)	PERCENTAGE OF POSSIBLE POURCENTAGE DU TOTAL POSSIBLE	NO OF DAYS WITHOUT SUNSHINE NOMBRE DE JOURS SANS SOLEIL	NORMAL NORMALE	AVERAGE SPEED VITESSE MOYENNE	PREVAILING DIRECTION DIRECTION DOMINANTE	NORMAL NORMALE		MAX FOR 1 MIN MAX POUR 1 MIN		HIGHEST GUST RAFALE MAXIMUM	
							SPEED VITESSE	DIRECTION	DIRECTION AND SPEED DIRECTION ET VITESSE	DATE	DIRECTION AND SPEED DIRECTION ET VITESSE	DATE
JAN/JAN	116.3	43.5	5	112.5	16.0	NW	19.5	NW	N 57	25	N 76	25
FEB/FÉV	122.7	43.6	6	139.4	16.7	S	18.8	S	N 56	24	N 72	24
MAR/MAR	189.8	51.6	2	170.4	20.1	S	19.6	S	NNE 67	29	NNE 93	29
APR/AVR	279.8	67.8	0	208.5	21.0	SE	21.7	S	W 56	30	WSW 80	30
MAY/MAI	286.8	60.1	2	246.4	21.2	SSE	21.1	NNE	NW 56	1	S 104	15
JUN/JUIN	240.0	49.0	1	258.9	18.4	S	18.5	S	NW 59	30	NW 93	30
JUL/JUIL	340.5	69.1	1	310.8	16.1	S	16.3	S	ESE 46	2	W 74	13
AUG/AOÛT	234.6	52.3	0	276.2	13.9	WNW	17.1	S	WNW 41	10	NNW 69	9
SEPT/SEP	136.3	35.9	9	182.6	16.1	S	18.8	S	NNW 52	9	NNW 80	9
OCT/OCT	203.9	61.1	2	158.4	18.1	S	20.3	S	NW 44	5	NW 63	17
NOV/NOV	102.1	37.4	10	81.2	19.9	S	20.3	S	N 70	20	N 85	20
DEC/DÉC	84.8	33.5	11	86.2	16.9	NW	19.5	S	NNW 41	1, 8	S 56	11
YEAR ANNÉE	2337.6	52.2	49	2231.5	17.9	S	19.3	S	N 70	Nov. 20	S 104	May 15
Total Possible - 4475.8												
BAROMETRIC PRESSURE*/PRESSION BAROMÉTRIQUE*												
MONTH MOIS	STATION LEVEL / NIVEAU DE LA STATION						SEA LEVEL / NIVEAU DE LA MER					
	MEAN MOYENNE	MAXIMUM MAXIMALE	DATE	MINIMUM MINIMALE	DATE	NORMAL NORMALE	MEAN MOYENNE	MAXIMUM MAXIMALE	DATE	MINIMUM MINIMALE	DATE	NORMAL NORMALE
JAN/JAN	98.86	100.53	17	96.56	25	98.96	102.00	103.75	17	99.51	25	102.10
FEB/FÉV	98.51	100.59	6	96.29	24	98.90	101.60	103.84	6	99.23	24	102.01
MAR/MAR	98.30	99.84	23	96.93	27	98.82	101.26	102.93	23	99.81	27	101.87
APR/AVR	98.70	100.37	24	97.03	30	98.59	101.65	103.38	24	99.83	30	101.55
MAY/MAI	98.19	99.69	7	96.38	5	98.53	101.07	102.66	7	99.18	5	101.44
JUN/JUIN	98.42	99.49	6	96.31	30	98.31	101.26	102.40	6	99.13	30	101.17
JUL/JUIL	98.38	99.85	21	96.73	11	98.47	101.25	102.74	21	99.53	11	101.33
AUG/AOÛT	98.35	99.52	17	97.14	25	98.49	101.23	102.45	17	99.95	25	101.35
SEPT/SEP	98.44	99.43	2	96.43	9	98.51	101.34	102.34	23	99.24	9	101.41
OCT/OCT	98.59	100.25	6	96.86	16	98.51	101.51	103.24	6	99.72	16	101.45
NOV/NOV	98.46	100.25	11	96.41	2	98.63	101.46	103.27	11	99.29	2	101.65
DEC/DÉC	98.59	101.13	9	96.92	18	98.77	101.67	104.40	9	99.84	18	101.86
YEAR ANNÉE	98.48	101.13	Dec. 9	96.29	Feb. 24*	98.62	101.44	104.40	Dec. 9	99.13	June 30*	101.60

* 1 Kilopascal = 0.29529 inches of mercury / 3.386 kilopascals = 1 inch of mercury
= 0.29529 pouces de mercure / 3.386 kilopascals = 1 pouce de mercure

*Difference in dates of low station sea level pressure is due to different correction factors to station pressure.

for/pour WINNIPEG INT'L AIRPORT / AEROPORT INTERN, DE WINNIPEG YEAR/ANNÉE: 1977

METEOROLOGICAL DATA FOR THE YEAR / DONNÉES MÉTÉOROLOGIQUE POUR L'ANNÉE												
DAILY MINIMUM TEMPERATURES - 1977												
DATE	JAN JAN	FEB FEV	MAR MAR	APR AVR	MAY MAI	JUN JUN	JUL JUIL	AUG AOÛT	SEPT SEP	OCT OCT	NOV NOV	DEC DEC
1	-20.7	-22.4	-14.5	- 2.4	- 0.6	8.1	10.0	8.8	5.0	- 1.0	0.0	-15.5
2	-24.4	-11.7	-21.0	- 8.7	- 1.2	5.6	9.2	12.5	8.0	- 0.9	0.0	-21.2
3	-24.6	-14.7	-22.5	-10.5	7.2	14.2	16.2	9.0	7.0	2.1	-2.6	-25.3
4	-26.5	-25.3	-19.7	- 9.1	12.6	9.9	15.1	10.4	7.6	5.0	-5.7	-25.6
5	-26.3	-30.4	-18.4	-11.1	1.6	11.2	18.5	11.4	8.4	2.3	2.3	-20.8
6	-28.9	-33.7	-17.1	-10.5	0.4	7.6	17.6	10.5	8.8	- 0.2	4.8	-25.0
7	-32.4	-16.4	-11.3	- 6.9	- 1.8	12.7	13.0	8.7	9.4	1.5	7.2	-27.7
8	-33.1	-13.1	- 2.7	- 6.0	6.5	0.8	10.2	9.8	12.8	0.7	0.5	-28.2
9	-34.4	-10.9	- 0.7	3.2	11.5	10.6	9.5	10.4	8.0	0.5	-3.5	-32.5
10	-36.1	- 8.8	- 1.9	1.4	15.1	12.5	14.7	7.8	6.9	2.4	-9.4	-33.8
11	-32.2	- 3.1	- 3.1	- 1.2	13.7	10.8	15.8	6.1	7.4	- 1.0	-6.5	-26.5
12	-35.4	- 5.1	- 6.1	- 1.7	15.3	8.3	14.4	6.6	4.2	1.5	-6.8	-19.0
13	-31.0	-19.2	0.3	- 4.0	14.8	11.5	14.8	5.5	6.6	5.0	-6.0	-18.2
14	-30.9	-24.6	1.2	3.5	17.6	10.5	13.2	7.6	7.0	- 2.2	-6.9	-18.2
15	-34.7	-27.9	- 5.0	5.6	15.9	14.8	12.0	9.5	14.3	- 3.3	-3.2	- 7.3
16	-35.0	-13.9	- 7.6	0.5	10.9	14.9	14.8	6.0	12.3	1.4	-1.2	- 4.0
17	-38.0	-15.4	- 5.6	11.2	10.3	12.7	12.0	5.0	10.3	2.7	-7.2	- 0.1
18	-21.5	-21.3	- 2.1	0.5	11.1	11.4	17.8	5.2	8.8	0.8	-10.8	- 3.8
19	-13.2	-19.4	- 6.2	- 3.9	14.2	11.4	13.4	6.8	8.0	0.0	-11.5	-10.2
20	-18.3	-24.4	-12.4	1.4	12.2	9.8	10.2	8.7	9.0	- 0.1	-11.3	-20.0
21	-17.0	-10.9	-10.1	- 0.5	9.1	12.2	11.3	5.2	9.9	- 3.2	-20.0	-23.4
22	-11.5	- 7.9	-16.0	2.1	13.5	14.2	14.1	4.6	11.2	- 4.9	-23.2	-21.6
23	- 5.5	- 9.1	-18.1	- 1.6	12.2	16.0	15.2	2.0	11.5	0.0	-22.5	-19.7
24	-12.2	- 8.4	- 6.6	- 6.3	13.0	14.3	11.4	6.0	9.9	2.8	-25.3	-28.3
25	-20.3	- 9.2	- 3.4	- 0.2	20.2	12.5	8.3	13.8	9.7	1.6	-23.1	-28.5
26	-28.9	-15.9	- 0.3	2.0	17.8	11.7	9.9	9.2	9.0	5.6	-22.5	-29.6
27	-31.1	-20.6	0.0	- 0.7	16.6	9.6	13.4	8.4	6.5	1.1	-17.4	-28.7
28	-32.2	-23.0	0.9	- 0.8	15.9	12.8	12.4	7.0	3.8	0.3	-18.7	-26.7
29	-19.5		- 0.8	5.2	13.0	10.4	8.5	5.1	2.5	9.6	-11.5	-26.3
30	-22.0		- 5.4	10.8	13.8	11.1	14.4	11.8	0.1	10.0	-9.0	-29.2
31	-23.9		- 7.2		13.2		12.4	7.4		3.5		-28.0

for/pour WINNIPEG INT'L AIRPORT / AÉROPORT INTERN, DE WINNIPEG YEAR/ANNÉE: 1977

METEOROLOGICAL DATA FOR THE YEAR / DONNÉES MÉTÉOROLOGIQUE POUR L'ANNÉE												
DAILY RAINFALL - 1977 MMS												
DATE	JAN JAN	FEB FEV	MAR MAR	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOÛT	SEPT SEP	OCT OCT	NOV NOV	DEC DEC
1				Tr.					1.0			
2							10.1	4.8	Tr.		Tr.	
3					4.2	1.6			20.4			
4					50.8	Tr.	Tr.	8.6	0.2	0.4		
5					14.8	3.4	6.2	1.3	14.2	1.0		
6					0.4		Tr.	13.8	Tr.	0.2	Tr.	
7						Tr.	3.6	0.4		1.6	0.2	
8			Tr.				Tr.	1.0	52.6	Tr.		
9					Tr.	Tr.		6.0	9.2	Tr.		
10			Tr.			14.0	2.3	2.8	0.2	4.0		
11		Tr.	1.0				4.3	1.8		Tr.		
12		Tr.	3.6			7.0	Tr.	0.2	Tr.			
13			0.7		0.4	15.6	41.0		1.4			
14			Tr.	Tr.	9.6	1.0	Tr.					
15				Tr.	0.9	1.6		1.4			Tr.	Tr.
16						Tr.	Tr.	1.2				0.3
17				3.6	Tr.	28.5	0.5		Tr.	8.0		0.2
18					29.6	0.6	Tr.		Tr.			1.1
19	Tr.			Tr.	1.0	1.0	Tr.	0.4	0.8			
20								0.4	0.4			
21				Tr.				3.0	Tr.			
22				0.3	1.6			1.2	6.0			
23	Tr.				0.6		Tr.		0.2			
24	Tr.						Tr.		29.0			
25			1.5					13.4	11.7			
26			.5		37.1			Tr.	0.9			
27			Tr.	Tr.	0.2	2.0			Tr.			
28				0.5	21.0	2.0	1.6	0.5				
29				0.3	4.7	2.2	Tr.	18.6		Tr.	0.2	
30				Tr.	0.8	7.9	15.0			15.0	0.2	
31					Tr.		0.7	8.8				
TOTAL	Tr.	Tr.	7.3	4.7	177.7	88.4	85.3	89.6	148.2	30.2	0.6	1.6

ANNUAL METEOROLOGICAL SUMMARY
SOMMAIRE MÉTÉOROLOGIQUE ANNUEL

YEAR/ANNÉE: 1977

for/pour WINNIPEG INT'L AIRPORT / AÉROPORT INTERN, DE WINNIPEG

METEOROLOGICAL DATA FOR THE YEAR / DONNÉES MÉTÉOROLOGIQUE POUR L'ANNÉE

DAILY PRECIPITATION - 1977 (mm)

DATE	JAN JAN	FEB FEV	MAR MAR	APR AVR	MAY MAI	JUN JUN	JUL JUIL	AUG AOÛT	SEPT SEP	OCT OCT	NOV NOV	DEC DEC
1	Tr.	0.7	Tr.	Tr.					1.0			0.9
2	Tr.	0.8	Tr.				10.1	4.8	Tr.		Tr.	Tr.
3	0.3	1.6	Tr.		4.2	1.6			20.4			Tr.
4		0.3			50.8	Tr.	Tr.	8.6	0.2	0.4		1.1
5	Tr.	Tr.		0.5	14.8	3.4	6.2	1.3	14.2	1.0		0.6
6	Tr.	Tr.	Tr.	Tr.	0.4		Tr.	13.8	Tr.	0.2	Tr.	Tr.
7	Tr.	Tr.				Tr.	3.6	0.4		1.6	0.2	0.6
8		Tr.	Tr.				Tr.	1.0	52.6	Tr.		0.8
9	Tr.				Tr.	Tr.		6.0	9.2	Tr.		
10	Tr.	0.5	Tr.			14.0	2.3	2.8	0.2	4.0		
11	0.3	Tr.	1.0				4.3	1.8		Tr.	Tr.	1.6
12	Tr.	0.4	3.6			7.0	Tr.	0.2	Tr.			0.2
13	1.8	Tr.	0.7		0.4	15.6	41.0		1.4			0.2
14	0.7		Tr.	Tr.	9.6	1.0	Tr.					Tr.
15	Tr.		Tr.	Tr.	0.9	1.6		1.4			Tr.	Tr.
16	Tr.	2.0	Tr.			Tr.	Tr.	1.2			4.2	0.3
17	Tr.	Tr.		3.6	Tr.	28.5	0.5		Tr.	8.0	1.4	10.1
18	Tr.	0.8	0.3		29.6	0.6	Tr.		Tr.		Tr.	1.9
19	5.5	Tr.	Tr.	Tr.	1.0	1.0	Tr.	0.4	0.8		0.8	Tr.
20	Tr.	Tr.	0.8					0.4	0.4		17.2	Tr.
21	Tr.	Tr.		Tr.				3.0	Tr.		0.8	
22	1.5		Tr.	0.3	1.6			1.2	6.0		Tr.	Tr.
23	0.9				0.6		Tr.		0.2		Tr.	Tr.
24	Tr.	11.5					Tr.		29.0			Tr.
25	0.5	2.3	1.5					13.4	11.7			Tr.
26	Tr.	Tr.	2.0		37.1			Tr.	0.9			Tr.
27	0.6	Tr.	Tr.	Tr.	0.2	2.0			Tr.		Tr.	0.5
28	0.2			0.5	21.0	2.0	1.6	0.5			0.4	Tr.
29	0.2			0.3	4.7	2.2	Tr.	18.6		Tr.	1.6	Tr.
30	Tr.			Tr.	0.8	7.9	15.0			15.0	1.8	Tr.
31	Tr.		Tr.		Tr.		0.7	8.8				Tr.
TOTAL	12.5	20.9	9.9	5.2	177.7	88.4	85.3	89.6	148.2	30.2	28.4	18.8

ANNUAL METEOROLOGICAL SUMMARY
SOMMAIRE MÉTÉOROLOGIQUE ANNUEL

for/pour WINNIPEG INT'L AIRPORT / AÉROPORT INTERN, DE WINNIPEG

YEAR/ANNÉE: 1977

MONTHLY AND ANNUAL EXTREMES OF RECORD / EXTRÊMES MENSUELLES ET ANNUELLES AUX REGISTRES														
MONTH MOIS	TEMPERATURE / TEMPÉRATURE								PRECIPITATION / PRÉCIPITATIONS					
	ABSOLUTE MAXIMUM ABSOLU	YEAR ANNÉE	ABSOLUTE MINIMUM ABSOLU	YEAR ANNÉE	HIGHEST MONTHLY MEAN MOYENNE MENSUELLE MAXIMALE	YEAR ANNÉE	LOWEST MONTHLY MEAN MOYENNE MENSUELLE MINIMALE	YEAR ANNÉE	GREATEST MONTHLY PRECIPITATION MENSUELLE MAXIMALE	YEAR ANNÉE	LEAST MONTHLY PRECIPITATION MENSUELLE MINIMALE	YEAR ANNÉE	GREATEST MONTHLY SNOWFALL NEIGE MENSUELLE MAXIMALE	YEAR ANNÉE
JAN/JAN	7.8	1942	-44.4	1877	-10.6	1944	-26.9	1875	85.3	1916	2.5	1973	85.3	1916
FEB/FÉV	11.7	1958	-45.0	1966	-5.1	1878	-26.1	1875	89.9	1881	2.5	1903	89.9	1881
MAR/MAR	23.3	1946	-38.9	1880*	1.6	1878	-16.1	1899	76.2	1904	1.5	1939	76.2	1904
APR/AVR	33.9	1952	-27.8	1932	9.4	1915	-2.8	1893	143.3	1896	2.0	1949	44.5	1872
MAY/MAI	37.8	1934	-11.7	1907	17.8	1977	4.4	1907	177.7	1977	.8	1917	32.5	1931
JUN/JUIN	38.3	1900	-6.1	1888*	20.3	1910	12.3	1969	255.8	1901	3.3	1961	1.3	1875
JUL/JUIL	42.2	1936	1.1	1972	24.2	1936	15.4	1884	197.4	1953	13.5	1875		
AUG/AOÛT	40.6	1949	-1.1	1910*	21.6	1961	14.4	1977	180.6	1876	3.3	1915		
SEPT/SEP	37.2	1929*	-8.3	1899	16.8	1948	8.0	1965	156.2	1872	1.3	1948	18.3	1872
OCT/OCT	30.0	1922	-20.6	1936	12.8	1963	0.3	1887	144.0	1949*	2.5	1976	38.6	1919
NOV/NOV	23.9	1975	-36.7	1875	1.3	1923	-13.9	1896	90.2	1955	.8	1976	80.3	1955
DEC/DÉC	11.7	1939	-47.8	1879	-3.4	1877	-25.9	1879	101.3	1909	2.5	1892	101.3	1909
YEAR ANNÉE	42.2	1936	-47.8	1879	5.3	1931	-1.7	1883	723.4	1962	320.8	1961	266.2	1909

PERIOD OF RECORD/PÉRIOD DE REGISTRE:

*Other Years

Mean values based on standard period -

Extremes from complete station record -

1941 - 1970

1872 - 1977

NOTE: September max. also in 1906
August min. also in 1891
June min. also in 1902
March min. also in 1873
October greatest pcpn. also in 1898