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MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS

DECEMBER / DECEMBRE

19 88

AT/A WINNIPEG INT'L AIRPORT / AÉROPORT INTERN. DE WINNIPEG

LAT: 49° 54' N		LONG: 97° 14' W		ELEVATION ALTITUDE: 239.6		METRES (ASL) MÉTRES (NMM)		STANDARD TIME USED: CENTRAL													
DATE	TEMPERATURE TEMPÉRATURE			DEGREE-DAYS DEGRÉS-JOURS			REL. HUMIDITY HUMIDITÉ REL.		PRECIPITATION PRÉCIPITATIONS			WIND VENT			BRIGHT SUNSHINE INSOLATION EFFECTIVE HOURS HEURES						
	MAXIMUM MAXIMALE	MINIMUM MINIMALE	MEAN MOYENNE	HEATING DE CHAUFFE	GROWING DE CROISSANCE	COOLING DE RÉFRIGÉRATION	MAXIMUM MAXIMALE	MINIMUM MINIMALE	THUNDERSTORM ORAGE	RAINFALL PLUIE (HAUTEUR)	SNOWFALL NEIGE (HAUTEUR)	TOTAL PRECIP. TOTALE	SNOW ON GROUND NEIGE AU SOL	AVERAGE SPEED VITESSE MOYENNE		PREVAILING DIRECTION DIRECTION DOMINANTE	MAX 2 MIN MEAN SPEED & DIRECTION VITESSE MOYENNE MAX. SUR 2 MIN & DIRECTION				
	°C	°C	°C	BASE 18.0°C	BASE 5.0°C	BASE 18.0°C	%	%		mm	cm	mm	cm	km/h		km/h					
1	0.2	-12.0	-5.9	23.9			89	75					7	17.7	S	S 26	7.2				
2	6.5	-8.2	-0.9	18.9			89	53					7	16.0	SSW	WNW28	6.1				
3	-1.4	-10.5	-6.0	24.0			90	80					6	15.0	NNW	NNW33	6.8				
4	-1.2	-6.8	-4.0	22.0			92	78					6	14.3	SSW	S 26	4.5				
5	3.1	-5.9	-1.4	19.4			93	68					6	9.5	SSW	S 17	7.9				
6	1.1	-8.9	-3.9	21.9			96	70	TR.	0.2	0.2	4	20.2	NW	NW 30	2.3					
7	-8.3	-14.9	-11.6	29.6			89	73		1.0	1.0	4	12.8	NW	NNW24	0.6					
8	-13.3	-21.2	-17.3	35.3			86	60		TR.	TR.	5	12.7	W	N 22	7.7					
9	-18.7	-27.2	-23.0	41.0			74	62		TR.	TR.	5	11.4	WNW	WNW15*	6.7					
10	-20.3	-28.6	-24.5	42.5			71	63				5	9.7	S	NW 13*	6.0					
11	-8.2	-24.1	-16.2	34.2			84	60		TR.	TR.	5	24.5	S	S 37*	5.2					
12	1.7	-8.4	-3.4	21.4			96	80		0.6	0.6	5	22.4	S	S 31*	0.9					
13	0.1	-12.5	-6.2	24.2			91	77				5	17.4	W	NNE37	0.6					
14	-11.8	-25.8	-18.8	36.8			76	55				5	24.8	N	N 37	7.4					
15	-12.8	-26.2	-19.5	37.5			88	43			0.2	5	19.1	SSW	SSW30*	7.1					
16	-6.6	-13.7	-10.2	28.2			92	78		1.2	1.0	6	18.2	NNW	NNW31*	0.4					
17	-6.5	-17.4	-12.0	30.0			90	68		TR.	TR.	6	19.4	S	S 33	0.3					
18	-2.7	-9.8	-6.3	24.3			89	74		TR.	TR.	6	12.1	WNW	NW 22	1.0					
19	-4.2	-9.6	-6.9	24.9			91	82		0.2	0.2	6	18.2	NNE	NNE28	0.0					
20	-9.3	-14.1	-11.7	29.7			91	76		TR.	TR.	6	12.3	NNW	N 22*	0.0					
21	-1.1	-14.8	-8.0	26.0			95	72				6	17.5	SE	SE 30*	0.6					
22	-0.7	-4.6	-2.7	20.7			96	74		4.9	4.0	6	20.4	SE	SE 30	0.0					
23	-4.1	-15.5	-9.8	27.8			91	75		2.2	1.6	11	25.5	WNW	WNW33*	0.0					
24	-15.0	-20.2	-17.6	35.6			86	66		0.8	0.4	13	22.5	NW	NW 31	1.0					
25	-16.6	-28.7	-22.7	40.7			72	60		TR.	TR.	13	15.1	WNW	NW 28	7.6					
26	-14.2	-27.8	-21.0	39.0			80	64		4.6	4.6	13	13.4	NE	NE 28	0.0					
27	-14.0	-21.2	-17.6	35.6			83	64		2.2	2.2	18	28.0	NW	NNW35	3.5					
28	-19.2	-30.4	-24.8	42.8			75	57		TR.	TR.	18	13.2	NW	NW 24	6.7					
29	-15.6	-28.9	-22.3	40.3			77	62		0.6	0.4	18	18.4	S	S 30*	1.3					
30	-15.2	-25.4	-20.3	38.3			78	60		0.6	0.4	19	14.8	NNE	NNE24*	0.9					
31	-16.0	-25.6	-20.8	38.8			78	67		7.4	5.7	19	15.5	ENE	NE 26	0.0					
MEAN MOYENNE	-7.9	-17.7	-12.8	955.3	0.0	0.0	86	68	TOT 0	TOTAL TR.	TOTAL 26.7	TOTAL 22.5		17.2	S DOMINANTE	MAXIMALE \$ 37	TOTAL 100.3				
NORMAL NORMALE	-9.4	-18.6	-14.0	991.8	0.0	0.0			0	0.9	20.7	19.2		18.6	S		92.6				
DEGREE-DAY SUMMARY/SOMMAIRE DE DEGRÉS JOURS												DAYS WITH TOTAL PRECIPITATION: JOURS AVEC PRÉCIPITATIONS TOTALES:					DAYS WITH SNOWFALL: JOURS AVEC CHÛTE 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	02 OR MORE OU PLUS	10 OR MORE OU PLUS	20 OR MORE OU PLUS	100 OR MORE OU PLUS	500 OR MORE OU PLUS	02 OR MORE OU PLUS	10 OR MORE OU PLUS	20 OR MORE OU PLUS	100 OR MORE OU PLUS	500 OR MORE OU PLUS		
TOTAL FOR MONTH TOTAL DU MOIS		955.3	811.5	991.8	TOTAL FOR MONTH TOTAL DU MOIS		0.0	0.0	0.0	14	7	4	0	0	14	7	5	0	0		
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1er JUILLET		2260.2	2016.8	2279.9	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1er AVRIL		2142.7	1775.6	1783.3	14	7	4	0	0	14	7	5	0	0		

UDC 551.506.1 ()

Note/Avs

1. Climatological Day/Journée climatologique 00 01 C S.T. - 00 00 C S.T.

2. Normal/Normale 1951-1980

3. TR = Trace

4. M = Missing/Manquant

5. No entry/Pas de valeur = No occurrence/Pas d'événement

6. * Indicates first of more than one prevailing direction and/or maximum 2 minute mean speed (see page 4)/Indique la première de plusieurs des directions dominantes et/ou la vitesse moyenne maximale sur 2 minutes (voir page 4).

7. C = Calm/Calme

8. Price: single issue \$2.75 ; annual (Jan. to Dec.) \$27.30 Prix: numéro individuel \$2.75 ; annuel (janv. à déc.) \$27.30



DRY-BULB TEMPERATURES AT: WINNIPEG INTERNATIONAL AIRPORT
 TEMPERATURES DU THERMOMETRE SEC A: AEROPORT INTERN. DE WINNIPEG

MONTH: DECEMBER 1988
 MOIS: DECEMBRE 1988

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	-118	-120	-110	-102	-100	-98	-95	-86	-77	-71	-58	-39	-33	-13	-11	-6	-9	-18	-16	-21	-22	-4	-7	-20
2	-23	-34	-43	-62	-42	-32	-54	-58	-66	-53	-25	10	24	48	37	54	44	41	34	33	34	31	12	-3
3	-19	-21	-32	-35	-45	-64	-68	-89	-102	-104	-89	-85	-76	-72	-64	-62	-64	-74	-81	-88	-85	-77	-65	-53
4	-45	-45	-36	-33	-31	-46	-61	-60	-64	-66	-60	-50	-35	-25	-18	-17	-20	-35	-39	-40	-28	-17	-22	-27
5	-19	-12	-17	-30	-22	-39	-46	-53	-50	-41	-10	-3	2	19	27	26	22	5	-12	-14	-15	-32	-24	-36
6	-35	-42	-43	-56	-43	-43	-28	1	-2	-2	0	0	7	5	5	-1	-14	-18	-40	-49	-54	-61	-59	-70
7	-88	-103	-97	-133	-125	-117	-128	-132	-121	-120	-118	-100	-99	-96	-98	-101	-108	-112	-119	-133	-146	-124	-124	-127
8	-138	-140	-168	-159	-154	-154	-183	-196	-210	-207	-186	-182	-179	-175	-168	-179	-179	-187	-194	-201	-195	-200	-203	-203
9	-210	-206	-211	-212	-216	-219	-220	-226	-229	-237	-230	-221	-209	-199	-192	-194	-204	-233	-246	-249	-256	-264	-269	-269
10	-261	-270	-273	-281	-285	-270	-273	-270	-280	-266	-250	-236	-232	-226	-216	-216	-228	-239	-242	-245	-243	-241	-241	-237
11	-235	-241	-237	-241	-233	-232	-232	-231	-228	-227	-221	-219	-206	-190	-183	-169	-151	-135	-129	-120	-112	-104	-95	-86
12	-84	-77	-67	-59	-52	-48	-45	-31	-20	8	14	12	14	2	5	9	6	-3	-5	-20	-23	-16	-16	-17
13	-9	-8	-20	-27	-31	-44	-47	-50	-56	-56	-49	-48	-49	-50	-37	-35	-36	-35	-51	-56	-72	-80	-101	-115
14	-123	-127	-134	-141	-150	-155	-158	-168	-176	-185	-191	-190	-190	-184	-183	-182	-192	-201	-209	-216	-230	-242	-246	-246
15	-258	-249	-248	-240	-247	-245	-245	-238	-235	-226	-217	-202	-194	-167	-157	-148	-151	-155	-159	-162	-167	-147	-146	-136
16	-129	-125	-115	-113	-103	-94	-104	-94	-93	-91	-95	-89	-89	-91	-92	-88	-90	-115	-100	-89	-87	-83	-76	-68
17	-72	-75	-115	-135	-109	-117	-132	-147	-153	-174	-143	-137	-129	-135	-136	-137	-137	-131	-123	-117	-111	-99	-94	-90
18	-84	-81	-71	-63	-53	-42	-31	-38	-40	-46	-53	-32	-35	-34	-40	-47	-48	-52	-55	-56	-58	-56	-58	-58
19	-59	-59	-57	-54	-52	-49	-48	-48	-47	-48	-47	-48	-55	-59	-63	-63	-71	-74	-75	-75	-82	-82	-86	-86
20	-96	-103	-106	-110	-112	-113	-117	-121	-122	-121	-119	-119	-117	-114	-108	-104	-104	-104	-101	-102	-103	-107	-108	-116
21	-141	-145	-127	-114	-135	-131	-136	-128	-116	-109	-104	-100	-91	-82	-64	-39	-35	-34	-21	-20	-22	-21	-19	-14
22	-14	-12	-12	-17	-16	-12	-11	-18	-22	-24	-25	-25	-26	-25	-24	-24	-23	-25	-28	-33	-33	-35	-39	-42
23	-46	-47	-45	-49	-59	-67	-76	-85	-93	-98	-104	-111	-115	-111	-117	-119	-123	-126	-134	-133	-135	-143	-148	-151
24	-154	-157	-159	-162	-162	-168	-167	-163	-167	-173	-175	-188	-179	-166	-167	-173	-189	-183	-186	-191	-177	-186	-178	-172
25	-170	-169	-168	-169	-189	-212	-224	-241	-247	-258	-253	-243	-234	-228	-214	-212	-229	-244	-239	-243	-262	-258	-272	-274
26	-267	-271	-268	-265	-246	-253	-239	-234	-219	-218	-205	-184	-185	-179	-180	-162	-152	-146	-151	-142	-143	-149	-147	-145
27	-142	-143	-149	-151	-148	-147	-157	-168	-174	-178	-189	-183	-182	-179	-186	-185	-177	-167	-157	-155	-183	-205	-212	-206
28	-195	-212	-228	-241	-252	-269	-274	-276	-275	-275	-267	-258	-257	-246	-241	-235	-242	-255	-261	-267	-269	-281	-284	-293
29	-264	-257	-271	-266	-253	-245	-232	-221	-213	-204	-195	-186	-180	-172	-172	-164	-164	-162	-163	-161	-158	-156	-157	-160
30	-162	-153	-154	-157	-167	-175	-186	-188	-192	-201	-227	-236	-237	-235	-230	-227	-225	-232	-254	-241	-237	-220	-212	-220
31	-231	-241	-236	-227	-217	-203	-198	-197	-196	-194	-188	-182	-178	-174	-172	-170	-170	-167	-163	-160	-162	-168	-169	-171

Note/Avis: 1. Climatological Day/Journée climatologique 0001 C.S.T. - 0000 C.S.T.
 2. Hours are C.S.T./Les heures sont à l'heure normale de la localité
 3. Unit/Unité = 0.1°C

Date	HOURLY DEW POINT TEMPERATURE AT: TEMPERATURE DE ROSEE HORAIRES A:											WINNIPEG INTERNATIONAL AIRPORT AEROPORT INTERN. DE WINNIPEG											MONTH: DECEMBER 1988 MOIS: DECEMBRE 1988											Page 5.
	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	-149	-147	-136	-122	-118	-114	-110	-103	-96	-90	-81	-66	-63	-50	-48	-41	-38	-43	-41	-46	-50	-43	-43	-53										
2	-52	-57	-61	-77	-64	-56	-73	-75	-83	-77	-69	-56	-50	-38	-27	-24	-23	-27	-26	-22	-20	-20	-31	-41										
3	-49	-48	-54	-57	-60	-80	-92	-110	-123	-125	-111	-108	-103	-98	-84	-87	-92	-96	-105	-98	-92	-80	-68											
4	-63	-61	-53	-50	-60	-73	-72	-77	-80	-79	-73	-63	-55	-49	-47	-43	-50	-53	-55	-47	-43	-46	-50											
5	-48	-41	-45	-54	-47	-58	-65	-66	-66	-62	-45	-39	-44	-33	-24	-21	-24	-32	-32	-35	-49	-43	-52											
6	-51	-58	-59	-71	-60	-58	-43	-7	-7	-11	-14	-15	-19	-16	-27	-43	-51	-64	-67	-75	-92	-98	-115											
7	-124	-133	-130	-158	-157	-150	-153	-155	-142	-143	-143	-125	-119	-117	-126	-126	-128	-135	-138	-153	-160	-142	-138	-149										
8	-181	-185	-197	-192	-186	-172	-207	-220	-234	-235	-219	-232	-232	-230	-225	-224	-231	-234	-234	-239	-241	-241	-247	-247										
9	-252	-249	-254	-253	-260	-258	-259	-264	-266	-275	-267	-258	-250	-241	-244	-247	-243	-267	-290	-286	-301	-295	-306	-308										
10	-300	-309	-317	-324	-329	-311	-317	-315	-325	-316	-299	-280	-272	-269	-266	-267	-277	-284	-284	-287	-285	-284	-284	-280										
11	-280	-285	-285	-285	-276	-277	-277	-276	-275	-274	-274	-272	-262	-247	-237	-220	-201	-188	-179	-164	-167	-130	-122	-111										
12	-107	-98	-87	-72	-66	-67	-65	-52	-41	-17	-17	-15	-13	-4	-8	-13	-19	-35	-45	-41	-41	-37	-34											
13	-33	-35	-46	-53	-57	-67	-71	-73	-76	-77	-73	-73	-71	-61	-61	-59	-49	-71	-75	-91	-99	-122	-145											
14	-155	-164	-171	-178	-185	-190	-195	-200	-207	-223	-230	-250	-249	-248	-247	-248	-257	-266	-276	-285	-284	-294	-305											
15	-295	-295	-297	-285	-294	-297	-301	-299	-295	-290	-285	-274	-264	-247	-249	-220	-216	-219	-215	-213	-203	-188	-183	-155										
16	-147	-138	-134	-127	-115	-106	-121	-110	-110	-115	-116	-108	-112	-111	-120	-118	-117	-138	-124	-114	-106	-100	-92	-84										
17	-88	-94	-132	-151	-132	-137	-153	-170	-180	-193	-173	-171	-175	-170	-168	-169	-170	-157	-140	-133	-125	-115	-110	-105										
18	-99	-97	-89	-84	-77	-71	-68	-72	-77	-81	-85	-71	-66	-67	-69	-74	-74	-75	-74	-75	-75	-77	-77	-77										
19	-77	-77	-77	-73	-70	-68	-66	-65	-65	-66	-67	-67	-72	-79	-84	-80	-89	-90	-90	-90	-97	-97	-102	-97										
20	-116	-122	-127	-131	-132	-136	-138	-145	-146	-148	-148	-147	-145	-141	-138	-137	-132	-128	-124	-126	-127	-127	-129	-133										
21	-153	-157	-147	-128	-143	-135	-148	-142	-127	-118	-116	-115	-105	-105	-94	-74	-76	-73	-65	-60	-64	-63	-58	-54										
22	-50	-46	-48	-50	-50	-51	-47	-35	-33	-35	-35	-35	-37	-38	-37	-38	-37	-36	-38	-41	-42	-43	-46	-51										
23	-54	-66	-58	-62	-75	-84	-92	-105	-114	-126	-125	-138	-144	-143	-145	-140	-148	-153	-157	-159	-155	-164	-171	-171										
24	-181	-179	-183	-188	-185	-190	-198	-185	-200	-199	-198	-207	-198	-202	-203	-213	-218	-224	-227	-229	-218	-228	-219	-213										
25	-209	-208	-207	-208	-229	-254	-265	-283	-290	-299	-298	-290	-285	-282	-264	-261	-275	-285	-279	-284	-308	-294	-316	-316										
26	-306	-310	-308	-305	-287	-294	-282	-273	-256	-257	-247	-234	-235	-226	-226	-209	-200	-191	-186	-172	-171	-177	-175	-171										
27	-168	-168	-176	-180	-176	-176	-186	-203	-209	-216	-237	-227	-225	-226	-230	-229	-216	-203	-194	-191	-229	-249	-258	-250										
28	-238	-265	-271	-283	-295	-313	-316	-319	-320	-316	-312	-301	-306	-300	-299	-297	-300	-305	-310	-314	-315	-326	-327	-333										
29	-308	-305	-318	-313	-299	-291	-276	-266	-257	-247	-233	-222	-216	-214	-211	-203	-201	-198	-201	-196	-194	-193	-192	-194										
30	-192	-188	-187	-188	-200	-211	-222	-225	-231	-241	-269	-280	-280	-282	-279	-276	-274	-284	-302	-285	-283	-265	-255	-262										
31	-276	-280	-275	-267	-256	-242	-239	-237	-238	-235	-228	-221	-217	-213	-208	-204	-204	-202	-195	-194	-198	-203	-206	-206										

- Note/avis: 1. Climatological Day/Journée climatologique 0001 C.S.T. - 0000 C.S.T.
2. Hours are C.S.T./Les heures sont a l'heure normale de la localité
3. Unit/Unite = 0.1°C

It was close to an average month which, considering our past few winters, was somewhat unusual in most city residents minds.

The mean temperature for the month was a bit warmer than normal. Our mean temperature was 12.8 C (normal 14.0). No temperature records were set during the month. The mean maximum was -7.9 (normal -9.4) and the mean minimum was -17.7 (normal -18.6). Extremes for the month were 6.5 on the 2nd and -30.4 on the 28th.

Precipitation was somewhat above normal with a total of 22.5 mm (normal 19.2). Snowfall was above normal as well at 26.7 cm (normal 20.7). The snow cover at the end of the month was 19 cm.

In contrast to a very gloomy November, December was quite bright at 100.3 hours (normal 92.6 hours). Average wind speed for the month was below normal at 17.1 km/h compared to the normal of 18.6 km/h.

DAILY WEATHER SUMMARY FOR DECEMBER 1988**AT WINNIPEG, MANITOBA**

1. Sunny. Temperatures above normal. Winds moderate becoming light by midmorning.
2. Sunny. Temperatures well above normal. Winds light becoming moderate by noon.
3. Sunny with a short cloudy period in the afternoon. Temperatures above normal. Winds light.
4. Sunny. Temperatures above normal. Winds light with a short period of moderate during the morning.
5. Sunny. Temperatures above normal. Winds light.
6. Cloudy with a few sunny periods, clearing in the late afternoon. Temperatures well above normal. Winds moderate.
7. Cloudy with a few sunny periods, snow late in the evening. Temperatures near normal. Winds light.
8. Sunny. Temperatures below normal. Winds light.
9. Sunny. Temperatures well below normal. Winds light.
10. Sunny. Temperatures well below normal. Winds light.
11. Sunny becoming overcast with very light snow, by late afternoon. Temperatures below normal. Winds light increasing to moderate gusting strong by the afternoon.
12. Cloudy to overcast with a few periods of light snow. Temperatures well above normal. Winds moderate decreasing to light in the evening.
13. Sunny becoming overcast by late afternoon. Temperatures well above normal. Winds light becoming moderate gusting strong by evening.
14. Sunny. Temperatures below normal. Winds moderate decreasing to light in evening.
15. Sunny becoming overcast with snow in the evening. Temperatures below normal. Winds light, increasing to moderate by midmorning.
16. Cloudy to overcast with intermittent snow through the day. Temperatures above normal. Winds light to moderate through the day, becoming light in the evening.
17. Cloudy to overcast with snow in the early morning and in the evening. Temperatures above normal. Winds light increasing to moderate in the evening.
18. Cloudy to overcast. Temperatures well above normal. Winds light.
19. Cloudy to overcast with snow late in the afternoon. Temperatures well above normal. Winds light becoming moderate by noon.
20. Cloudy to overcast with periods of snow throughout the day. Temperatures slightly above normal. Wind light.
21. Cloudy with fog in the morning, becoming sunny by midmorning and overcast in the evening. Temperatures well above normal. Winds light increasing to moderate in the afternoon.
22. Overcast with light snow and fog. Temperatures well above normal. Winds moderate becoming light in the afternoon.
23. Overcast with light snow. Temperatures above normal. Winds moderate.
24. Overcast with light snow becoming clear by late afternoon. Temperatures slightly below normal. Winds moderate decreasing to light in the evening.
25. Clear with periods of ice crystals in the morning. Temperatures below normal. Winds moderate early in the morning decreasing to light.
26. Sunny with some cloudy periods becoming overcast by noon with light snow in the evening. Temperatures below normal. Winds light becoming moderate in the evening.
27. Cloudy to overcast with light snow with a few clear periods in the afternoon and evening. Temperatures slightly below normal. Winds moderate.
28. Sunny. Temperatures well below normal. Wind light.
29. Cloudy to overcast with light snow. Temperatures below normal. Winds light increasing to moderate in the morning and diminishing to light in the evening.
30. Cloudy with light snow in the morning becoming sunny by noon. Temperatures below normal. Winds moderate becoming light by noon.
31. Overcast with light snow. Temperatures below normal. Winds light increasing to moderate by the late afternoon.