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MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS

DECEMBER / DÉCEMBRE

19 89

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 (NAMM)		STANDARD TIME USED: CENTRAL									
DATE	TEMPERATURE TEMPERATURE			DEGREE-DAYS DEGRÉS-JOURS			REL. HUMIDITY HUMIDITÉ REL.		PRECIPITATION PRÉCIPITATIONS			SNOW ON GROUND NEIGE AU SOL	WIND VENT		BRIGHT SUNSHINE INSOLATION EFFECTIVE		
	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. PRÉCIP. TOTALE	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	1.9	-13.2	-5.7	23.7			96	71			0.2	0.2	TR	27.5	S	NNW48*	0.5
2	-12.7	-18.4	-15.6	33.6			80	60					TR	18.8	NNW	NNW43	8.0
3	-3.6	-17.5	-10.6	28.6			88	63	TR.	TR.	TR.	TR.	TR	23.1	S	S 41*	5.8
4	4.3	-7.0	-1.4	19.4			100	72					TR	6.6	W	WSW11*	5.5
5	-1.1	-19.1	-10.1	28.1			100	67			TR.	TR.	TR	18.6	N	N 28	2.9
6	-17.4	-23.9	-20.7	38.7			88	58					TR	15.3	NW	NW 20*	7.5
7	-13.6	-25.5	-19.6	37.6			83	64			0.2	0.2	TR	13.3	S	S 28	2.2
8	-6.8	-13.6	-10.2	28.2			97	82			6.0	6.0	TR	16.6	S	S 24	0.0
9	-7.9	-23.7	-15.8	33.8			95	62			1.0	1.0	7	18.5	NNW	NNE31	7.5
10	-18.9	-26.2	-22.6	40.6			74	61			0.2	0.2	6	9.1	NNW	N 17*	3.9
11	-24.5	-29.5	-27.0	45.0			76	63			TR.	TR.	6	8.2	W	NNW15*	5.8
12	-25.7	-31.3	-28.5	46.5			70	61			TR.	TR.	6	10.5	N	N 19	7.1
13	-26.5	-35.5	-31.0	49.0			75	61					6	7.8	NW	NW 15	7.8
14	-25.1	-35.5	-30.3	48.3			73	60			TR.	TR.	6	14.2	NNW	N 31	6.6
15	-18.6	-27.3	-23.0	41.0			73	58			TR.	TR.	6	11.5	WNW	WNW20	1.7
16	-19.6	-24.6	-22.1	40.1			76	61			0.2	0.2	6	8.3	WNW	N 13	3.3
17	-21.0	-30.4	-25.7	43.7			75	59			0.4	0.4	6	12.1	NW	N 20*	7.1
18	-27.5	-34.3	-30.9	48.9			75	61			TR.	TR.	6	7.5	W	W 17	3.0
19	-30.5	-36.5	-33.5	51.5			72	56			TR.	TR.	6	9.3	NW	W 11*	7.7
20	-31.7	-37.0	-34.4	52.4			71	57			TR.	TR.	6	18.0	NW	WNW26*	6.1
21	-27.2	-35.5	-31.4	49.4			65	53			TR.	TR.	5	15.0	W	WNW22	6.4
22	-24.3	-32.4	-28.4	46.4			77	56			TR.	TR.	5	13.3	S	S 28	7.5
23	-8.9	-24.3	-16.6	34.6			90	57			0.4	0.4	5	21.8	S	S 41*	0.0
24	1.9	-10.5	-4.3	22.3			100	86		0.2	1.0	1.2	5	14.0	WNW	NNW30	0.0
25	-3.2	-26.4	-14.8	32.8			89	57			0.8	0.8	6	20.0	N	N 37	7.8
26	-9.4	-27.6	-18.5	36.5			96	62			2.0	2.0	6	17.9	S	S 33	0.0
27	-8.3	-17.4	-12.9	30.9			97	70			2.8	1.6	7	11.0	S	NW 20*	3.0
28	-8.1	-27.7	-17.9	35.9			97	67			3.2	1.8	13	18.8	NNE	NNE30	5.8
29	-18.4	-30.4	-24.4	42.4			80	65			TR.	TR.	13	10.3	S	S 20*	6.2
30	-6.5	-18.6	-12.6	30.6			96	75			0.2	0.2	12	16.0	S	S 22*	0.0
31	-5.0	-22.4	-13.7	31.7			97	70			1.2	0.8	13	19.2	WNW	NNW33	5.1
MEAN MOYENNE	-14.3	-25.3	-19.8	1172.2			85	64	TOT	TOTAL	TOTAL	TOTAL		14.6	S DOMINANTE	NNW48	141.8
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	mm					cm					
								02 OR MORE OU PLUS	10 OR MORE OU PLUS	20 OR MORE OU PLUS	50 OR MORE OU PLUS	100 OR MORE OU PLUS	02 OR MORE OU PLUS	10 OR MORE OU PLUS	20 OR MORE OU PLUS	50 OR MORE OU PLUS	100 OR MORE OU PLUS	
TOTAL FOR MONTH TOTAL DU MOIS	1172.2	955.3	991.8	TOTAL FOR MONTH TOTAL DU MOIS	0.0	0.0	0.0											
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1 ^{er} JUILLET	2505.2	2260.2	2279.9	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1 ^{er} AVRIL	1972.9	2142.7	1783.3	15	6	2	0	0	15	7	4	0	0	

UDC 551.506.1 ()

Note/Avls

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/Calm \$2.75

\$27.30

\$2.75

\$27.30

8. Price: single issue / annual (Jan. to Dec.) / Prix: numéro individuel / annuel (janv. à déc.)



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	-98	-99	-96	-92	-96	-87	-72	-63	-47	-34	-23	-3	2	15	9	17	-3	-47	-87	-100	-112	-117	-122	-128
2	-130	-138	-148	-152	-158	-165	-174	-180	-181	-179	-170	-158	-146	-140	-134	-131	-131	-145	-150	-156	-164	-173	-165	-158
3	-158	-149	-136	-134	-134	-125	-114	-108	-93	-90	-78	-78	-72	-55	-43	-41	-49	-55	-57	-59	-55	-54	-44	-38
4	-36	-39	-36	-49	-53	-53	-46	-61	-56	-53	-19	4	22	34	36	34	21	8	8	7	3	-4	-6	-31
5	-39	-24	-14	-11	-12	-19	-18	-29	-39	-41	-52	-69	-79	-95	-97	-108	-128	-142	-148	-158	-165	-174	-181	-187
6	-191	-198	-203	-207	-210	-211	-214	-218	-222	-217	-207	-195	-191	-185	-180	-177	-185	-198	-207	-213	-217	-228	-231	-225
7	-238	-237	-238	-243	-235	-250	-248	-244	-246	-229	-214	-204	-184	-174	-164	-163	-161	-158	-158	-152	-150	-149	-145	-141
8	-136	-134	-132	-125	-120	-115	-110	-107	-104	-98	-91	-90	-83	-79	-77	-77	-76	-78	-75	-72	-76	-79	-84	-85
9	-84	-82	-85	-102	-112	-122	-143	-156	-170	-173	-174	-171	-170	-166	-164	-163	-173	-199	-218	-225	-204	-236	-213	-195
10	-198	-217	-217	-228	-236	-232	-247	-239	-259	-253	-250	-221	-198	-200	-193	-190	-198	-194	-191	-191	-193	-198	-218	-231
11	-245	-271	-277	-279	-279	-279	-279	-283	-281	-277	-274	-271	-266	-261	-251	-252	-263	-275	-281	-279	-289	-284	-288	-285
12	-281	-282	-287	-292	-295	-296	-294	-290	-283	-295	-282	-297	-287	-276	-266	-257	-264	-282	-290	-279	-275	-282	-287	-298
13	-309	-335	-337	-339	-339	-346	-350	-351	-346	-343	-328	-314	-300	-282	-269	-269	-285	-294	-313	-312	-317	-315	-325	-321
14	-338	-337	-353	-353	-318	-312	-317	-321	-313	-329	-303	-286	-273	-267	-257	-251	-255	-274	-290	-287	-287	-282	-282	-283
15	-273	-257	-240	-234	-235	-232	-224	-216	-213	-211	-207	-202	-203	-199	-193	-189	-187	-192	-193	-192	-192	-194	-195	-195
16	-196	-201	-203	-204	-211	-221	-218	-213	-213	-214	-221	-217	-212	-205	-201	-209	-222	-230	-225	-245	-228	-209	-202	-209
17	-210	-225	-233	-238	-243	-245	-267	-274	-285	-302	-298	-293	-283	-271	-262	-259	-267	-281	-286	-288	-283	-289	-289	-294
18	-302	-301	-316	-314	-325	-319	-323	-329	-334	-327	-310	-278	-277	-280	-281	-283	-286	-298	-299	-299	-296	-304	-314	-320
19	-323	-325	-321	-319	-327	-334	-339	-350	-352	-353	-345	-329	-319	-311	-309	-311	-310	-326	-340	-338	-337	-336	-347	-347
20	-349	-349	-359	-358	-356	-361	-363	-368	-361	-355	-344	-332	-322	-318	-319	-317	-319	-324	-324	-326	-325	-324	-327	-332
21	-330	-336	-339	-346	-345	-343	-346	-343	-347	-353	-343	-337	-323	-309	-296	-289	-283	-278	-275	-273	-276	-281	-285	-283
22	-272	-265	-283	-303	-312	-320	-322	-323	-323	-319	-309	-297	-281	-273	-264	-267	-265	-272	-266	-262	-260	-255	-253	-246
23	-243	-232	-217	-210	-201	-192	-190	-186	-175	-175	-163	-151	-130	-108	-100	-97	-100	-101	-106	-104	-105	-102	-99	-104
24	-89	-83	-74	-74	-83	-103	-87	-78	-65	-56	-47	-38	-32	-28	-24	-12	-9	3	6	11	16	15	16	10
25	-32	-52	-66	-84	-94	-104	-116	-144	-157	-170	-192	-200	-203	-199	-199	-200	-205	-220	-235	-246	-238	-251	-243	-262
26	-257	-262	-256	-247	-221	-214	-210	-195	-190	-185	-179	-172	-167	-160	-156	-152	-148	-144	-139	-131	-128	-122	-115	-104
27	-94	-87	-83	-87	-90	-123	-139	-134	-159	-161	-159	-147	-135	-125	-123	-125	-123	-117	-112	-107	-104	-97	-93	-90
28	-93	-94	-91	-84	-95	-102	-105	-102	-105	-113	-128	-155	-149	-148	-158	-167	-185	-192	-210	-218	-219	-226	-236	-269
29	-277	-276	-283	-279	-284	-289	-300	-293	-279	-267	-245	-228	-215	-212	-211	-204	-199	-205	-209	-209	-206	-207	-203	-194
30	-185	-176	-168	-160	-149	-140	-139	-134	-130	-123	-115	-106	-99	-90	-83	-75	-71	-67	-72	-69	-74	-94	-95	-87
31	-70	-62	-59	-51	-76	-89	-91	-100	-105	-116	-112	-125	-134	-146	-154	-154	-168	-183	-193	-201	-201	-203	-218	-214

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

WINNIPEG INTERNATIONAL AIRPORT
AEROPORT INTERN. DE WINNIPEG

HOURLY DEW POINT TEMPERATURE AT:
TEMPERATURE DE ROSEE HORAIRE A:

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	-123	-125	-120	-113	-109	-95	-76	-69	-57	-50	-45	-37	-25	-21	-15	-23	-11	-82	-122	-141	-141	-149	-153	-158
2	-159	-171	-199	-200	-216	-226	-227	-224	-222	-214	-208	-202	-198	-190	-194	-191	-193	-193	-188	-190	-198	-203	-196	-192
3	-190	-179	-167	-163	-166	-162	-155	-152	-142	-143	-139	-132	-125	-109	-99	-91	-91	-88	-86	-82	-78	-74	-65	-57
4	-54	-54	-47	-56	-61	-59	-56	-68	-61	-60	-61	-40	-16	9	15	21	17	7	7	2	-2	-10	-10	-31
5	-39	-29	-16	-14	-16	-21	-20	-32	-48	-53	-69	-88	-108	-130	-146	-152	-170	-175	-182	-189	-190	-199	-206	-209
6	-211	-215	-225	-248	-250	-251	-253	-257	-260	-256	-249	-236	-237	-240	-240	-239	-240	-242	-249	-252	-257	-269	-271	-268
7	-281	-278	-280	-281	-278	-292	-289	-280	-282	-267	-255	-246	-237	-224	-225	-220	-212	-208	-204	-191	-182	-177	-172	-166
8	-160	-158	-153	-143	-136	-138	-123	-119	-118	-114	-109	-106	-100	-98	-98	-100	-99	-89	-84	-78	-82	-82	-85	-91
9	-90	-90	-92	-112	-125	-136	-158	-172	-203	-205	-211	-210	-210	-210	-210	-209	-218	-244	-259	-264	-245	-275	-255	-248
10	-249	-262	-260	-269	-276	-273	-285	-278	-298	-289	-290	-265	-245	-259	-253	-241	-242	-234	-223	-225	-231	-239	-253	-265
11	-282	-310	-317	-319	-320	-320	-313	-322	-320	-319	-315	-315	-311	-307	-301	-302	-310	-316	-329	-320	-329	-324	-329	-321
12	-321	-322	-326	-330	-335	-337	-335	-331	-321	-334	-320	-340	-327	-315	-306	-298	-304	-328	-335	-319	-317	-323	-330	-340
13	-356	-374	-380	-381	-382	-391	-389	-391	-389	-386	-370	-353	-340	-322	-311	-312	-330	-337	-359	-356	-356	-355	-368	-362
14	-381	-380	-395	-392	-362	-354	-361	-361	-359	-375	-345	-329	-316	-311	-304	-303	-305	-315	-339	-335	-333	-329	-328	-328
15	-320	-305	-284	-277	-275	-275	-268	-260	-256	-255	-252	-252	-250	-252	-249	-245	-243	-250	-251	-243	-243	-239	-241	-245
16	-252	-261	-258	-256	-263	-267	-260	-259	-258	-262	-270	-268	-262	-256	-253	-252	-264	-268	-260	-283	-263	-244	-239	-248
17	-253	-273	-279	-281	-288	-292	-308	-318	-326	-344	-340	-338	-331	-319	-313	-311	-320	-323	-331	-330	-329	-332	-328	-341
18	-340	-339	-353	-357	-367	-359	-367	-371	-384	-374	-356	-318	-314	-324	-328	-334	-337	-342	-342	-340	-340	-347	-359	-358
19	-364	-365	-362	-362	-371	-377	-385	-392	-397	-394	-386	-376	-365	-359	-357	-362	-361	-373	-373	-384	-380	-383	-378	-389
20	-392	-391	-400	-399	-398	-404	-406	-412	-403	-398	-389	-378	-373	-372	-370	-371	-371	-373	-379	-377	-377	-378	-382	-382
21	-379	-383	-391	-396	-394	-394	-396	-398	-399	-405	-397	-394	-380	-367	-356	-349	-343	-336	-333	-329	-333	-334	-336	-335
22	-321	-316	-331	-352	-359	-362	-367	-368	-369	-364	-357	-352	-339	-332	-325	-323	-316	-319	-309	-307	-305	-302	-299	-295
23	-291	-283	-274	-261	-252	-250	-236	-222	-211	-220	-212	-202	-183	-155	-135	-129	-128	-126	-133	-128	-125	-118	-114	-119
24	-105	-95	-86	-87	-92	-108	-91	-83	-73	-64	-56	-49	-34	-28	-24	-13	-12	-5	-8	-9	-4	-2	0	-11
25	-38	-67	-83	-105	-122	-131	-136	-164	-173	-211	-238	-245	-255	-258	-260	-261	-268	-274	-285	-289	-279	-286	-284	-297
26	-294	-300	-299	-288	-261	-262	-257	-245	-231	-217	-209	-202	-200	-188	-188	-183	-178	-169	-163	-151	-138	-128	-123	-112
27	-103	-95	-87	-90	-96	-145	-160	-153	-178	-192	-194	-180	-170	-167	-158	-156	-154	-147	-138	-129	-120	-125	-101	-101
28	-101	-101	-99	-92	-105	-113	-115	-118	-120	-126	-141	-188	-165	-167	-176	-186	-199	-211	-221	-231	-230	-236	-276	-305
29	-314	-313	-312	-322	-322	-328	-333	-331	-317	-303	-280	-259	-246	-244	-244	-240	-241	-247	-247	-242	-240	-241	-237	-225
30	-218	-206	-195	-186	-172	-161	-152	-148	-143	-136	-130	-121	-114	-105	-98	-89	-83	-78	-82	-77	-83	-101	-110	-102
31	-86	-78	-64	-60	-87	-103	-113	-116	-120	-132	-130	-148	-158	-176	-188	-197	-206	-219	-229	-237	-236	-234	-248	-245

Note/avis: 1. Climatological Day/Journée climatologique 0001 C.S.T. - 0000 C.S.T.
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CLIMATOLOGICAL SUMMARY FOR DECEMBER 1989AT WINNIPEG, MANITOBA

It was a cold December, in fact the 9th coldest on record since 1872 and the 4th coldest this century. The mean temperature of -19.8 was 5.8° below normal. New record low maximums were established on the 12th, 19th and 20th, and a low minimum of -35.5 on the 14th, broke a 107 year old record of -35.0 established back in 1882.

The precipitation total of 17.0 mm was a little less than the usual 19.2. There were 15 days with measurable precipitation compared to the normal of 11.

Total hours of sunshine were extremely high, establishing a new record of 141.8 hours and breaking the previous record total of 139.5 set in 1978. This, combined with much lighter than usual winds, helped to alleviate some of the uncomfortably cold conditions.

DAILY WEATHER SUMMARY FOR DECEMBER 1989AT WINNIPEG, MANITOBA

1. Cloudy with light snow. Temperatures above normal. Winds light increasing to strong, with gusts and some gale-force gusts in the evening.
2. Sunny. Temperatures below normal. Winds strong with gust becoming light by noon.
3. Cloudy with some sunny periods late morning. Temperatures slightly above normal.
4. Mainly cloudy with some sunny periods late morning. Temperatures above normal. Winds light.
5. Cloudy with light snow becoming sunny in the afternoon. Temperatures above normal. Winds light increasing to moderate with gusts in the afternoon to light in the evening.
6. Sunny. Temperatures below normal. Winds light.
7. Sunny becoming cloudy with light snow in the evening. Temperatures below normal. Winds light changing to moderate in the evening.
8. Cloudy with light snow. Temperatures above normal. Winds light.
9. Cloudy with light snow, becoming sunny by noon. Temperatures below normal. Winds light.
10. Sunny, becoming cloudy with some light snow in the afternoon. Temperatures well below normal. Winds light.
11. Sunny with ice crystals. Temperatures well below normal. Winds light.
12. Sunny with ice crystals and ice fog. Temperatures well below normal. Winds light.
13. Sunny. Temperatures well below normal. Winds light.
14. Sunny with ice crystals. Temperatures well below normal. Winds light.
15. Cloudy to overcast with light snow early in the morning. Temperatures below normal. Winds light.
16. Sunny with some clouds and snow in the evening. Temperatures below normal. Winds light.
17. Sunny with light snow early in the morning turning to ice crystals. Temperatures well below normal. Winds light.
18. Sunny with ice crystals. Temperatures well below normal. Winds light.
19. Sunny with ice crystals. Temperatures well below normal. Winds light.
20. Sunny with ice crystals. Temperatures well below normal. Winds light with moderate periods in afternoon and evening.
21. Sunny with ice crystals becoming cloudy with snow. Temperatures well below normal. Winds light.
22. Cloudy with snow becoming sunny early in the morning. Temperatures well below normal. Winds light becoming moderate with strong gusts late evening.
23. Cloudy with periods of snow and blowing snow. Temperatures below normal increasing to near noon by days end. Winds moderate gusting to strong decreasing to light in the evening.
24. Cloudy with periods of snow. Temperatures above normal. Winds light with a few gusts.
25. Cloudy with snow and blowing snow becoming sunny by mid-day. Temperatures above normal dropping to below normal. Moderate winds with gusts decreasing to light in the afternoon.
26. Sunny becoming cloudy with snow and periods of blowing snow mid-day. Temperatures near normal. Winds light increasing to moderate with gusts then decreasing to light.
27. Cloudy with periods of snow. Temperatures slightly above normal. Winds light.
28. Cloudy with snow becoming sunny by early afternoon. Temperatures near normal. Light winds increasing to moderate then decreasing to light by mid-afternoon.
29. Sunny. Temperatures well below normal. Winds light.
30. Cloudy with periods of snow during early morning. Temperatures slightly above normal. Winds light.
31. Cloudy with snow becoming sunny by mid-day. Temperatures near normal. Winds light to moderate becoming light by mid-afternoon.