



Environnement Canada

Environnement Canada

Atmospheric Environment Service

Service de l'environnement atmosphérique

MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS

MARCH / MARS

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 (NMM)			STANDARD TIME USED: HEURE NORMALE UTILISÉE: 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. PRÉCIP. 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	-20.6	-30.2	-25.4	43.4			70	47					22	9.9	W	W 15*	8.7				
2	-19.6	-29.0	-24.3	42.3			67	47					22	10.3	W	W 17*	9.2				
3	-16.8	-27.4	-22.1	40.1			68	45					22	9.7	NNE	NNE17	7.7				
4	-11.8	-23.8	-17.8	35.8			64	44					22	12.2	N	NNW19	9.8				
5	-11.9	-23.7	-17.8	35.8			75	52					22	4.8	CALM	NW 17	9.5				
6	-5.5	-20.7	-13.1	31.1			77	54					22	22.0	S	S 44	1.8				
7	-2.4	-8.8	-5.6	23.6			94	79		3.0	1.0	4.0	22	40.8	S	S 50*	7.8				
8	-1.3	-8.0	-4.7	22.7			98	65		2.1	1.4	3.5	22	10.8	SSW	SSW28	9.4				
9	1.3	-7.5	-3.1	21.1			95	74		TR.		TR.	20	16.0	S	S 28*	0.0				
10	4.2	0.0	2.1	15.9			100	82		0.6		0.6	16	11.2	NW	ESE19	1.9				
11	1.2	-6.7	-2.8	20.8			97	74		0.2	TR.	0.2	15	24.1	NNE	NNE37	0.0				
12	-1.6	-7.1	-4.4	22.4			93	81		TR.	1.2	1.2	15	13.2	SSW	NNW26	0.0				
13	-5.6	-10.6	-8.1	26.1			86	65			0.5	0.2	15	11.6	NNW	NNW17*	8.7				
14	-9.7	-22.4	-16.1	34.1			84	49					15	20.1	NNE	NNE43	9.5				
15	-10.7	-23.4	-17.1	35.1			80	59			1.3	1.0	15	11.8	S	SSW22	2.0				
16	-14.0	-21.9	-18.0	36.0			73	49			0.4	0.2	16	15.2	WNW	N 24	11.1				
17	-13.4	-22.7	-18.1	36.1			62	48					16	11.2	W	W 15*	10.7				
18	-10.7	-23.5	-17.1	35.1			79	50					16	9.3	S	S 20	9.7				
19	-4.6	-17.8	-11.2	29.2			82	61			0.8	0.2	16	13.7	S	NE 24	5.9				
20	-8.1	-19.6	-13.9	31.9			77	54					17	14.3	WNW	WNW22*	10.6				
21	-4.9	-19.2	-12.1	30.1			78	56					16	7.9	S	S 13	10.6				
22	-1.0	-15.2	-8.1	26.1			77	55			TR.	TR.	15	16.5	S	S 22*	7.5				
23	-4.2	-8.2	-6.2	24.2			94	70			2.6	1.6	14	9.5	E	ESE20	0.0				
24	1.1	-10.3	-4.6	22.6			96	83					15	12.8	SSW	SW 19	3.7				
25	1.7	-9.0	-3.7	21.7			99	87					14	19.6	S	S 39	0.1				
26	4.8	0.1	2.5	15.5			100	90		TR.		TR.	13	14.1	S	SSE20*	0.5				
27	1.0	-4.1	-1.6	19.6			98	79			TR.	TR.	05	24.4	N	N 30	0.0				
28	-1.0	-5.5	-3.3	21.3			91	76			4.0	4.0	07	20.6	NNE	N 26	0.0				
29	-1.0	-5.8	-3.4	21.4			91	82			3.3	3.3	09	19.0	SE	N 26	0.0				
30	-4.4	-10.4	-7.4	25.4			87	64			TR.	TR.	11	19.0	NNW	NW 28*	6.9				
31	-1.4	-15.5	-8.5	26.5			92	75					11	19.0	S	S 39	9.4				
MEAN MOYENNE	-5.5	-14.8	-10.2	TOTAL 873.0	TOTAL 0.0	TOTAL 0.0	85	64	TOT 0	TOTAL 5.9	TOTAL 16.5	TOTAL 20.0		15.3	PREVAILING DIRECTION DOMINANTE S	MAXIMALE S 50	TOTAL 172.7				
NORMAL NORMALE	-2.8	-13.5	-8.2	811.3	1.6	0.0				3.3	21.1	22.7		19.3	S		176.2				
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			873.0	697.9	811.3	TOTAL FOR MONTH TOTAL DU MOIS			0.0	0.0	1.6										
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1er JUILLET			5202.0	4814.7	5194.5	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1er AVRIL			2142.7	2029.7	1784.9	12	7	4	0	0	10	7	3	0	0

UDC 551 506.1 ()

Note/Avie

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

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

DRY-BULB TEMPERATURES AT: WINNIPEG INTERNATIONAL AIRPORT, C.S.T. - 0000
 TEMPERATURES DU THERMOMETRE SEC A: AEROPORT INTERN. DE WINNIPEG

1989 MARCH
 1989 MARS

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	-261	-287	-300	-292	-290	-291	-293	-298	-297	-287	-279	-266	-251	-241	-226	-219	-217	-211	-215	-229	-241	-234	-244	-246
2	-251	-258	-257	-263	-267	-278	-284	-280	-282	-281	-269	-249	-241	-223	-208	-207	-210	-214	-225	-231	-235	-245	-245	-251
3	-250	-255	-252	-262	-267	-270	-272	-266	-258	-224	-198	-190	-185	-190	-189	-184	-179	-179	-179	-178	-176	-178	-180	-193
4	-206	-220	-224	-226	-213	-219	-237	-237	-225	-199	-183	-167	-148	-128	-125	-123	-128	-136	-157	-181	-186	-188	-199	-190
5	-205	-193	-188	-210	-229	-215	-221	-221	-217	-181	-168	-163	-139	-119	-122	-121	-123	-123	-137	-163	-168	-185	-173	-205
6	-203	-203	-188	-186	-193	-184	-123	-168	-154	-151	-137	-118	-113	-88	-84	-75	-71	-71	-70	-70	-68	-60	-60	-61
7	-66	-72	-68	-68	-76	-79	-82	-86	-84	-80	-70	-64	-58	-52	-44	-38	-43	-44	-46	-43	-34	-27	-28	-26
8	-25	-22	-22	-19	-18	-24	-22	-50	-72	-71	-56	-44	-45	-40	-34	-33	-33	-40	-40	-54	-71	-74	-79	-77
9	-75	-65	-62	-55	-54	-47	-35	-20	-12	-3	0	1	5	6	8	8	12	10	9	9	5	7	4	5
10	3	3	1	0	0	0	1	1	3	8	11	19	27	24	28	33	18	22	14	6	6	5	8	7
11	9	6	6	5	5	4	4	4	-7	-17	-29	-38	-42	-47	-49	-51	-51	-50	-55	-56	-58	-59	-63	-64
12	-66	-68	-69	-67	-69	-68	-69	-68	-67	-61	-48	-35	-32	-28	-31	-30	-30	-28	-21	-16	-23	-36	-44	-54
13	-58	-63	-66	-69	-72	-72	-74	-77	-79	-87	-90	-82	-77	-75	-68	-67	-62	-64	-72	-82	-82	-93	-95	-106
14	-104	-124	-135	-154	-157	-152	-150	-156	-142	-138	-136	-138	-139	-139	-144	-145	-147	-152	-158	-174	-184	-194	-189	-216
15	-223	-223	-224	-218	-226	-229	-228	-229	-202	-185	-169	-148	-139	-125	-120	-113	-115	-121	-127	-133	-143	-147	-155	-148
16	-147	-158	-179	-196	-197	-198	-197	-217	-218	-204	-190	-179	-173	-167	-159	-159	-153	-150	-152	-166	-174	-182	-181	-179
17	-185	-195	-191	-209	-207	-214	-218	-223	-220	-202	-193	-180	-171	-162	-151	-145	-141	-139	-143	-158	-166	-173	-176	-181
18	-195	-208	-218	-230	-235	-223	-216	-218	-216	-202	-173	-151	-141	-130	-126	-120	-121	-113	-125	-139	-148	-153	-156	-147
19	-152	-151	-171	-155	-175	-171	-168	-162	-153	-140	-124	-117	-102	-90	-73	-68	-70	-73	-80	-86	-103	-125	-145	-154
20	-169	-171	-181	-174	-182	-193	-188	-194	-174	-162	-146	-133	-122	-112	-107	-96	-88	-85	-91	-106	-134	-144	-163	-145
21	-138	-142	-146	-155	-158	-172	-161	-191	-175	-175	-138	-124	-108	-98	-82	-72	-69	-81	-87	-103	-114	-121	-141	-143
22	-141	-144	-147	-143	-129	-120	-109	-104	-102	-87	-71	-52	-36	-28	-18	-19	-18	-14	-18	-40	-56	-65	-57	-52
23	-68	-76	-72	-63	-60	-68	-68	-65	-63	-62	-66	-66	-68	-66	-63	-58	-54	-51	-50	-46	-44	-46	-48	-48
24	-50	-56	-60	-66	-82	-93	-103	-92	-93	-71	-44	-38	-28	-10	-4	-4	5	6	6	-18	-30	-35	-44	-53
25	-49	-70	-72	-84	-87	-79	-90	-81	-58	-45	-29	-16	2	8	11	7	7	14	15	14	10	9	7	9
26	12	16	12	10	8	8	8	8	7	10	11	14	19	18	19	26	40	17	14	4	7	2	8	1
27	5	8	8	3	-4	-13	-21	-25	-32	-36	-37	-37	-39	-39	-34	-28	-28	-29	-28	-30	-28	-30	-36	-40
28	-41	-38	-39	-37	-45	-48	-53	-55	-54	-50	-43	-36	-33	-24	-20	-18	-18	-16	-15	-17	-16	-15	-21	-24
29	-27	-25	-27	-26	-28	-29	-30	-31	-29	-29	-25	-19	-17	-18	-18	-18	-26	-30	-31	-34	-34	-36	-42	-47
30	-54	-50	-49	-58	-64	-69	-71	-75	-74	-72	-68	-61	-56	-54	-51	-49	-47	-48	-49	-61	-80	-76	-85	-96
31	-102	-106	-115	-122	-130	-134	-148	-153	-138	-116	-82	-71	-59	-46	-28	-20	-16	-25	-28	-36	-34	-32	-29	-29

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

MONTHS: MARCH 1989
MOIS: MARS 1989

HOURLY DRY POINT TEMPERATURE AT: WINNIPEG INTERNATIONAL AIRPORT
TEMPERATURE DE ROSEE HORAIRE A: AEROPORT INTERN. DE WINNIPEG

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	-325	-339	-344	-334	-328	-331	-336	-344	-343	-336	-331	-322	-311	-302	-301	-298	-290	-289	-288	-292	-295	-291	-300	-297
2	-298	-304	-304	-312	-316	-326	-337	-329	-332	-333	-322	-310	-299	-283	-295	-290	-294	-294	-300	-298	-294	-302	-299	-300
3	-305	-304	-299	-306	-306	-319	-317	-322	-313	-294	-275	-267	-276	-266	-268	-272	-270	-266	-256	-256	-243	-247	-252	
4	-260	-278	-277	-285	-277	-285	-296	-295	-286	-266	-249	-240	-229	-222	-223	-212	-206	-208	-223	-244	-248	-249	-260	-252
5	-259	-247	-238	-255	-271	-252	-257	-272	-252	-238	-237	-232	-190	-202	-201	-186	-203	-199	-205	-224	-204	-225	-207	-247
6	-245	-247	-221	-221	-229	-220	-212	-216	-202	-203	-195	-190	-171	-164	-155	-148	-145	-143	-142	-143	-139	-140	-135	-124
7	-112	-85	-90	-92	-101	-104	-105	-108	-110	-108	-98	-94	-87	-80	-76	-65	-67	-70	-70	-64	-51	-42	-44	-38
8	-34	-31	-30	-27	-23	-32	-27	-62	-86	-91	-73	-63	-85	-79	-78	-81	-91	-91	-90	-92	-100	-101	-103	-102
9	-106	-99	-98	-89	-82	-70	-57	-40	-35	-28	-28	-23	-16	-21	-11	-8	-5	-6	-6	-6	-6	-5	-5	-3
10	-4	-2	0	0	0	0	-2	-5	-6	-5	3	2	2	3	3	3	0	-1	-3	-4	-2	3	3	1
11	4	2	2	3	1	0	-1	-3	-20	-35	-53	-61	-67	-74	-79	-82	-86	-88	-88	-93	-93	-95	-95	-95
12	-93	-92	-92	-92	-94	-94	-91	-90	-88	-85	-66	-54	-48	-43	-47	-46	-44	-40	-32	-34	-42	-62	-71	-80
13	-85	-91	-96	-101	-89	-94	-95	-106	-103	-108	-116	-112	-116	-117	-120	-112	-114	-116	-116	-112	-111	-117	-119	-129
14	-132	-151	-155	-176	-179	-174	-173	-181	-168	-166	-174	-187	-192	-205	-212	-216	-221	-233	-243	-250	-252	-261	-261	-274
15	-269	-272	-271	-262	-275	-275	-280	-280	-261	-246	-229	-200	-175	-155	-148	-143	-143	-149	-155	-170	-188	-193	-194	-191
16	-182	-197	-227	-243	-245	-247	-241	-257	-260	-252	-246	-240	-234	-220	-225	-236	-238	-229	-234	-231	-234	-240	-245	-247
17	-247	-250	-252	-270	-271	-272	-272	-280	-280	-266	-261	-251	-234	-227	-222	-220	-216	-229	-220	-225	-227	-234	-239	-234
18	-245	-252	-252	-269	-280	-263	-257	-261	-259	-247	-230	-216	-211	-204	-200	-198	-188	-196	-183	-188	-201	-198	-197	-182
19	-179	-185	-192	-203	-203	-201	-199	-195	-181	-167	-162	-150	-132	-119	-116	-109	-114	-109	-110	-138	-166	-173	-187	-196
20	-212	-219	-224	-221	-226	-243	-235	-242	-230	-225	-212	-197	-191	-181	-167	-167	-163	-160	-159	-162	-177	-176	-195	-183
21	-184	-186	-188	-198	-201	-213	-207	-232	-220	-216	-185	-176	-152	-148	-146	-143	-139	-149	-144	-143	-146	-157	-170	-185
22	-181	-183	-185	-179	-161	-152	-143	-141	-142	-125	-114	-108	-110	-104	-87	-74	-92	-82	-79	-82	-96	-105	-105	-106
23	-112	-116	-116	-106	-99	-86	-86	-84	-81	-79	-84	-81	-84	-80	-74	-76	-74	-74	-76	-73	-72	-74	-74	-70
24	-68	-79	-86	-86	-96	-108	-118	-105	-105	-87	-69	-60	-45	-32	-26	-24	-18	-16	-16	-33	-41	-43	-57	-60
25	-56	-79	-79	-100	-99	-92	-107	-96	-72	-53	-38	-17	1	6	6	2	-2	-1	4	4	4	6	4	4
26	4	0	-2	-1	5	6	6	6	6	6	11	14	19	15	17	23	25	13	10	1	6	2	7	1
27	5	6	6	1	-10	-20	-35	-40	-51	-55	-54	-54	-53	-50	-53	-51	-50	-52	-51	-52	-53	-59	-68	-67
28	-66	-63	-58	-58	-60	-62	-68	-72	-71	-65	-60	-55	-52	-47	-58	-52	-52	-46	-43	-43	-43	-37	-43	-47
29	-44	-48	-51	-49	-43	-43	-46	-49	-51	-51	-46	-40	-35	-35	-33	-36	-43	-43	-42	-48	-48	-51	-56	-64
30	-71	-69	-72	-79	-83	-88	-93	-94	-97	-97	-92	-90	-86	-92	-92	-96	-105	-98	-103	-111	-127	-119	-123	-126
31	-122	-127	-132	-142	-148	-150	-163	-167	-150	-131	-102	-102	-90	-76	-61	-53	-54	-57	-57	-64	-59	-56	-51	-49

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

The monthly mean of -10.2, 2 degrees below the normal of -8.2, had Winnipeggers wondering if Spring would ever arrive. The average maximum for the month was -5.5 versus a normal of -2.8 and the average minimum was -14.8 compared to -13.5. Temperature extremes were 4.8 on the 26th and -30.2 on the 30th.

Rainfall was 5.9 mm (normal 3.3 mm) and snowfall 16.5 cm (normal 21.1 cm).

Sunshine was slightly below the normal at 173.3 hours (normal 176.2) and winds were light averaging 15.0 km/h compared to the norm of 19.3.

DAILY WEATHER SUMMARY FOR MARCH 1989**AT WINNIPEG, MANITOBA**

1. Sunny. Temperatures well below normal. Winds light.
2. Sunny. Temperatures well below normal. Winds light.
3. Sunny becoming cloudy in the afternoon. Temperatures well below normal. Winds light.
4. Sunny. Temperatures below normal. Winds light.
5. Sunny. Temperatures below normal. Winds light.
6. Cloudy becoming overcast late in the afternoon. Temperatures slightly below normal. Winds light becoming moderate in the afternoon and strong and gusting in the evening.
7. Sunny becoming cloudy in the afternoon and overcast with light freezing rain in the evening. Temperatures above normal. Winds strong gusting to gale force early in the morning, reducing to moderate to strong with strong gusts in the morning.
8. Overcast early in the morning, sunny throughout the day. Temperatures well above normal. Winds light.
9. Overcast with light drizzle and fog in the afternoon. Temperatures well above normal. Winds light except for a periods of moderate during the middle of the day.
10. Overcast with fog and a short period of rain in mid-morning. Temperatures well above normal. Winds light.
11. Overcast with fog, light drizzle and light snow in the morning. Temperatures well above normal. Winds light increasing to moderate in the morning, reduced to light again late in the evening.
12. Overcast with light snow and a short period of fog in the evening. Temperatures above normal. Winds light.
13. Overcast with light snow in the morning, clearing by mid-morning. Temperatures near normal. Winds light.
14. Sunny. Temperatures below normal. Winds light becoming moderate occasionally gusting strong in the morning, reduced to light in the evening.
15. A few clouds in the morning becoming overcast with light snow and fog in the afternoon clearing a bit in the evening. Temperatures below normal. Winds light occasionally moderate in the morning.
16. Sunny. Temperatures well below normal. Winds light.
17. Sunny. Temperatures well below normal. Winds light.
18. Sunny. Temperatures below normal. Winds light.
19. Sunny with occasional cloudy periods. Temperatures slightly below normal. Winds light.
20. Sunny. Temperatures below normal. Winds light occasionally moderate.
21. Sunny. Temperatures below normal. Winds light.
22. Cloudy to overcast with a period of snow about mid-morning, clearing in the afternoon. Temperatures slightly below normal. Winds light occasionally moderate.
23. Overcast with light snow in the morning. Temperatures slightly below normal. Winds light.
24. Sunny becoming overcast by noon, clearing in the evening. Temperatures near normal. Winds light.
25. Foggy in the morning overcast in the afternoon. Temperatures slightly above normal. Winds light becoming moderate occasionally gusting strong by mid-morning, reduced to light in the evening.
26. Overcast with light drizzle in the morning and fog all day. Temperatures above normal. Winds light.
27. Overcast, some fog patches, snow starting in the evening. Temperatures slightly above normal. Winds moderate.
28. Overcast with periods of light snow through the day. Temperatures near normal. Winds moderate becoming light in the evening.
29. Overcast with light snow and fog through the day. Temperatures near normal. Winds light becoming moderate in the afternoon.
30. Overcast with light snow clearing in the afternoon. Temperatures below normal. Winds moderate occasionally light, reduced to light in the evening.
31. Sunny. Temperatures above normal. Winds light becoming moderate by noon.