

# MONTHLY METEOROLOGICAL SUMMARY SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS: **MARCH / MARS**      19 **90**  
 AT/A: **WINNIPEG INT'L AIRPORT / AÉROPORT INTERN. DE WINNIPEG**

LAT. <b>49° 54' N</b>		LONG. <b>97° 14' W</b>		ELEVATION ALTITUDE: <b>239.6</b>		METRES (ASL) MÈTRES (NMM)		STANDARD TIME USED: HEURE NORMALE UTILISÉE: <b>CENTRAL</b>									
DATE	TEMPERATURE TEMPÉRATURE			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. 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	4.2	-4.3	-0.1	18.1			75	56					11	18.4	W	NW 28	3.2
2	-3.9	-17.8	-10.9	28.9			65	43					04	20.3	NW	NW 33	9.4
3	-10.2	-18.6	-14.4	32.4			89	52			3.4	3.4	04	14.1	S	ESE22*	0.0
4	-9.8	-23.7	-16.8	34.8			98	47					07	12.8	NNE	E 17*	9.7
5	-4.7	-20.7	-12.7	30.7			70	35					07	12.1	SE	SE 17	9.3
6	-2.1	-13.2	-7.7	25.7			72	54					07	17.8	S	S 26	9.9
7	2.1	-4.6	-1.3	19.3			87	58					07	23.6	S	S 33*	3.1
8	1.1	-2.0	-0.5	18.5			93	76					04	23.0	S	S 33	0.0
9	5.5	0.5	3.0	15.0			100	54		TR.		TR.	03	22.4	W	S 31	9.6
10	5.2	-4.6	0.3	17.7			81	43					TR	11.5	W	SE 22*	10.6
11	5.6	0.7	3.2	14.8			97	54		TR.		TR.	TR	21.0	SE	SE 26*	0.0
12	4.5	1.3	2.9	15.1			100	94		11.2		11.2	TR	15.3	E	SE 20*	0.0
13	5.3	0.7	3.0	15.0			100	64		TR.		TR.	TR	20.4	SW	SW 28	3.8
14	3.4	-1.4	1.0	17.0			100	86		5.6	0.6	7.4	TR	20.6	NE	NE 33*	0.0
15	3.7	-0.7	1.5	16.5			100	100		2.8	2.8	5.6	TR	20.2	N	N 41	0.0
16	-0.5	-5.8	-3.2	21.2			100	83			2.0	1.8	03	33.3	NNW	NNW46	0.0
17	-2.6	-9.8	-6.2	24.2			94	69			0.4	0.4	04	28.1	NNW	NW 37*	8.5
18	-8.1	-13.1	-10.6	28.6			84	68			0.2	0.2	04	25.0	N	N 37	8.8
19	-0.7	-11.5	-6.1	24.1			95	74					04	19.8	SSW	S 33	9.1
20	0.3	-9.0	-4.4	22.4			100	83					04	18.1	NNE	NNE30*	8.3
21	-2.8	-6.3	-4.6	22.6			99	85			3.0	2.6	03	13.8	NE	NW 33	0.0
22	-6.3	-17.6	-12.0	30.0			89	59			0.2	0.2	05	29.0	NNW	NNW44	8.4
23	-9.8	-17.6	-13.7	31.7			85	51					05	15.3	W	NW 30	10.1
24	0.0	-13.2	-6.6	24.6			87	48					04	22.2	W	WSW41	3.8
25	-2.6	-14.2	-8.4	26.4			90	60					03	18.6	NNW	NNW30	8.0
26	-1.7	-15.6	-8.7	26.7			89	57			TR.	TR.	02	7.3	S	SW 17*	9.1
27	0.0	-9.7	-4.9	22.9			95	60					02	7.5	NE	NE 17	10.0
28	4.1	-10.8	-3.4	21.4			90	33					01	5.4	NE	NE 13	10.7
29	6.8	-5.9	0.5	17.5			97	43					TR	11.6	S	S 22*	8.5
30	12.9	1.1	7.0	11.0	2.0		100	63					TR	17.7	SSW	SSW24*	7.6
31	12.4	1.5	7.0	11.0	2.0		90	59		TR.		TR.	TR	13.0	W	NNE26	6.0
MEAN MOYENNE	0.4	-8.6	-4.1	685.8	TOTAL 4.0	TOTAL 0.0	91	62	TOT 0	TOTAL 19.6	TOTAL 12.6	TOTAL 32.8		18.0	PREVAILING DIRECTION DOMINANTE W	MAXIMALE NNW46	TOTAL 185.5
NORMAL NORMALE	-2.8	-13.5	-8.2	811.3	1.6	0.0			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	10 OR MORE	20 OR MORE	100 OR MORE	500 OR MORE	02 OR MORE	10 OR MORE	20 OR MORE	100 OR MORE	500 OR MORE
TOTAL FOR MONTH TOTAL DU MOIS	685.8	873.0	811.3	TOTAL FOR MONTH TOTAL DU MOIS	4.0	0.0	1.6	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS	OU PLUS
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1 <sup>er</sup> JUILLET	5022.0	5202.0	5194.5	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1 <sup>er</sup> AVRIL	1976.9	2142.7	1784.9	9	6	5	1	0	8	4	4	0	0

UDC 551.506.1 ( )

Note/avis: 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**; annual (Jan. to Dec.) **\$27.30** /Prix: numéro individuel **\$2.75**, annuel **\$27.30** (janv. à déc.)  
 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  
 TEMPERATURES DU THERMOMETRE SEC A: AEROPORT INTERN. DE WINNIPEG

MONTH: MARCH  
 MOIS: MARS

1990  
 1990

Page 3.

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	8	16	7	14	3	15	12	13	15	11	25	22	28	38	32	34	24	21	17	-9	-8	0	-24	-39
2	-39	-55	-74	-89	-99	-126	-136	-147	-152	-144	-123	-115	-108	-103	-105	-99	-103	-109	-119	-139	-159	-160	-174	-173
3	-175	-181	-173	-166	-163	-151	-148	-149	-148	-147	-139	-135	-130	-123	-120	-117	-111	-107	-105	-106	-105	-106	-104	-105
4	-107	-110	-118	-121	-157	-165	-185	-201	-217	-156	-131	-119	-131	-115	-105	-105	-108	-121	-133	-157	-159	-156	-160	-182
5	-203	-166	-164	-171	-175	-183	-173	-188	-180	-152	-133	-110	-96	-76	-66	-56	-49	-51	-68	-93	-90	-101	-90	-95
6	-98	-109	-112	-108	-106	-116	-130	-126	-112	-93	-87	-72	-55	-45	-36	-29	-23	-24	-32	-54	-36	-44	-44	-50
7	-46	-42	-35	-22	-16	-16	-18	-20	-18	-17	-15	-8	-6	-3	2	8	13	15	17	17	19	8	-4	-11
8	-13	-14	-2	1	2	2	0	0	1	5	8	5	4	4	2	2	3	4	7	8	8	9	9	10
9	8	6	7	6	7	8	10	14	19	33	36	39	48	46	47	51	51	49	42	33	30	26	27	17
10	9	-14	-14	-15	-19	-31	-35	-43	-33	-10	-3	11	23	28	31	40	48	51	37	24	4	27	25	19
11	13	13	11	11	19	24	28	29	30	28	34	40	39	44	42	40	46	50	53	53	53	54	50	45
12	44	41	39	37	30	28	27	27	26	24	26	27	30	28	29	30	30	30	28	26	25	24	22	18
13	20	28	31	33	22	19	18	18	17	19	23	29	28	41	37	41	42	48	35	22	20	15	15	10
14	7	3	2	1	-1	-3	-4	-7	-11	-11	-10	-10	-7	-6	-4	0	5	13	15	17	19	22	26	29
15	33	35	37	33	13	11	8	4	4	4	15	29	30	29	26	24	22	16	13	4	1	1	0	0
16	-7	-14	-19	-24	-29	-35	-43	-50	-54	-54	-54	-54	-55	-52	-51	-44	-41	-48	-50	-45	-41	-39	-44	-36
17	-34	-31	-31	-32	-39	-33	-37	-40	-35	-26	-36	-37	-36	-39	-41	-44	-44	-50	-56	-75	-62	-62	-72	-83
18	-98	-111	-103	-103	-108	-117	-122	-122	-121	-127	-126	-119	-108	-100	-94	-86	-84	-81	-85	-94	-103	-110	-107	-113
19	-111	-110	-108	-109	-106	-106	-99	-96	-87	-69	-59	-47	-33	-22	-18	-14	-10	-10	-10	-12	-17	-19	-23	-30
20	-49	-53	-55	-53	-68	-66	-84	-75	-60	-45	-25	-11	-7	0	-1	-1	-1	-9	-18	-25	-33	-40	-44	-52
21	-53	-55	-58	-61	-60	-56	-54	-50	-50	-46	-41	-36	-33	-31	-31	-33	-34	-38	-41	-41	-44	-56	-58	-60
22	-63	-75	-90	-102	-110	-114	-114	-116	-108	-99	-97	-100	-106	-108	-114	-119	-131	-131	-135	-147	-156	-162	-166	-171
23	-174	-166	-167	-173	-173	-174	-176	-171	-160	-145	-137	-128	-124	-116	-109	-107	-103	-101	-103	-126	-134	-143	-134	-128
24	-123	-119	-124	-130	-127	-124	-124	-109	-102	-82	-63	-47	-45	-22	-11	-10	-3	-6	-7	-12	-10	-15	-16	-22
25	-26	-38	-42	-55	-68	-76	-79	-66	-75	-72	-75	-71	-63	-56	-57	-61	-68	-71	-74	-89	-104	-112	-119	-122
26	-135	-149	-147	-145	-144	-147	-146	-132	-111	-84	-67	-54	-50	-40	-31	-29	-24	-23	-30	-48	-44	-61	-73	-82
27	-70	-72	-72	-78	-86	-88	-94	-93	-68	-42	-26	-19	-12	-7	-5	-6	-3	-2	-10	-24	-32	-40	-43	-49
28	-52	-61	-67	-73	-86	-91	-103	-95	-68	-29	1	17	17	23	38	30	25	23	16	-18	-14	-17	-18	-38
29	-36	-41	-25	-40	-52	-47	-49	-51	-16	3	28	42	48	56	61	66	61	55	47	32	19	15	17	15
30	15	19	20	22	18	17	17	25	44	45	66	80	100	111	119	119	122	127	118	104	94	75	55	47
31	44	38	30	25	29	26	21	22	41	58	64	82	96	113	112	114	117	103	91	66	41	32	28	27

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/Unité = 0.1°C

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

1990  
1990

MONTH: MARCH  
MOIS: MARS

Page 5.

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	-44	-42	-44	-36	-37	-32	-34	-31	-31	-30	-30	-24	-20	-23	-21	-42	-36	-40	-54	-60	-53	-70	-77	-98
2	-117	-123	-134	-145	-173	-184	-195	-200	-229	-211	-210	-207	-208	-188	-197	-186	-192	-200	-208	-218	-226	-241	-241	-241
3	-243	-247	-233	-222	-226	-209	-225	-210	-186	-177	-171	-163	-146	-141	-137	-136	-131	-126	-123	-125	-125	-129	-128	-127
4	-129	-133	-142	-144	-175	-182	-200	-203	-260	-212	-213	-205	-194	-192	-180	-187	-181	-190	-205	-223	-234	-240	-238	-244
5	-255	-256	-256	-256	-255	-260	-251	-260	-254	-230	-217	-191	-177	-166	-193	-134	-152	-151	-153	-140	-150	-166	-160	-163
6	-165	-167	-167	-164	-160	-163	-168	-167	-156	-146	-140	-130	-112	-104	-108	-97	-94	-100	-101	-107	-114	-120	-121	-122
7	-120	-111	-89	-77	-69	-67	-62	-59	-59	-62	-66	-58	-50	-45	-46	-41	-37	-31	-22	-25	-15	-14	-24	-31
8	-36	-34	-27	-22	-23	-26	-24	-29	-25	-27	-28	-19	-11	-9	-7	-9	-7	-6	-8	-9	-7	-6	-5	-5
9	-4	-2	0	3	4	6	5	6	5	12	-19	-23	-34	-24	-27	-23	-29	-22	-21	-32	-37	-45	-59	-58
10	-58	-59	-59	-60	-61	-64	-67	-72	-69	-62	-49	-60	-60	-62	-56	-48	-63	-50	-49	-42	-43	-49	-67	-78
11	-71	-70	-69	-69	-58	-46	-41	-30	-29	-23	-11	2	23	27	27	28	31	27	22	22	27	36	36	37
12	40	36	34	31	25	23	22	20	20	22	24	27	29	28	25	25	30	27	26	26	24	24	22	18
13	20	28	28	13	5	-2	-5	-9	-12	-13	-12	-11	-14	-9	-14	-12	-12	-11	-8	-4	-8	-8	-6	-6
14	-6	-5	-5	-8	-9	-9	-12	-18	-24	-29	-27	-23	-17	-13	-8	-7	0	10	14	16	16	17	21	24
15	30	34	37	33	13	11	8	4	4	4	15	29	30	29	26	24	21	15	13	4	1	1	0	0
16	-7	-14	-19	-24	-29	-35	-43	-50	-54	-54	-54	-71	-68	-69	-72	-69	-63	-72	-69	-63	-54	-57	-66	-54
17	-48	-42	-42	-42	-60	-48	-51	-54	-45	-39	-60	-63	-54	-63	-73	-87	-79	-86	-82	-99	-68	-95	-108	-132
18	-129	-132	-130	-139	-150	-157	-153	-153	-148	-170	-153	-152	-144	-141	-136	-127	-127	-131	-128	-132	-137	-138	-138	-141
19	-137	-138	-134	-132	-128	-126	-122	-120	-116	-102	-93	-85	-73	-60	-58	-54	-47	-41	-33	-33	-35	-36	-38	-43
20	-55	-60	-59	-57	-71	-67	-88	-75	-61	-47	-34	-27	-25	-19	-16	-21	-27	-36	-41	-44	-57	-62	-65	-71
21	-70	-71	-77	-81	-76	-71	-67	-66	-63	-59	-52	-46	-38	-39	-40	-39	-43	-42	-48	-45	-53	-66	-67	-74
22	-76	-96	-111	-124	-127	-131	-129	-136	-126	-122	-116	-117	-151	-153	-175	-172	-185	-186	-189	-197	-215	-212	-214	-211
23	-205	-197	-203	-205	-202	-201	-201	-199	-193	-186	-185	-179	-180	-174	-169	-169	-169	-163	-159	-158	-165	-165	-154	-154
24	-155	-155	-155	-155	-156	-155	-154	-149	-143	-130	-117	-108	-108	-105	-98	-91	-100	-88	-88	-84	-83	-81	-73	-74
25	-76	-78	-80	-83	-92	-96	-94	-81	-115	-116	-130	-125	-106	-109	-109	-118	-123	-134	-138	-143	-151	-154	-165	-168
26	-179	-178	-174	-173	-171	-168	-168	-151	-136	-117	-94	-84	-86	-94	-104	-97	-98	-93	-90	-85	-96	-91	-97	-97
27	-86	-81	-84	-88	-95	-100	-105	-108	-92	-76	-69	-70	-61	-70	-68	-64	-71	-71	-61	-72	-78	-97	-92	-101
28	-107	-104	-107	-106	-112	-117	-119	-115	-102	-98	-120	-115	-127	-107	-105	-93	-92	-84	-80	-63	-66	-78	-62	-66
29	-70	-53	-76	-81	-75	-72	-73	-72	-51	-66	-71	-57	-66	-41	-34	-18	-11	9	19	19	11	9	11	9
30	9	15	16	18	12	6	0	-4	-4	-4	7	23	41	43	53	61	74	76	74	66	61	37	24	19
31	16	12	5	6	7	7	5	7	12	19	27	41	43	49	49	39	38	43	36	17	-1	-10	-11	-12

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

CLIMATOLOGICAL SUMMARY FOR MARCH 1990AT WINNIPEG, MANITOBA

March was much warmer than usual, averaging over 4 degrees higher than the normal mean temperature of -8.2 degrees. Several new high minimum temperature records were established. The 12th and 13th broke previous records set back in 1922. The highest temperature reached for the month was 12.9 degrees on the 30th while the lowest was -23.7 degrees on the 4th.

More rain than snow fell during the month, which is unusual for March. Total precipitation was over 10 mm above normal. There were 9 days with measurable precipitation, which is exactly the normal number of days.

Sunshine hours were a little above normal, totalling 185.8 compared to the usual 176.2 hours. Wind speeds were almost 2 km lighter than usual.

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DAILY WEATHER SUMMARY FOR MARCH 1990AT WINNIPEG, MANITOBA

1. Mostly cloudy with afternoon sunny periods. Temperatures well above normal. Winds light.
2. Sunny. Temperatures dropping to normal. Winds light to moderate with occasional gusts.
3. Cloudy with periods of snow. Maximum temperatures below normal. Light winds.
4. Becoming sunny early morning. Temperatures below normal. Winds light.
5. Mostly sunny. Temperatures normal. Light winds.
6. Sunny. Temperatures above normal. Light winds with occasional moderate gusts.
7. Cloudy with sunny periods. Temperatures well above normal. Moderate gusty winds decreasing to light early evening.
8. Cloudy with fog. Temperatures well above normal. Moderate gusty winds.
9. Becoming sunny mid-morning. Temperatures well above normal. Moderate gusty winds decreasing to light mid-afternoon.
10. Sunny. Temperatures well above normal. Light winds.
11. Becoming cloudy early morning. Temperatures well above normal. Light to moderate winds.
12. Cloudy with rain and fog. Temperatures well above normal. Light winds.
13. Cloudy. Temperatures well above normal. Moderate winds with occasional strong gusts decreasing to light late afternoon.
14. Cloudy with rain, freezing rain and snow. Temperatures well above normal. Light winds increasing to moderate gusty mid-morning decreasing to light early evening.
15. Cloudy with rain, snow and fog. Temperatures well above normal. Light winds increasing to moderate with strong gusts near noon.
16. Cloudy with snow and blowing snow. Temperatures falling to near normal. Moderate winds with occasional strong to gale force gusts.
17. Becoming mostly sunny mid-morning. Temperatures normal. Moderate winds with occasional strong gusts.
18. Sunny with morning cloudy periods and a few flurries. Temperatures below normal. Moderate winds decreasing to light early evening.
19. Sunny with afternoon cloudy periods. Temperatures normal. Light winds increasing to moderate with strong gusts late morning, decreasing to light late evening.
20. Mostly sunny. Temperatures near normal. Light winds increasing to moderate near noon.
21. Cloudy with snow. Temperatures slightly below normal. Light winds increasing to moderate late evening.
22. Partly cloudy with blowing snow. Temperatures below normal. Moderate winds with strong gusts decreasing to light near midnight.
23. Sunny. Temperatures well below normal. Light winds.
24. Becoming cloudy near noon. Temperatures normal. Light winds increasing to moderate with strong gusts mid-morning decreasing to light near midnight.
25. Partly cloudy. Temperatures slightly below normal. Light winds.
26. Mostly sunny. Temperatures slightly below normal. Light winds.
27. Mostly sunny with afternoon cloudy periods. Temperatures normal. Light winds.
28. Sunny. Temperatures slightly above normal. Light winds.
29. Partly cloudy. Temperatures above normal. Light winds.
30. Mostly sunny with a few cloudy periods. Temperatures well above normal. Light winds increasing to moderate gusty mid-morning decreasing to light early evening.
31. Becoming cloudy mid-afternoon. Temperatures well above normal. Light winds.