

MONTHLY METEOROLOGICAL SUMMARY

SOMMAIRE MÉTÉOROLOGIQUE MENSUEL

MONTH/MOIS

MARCH / MARS

19 91

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

LAT: 49° 54' N		LONG: 97° 14' W		ELEVATION ALTITUDE: 239.6		METRES (ASL) METRES (MMM)		STANDARD TIME USED HEURE NORMALE UTILISÉE		CENTRAL									
DATE	TEMPERATURE TEMPERATURE			DEGREE-DAYS DEGRÉS-JOURS			REL HUMIDITY HUMIDITÉ REL		THUNDERSTORM ORAGE	PRECIPITATION PRÉCIPITATIONS			SNOW ON GROUND NEIGE AU SOL	AVERAGE SPEED VITESSE MOYENNE	WIND VENT		BRIGHT SUNSHINE INSOIATION EFFECTIVE		
	MAXIMUM MAXIMALE	MINIMUM MINIMALE	MEAN MOYENNE	HEATING DE CHAUFFE	GROWING DE CROISSANCE	COOLING DE RÉFÉRIÉRATION	MAXIMUM MAXIMALE	MINIMUM MINIMALE		RAINFALL PLUIE (HAUTEUR)	SNOWFALL NEIGE (HAUTEUR)	TOTAL PRECIP TOTALE			PREVAILING 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	HOURS HEURES				
1	-15.3	-26.3	-20.8	38.8			78	47			TR.	TR.	14	17.0	N	N 26	2.7		
2	-20.1	-29.9	-25.0	43.0			63	35					14	7.6	NNW	N 17	9.2		
3	-7.6	-20.3	-14.0	32.0			76	50				0.6	0.4	14	21.7	S	SSE30*	1.8	
4	-4.5	-9.6	-7.1	25.1			88	67			TR.		0.2	0.2	14	12.3	E	S 19*	2.8
5	-8.0	-16.2	-12.1	30.1			89	70				4.4	4.4	14	22.4	WNW	N 33	2.8	
6	-15.5	-23.4	-19.5	37.5			71	43					18	14.9	NW	N 22*	9.5		
7	-10.3	-24.1	-17.2	35.2			74	49				TR.	TR.	18	12.0	S	S 22*	7.4	
8	-9.6	-17.0	-13.3	31.3			89	71				2.8	2.2	19	14.4	E	N 30	2.4	
9	-0.3	-18.2	-9.3	27.3			80	68					20	20.8	S	S 37	9.4		
10	5.4	-8.3	-1.5	19.5			82	47					17	17.8	ESE	ESE28*	8.1		
11	3.3	-3.6	-0.2	18.2			71	54					13	22.8	ESE	ESE30*	4.0		
12	0.5	-2.4	-1.0	19.0			90	58			TR.		10	13.3	SE	ESE22*	0.0		
13	0.0	-4.4	-2.2	20.2			96	62				3.2	2.8	12	6.8	S	SSE13	3.7	
4	2.2	-6.4	-2.1	20.1			79	48					8	11.8	S	S 17*	9.3		
5	3.7	-5.8	-1.1	19.1			82	53					7	15.0	SSE	S 22*	9.7		
16	3.7	-3.2	0.3	17.7			92	67					3	16.5	S	S 22	8.4		
17	1.9	-2.6	-0.4	18.4			98	87					2	9.9	S	S 15*	0.1		
18	8.0	-2.9	2.6	15.4			92	63					1	10.7	WSW	WSW17*	10.2		
19	8.6	-4.4	2.1	15.9			97	59					1	10.3	S	S 22	9.0		
20	13.7	-0.5	6.6	11.4	1.6		87	53					TR	10.0	ESE	NNE19	9.4		
21	9.7	-2.9	3.4	14.6			90	48					TR	12.6	NNE	NNE22	10.7		
22	9.0	0.5	4.8	13.2			61	48					TR	18.6	E	NE 26*	7.9		
23	7.5	-0.3	3.6	14.4			74	39					TR	20.8	N	N 33*	3.4		
24	7.1	-4.7	1.2	16.8			79	65					TR	11.1	NNW	W 19*	5.4		
25	1.9	-3.0	-0.6	18.6			94	75				2.4	2.2	TR	16.4	NNE	NNE30	0.0	
26	-2.8	-7.1	-5.0	23.0			91	69			TR.	10.8	10.8	2	30.2	N	NNE41	2.3	
27	-6.6	-16.3	-11.5	29.5			87	60				1.4	1.4	12	24.6	NW	NW 35*	10.2	
28	-7.8	-19.8	-13.8	31.8			81	55				0.2	0.2	9	14.9	N	WNW20*	9.8	
29	-5.0	-21.7	-13.4	31.4			64	37					9	10.0	NW	S 28	10.8		
30	5.9	-5.2	0.4	17.6			94	53			1.2	1.2	2.4	9	24.4	S	NW 37	6.2	
31	5.1	-5.3	-0.1	18.1			95	64					5	9.0	NW	NW 19	11.1		
MEAN MOYENNE	-0.5	-10.2	-5.4	724.2	1.6	0.0	83	57	TOT 0	TOTAL 1.2	TOTAL 27.8	TOTAL 27.6		15.5	PREVAILING DOMINANTE S	MAXIMALE NNE41	TOTAL 197.7		
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 10°C AU-DESSOUS DE 10°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	50 OR MORE	02 OR MORE	10 OR MORE	20 OR MORE	50 OR MORE
TOTAL FOR MONTH TOTAL DU MOIS	724.2	685.8	811.3	TOTAL FOR MONTH TOTAL DU MOIS	1.6	4.0	1.6	11	7	6	1	0	11	7	5
ACCUMULATED SINCE JULY 1 ACCUMULÉE DEPUIS LE 1 ^{er} JUILLET	4954.1	5022.0	5194.5	ACCUMULATED SINCE APRIL 1 ACCUMULÉE DEPUIS LE 1 ^{er} AVRIL	1862.3	1976.9	1784.9								

1991
MARCH
1991

WINNIPEG INTERNATIONAL AIRPORT
AEROPORT INTERN. DE WINNIPEG

DRY-BULB TEMPERATURES AT:
TEMPERATURES DU THERMOMETRE SEC 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	-201	-189	-190	-189	-154	-159	-165	-172	-179	-180	-182	-181	-177	-171	-171	-172	-177	-183	-198	-208	-224	-226	-235	-245
2	-263	-270	-266	-278	-290	-293	-291	-298	-289	-278	-265	-249	-240	-235	-231	-228	-227	-225	-221	-219	-214	-209	-208	-207
3	-202	-202	-199	-193	-191	-192	-185	-178	-172	-164	-151	-142	-129	-115	-101	-97	-100	-92	-90	-86	-84	-80	-78	-76
4	-76	-77	-82	-85	-84	-83	-80	-80	-79	-72	-58	-46	-57	-53	-53	-53	-57	-60	-71	-76	-79	-83	-90	-94
5	-96	-96	-95	-92	-85	-88	-88	-86	-87	-90	-93	-92	-92	-93	-85	-85	-81	-97	-110	-121	-134	-145	-149	-153
6	-156	-169	-174	-185	-187	-185	-190	-205	-192	-193	-185	-183	-180	-178	-181	-189	-190	-190	-199	-200	-208	-224	-224	-224
7	-232	-237	-237	-231	-228	-204	-181	-171	-158	-141	-121	-116	-112	-109	-106	-105	-108	-112	-114	-142	-132	-133	-139	-132
8	-126	-128	-127	-124	-124	-122	-120	-118	-121	-119	-109	-111	-112	-119	-113	-105	-101	-101	-123	-136	-148	-155	-159	-166
9	-168	-169	-166	-180	-164	-166	-149	-141	-136	-116	-100	-80	-63	-37	-29	-19	-10	-5	-4	-10	-8	-25	-30	-36
10	-41	-50	-59	-64	-66	-61	-69	-76	-68	-51	-29	-9	6	25	37	47	46	50	50	43	37	28	22	18
11	8	3	0	-2	-10	-22	-27	-34	-32	-23	-13	1	13	19	22	25	30	30	32	29	26	22	21	12
12	5	0	1	-2	-5	-7	-8	-10	-9	-7	-7	-3	-2	-1	1	-9	-5	1	-3	-13	-17	-21	-22	-21
13	-22	-25	-22	-23	-22	-24	-24	-24	-21	-17	-16	-18	-10	-7	-7	-10	-10	-7	-10	-25	-24	-25	-29	-41
14	-39	-51	-53	-54	-56	-52	-51	-52	-47	-36	-21	-17	-7	3	14	20	21	15	1	-13	-21	-32	-42	
15	-39	-41	-45	-45	-51	-55	-57	-48	-52	-29	-17	-1	11	18	27	34	33	30	24	16	13	7	10	1
16	0	-18	-12	-18	-18	-27	-29	-28	-24	-15	-10	-2	9	19	26	31	34	34	28	20	17	12	6	0
17	-5	-9	-9	-13	-14	-11	-12	-17	-23	-21	-18	-11	-2	-3	6	7	16	18	16	13	10	11	1	-1
18	-6	-11	-11	-17	-23	-27	-15	-24	-12	6	20	40	45	60	65	67	78	76	55	33	38	11	18	0
19	5	-4	-19	-33	-35	-21	-39	-22	-26	0	19	35	52	60	67	78	83	84	83	66	48	48	49	46
20	35	36	35	31	26	27	21	23	32	49	64	87	105	110	126	136	111	94	75	73	57	21	19	16
21	-4	-8	-11	-21	-23	-27	-13	-14	3	29	42	62	76	85	91	89	85	78	66	37	20	59	55	50
22	43	38	27	19	17	13	9	7	14	22	36	49	58	75	80	90	84	81	78	68	62	48	49	44
23	37	32	28	21	15	13	5	1	-2	3	13	30	33	41	64	70	73	72	61	28	29	2	8	6
24	-2	-7	-16	-29	-30	-33	-43	-29	-1	23	38	54	62	61	60	52	47	38	34	26	20	19	20	16
25	19	9	5	1	0	-4	-3	-3	-7	-5	7	5	-20	-23	-23	-17	-14	-8	-7	-13	-17	-19	-23	-27
26	-30	-41	-44	-45	-53	-59	-63	-62	-58	-45	-32	-34	-38	-38	-43	-51	-54	-52	-48	-54	-57	-58	-59	-61
27	-71	-77	-83	-96	-105	-117	-111	-117	-117	-116	-107	-94	-84	-82	-75	-67	-70	-72	-75	-96	-132	-109	-146	-151
28	-148	-134	-185	-157	-165	-171	-169	-175	-134	-134	-127	-117	-102	-97	-93	-83	-79	-82	-90	-106	-126	-124	-176	-160
29	-198	-184	-185	-183	-189	-206	-196	-211	-193	-163	-142	-101	-93	-78	-62	-62	-64	-66	-71	-76	-81	-81	-78	-57
30	-52	-42	-36	-38	-41	-39	-38	-28	-29	-7	2	26	40	47	50	59	57	55	48	34	29	15	21	6
31	0	-4	-10	-12	-12	-32	-51	-44	-29	-19	-14	-8	0	11	22	38	46	49	48	35	21	10	6	0

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	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	-230	-225	-229	-226	-184	-198	-207	-215	-224	-229	-231	-237	-239	-243	-240	-234	-246	-262	-275	-289	-300	-301	-309	-320
2	-331	-336	-334	-340	-346	-350	-348	-356	-351	-343	-333	-325	-327	-332	-334	-316	-325	-326	-322	-305	-306	-291	-300	-298
3	-294	-278	-261	-263	-243	-244	-237	-229	-225	-224	-222	-219	-201	-190	-175	-171	-138	-141	-143	-132	-125	-120	-116	-111
4	-110	-111	-118	-121	-120	-109	-105	-104	-108	-106	-102	-99	-93	-89	-91	-82	-83	-88	-93	-101	-102	-103	-109	-111
5	-111	-112	-113	-107	-101	-104	-105	-104	-105	-108	-112	-109	-109	-114	-110	-120	-114	-130	-147	-159	-173	-185	-190	-194
6	-192	-215	-225	-231	-233	-231	-234	-247	-246	-249	-249	-252	-253	-250	-251	-268	-278	-289	-289	-295	-279	-296	-292	-302
7	-306	-306	-305	-304	-298	-282	-260	-238	-222	-197	-175	-166	-161	-150	-152	-158	-160	-163	-168	-184	-174	-173	-185	-179
8	-173	-161	-152	-147	-148	-146	-143	-144	-148	-145	-142	-133	-138	-139	-135	-136	-131	-141	-159	-173	-176	-178	-179	-182
9	-184	-195	-197	-209	-212	-209	-193	-182	-181	-159	-148	-121	-107	-84	-71	-61	-51	-45	-45	-49	-53	-72	-74	-75
10	-78	-85	-91	-100	-102	-94	-98	-105	-102	-93	-80	-66	-60	-51	-49	-46	-53	-50	-48	-58	-60	-61	-64	-68
11	-72	-80	-81	-78	-83	-88	-96	-105	-108	-97	-80	-64	-56	-48	-46	-46	-40	-33	-30	-28	-26	-35	-34	-35
12	-46	-53	-55	-56	-58	-59	-60	-62	-60	-64	-63	-69	-66	-69	-72	-54	-61	-66	-58	-50	-42	-37	-32	-33
13	-33	-34	-34	-32	-30	-32	-33	-34	-31	-29	-34	-42	-38	-39	-44	-49	-62	-75	-71	-76	-75	-77	-79	-79
14	-84	-87	-86	-93	-94	-86	-85	-84	-84	-84	-77	-72	-80	-73	-66	-68	-77	-81	-68	-67	-69	-76	-77	-83
15	-84	-84	-83	-78	-79	-83	-83	-78	-82	-72	-63	-62	-51	-43	-41	-50	-50	-41	-33	-34	-34	-40	-42	-58
16	-61	-65	-63	-58	-53	-56	-56	-56	-52	-44	-38	-31	-22	-19	-18	-21	-15	-19	-20	-21	-20	-18	-18	-17
17	-16	-18	-17	-21	-22	-18	-18	-22	-29	-25	-22	-13	-4	-7	-1	-3	1	1	3	0	-4	-4	-10	-12
18	-18	-23	-26	-30	-37	-44	-41	-48	-37	-25	-15	-9	0	2	7	7	13	15	15	1	4	-11	-5	-13
19	-11	-16	-24	-44	-47	-34	-51	-31	-33	-11	-8	-7	-9	-2	2	17	27	31	24	20	3	-7	-15	-28
20	-29	-28	-30	-26	-25	-26	-27	-24	-19	-9	-3	15	26	33	37	42	49	25	23	19	13	-4	-9	-11
21	-23	-27	-28	-37	-40	-42	-33	-34	-25	-22	-20	-9	-5	7	23	30	31	26	19	9	-5	-26	-43	-48
22	-50	-54	-55	-56	-58	-61	-63	-60	-58	-51	-40	-33	-28	-19	-18	-14	-19	-14	-19	-14	-32	-29	-42	-44
23	-37	-30	-29	-34	-34	-40	-39	-51	-57	-68	-63	-74	-69	-52	-41	-44	-58	-55	-48	-42	-50	-50	-43	-52
24	-60	-64	-63	-71	-68	-69	-76	-59	-37	-12	-2	8	7	4	8	2	-8	-12	-17	-17	-16	-19	-23	-23
25	-22	-16	-24	-21	-24	-30	-33	-36	-45	-51	-60	-74	-34	-35	-42	-40	-37	-39	-37	-42	-52	-58	-64	-58
26	-61	-79	-82	-84	-93	-98	-105	-108	-101	-89	-71	-75	-76	-77	-62	-65	-68	-65	-62	-70	-72	-74	-76	-77
27	-87	-96	-103	-119	-132	-141	-135	-142	-142	-144	-137	-129	-131	-125	-126	-125	-123	-132	-137	-148	-173	-162	-192	-192
28	-204	-192	-231	-223	-225	-227	-219	-213	-162	-167	-162	-148	-139	-140	-142	-144	-145	-149	-156	-155	-162	-168	-206	-210
29	-254	-246	-250	-239	-253	-265	-257	-273	-256	-224	-204	-174	-181	-168	-151	-177	-189	-183	-188	-180	-180	-170	-153	-135
30	-117	-122	-116	-114	-112	-106	-95	-79	-48	-20	-9	15	10	3	4	13	-1	-16	-17	-20	-10	2	1	-5
31	-12	-15	-21	-18	-16	-38	-60	-58	-47	-43	-43	-41	-39	-31	-29	-15	-9	-15	-14	-16	-9	-18	-23	-24

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 1991AT WINNIPEG, MANITOBA

It was a much warmer than usual month. The mean temperature was almost 3 degrees higher than the normal of -8.2 for March.

The coldest day of the month was the 2nd when a new low maximum record of -20.1 was set. The warmest day of the month was the 20th when the mercury peaked at 13.7, a mere 0.2 degrees cooler than the record of 13.9 that has stood since 1878.

A snow storm late in the month boosted both total snowfall and total precipitation to above normal. Rainfall, however was less than half of the norm.

Sunshine hours were about 12% more than the 1951 to 1980 normal.

DAILY WEATHER SUMMARY FOR MARCH 1991AT WINNIPEG, MANITOBA

1. Cloudy to overcast with snow overnight, clearing late afternoon. Temperatures well below normal. Light winds increasing to moderate early morning decreasing to light late afternoon.
2. Sunny becoming cloudy to overcast late afternoon. Temperatures well below normal. Light winds.
3. Cloudy to overcast with snow overnight and afternoon. Temperatures near normal. Light winds increasing to moderate overnight with occasional gusts in afternoon decreasing to light near midnight.
4. Cloudy to overcast with snow overnight and early morning. Maximum temperature near normal, minimum well above normal. Light winds.
5. Cloudy to overcast with snow, snow pellets, snow showers, ice pellets, freezing rain and blowing snow ending near mid afternoon; clearing late afternoon. Temperatures near normal. Light winds increasing to moderate overnight with occasional gusts decreasing to light early evening.
6. Sunny. Temperatures well below normal. Light winds.
7. Mainly sunny with cloudy periods and snow in the morning becoming cloudy late evening. Temperatures below normal. Light winds with moderate period early morning.
8. Cloudy to overcast with snow ending early afternoon, clearing late afternoon. Maximum temperature below normal, minimum near normal. Light winds increasing to moderate late morning decreasing to light late afternoon.
9. Sunny. Maximum temperature above normal, minimum near normal. Light winds increasing to moderate early morning decreasing to light mid evening.
10. Sunny with afternoon cloudy periods. Temperatures well above normal. Light winds increasing to moderate gusty late afternoon.
11. Sunny becoming overcast early afternoon. Temperatures well above normal. Winds moderate with occasional gusts, decreasing to light by late afternoon.
12. Overcast with snow, period of rain early afternoon. Maximum temperature slightly above normal, minimum well above normal. Winds moderate early morning decreasing to light.
13. Overcast with snow ending midmorning, clearing late evening. Maximum temperature slightly above normal, minimum well above normal. Winds light.
14. Sunny. Maximum temperature above normal, minimum well above normal. Winds light.
15. Sunny. Temperatures well above normal. Winds light.
16. Sunny with evening cloudy periods. Maximum temperature above normal, minimum well above normal. Winds light.
17. Overcast with visibilities reduced in fog. Maximum temperature slightly above normal, minimum well above normal. Winds light.
18. Sunny. Temperatures well above normal. Winds light.
19. Mainly sunny, fog early morning. Temperatures well above normal. Winds light.
20. Sunny. Temperatures well above normal. Winds light.
21. Sunny. Temperatures well above normal. Winds light.
22. Sunny becoming cloudy mid afternoon and overcast early evening. Temperatures well above normal. Winds light increasing to moderate midmorning, decreasing to light early evening.
23. Overcast, clearing mid evening. Temperatures well above normal. Winds light increasing to moderate early morning decreasing to light early evening.
24. Sunny becoming overcast early afternoon. Temperatures above normal. Winds light.
25. Overcast with light snow beginning late morning and ending mid afternoon. Maximum temperature near normal, minimum above normal. Light winds increasing to moderate early afternoon.
26. Cloudy to overcast with snow, periods of freezing drizzle and blowing snow beginning early afternoon. Maximum temperature slightly below normal, minimum slightly above normal. Moderate winds with occasional gust.
27. Overcast with snow and blowing snow, clearing overnight. Temperatures well below normal. Moderate winds decreasing to light early evening.
28. Early morning cloudiness with snow, clearing midmorning. Temperatures well below normal. Light winds.
29. Sunny, becoming cloudy late evening. Temperatures well below normal. Light winds increasing to moderate late evening.
30. Overcast with flurries and periods of freezing rain ending late morning. Remaining mostly cloudy with early evening shower. Temperatures slightly above normal. Moderate winds with occasional gusts.
31. Cloudy periods and fog overnight, sunny. Temperatures slightly above normal. Light winds.