

WIND CHILL CHART

Temperature (°F)

Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
FROSTBITE OCCURS IN:								30 minutes	10 minutes	5 minutes								

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

T = Air Temperature (°F) V = Wind Speed (mph)

The National Weather Service and Meteorological Services of Canada use a Wind Chill Temperature Index, designed to calculate a more accurate reading of how the cold air feels on the human skin.

The index is based on:

- Wind speed calculated at the average height of the human face, about five feet (the human face is most often exposed to the cold).
- Updated heat transfer theory, which factors heat loss from the body to its surroundings during cold, windy days.
- A consistent standard for skin tissue resistance.
- Clear night sky conditions.
- A lowered calm wind threshold from four miles to three miles.

Wind Chill Advisory and Warning Criteria established for Montana:

Wind Chill Advisories east of the divide will be issued when the wind chill temperature drops to -20 to -39 degrees and the wind is greater than 10 mph for an hour.

Wind Chill Advisories west of the divide will be issued when the wind temperatures drops to -10 to -19 degrees and the wind is greater than 10 mph for an hour.

Wind Chill Warnings will be issued east of the divide when the wind chill temperature drops to -40 degrees or colder and the wind is greater than 10 mph for an hour.

Wind Chill Warnings will be issued west of the divide when the wind chill temperature drops to -20 degrees or colder and the wind is greater than 10 mph for an hour.