WIND CHILL INDEX

The National Weather Service (NWS) implemented a new Wind Chill Temperature (WCT) index for the 2001/2002 winter season.

The new Wind Chill/Temperature Index will make use of advances in meteorology, biometeorology and computer modeling to provide a more accurate, useful formula for calculating the dangers from winter winds and freezing temperatures. In addition, clinical trials have been conducted and the results of those trials have been used to verify and improve the accuracy of the new formula.

Specifically, the new WCT index:
Uses calculated wind speed at an average height of five feet (typical height of a human face) based on readings from the national standard height of 33 feet (typical height of an anemometer);
Is based on the latest heat transfer theory, I.e., heat loss from the body to its surroundings, during cold and breezy/windy days;
Uses a standard factor for skin tissue and assumes a no sunlight scenario.

The new equation, Wind Chill(F*) = 35.74 + 0.6215T - 35.75 V0.16) + 0.4275T(V0.16)

Where, T = Air Temperature (F*) *Degrees

V = Wind Speed (mph)

		Temperature (F)																	
	CALM	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
W	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
I	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
N	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
D	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
S	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
P	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
E	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
E	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
D	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
MPH	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
								Frostbite occurs in 15 minutes or less										