



U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RELATIVE HUMIDITY and DEW POINT TABLE

Pressure 21 Inches of Mercury

For use at elevations between 8,501 and 11,000 feet above sea level.

(In Alaska, use at elevations between 7,901 and 10,000 feet above sea level.)

DRY BULB TEMPERATURES

Grid of dry bulb temperatures ranging from -3 to 15 degrees Fahrenheit. The grid is partially obscured by other elements.

HOW TO USE THE TABLE

Locate the wet bulb temperature in the headings which read horizontally from left to right at the top of the columns. Locate the dry bulb temperature in the columns which read vertically from top to bottom at the left side of the table. Follow down the column under the wet bulb temperature and across the line from the dry bulb temperature; at the intersection of the column and line will be found the relative humidity (%) in black, and the dew point (°F) in red.

Values in the body of the table are relative humidities (in percent) and dew points (in deg. Fahr.), with respect to water, for indicated values of wet and dry bulb temperatures in degrees Fahrenheit.

WET BULB TEMPERATURES

NOTE

This table was computed by use of the presently accepted psychrometric formulae. But at temperatures below 32°F the tables may and probably do depart significantly from physically-correct values. Vapor pressure over water, to which modern meteorological hygrometric tables are referred, is not known exactly at temperatures below the freezing point of water. The error is thought to be small near freezing and to grow to large proportions at very low temperatures. Furthermore the psychrometric equation itself is suspect at low temperatures. Because of (1) the difficulties of obtaining accurate wet and dry bulb readings at temperatures below 32°F, (2) the extreme sensitivity of tabular values to small differences in wet bulb depression at very low temperatures, and (3) other possible errors discussed above; the total error in psychrometrically derived dew points at 10°F and below may reach serious proportions.

WET BULB TEMPERATURES

Main table grid for wet bulb temperatures, ranging from 19 to 55 degrees Fahrenheit. Includes a large '8501-11000 ASL' label on the right side.

DRY BULB TEMPERATURES

WET BULB TEMPERATURES

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
56	-29	-11	-2	5	11	15	19	23	26	29	31	34	37	39	41	43	45	48	50	51	53	54	56					
57	-22	-6	2	8	13	18	21	24	27	30	33	35	38	40	42	44	46	48	49	51	52	54	55	57				
58	-19	-4	7	11	14	18	21	25	29	32	36	40	44	48	53	57	61	66	70	75	80	85	90	95	100			
59	-11	5	12	15	19	22	26	30	33	37	41	45	49	53	58	62	66	71	75	80	85	90	95	100				
60	-2	6	13	17	20	24	27	31	34	38	42	46	50	54	58	62	67	71	76	80	85	90	95	100				

8501-11000 ASL

	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75																
61	-18	-5	3	9	14	18	22	25	28	31	34	36	39	41	43	45	47	49	50	52	53	55	56	58	59	60	61	62	63	64	65
62	-11	-1	6	12	17	21	24	27	30	33	35	38	40	42	44	46	48	49	51	52	54	55	57	58	59	60	61	62	63	64	65
63	-5	3	9	15	19	23	26	29	32	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65	
64	-2	6	13	17	21	25	28	31	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65		
65	4	10	15	19	23	26	29	32	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65		
66	11	17	21	25	28	31	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65				
67	18	24	27	31	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65						
68	25	31	34	37	39	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65								
69	32	38	41	43	45	47	49	50	52	54	55	57	58	59	60	61	62	63	64	65											
70	39	45	48	50	52	54	55	57	58	59	60	61	62	63	64	65															
71	46	52	55	57	58	59	60	61	62	63	64	65																			
72	53	59	62	64	65																										
73	60	66	69	71	72	73	74	75																							
74	67	73	76	78	79	80	81	82	83	84	85																				
75	74	80	83	85	86	87	88	89	90																						

DRY BULB TEMPERATURES

WET BULB TEMPERATURES

	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
76	-15	-2	6	12	17	22	26	29	32	35	37	40	42	44	47	49	50	52	54	56	58	59	61	63	64	65	67	68	70	71	72	73	74	75	76	77	78	79	80		
77	-23	-7	3	10	15	20	24	28	31	34	37	39	41	44	46	48	50	52	54	55	57	59	61	62	64	65	67	68	69	71	72	73	74	75	76	77	78	79	80		
78	-37	-12	0	7	13	18	23	26	30	33	36	41	43	45	47	49	51	53	55	57	58	60	62	63	65	66	68	69	70	72	73	74	75	76	77	78	79	80			
79	-19	-5	5	11	16	21	25	29	32	35	37	40	42	45	47	49	51	53	55	56	58	60	61	63	64	66	67	69	70	71	73	74	75	76	77	78	79	80			
80	-31	-10	1	9	14	19	24	27	31	34	37	39	42	44	46	48	50	52	54	56	57	59	61	62	64	65	67	68	70	71	73	74	75	76	77	78	79	80			
81	-16	-2	4	13	18	22	26	30	33	36	38	41	43	45	47	49	51	53	55	57	59	60	62	64	65	67	68	69	71	72	73	74	75	76	77	78	79	80			
82	-25	-7	3	10	16	20	25	28	32	35	37	40	42	45	47	49	51	53	55	56	58	60	62	63	65	66	68	69	71	72	73	74	75	76	77	78	79	80			
83	-13	0	8	14	19	23	27	31	34	37	39	42	44	46	48	50	52	54	56	58	59	61	63	64	66	67	69	70	71	73	74	75	76	77	78	79	80	81	82	83	
84	-20	-5	5	12	17	22	26	29	33	36	38	41	43	45	47	49	51	53	55	57	59	60	62	64	65	67	68	69	71	72	73	74	75	76	77	78	79	80	81	82	83
85	-32	-10	2	9	15	20	24	28	32	35	38	41	43	45	47	49	51	53	55	57	58	60	62	64	65	67	68	70	71	73	74	75	76	77	78	79	80	81	82	83	
86	-16	-2	7	13	18	23	27	30	34	37	39	42	44	46	48	50	52	54	56	58	59	61	63	64	66	67	69	70	71	73	74	75	76	77	78	79	80	81	82	83	
87	-25	-7	3	10	16	20	25	28	32	35	37	40	42	45	47	49	51	53	55	56	58	60	62	63	65	66	68	69	71	72	73	74	75	76	77	78	79	80	81	82	83
88	-12	0	8	15	20	24	28	32	35	38	40	43	45	47	49	51	53	55	57	59	60	62	64	65	67	68	69	71	72	73	74	75	76	77	78	79	80	81	82	83	
89	-20	-4	6	13	18	23	27	30	34	37	39	42	44	46	48	50	52	54	56	58	59	61	63	64	66	67	69	70	71	73	74	75	76	77	78	79	80	81	82	83	
90	-31	-9	3	10	16	21	25	29	33	36	39	41	44	46	48	50	52	54	56	58	60	62	64	65	67	68	69	71	72	74	75	76	77	78	79	80	81	82	83		

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