

WENDOVER UT

Latitude = 40.73 N

WMO No. 725810

Longitude = 114.00 W

Elevation = 4239 feet

Period of Record = 1973 to 1995

Average Pressure = 25.69 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	100	62	37	12.5	ESE
0.4% Occurrence	97	61	36	10.6	ESE
1.0% Occurrence	94	60	36	9.5	E
2.0% Occurrence	92	59	36	9.4	E
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	16	14	11	2.9	W
99.0% Occurrence	11	10	8	2.8	W
99.6% Occurrence	4	3	6	2.7	W
Median of Extreme Lows	1	0	5	1.9	WNW
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	66	81	86	7.1	E
0.4% Occurrence	65	82	79	7.1	E
1.0% Occurrence	64	83	72	7.6	E
2.0% Occurrence	62	85	59	8.2	E
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	89	66	0.52	8.6	SE
0.4% Occurrence	87	73	0.50	6.0	E
1.0% Occurrence	78	73	0.45	6.4	NE
2.0% Occurrence	70	73	0.41	5.8	E
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		136	942	0	15

Other Site Data

Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
6	1.0	90	0.0 + 1.0
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
55.3	N/A	3	73

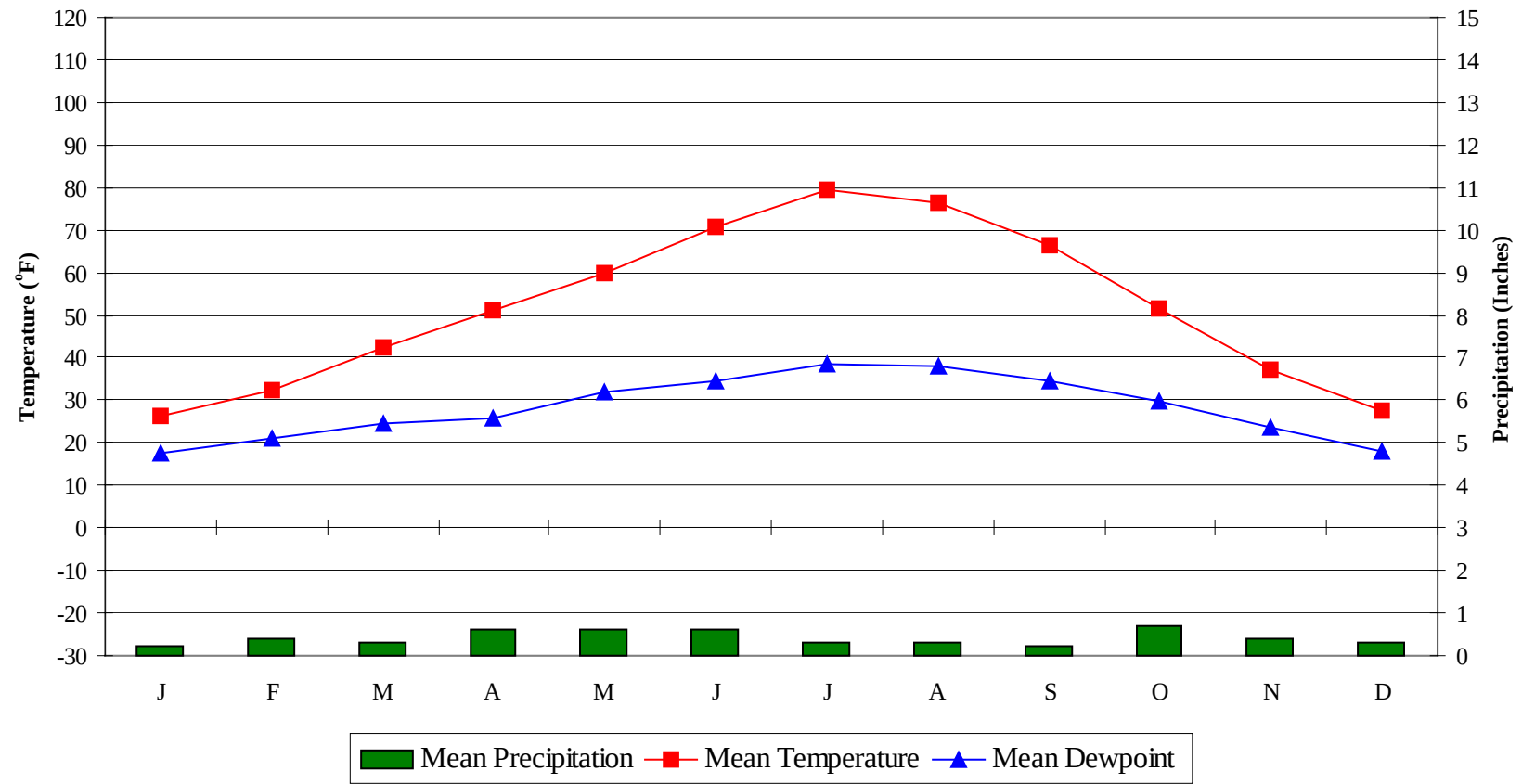
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

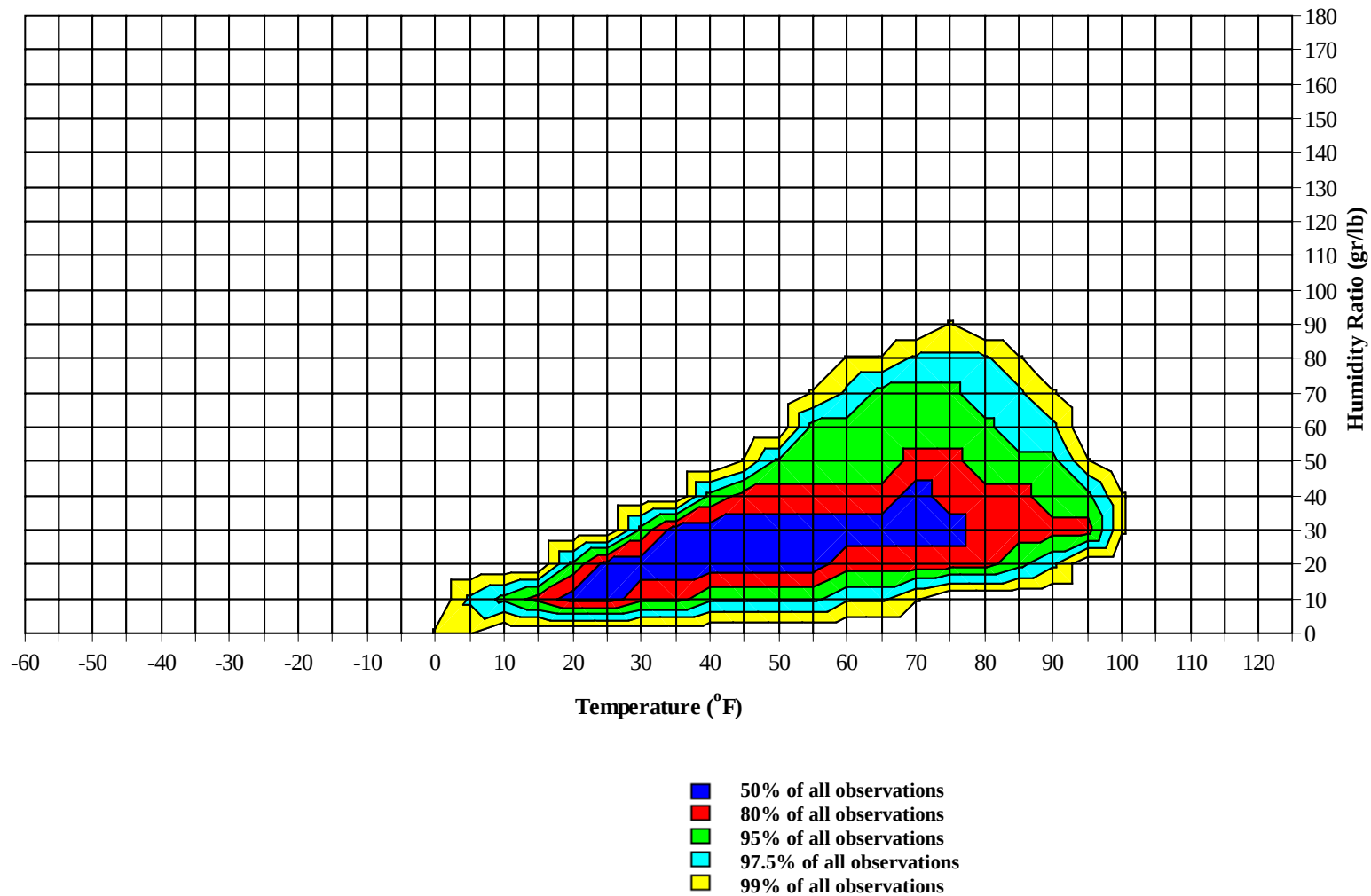


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Long Term Psychrometric Summary

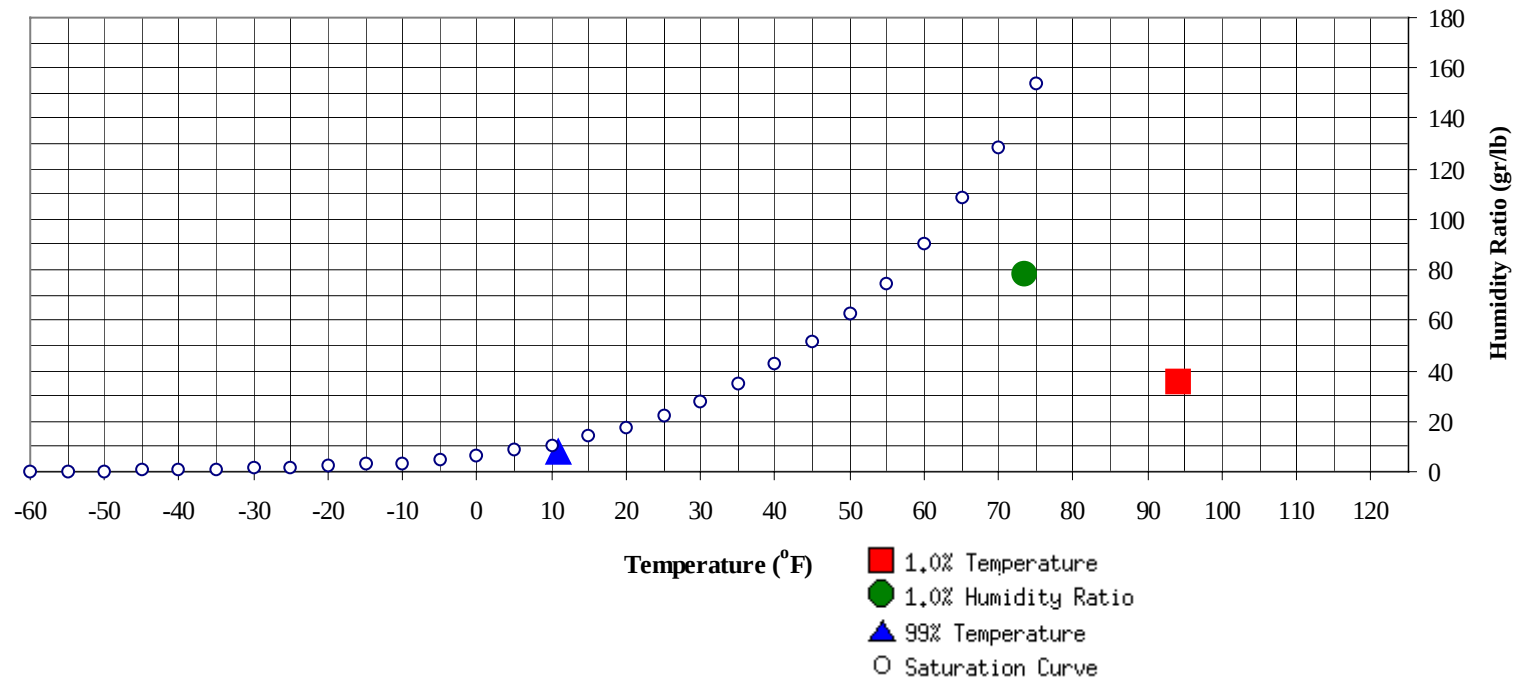


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Psychrometric Summary of Peak Design Values



	(°F)	MCHR	Enthalpy	1.0% Humidity	(gr/lb)	MCDB	MCWB	MC Dewpt	Enthalpy
		(gr/lb)	(btu/lb)			(°F)	(°F)	(°F)	(btu/lb)
99% Dry Bulb	11	8.2	3.9	Ratio	78.4	73.4	61.9	56	29.9

1.0% Dry Bulb	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
94	35.9	60.1	28.2	

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1973 to 1995

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0	0	0	51.0
70 / 74												1	0	1	49.0
65 / 69							0		0	49.0	0	4	2	6	46.4
60 / 64	0	4	0	4	43.5		4	1	5	46.4	1	12	8	21	45.4
55 / 59	0	1	1	2	43.0	1	6	3	10	44.4	2	25	20	47	43.1
50 / 54	1	2	1	4	42.1	1	15	9	25	41.7	8	46	39	93	40.8
45 / 49	1	7	3	11	38.4	4	24	20	48	38.9	24	57	52	133	38.0
40 / 44	3	23	13	39	34.9	12	36	31	79	35.6	54	48	56	158	35.1
35 / 39	15	41	29	86	31.8	32	38	40	109	31.9	70	33	42	145	31.6
30 / 34	31	48	51	130	28.3	50	42	49	140	28.2	52	14	21	87	27.8
25 / 29	55	49	60	165	24.3	47	28	31	105	24.3	26	4	6	35	23.6
20 / 24	55	38	45	138	20.0	36	17	22	74	19.9	7	1	3	11	19.6
15 / 19	41	18	23	82	15.7	25	10	11	46	15.8	3	1	1	5	15.2
10 / 14	26	8	12	45	11.0	8	3	4	15	11.0	0	1	0	1	10.1
5 / 9	9	4	6	19	6.3	3	2	3	8	6.0	0	0	0	0	6.5
0 / 4	6	3	2	11	1.1	3	0	2	5	1.5	0			0	2.0
-5 / -1	1	0	1	2	-2.9	2	0	0	2	-2.6					
-10 / -6	2	1	1	4	-7.2	0	0		0	-5.3					
-15 / -11	1	0	1	2	-11.9										
-20 / -16	0		0	0	-16.0										

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

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Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)**Period of Record = 1973 to 1995**

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104												1	1	2	62.2
95 / 99												8	6	14	60.5
90 / 94							1	0	1	58.3		0	18	15	33
85 / 89		0	0	0	53.5		7	4	11	56.6		1	28	24	53
80 / 84		2	1	3	52.6	0	15	12	27	54.3		7	36	36	80
75 / 79		6	4	10	51.3	1	24	21	46	52.9		18	38	39	96
70 / 74	0	13	10	23	49.4	6	34	33	73	51.3		39	36	35	111
65 / 69	2	23	19	44	47.6	20	42	38	99	49.4		49	29	32	111
60 / 64	10	39	31	80	45.7	43	45	43	131	47.7		50	23	22	95
55 / 59	18	45	39	102	43.2	48	34	40	122	45.1		37	10	15	62
50 / 54	40	45	45	129	40.9	54	22	28	104	42.4		25	5	7	37
45 / 49	52	36	42	130	37.7	41	11	15	67	39.4		10	1	3	14
40 / 44	51	21	29	101	34.5	22	3	7	32	36.0		2	1	2	5
35 / 39	44	7	15	66	31.2	7	3	3	13	32.7		0	1	1	2
30 / 34	18	2	4	24	27.3	3	2	3	8	28.5		0	1	1	2
25 / 29	4	1	1	6	23.8	1	2	2	5	25.0		0	1	1	2
20 / 24	1	1	1	3	19.2	1	1	1	3	17.3		1	1	1	3
15 / 19	0	0	0	0	13.4	0	1	0	1	13.8		1	0	0	1
10 / 14	0	0	0	0	9.9	0	0		0	10.5		0			0
5 / 9	0	0	0	0	6.5	0			0	7.0		0			0
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1973 to 1995**

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104		2	1	3	62.6		1	0	1	63.0					
95 / 99		23	20	43	61.0		11	7	18	60.9		0	0	0	61.5
90 / 94	0	47	37	84	59.7	0	37	27	63	59.5		6	3	9	58.7
85 / 89	5	60	49	114	58.6	2	52	41	95	58.3	0	16	10	26	57.6
80 / 84	23	51	54	128	57.3	12	57	51	120	57.1	1	31	21	52	55.7
75 / 79	57	33	41	131	56.0	40	45	48	133	55.7	5	41	35	80	54.2
70 / 74	81	18	25	124	54.7	64	27	38	130	54.5	18	47	43	107	52.7
65 / 69	46	9	13	68	52.7	72	10	21	103	52.7	39	42	47	127	50.8
60 / 64	23	2	4	29	50.1	40	3	8	51	49.5	60	29	37	126	48.7
55 / 59	9	1	2	12	48.6	12	1	2	15	45.9	51	17	25	93	45.7
50 / 54	2	1	1	4	44.9	4	1	1	6	41.9	39	6	15	60	42.9
45 / 49	0	0	1	1	36.7	1	1	1	3	34.3	19	2	3	24	39.0
40 / 44	0	0	0	0	33.0	1	1	1	3	32.0	5	1	1	7	35.6
35 / 39	0	0	0	0	25.7	0	0	1	1	27.4	3	1	1	5	31.1
30 / 34	0	0	0	0	23.5	0	1	1	2	23.8	0	1	1	2	24.8
25 / 29	0	0	0	0	20.3	0	0	0	0	21.0	0	0	0	0	21.0
20 / 24	0	0	0	0	17.7	0	0	0	0	18.0	0	0	0	0	17.0
15 / 19	1		0	1	14.6	0		0	0	14.0	0	0	0	0	13.7
10 / 14											0		0	0	10.3
5 / 9											0			0	7.0
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1973 to 1995**

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89	0	0	0	0	53.6										
80 / 84	0	2	1	3	52.6										
75 / 79	0	5	2	7	52.1		0		0	51.0					
70 / 74	1	15	7	23	50.7		0	0	0	49.5					
65 / 69	3	27	16	46	48.7	0	1	0	1	48.4					
60 / 64	9	44	32	84	47.2	0	6	2	8	47.9	0	3		3	46.0
55 / 59	22	51	42	115	45.2	2	13	6	21	45.0	0	1	1	2	43.1
50 / 54	40	51	53	144	42.6	5	27	16	47	42.6	1	3	1	5	41.5
45 / 49	61	34	48	143	39.4	13	41	32	86	39.1	3	11	4	18	38.6
40 / 44	60	14	33	107	35.7	30	48	44	123	35.6	7	25	14	46	35.5
35 / 39	33	3	10	46	31.7	51	46	51	149	31.6	15	44	33	92	31.7
30 / 34	14	1	3	18	27.8	55	33	44	132	28.0	38	63	57	159	28.0
25 / 29	5	1	1	7	24.1	43	16	28	87	24.2	53	46	53	152	24.1
20 / 24	0	0	0	0	19.9	27	6	11	44	19.9	54	29	47	130	19.8
15 / 19	0	0	0	0	13.7	9	1	4	14	14.9	47	13	24	83	15.5
10 / 14	0	0	0	0	10.2	3	1	1	5	10.3	21	4	5	30	11.2
5 / 9	0		0	0	6.5	1	1	1	3	4.3	4	2	3	9	6.2
0 / 4						0	0	0	0	3.0	2	2	3	7	0.6
-5 / -1											1	1	1	3	-3.2
-10 / -6											1	0	1	2	-7.4
-15 / -11											1	0	1	2	-13.3
-20 / -16											0		0	0	-16.2

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Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1973 to 1995

Temperature Range (°F)	Annual Totals				
	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		4	2	6	62.6
95 / 99		44	34	78	60.9
90 / 94	0	113	86	199	59.4
85 / 89	9	169	135	313	58.1
80 / 84	45	203	185	433	56.4
75 / 79	128	200	198	526	54.8
70 / 74	220	198	199	617	53.0
65 / 69	244	192	194	630	50.6
60 / 64	246	218	188	652	47.9
55 / 59	208	208	196	612	45.0
50 / 54	226	224	214	663	42.0
45 / 49	233	223	222	677	38.7
40 / 44	248	218	228	693	35.3
35 / 39	266	210	219	694	31.7
30 / 34	254	196	225	675	28.0
25 / 29	220	140	171	530	24.1
20 / 24	169	88	121	378	19.9
15 / 19	117	41	60	218	15.6
10 / 14	53	17	21	91	11.0
5 / 9	17	8	11	36	6.2
0 / 4	10	5	6	21	1.1
-5 / -1	4	1	2	7	-2.9
-10 / -6	3	1	2	6	-7.2
-15 / -11	2	0	1	3	-12.5
-20 / -16	0		0	0	-16.1

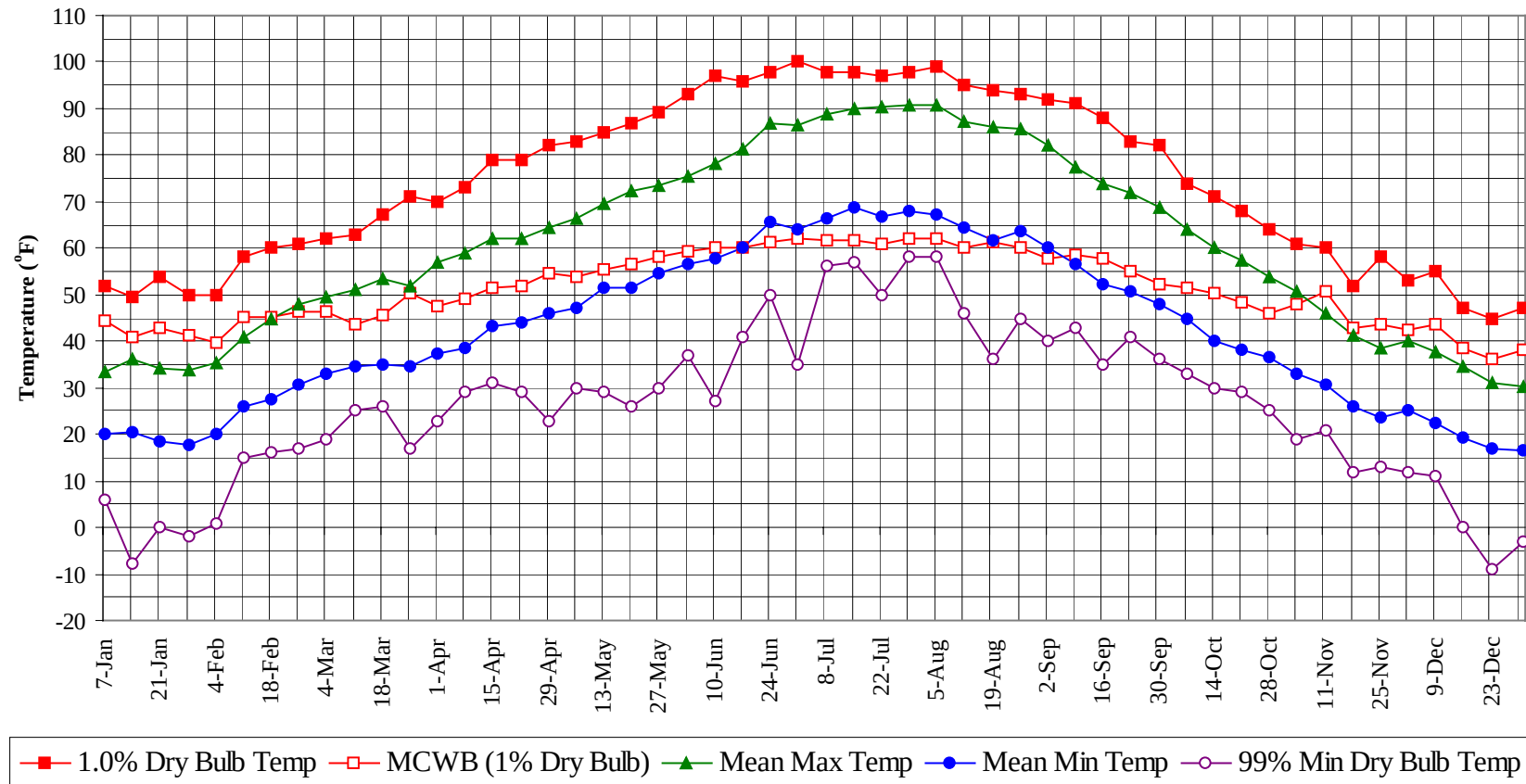
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Annual Summary of Temperatures

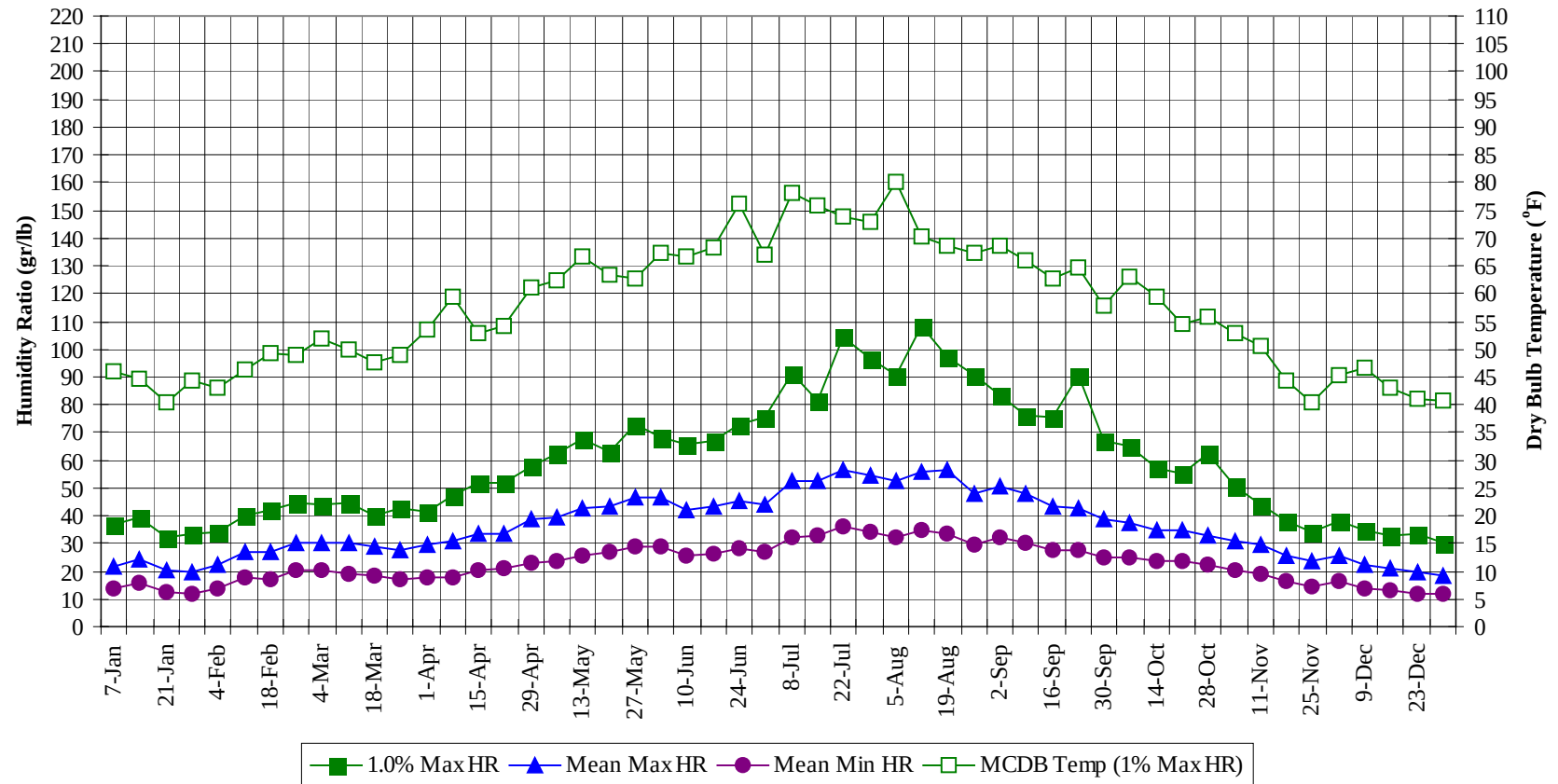


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Long Term Humidity and Dry Bulb Temperature Summary



WENDOVER**UT****WMO No. 725810****Long Term Dry Bulb Temperature and Humidity Summary**

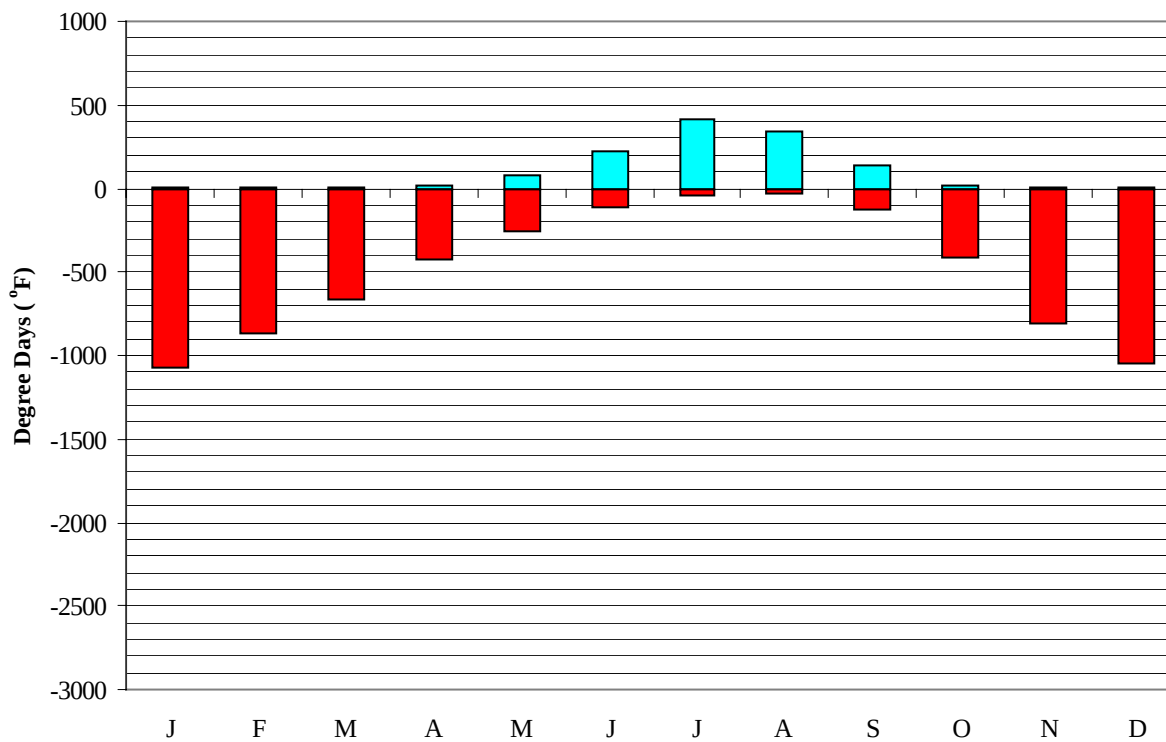
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	52.0	44.3	33.6	20.0	6.0	37.1	46.1	21.8	13.7
14-Jan	49.5	40.7	36.0	20.4	-8.0	39.2	44.6	24.3	15.6
21-Jan	54.0	43.0	34.2	18.3	0.0	32.2	40.3	20.7	12.7
28-Jan	50.0	41.3	33.7	17.6	-2.0	33.6	44.4	20.0	12.0
4-Feb	50.0	39.8	35.2	20.2	1.0	34.3	43.1	22.2	13.9
11-Feb	58.0	45.3	40.8	25.9	15.0	39.9	46.4	27.1	17.4
18-Feb	60.0	45.3	44.7	27.6	16.0	42.0	49.3	26.7	17.1
25-Feb	61.0	46.2	47.8	30.5	17.0	44.8	48.9	29.9	20.2
4-Mar	62.0	46.4	49.7	33.0	19.0	44.1	52.0	30.1	20.4
11-Mar	63.0	43.6	51.0	34.7	25.0	44.8	50.1	30.3	19.1
18-Mar	67.0	45.6	53.4	34.9	26.0	39.9	47.5	29.0	18.1
25-Mar	71.0	50.4	51.7	34.7	17.0	42.7	49.1	27.4	17.0
1-Apr	70.0	47.5	56.9	37.2	23.0	41.3	53.4	29.5	17.8
8-Apr	73.0	49.3	58.9	38.7	29.0	47.6	59.5	30.7	17.7
15-Apr	79.0	51.7	62.2	43.4	31.0	51.8	53.0	33.4	20.1
22-Apr	79.0	51.9	62.1	44.2	29.0	51.8	54.3	33.3	21.0
29-Apr	82.0	54.4	64.5	46.1	23.0	58.1	61.1	39.0	23.2
6-May	83.0	54.0	66.4	47.1	30.0	62.3	62.5	39.4	23.9
13-May	85.0	55.6	69.7	51.4	29.0	67.9	66.7	42.4	25.4
20-May	87.0	56.8	72.1	51.4	26.0	63.0	63.4	43.5	27.2
27-May	89.0	58.1	73.4	54.6	30.0	72.8	62.8	46.8	28.8
3-Jun	93.0	59.5	75.6	56.4	37.0	68.6	67.4	46.6	29.2
10-Jun	97.0	60.0	78.3	57.6	27.0	65.8	66.6	41.8	25.3
17-Jun	96.0	60.1	81.5	60.1	41.0	67.2	68.2	43.0	26.1
24-Jun	98.0	61.3	86.7	65.5	50.0	72.8	76.1	45.1	28.2
1-Jul	100.0	62.0	86.3	63.9	35.0	75.6	67.0	44.0	26.8
8-Jul	98.0	61.9	88.9	66.5	56.0	91.0	78.1	52.4	32.4
15-Jul	98.0	61.5	90.0	68.7	57.0	81.2	75.8	52.6	32.6
22-Jul	97.0	61.0	90.4	66.6	50.0	104.3	73.8	56.4	35.8
29-Jul	98.0	61.9	90.6	67.9	58.0	96.6	72.9	54.6	34.1
5-Aug	99.0	62.1	90.8	67.2	58.0	90.3	80.0	52.6	32.4
12-Aug	95.0	60.1	87.4	64.6	46.0	108.5	70.3	55.6	35.0
19-Aug	94.0	61.5	86.0	61.7	36.0	97.3	68.7	56.3	33.5
26-Aug	93.0	60.1	85.6	63.5	45.0	90.3	67.3	48.1	29.3
2-Sep	92.0	57.9	81.9	60.2	40.0	83.3	68.5	50.8	31.9
9-Sep	91.0	58.5	77.5	56.7	43.0	76.3	66.1	47.7	30.2
16-Sep	88.0	57.6	73.7	52.1	35.0	75.6	62.7	43.1	27.4
23-Sep	83.0	55.0	72.0	50.8	41.0	90.3	64.8	42.8	27.8
30-Sep	82.0	52.3	68.8	47.8	36.0	67.2	57.8	38.8	25.3
7-Oct	74.0	51.6	64.0	44.7	33.0	65.1	63.1	37.6	25.2
14-Oct	71.0	50.2	60.0	40.2	30.0	57.4	59.6	34.6	23.4
21-Oct	68.0	48.3	57.5	38.1	29.0	55.3	54.5	34.6	23.5
28-Oct	64.0	46.1	53.8	36.7	25.0	62.3	55.9	32.6	22.1
4-Nov	61.0	48.1	50.8	33.1	19.0	50.4	52.9	31.1	20.3
11-Nov	60.0	50.6	46.2	30.7	21.0	44.1	50.4	29.8	19.2
18-Nov	52.0	43.0	41.2	26.1	12.0	37.8	44.4	25.7	16.2
25-Nov	58.0	43.8	38.6	23.4	13.0	34.3	40.5	23.3	14.5
2-Dec	53.0	42.6	40.2	25.3	12.0	37.8	45.4	25.9	16.5
9-Dec	55.0	43.5	37.7	22.5	11.0	35.0	46.8	22.3	13.7
16-Dec	47.0	38.5	34.6	19.4	0.0	32.9	43.1	21.2	12.9
23-Dec	45.0	36.3	31.2	16.8	-9.0	33.6	41.0	19.7	11.9
31-Dec	47.0	38.1	30.3	16.3	-3.0	30.1	40.8	18.7	11.7

WENDOVER

UT

WMO No. 725810

Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

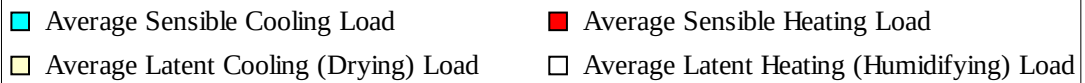
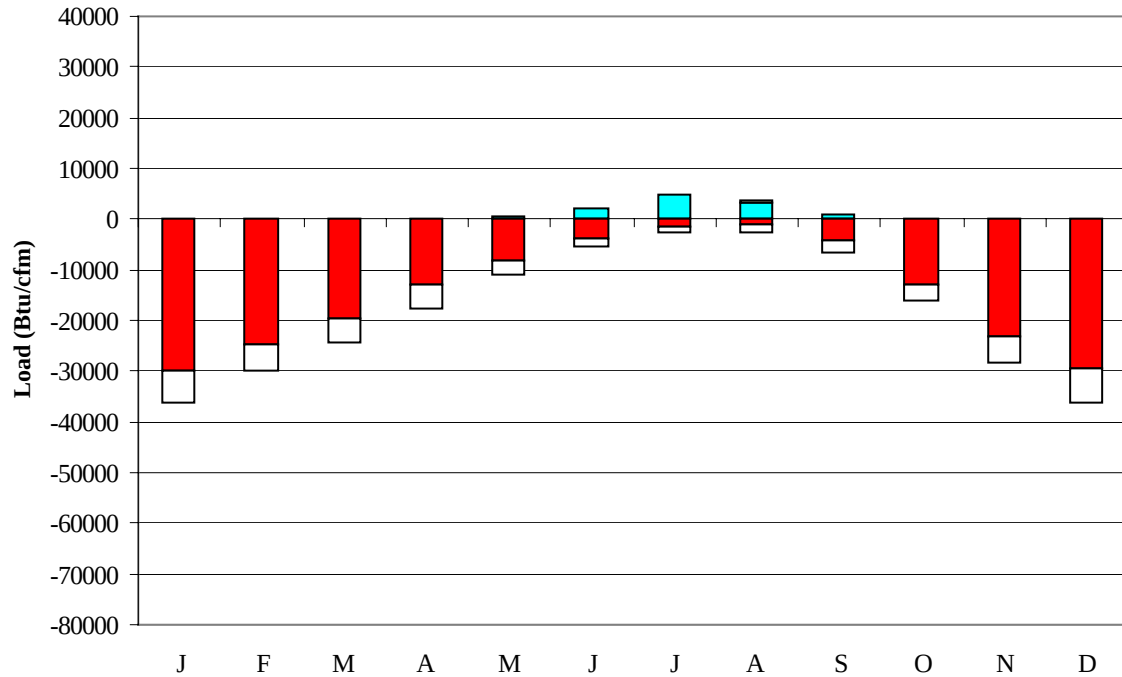
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1075
FEB	0	869
MAR	1	666
APR	16	424
MAY	76	253
JUN	225	109
JUL	408	39
AUG	338	33
SEP	133	121
OCT	12	413
NOV	0	806
DEC	0	1050
ANN	1208	5858

WENDOVER

UT

WMO No. 725810

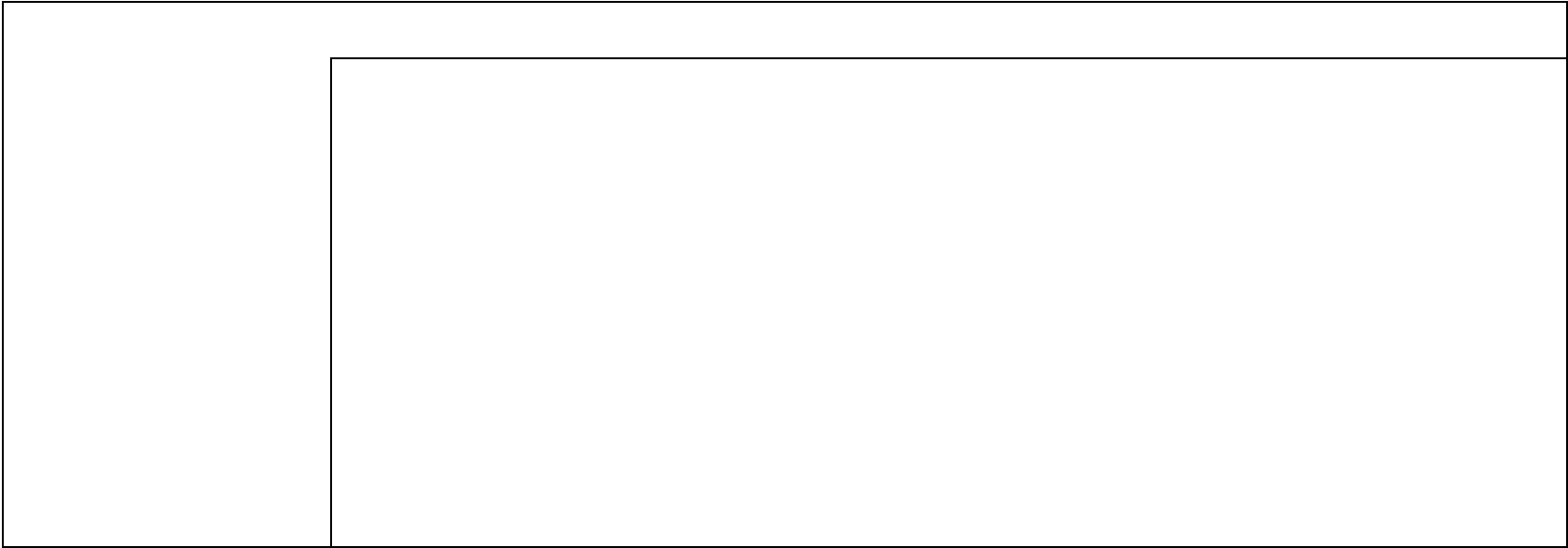
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-30013	0	-6305
FEB	0	-24587	0	-5276
MAR	0	-19495	0	-4662
APR	42	-13053	0	-4386
MAY	394	-8178	0	-2608
JUN	2081	-3651	0	-1878
JUL	4694	-1311	35	-1275
AUG	3463	-1226	63	-1565
SEP	881	-4271	7	-2187
OCT	24	-12778	0	-3398
NOV	0	-23089	0	-5322
DEC	0	-29408	0	-6883
ANN	11579	-171060	105	-45745

Average Annual Solar Radiation – Nearest Available Site
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

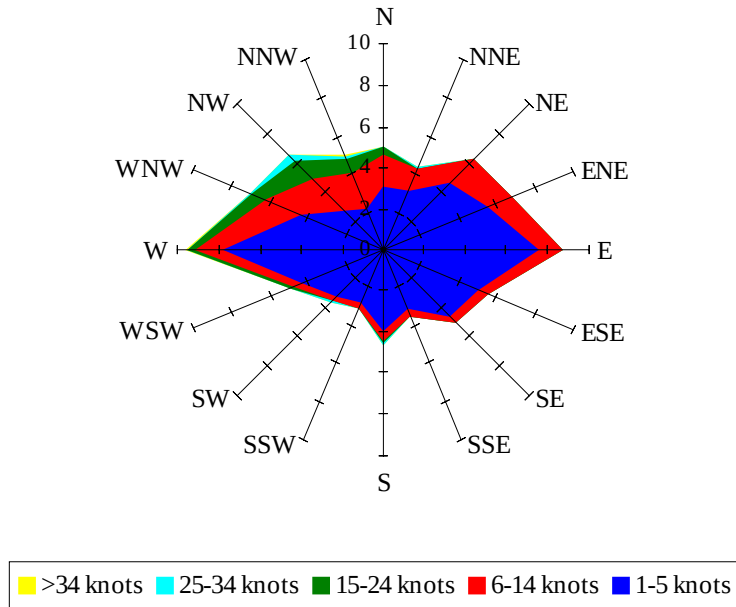


Average Annual Solar Heat and Illumination – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

Wind Summary - December, January, and February

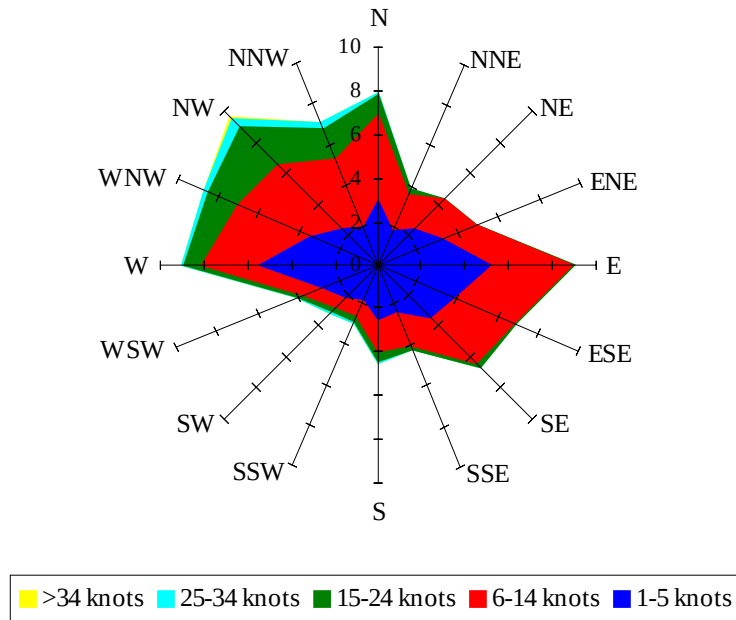
Labels of Percent Frequency on North Axis



Percent Calm = 11.42

Wind Summary - March, April, and May

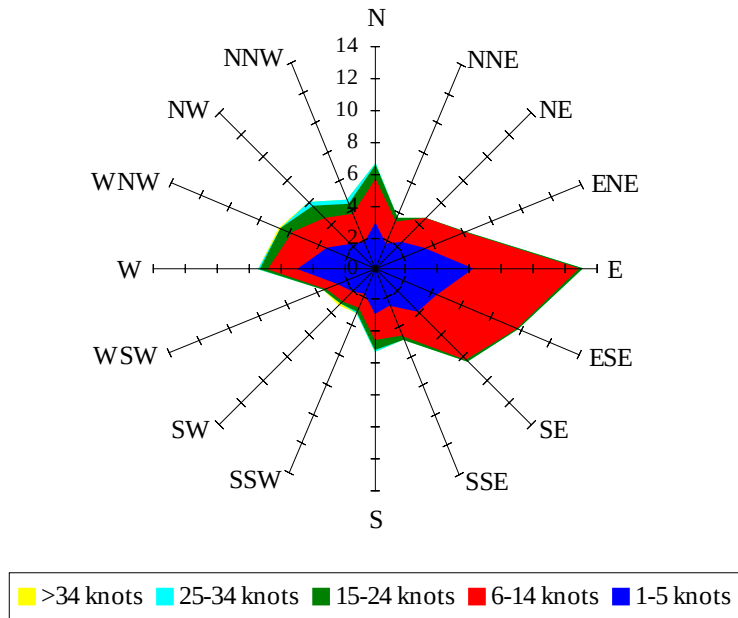
Labels of Percent Frequency on North Axis



Percent Calm = 3.76

Wind Summary - June, July, and August

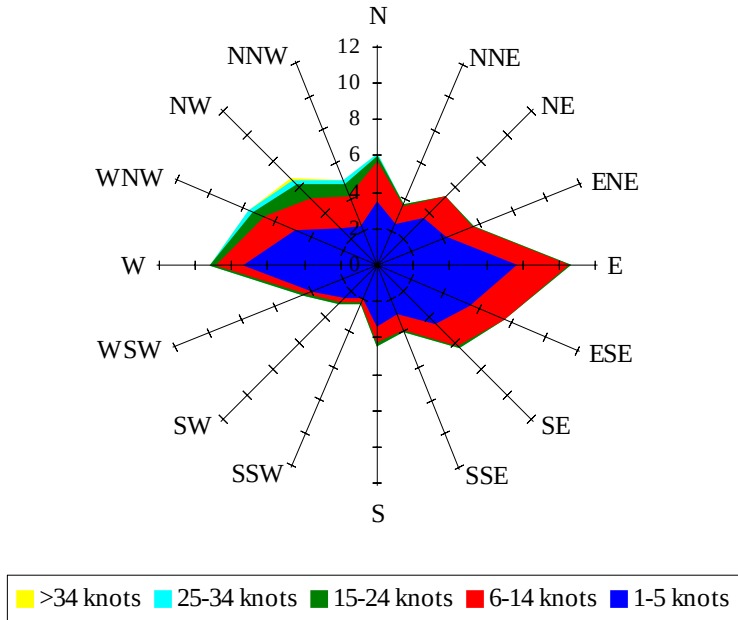
Labels of Percent Frequency on North Axis



Percent Calm = 4.49

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 9.29