

MCCONNELL AFB	KS	WMO No. 724505
Latitude = 37.62 N		Elevation = 1371 feet
Longitude = 97.27 W		Average Pressure = 28.53 inches Hg
Period of Record = 1967 to 1996		

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	105	73	74	14.4	S
0.4% Occurrence	100	74	88	13.2	S
1.0% Occurrence	97	73	91	12.6	S
2.0% Occurrence	94	73	94	12.2	S
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	16	14	8	10.0	N
99.0% Occurrence	9	8	6	9.2	N
99.6% Occurrence	4	3	5	10.0	N
Median of Extreme Lows	-2	-2	3	10.5	N
	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	80	92	142	11.4	S
0.4% Occurrence	78	92	130	12.9	S
1.0% Occurrence	76	90	119	12.2	S
2.0% Occurrence	75	89	114	12.2	S
	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	144	87	0.91	11.2	SSE
0.4% Occurrence	132	85	0.83	12.6	S
1.0% Occurrence	125	82	0.79	9.3	S
2.0% Occurrence	120	81	0.77	8.8	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		228	1244	552	1841

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
7	3.8	90	2.0 + 1.5
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 (#)
59.2	38	14	57

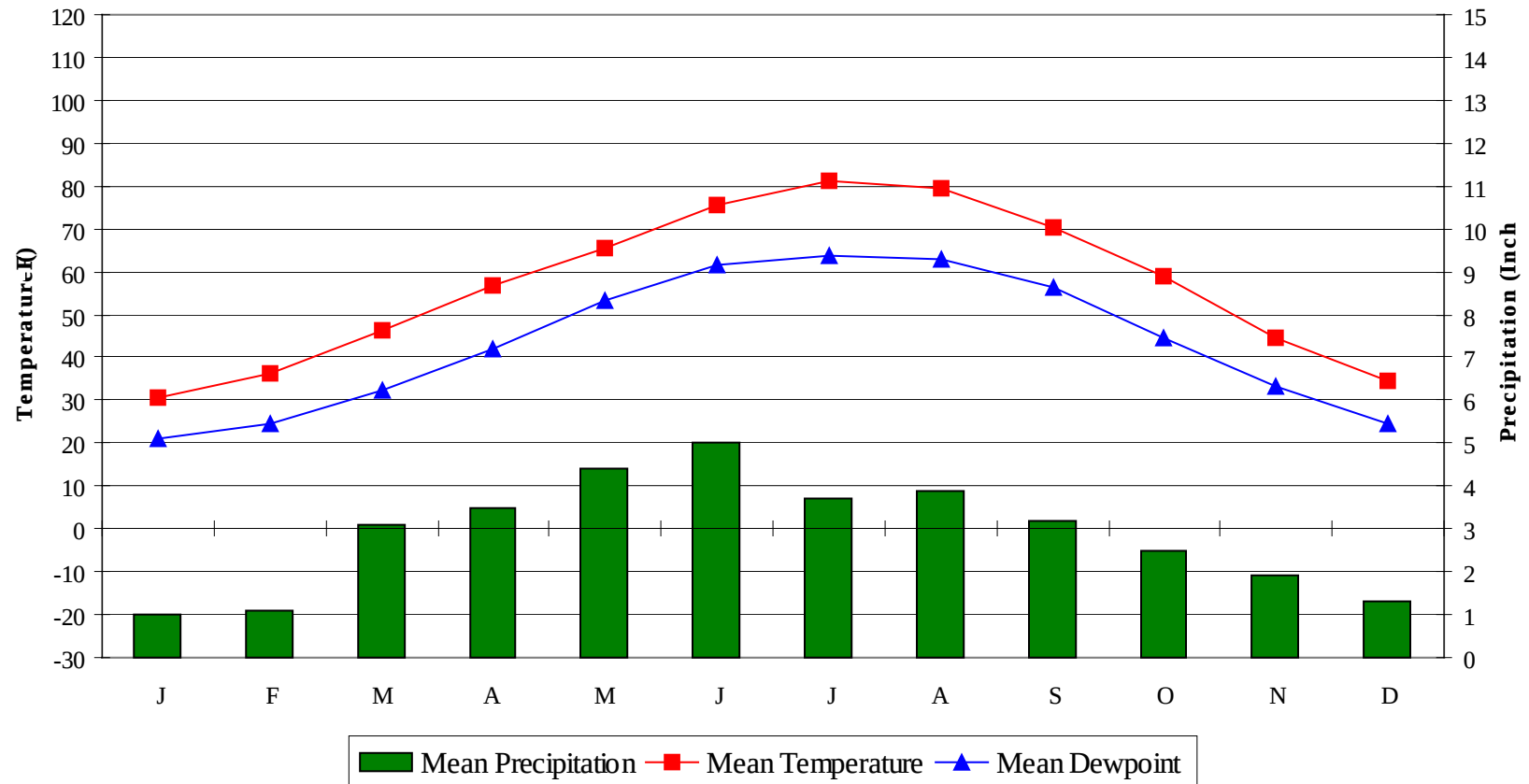
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

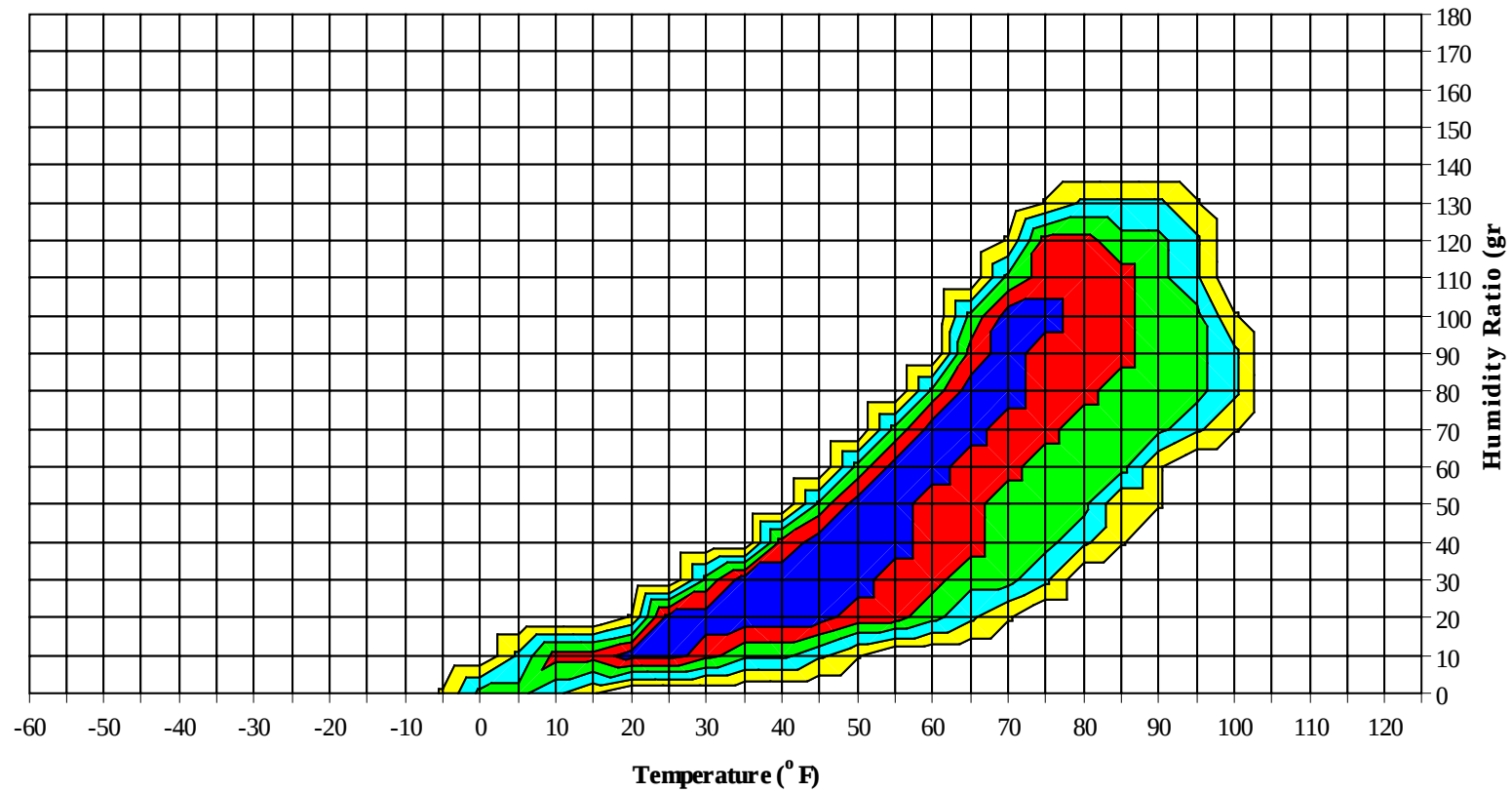


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Long Term Psychrometric Summary

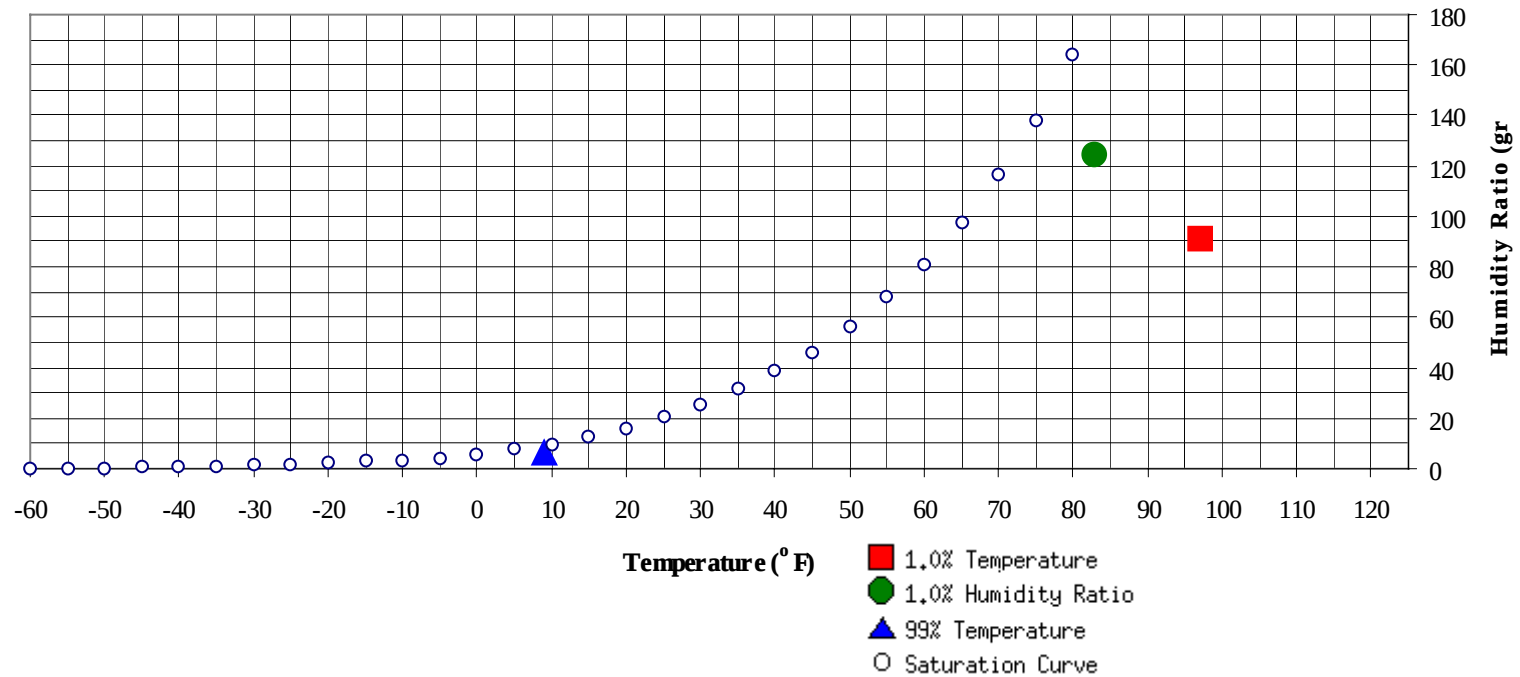


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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Psychrometric Summary of Peak Design Values

99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	9	6.1	3.1		124.6	82.8	74.9	72	39.4

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	97	90.9	73.3	37.6

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

Period of Record = 1967 to 1996

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		
110 / 114															
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89								0	0	56.0		1	0	1	61.1
80 / 84							0	0	0	56.0		2	1	3	60.0
75 / 79							1	0	1	55.4		7	3	10	59.3
70 / 74		0	0	0	50.9		4	1	5	53.2	0	13	7	20	57.0
65 / 69		1	0	1	51.9	0	8	4	12	51.1	2	19	14	36	54.8
60 / 64	0	5	2	7	50.6	1	11	7	19	49.1	8	26	21	55	52.0
55 / 59	1	10	5	16	47.6	3	16	12	31	46.7	17	29	29	76	48.7
50 / 54	3	16	10	29	44.0	6	19	18	43	43.7	22	32	32	86	45.1
45 / 49	7	25	18	50	40.4	14	24	24	63	40.8	33	37	39	108	41.5
40 / 44	14	32	29	76	37.3	24	31	30	85	37.0	39	30	38	107	37.5
35 / 39	29	33	39	101	33.2	37	32	36	105	33.5	46	23	30	100	33.4
30 / 34	51	38	46	135	29.5	45	24	31	99	29.3	40	15	18	73	29.2
25 / 29	45	28	35	108	24.8	35	21	23	78	24.4	22	8	10	40	24.3
20 / 24	32	21	22	75	20.0	24	15	16	56	20.0	9	3	4	15	19.9
15 / 19	23	17	19	59	15.2	16	8	10	35	15.5	4	2	2	8	15.4
10 / 14	21	12	13	46	10.6	8	5	5	19	10.9	3	1	1	4	10.7
5 / 9	13	7	8	27	6.2	6	3	4	13	6.0	1	0	0	1	6.3
0 / 4	5	2	3	11	1.4	4	1	1	6	1.2	0			0	2.0
-5 / -1	3	1	0	4	-3.0	1	0	0	2	-2.6					
-10 / -6	0	0		0	-6.1	0	0		1	-6.9					
-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 2 of 5)**Period of Record = 1967 to 1996**

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		
110 / 114															
105 / 109												0	0	1	73.5
100 / 104												2	1	3	73.4
95 / 99							0	0	0	71.8		11	4	14	74.0
90 / 94		0	0	0	67.4		2	1	3	70.3		29	13	42	73.4
85 / 89		3	1	4	65.2		11	4	16	70.0	0	47	27	74	71.7
80 / 84		9	4	13	64.4	0	29	14	44	68.0	7	52	44	102	69.8
75 / 79	0	20	10	31	61.9	4	46	30	80	65.8	39	43	50	132	67.9
70 / 74	3	33	23	59	59.8	19	54	47	120	63.1	61	30	49	140	65.7
65 / 69	15	37	32	83	57.2	43	44	50	136	60.2	69	17	35	121	62.4
60 / 64	25	41	39	105	53.3	62	29	47	139	56.7	42	7	15	63	58.2
55 / 59	36	36	40	112	50.1	56	20	32	108	52.6	19	2	3	24	53.9
50 / 54	44	27	36	107	46.3	37	9	16	62	48.4	3	0	0	4	49.4
45 / 49	48	17	29	94	42.5	22	3	5	30	43.9	0			0	45.1
40 / 44	35	10	16	62	38.0	6	0	0	7	39.6					
35 / 39	21	5	6	32	33.8	1			1	34.9					
30 / 34	11	1	3	15	30.0	0			0	32.2					
25 / 29	2	0	1	3	25.3										
20 / 24	0	0	0	1	21.4										
15 / 19	0			0	18.0										
10 / 14															
5 / 9															
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 = 1967 to 1996**

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		
110 / 114		0		0	73.0		0		0	73.0					
105 / 109		4	1	5	72.6		1	0	2	73.1		0		0	71.3
100 / 104		13	4	17	73.7		11	3	13	73.6		1	0	1	71.9
95 / 99		35	16	50	73.8		28	11	40	73.2		7	2	9	72.0
90 / 94	0	50	30	81	73.1		44	23	67	72.9		18	6	24	71.4
85 / 89	4	57	48	109	71.9	2	54	41	97	71.6	0	28	15	44	70.1
80 / 84	33	45	59	136	70.5	22	46	54	122	70.2	3	41	28	72	68.3
75 / 79	78	26	49	153	69.0	62	35	53	149	68.6	19	43	40	102	66.5
70 / 74	77	12	28	118	66.8	82	19	39	140	66.4	45	37	44	126	64.5
65 / 69	41	4	10	56	62.7	50	8	18	75	62.3	51	28	43	122	61.0
60 / 64	12	1	3	16	59.0	23	2	6	30	58.0	47	19	29	95	56.6
55 / 59	3	0	0	3	54.3	7	0	0	7	53.8	35	10	19	64	52.4
50 / 54	0			0	50.5	1	0		1	49.5	22	5	10	38	48.1
45 / 49											12	1	3	16	43.5
40 / 44											4	0	1	5	39.4
35 / 39											1			1	35.1
30 / 34											0			0	32.0
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1967 to 1996**

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		
110 / 114															
105 / 109															
100 / 104															
95 / 99		0		0	69.0										
90 / 94		2	0	2	65.1										
85 / 89		8	2	10	65.7										
80 / 84		16	5	21	64.5		0		0	58.6					
75 / 79	0	25	14	39	62.3		2	0	2	60.1		0		0	
70 / 74	8	37	25	70	60.3	0	8	1	9	58.1		0		0	56.9
65 / 69	20	40	35	95	57.8	2	17	8	27	56.6	0	3	1	3	55.2
60 / 64	33	39	43	115	54.6	8	23	15	46	53.8	2	7	3	12	52.3
55 / 59	42	35	41	118	50.7	13	32	24	69	50.0	3	14	6	23	48.7
50 / 54	50	24	37	111	46.7	19	34	32	85	45.7	4	20	12	37	44.5
45 / 49	41	14	27	82	42.4	31	36	40	108	41.9	9	32	23	64	40.8
40 / 44	31	7	14	52	38.4	42	33	42	117	37.9	22	38	36	97	37.2
35 / 39	15	2	4	22	33.8	48	28	35	111	33.5	43	42	49	134	33.7
30 / 34	4	1	1	6	29.8	38	15	25	78	29.2	57	39	52	148	29.4
25 / 29	2	0	0	2	24.4	24	7	11	43	24.6	46	23	29	99	24.9
20 / 24	0		0	0	19.9	10	3	4	16	20.0	28	12	15	56	20.0
15 / 19	0			0	17.0	3	1	1	6	15.5	15	7	9	31	15.4
10 / 14						2	0	1	2	11.2	9	4	5	18	10.8
5 / 9						0		0	1	7.4	3	3	2	8	6.1
0 / 4											3	2	2	7	1.1
-5 / -1											3	1	1	6	-3.1
-10 / -6											1	0	1	1	-7.5
-15 / -11											0	0		0	-12.2
-20 / -16											0			0	-15.5

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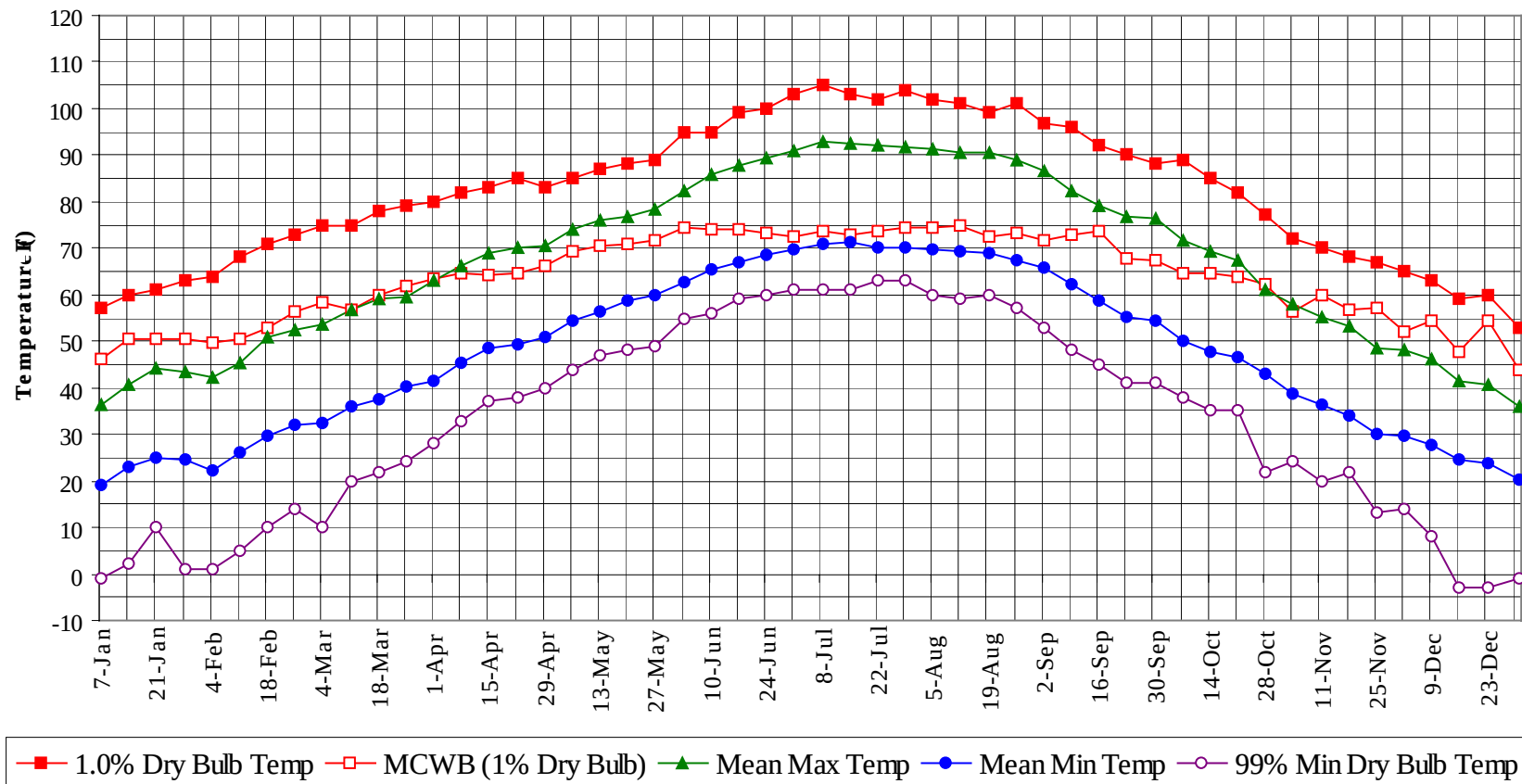
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1967 to 1996

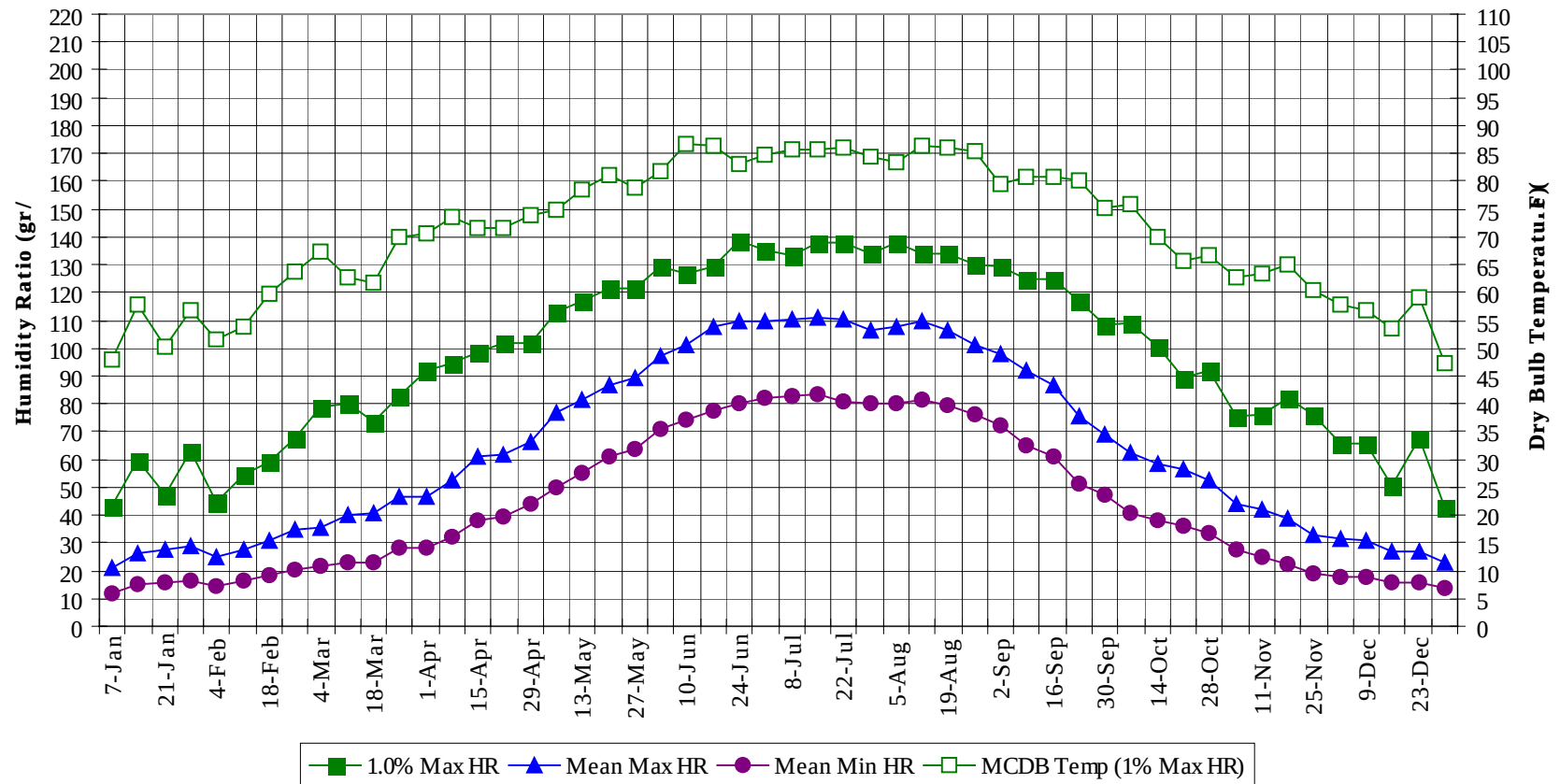
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
110 / 114	0			0	73.0	
105 / 109	6			1	7	72.8
100 / 104	27			8	35	73.6
95 / 99	82			32	114	73.4
90 / 94	0	146	74	220	72.8	
85 / 89	6	210	138	354	71.2	
80 / 84	65	240	209	514	69.3	
75 / 79	202	247	251	700	67.1	
70 / 74	296	247	265	808	64.1	
65 / 69	294	226	249	769	59.9	
60 / 64	263	211	229	702	55.2	
55 / 59	234	204	213	651	50.6	
50 / 54	211	187	204	602	46.1	
45 / 49	217	188	208	613	41.8	
40 / 44	217	183	207	607	37.6	
35 / 39	241	165	199	605	33.5	
30 / 34	244	133	174	552	29.4	
25 / 29	175	87	109	372	24.7	
20 / 24	103	55	61	218	20.0	
15 / 19	62	34	42	139	15.3	
10 / 14	43	22	25	89	10.7	
5 / 9	24	12	14	50	6.1	
0 / 4	12	6	7	24	1.3	
-5 / -1	7	2	2	11	-3.0	
-10 / -6	1	0	1	2	-7.1	
-15 / -11	0	0		0	-12.2	
-20 / -16	0			0	-15.5	

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



MCCONNELL AFB**KS****WMO No. 724505****Long Term Dry Bulb Temperature and Humidity Summary**

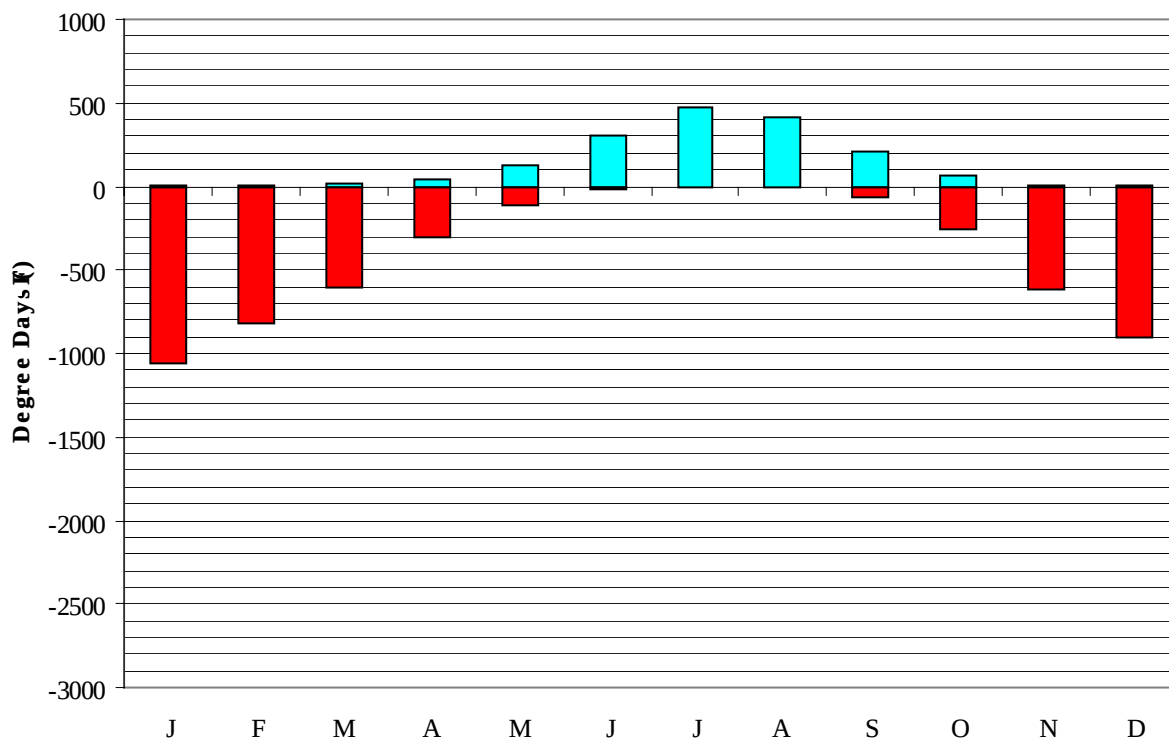
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	57.0	46.1	36.3	19.2	-1.0	43.4	48.1	21.3	12.0
14-Jan	60.0	50.4	40.7	23.2	2.0	59.5	57.7	26.3	15.3
21-Jan	61.0	50.4	44.1	25.1	10.0	47.6	50.3	27.3	15.7
28-Jan	63.0	50.5	43.5	24.4	1.0	63.0	56.7	28.6	16.3
4-Feb	64.0	49.8	42.4	22.3	1.0	44.8	51.7	24.7	14.2
11-Feb	68.0	50.6	45.2	26.0	5.0	54.6	53.9	27.6	16.3
18-Feb	71.0	52.9	51.0	29.8	10.0	58.8	59.9	31.2	18.3
25-Feb	73.0	56.5	52.6	32.0	14.0	67.9	63.8	34.8	20.1
4-Mar	75.0	58.4	53.7	32.6	10.0	79.1	67.2	35.3	21.5
11-Mar	75.0	56.8	56.8	36.1	20.0	79.8	62.8	40.0	22.9
18-Mar	78.0	60.1	58.9	37.7	22.0	73.5	61.7	40.4	23.3
25-Mar	79.0	61.7	59.4	40.3	24.0	82.6	69.8	46.6	28.1
1-Apr	80.0	63.4	63.0	41.3	28.0	91.7	70.6	46.7	28.4
8-Apr	82.0	64.7	66.0	45.3	33.0	94.5	73.5	52.3	32.2
15-Apr	83.0	64.3	68.8	48.5	37.0	98.7	71.4	61.2	37.9
22-Apr	85.0	64.6	70.0	49.3	38.0	101.5	71.7	61.9	39.2
29-Apr	83.0	66.3	70.4	50.9	40.0	101.5	73.9	66.6	43.9
6-May	85.0	69.5	74.2	54.3	44.0	112.7	74.9	76.8	49.8
13-May	87.0	70.5	76.0	56.5	47.0	116.9	78.5	81.7	55.3
20-May	88.0	71.0	76.9	58.7	48.0	121.8	81.0	86.8	61.3
27-May	89.0	71.8	78.3	59.9	49.0	121.8	78.9	89.3	64.0
3-Jun	95.0	74.4	82.3	62.7	55.0	129.5	81.8	97.3	70.7
10-Jun	95.0	73.9	85.8	65.2	56.0	126.7	86.6	101.1	74.3
17-Jun	99.0	74.0	87.8	66.9	59.0	129.5	86.4	107.6	77.7
24-Jun	100.0	73.3	89.6	68.5	60.0	138.6	82.9	109.9	80.0
1-Jul	103.0	72.5	91.1	69.7	61.0	135.1	84.7	109.9	81.9
8-Jul	105.0	73.6	93.0	71.0	61.0	133.0	85.8	110.3	82.5
15-Jul	103.0	73.0	92.5	71.2	61.0	137.9	85.6	110.8	83.6
22-Jul	102.0	73.6	92.1	70.1	63.0	137.9	85.9	110.5	80.5
29-Jul	104.0	74.3	91.8	70.1	63.0	133.7	84.4	106.3	79.8
5-Aug	102.0	74.4	91.2	69.7	60.0	137.9	83.3	107.5	79.9
12-Aug	101.0	74.9	90.4	69.2	59.0	133.7	86.2	109.5	81.5
19-Aug	99.0	72.6	90.7	68.8	60.0	133.7	86.0	106.7	79.6
26-Aug	101.0	73.4	88.9	67.4	57.0	130.2	85.4	101.4	75.9
2-Sep	97.0	71.8	86.7	65.8	53.0	129.5	79.3	98.1	72.3
9-Sep	96.0	73.0	82.2	62.2	48.0	124.6	80.8	91.9	65.1
16-Sep	92.0	73.7	79.0	58.8	45.0	124.6	80.7	86.5	61.3
23-Sep	90.0	67.7	76.7	55.2	41.0	116.9	80.2	75.7	51.3
30-Sep	88.0	67.4	76.4	54.2	41.0	108.5	75.3	69.3	47.2
7-Oct	89.0	64.8	71.7	50.0	38.0	109.2	75.8	62.3	40.7
14-Oct	85.0	64.6	69.4	47.9	35.0	100.8	69.9	58.6	37.8
21-Oct	82.0	64.0	67.2	46.4	35.0	89.6	65.8	56.4	36.1
28-Oct	77.0	62.1	61.2	42.9	22.0	91.7	66.8	52.3	33.5
4-Nov	72.0	56.4	58.0	38.7	24.0	75.6	62.7	43.8	27.4
11-Nov	70.0	59.9	55.4	36.5	20.0	76.3	63.2	41.8	25.1
18-Nov	68.0	56.7	53.1	33.8	22.0	81.9	65.0	38.5	22.2
25-Nov	67.0	57.0	48.5	30.0	13.0	76.3	60.6	32.8	19.3
2-Dec	65.0	51.9	48.2	29.6	14.0	65.8	57.7	31.5	18.0
9-Dec	63.0	54.3	46.2	27.8	8.0	65.8	56.8	31.0	17.8
16-Dec	59.0	47.8	41.4	24.7	-3.0	50.4	53.5	26.8	15.9
23-Dec	60.0	54.3	40.9	23.6	-3.0	67.9	59.0	27.2	15.7
31-Dec	53.0	43.6	35.9	20.4	-1.0	42.7	47.2	23.0	13.7

MCCONNELL AFB

KS

WMO No. 724505

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



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

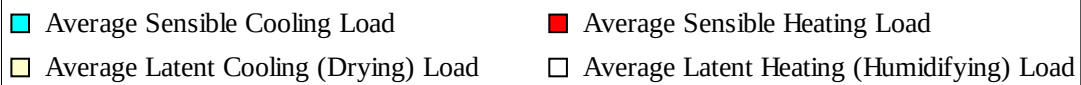
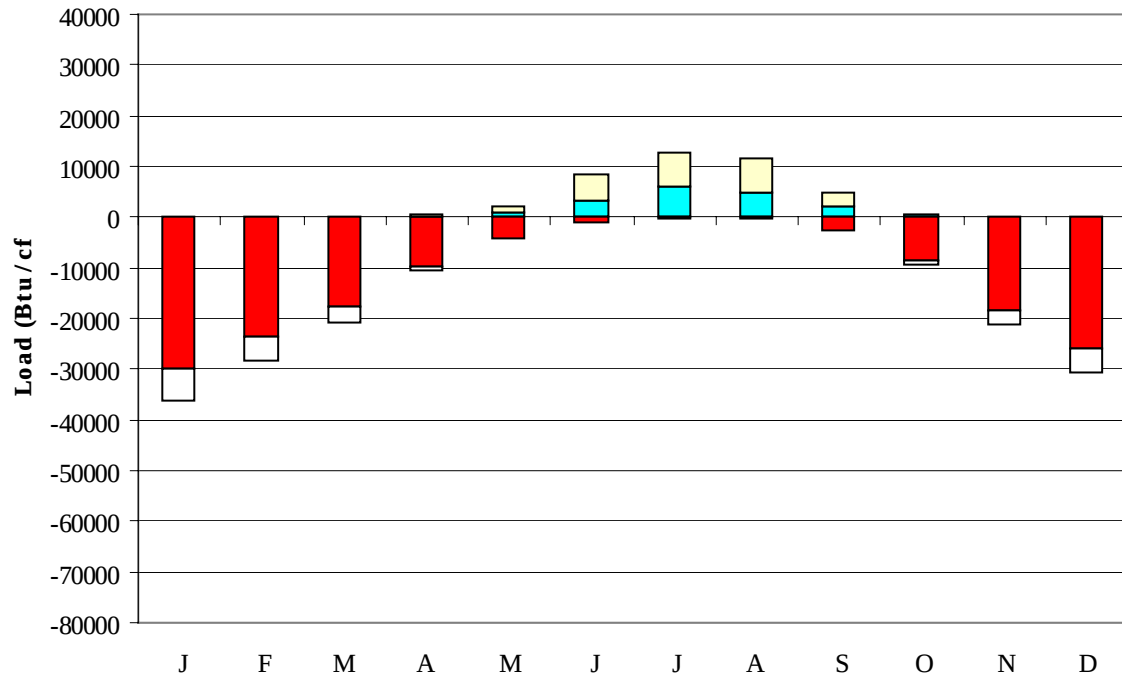
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1058
FEB	3	819
MAR	15	600
APR	47	301
MAY	124	114
JUN	306	17
JUL	470	3
AUG	418	6
SEP	214	70
OCT	67	261
NOV	5	619
DEC	0	907
ANN	1668	4775

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KS

WMO No. 724505

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	-29815	0	-6241
FEB	3	-23392	0	-4739
MAR	47	-17778	16	-2887
APR	205	-9635	206	-976
MAY	734	-4256	1521	-72
JUN	3165	-862	5097	0
JUL	6036	-184	6891	0
AUG	5041	-350	6620	0
SEP	1982	-2682	2785	-51
OCT	379	-8538	300	-743
NOV	6	-18289	18	-2770
DEC	0	-25802	3	-4941
ANN	17598	-141583	23457	-23420

Average Annual Solar Radiation – Nearest Available Site

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

City: WICHITA
 State: KS
 WBAN No: 3928
 Lat(N): 37.65
 Long(W): 97.42
 Elev(ft): 1339

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.467
 Vert Gap: 0.307

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day), Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Global	780	1030	1350	1710	1920	2120	2170	1920	1540	1200	830	680	1440
	Std Dev	69	82	127	107	131	126	118	126	127	122	75	56	33
	Minimum	640	880	1020	1450	1710	1900	1940	1640	1200	990	700	580	1370
	Maximum	950	1200	1560	1970	2200	2400	2430	2150	1820	1380	990	830	1520
	Diffuse	320	430	560	680	780	780	730	650	570	430	340	290	550
Clear Day	Global	1020	1360	1830	2280	2560	2660	2590	2330	1940	1470	1070	910	1840
NORTH	Global	220	280	360	450	560	640	610	480	390	300	230	190	390
	Diffuse	220	280	360	440	500	520	510	450	380	300	230	190	370
Clear Day	Global	200	260	330	430	580	690	630	470	360	280	210	180	390
EAST	Global	530	660	820	980	1040	1120	1170	1080	900	750	550	460	840
	Diffuse	270	350	440	530	590	620	610	550	470	370	280	230	440
Clear Day	Global	750	950	1180	1360	1450	1470	1450	1360	1210	990	780	680	1140
SOUTH	Global	1270	1260	1170	1010	830	760	820	980	1150	1320	1220	1180	1080
	Diffuse	370	440	500	540	550	550	550	540	510	450	380	340	480
Clear Day	Global	2000	2000	1780	1350	1000	850	900	1170	1570	1880	1950	1940	1530
WEST	Global	540	680	830	1010	1100	1190	1230	1120	950	790	560	480	870
	Diffuse	270	350	450	540	600	630	630	560	480	380	280	240	450
Clear Day	Global	750	950	1180	1360	1450	1470	1450	1360	1210	990	780	680	1140

Average Annual Solar Heat and Illumination – Nearest Available Site

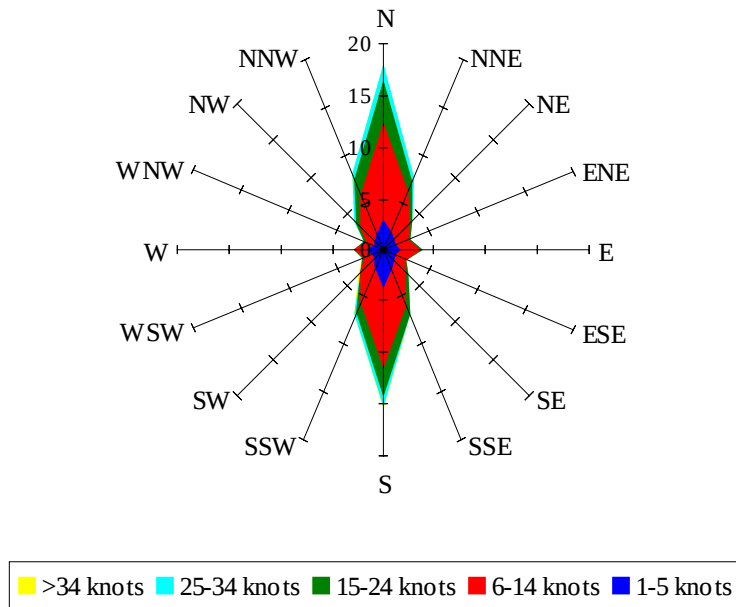
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	510	710	960	1230	1390	1550	1590	1400	1100	840	550	440	1030
NORTH	Unshaded	150	200	250	310	360	410	390	320	270	210	160	130	260
	Shaded	140	180	230	280	330	370	360	290	240	190	140	120	240
EAST	Unshaded	370	460	580	700	740	800	830	770	640	530	380	320	590
	Shaded	340	420	520	620	650	700	730	680	570	480	350	290	530
SOUTH	Unshaded	960	920	810	650	500	450	480	600	770	940	910	890	740
	Shaded	940	860	650	440	350	350	350	380	570	840	890	880	620
WEST	Unshaded	370	480	590	720	790	850	880	800	680	560	390	330	620
	Shaded	340	430	530	640	690	750	770	710	600	500	360	300	550

AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	32	70	85	73	38	38	78	102	101	77
	M.Cloudy	19	43	55	46	24	25	55	74	76	58
NORTH	M.Clear	8	13	15	14	9	22	15	17	17	16
	M.Cloudy	8	15	18	16	9	14	17	19	19	17
EAST	M.Clear	74	67	19	14	9	73	78	42	17	16
	M.Cloudy	24	34	19	16	9	33	49	34	19	17
SOUTH	M.Clear	31	68	82	71	38	10	24	42	42	24
	M.Cloudy	13	34	45	37	18	10	21	34	35	22
WEST	M.Clear	8	13	15	61	77	10	15	17	42	77
	M.Cloudy	8	15	18	34	31	10	17	19	35	53
M.Clear	(% hrs)	38	37	37	36	36	40	42	41	40	44

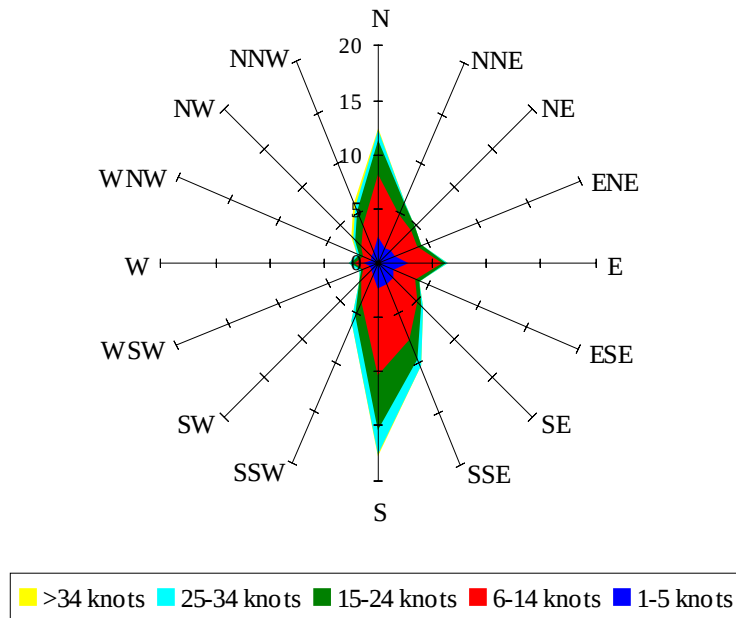
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	20	62	87	85	58	10	41	53	39	8
	M.Cloudy	12	37	55	58	39	6	25	33	24	5
NORTH	M.Clear	7	13	16	16	13	4	9	11	9	3
	M.Cloudy	5	14	17	18	14	3	10	12	9	3
EAST	M.Clear	56	77	40	16	13	37	48	11	9	3
	M.Cloudy	17	34	28	18	14	9	21	12	9	3
SOUTH	M.Clear	13	50	73	71	46	29	79	94	77	23
	M.Cloudy	7	25	41	44	28	8	30	41	30	7
WEST	M.Clear	7	13	16	44	76	4	9	13	50	30
	M.Cloudy	5	14	17	31	41	3	10	13	22	9
M.Clear	(% hrs)	46	49	46	47	48	40	40	38	40	44

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 8.23

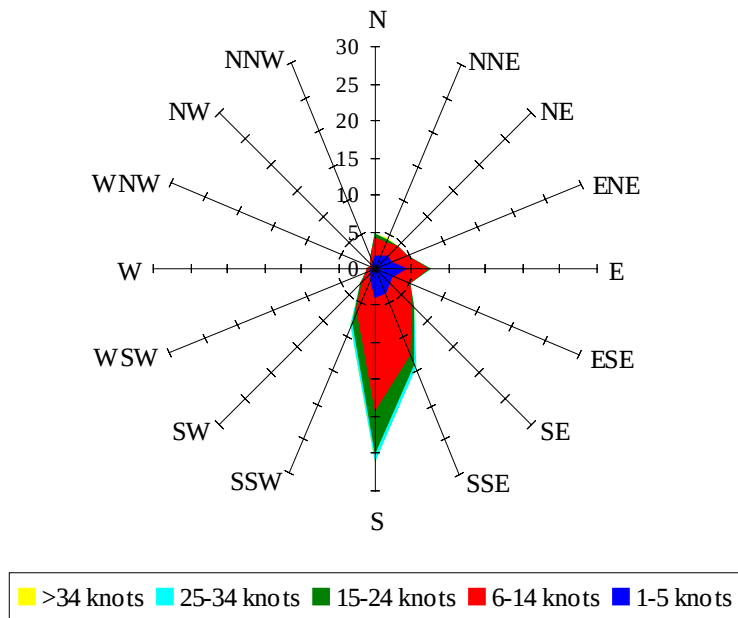
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 6.03

Wind Summary - June, July, and August

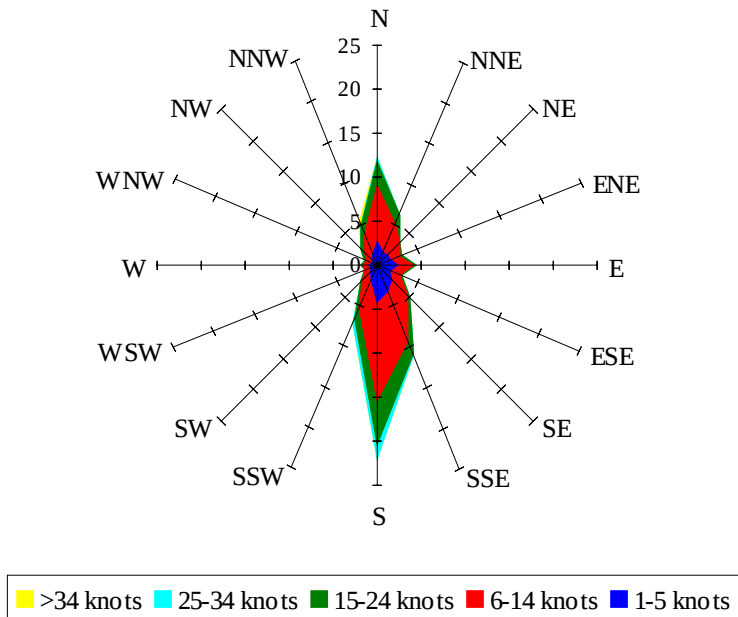
Labels of Percent Frequency on North Axis



Percent Calm = 6.39

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 7.86