

TRUK/MOEN ISLAND KA

Latitude = 7.47 N

Longitude = 151.85 E

Period of Record = 1973 to 1996

WMO No. 913340

Elevation = 7 feet

Average Pressure = 29.77 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	90	80	141	7.8	W
0.4% Occurrence	88	79	139	9.1	NE
1.0% Occurrence	88	79	139	9.1	NE
2.0% Occurrence	88	79	139	9.1	NE
Mean Daily Range	6	-	-	-	-
97.5% Occurrence	77	76	131	7.0	E
99.0% Occurrence	76	75	129	7.5	E
99.6% Occurrence	75	74	127	7.9	E
Median of Extreme Lows	66	60	83	3.3	S
	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	84	87	169	9.2	NE
0.4% Occurrence	81	86	147	9.8	NE
1.0% Occurrence	81	86	147	9.8	NE
2.0% Occurrence	80	85	143	9.6	NE
	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	179	89	1.11	6.2	ENE
0.4% Occurrence	152	85	1.00	10.4	NE
1.0% Occurrence	151	85	1.00	10.1	NE
2.0% Occurrence	151	85	1.00	9.7	NE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		1	5309	6250	6282

Other Site Data

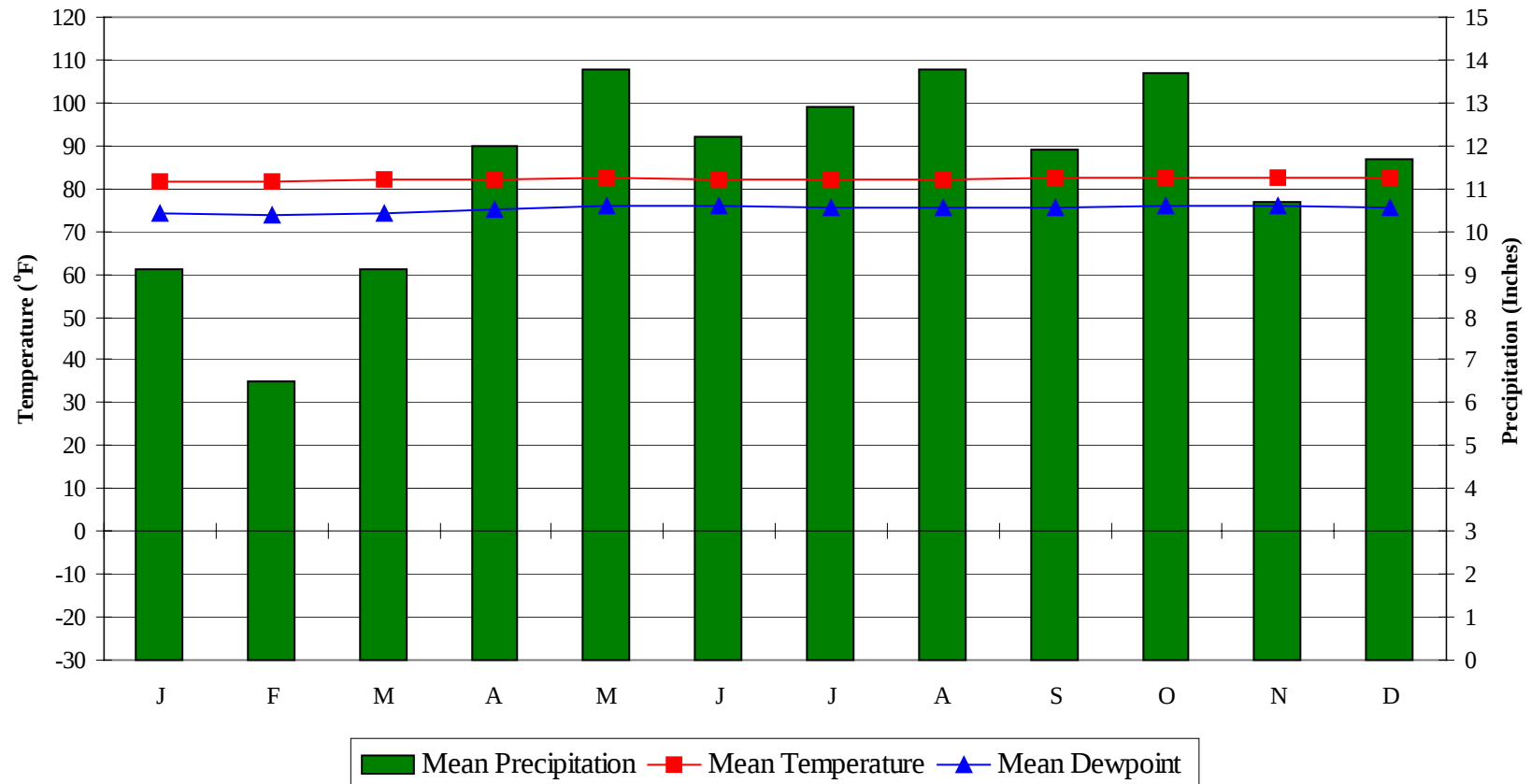
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	13.9 + 5.6
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
84.7	N/A	N/A	0

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

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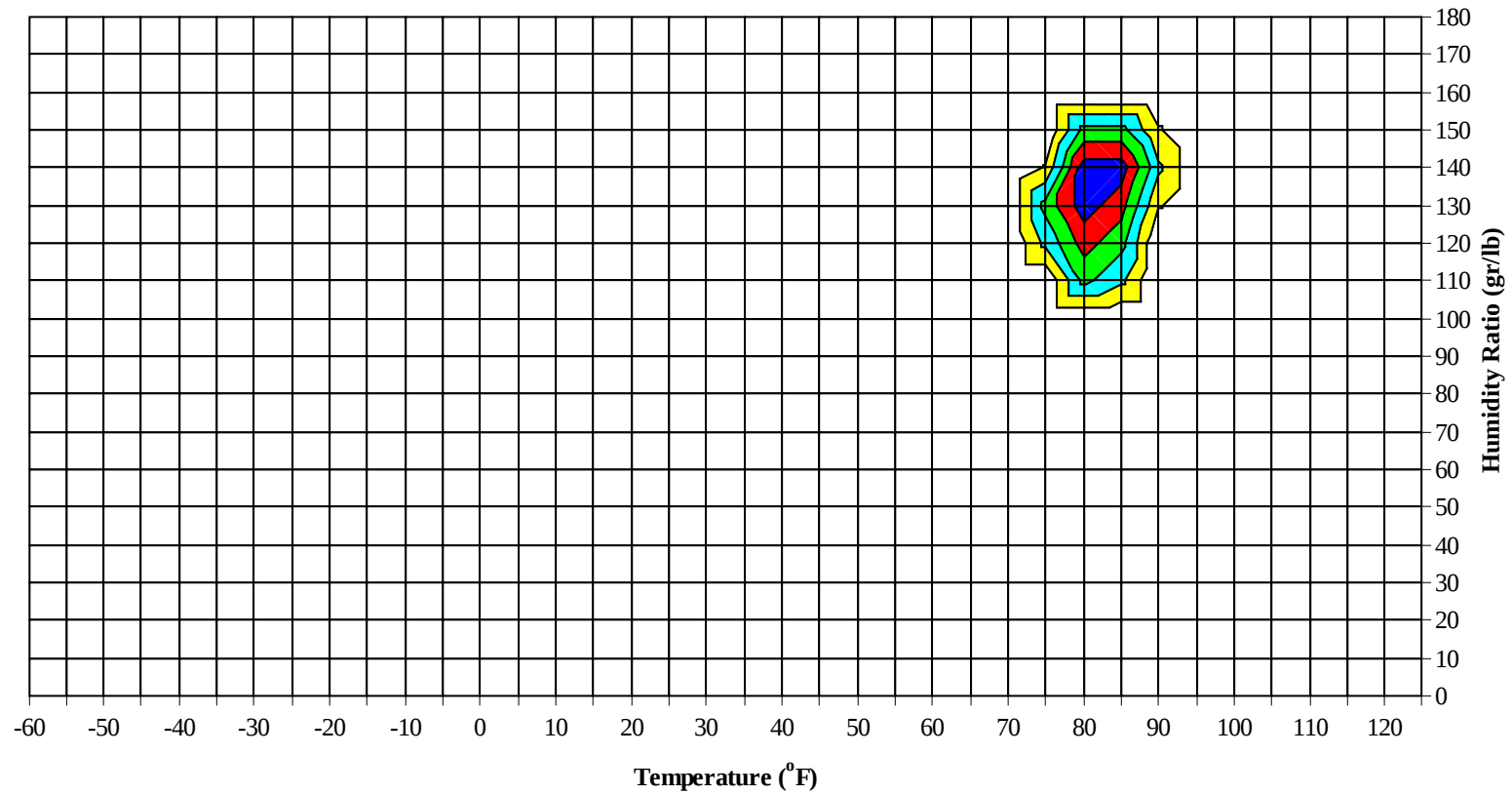
Average Annual Climate



TRUK/MOEN ISLAND KA

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Long Term Psychrometric Summary

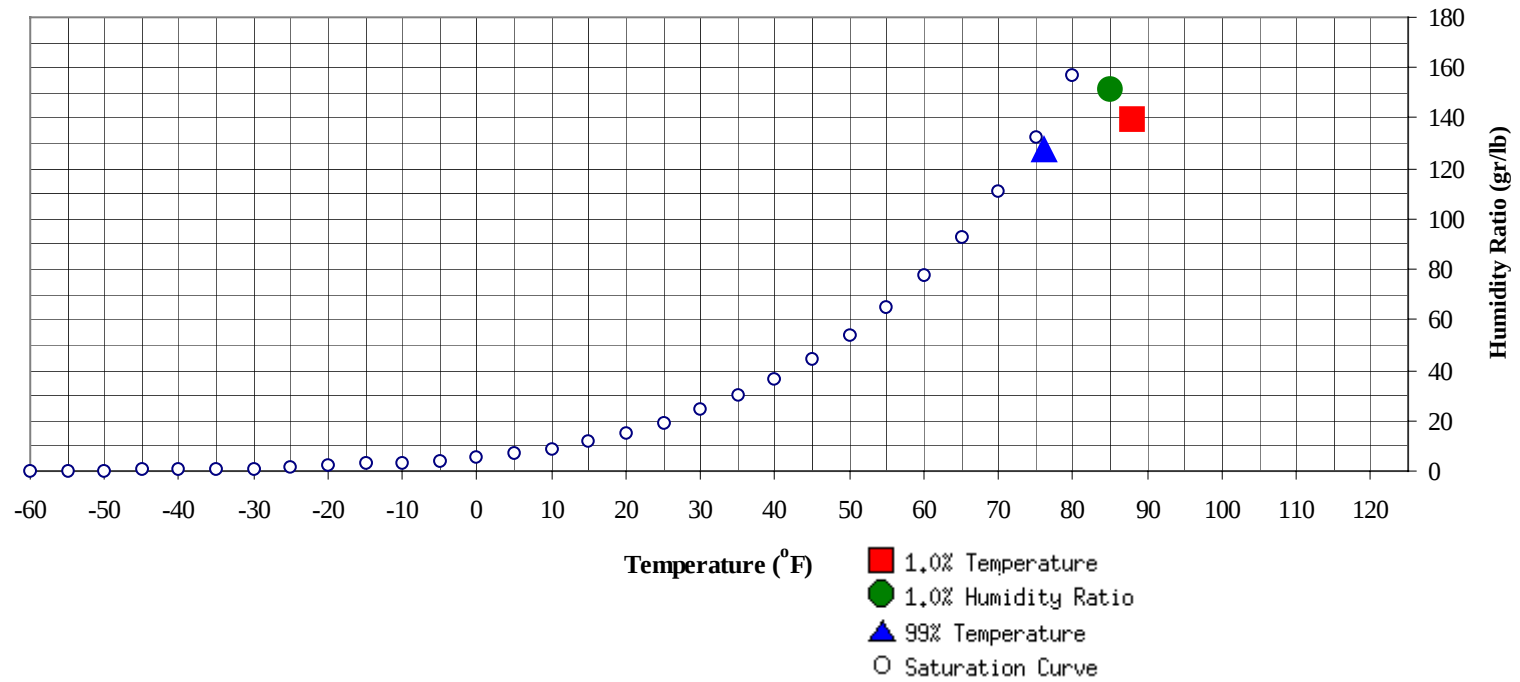


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

TRUK/MOEN ISLAND KA

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Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
99% Dry Bulb	76	127.8	38.2		151.2	84.9	80.5	78.9	44.1

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	88	139.7	79.6	43.1

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

Period of Record = 1973 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		
100 / 104															
95 / 99															
90 / 94								0	0	79.0		0		0	82.0
85 / 89	0	74	8	81	77.9	0	68	9	77	77.3	0	105	15	120	77.8
80 / 84	190	156	202	548	76.3	159	141	188	488	75.8	191	130	205	527	76.3
75 / 79	58	19	37	114	75.4	63	15	27	106	75.1	57	12	28	97	75.4
70 / 74	0	0	1	1	72.0	1	0	1	2	72.6	0	0	0	0	71.6
65 / 69						0	0	0	0	58.0	0	0	0	0	63.0
60 / 64						0	0	0	0		0	0	0	0	
55 / 59						0	0	0	0		0	0	0	0	53.0
50 / 54						0		0	0	47.0	0	0	0	0	50.0
45 / 49											0			0	46.0

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.

TRUK/MOEN ISLAND KA

WMO No. 913340

Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1973 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		
100 / 104							0		0	83.0					
95 / 99							0	0	0	87.0					
90 / 94							0	0	0	84.5		0		0	78.5
85 / 89	0	120	21	141	78.4	0	149	32	181	78.9	0	128	29	157	79.0
80 / 84	183	101	189	473	76.9	194	84	188	466	77.4	163	93	172	427	77.5
75 / 79	55	19	30	105	75.7	54	15	28	97	76.0	77	19	39	135	76.0
70 / 74	1	0	0	1	72.9	0	0	0	0	68.6	0	0	0	0	70.5
65 / 69	0	0	0	0		0	0	0	0	61.0	0	0		0	60.0
60 / 64	0		0	0				0	0	56.5					
55 / 59	0		0	0	51.0			0	0						
50 / 54															
45 / 49															

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WMO No. 913340

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1973 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		
100 / 104															
95 / 99															
90 / 94		0	0	0	79.3	0	0	0	0	81.2		0		0	88.0
85 / 89	0	124	33	157	78.9	0	126	35	161	78.9	0	134	34	168	78.8
80 / 84	143	102	164	409	77.2	139	100	160	399	77.4	147	89	163	399	77.4
75 / 79	105	22	51	177	75.9	108	23	52	182	76.0	92	15	41	148	75.8
70 / 74	0	0	1	1	72.1	1	0	1	2	72.8	1	0	1	2	72.8
65 / 69						0	0	0	0	58.0	0		0	0	57.0
60 / 64						0	0	0	0	59.0					
55 / 59						0	0	0	0	49.0					
50 / 54						0	0	0	0						
45 / 49							0		0	44.0					

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1973 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		
100 / 104															
95 / 99							0		0	87.0			0	0	82.0
90 / 94		1	0	1	80.3	0	1	0	1	80.5	0	1	0	1	81.5
85 / 89	0	144	31	175	79.1	1	140	24	165	79.1	0	109	15	124	78.7
80 / 84	156	88	174	419	77.4	178	86	183	447	77.6	208	123	208	539	77.1
75 / 79	92	15	42	149	75.9	61	13	32	106	76.2	40	15	26	81	75.9
70 / 74	0	0	1	1	72.4	0	0	0	0	72.0	0	0	0	0	72.8
65 / 69		0	0	0	52.0	0		0	0						
60 / 64						0		0	0						
55 / 59								0	0	47.0					
50 / 54															
45 / 49															

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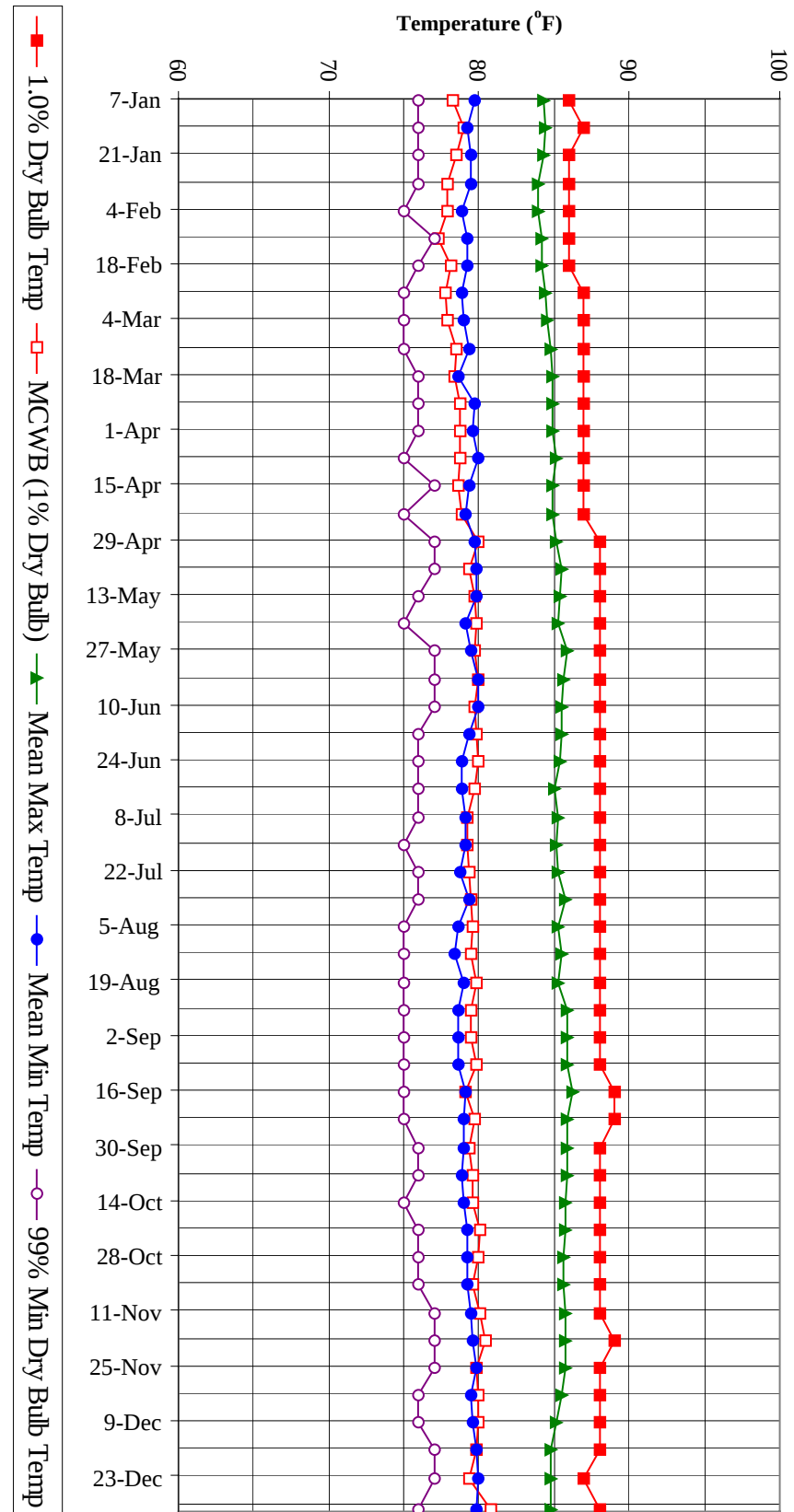
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1996

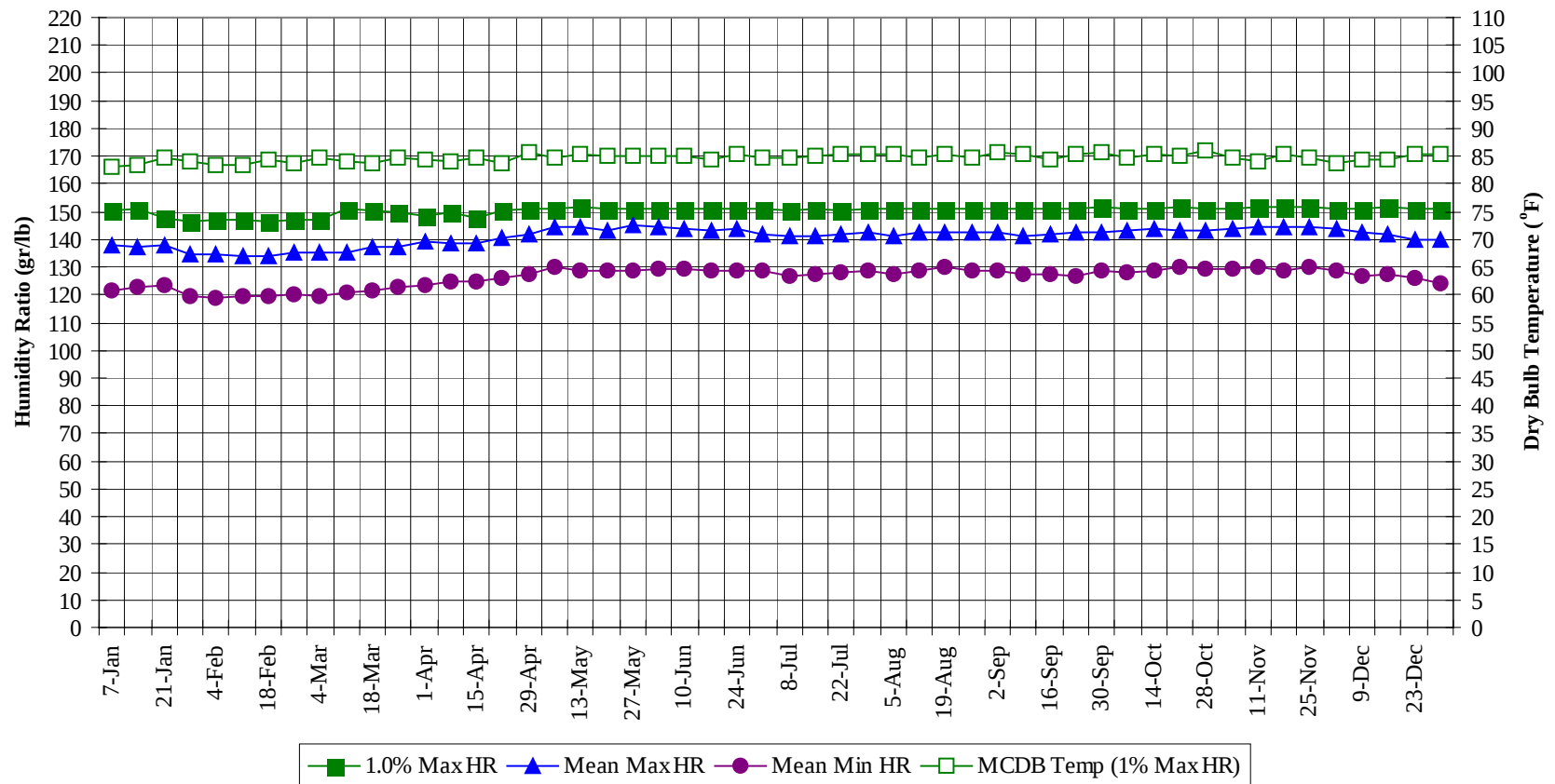
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		0		0	83.0
95 / 99		0	0	0	86.0
90 / 94	0	6	2	7	80.6
85 / 89	4	1416	284	1704	78.7
80 / 84	2053	1293	2199	5545	77.0
75 / 79	857	202	430	1488	75.8
70 / 74	5	3	4	12	72.2
65 / 69	1	0	0	1	58.4
60 / 64	0	0	0	0	57.8
55 / 59	0	1	1	2	49.6
50 / 54	0	0	0	0	48.5
45 / 49	0	0		0	45.0

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.

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary

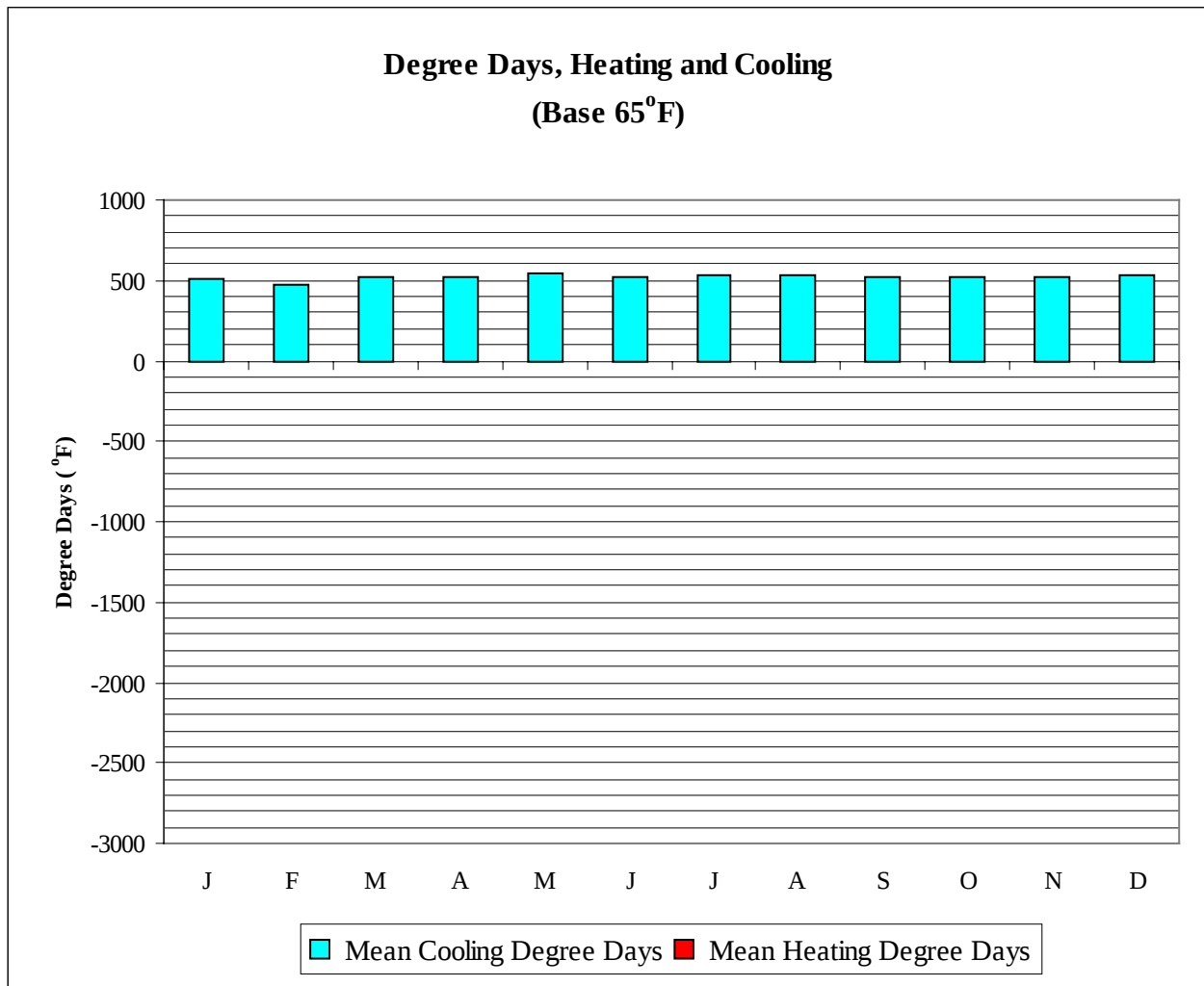


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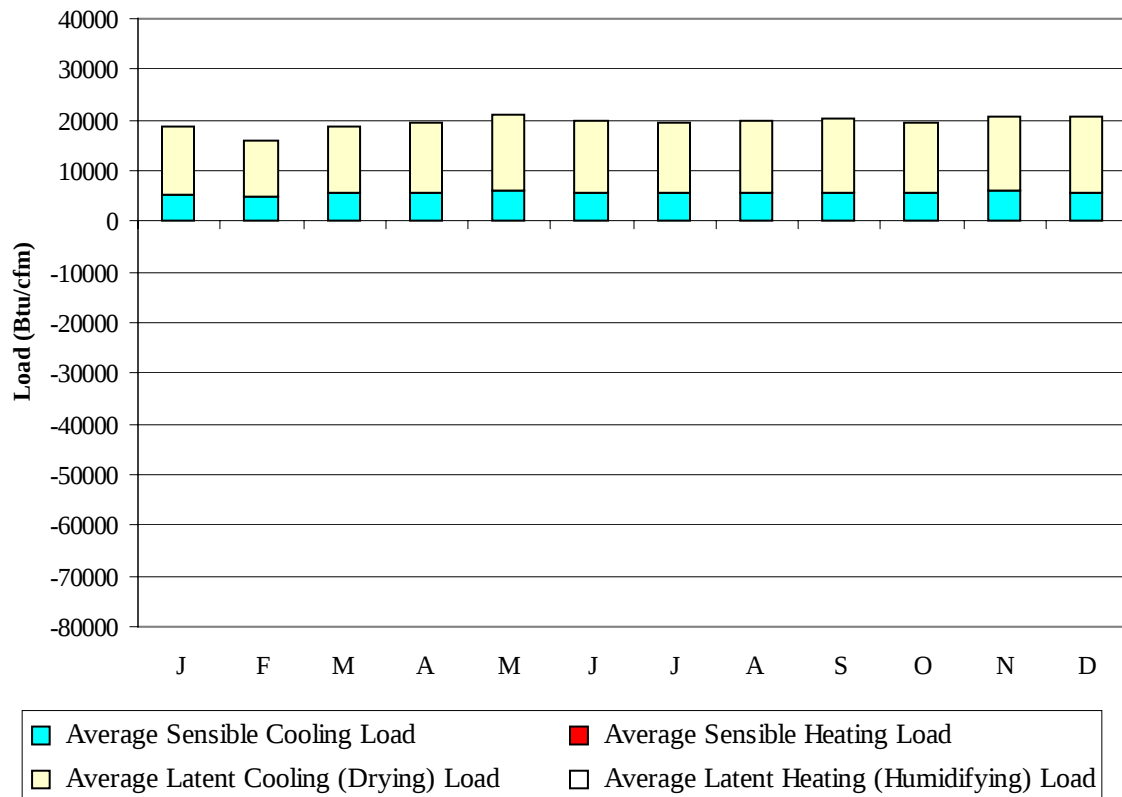
Long Term Dry Bulb Temperature and Humidity Summary

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	86.0	78.3	84.3	79.7	76.0	150.5	83.2	138.0	121.3
14-Jan	87.0	78.9	84.4	79.2	76.0	151.2	83.4	137.4	122.8
21-Jan	86.0	78.5	84.3	79.4	76.0	147.7	84.6	138.0	123.4
28-Jan	86.0	77.9	84.0	79.5	76.0	146.3	84.1	134.7	119.2
4-Feb	86.0	77.9	84.0	78.9	75.0	147.0	83.5	134.3	119.1
11-Feb	86.0	77.3	84.2	79.2	77.0	147.0	83.5	134.1	119.8
18-Feb	86.0	78.1	84.2	79.2	76.0	146.3	84.4	134.2	119.5
25-Feb	87.0	77.7	84.4	78.9	75.0	147.0	83.8	135.3	120.0
4-Mar	87.0	77.8	84.6	79.0	75.0	147.0	84.7	135.1	119.8
11-Mar	87.0	78.5	84.8	79.4	75.0	151.2	84.1	135.2	120.5
18-Mar	87.0	78.3	84.9	78.6	76.0	150.5	83.6	137.0	121.5
25-Mar	87.0	78.7	84.9	79.7	76.0	149.8	84.8	137.6	122.6
1-Apr	87.0	78.8	84.9	79.5	76.0	148.4	84.3	139.1	123.5
8-Apr	87.0	78.8	85.1	79.9	75.0	149.8	84.0	138.6	124.8
15-Apr	87.0	78.6	84.9	79.4	77.0	147.7	84.8	138.6	124.6
22-Apr	87.0	78.9	84.9	79.1	75.0	150.5	83.8	140.6	126.0
29-Apr	88.0	79.9	85.1	79.7	77.0	151.2	85.6	141.8	127.2
6-May	88.0	79.3	85.5	79.9	77.0	151.2	84.7	144.7	129.8
13-May	88.0	79.7	85.4	79.8	76.0	151.9	85.5	144.3	128.5
20-May	88.0	79.9	85.3	79.0	75.0	151.2	85.0	142.9	128.4
27-May	88.0	79.8	85.9	79.5	77.0	151.2	85.2	145.0	128.8
3-Jun	88.0	80.0	85.6	79.9	77.0	151.2	85.0	144.6	129.2
10-Jun	88.0	79.7	85.5	80.0	77.0	151.2	85.0	143.9	129.4
17-Jun	88.0	79.8	85.5	79.3	76.0	151.2	84.5	143.3	128.5
24-Jun	88.0	80.0	85.4	78.9	76.0	151.2	85.4	143.6	128.9
1-Jul	88.0	79.6	85.0	78.9	76.0	151.2	84.7	141.7	128.6
8-Jul	88.0	79.2	85.2	79.0	76.0	150.5	84.7	141.3	127.0
15-Jul	88.0	79.2	85.2	79.1	75.0	151.2	85.1	141.3	127.5
22-Jul	88.0	79.4	85.3	78.8	76.0	150.5	85.3	141.8	127.8
29-Jul	88.0	79.5	85.8	79.4	76.0	151.2	85.4	142.5	128.6
5-Aug	88.0	79.6	85.3	78.6	75.0	151.2	85.4	141.3	127.7
12-Aug	88.0	79.5	85.4	78.4	75.0	151.2	84.8	142.7	128.7
19-Aug	88.0	79.8	85.2	79.0	75.0	151.2	85.2	142.8	129.7
26-Aug	88.0	79.5	85.8	78.6	75.0	151.2	84.9	142.7	128.6
2-Sep	88.0	79.4	85.9	78.7	75.0	151.2	85.6	142.5	128.9
9-Sep	88.0	79.8	85.8	78.6	75.0	151.2	85.3	141.3	127.2
16-Sep	89.0	79.1	86.2	79.0	75.0	151.2	84.5	142.0	127.4
23-Sep	89.0	79.7	85.9	79.0	75.0	151.2	85.4	142.5	127.0
30-Sep	88.0	79.3	85.9	79.0	76.0	151.9	85.8	142.6	128.7
7-Oct	88.0	79.6	85.9	78.9	76.0	151.2	84.8	143.1	128.3
14-Oct	88.0	79.6	85.7	79.0	75.0	151.2	85.5	144.0	128.7
21-Oct	88.0	80.0	85.7	79.2	76.0	151.9	85.1	143.5	130.1
28-Oct	88.0	79.9	85.7	79.2	76.0	151.2	86.0	142.9	129.7
4-Nov	88.0	79.6	85.6	79.2	76.0	151.2	84.7	144.0	129.1
11-Nov	88.0	80.0	85.8	79.5	77.0	151.9	84.2	144.6	129.8
18-Nov	89.0	80.5	85.7	79.6	77.0	151.9	85.5	144.5	128.9
25-Nov	88.0	79.9	85.7	79.8	77.0	151.9	84.9	144.7	130.0
2-Dec	88.0	80.0	85.4	79.5	76.0	151.2	83.8	143.8	128.6
9-Dec	88.0	80.0	85.1	79.6	76.0	151.2	84.3	142.7	127.0
16-Dec	88.0	79.8	84.7	79.8	77.0	151.9	84.5	141.7	127.4
23-Dec	87.0	79.3	84.8	80.0	77.0	151.2	85.3	140.1	125.8
31-Dec	88.0	80.8	84.8	79.8	76.0	151.2	85.4	140.1	124.2



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	513	0
FEB	468	0
MAR	523	0
APR	516	0
MAY	541	0
JUN	517	0
JUL	530	0
AUG	529	0
SEP	517	0
OCT	517	0
NOV	526	0
DEC	533	0
ANN	6230	0

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



	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	5359	0	13143	0
FEB	4842	-10	11201	0
MAR	5603	-12	13268	0
APR	5620	-2	13893	0
MAY	6027	-1	14953	0
JUN	5654	0	14334	0
JUL	5744	0	13913	0
AUG	5691	-12	14251	0
SEP	5708	0	14450	0
OCT	5680	0	13838	0
NOV	5862	-1	14750	0
DEC	5816	0	14667	0
ANN	67606	-38	166661	0

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

No Solar Radiation
Data Available

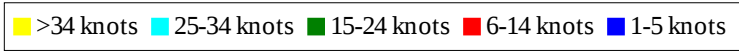
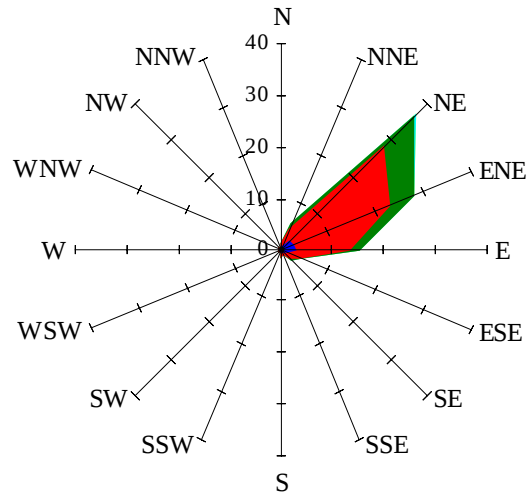


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

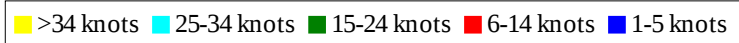
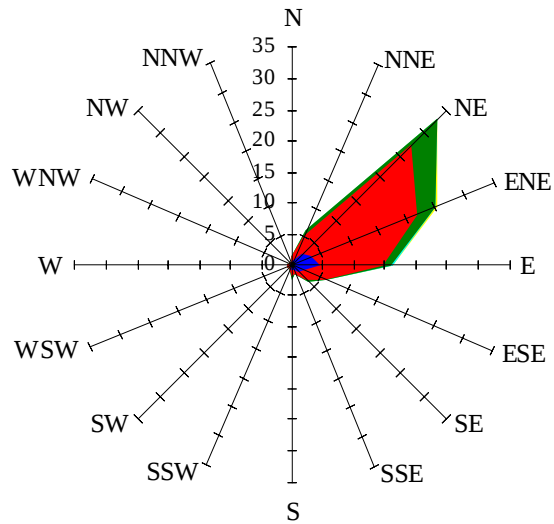
Labels of Percent Frequency on North Axis



Percent Calm = 1.50

Wind Summary - March, April, and May

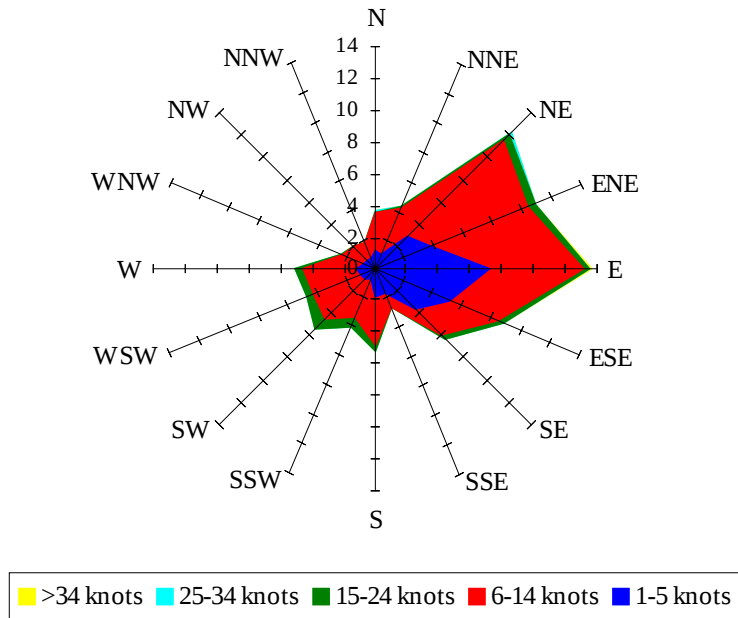
Labels of Percent Frequency on North Axis



Percent Calm = 2.22

Wind Summary - June, July, and August

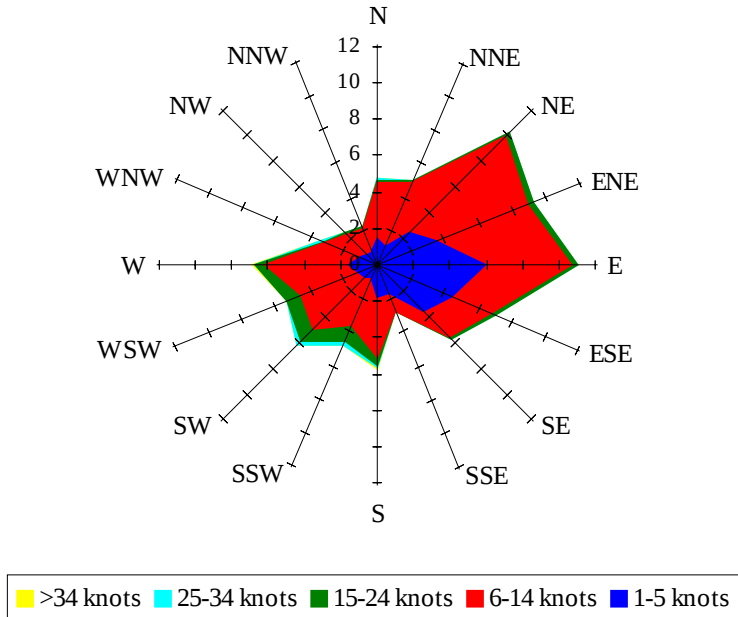
Labels of Percent Frequency on North Axis



Percent Calm = 7.70

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 8.02