

TINKER AFB	OK	
Latitude = 35.42 N		WMO No. 723540
Longitude = 97.38 W		Elevation = 1293 feet
Period of Record = 1967 to 1996		Average Pressure = 28.62 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	101	74	91	10.4	S
0.4% Occurrence	98	75	96	11.4	S
1.0% Occurrence	96	74	100	10.9	S
2.0% Occurrence	93	74	103	10.2	S
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	23	20	11	9.9	N
99.0% Occurrence	17	15	9	10.4	N
99.6% Occurrence	11	9	6	12.9	N
Median of Extreme Lows	6	5	4	11.9	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	81	92	149	11.6	S
0.4% Occurrence	78	91	130	10.9	S
1.0% Occurrence	77	90	125	10.5	S
2.0% Occurrence	76	89	120	10.5	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	151	88	0.95	11.7	S
0.4% Occurrence	137	84	0.88	8.6	S
1.0% Occurrence	130	86	0.82	10.9	S
2.0% Occurrence	125	83	0.79	10.3	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		202	1386	759	2265

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
8	3.8	90	2.7 + 1.6
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 (#)
62.7	17	8	38

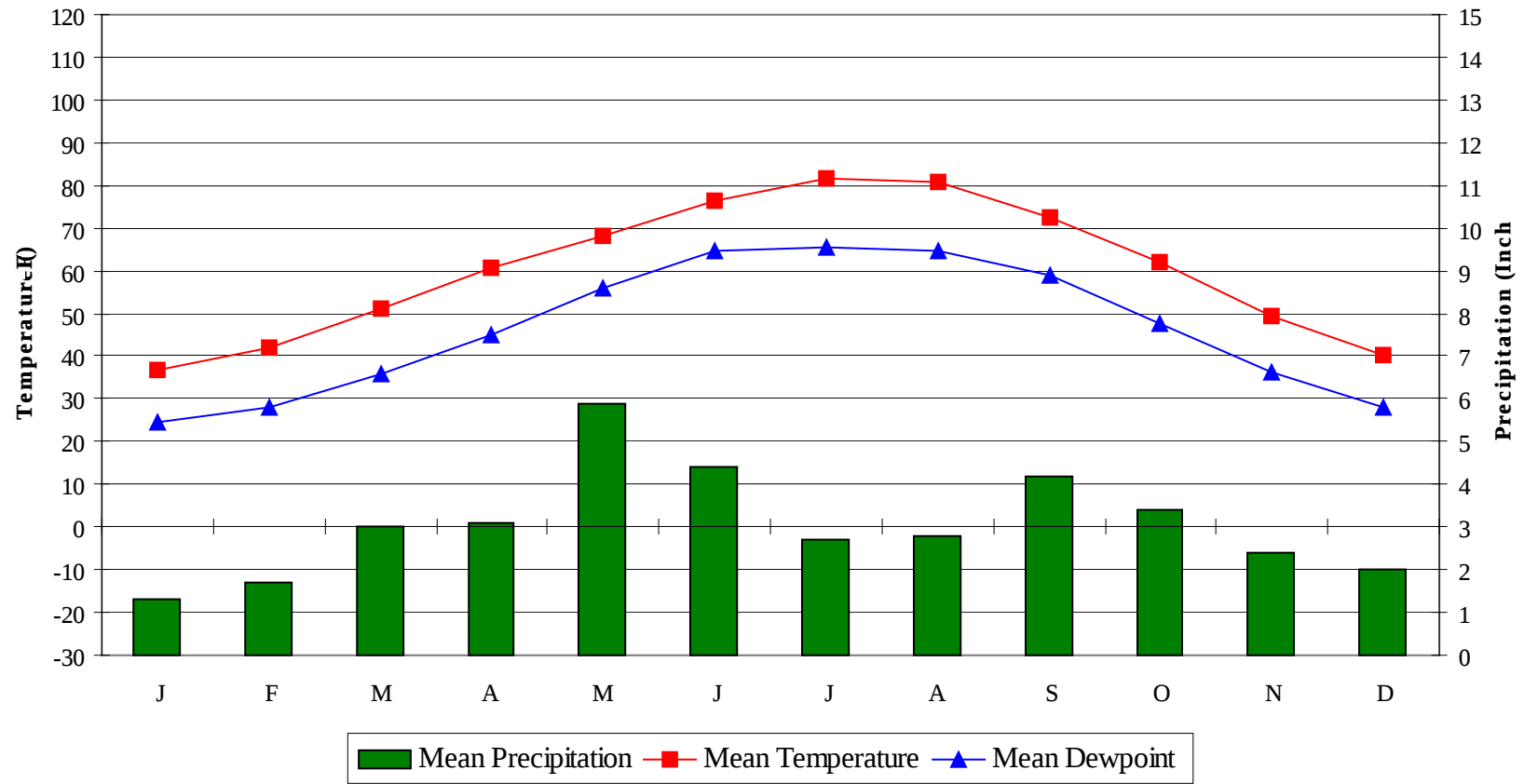
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

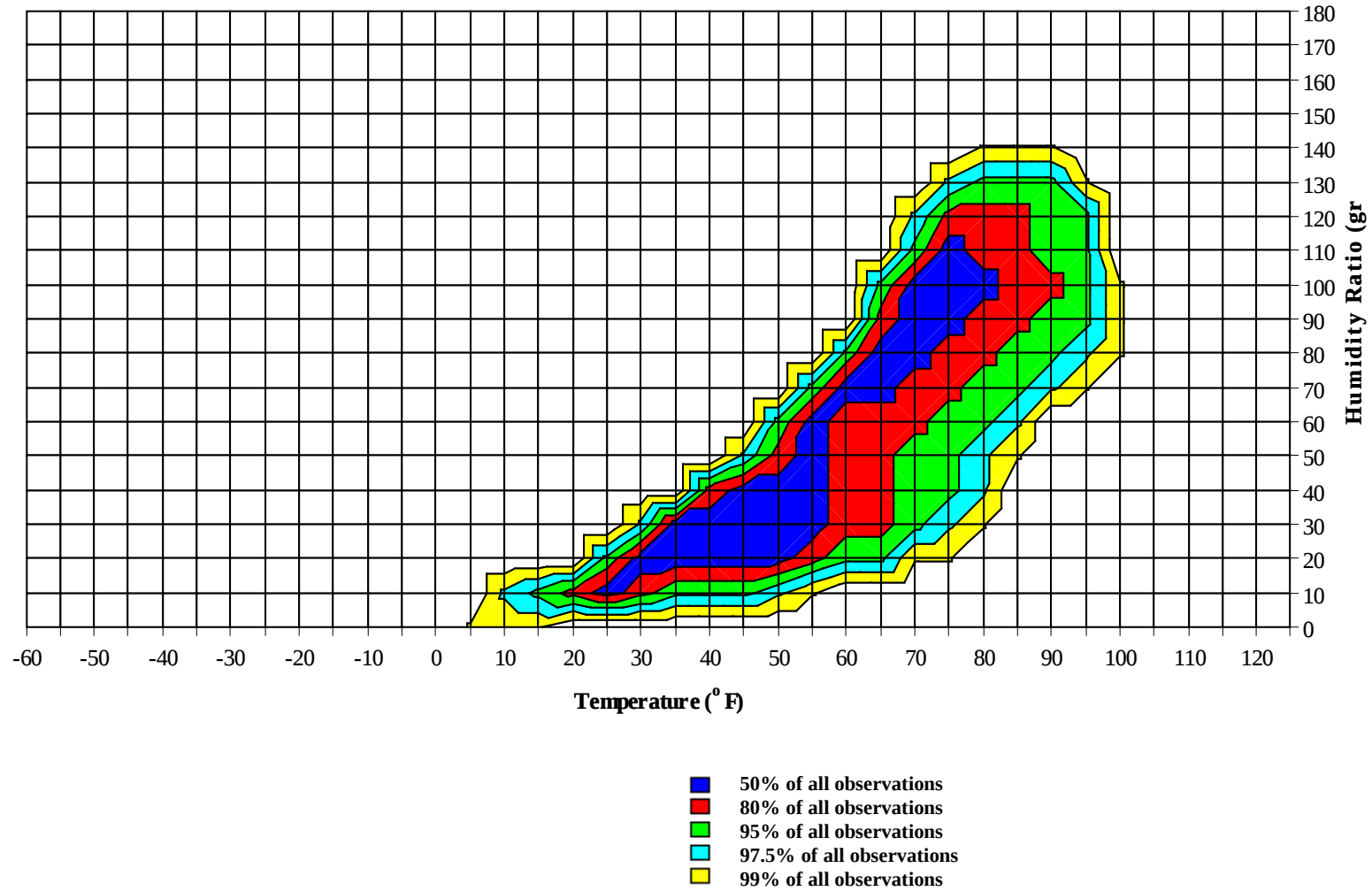


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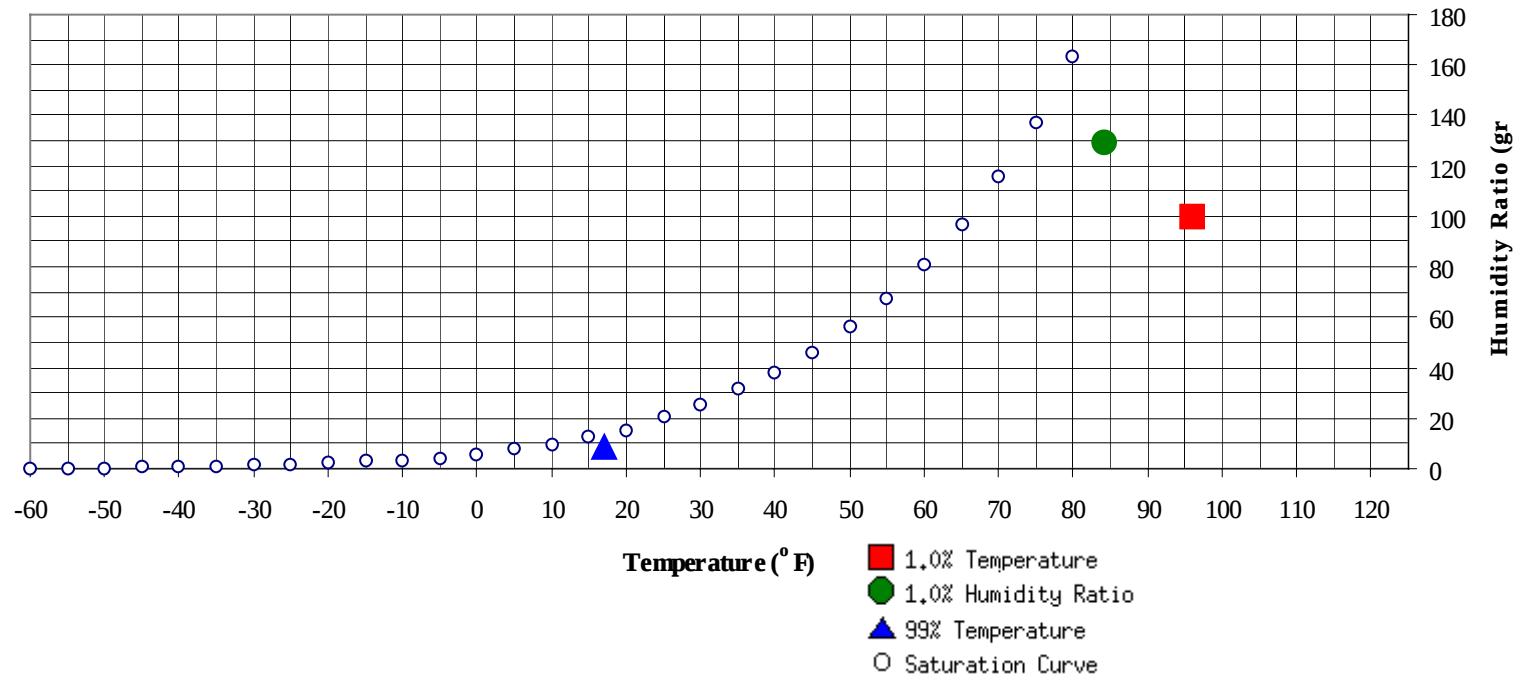
Long Term Psychrometric Summary



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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	17	8.7	5.4	Ratio	129.5	84.3	76.1	73.1	40.6

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	96	99.8	74.5	38.8

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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		
105 / 109															
100 / 104															
95 / 99															
90 / 94							0		0	57.0		0	0	0	61.0
85 / 89							0	0	0	55.8		1	0	2	60.1
80 / 84							1	0	1	57.5		4	1	5	61.3
75 / 79		0		0	53.2		3	1	4	56.2		11	5	16	59.9
70 / 74		1	0	1	51.7		7	2	10	54.5	0	20	12	33	58.1
65 / 69		4	1	5	52.0	0	13	8	21	52.6	6	29	22	58	55.4
60 / 64	1	13	6	19	50.9	3	18	14	35	50.5	16	35	33	83	52.8
55 / 59	4	20	13	36	47.8	10	23	20	53	47.6	30	32	37	99	49.2
50 / 54	8	27	22	57	44.3	17	26	27	69	44.3	34	33	40	107	45.4
45 / 49	16	30	30	76	40.7	23	27	29	79	40.7	40	29	35	103	41.3
40 / 44	31	34	37	102	36.9	34	27	35	97	37.2	45	23	28	96	37.4
35 / 39	43	35	44	123	33.0	43	26	31	100	33.1	36	14	18	68	33.1
30 / 34	51	31	36	118	29.0	37	23	24	83	28.7	24	10	12	45	29.1
25 / 29	37	22	26	85	24.2	26	13	17	56	24.1	10	3	4	17	24.2
20 / 24	25	15	16	56	19.5	17	8	9	34	19.6	5	2	2	8	19.6
15 / 19	18	9	11	38	15.3	8	5	4	16	15.1	2	1	0	3	15.1
10 / 14	9	5	5	20	10.5	5	2	3	9	10.5	1	0	0	1	11.1
5 / 9	5	1	1	8	6.1	2	0	0	3	5.9					
0 / 4	1	0	0	1	2.1	1	0	0	1	2.2					
-5 / -1						0			0	-1.0					
-10 / -6															

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		
105 / 109												0	0	0	75.6
100 / 104							0	0	0	69.7		1	0	1	76.9
95 / 99		0		0	66.5		0	0	0	72.3		6	2	8	76.5
90 / 94		1	0	1	67.6		3	1	4	72.6		30	11	41	75.4
85 / 89		3	1	4	66.7		18	6	24	70.8	0	55	28	84	73.8
80 / 84		18	6	23	64.6	1	41	21	62	68.7	8	61	53	123	71.4
75 / 79	0	33	16	49	62.2	8	55	41	105	66.4	52	44	63	159	69.2
70 / 74	7	41	33	81	60.2	31	51	56	138	63.8	81	27	48	156	66.6
65 / 69	25	42	45	112	57.9	62	38	54	154	60.9	59	11	25	95	63.0
60 / 64	40	37	45	122	54.2	64	23	39	126	57.1	29	4	8	42	58.9
55 / 59	51	29	39	120	50.3	44	12	19	75	53.1	9	0	1	10	54.3
50 / 54	44	20	27	91	46.0	26	5	9	40	48.6	1	0	0	1	50.5
45 / 49	35	9	16	61	42.0	11	1	2	14	44.2					
40 / 44	25	6	8	39	38.3	2	0		2	40.6					
35 / 39	9	2	2	13	34.0										
30 / 34	3	0	1	4	29.7										
25 / 29	1	0		1	26.3										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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WMO No. 723540

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		
105 / 109		1	0	1	73.6										
100 / 104		9	3	11	74.1		7	1	8	74.0		0	0	1	75.9
95 / 99		32	12	43	74.6		30	11	41	74.3		7	2	9	73.0
90 / 94	0	62	29	91	74.1		60	27	88	73.9		21	6	27	72.6
85 / 89	3	64	50	118	72.9	1	60	47	108	72.4	0	36	16	52	71.5
80 / 84	30	47	71	148	71.3	24	45	64	133	70.8	4	47	34	85	69.4
75 / 79	102	22	54	178	69.7	89	27	55	171	69.2	28	45	52	125	67.5
70 / 74	82	8	23	113	67.4	87	12	31	130	66.8	64	35	54	152	65.3
65 / 69	25	2	5	32	63.4	34	6	10	49	62.8	54	23	36	113	61.2
60 / 64	5	1	1	7	59.1	11	1	2	13	59.2	43	14	23	79	56.6
55 / 59	0		0	0	55.5	2		0	2	54.6	25	6	12	43	52.2
50 / 54											15	4	5	24	48.1
45 / 49											5	1	2	8	43.7
40 / 44											2	0	0	2	39.7
35 / 39											0			0	36.3
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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WMO No. 723540

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		
105 / 109															
100 / 104															
95 / 99															
90 / 94		1	0	1	65.9										
85 / 89		9	1	10	67.1										
80 / 84	0	22	6	28	65.6		2	0	2	62.1					
75 / 79	1	38	18	57	63.4		8	1	8	61.2		0		0	54.6
70 / 74	11	43	35	88	61.5	1	16	6	22	59.9		3	0	3	56.3
65 / 69	30	43	46	120	58.7	8	26	15	49	57.7	1	9	2	13	56.2
60 / 64	47	37	49	133	55.2	13	30	26	69	54.0	5	18	8	31	53.1
55 / 59	52	27	41	119	51.0	21	36	34	91	49.9	5	25	15	46	48.4
50 / 54	48	17	29	94	46.8	32	36	39	106	45.6	12	32	26	69	44.6
45 / 49	34	7	15	55	42.3	39	33	43	114	41.7	24	37	42	102	40.8
40 / 44	19	3	6	28	38.5	43	27	34	104	37.7	43	37	48	129	37.3
35 / 39	6	1	1	9	34.2	41	16	26	83	33.5	51	34	41	126	33.1
30 / 34	1	0	1	1	29.0	27	7	11	46	28.7	47	24	31	102	29.1
25 / 29	0	0	0	0	22.8	10	3	6	19	24.1	31	13	17	60	24.4
20 / 24	0			0	20.8	4	0	1	5	19.8	14	6	8	29	19.7
15 / 19						1	0		1	15.4	6	4	4	13	15.3
10 / 14											4	2	3	9	10.3
5 / 9											3	2	2	7	5.4
0 / 4											1	0	1	3	1.1
-5 / -1											0	0	0	0	-3.0
-10 / -6											0			0	-6.0

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 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		
105 / 109		1	0	2	73.8
100 / 104		17	4	21	74.2
95 / 99		76	26	101	74.5
90 / 94	0	178	75	253	74.0
85 / 89	5	246	149	401	72.4
80 / 84	67	286	256	609	70.0
75 / 79	281	286	305	872	67.6
70 / 74	363	263	300	926	64.4
65 / 69	305	246	269	820	59.7
60 / 64	277	231	252	760	55.0
55 / 59	251	211	231	694	50.2
50 / 54	237	200	223	660	45.7
45 / 49	225	173	214	612	41.4
40 / 44	244	158	198	599	37.5
35 / 39	231	129	164	523	33.2
30 / 34	188	97	115	400	28.9
25 / 29	115	55	69	238	24.2
20 / 24	65	32	36	133	19.6
15 / 19	34	18	19	71	15.2
10 / 14	19	9	11	39	10.5
5 / 9	11	4	3	18	5.8
0 / 4	3	1	1	5	1.6
-5 / -1	0	0	0	0	-2.8
-10 / -6	0			0	-6.0

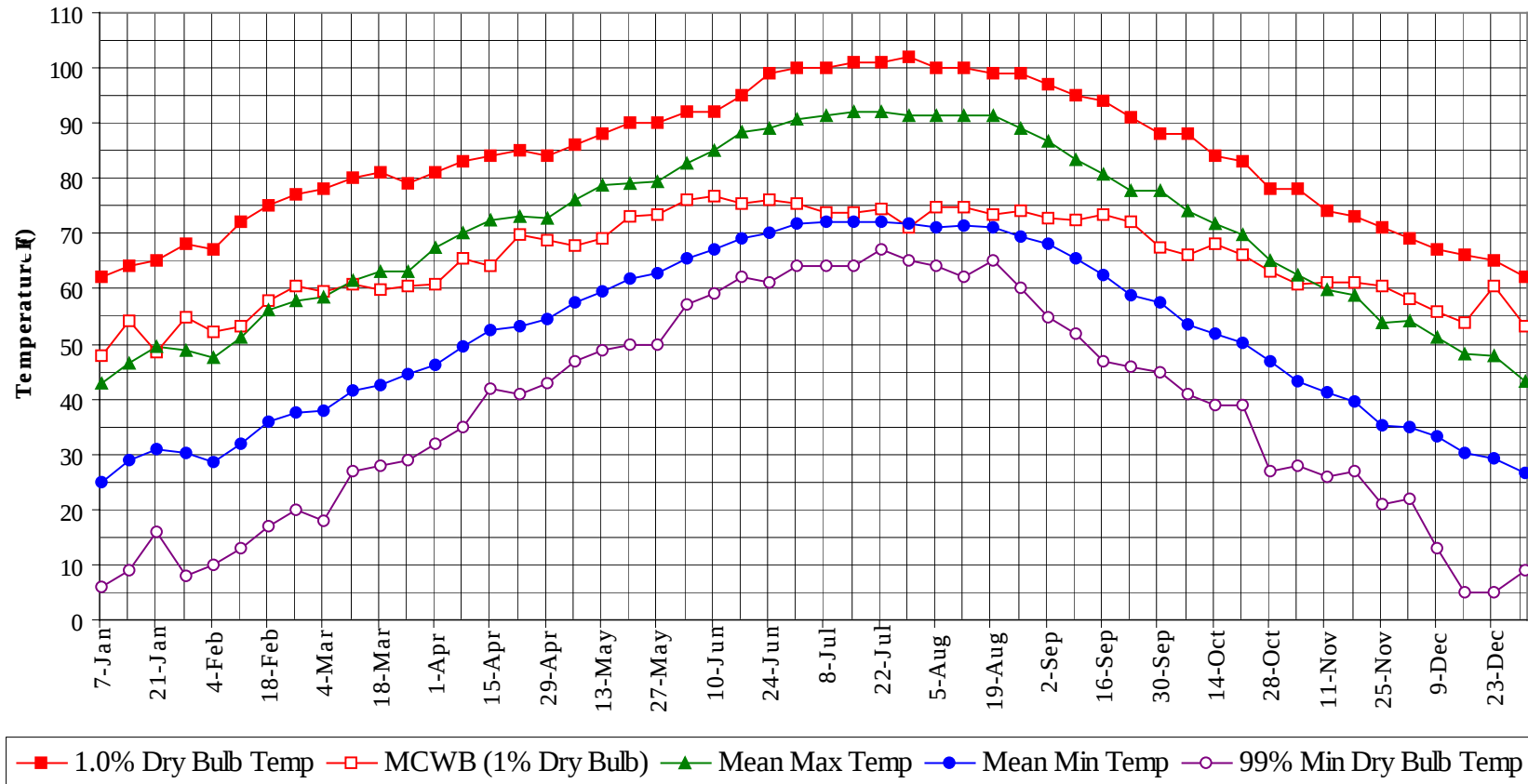
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Annual Summary of Temperatures

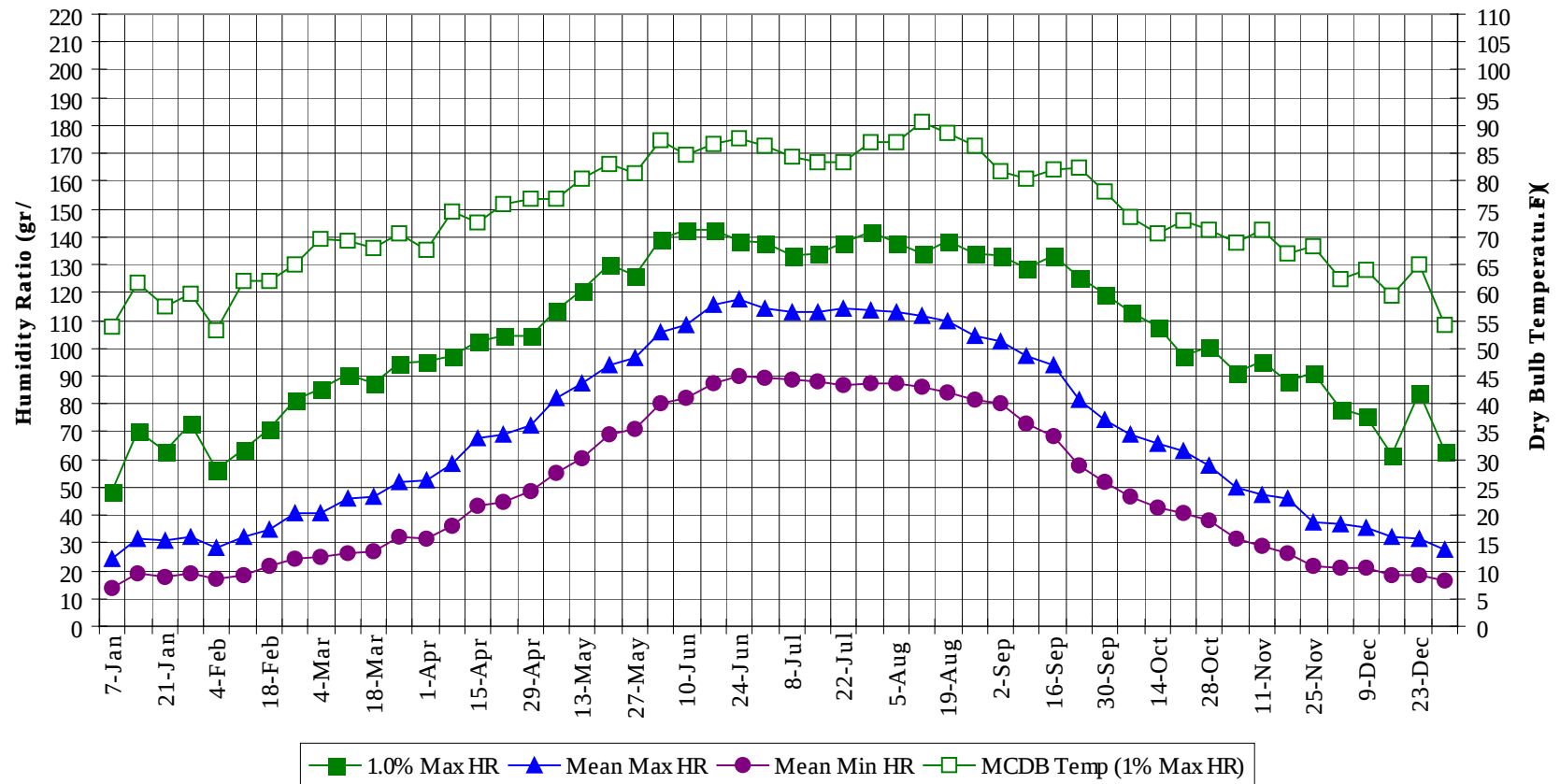


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Long Term Humidity and Dry Bulb Temperature Summary



TINKER AFB**OK****WMO No. 723540****Long Term Dry Bulb Temperature and Humidity Summary**

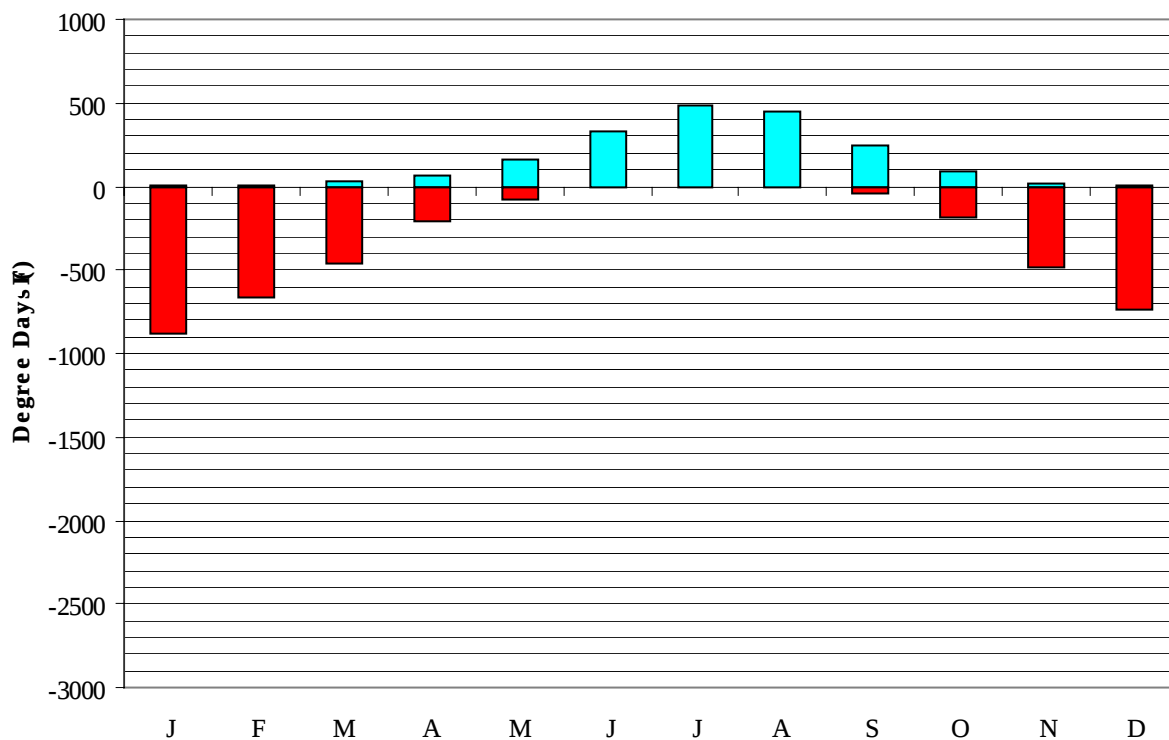
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	62.0	48.0	42.9	24.9	6.0	48.3	53.9	24.0	13.9
14-Jan	64.0	54.3	46.4	28.8	9.0	70.0	61.9	31.2	18.8
21-Jan	65.0	48.6	49.6	30.8	16.0	63.0	57.3	30.8	17.9
28-Jan	68.0	55.0	48.9	30.1	8.0	72.8	59.8	32.1	18.9
4-Feb	67.0	52.3	47.5	28.7	10.0	56.7	53.1	28.3	16.8
11-Feb	72.0	53.2	51.2	31.9	13.0	63.7	62.0	32.1	18.7
18-Feb	75.0	57.7	56.3	35.8	17.0	70.7	62.0	35.1	21.4
25-Feb	77.0	60.3	58.0	37.7	20.0	81.2	65.2	40.7	24.2
4-Mar	78.0	59.6	58.6	37.9	18.0	85.4	69.8	40.9	25.0
11-Mar	80.0	60.8	61.6	41.5	27.0	90.3	69.4	45.7	26.4
18-Mar	81.0	59.8	63.3	42.5	28.0	87.5	68.0	46.8	26.7
25-Mar	79.0	60.6	63.2	44.5	29.0	94.5	70.7	52.0	32.1
1-Apr	81.0	60.8	67.5	46.0	32.0	95.2	67.8	52.3	31.7
8-Apr	83.0	65.6	70.1	49.6	35.0	97.3	74.6	58.6	35.8
15-Apr	84.0	64.2	72.3	52.6	42.0	102.2	72.5	67.8	43.3
22-Apr	85.0	69.8	73.3	53.3	41.0	104.3	75.9	68.8	44.7
29-Apr	84.0	68.8	72.8	54.5	43.0	104.3	77.0	72.5	48.9
6-May	86.0	67.8	76.1	57.4	47.0	113.4	76.9	81.9	55.1
13-May	88.0	69.1	78.7	59.6	49.0	121.1	80.4	87.5	60.4
20-May	90.0	73.1	79.1	61.8	50.0	130.2	83.1	93.7	68.7
27-May	90.0	73.3	79.5	62.7	50.0	126.0	81.4	96.7	71.0
3-Jun	92.0	76.1	82.8	65.4	57.0	139.3	87.5	105.7	79.9
10-Jun	92.0	76.9	85.2	67.2	59.0	142.8	84.6	108.7	82.3
17-Jun	95.0	75.5	88.3	69.3	62.0	142.8	86.6	115.6	87.6
24-Jun	99.0	76.1	89.0	70.2	61.0	138.6	87.8	117.3	90.1
1-Jul	100.0	75.6	90.6	71.8	64.0	137.9	86.5	114.6	89.5
8-Jul	100.0	73.8	91.4	72.0	64.0	133.0	84.5	112.8	88.7
15-Jul	101.0	73.9	91.9	72.2	64.0	133.7	83.4	112.8	88.0
22-Jul	101.0	74.3	92.0	72.0	67.0	137.9	83.3	114.3	86.6
29-Jul	102.0	71.3	91.3	71.7	65.0	142.1	87.1	113.7	87.6
5-Aug	100.0	74.8	91.4	71.3	64.0	137.9	87.2	113.1	87.1
12-Aug	100.0	74.8	91.4	71.5	62.0	133.7	90.7	111.7	86.1
19-Aug	99.0	73.5	91.5	71.1	65.0	138.6	88.6	109.8	83.8
26-Aug	99.0	74.1	89.0	69.4	60.0	133.7	86.5	104.2	81.7
2-Sep	97.0	72.8	86.8	68.0	55.0	133.0	81.7	102.7	80.0
9-Sep	95.0	72.5	83.6	65.4	52.0	128.8	80.6	97.1	73.0
16-Sep	94.0	73.6	80.7	62.5	47.0	133.0	82.1	93.7	68.0
23-Sep	91.0	72.3	77.9	58.7	46.0	125.3	82.4	81.7	57.7
30-Sep	88.0	67.6	77.9	57.3	45.0	119.7	78.1	74.0	51.8
7-Oct	88.0	66.3	74.0	53.6	41.0	112.7	73.5	69.0	46.8
14-Oct	84.0	68.2	71.9	51.7	39.0	107.8	70.7	65.9	42.9
21-Oct	83.0	66.2	69.9	50.0	39.0	97.3	73.0	63.3	40.8
28-Oct	78.0	63.3	65.0	46.7	27.0	100.8	71.2	57.5	37.9
4-Nov	78.0	60.8	62.4	43.1	28.0	91.0	68.9	49.8	31.3
11-Nov	74.0	61.0	59.8	41.4	26.0	95.2	71.1	47.3	28.9
18-Nov	73.0	61.2	58.8	39.5	27.0	88.2	66.9	45.9	26.1
25-Nov	71.0	60.4	54.0	35.2	21.0	91.0	68.3	37.5	21.9
2-Dec	69.0	58.3	54.2	35.0	22.0	78.4	62.5	36.7	21.0
9-Dec	67.0	55.9	51.2	33.2	13.0	75.6	64.2	35.4	21.2
16-Dec	66.0	53.9	48.3	30.4	5.0	61.6	59.4	32.4	18.6
23-Dec	65.0	60.6	47.8	29.4	5.0	84.0	65.0	31.4	18.2
31-Dec	62.0	53.3	43.2	26.5	9.0	63.0	54.2	27.8	16.6

TINKER AFB

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WMO No. 723540

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



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

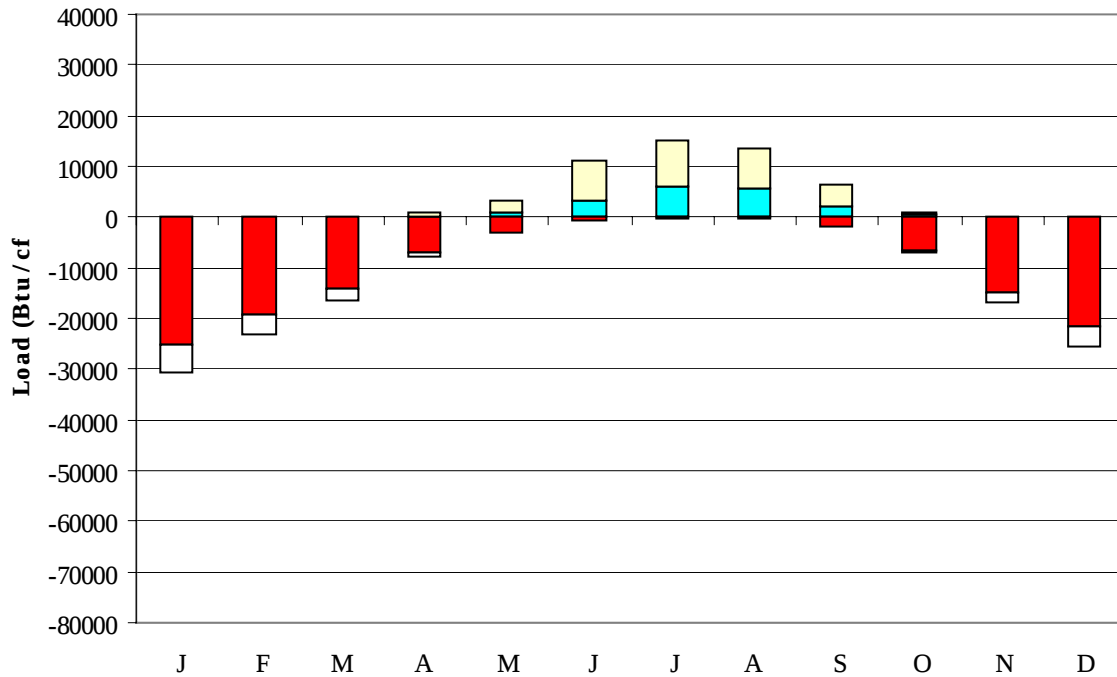
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	1	881
FEB	6	661
MAR	25	460
APR	71	207
MAY	161	72
JUN	330	8
JUL	482	1
AUG	453	2
SEP	246	43
OCT	86	187
NOV	14	483
DEC	2	739
ANN	1876	3744

TINKER AFB

OK

WMO No. 723540

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 (Drying) Load	■ Average Latent Heating (Humidifying) Load

	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	-25243	1	-5295
FEB	12	-19254	1	-3843
MAR	93	-14057	62	-2228
APR	322	-6977	404	-671
MAY	1023	-2912	2369	-23
JUN	3254	-486	7789	0
JUL	6026	-70	8931	0
AUG	5503	-147	8141	0
SEP	2217	-1747	4195	-22
OCT	451	-6438	652	-434
NOV	23	-14672	111	-2043
DEC	0	-21452	11	-3986
ANN	18924	-113455	32667	-18545

Average Annual Solar Radiation – Nearest Available Site

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

City: OKLAHOMA CITY
 State: OK
 WBAN No: 13967
 Lat(N): 35.4
 Long(W): 97.6
 Elev(ft): 1303

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.404
 Vert Gap: 0.289

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	870	1100	1450	1790	1960	2150	2200	1980	1600	1280	920	770	1510
	Std Dev	72	83	127	101	120	107	132	105	115	115	77	57	33
	Minimum	690	940	1150	1600	1770	1940	1850	1760	1310	1030	750	640	1450
	Maximum	1010	1260	1680	2030	2190	2340	2490	2170	1810	1460	1100	890	1560
	Diffuse	340	450	570	670	770	780	720	660	590	440	360	300	550
Clear Day	Global	1110	1450	1900	2320	2570	2650	2590	2360	2000	1550	1160	1000	1890
NORTH	Global	230	300	370	450	560	650	620	490	390	310	250	210	400
	Diffuse	230	300	370	440	500	530	510	450	390	310	250	210	370
Clear Day	Global	210	270	340	430	580	690	630	480	360	290	220	190	390
EAST	Global	570	690	850	1000	1050	1130	1190	1110	920	790	590	510	870
	Diffuse	280	360	450	540	590	620	610	560	490	380	300	250	460
Clear Day	Global	800	980	1200	1360	1430	1450	1420	1350	1210	1020	820	720	1150
SOUTH	Global	1340	1280	1200	1000	790	710	760	940	1130	1330	1290	1260	1090
	Diffuse	400	450	510	540	540	540	530	540	520	460	400	360	480
Clear Day	Global	2020	1990	1730	1270	910	770	830	1090	1510	1860	1970	1970	1490
WEST	Global	590	720	890	1050	1110	1200	1230	1130	970	820	620	520	900
	Diffuse	290	370	460	550	610	640	620	570	500	390	300	260	460
Clear Day	Global	800	980	1200	1360	1430	1450	1420	1350	1210	1020	820	720	1150

Average Annual Solar Heat and Illumination – Nearest Available Site

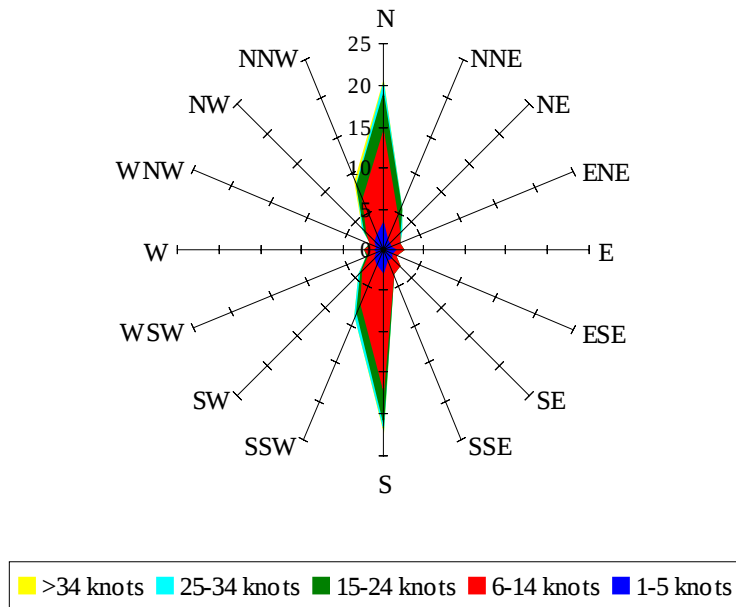
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	580	760	1030	1300	1430	1570	1610	1440	1150	900	620	500	1080
	Shaded	160	210	260	310	360	410	390	320	270	220	170	150	270
NORTH	Unshaded	150	190	240	290	340	380	360	300	250	200	160	130	250
	Shaded	400	480	610	710	740	800	850	790	660	560	410	360	610
EAST	Unshaded	370	440	550	640	670	720	760	710	590	510	380	330	560
	Shaded	1000	930	820	630	470	420	440	570	740	940	960	950	740
SOUTH	Unshaded	980	880	680	450	350	350	350	390	570	850	930	940	640
	Shaded	410	500	630	750	800	860	880	810	690	580	430	360	640
WEST	Unshaded	380	460	570	680	710	770	790	730	630	540	400	340	580
	Shaded													

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	33	72	88	77	40	37	78	103	101	77
	M.Cloudy	19	45	59	50	26	25	56	75	79	60
NORTH	M.Clear	9	14	15	14	10	23	16	17	17	16
	M.Cloudy	8	16	18	16	10	15	17	19	19	17
EAST	M.Clear	75	67	20	14	10	71	79	43	17	16
	M.Cloudy	24	35	20	16	10	34	50	35	19	17
SOUTH	M.Clear	31	65	80	70	37	10	21	38	38	21
	M.Cloudy	13	35	47	39	20	10	20	32	33	21
WEST	M.Clear	9	14	15	62	77	10	16	17	42	77
	M.Cloudy	8	16	18	36	34	10	17	19	36	55
M.Clear	(% hrs)	39	40	40	39	42	42	43	42	43	49

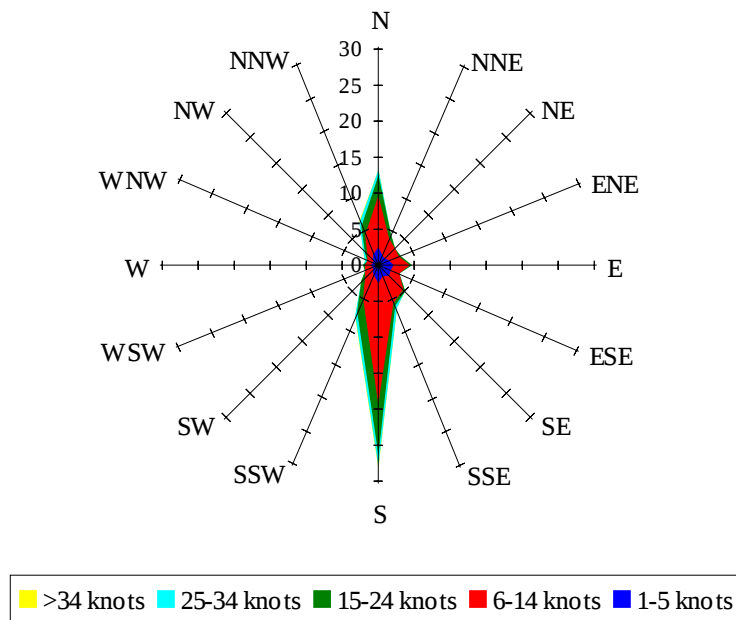
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	20	64	89	87	59	12	44	57	43	10
	M.Cloudy	12	40	59	62	42	8	28	36	26	7
NORTH	M.Clear	7	14	16	16	13	5	10	11	10	4
	M.Cloudy	6	14	18	18	14	4	10	13	10	3
EAST	M.Clear	56	77	41	16	13	42	50	12	10	4
	M.Cloudy	18	37	30	18	14	11	23	13	10	3
SOUTH	M.Clear	13	48	70	68	45	33	80	94	79	28
	M.Cloudy	7	27	42	46	29	9	33	42	31	9
WEST	M.Clear	7	14	16	44	76	5	10	13	52	37
	M.Cloudy	6	14	18	33	44	4	10	13	23	11
M.Clear	(% hrs)	47	48	46	45	50	43	43	42	43	44

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



Percent Calm = 6.02

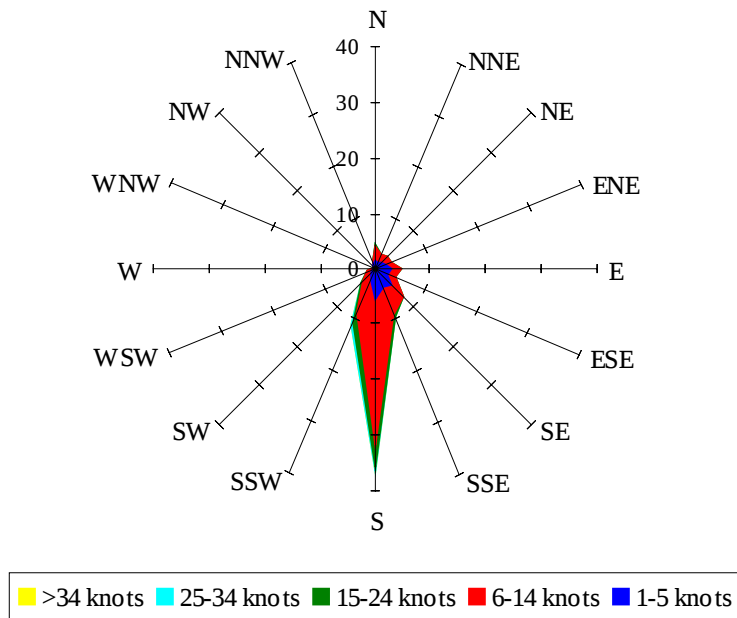
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 4.68

Wind Summary - June, July, and August

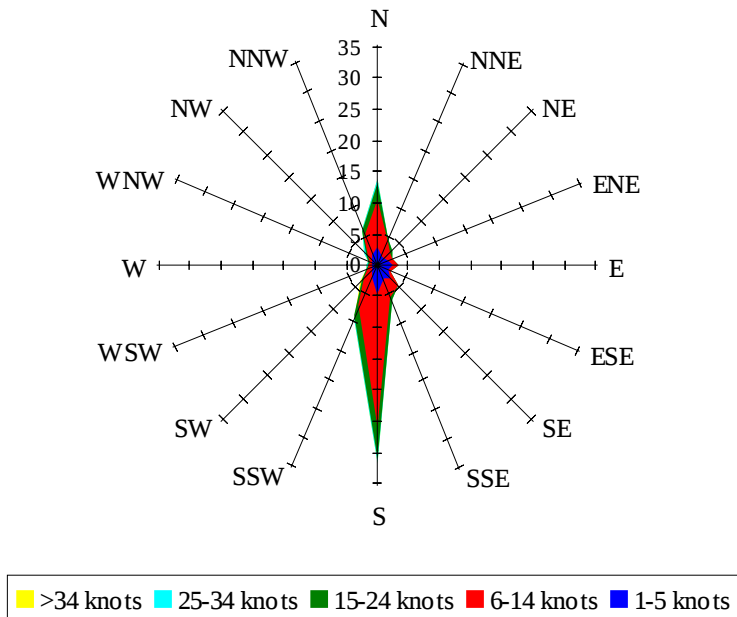
Labels of Percent Frequency on North Axis



Percent Calm = 5.53

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 5.69