

FORT BRAGG/SIMMONS NC

Latitude = 35.13 N

WMO No. 746930

Longitude = 78.93 W

Elevation = 243 feet

Period of Record = 1967 to 1996

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	99	77	106	6.7	SW
0.4% Occurrence	95	77	110	5.9	SW
1.0% Occurrence	93	76	111	5.9	SSW
2.0% Occurrence	91	75	108	5.8	SSW
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	29	25	14	3.6	N
99.0% Occurrence	24	21	11	4.0	N
99.6% Occurrence	20	17	9	4.9	N
Median of Extreme Lows	14	12	7	4.3	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	142	5.7	SW
0.4% Occurrence	79	90	133	5.1	SSW
1.0% Occurrence	78	88	128	4.9	SSW
2.0% Occurrence	77	87	124	5.0	SSW
	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	147	84	0.97	3.9	WSW
0.4% Occurrence	137	85	0.90	4.7	SW
1.0% Occurrence	133	83	0.88	4.7	SSW
2.0% Occurrence	128	82	0.85	3.8	SSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		99	1314	1112	2650

Other Site Data

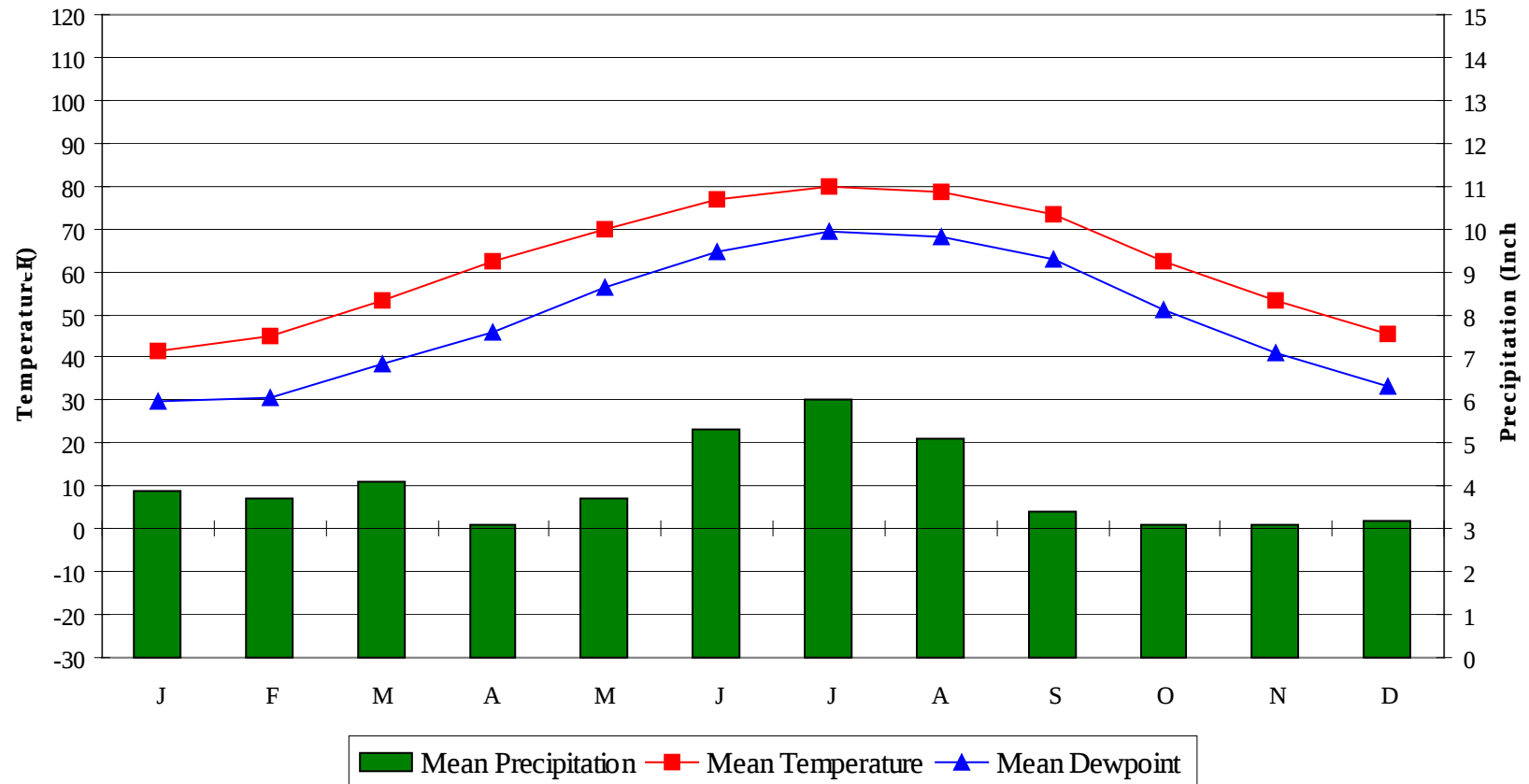
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
8	3.8	90	4.0 + 1.4
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
64.4	0	11	38

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

FORT BRAGG/SIMMONS NC

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Average Annual Climate

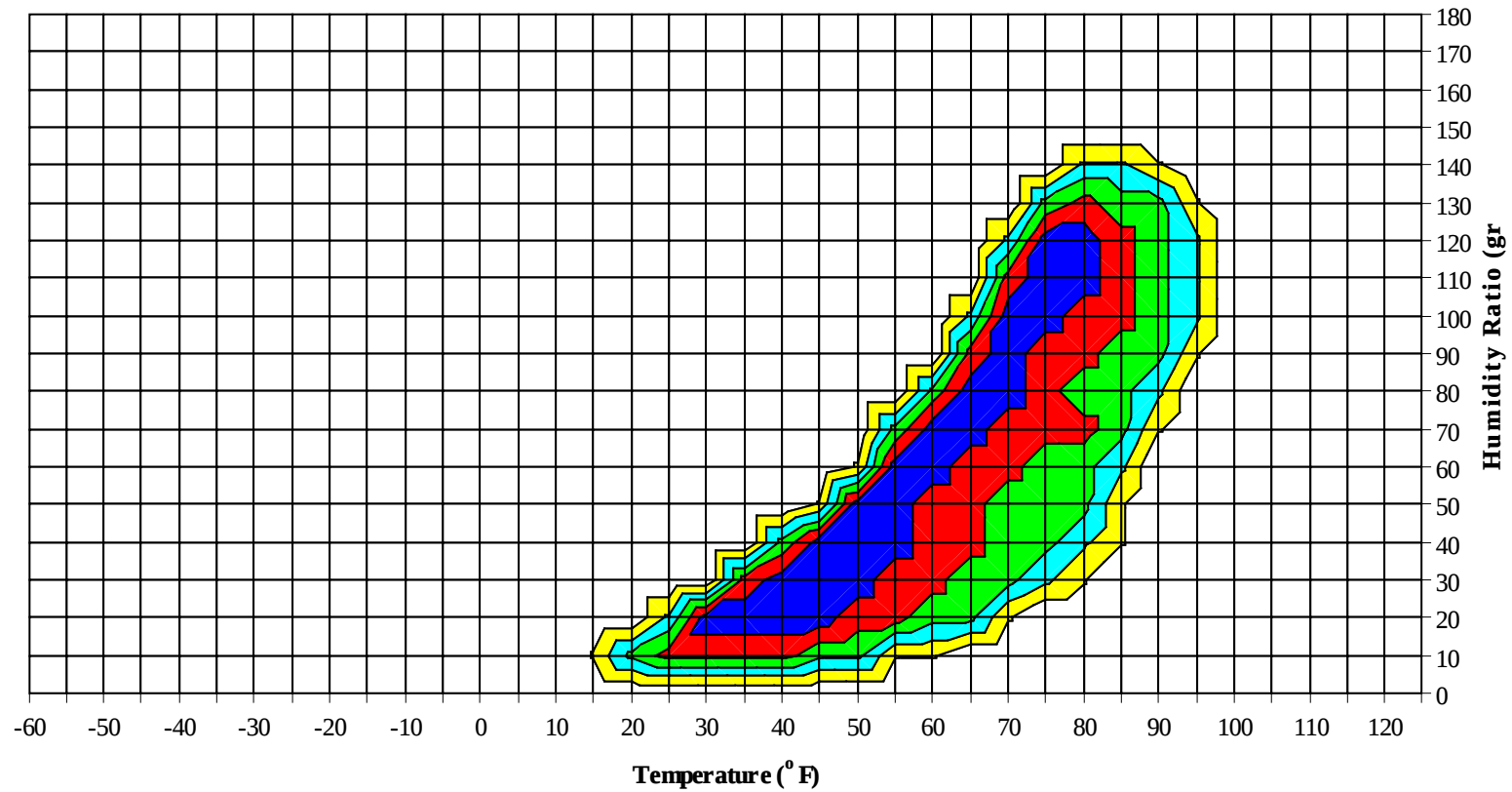


FORT BRAGG/SIMMONS

NC

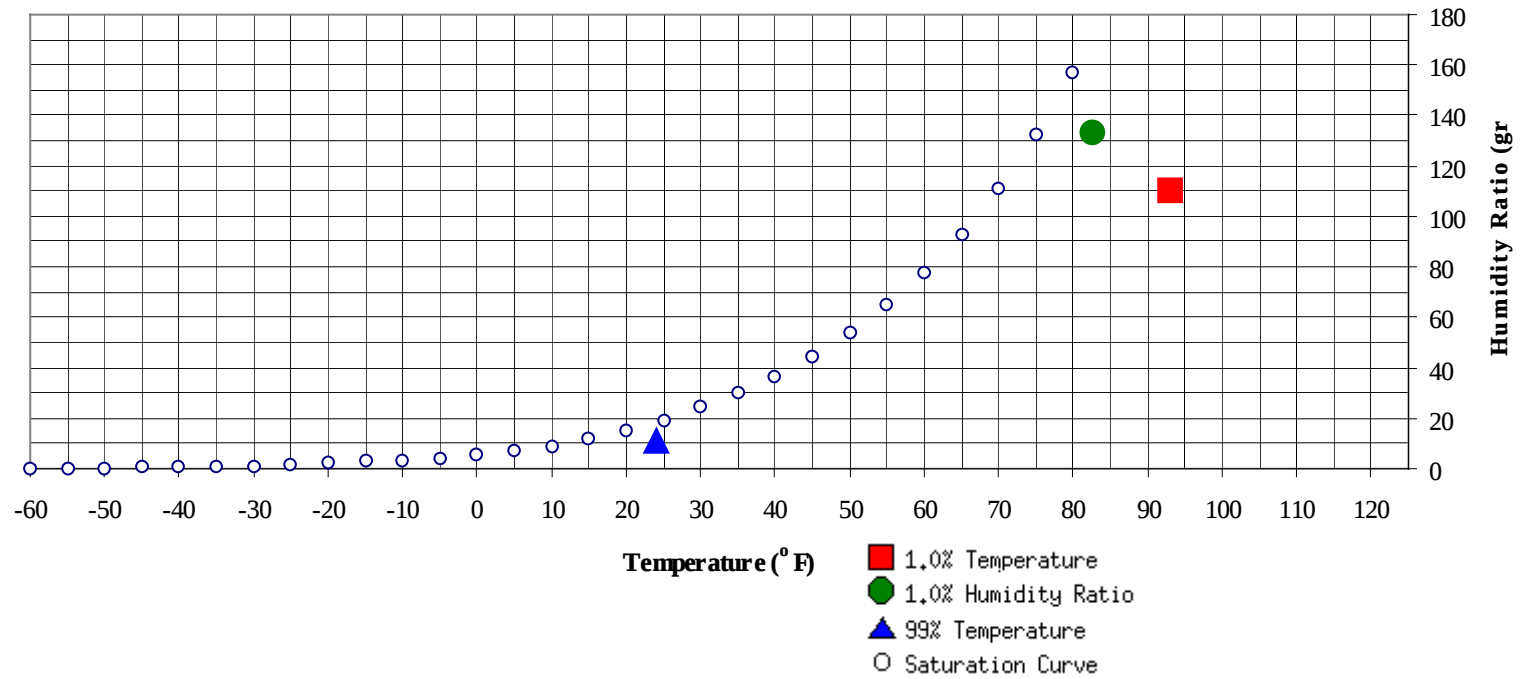
WMO No. 746930

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

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	24	10.8	7.4		133	82.7	77.1	75	40.7

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	93	110.6	76.2	39.7

FORT BRAGG/SIMMONS NC

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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															
85 / 89												2	0	2	66.7
80 / 84							0	0	0	62.2		7	3	10	64.2
75 / 79		1	0	1	62.9		3	1	4	63.1	0	15	7	22	61.4
70 / 74	0	5	1	7	61.4	0	9	3	12	58.9	2	23	14	38	59.2
65 / 69	2	10	6	18	59.0	2	17	10	28	56.6	8	33	27	68	57.1
60 / 64	6	17	12	35	54.9	8	24	19	52	53.8	20	40	39	99	54.2
55 / 59	10	23	18	52	50.4	14	25	26	65	49.9	31	38	39	108	49.9
50 / 54	15	33	26	74	46.0	18	30	26	74	45.1	38	35	40	113	45.8
45 / 49	26	42	37	105	41.6	24	32	32	87	40.9	39	28	33	100	41.6
40 / 44	35	43	47	125	37.6	29	33	36	98	36.7	42	16	25	83	37.2
35 / 39	46	33	39	118	33.1	42	27	33	102	32.6	34	8	14	55	32.9
30 / 34	45	23	31	99	28.4	44	17	25	87	28.5	25	3	6	34	28.8
25 / 29	33	12	18	63	24.0	25	5	9	39	23.7	7	0	1	8	24.1
20 / 24	19	4	7	30	19.3	12	2	3	17	19.5	1	1	0	2	19.9
15 / 19	8	2	2	12	14.8	4	0	0	5	15.6	1		0	1	16.4
10 / 14	3	0	0	4	10.5	1	0	0	1	11.5					
5 / 9	0	0	0	1	5.9	0			0	6.8					
0 / 4	0	0	0	0	-0.3										
-5 / -1	0			0	-2.8										

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															
100 / 104												1	0	1	75.1
95 / 99		0		0	70.0		1	0	1	74.5		7	2	9	75.4
90 / 94		2	1	3	67.2		9	2	11	71.4		28	10	38	74.3
85 / 89		12	4	16	65.3		27	10	37	70.1	0	60	28	88	72.5
80 / 84		25	11	37	63.8	1	49	25	74	67.8	7	67	48	122	71.0
75 / 79	0	36	21	57	62.1	7	59	42	108	65.7	44	47	65	156	69.7
70 / 74	7	44	37	87	59.9	37	48	63	147	64.3	98	23	60	180	67.8
65 / 69	29	41	47	117	58.0	71	29	50	150	61.6	56	5	19	81	63.4
60 / 64	49	37	43	129	54.6	55	17	28	101	57.2	23	3	6	31	58.5
55 / 59	42	24	33	99	50.3	39	6	18	63	53.1	10	0	1	11	54.1
50 / 54	41	14	23	78	46.3	26	2	8	37	48.8	1	0	0	2	49.7
45 / 49	38	4	13	56	42.4	10	1	1	12	44.6					
40 / 44	23	2	6	31	38.3	1		0	1	40.1					
35 / 39	9	0	1	10	34.0										
30 / 34	1			1	29.0										
25 / 29	0			0	26.0										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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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		
105 / 109						0			0	78.8					
100 / 104		2	1	3	77.3	1	0	1	1	78.2		0		0	76.0
95 / 99		17	5	22	77.2	9	2	11	11	77.0		2	0	3	76.1
90 / 94		47	17	64	76.5	38	12	50	50	76.2		13	3	16	75.5
85 / 89	2	79	39	120	74.9	1	71	31	102	74.6		42	13	54	73.3
80 / 84	21	60	62	143	73.7	12	66	58	136	73.2	1	62	32	95	71.0
75 / 79	97	30	78	205	72.4	77	41	82	200	71.9	27	54	60	142	69.7
70 / 74	101	11	43	154	69.6	113	17	51	181	69.2	80	38	67	184	67.5
65 / 69	22	1	4	27	64.3	34	4	11	50	64.1	58	19	34	111	62.7
60 / 64	5	0	0	5	60.1	10	0	2	12	59.0	38	8	20	66	58.2
55 / 59	1			1	54.9	2		0	2	55.0	23	2	8	33	53.5
50 / 54						0			0	51.0	11	0	2	13	49.2
45 / 49											2	0	0	2	45.3
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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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		
105 / 109															
100 / 104															
95 / 99		1	0	1	77.6										
90 / 94		1	0	1	76.6										
85 / 89		5	1	6	70.5		0		0	69.8					
80 / 84	0	25	5	30	68.7		2	0	2	66.4					
75 / 79	2	43	18	64	66.1	0	16	2	18	64.8		4	0	4	66.2
70 / 74	12	51	37	100	63.8	3	29	13	45	62.8	1	10	3	14	63.7
65 / 69	33	47	49	128	60.4	13	38	27	78	59.9	5	15	10	29	60.5
60 / 64	46	40	48	133	56.2	23	38	30	91	55.5	10	24	16	50	56.0
55 / 59	48	22	37	108	52.1	30	37	35	102	50.8	13	33	21	67	50.6
50 / 54	40	10	29	79	47.7	32	37	42	111	46.1	21	41	35	97	46.2
45 / 49	36	4	17	56	43.7	37	24	38	99	42.0	30	44	43	117	42.0
40 / 44	22	0	5	28	39.3	39	13	29	82	37.6	42	37	44	124	37.4
35 / 39	7		1	8	34.8	32	4	16	52	33.6	42	23	33	98	32.8
30 / 34	1		0	1	30.6	22	1	6	30	29.2	43	12	27	82	28.4
25 / 29	0			0	27.4	7	0	2	9	25.2	26	4	12	41	24.0
20 / 24						1	0	0	1	21.0	13	2	3	17	19.7
15 / 19											3	0	0	3	15.7
10 / 14											0		0	0	11.3
5 / 9											0		0	0	5.7
0 / 4															
-5 / -1															

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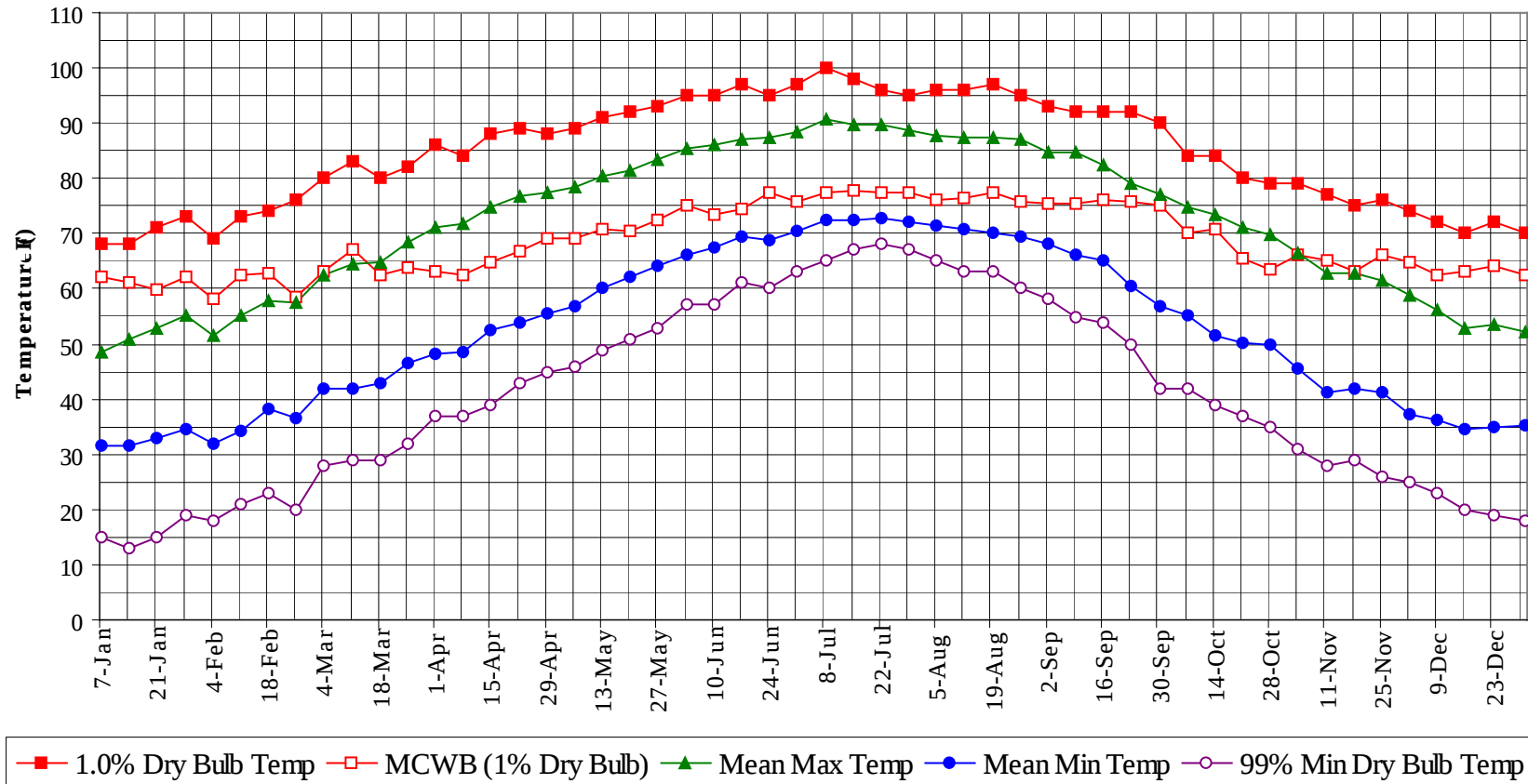
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1967 to 1996

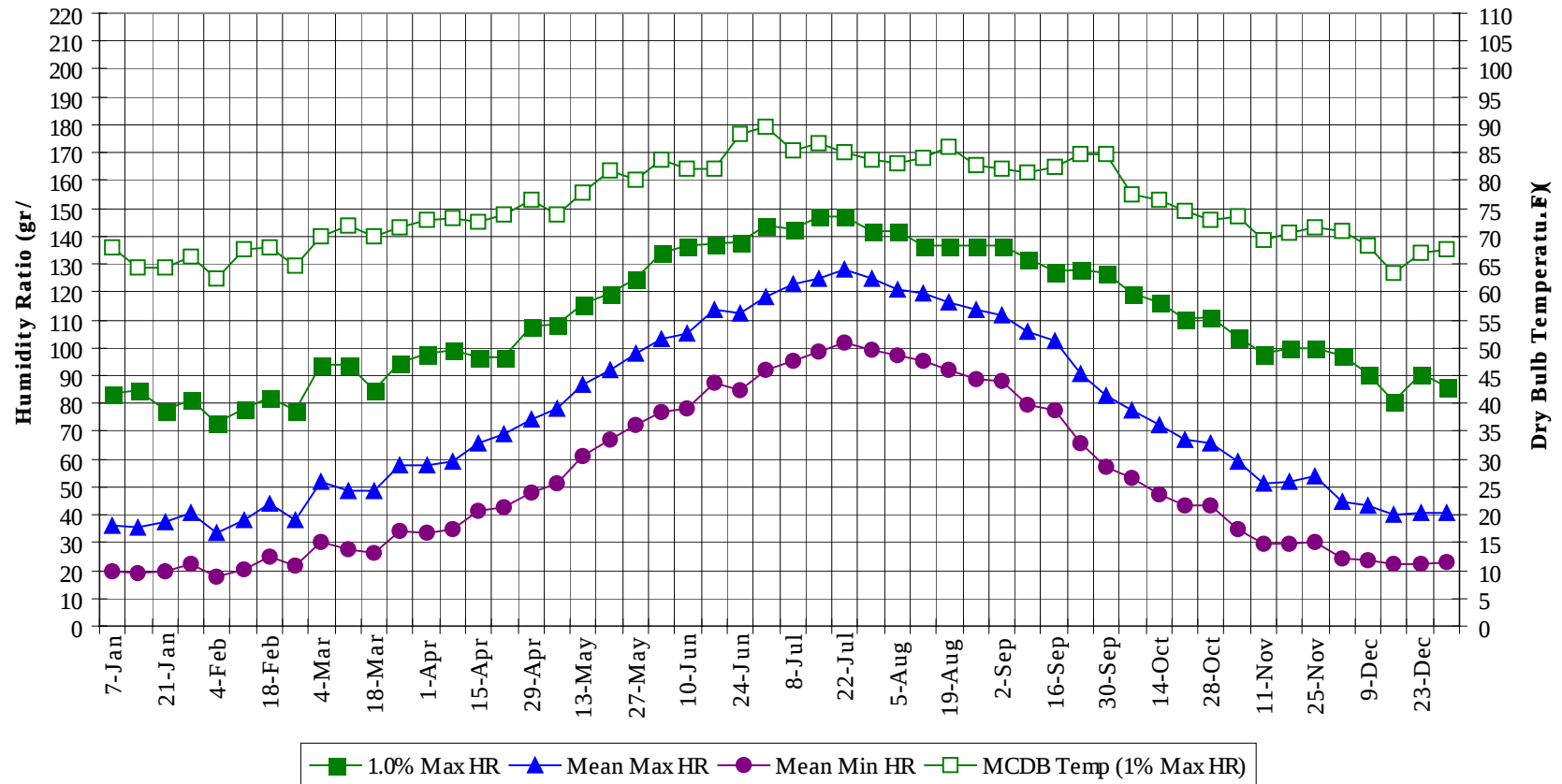
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
105 / 109	0			0	78.8	
100 / 104	4			1	5	76.9
95 / 99	37			9	46	76.7
90 / 94	139			45	184	75.5
85 / 89	3	298	127	427	73.2	
80 / 84	42	365	245	652	71.1	
75 / 79	255	347	377	979	69.3	
70 / 74	454	305	392	1150	66.2	
65 / 69	333	257	293	883	60.7	
60 / 64	292	246	263	801	55.8	
55 / 59	263	210	236	709	51.1	
50 / 54	243	203	232	678	46.4	
45 / 49	242	178	214	634	42.0	
40 / 44	234	145	194	572	37.5	
35 / 39	212	95	138	446	33.0	
30 / 34	182	57	97	335	28.5	
25 / 29	98	22	42	161	24.0	
20 / 24	46	8	13	67	19.5	
15 / 19	17	2	3	22	15.2	
10 / 14	4	0	1	5	10.7	
5 / 9	1	0	0	1	6.0	
0 / 4	0	0	0	0	-0.3	
-5 / -1	0			0	-2.8	

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



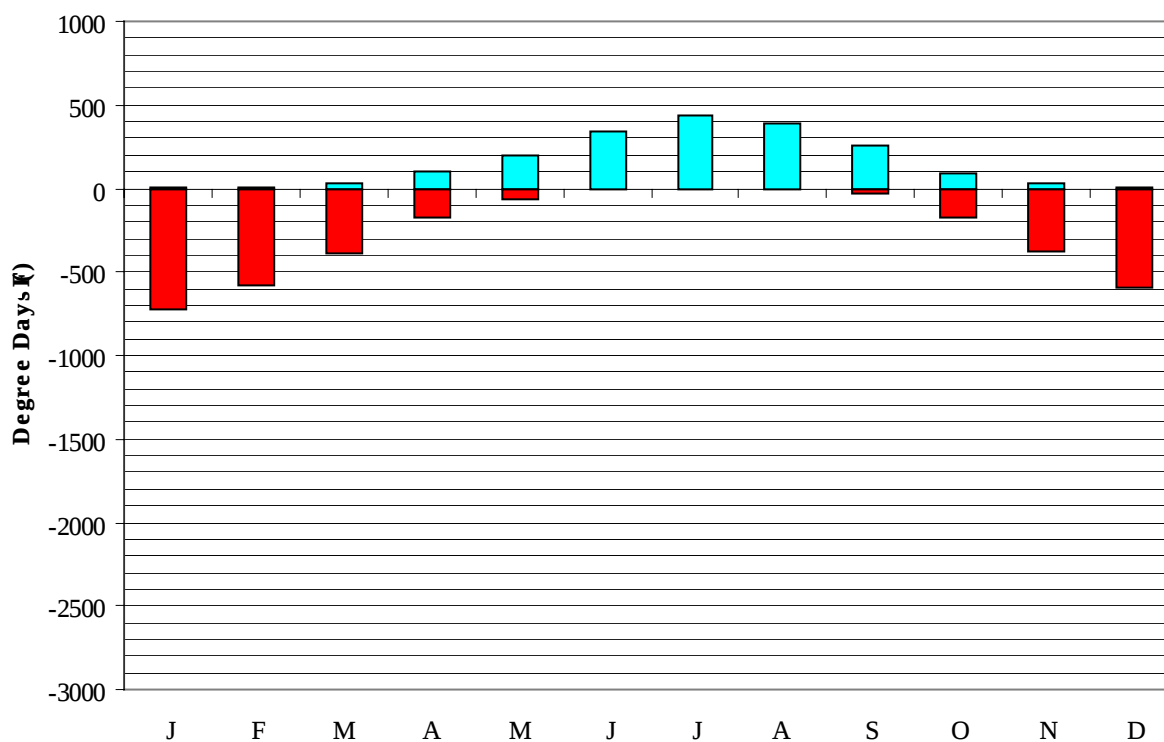
FORT BRAGG/SIMMONS NC

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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	68.0	62.1	48.6	31.6	15.0	83.3	68.1	35.9	19.4
14-Jan	68.0	61.2	50.9	31.7	13.0	84.7	64.4	35.5	19.3
21-Jan	71.0	59.9	52.7	33.0	15.0	77.7	64.5	37.4	19.9
28-Jan	73.0	62.2	55.1	34.7	19.0	81.2	66.4	41.0	22.3
4-Feb	69.0	58.1	51.5	32.0	18.0	72.8	62.3	33.4	17.9
11-Feb	73.0	62.4	55.3	34.4	21.0	78.4	67.5	37.9	20.2
18-Feb	74.0	62.7	58.0	38.1	23.0	81.9	67.8	44.3	24.8
25-Feb	76.0	58.5	57.6	36.6	20.0	77.7	64.5	38.4	21.7
4-Mar	80.0	63.2	62.4	41.7	28.0	93.8	69.9	51.6	30.3
11-Mar	83.0	67.2	64.4	41.8	29.0	93.8	71.9	48.7	27.7
18-Mar	80.0	62.6	64.7	43.0	29.0	84.7	69.9	48.8	26.5
25-Mar	82.0	64.0	68.5	46.5	32.0	94.5	71.7	57.6	34.4
1-Apr	86.0	63.1	71.1	48.3	37.0	98.0	73.0	57.6	33.3
8-Apr	84.0	62.4	71.7	48.5	37.0	99.4	73.3	59.2	35.1
15-Apr	88.0	64.9	74.9	52.7	39.0	96.6	72.6	65.7	41.6
22-Apr	89.0	66.8	76.8	53.7	43.0	96.6	73.9	68.7	42.8
29-Apr	88.0	69.2	77.3	55.6	45.0	107.8	76.5	73.9	48.2
6-May	89.0	69.3	78.4	56.7	46.0	108.5	73.8	77.9	51.1
13-May	91.0	70.9	80.4	60.2	49.0	115.5	77.8	86.5	61.1
20-May	92.0	70.5	81.5	62.0	51.0	119.7	81.6	92.2	67.0
27-May	93.0	72.4	83.5	64.2	53.0	124.6	80.0	97.9	72.2
3-Jun	95.0	74.9	85.4	66.2	57.0	133.7	83.6	102.9	76.9
10-Jun	95.0	73.6	86.0	67.3	57.0	136.5	82.3	105.0	78.3
17-Jun	97.0	74.5	87.2	69.5	61.0	137.2	82.0	113.4	87.2
24-Jun	95.0	77.6	87.4	68.9	60.0	137.9	88.2	112.5	85.0
1-Jul	97.0	75.9	88.5	70.5	63.0	143.5	89.5	118.3	91.9
8-Jul	100.0	77.5	90.8	72.5	65.0	142.8	85.4	123.0	95.2
15-Jul	98.0	77.9	89.8	72.3	67.0	147.0	86.7	124.5	98.4
22-Jul	96.0	77.6	89.6	72.9	68.0	147.0	84.9	128.3	101.8
29-Jul	95.0	77.5	88.9	72.2	67.0	142.1	83.6	124.6	99.1
5-Aug	96.0	76.2	87.8	71.6	65.0	142.1	83.2	120.7	96.9
12-Aug	96.0	76.6	87.3	70.8	63.0	136.5	84.1	119.5	95.4
19-Aug	97.0	77.5	87.5	70.2	63.0	136.5	86.1	116.4	91.9
26-Aug	95.0	75.8	87.1	69.4	60.0	136.5	82.7	113.9	88.8
2-Sep	93.0	75.6	84.8	68.2	58.0	136.5	82.1	111.9	87.9
9-Sep	92.0	75.4	84.6	66.1	55.0	132.3	81.3	105.7	79.4
16-Sep	92.0	76.0	82.3	65.1	54.0	127.4	82.5	102.6	77.6
23-Sep	92.0	75.7	79.2	60.6	50.0	128.1	84.8	90.9	65.4
30-Sep	90.0	75.2	77.2	56.7	42.0	126.7	84.8	82.7	57.0
7-Oct	84.0	70.1	74.7	55.1	42.0	119.7	77.4	77.4	53.2
14-Oct	84.0	70.7	73.4	51.6	39.0	116.2	76.4	72.2	47.5
21-Oct	80.0	65.5	71.2	50.1	37.0	110.6	74.5	67.1	43.3
28-Oct	79.0	63.6	69.8	49.9	35.0	111.3	73.0	65.8	43.5
4-Nov	79.0	66.2	66.4	45.5	31.0	103.6	73.5	59.0	34.7
11-Nov	77.0	65.1	62.7	41.4	28.0	98.0	69.3	51.0	29.4
18-Nov	75.0	63.0	62.9	41.9	29.0	100.1	70.7	52.1	29.8
25-Nov	76.0	66.0	61.6	41.3	26.0	100.1	71.7	53.8	30.5
2-Dec	74.0	64.8	58.8	37.1	25.0	97.3	70.8	44.8	24.6
9-Dec	72.0	62.5	56.1	36.2	23.0	90.3	68.3	43.7	24.0
16-Dec	70.0	63.2	52.9	34.6	20.0	80.5	63.4	40.3	22.2
23-Dec	72.0	64.1	53.4	34.8	19.0	90.3	67.0	41.0	22.2
31-Dec	70.0	62.5	52.0	35.4	18.0	86.1	67.8	41.0	23.2

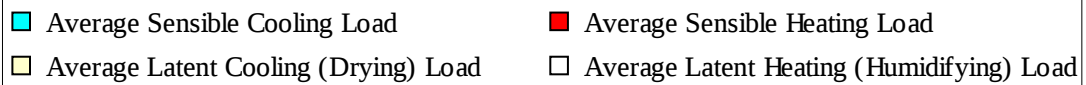
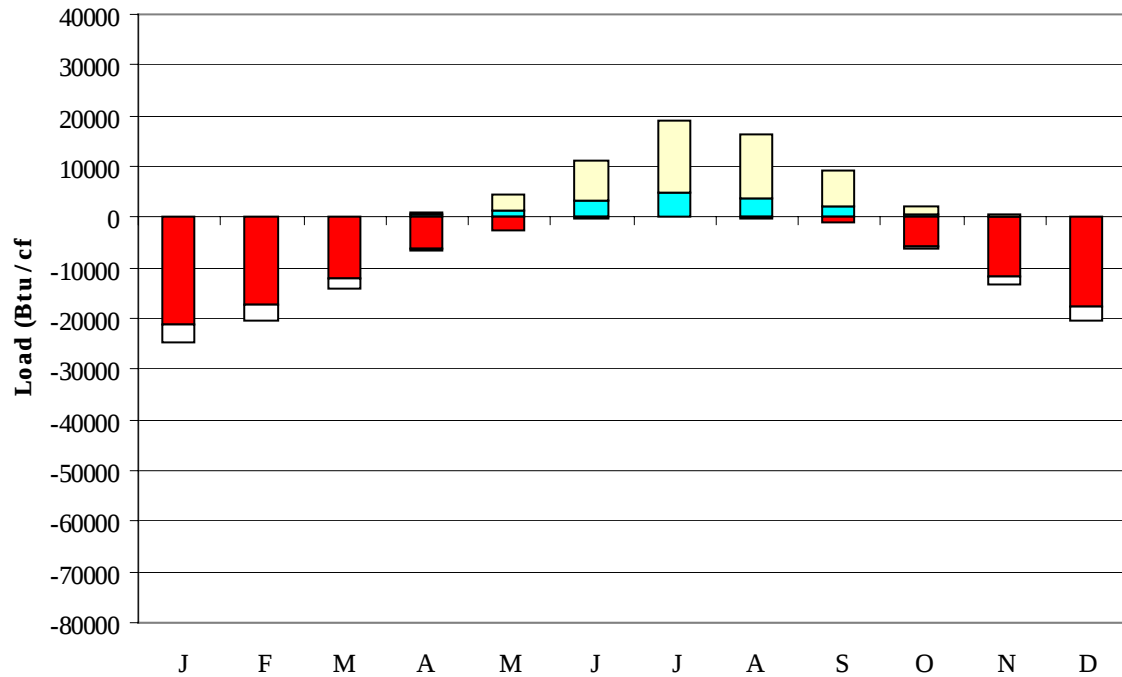
Degree Days, Heating and Cooling (Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	3	724
FEB	7	577
MAR	32	392
APR	97	175
MAY	194	62
JUN	336	8
JUL	435	1
AUG	390	2
SEP	253	26
OCT	88	168
NOV	27	376
DEC	7	596
ANN	1870	3107

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	1	-21107	30	-3775
FEB	10	-17047	23	-3220
MAR	131	-12224	161	-1853
APR	616	-6000	401	-667
MAY	1461	-2478	2877	-39
JUN	3258	-416	8082	0
JUL	4750	-57	14179	0
AUG	3864	-133	12649	0
SEP	2004	-1179	7048	-2
OCT	426	-5816	1578	-196
NOV	48	-11729	479	-1405
DEC	4	-17667	155	-2896
ANN	16573	-95853	47662	-14053

Average Annual Solar Radiation – Nearest Available Site

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

City: RALEIGH
 State: NC
 WBAN No: 13722
 Lat(N): 35.87
 Long(W): 78.78
 Elev(ft): 440

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.417
 Vert Gap: 0.293

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	770	1030	1380	1730	1900	2000	1920	1740	1470	1190	860	700	1390
	Std Dev	62	93	111	125	103	120	129	128	116	96	82	58	38
	Minimum	640	800	1150	1530	1620	1790	1640	1380	1220	1020	650	520	1280
	Maximum	890	1200	1600	2020	2080	2250	2140	1920	1690	1390	960	830	1450
	Diffuse	340	440	570	720	870	940	950	860	690	490	360	310	630
Clear Day	Global	1080	1410	1860	2280	2520	2600	2520	2290	1920	1480	1110	950	1840
NORTH	Global	220	290	370	460	570	640	600	510	410	320	240	200	400
	Diffuse	220	290	370	450	520	560	540	490	410	320	240	200	380
Clear Day	Global	210	260	340	430	580	680	620	490	380	300	220	190	390
EAST	Global	500	650	820	1000	1040	1080	1040	950	840	720	550	460	810
	Diffuse	270	350	450	550	620	660	650	600	500	390	290	250	470
Clear Day	Global	770	960	1170	1340	1410	1410	1370	1290	1160	960	770	690	1110
SOUTH	Global	1130	1190	1140	980	800	730	750	870	1030	1220	1190	1100	1010
	Diffuse	370	430	500	550	580	580	590	590	550	480	400	350	500
Clear Day	Global	1980	1970	1720	1280	950	800	850	1110	1490	1790	1880	1910	1470
WEST	Global	510	650	830	990	1030	1070	1010	950	850	740	560	470	800
	Diffuse	270	350	450	560	630	670	660	610	510	400	300	250	470
Clear Day	Global	770	960	1170	1340	1410	1410	1370	1290	1160	960	770	690	1110

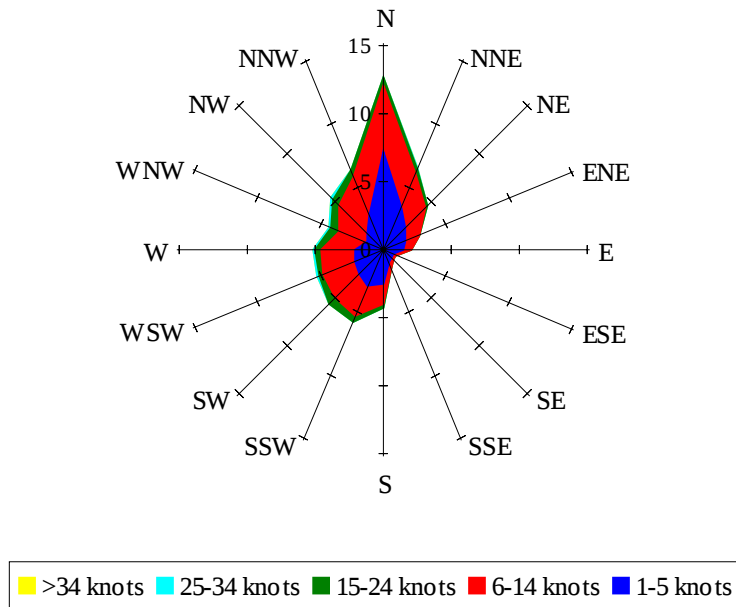
Average Annual Solar Heat and Illumination – Nearest Available Site

(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	980	1250	1380	1460	1390	1250	1050	840	580	460	990
NORTH	Unshaded	150	200	250	310	370	410	400	340	280	220	170	140	270
	Shaded	140	180	230	290	340	380	360	310	260	200	150	130	250
EAST	Unshaded	350	460	580	710	740	760	740	680	590	510	380	320	570
	Shaded	320	420	530	640	660	680	650	600	530	460	350	290	510
SOUTH	Unshaded	850	860	780	620	490	450	460	550	690	870	880	830	690
	Shaded	830	810	640	450	370	370	370	400	530	780	860	810	600
WEST	Unshaded	350	460	590	700	730	750	720	670	600	520	390	320	570
	Shaded	320	420	530	630	650	670	640	600	540	470	360	300	510

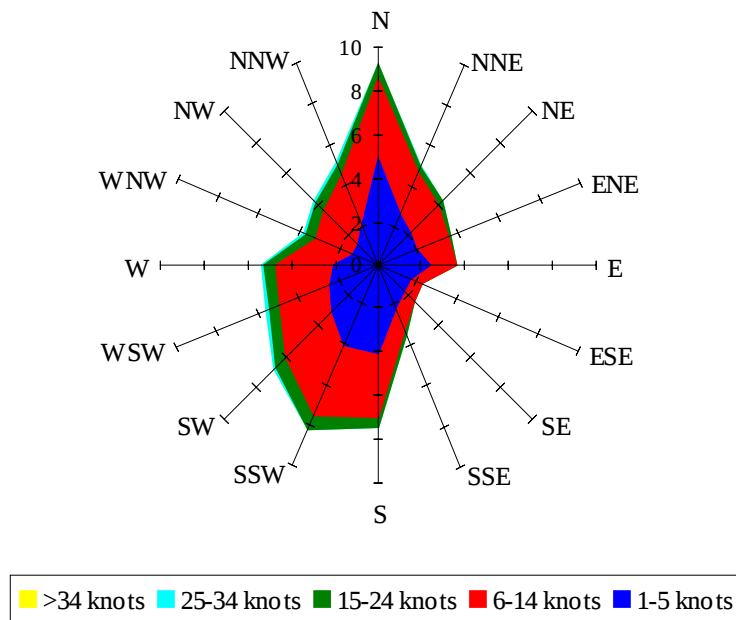
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	38	75	87	71	33	41	82	102	98	71
	M.Cloudy	21	45	54	46	21	27	56	75	73	52
NORTH	M.Clear	10	14	15	14	9	21	17	18	18	17
	M.Cloudy	9	16	17	15	8	14	18	20	20	17
EAST	M.Clear	75	62	15	14	9	70	75	37	18	17
	M.Cloudy	25	32	17	15	8	32	45	31	20	17
SOUTH	M.Clear	35	68	80	65	31	12	25	40	38	20
	M.Cloudy	15	35	42	36	16	11	22	33	32	19
WEST	M.Clear	10	14	18	65	72	12	17	18	49	76
	M.Cloudy	9	16	18	35	29	11	18	20	38	48
M.Clear	(% hrs)	41	39	38	36	37	40	41	34	29	35
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	24	66	86	81	51	16	45	54	37	5
	M.Cloudy	14	39	60	57	35	9	27	32	22	4
NORTH	M.Clear	8	15	17	17	13	6	10	11	9	3
	M.Cloudy	6	15	19	18	13	4	10	12	9	2
EAST	M.Clear	54	72	34	17	13	44	44	11	9	3
	M.Cloudy	17	33	27	18	13	12	20	12	9	2
SOUTH	M.Clear	16	51	70	65	39	37	80	90	69	15
	M.Cloudy	8	26	43	41	23	11	31	37	26	4
WEST	M.Clear	8	15	17	49	71	6	10	19	51	21
	M.Cloudy	6	15	19	34	37	4	10	14	21	6
M.Clear	(% hrs)	42	44	39	36	40	38	38	37	38	40

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



Percent Calm = 26.45

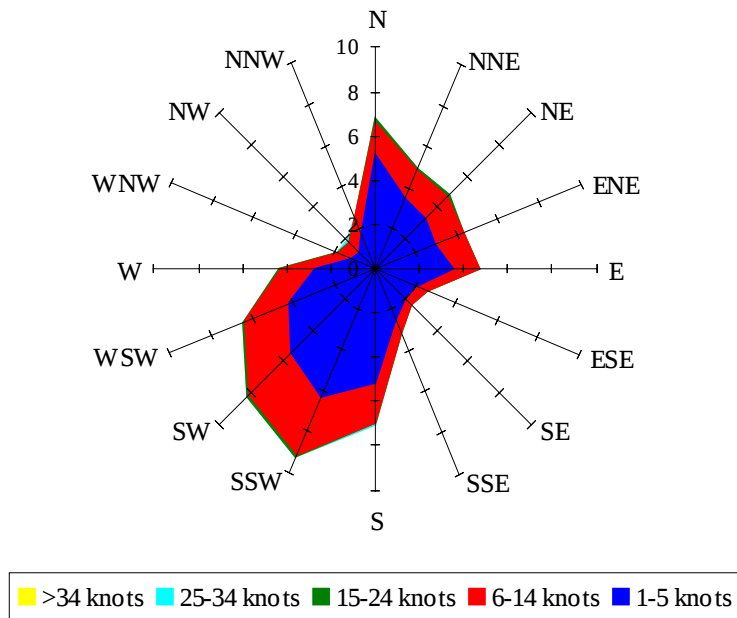
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 20.44

Wind Summary - June, July, and August

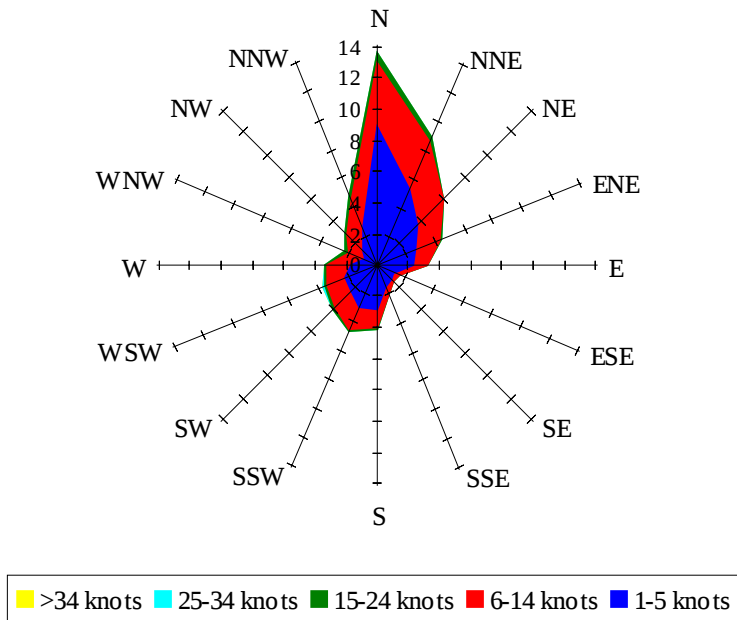
Labels of Percent Frequency on North Axis



Percent Calm = 25.60

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 29.76