

EGLIN AFB/VALPARAISO FL

Latitude = 30.48 N

WMO No. 722210

Longitude = 86.53 W

Elevation = 85 feet

Period of Record = 1967 to 1996

Average Pressure = 29.93 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	96	78	115	7.6	N
0.4% Occurrence	92	78	119	7.5	S
1.0% Occurrence	90	77	121	8.0	S
2.0% Occurrence	89	77	122	7.8	S
Mean Daily Range	17	-	-	-	-
97.5% Occurrence	36	32	21	6.0	N
99.0% Occurrence	32	28	17	5.7	N
99.6% Occurrence	28	25	13	6.1	N
Median of Extreme Lows	22	19	8	7.8	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	83	90	159	7.1	SSW
0.4% Occurrence	81	88	148	7.3	S
1.0% Occurrence	80	87	143	7.1	S
2.0% Occurrence	79	86	137	6.9	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	162	86	1.07	6.2	SSW
0.4% Occurrence	151	85	1.00	5.4	S
1.0% Occurrence	146	84	0.97	6.1	S
2.0% Occurrence	141	84	0.94	5.4	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		27	1822	2354	3989

Other Site Data

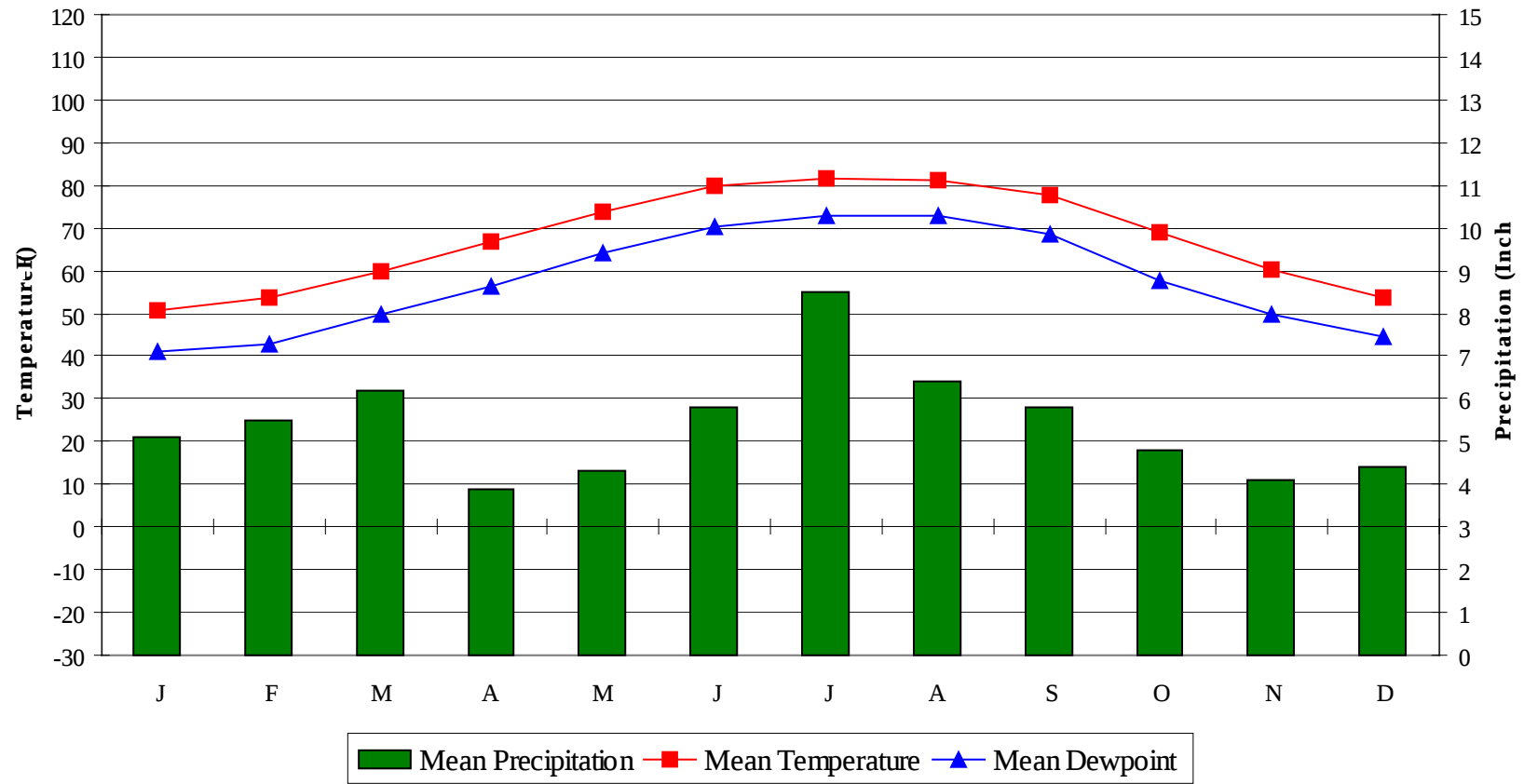
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	4.8	130	7.7 + 1.8
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
69.9	0	0	12

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

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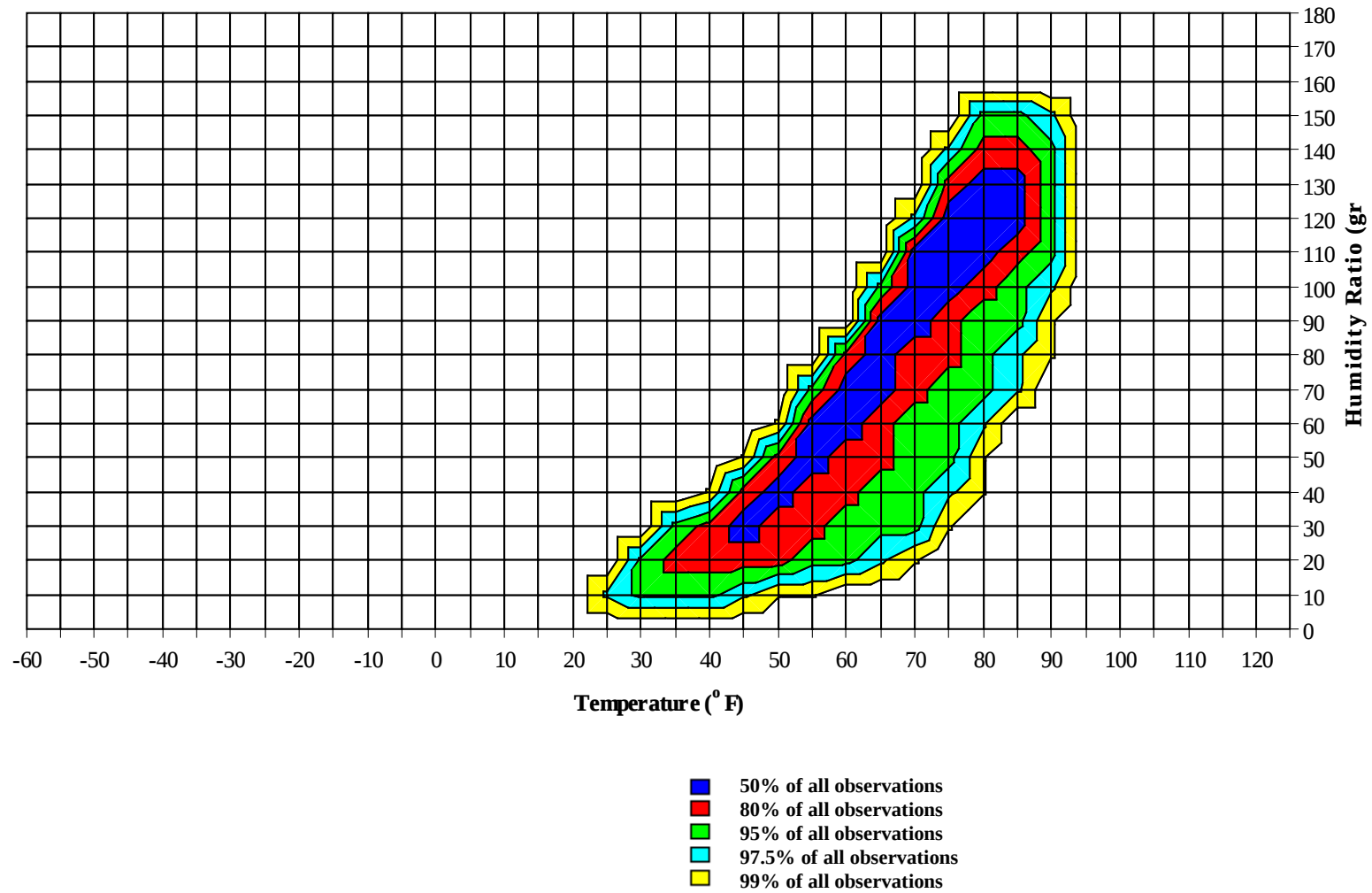
Average Annual Climate

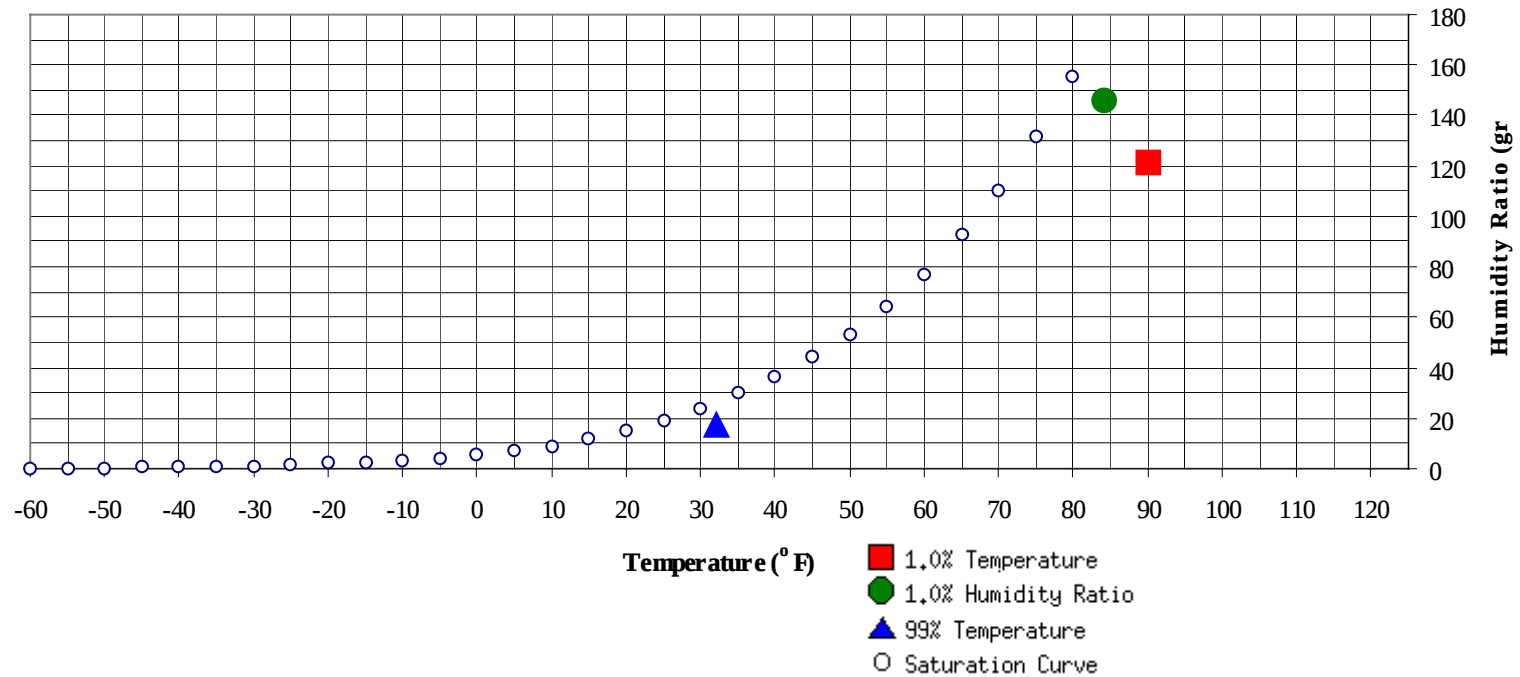


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Long Term Psychrometric Summary



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	32	17.2	10.3	Ratio	145.6	84.3	79.6	78	43.1

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	90	121.1	77.3	40.6

EGLIN AFB/VALPARAISO FL

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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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79		1		1	67.7		2	0	2	64.0		1		1	64.6
70 / 74	3	13	3	18	67.2	1	21	4	26	64.5	0	18	1	19	66.2
65 / 69	14	32	17	63	63.1	17	46	25	88	61.9	9	61	20	90	65.0
60 / 64	23	49	38	110	58.0	27	50	46	122	57.2	40	68	63	171	62.0
55 / 59	30	46	40	117	52.7	31	36	44	110	51.7	47	48	62	157	57.1
50 / 54	29	37	38	105	47.0	32	31	36	98	46.6	41	27	46	114	51.9
45 / 49	29	37	38	105	47.0	32	31	36	98	46.6	37	14	27	78	47.0
40 / 44	37	33	39	108	42.3	34	18	29	81	41.7	36	7	15	58	42.5
35 / 39	36	20	34	90	37.6	30	13	22	65	37.3	21	3	9	32	38.0
30 / 34	33	10	24	67	33.1	28	5	13	46	32.8	12	1	3	16	33.5
25 / 29	27	4	11	42	28.4	17	2	5	24	28.5	5	0	1	6	29.0
20 / 24	11	1	3	16	24.1	7	0	1	8	24.2	1	0	0	2	23.7
15 / 19	4	0	1	5	19.1	1	0	0	1	19.7	0			0	20.3
10 / 14	1	0	0	1	14.4	0		0	0	15.3					
5 / 9	0	0		0	10.0										
	0			0	5.5										

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		
100 / 104												0		0	80.7
95 / 99							0		0	72.0		2	0	2	78.1
90 / 94		0		0	66.4		2	0	2	71.6	0	24	2	26	76.2
85 / 89		1	0	1	68.4	0	24	2	26	72.8	5	106	21	133	75.6
80 / 84	0	19	1	20	68.9	6	102	24	132	71.7	42	78	90	211	74.6
75 / 79	5	73	17	95	68.2	44	86	86	216	70.2	95	22	93	210	72.8
70 / 74	39	82	71	192	65.7	78	29	89	196	67.5	75	8	29	111	69.3
65 / 69	55	41	73	169	61.7	64	5	33	102	63.2	19	0	4	23	63.9
60 / 64	48	15	42	106	57.0	36	1	11	47	58.0	3	0	0	3	59.1
55 / 59	39	6	21	65	52.2	15	0	3	18	53.3	1		0	1	52.5
50 / 54	32	2	10	45	47.8	4		0	4	48.8	0			0	52.0
45 / 49	15	0	3	19	43.3	1		0	1	44.0					
40 / 44	5	0	1	6	38.9										
35 / 39	1		0	1	33.6										
30 / 34	0			0	32.0										
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															

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.

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		
100 / 104		0		0	78.8		0		0	75.0					
95 / 99		3	0	4	78.4		2	0	2	78.0		0		0	75.4
90 / 94	0	46	4	50	78.3	0	43	2	45	78.0		16	0	16	76.2
85 / 89	12	118	43	173	77.4	6	125	40	170	77.4	1	98	13	112	75.6
80 / 84	64	53	112	229	76.1	45	56	103	205	76.1	18	80	74	171	74.2
75 / 79	126	23	77	226	73.7	137	19	86	242	73.9	88	31	94	214	72.5
70 / 74	44	4	12	60	70.8	55	3	16	75	70.5	86	11	38	135	68.7
65 / 69	1		0	2	65.3	4	0	1	5	64.2	29	3	13	46	62.5
60 / 64						1			1	61.3	12	1	5	18	57.4
55 / 59											4	0	2	6	52.5
50 / 54											1		1	2	48.8
45 / 49											0			0	45.5
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															

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 = 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		
100 / 104															
95 / 99															
90 / 94		0		0	73.4										
85 / 89	0	14	1	15	72.8										
80 / 84	2	64	10	75	71.0		5	0	5	70.4					
75 / 79	16	74	48	138	68.8	3	37	7	47	69.5	0	6	1	6	70.8
70 / 74	47	54	65	167	65.6	19	55	33	107	66.6	8	29	9	45	67.5
65 / 69	53	27	50	130	61.2	36	51	47	134	62.0	23	45	33	101	63.4
60 / 64	51	11	38	100	56.7	32	37	38	108	56.3	32	49	39	119	57.8
55 / 59	36	3	22	60	51.9	34	28	40	102	51.2	28	43	37	108	52.0
50 / 54	27	1	11	38	47.5	37	16	32	84	46.7	30	34	40	104	47.0
45 / 49	13	1	3	16	43.1	33	8	24	64	42.3	35	23	38	96	42.4
40 / 44	3	0	1	4	39.2	23	2	15	39	37.8	34	12	26	73	37.8
35 / 39	1			1	35.5	18	0	4	23	34.0	29	5	17	51	33.2
30 / 34						5	0	1	6	29.5	19	2	7	28	28.6
25 / 29						1	0	0	1	24.1	7	1	1	10	24.1
20 / 24											1	0	1	2	19.0
15 / 19											1	0	0	1	14.3
10 / 14											0			0	11.6
5 / 9															

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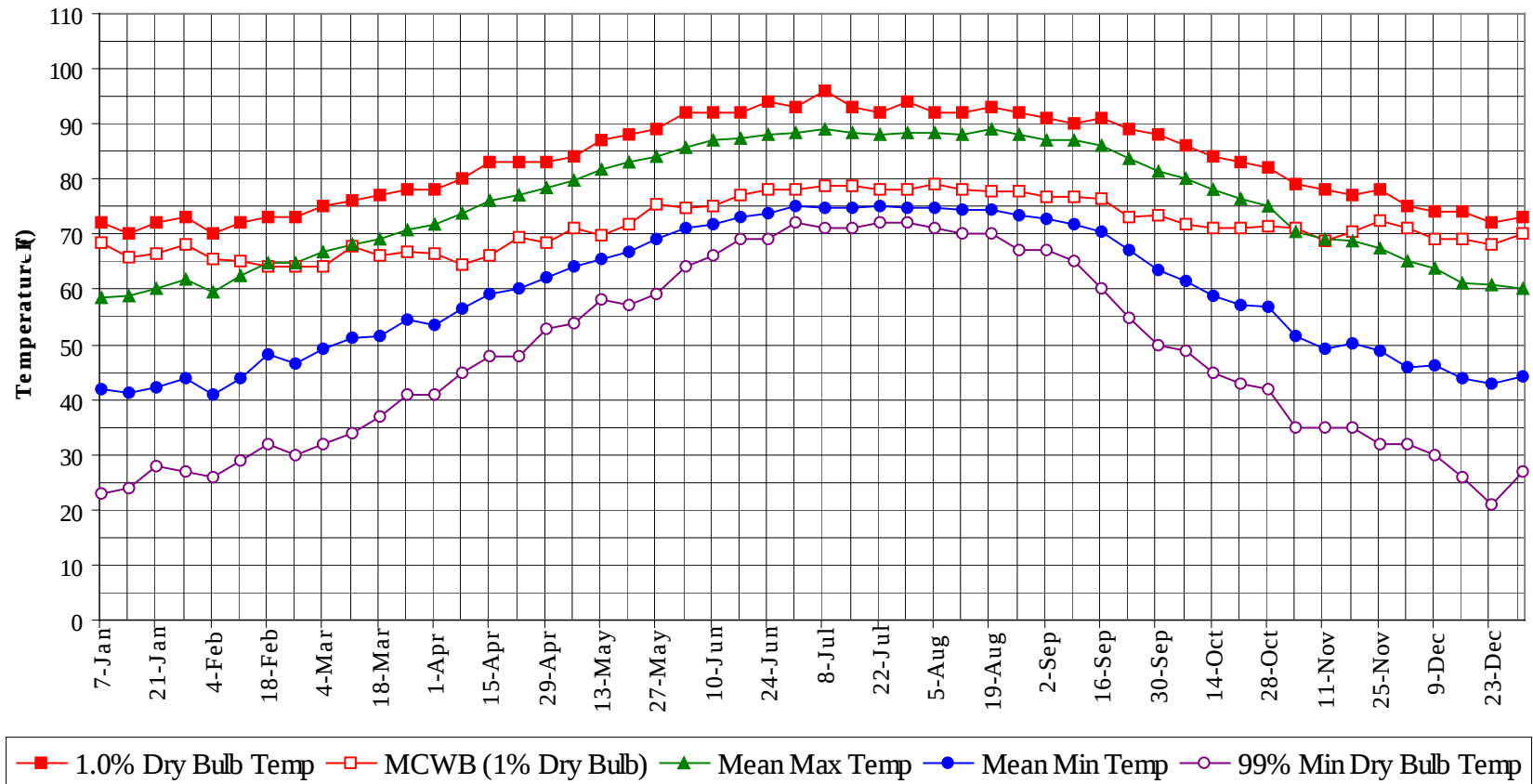
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1967 to 1996

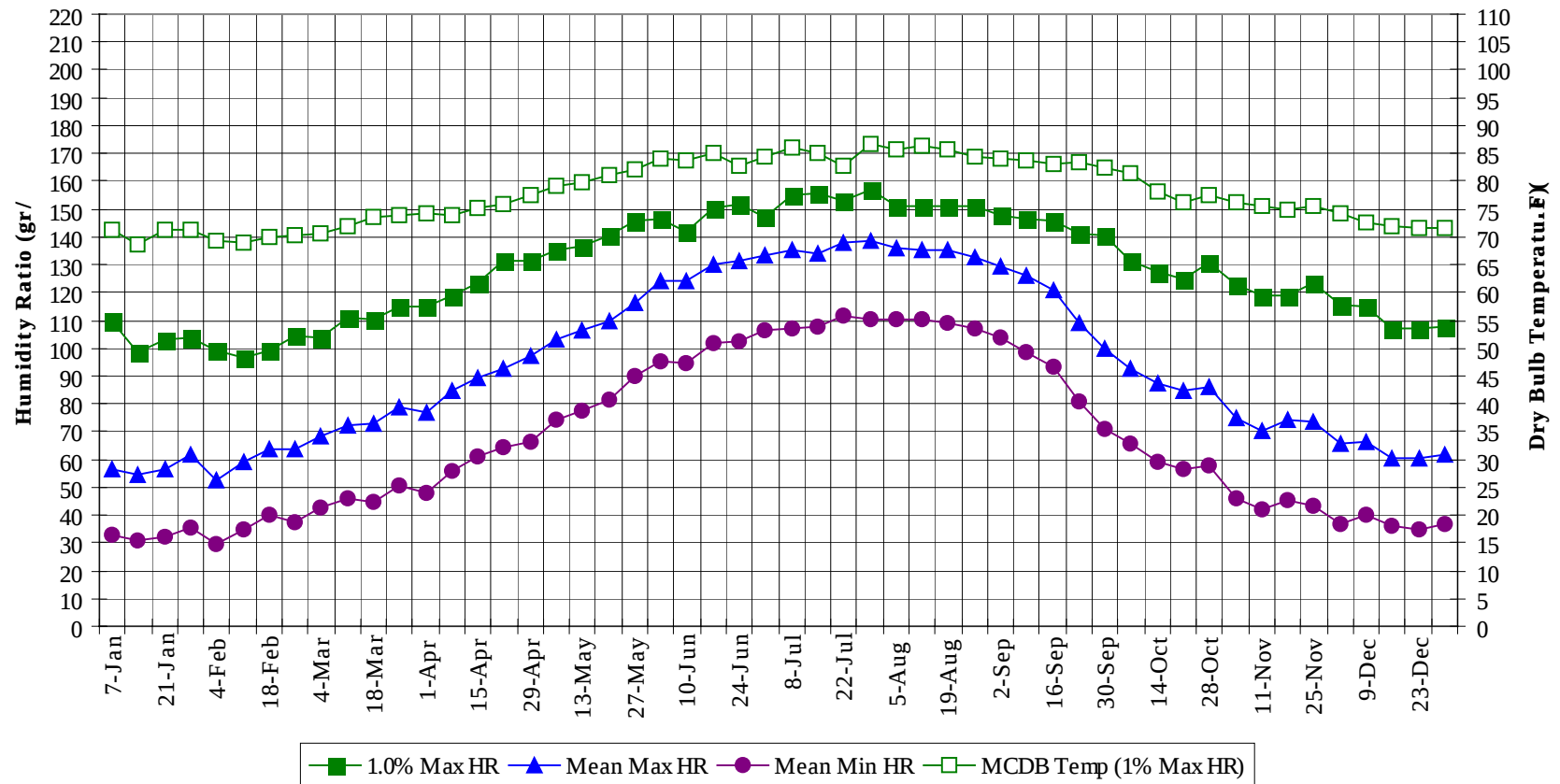
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		1		1	78.4
95 / 99		7	0	8	78.1
90 / 94	0	131	8	139	77.4
85 / 89	24	485	120	628	76.4
80 / 84	177	458	414	1049	74.4
75 / 79	514	392	510	1417	71.8
70 / 74	464	369	388	1222	67.3
65 / 69	355	319	358	1032	62.2
60 / 64	311	262	320	893	57.2
55 / 59	258	189	254	700	52.0
50 / 54	230	135	195	560	47.0
45 / 49	203	89	151	443	42.3
40 / 44	153	50	107	310	37.7
35 / 39	122	22	61	204	33.2
30 / 34	72	8	25	106	28.6
25 / 29	28	3	6	36	24.1
20 / 24	7	1	2	9	19.2
15 / 19	2	0	0	3	14.5
10 / 14	0	0		0	10.9
5 / 9	0			0	5.5

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Annual Summary of Temperatures



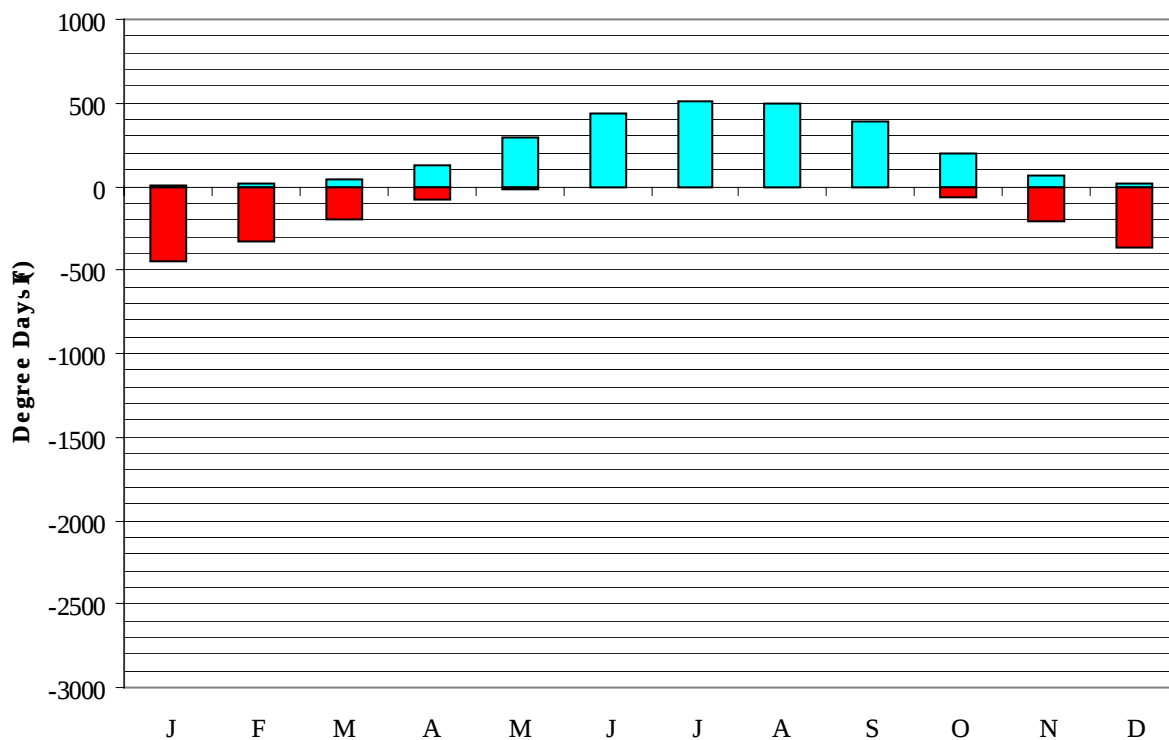
Long Term Humidity and Dry Bulb Temperature Summary



EGLIN AFB/VALPARAISO FL
WMO No. 722210
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	72.0	68.6	58.3	41.8	23.0	109.9	71.2	56.4	32.7
14-Jan	70.0	65.7	58.8	41.2	24.0	98.7	68.7	54.2	31.1
21-Jan	72.0	66.5	60.0	42.1	28.0	102.9	71.2	56.8	32.2
28-Jan	73.0	68.3	61.8	43.7	27.0	103.6	71.2	61.7	35.6
4-Feb	70.0	65.6	59.5	40.9	26.0	99.4	69.2	52.6	29.8
11-Feb	72.0	65.0	62.5	44.0	29.0	96.6	68.9	59.0	34.9
18-Feb	73.0	64.3	65.0	48.3	32.0	99.4	69.9	63.8	40.2
25-Feb	73.0	64.2	64.8	46.5	30.0	104.3	70.3	63.9	37.2
4-Mar	75.0	64.3	66.7	49.3	32.0	103.6	70.7	68.5	42.9
11-Mar	76.0	67.9	68.1	51.0	34.0	111.3	71.9	72.0	45.9
18-Mar	77.0	66.0	69.1	51.6	37.0	110.6	73.7	72.7	44.7
25-Mar	78.0	66.7	70.7	54.6	41.0	114.8	73.7	78.9	50.7
1-Apr	78.0	66.5	71.9	53.6	41.0	114.8	74.1	77.0	48.2
8-Apr	80.0	64.6	73.7	56.5	45.0	119.0	74.0	84.6	55.6
15-Apr	83.0	66.2	76.2	59.1	48.0	123.2	75.3	89.3	61.2
22-Apr	83.0	69.5	77.1	60.2	48.0	131.6	75.9	92.9	64.1
29-Apr	83.0	68.4	78.4	62.0	53.0	131.6	77.6	97.2	66.4
6-May	84.0	71.3	79.8	64.1	54.0	135.1	79.3	103.2	74.1
13-May	87.0	69.7	81.8	65.5	58.0	136.5	79.9	106.5	77.7
20-May	88.0	71.8	83.0	66.7	57.0	140.7	81.2	109.6	81.4
27-May	89.0	75.5	84.2	69.1	59.0	145.6	82.0	116.5	89.8
3-Jun	92.0	74.8	85.8	71.1	64.0	146.3	84.1	123.9	95.0
10-Jun	92.0	75.0	87.1	71.9	66.0	142.1	83.7	124.2	94.4
17-Jun	92.0	77.3	87.3	73.1	69.0	150.5	85.0	129.9	102.0
24-Jun	94.0	78.3	88.0	73.7	69.0	151.9	82.9	131.2	102.1
1-Jul	93.0	78.1	88.4	75.0	72.0	147.0	84.3	133.3	106.4
8-Jul	96.0	78.9	89.2	74.9	71.0	154.7	86.0	135.5	107.3
15-Jul	93.0	78.7	88.3	74.6	71.0	155.4	84.9	134.2	108.0
22-Jul	92.0	78.0	88.2	75.1	72.0	153.3	82.9	137.9	111.9
29-Jul	94.0	78.1	88.3	74.7	72.0	156.8	86.7	138.3	110.4
5-Aug	92.0	79.2	88.4	74.8	71.0	151.2	85.7	136.2	110.4
12-Aug	92.0	78.2	88.2	74.3	70.0	151.2	86.5	135.0	110.4
19-Aug	93.0	77.8	89.2	74.5	70.0	151.2	85.8	135.4	108.9
26-Aug	92.0	77.8	88.0	73.4	67.0	151.2	84.3	132.3	107.1
2-Sep	91.0	76.8	86.9	72.8	67.0	147.7	83.9	129.3	103.8
9-Sep	90.0	76.8	87.1	71.9	65.0	146.3	83.6	126.0	98.7
16-Sep	91.0	76.3	86.1	70.4	60.0	145.6	83.2	120.7	93.3
23-Sep	89.0	73.1	83.9	67.0	55.0	141.4	83.4	109.2	81.1
30-Sep	88.0	73.4	81.6	63.6	50.0	140.7	82.3	100.0	70.8
7-Oct	86.0	71.7	80.1	61.6	49.0	131.6	81.3	92.6	65.4
14-Oct	84.0	71.0	78.0	58.8	45.0	127.4	78.2	87.6	59.0
21-Oct	83.0	71.1	76.5	57.0	43.0	124.6	76.2	84.9	56.7
28-Oct	82.0	71.4	75.1	56.9	42.0	130.9	77.5	86.1	58.0
4-Nov	79.0	71.3	70.6	51.4	35.0	122.5	76.2	74.8	46.0
11-Nov	78.0	68.7	69.3	49.1	35.0	119.0	75.4	70.1	42.2
18-Nov	77.0	70.6	68.7	50.2	35.0	119.0	75.0	74.1	45.0
25-Nov	78.0	72.3	67.3	49.0	32.0	123.2	75.4	73.6	43.4
2-Dec	75.0	71.0	65.1	45.9	32.0	115.5	74.2	65.5	36.9
9-Dec	74.0	69.1	64.0	46.3	30.0	114.8	72.4	66.3	40.2
16-Dec	74.0	69.1	61.1	43.7	26.0	107.1	71.8	60.4	36.3
23-Dec	72.0	68.0	60.9	43.0	21.0	107.1	71.7	60.5	35.0
31-Dec	73.0	70.1	60.3	44.1	27.0	107.8	71.7	61.9	36.5

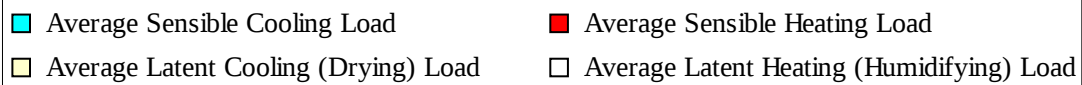
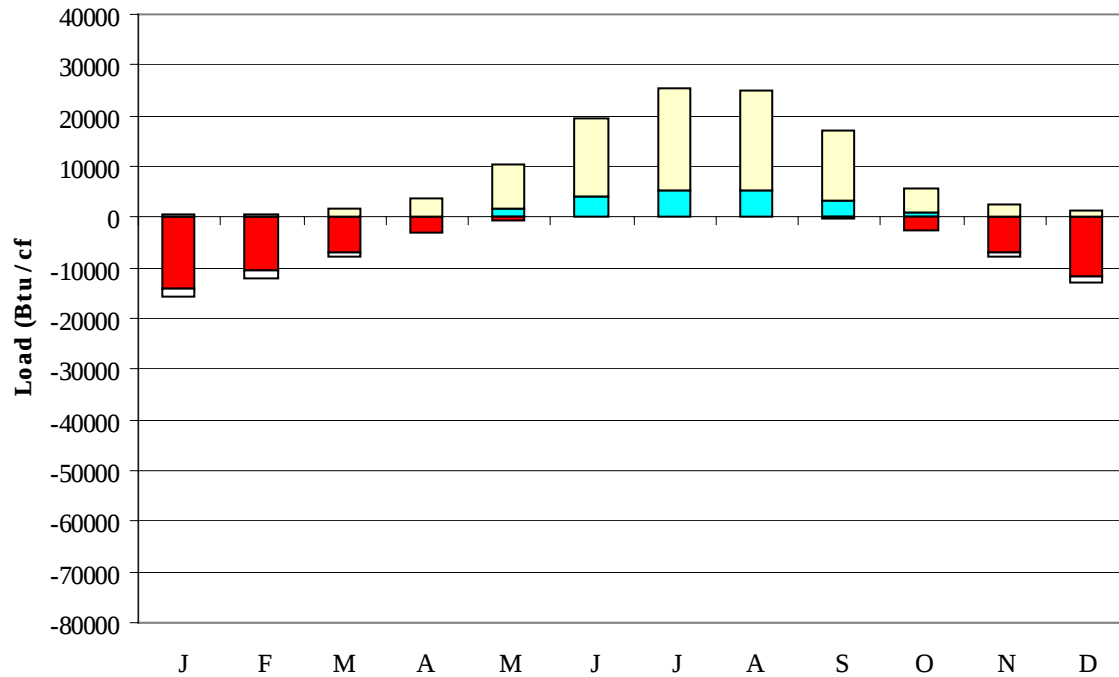
Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	10	449
FEB	14	333
MAR	47	202
APR	130	78
MAY	291	14
JUN	441	1
JUL	512	0
AUG	497	0
SEP	392	5
OCT	192	68
NOV	67	214
DEC	22	368
ANN	2615	1732

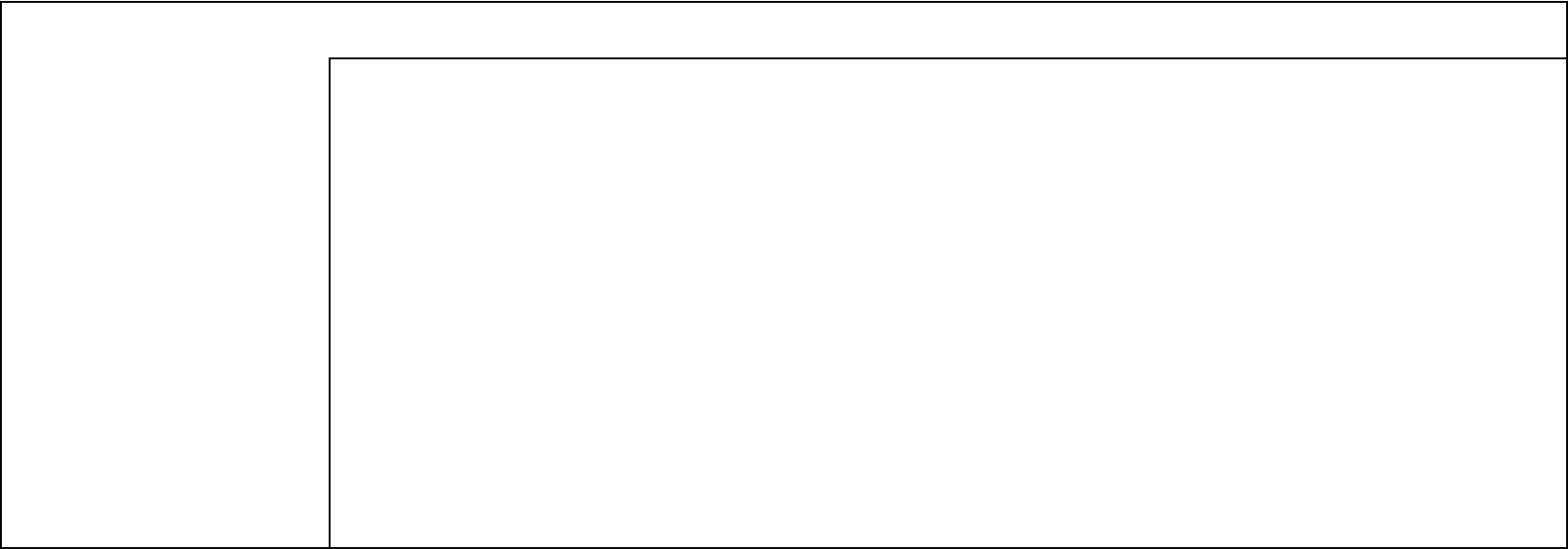
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	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	-13884	631	-1808
FEB	3	-10592	619	-1365
MAR	29	-6981	1582	-622
APR	310	-3014	3292	-162
MAY	1717	-687	8543	-2
JUN	4188	-45	15285	0
JUL	5365	0	19896	0
AUG	5066	-9	19832	0
SEP	3404	-261	13679	0
OCT	972	-2628	4804	-65
NOV	100	-7098	2529	-613
DEC	5	-11602	1300	-1314
ANN	21160	-56801	91992	-5951

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

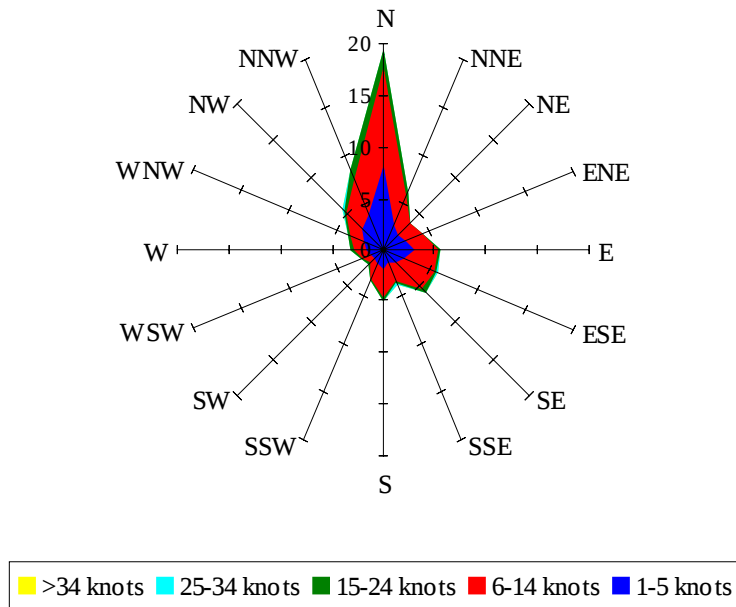
No Solar Radiation
Data Available



Average Annual Solar Heat and Illumination – Nearest Available Site

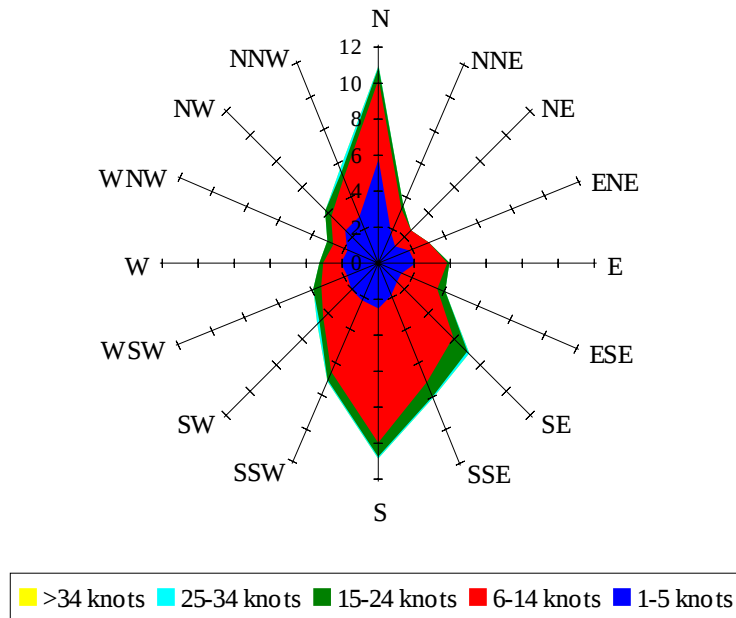
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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



Percent Calm = 14.37

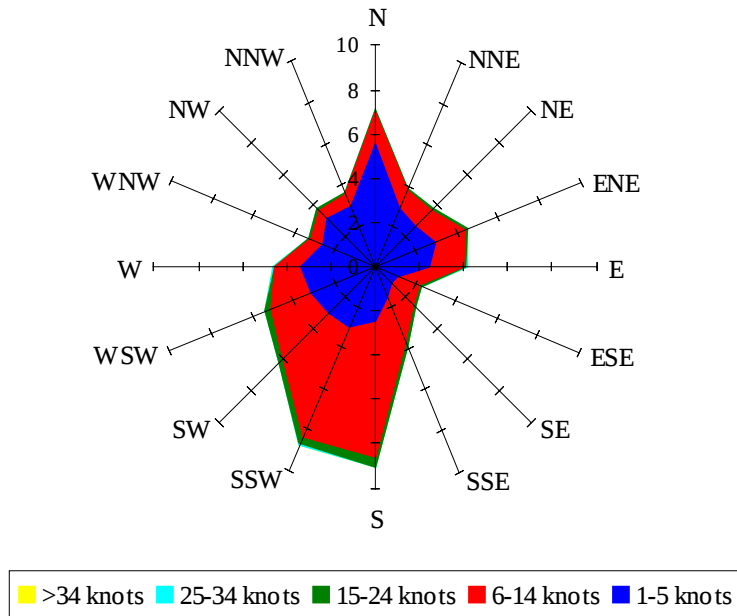
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 15.96

Wind Summary - June, July, and August

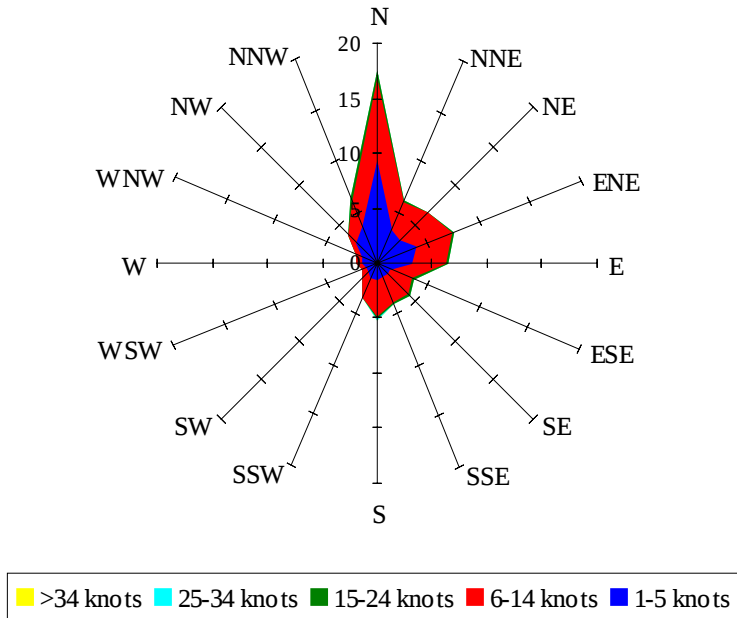
Labels of Percent Frequency on North Axis



Percent Calm = 24.08

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 18.33