WIDE AWAKE AIRFIELD AI	
Latitude = 7.97 S	WMO No. 619020
Longitude = 14.40 W	Elevation = 259 feet
Period of Record = 1967 to 1996	Average Pressure = 29.64 inches Hg

Design Criteria Data

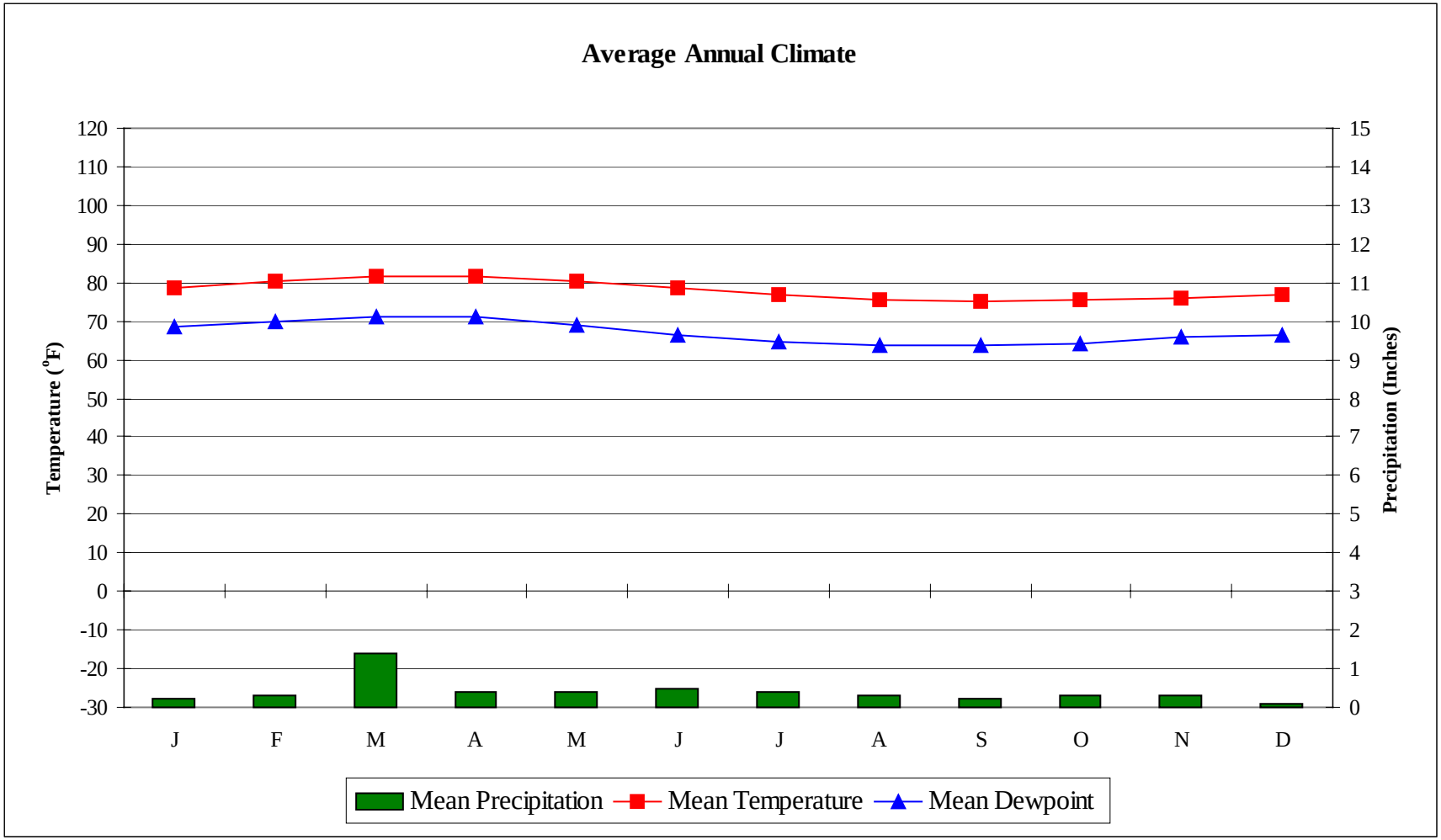
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	87	76	118	19.1	ESE
0.4% Occurrence	86	75	117	18.8	ESE
1.0% Occurrence	86	75	117	18.8	ESE
2.0% Occurrence	85	75	115	18.6	ESE
Mean Daily Range	7	-	-	-	-
97.5% Occurrence	72	67	93	15.4	ESE
99.0% Occurrence	70	67	94	14.9	E
99.6% Occurrence	70	67	94	14.9	E
Median of Extreme Lows	69	67	95	14.2	E
		Mean Coincident (Average) Values			
Wet Bulb Temperature (T_{wb})	**Design Value (^oF)**	Dry Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	78	84	132	18.2	ESE
0.4% Occurrence	78	84	132	18.2	ESE
1.0% Occurrence	77	83	127	18.0	ESE
2.0% Occurrence	76	83	123	17.7	ESE
		Mean Coincident (Average) Values			
Humidity Ratio (HR)	**Design Value (gr/lb)**	Dry Bulb Temperature (^oF)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	139	80	0.92	15.8	ESE
0.4% Occurrence	137	82	0.90	16.5	ESE
1.0% Occurrence	132	82	0.87	16.6	ESE
2.0% Occurrence	128	81	0.85	16.6	ESE
Air Conditioning/		$T \geq 93^oF$	$T \geq 80^oF$	$T_{wb} \geq 73^oF$	$T_{wb} \geq 67^oF$
Humid Area Criteria	# of Hours	0	2802	2278	7472

Other Site Data

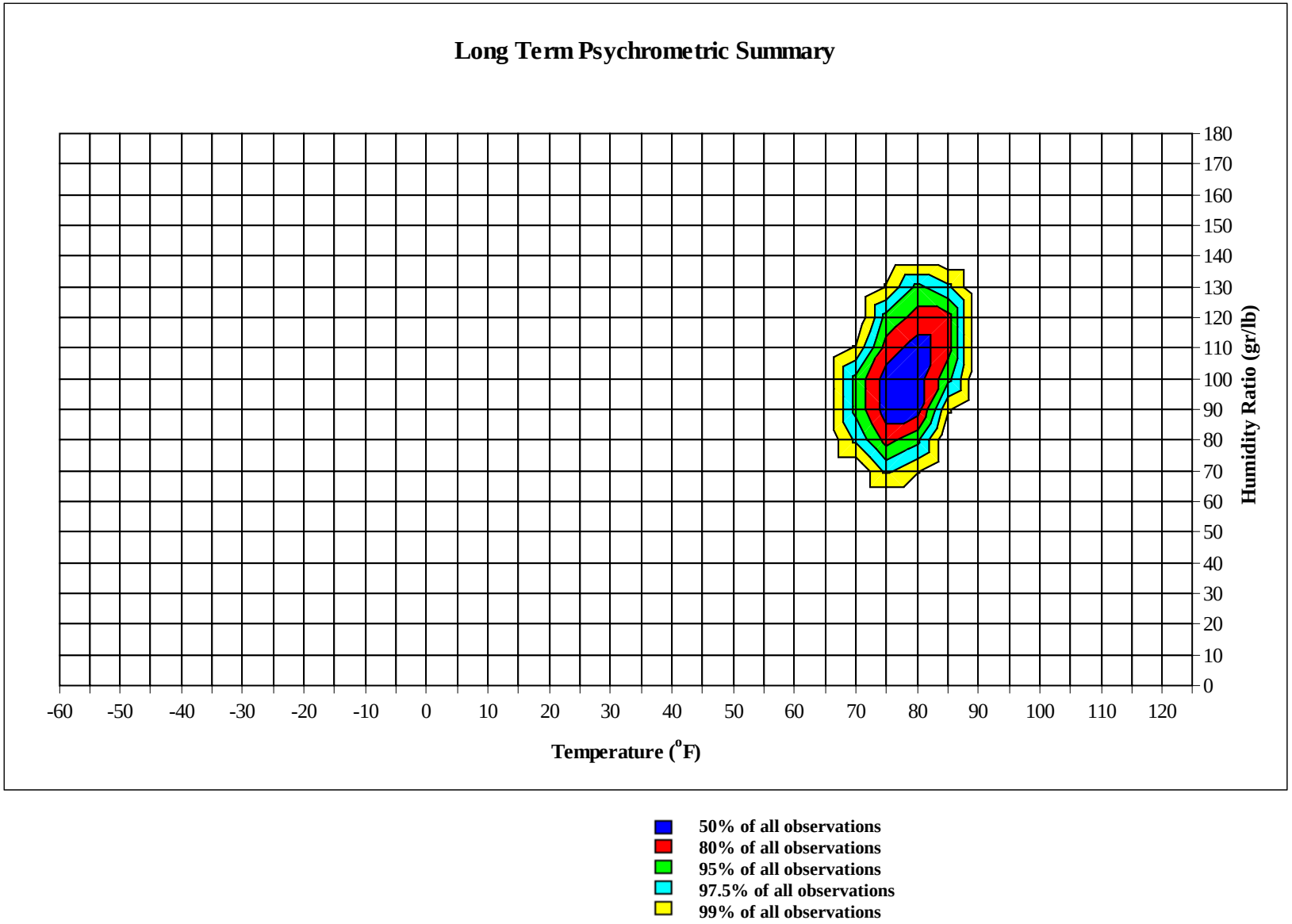
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	4.2 + 2.3
Ground Water Temperature (^oF) 50 Foot Depth *	**Frost Depth 50 Year Recurrence (in.)**	**Ground Snow Load 50 Year Recurrence (lb/ft^2)**	**Average Annual Freeze-Thaw Cycles (#)**
80.6	N/A	N/A	0

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

WIDE AWAKE AIRFIELD **AI** WMO No. 619020



WIDE AWAKE AIRFIELD **AI** WMO No. 619020



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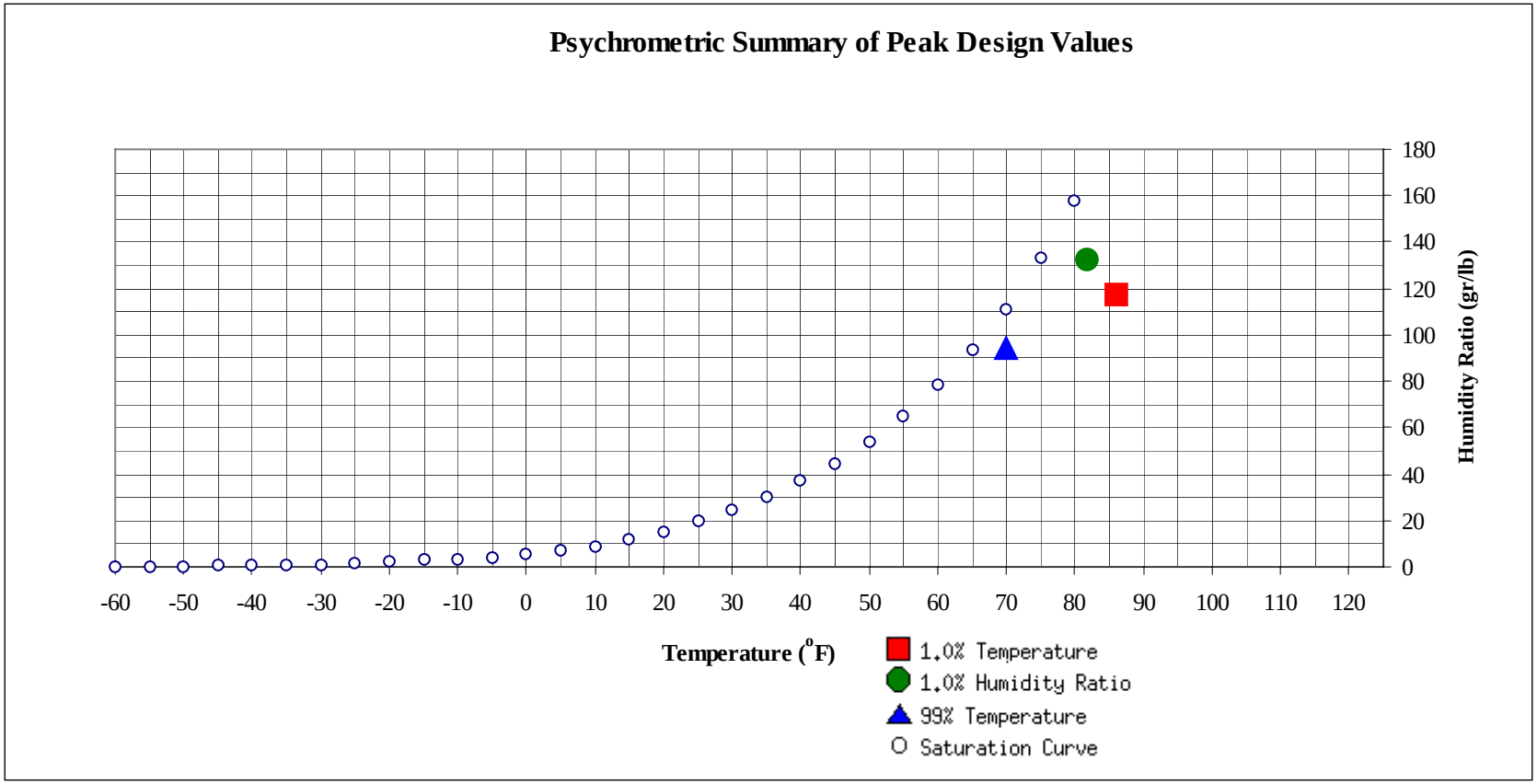


	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	70	94.5	31.5

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	132.3	81.9	76.8	74.9	40.4

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	86	117.2	75.5	39.0

WIDE AWAKE AIRFIELD AI WMO No. 619020

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

Period of Record = 1967 to 1996

Temperature Range (°F)	January Hour Group (LST) 01 To 08	January 09 To 16	January 17 To 00	January Total Obs	January MCWB (°F)	February Hour Group (LST) 01 To 08	February 09 To 16	February 17 To 00	February Total Obs	February MCWB (°F)	March Hour Group (LST) 01 To 08	March 09 To 16	March 17 To 00	March Total Obs	March MCWB (°F)
90 / 94												0		0	76.0
85 / 89		1	0	1	74.5		20	1	22	74.9		69	4	74	75.2
80 / 84	2	164	53	218	72.3	8	172	96	276	73.5	27	165	152	344	74.3
75 / 79	191	80	183	455	71.2	210	31	127	368	72.3	219	14	92	325	73.3
70 / 74	55	2	12	70	69.6	6	0	0	6	69.8	2	0	0	2	70.9
65 / 69							0	0	0	67.0					
60 / 64															

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.

WIDE AWAKE AIRFIELD AI WMO No. 619020

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

Period of Record = 1967 to 1996

Temperature Range (°F)	April Hour Group (LST) 01 To 08	April 09 To 16	April 17 To 00	April Total Obs	April MCWB (°F)	May Hour Group (LST) 01 To 08	May 09 To 16	May 17 To 00	May Total Obs	May MCWB (°F)	June Hour Group (LST) 01 To 08	June 09 To 16	June 17 To 00	June Total Obs	June MCWB (°F)
90 / 94		0		0	75.0										
85 / 89	3	60	9	72	75.5	2	14	7	23	75.4		1		1	73.9
80 / 84	38	169	158	364	74.3	9	202	99	310	72.8	3	153	33	189	71.1
75 / 79	199	11	74	284	73.1	234	31	142	407	71.6	194	85	195	473	69.8
70 / 74	0	0	0	0	71.3	3	1	0	4	70.8	43	2	12	58	68.2
65 / 69						0	0		0	63.7					
60 / 64															

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.

WIDE AWAKE AIRFIELD AI WMO No. 619020

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

Period of Record = 1967 to 1996

Temperature Range (°F)	July Hour Group (LST) 01 To 08	July 09 To 16	July 17 To 00	July Total Obs	July MCWB (°F)	August Hour Group (LST) 01 To 08	August 09 To 16	August 17 To 00	August Total Obs	August MCWB (°F)	September Hour Group (LST) 01 To 08	September 09 To 16	September 17 To 00	September Total Obs	September MCWB (°F)
90 / 94															
85 / 89															
80 / 84	0	87	3	90	69.9		31	0	31	69.2		18		18	69.0
75 / 79	102	150	191	443	68.8	31	186	115	332	68.2	5	179	75	259	68.1
70 / 74	144	11	54	210	67.5	212	32	133	376	67.2	226	42	161	428	67.1
65 / 69	2	0		2	65.7	5	0	0	5	66.5	10	1	5	15	66.5
60 / 64															

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.

WIDE AWAKE AIRFIELD AI WMO No. 619020

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

Period of Record = 1967 to 1996

Temperature Range (°F)	October Hour Group (LST) 01 To 08	October 09 To 16	October 17 To 00	October Total Obs	October MCWB (°F)	November Hour Group (LST) 01 To 08	November 09 To 16	November 17 To 00	November Total Obs	November MCWB (°F)	December Hour Group (LST) 01 To 08	December 09 To 16	December 17 To 00	December Total Obs	December MCWB (°F)
90 / 94															
85 / 89												0		0	72.0
80 / 84	0	25		25	69.2		46	0	46	70.3	0	95	8	102	71.0
75 / 79	10	190	77	277	68.3	29	172	100	301	69.3	91	146	172	409	70.0
70 / 74	232	32	169	433	67.2	209	23	140	372	68.3	157	8	68	233	68.6
65 / 69	6	1	2	9	66.8	2	0	0	2	66.9	0	0		0	65.0
60 / 64		0		0	57.3										

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.

WIDE AWAKE AIRFIELD AI WMO No. 619020

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

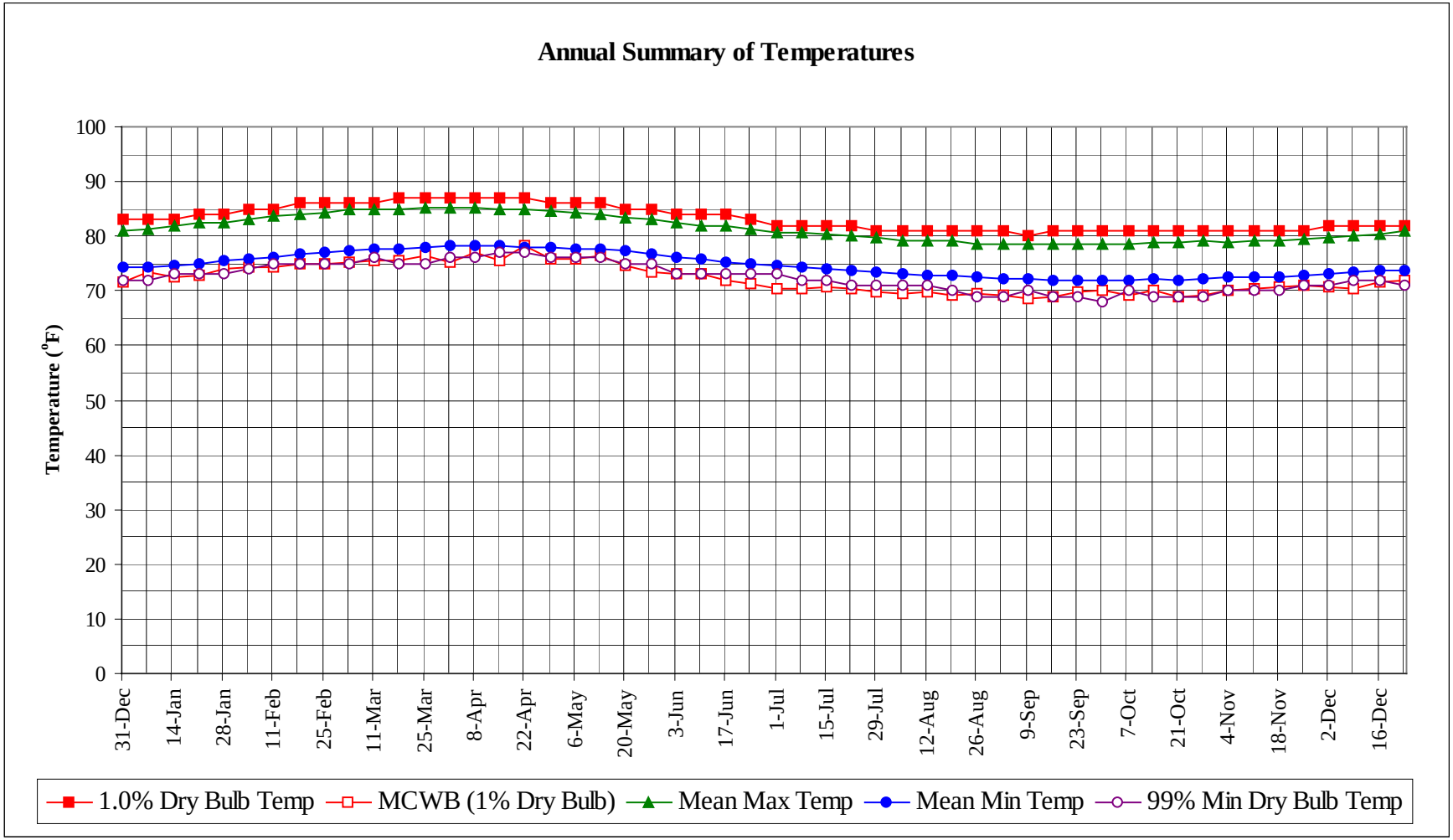
Period of Record = 1967 to 1996

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
90 / 94		0		0	75.5
85 / 89	5	169	24	198	75.3
80 / 84	92	1332	643	2066	72.6
75 / 79	1567	1267	1538	4372	70.0
70 / 74	1232	152	707	2091	67.7
65 / 69	25	1	8	34	66.5
60 / 64		0		0	57.3

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.

WIDE AWAKE AIRFIELD **AI** WMO No. 619020



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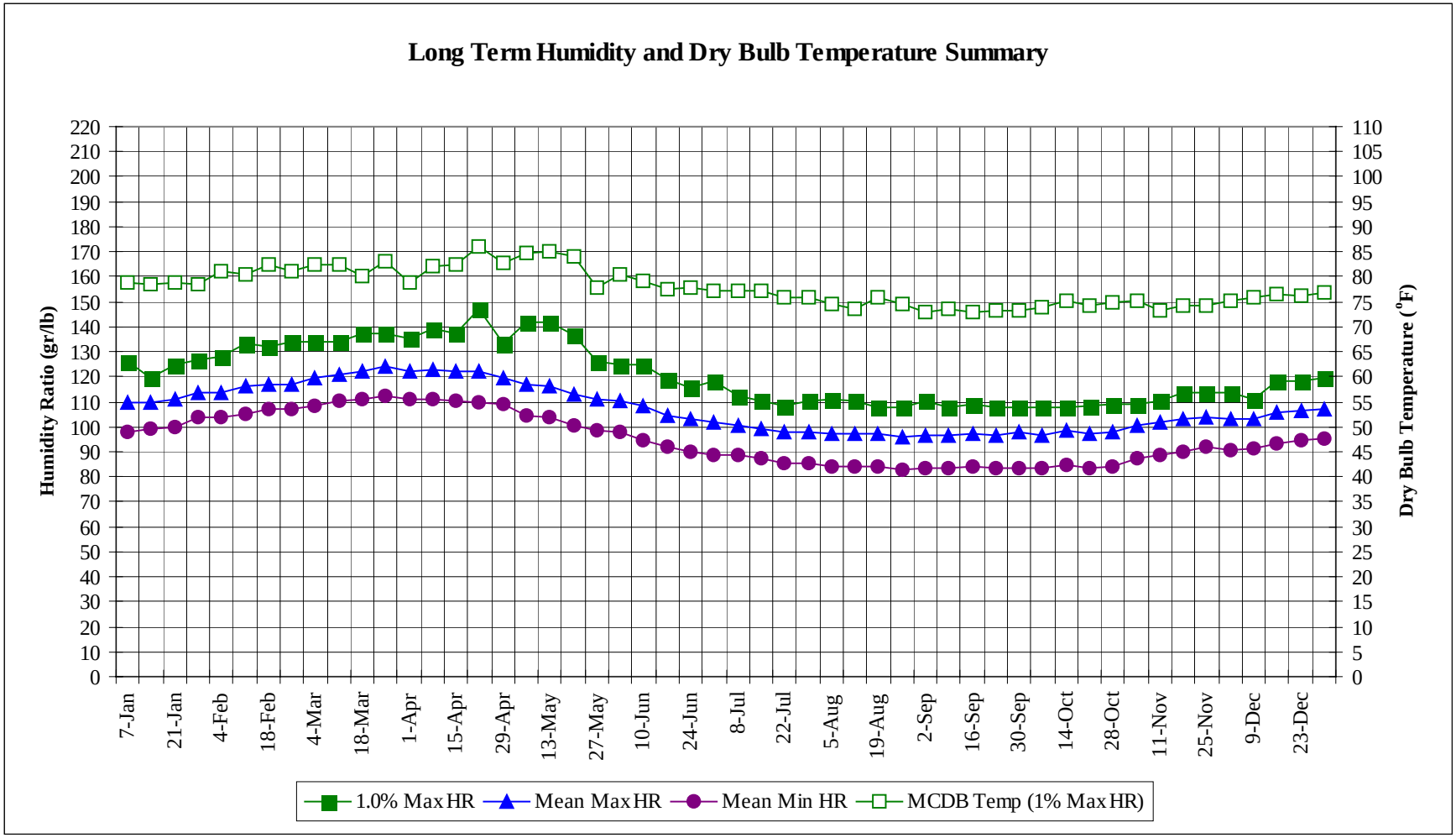
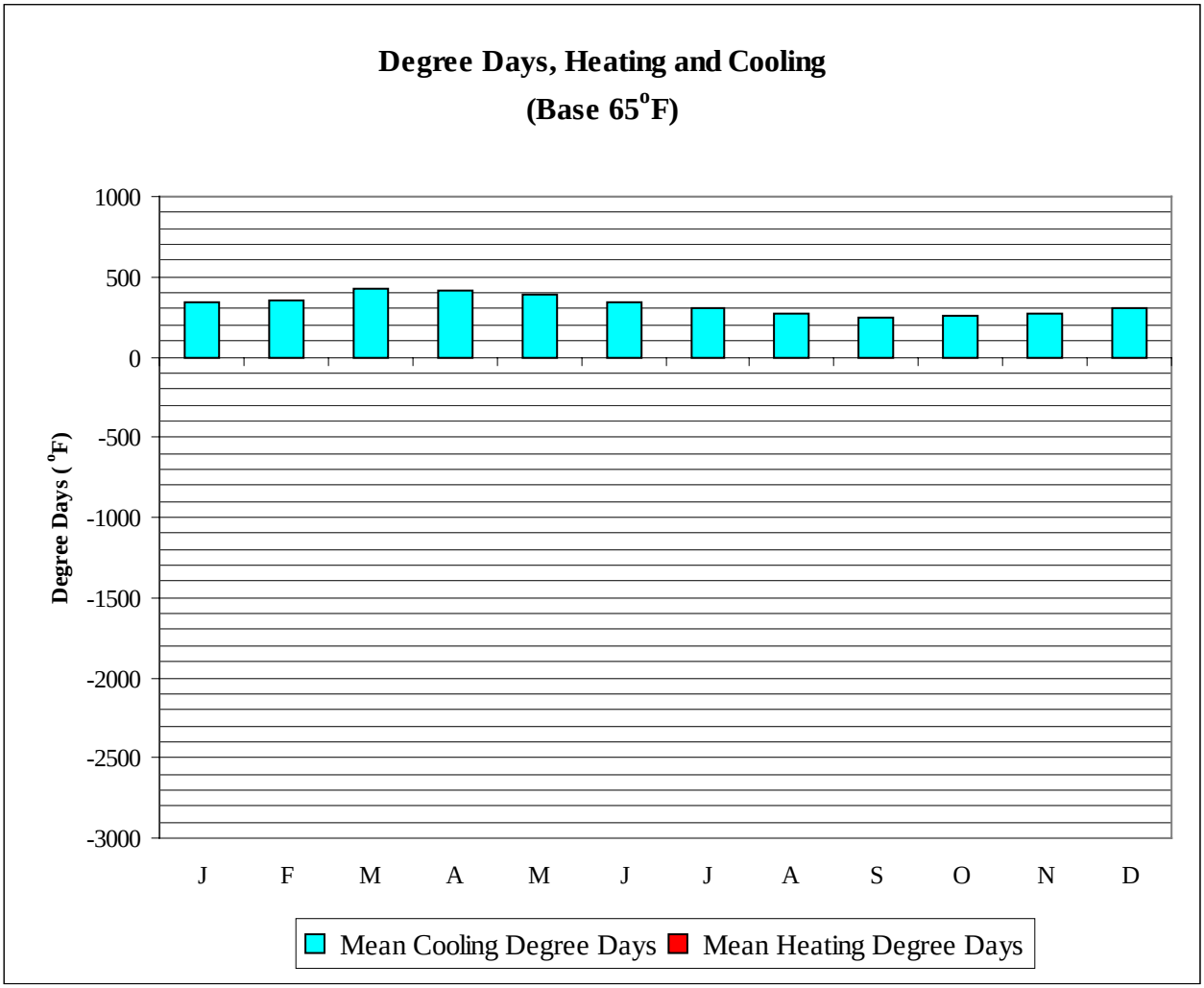


WIDE AWAKE AIRFIELD AI WMO No. 619020

Long Term Dry Bulb Temperature and Humidity Summary

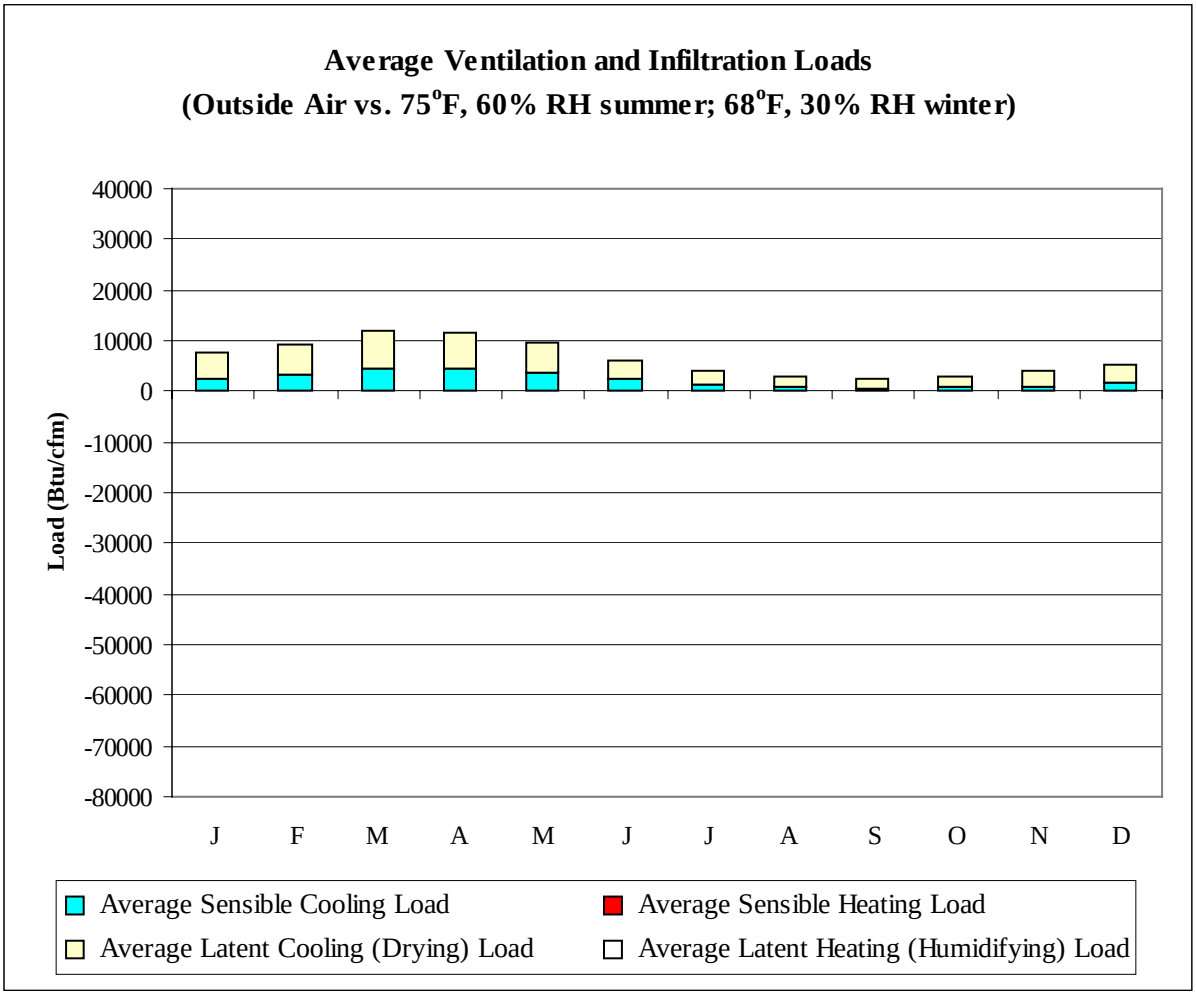
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	83.0	73.4	81.2	74.4	72.0	126.0	78.7	109.7	98.2
14-Jan	83.0	72.4	81.8	74.8	73.0	119.7	78.4	109.8	99.0
21-Jan	84.0	72.9	82.3	75.0	73.0	124.6	78.9	111.2	99.6
28-Jan	84.0	74.0	82.6	75.6	73.0	126.7	78.4	113.7	103.6
4-Feb	85.0	74.4	83.1	75.8	74.0	128.1	81.2	113.9	104.0
11-Feb	85.0	74.4	83.6	76.2	75.0	133.0	80.6	116.0	105.3
18-Feb	86.0	75.0	84.0	76.6	75.0	132.3	82.5	116.7	106.8
25-Feb	86.0	74.9	84.4	77.1	75.0	133.7	81.0	117.2	107.0
4-Mar	86.0	75.1	84.8	77.4	75.0	133.7	82.4	119.6	108.7
11-Mar	86.0	75.5	84.9	77.6	76.0	133.7	82.3	120.8	110.0
18-Mar	87.0	75.4	85.0	77.8	75.0	137.2	80.0	122.1	110.8
25-Mar	87.0	76.4	85.1	77.9	75.0	137.2	83.2	123.8	112.4
1-Apr	87.0	75.3	85.3	78.2	76.0	135.1	78.7	122.5	110.7
8-Apr	87.0	77.0	85.2	78.3	76.0	139.3	82.0	122.8	111.2
15-Apr	87.0	75.7	85.0	78.2	77.0	137.2	82.3	121.9	110.3
22-Apr	87.0	78.2	84.8	78.1	77.0	147.0	86.1	122.0	110.0
29-Apr	86.0	75.7	84.6	78.1	76.0	133.0	82.8	119.6	109.0
6-May	86.0	75.9	84.4	77.7	76.0	142.1	84.7	116.8	104.5
13-May	86.0	76.4	84.0	77.5	76.0	142.1	84.9	116.2	103.7
20-May	85.0	74.8	83.5	77.2	75.0	136.5	84.2	112.7	100.2
27-May	85.0	73.5	83.0	76.6	75.0	126.0	77.8	111.0	98.6
3-Jun	84.0	73.1	82.6	76.2	73.0	124.6	80.4	110.2	97.8
10-Jun	84.0	73.2	82.0	75.8	73.0	124.6	79.0	108.1	94.7
17-Jun	84.0	71.9	81.8	75.3	73.0	119.0	77.6	104.5	91.8
24-Jun	83.0	71.3	81.2	74.9	73.0	115.5	77.7	102.9	90.2
1-Jul	82.0	70.4	80.8	74.5	73.0	118.3	77.3	101.8	88.7
8-Jul	82.0	70.4	80.6	74.3	72.0	112.0	77.0	100.8	88.6
15-Jul	82.0	70.6	80.4	74.1	72.0	110.6	77.2	99.4	87.4
22-Jul	82.0	70.4	80.2	73.6	71.0	108.5	75.9	97.7	85.5
29-Jul	81.0	69.8	79.6	73.4	71.0	110.6	75.8	98.0	85.6
5-Aug	81.0	69.6	79.1	73.1	71.0	111.3	74.6	97.3	84.1
12-Aug	81.0	69.9	79.2	72.9	71.0	110.6	73.7	97.5	83.9
19-Aug	81.0	69.3	79.0	72.8	70.0	107.8	75.8	97.1	84.0
26-Aug	81.0	69.4	78.6	72.4	69.0	107.8	74.5	95.7	82.8
2-Sep	81.0	69.3	78.5	72.1	69.0	110.6	72.9	96.9	83.6
9-Sep	80.0	68.6	78.5	72.1	70.0	107.8	73.5	96.4	83.4
16-Sep	81.0	69.0	78.5	71.9	69.0	109.2	73.0	97.5	84.0
23-Sep	81.0	69.7	78.6	72.0	69.0	107.8	73.3	96.7	83.6
30-Sep	81.0	70.2	78.5	72.0	68.0	107.8	73.2	97.7	83.6
7-Oct	81.0	69.1	78.5	72.0	70.0	107.8	73.8	96.8	83.2
14-Oct	81.0	70.0	78.8	72.1	69.0	107.8	75.1	98.2	84.7
21-Oct	81.0	68.8	78.7	72.0	69.0	108.5	74.2	97.3	83.6
28-Oct	81.0	69.3	79.0	72.3	69.0	109.2	75.0	98.0	84.1
4-Nov	81.0	70.2	78.8	72.4	70.0	109.2	75.1	100.2	87.1
11-Nov	81.0	70.4	79.1	72.6	70.0	110.6	73.2	101.5	89.0
18-Nov	81.0	70.7	79.1	72.6	70.0	113.4	74.3	102.8	89.9
25-Nov	81.0	70.9	79.4	73.0	71.0	113.4	74.3	104.1	91.7
2-Dec	82.0	70.7	79.9	73.2	71.0	113.4	75.3	103.0	90.6
9-Dec	82.0	70.5	80.2	73.4	72.0	111.3	75.8	103.2	91.1
16-Dec	82.0	71.6	80.3	73.7	72.0	118.3	76.5	105.5	93.5
23-Dec	82.0	71.9	80.8	73.8	71.0	118.3	76.1	106.4	94.5
31-Dec	83.0	71.7	81.0	74.2	72.0	119.7	76.7	106.8	95.5

WIDE AWAKE AIRFIELD AI WMO No. 619020



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	344	0
FEB	356	0
MAR	420	0
APR	408	0
MAY	390	0
JUN	338	0
JUL	305	0
AUG	272	0
SEP	251	0
OCT	262	0
NOV	265	0
DEC	305	0
ANN	3916	0

WIDE AWAKE AIRFIELD AI WMO No. 619020



	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	2528	0	5175	0
FEB	3416	0	5770	0
MAR	4540	0	7420	0
APR	4464	0	7124	0
MAY	3765	0	5655	0
JUN	2411	0	3618	0
JUL	1499	0	2594	0
AUG	851	0	2121	0
SEP	628	0	2038	0
OCT	725	-1	2166	0
NOV	934	0	3026	0
DEC	1587	0	3618	0
ANN	27348	-1	50325	0

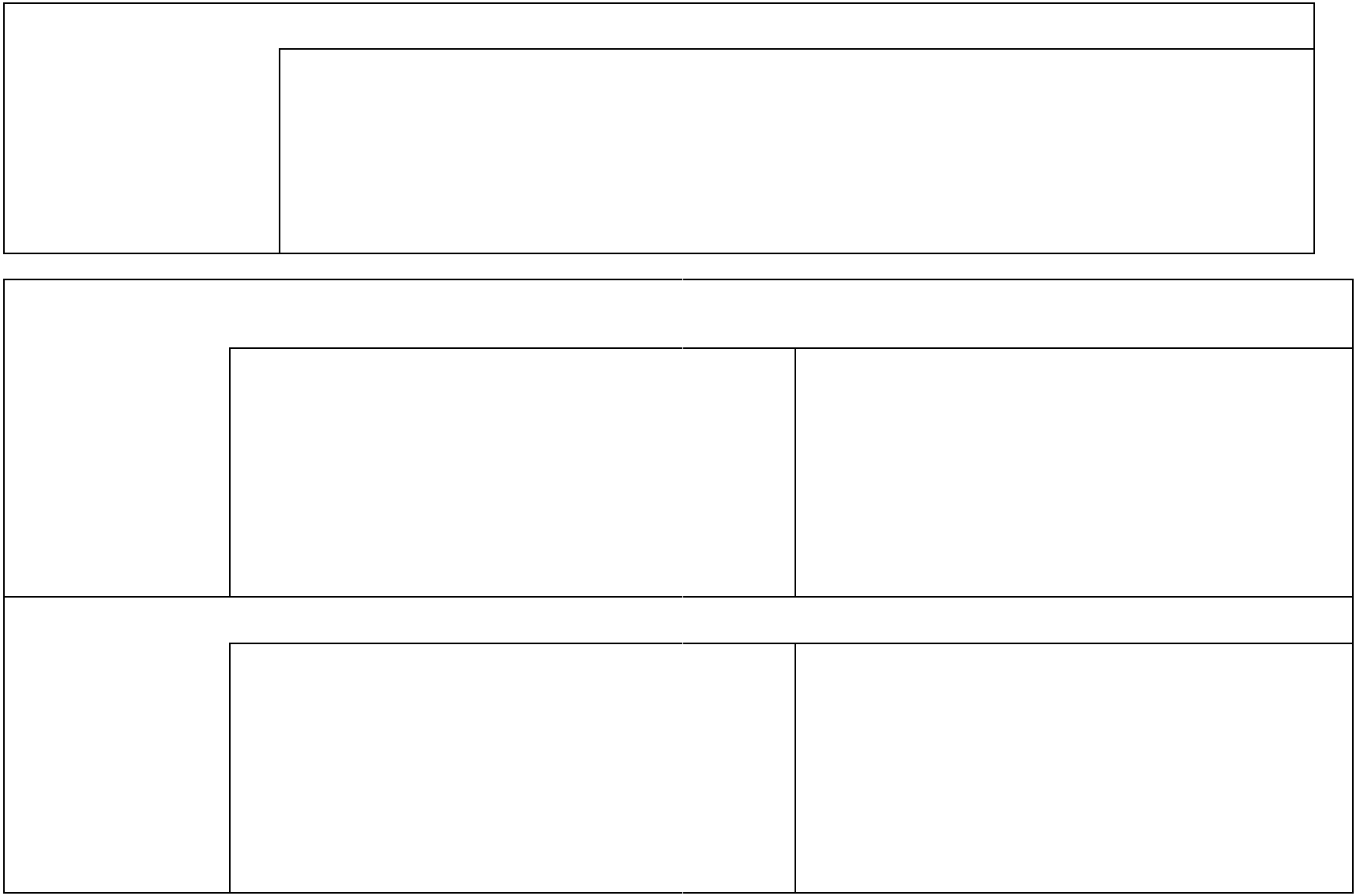
Average Annual Solar Radiation – Nearest Available Site

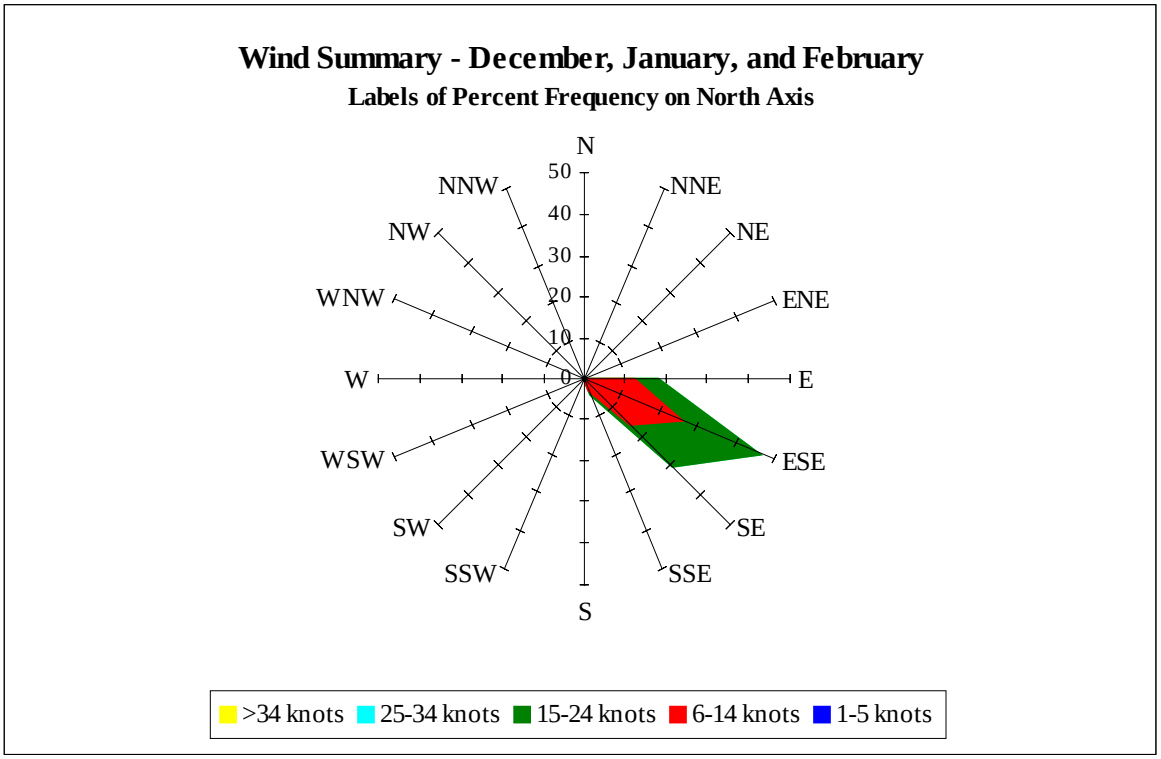
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

Average Annual Solar Heat and Illumination – Nearest Available Site

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





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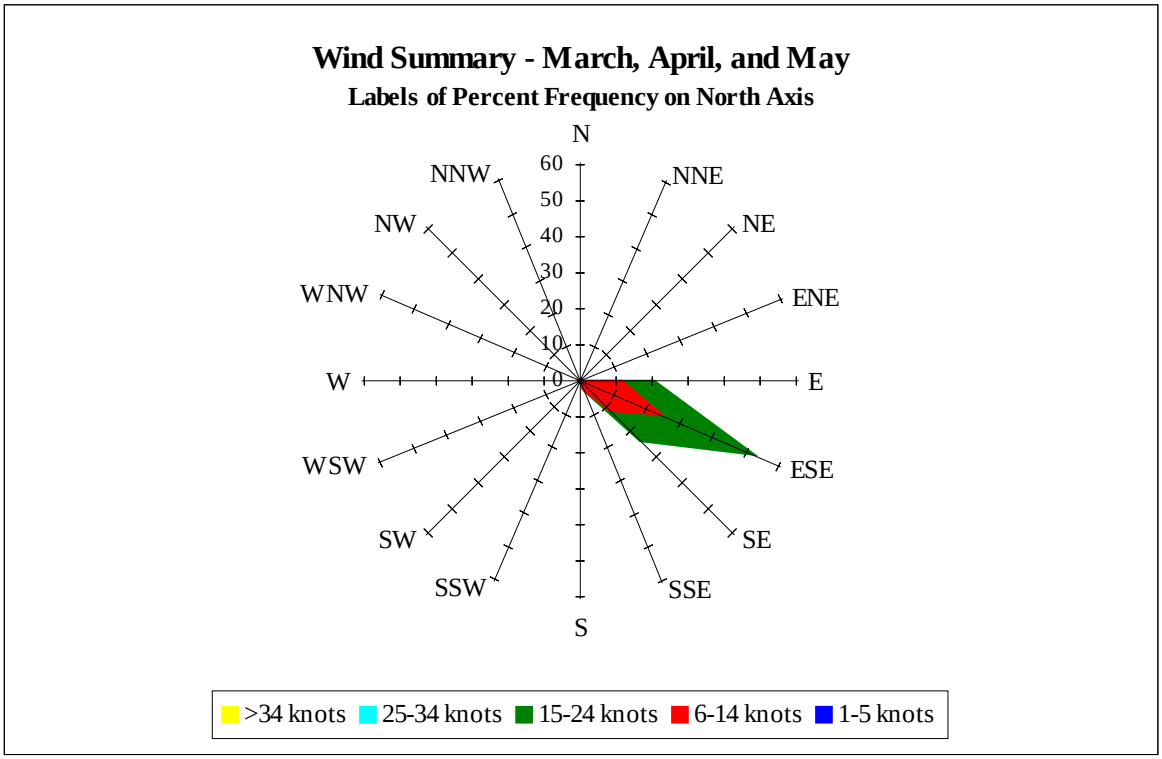
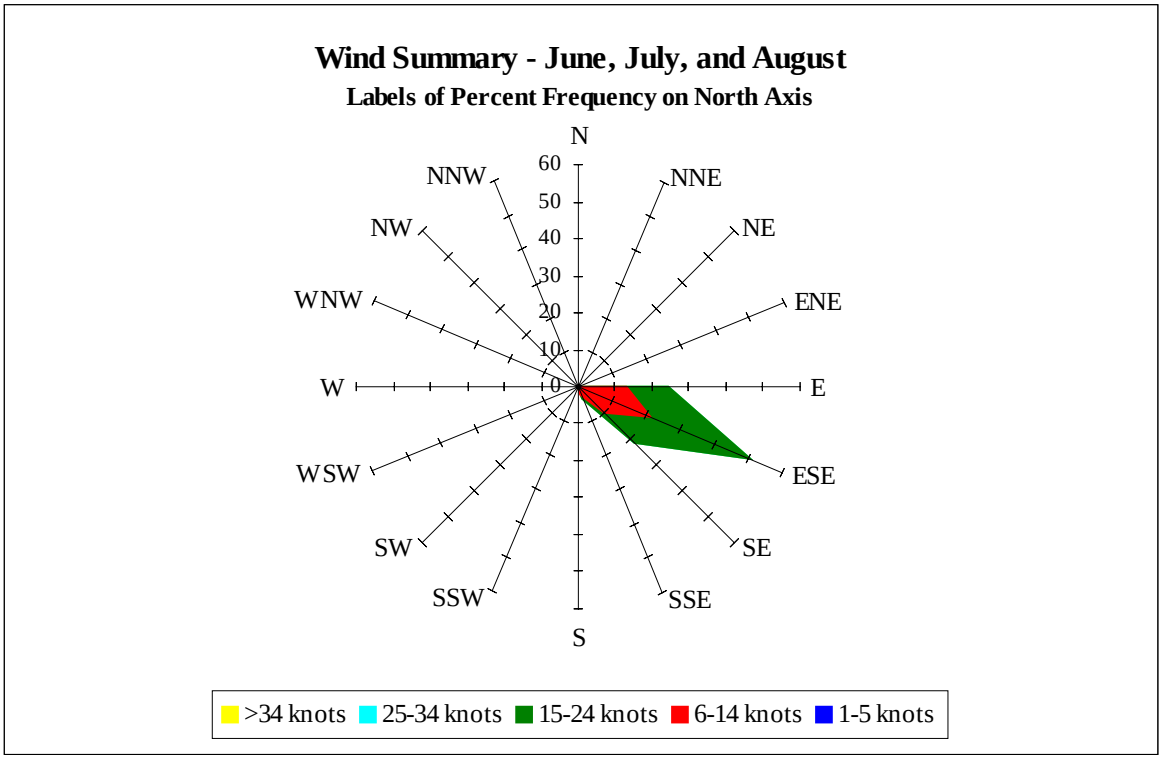
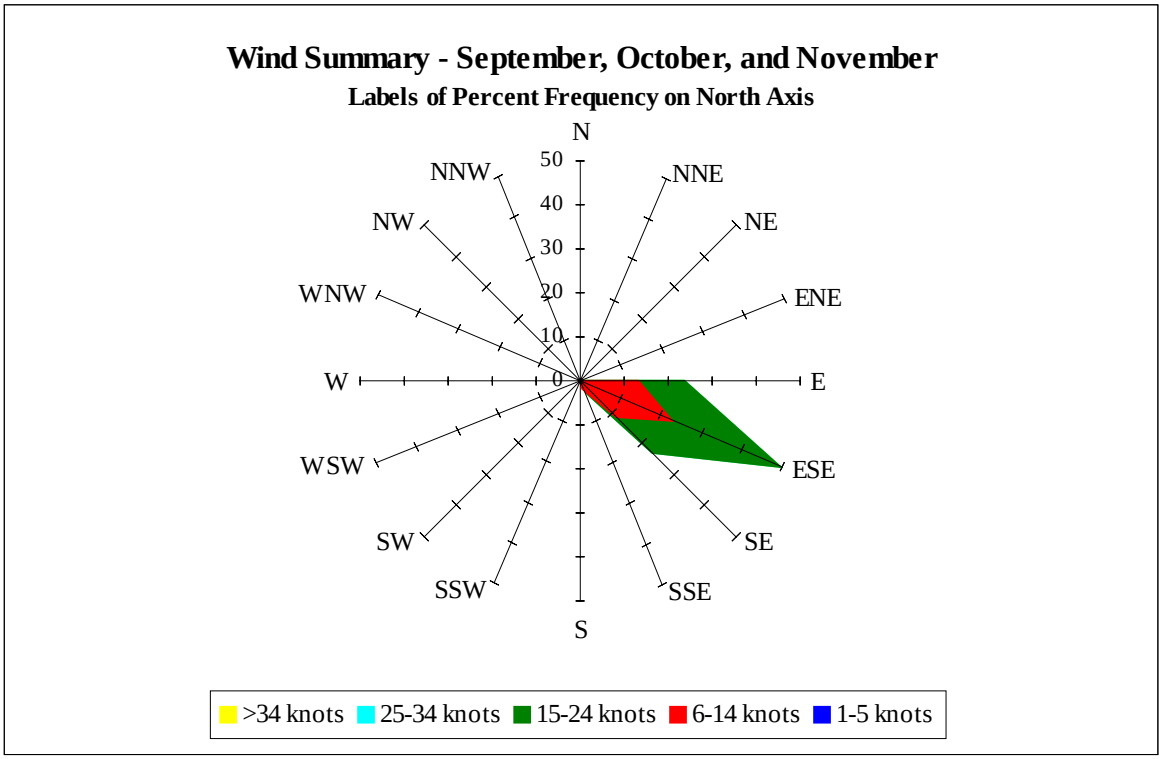


Percent Calm = 0.13



Percent Calm = 0.14



Percent Calm = 0.02