WAKE ISLAND AIRFLD WK	
Latitude = 19.28 N	WMO No. 912450
Longitude =166.65 E	Elevation = 13 feet
Period of Record = 1973 to 1996	Average Pressure = 29.91 inches Hg

Design Criteria Data

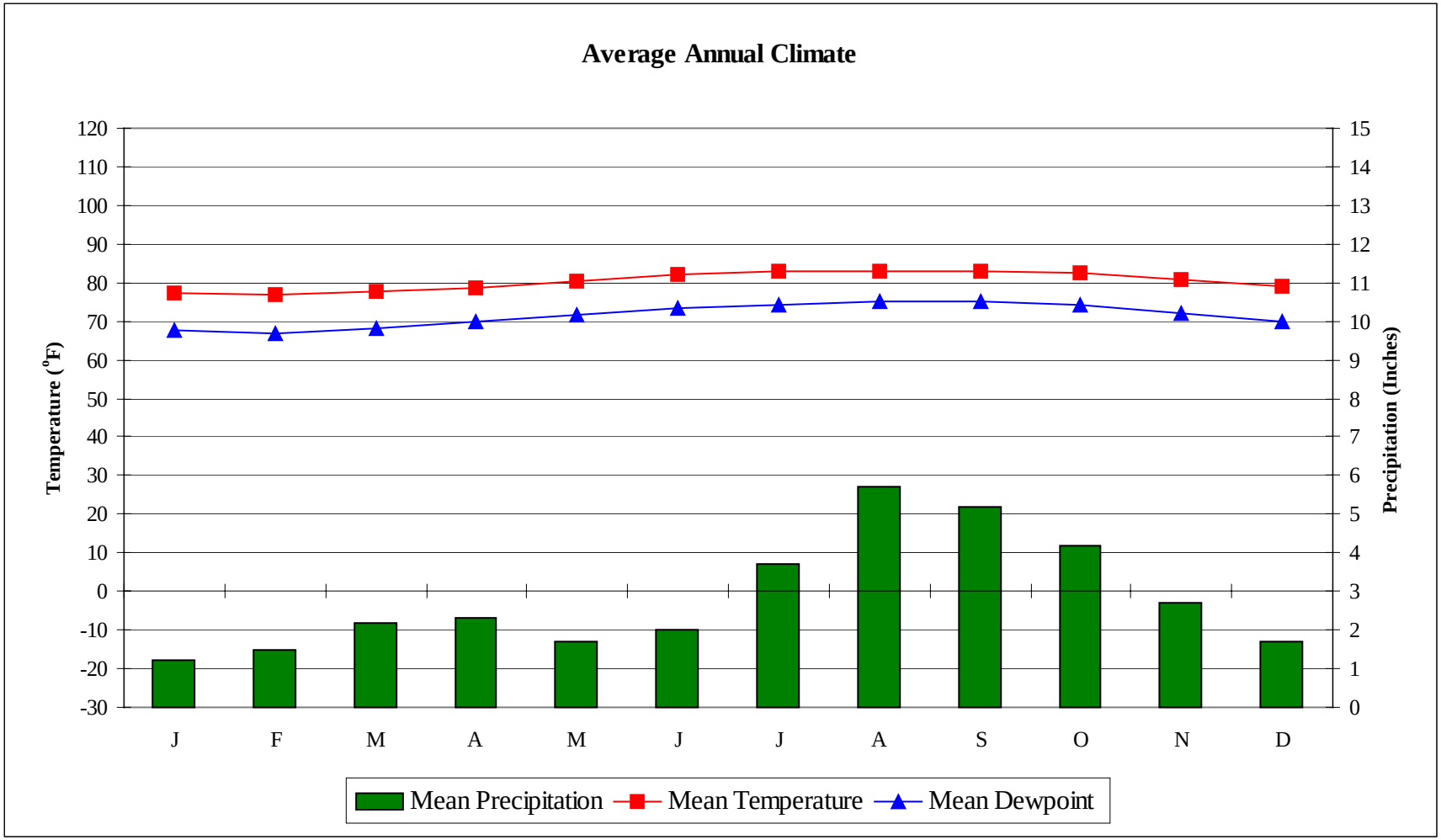
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	92	80	133	11.5	E
0.4% Occurrence	90	79	133	12.7	E
1.0% Occurrence	89	79	132	13.3	E
2.0% Occurrence	88	78	131	13.7	E
Mean Daily Range	8	-	-	-	-
97.5% Occurrence	73	69	99	14.6	ENE
99.0% Occurrence	72	68	97	14.8	ENE
99.6% Occurrence	70	67	92	15.4	ENE
Median of Extreme Lows	68	65	86	15.7	NE
		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	83	87	159	13.9	E
0.4% Occurrence	81	86	147	13.8	E
1.0% Occurrence	81	86	147	13.8	E
2.0% Occurrence	80	86	142	13.6	E
		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	178	86	1.18	13.2	ENE
0.4% Occurrence	157	85	1.04	14.3	E
1.0% Occurrence	151	84	1.00	13.4	E
2.0% Occurrence	146	84	0.97	13.3	E
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	1	4930	6107	8413

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	16.1 + 4.3
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 (#)
82.7	N/A	N/A	0

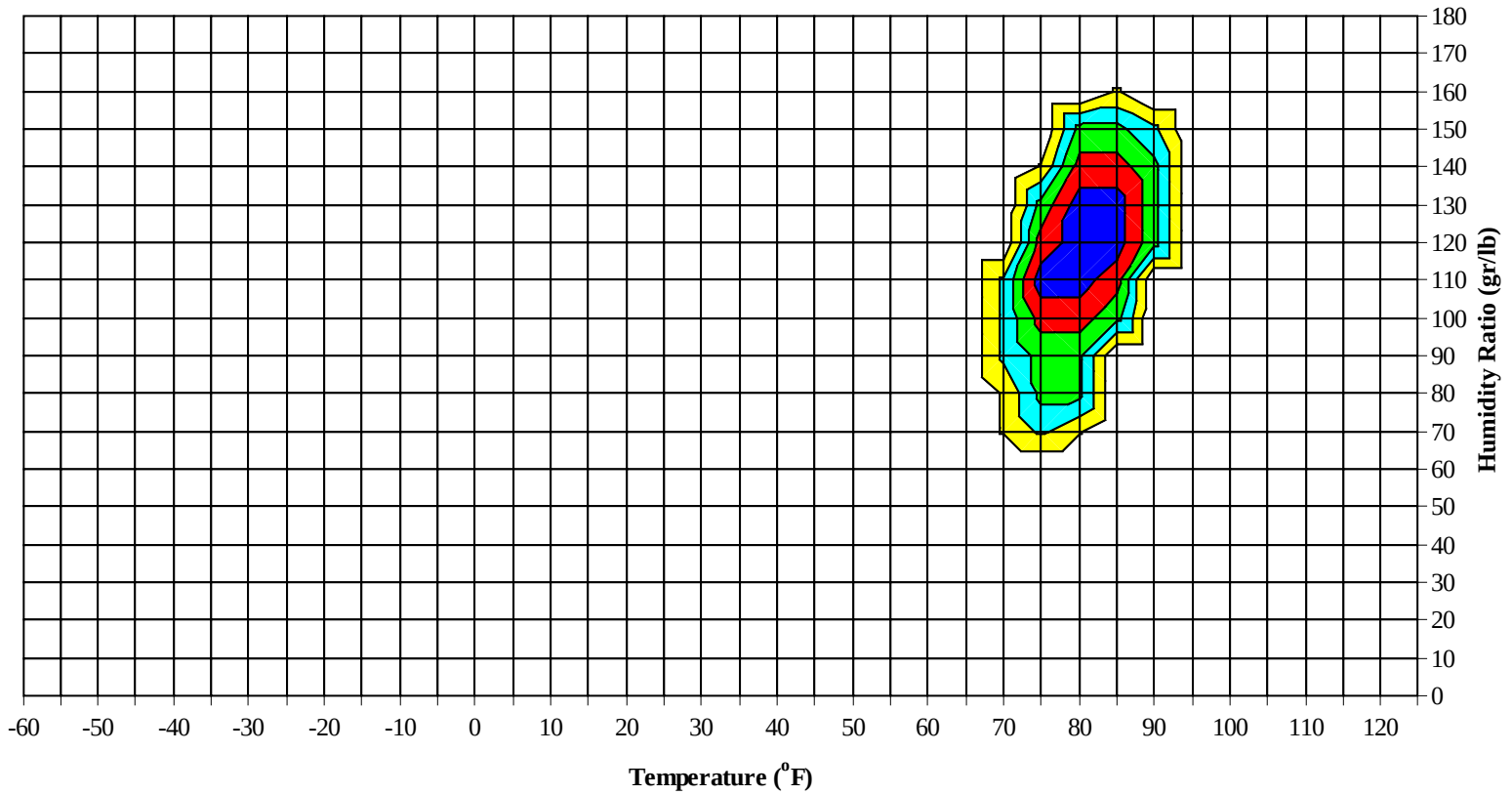
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

WAKE ISLAND AIRFLD WK WMO No. 912450



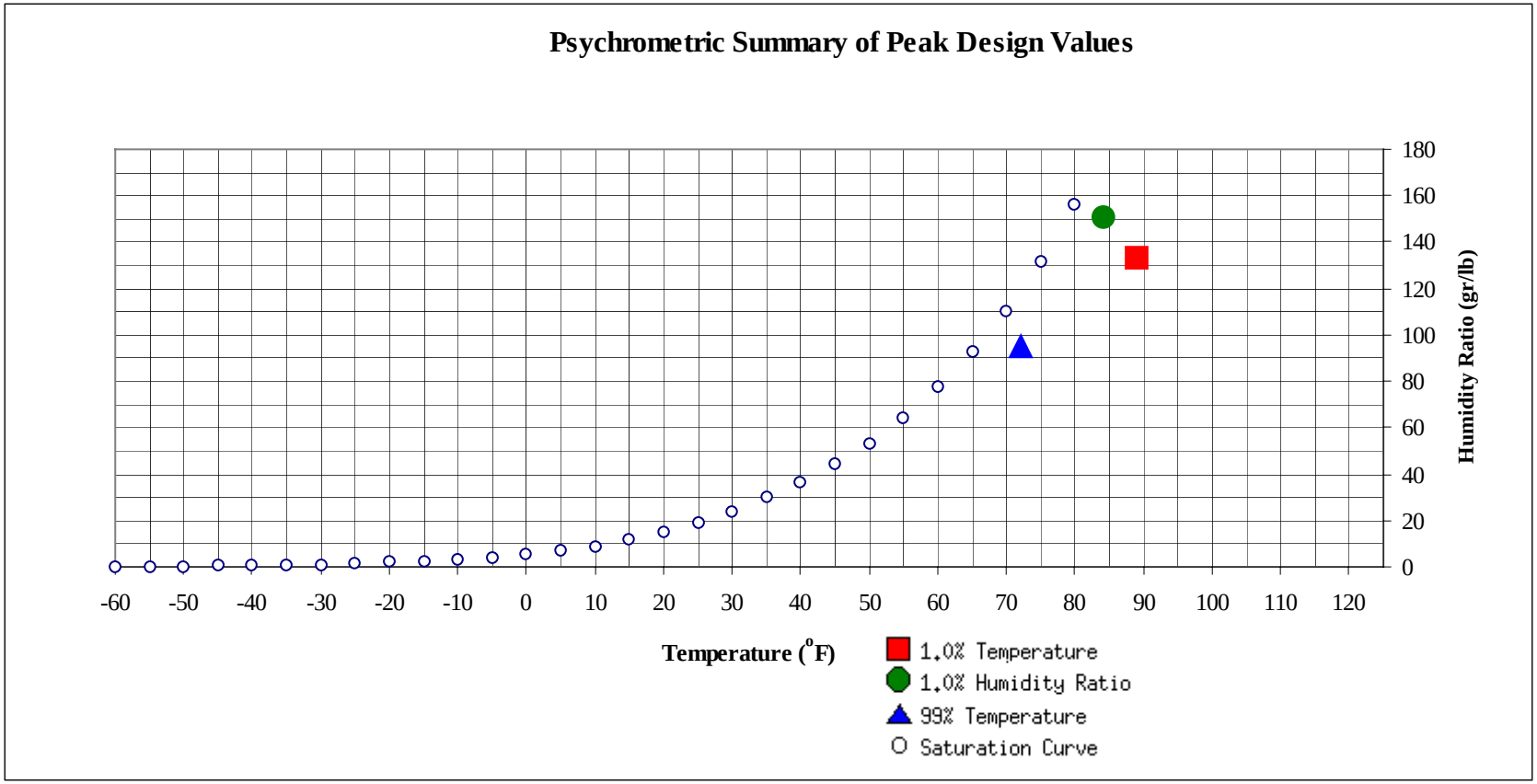
WAKE ISLAND AIRFLD WK WMO No. 912450

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

WAKE ISLAND AIRFLD WK WMO No. 912450



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	72	95	32.1

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	150.5	84.1	80.4	78.9	43.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	89	133	78.9	42.3

WAKE ISLAND AIRFLD WK WMO No. 912450

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

Period of Record = 1973 to 1996

Temperature Range (°F)	January Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	February Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	March Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
95 / 99															
90 / 94			0	0			0		0						
85 / 89		8	0	8	74.3		5	0	5	74.2	0	11	0	11	74.6
80 / 84	2	142	28	172	72.8	1	120	21	141	72.1	2	158	39	199	73.0
75 / 79	151	86	176	413	70.8	96	87	145	328	70.2	153	70	168	391	71.2
70 / 74	92	11	43	146	67.8	123	12	57	192	68.1	88	10	40	138	68.3
65 / 69	3	1	1	5	65.1	4	0	1	5	64.6	4	0	1	5	64.7
60 / 64	0			0			0	0	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.

WAKE ISLAND AIRFLD WK WMO No. 912450

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

Period of Record = 1973 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)
95 / 99							0		0	77.0					
90 / 94						0	1		1	79.1		5	0	5	79.1
85 / 89		31	2	32	75.5	0	82	8	90	76.6	1	154	26	181	77.1
80 / 84	10	166	59	235	73.8	35	149	103	287	74.7	100	75	157	332	75.7
75 / 79	165	38	157	360	72.0	194	15	133	342	72.9	137	7	56	199	74.2
70 / 74	65	5	22	92	69.4	19	1	4	24	70.9	2	0	1	3	72.2
65 / 69	0		0	0	67.1	0		0	0	66.0					
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.

WAKE ISLAND AIRFLD WK WMO No. 912450

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

Period of Record = 1973 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)
95 / 99		0		0	80.0							0		0	80.0
90 / 94		13	0	13	79.2	0	13	0	13	79.5		14	0	14	79.5
85 / 89	1	169	41	211	77.9	1	167	42	210	78.4	2	166	39	207	78.6
80 / 84	157	58	174	389	76.5	166	56	173	395	77.0	180	50	177	408	77.1
75 / 79	88	8	31	128	74.9	78	11	32	122	74.9	56	9	23	87	75.0
70 / 74	1	0	1	2	72.0	2	1	1	4	72.4	2	1	1	4	71.6
65 / 69												0		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.

WAKE ISLAND AIRFLD WK WMO No. 912450

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

Period of Record = 1973 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)
95 / 99															
90 / 94	0	4	0	4	79.9	0		0	0	76.0		0		0	76.0
85 / 89	0	158	18	176	78.0	0	77	3	80	76.5		21	1	22	75.8
80 / 84	162	77	193	432	76.5	80	144	141	364	75.1	16	176	60	252	73.9
75 / 79	84	9	36	129	74.6	154	18	94	266	73.5	198	48	178	424	71.9
70 / 74	2	1	1	4	72.0	7	1	2	10	70.9	34	3	9	46	69.9
65 / 69						0			0	68.0	0			0	64.0
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.

WAKE ISLAND AIRFLD WK WMO No. 912450

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

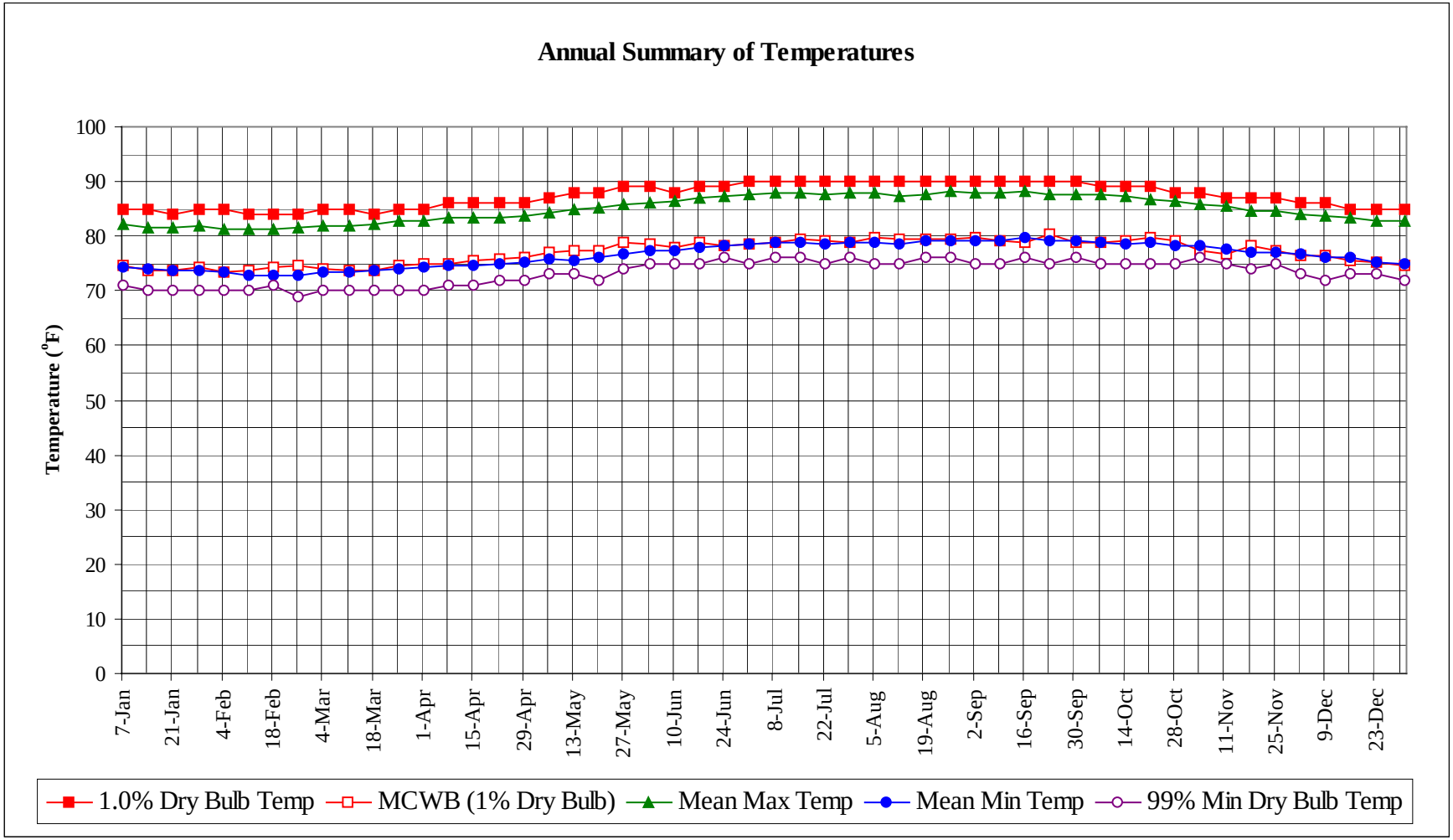
Period of Record = 1973 to 1996

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
95 / 99		0		0	79.3
90 / 94	0	50	1	51	79.4
85 / 89	7	1040	178	1224	77.6
80 / 84	898	1374	1313	3586	75.3
75 / 79	1558	408	1240	3207	72.3
70 / 74	444	47	185	676	68.6
65 / 69	12	1	3	16	64.9
60 / 64	0	0	0	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.

WAKE ISLAND AIRFLD WK WMO No. 912450



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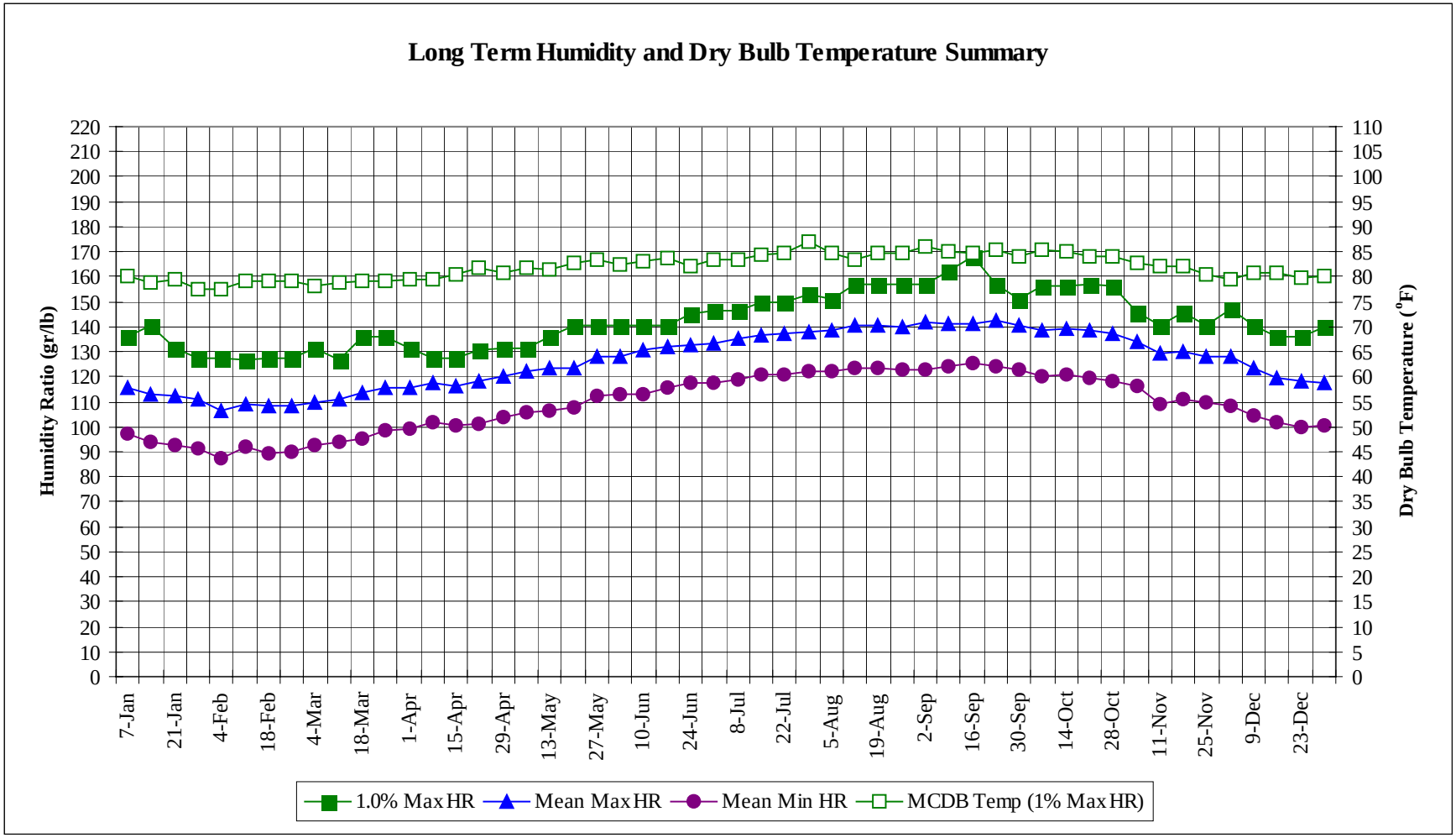
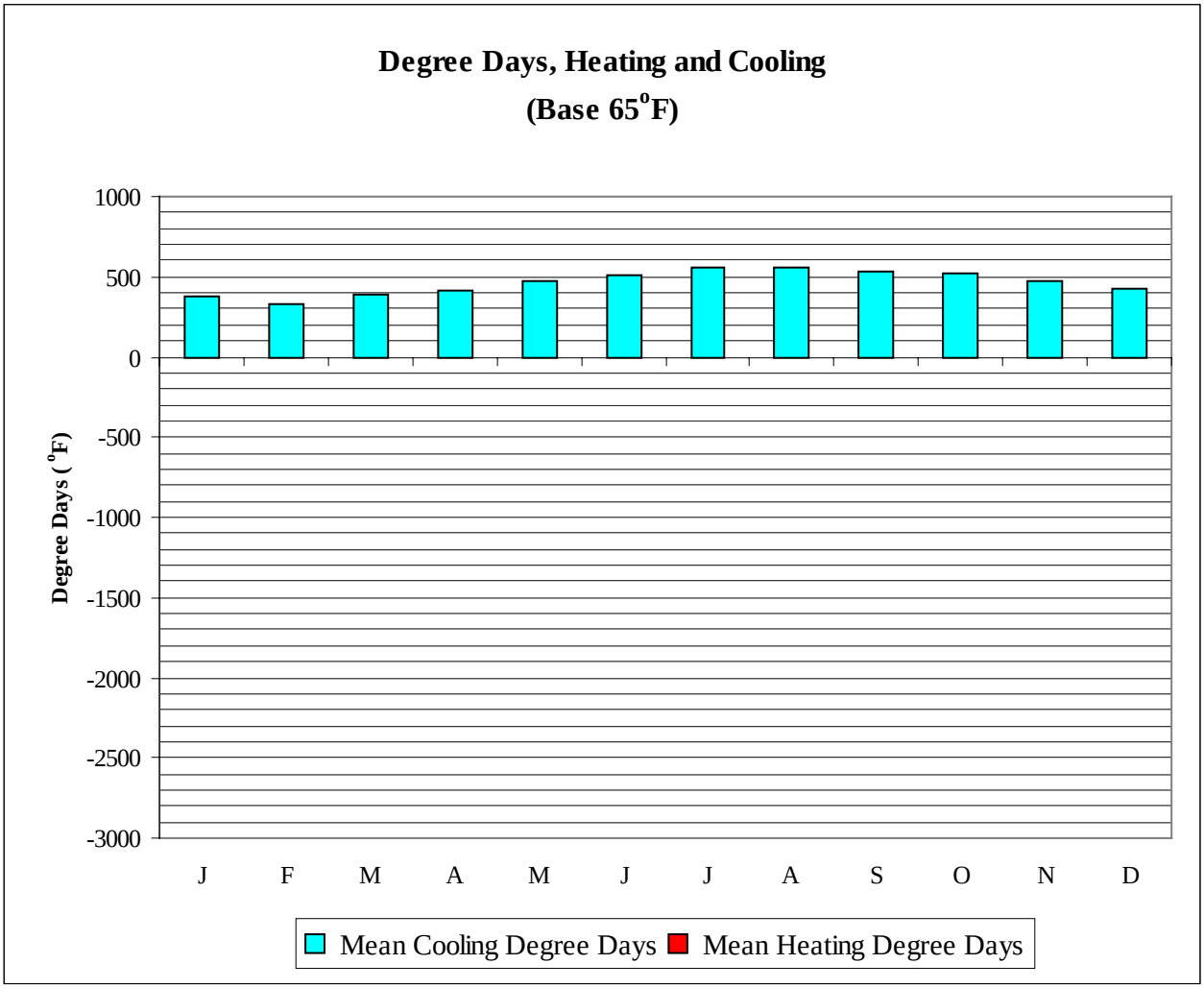


WAKE ISLAND AIRFLD WK WMO No. 912450

Long Term Dry Bulb Temperature and Humidity Summary

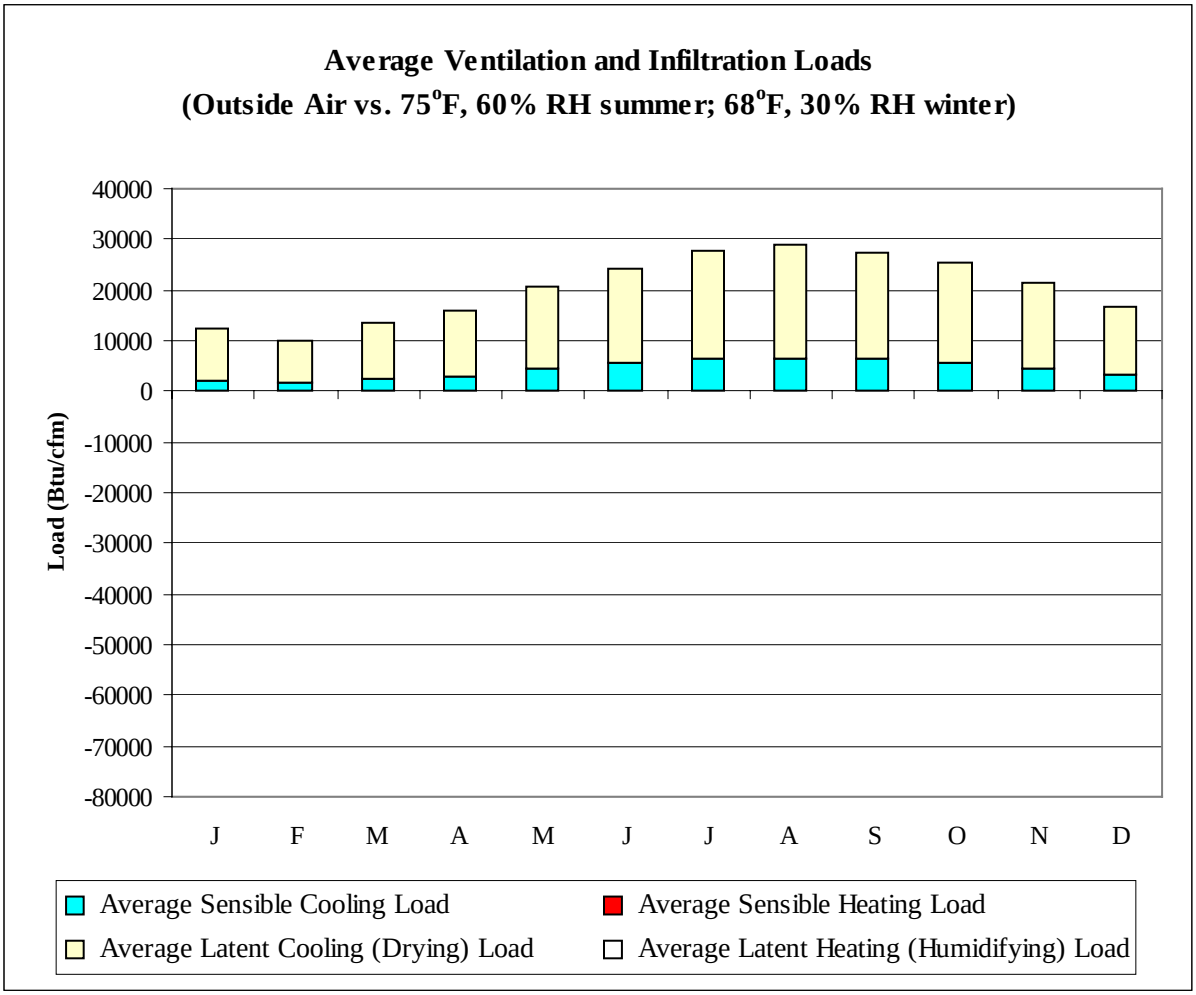
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	85.0	74.7	82.2	74.4	71.0	135.8	80.1	115.6	97.2
14-Jan	85.0	73.7	81.7	74.1	70.0	140.7	78.7	112.6	94.1
21-Jan	84.0	73.8	81.7	73.7	70.0	131.6	79.6	112.4	92.5
28-Jan	85.0	74.4	81.8	73.6	70.0	127.4	77.6	110.7	91.2
4-Feb	85.0	73.5	81.2	73.3	70.0	127.4	77.4	106.2	87.2
11-Feb	84.0	73.8	81.4	72.9	70.0	126.7	79.3	109.2	91.8
18-Feb	84.0	74.4	81.3	72.9	71.0	127.4	79.1	108.2	89.4
25-Feb	84.0	74.6	81.6	72.7	69.0	127.4	79.0	108.4	90.1
4-Mar	85.0	74.0	81.7	73.3	70.0	131.6	78.2	110.0	92.4
11-Mar	85.0	73.7	82.0	73.5	70.0	126.7	78.7	110.7	93.6
18-Mar	84.0	73.7	82.2	73.7	70.0	135.8	79.3	113.7	95.4
25-Mar	85.0	74.7	82.7	74.2	70.0	135.8	79.3	115.5	98.6
1-Apr	85.0	74.8	82.8	74.4	70.0	131.6	79.4	115.6	99.2
8-Apr	86.0	75.0	83.5	74.6	71.0	127.4	79.5	117.3	101.5
15-Apr	86.0	75.4	83.3	74.7	71.0	127.4	80.4	116.5	100.2
22-Apr	86.0	75.9	83.5	75.0	72.0	130.9	81.6	118.1	101.4
29-Apr	86.0	76.1	83.6	75.1	72.0	131.6	80.7	120.0	103.6
6-May	87.0	77.0	84.4	76.0	73.0	131.6	81.8	122.2	106.0
13-May	88.0	77.4	84.8	75.6	73.0	135.8	81.3	123.6	106.7
20-May	88.0	77.4	85.1	76.2	72.0	140.7	82.9	123.3	107.6
27-May	89.0	78.7	85.7	76.7	74.0	140.7	83.4	127.9	112.1
3-Jun	89.0	78.5	86.1	77.2	75.0	140.7	82.3	128.2	112.9
10-Jun	88.0	78.0	86.6	77.5	75.0	140.7	83.1	130.5	113.2
17-Jun	89.0	78.9	87.0	78.0	75.0	140.7	83.6	131.9	115.5
24-Jun	89.0	78.3	87.3	78.3	76.0	144.9	82.2	132.6	117.5
1-Jul	90.0	78.6	87.5	78.5	75.0	146.3	83.4	133.5	117.6
8-Jul	90.0	78.8	87.8	78.8	76.0	146.3	83.4	135.1	119.1
15-Jul	90.0	79.4	88.1	78.9	76.0	149.8	84.3	136.9	120.6
22-Jul	90.0	79.0	87.5	78.7	75.0	149.8	84.7	137.6	120.7
29-Jul	90.0	78.8	87.9	79.0	76.0	153.3	87.0	137.8	122.3
5-Aug	90.0	79.6	87.9	78.8	75.0	151.2	84.7	138.6	122.1
12-Aug	90.0	79.3	87.2	78.6	75.0	156.8	83.5	140.5	123.3
19-Aug	90.0	79.4	87.6	79.1	76.0	156.8	84.8	140.9	123.5
26-Aug	90.0	79.5	88.1	79.1	76.0	156.8	84.8	139.7	122.9
2-Sep	90.0	79.6	88.0	79.2	75.0	156.8	86.1	141.8	122.8
9-Sep	90.0	79.3	87.8	79.1	75.0	162.4	84.9	141.4	124.1
16-Sep	90.0	78.7	88.2	79.9	76.0	168.0	84.7	141.3	125.2
23-Sep	90.0	80.3	87.7	79.1	75.0	156.8	85.5	142.5	124.3
30-Sep	90.0	79.0	87.7	79.0	76.0	151.2	83.9	140.5	122.5
7-Oct	89.0	78.9	87.5	79.0	75.0	156.1	85.5	138.3	120.1
14-Oct	89.0	79.2	87.3	78.7	75.0	156.1	85.0	139.3	121.1
21-Oct	89.0	79.7	86.7	78.7	75.0	156.8	84.0	138.7	119.7
28-Oct	88.0	79.0	86.3	78.4	75.0	156.1	84.2	137.1	118.4
4-Nov	88.0	77.4	85.9	78.3	76.0	145.6	82.8	134.0	116.2
11-Nov	87.0	76.9	85.5	77.7	75.0	140.7	82.1	129.1	109.2
18-Nov	87.0	78.1	84.7	77.1	74.0	145.6	82.0	130.3	111.2
25-Nov	87.0	77.2	84.5	77.1	75.0	140.7	80.3	128.1	110.0
2-Dec	86.0	76.4	83.9	76.8	73.0	147.0	79.4	128.1	108.4
9-Dec	86.0	76.3	83.7	76.0	72.0	140.7	80.8	123.5	104.3
16-Dec	85.0	75.6	83.3	76.0	73.0	135.8	80.7	119.5	101.7
23-Dec	85.0	75.1	82.8	75.3	73.0	135.8	79.8	117.9	100.0
31-Dec	85.0	74.7	82.7	74.9	72.0	140.0	80.3	117.9	100.2

WAKE ISLAND AIRFLD WK WMO No. 912450



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	376	0
FEB	331	0
MAR	390	0
APR	411	0
MAY	474	0
JUN	514	0
JUL	557	0
AUG	557	0
SEP	538	0
OCT	517	0
NOV	471	0
DEC	431	0
ANN	5568	0

WAKE ISLAND AIRFLD WK WMO No. 912450

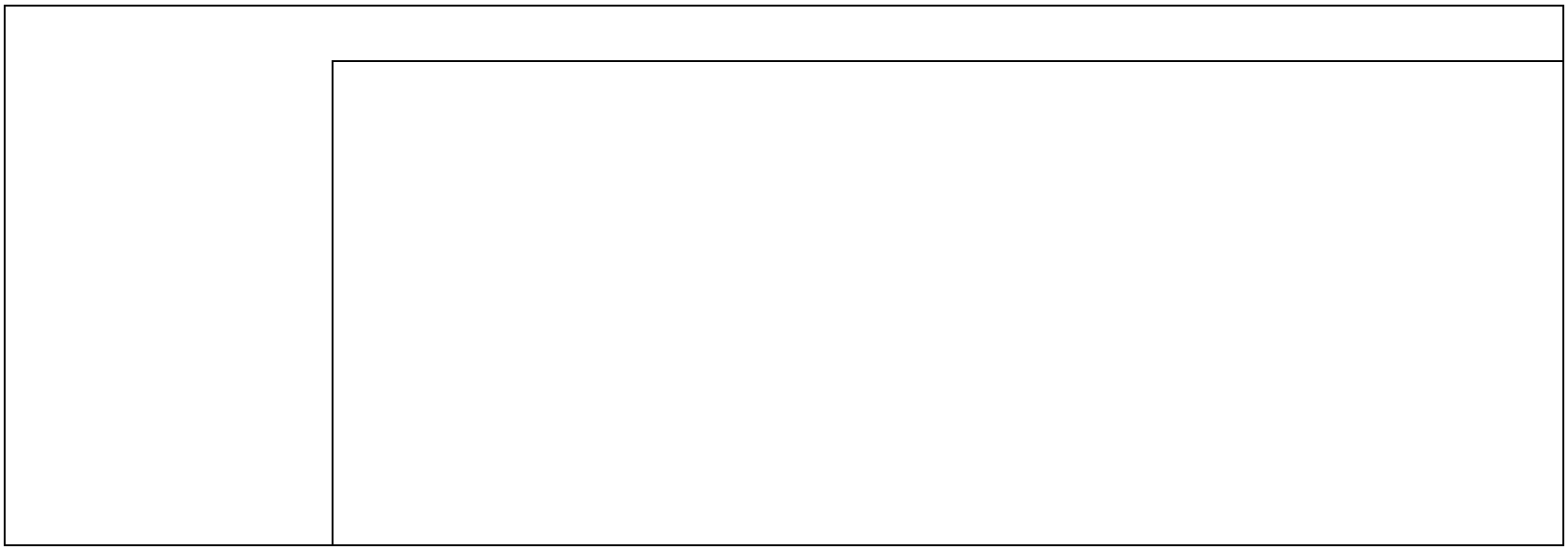


	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	2166	-1	10129	0
FEB	1679	-1	8406	0
MAR	2394	0	11261	0
APR	3057	0	12967	0
MAY	4289	0	16205	0
JUN	5554	0	18573	0
JUL	6410	0	21277	0
AUG	6415	0	22337	0
SEP	6327	0	21182	0
OCT	5715	0	19867	0
NOV	4456	0	17079	0
DEC	3224	0	13615	0
ANN	51686	-2	192898	0

Average Annual Solar Radiation – Nearest Available Site

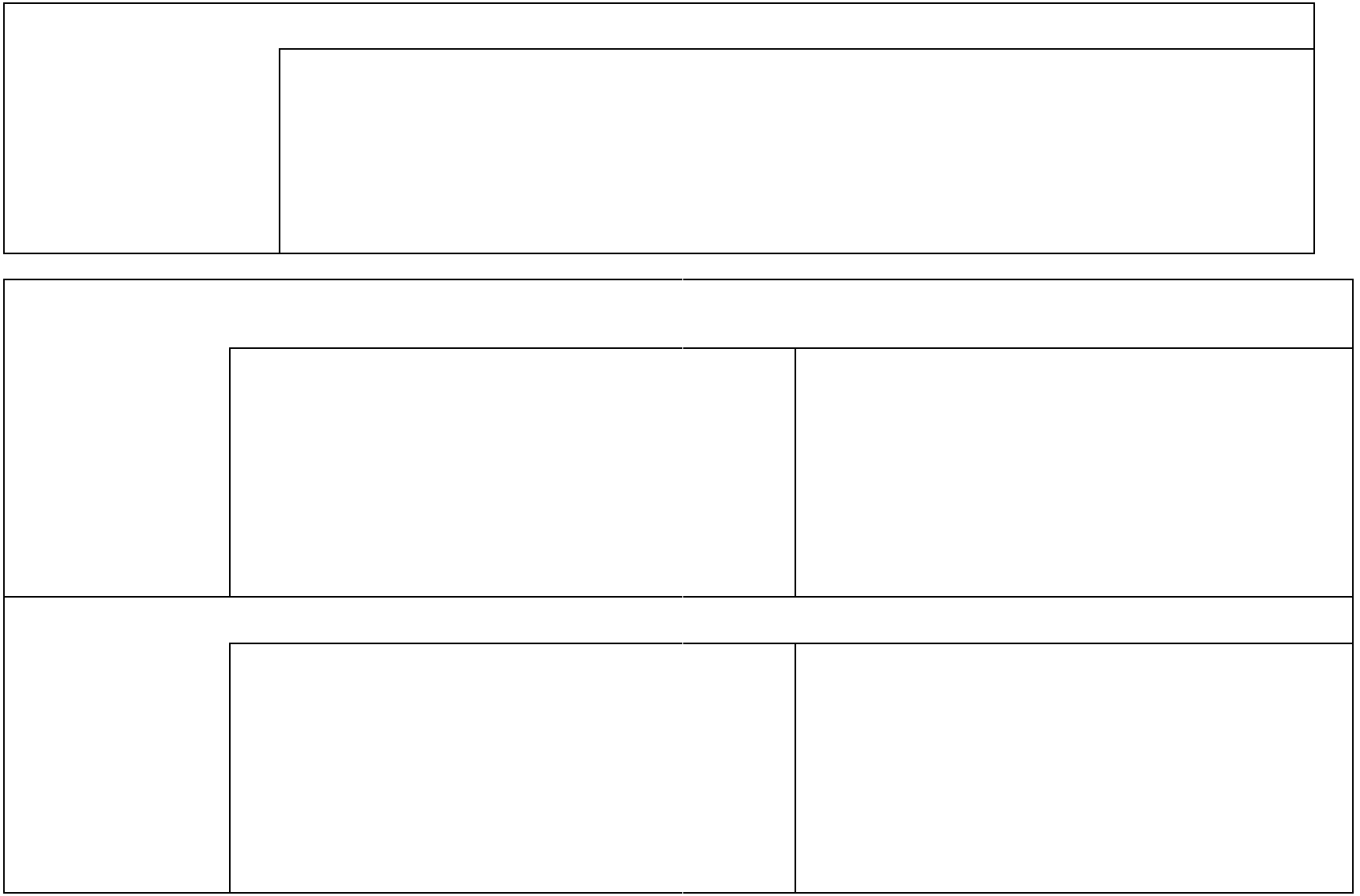
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

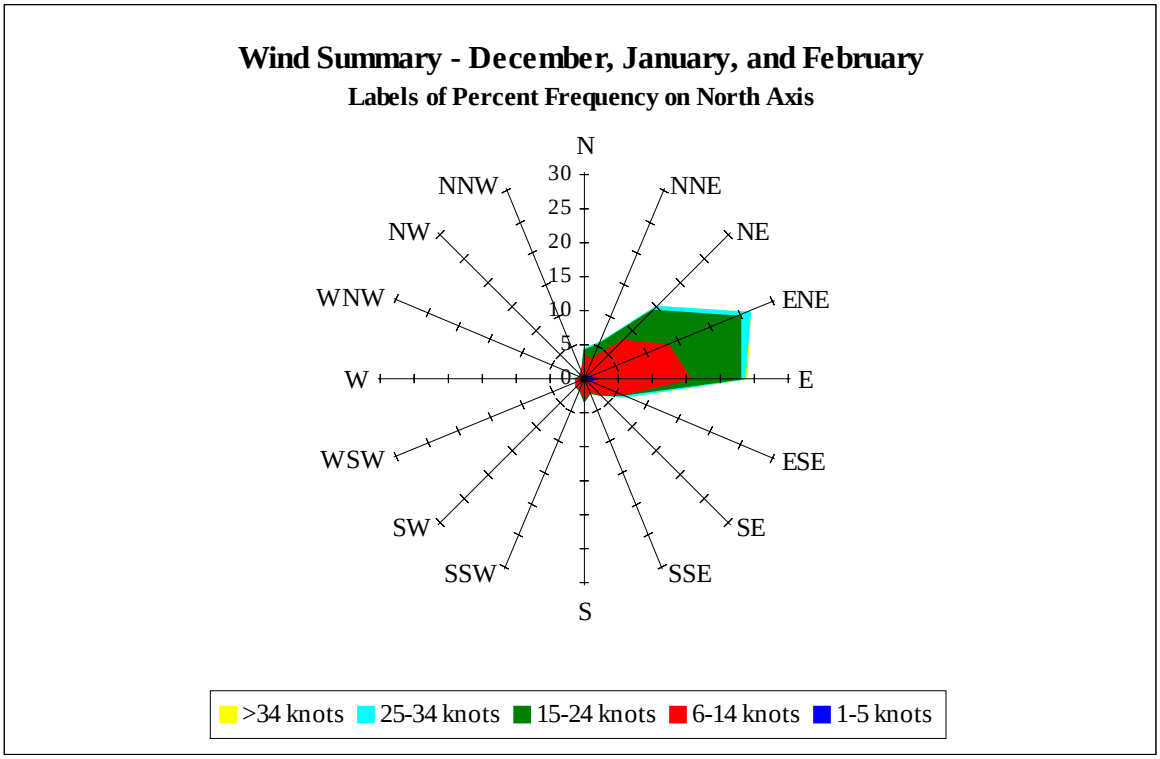
No Solar Radiation
Data Available



Average Annual Solar Heat and Illumination – Nearest Available Site

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





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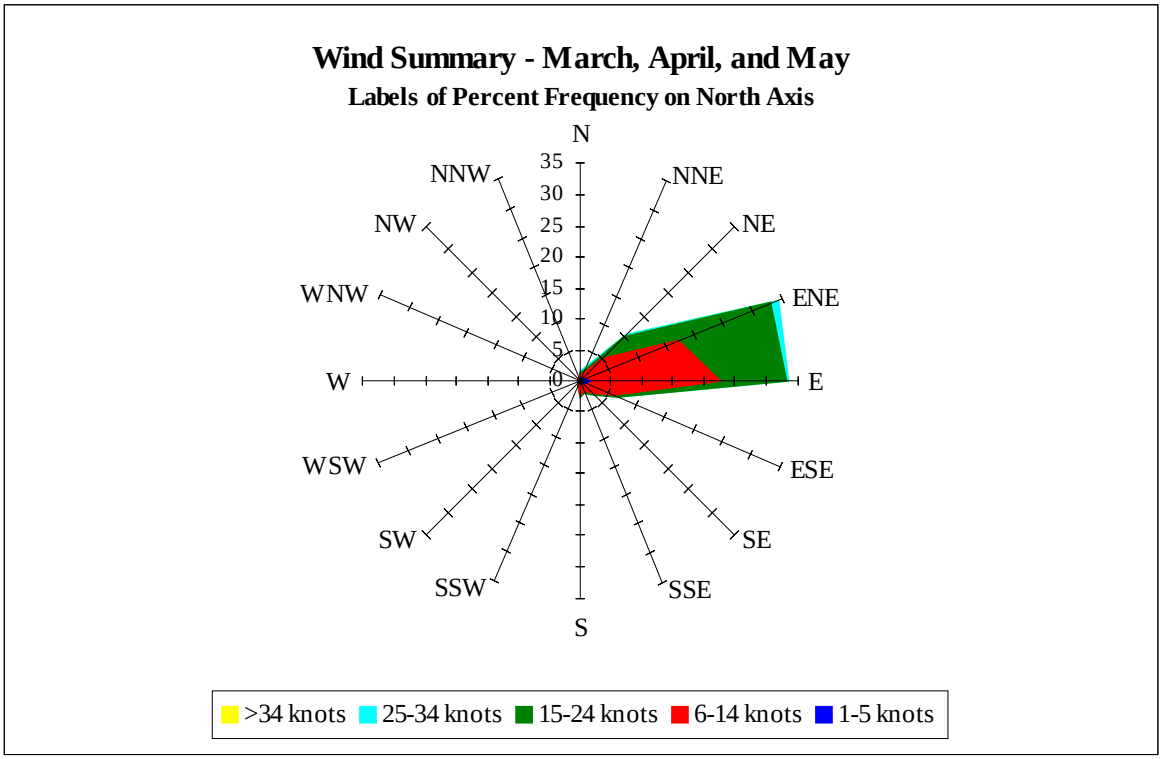
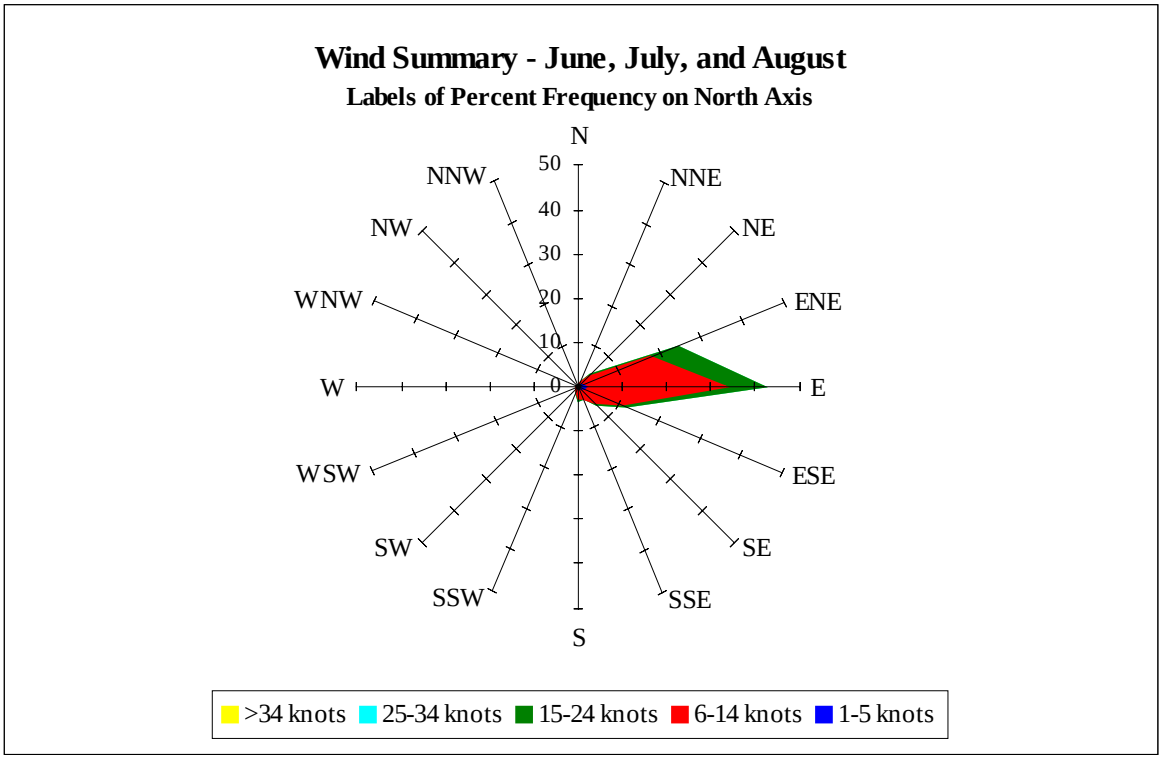
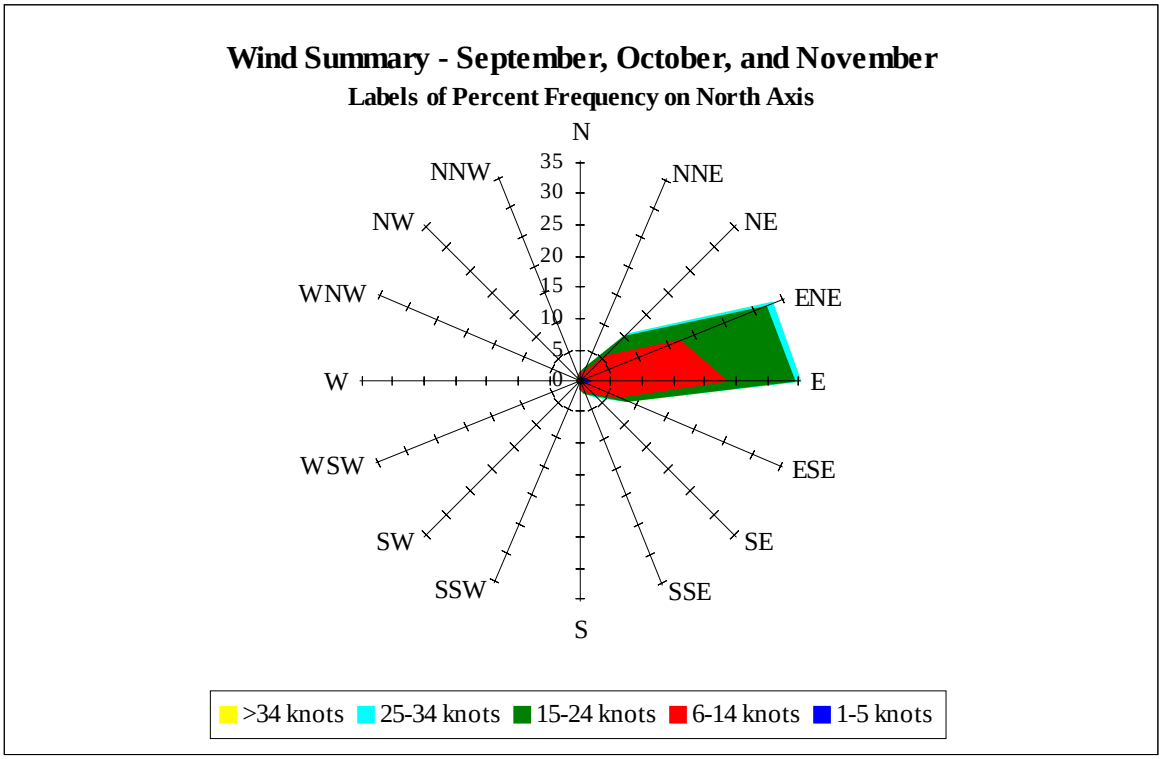


Percent Calm = 0.42



Percent Calm = 0.76



Percent Calm = 0.64