

IRAKLION (CIV/AFB) GR

Latitude = 35.33 N

WMO No. 167540

Longitude = 25.18 E

Elevation = 128 feet

Period of Record = 1973 to 1996

Average Pressure = 29.79 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	97	66	48	15.0	S
0.4% Occurrence	89	67	63	11.3	S
1.0% Occurrence	86	67	72	9.8	NW
2.0% Occurrence	84	68	78	10.6	NW
Mean Daily Range	11	-	-	-	-
97.5% Occurrence	46	42	33	11.6	S
99.0% Occurrence	45	40	30	12.3	S
99.6% Occurrence	43	39	29	12.4	S
Median of Extreme Lows	37	34	25	13.2	S
	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	76	83	124	9.2	NNW
0.4% Occurrence	74	81	115	9.5	NNW
1.0% Occurrence	73	81	110	9.3	NW
2.0% Occurrence	72	81	104	10.5	NW
	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	126	82	0.83	9.8	NW
0.4% Occurrence	118	80	0.78	8.2	NNW
1.0% Occurrence	111	79	0.74	8.6	NW
2.0% Occurrence	104	79	0.69	9.7	NW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		11	683	111	1309

Other Site Data

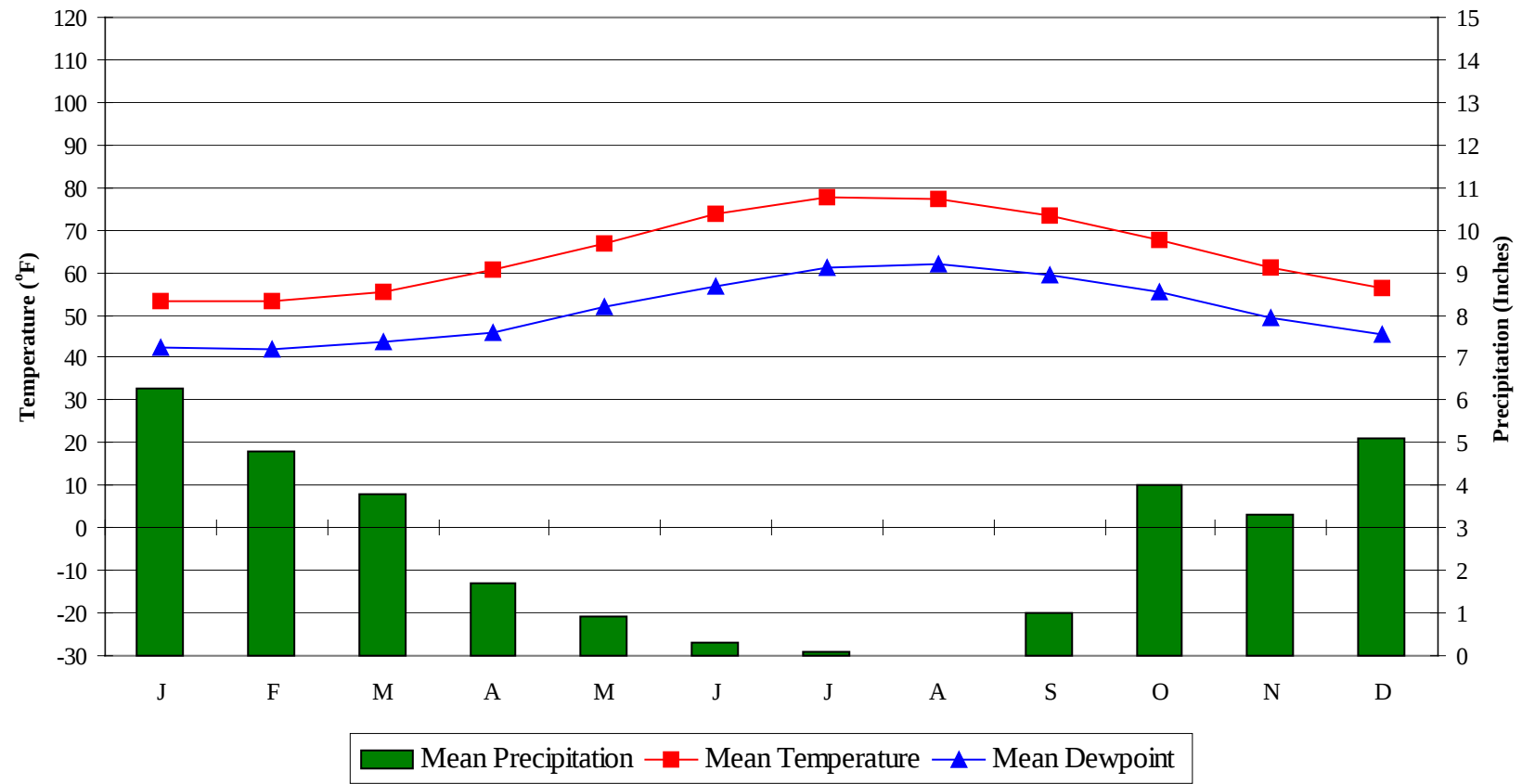
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
9	N/A	N/A	1.1 + 0.7
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
67.2	N/A	N/A	0

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

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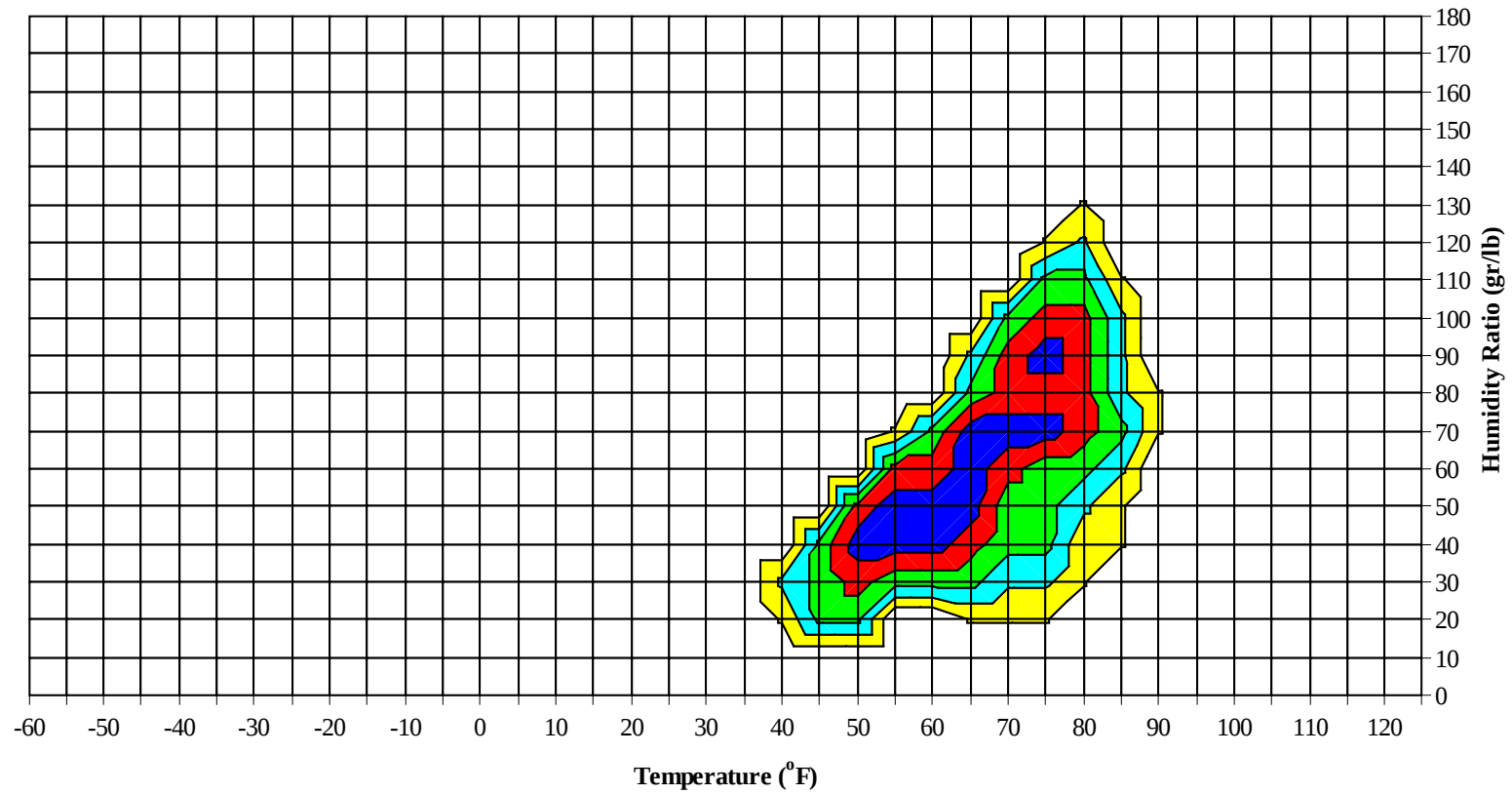
Average Annual Climate



IRAKLION (CIV/AFB) GR

WMO No. 167540

Long Term Psychrometric Summary

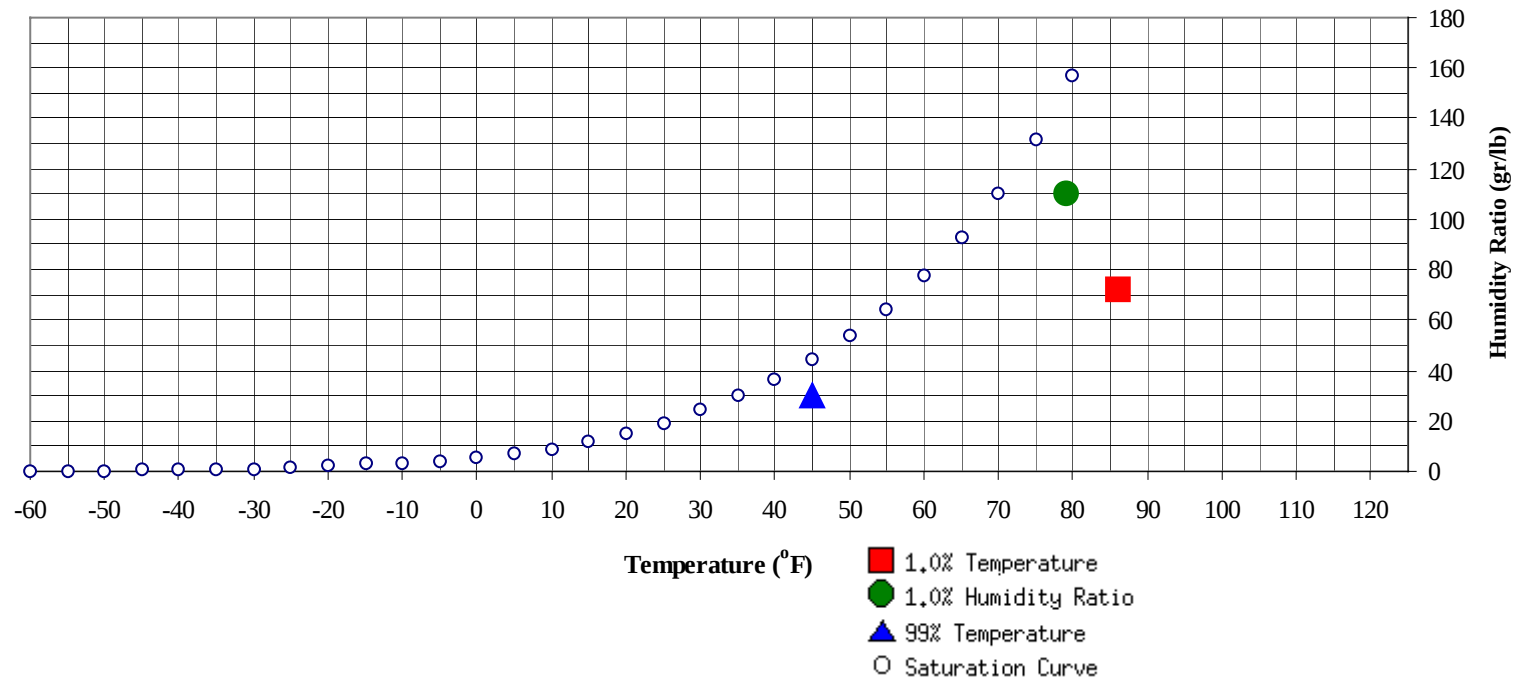


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

IRAKLION (CIV/AFB) GR

WMO No. 167540

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	45	30.5	15.5		110.6	79.2	72.7	69.8	36.3

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	86	72.4	67.4	32.0

IRAKLION (CIV/AFB) GR

WMO No. 167540

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

Period of Record = 1973 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															
80 / 84												1		1	57.5
75 / 79							1	0	1	57.3		2		3	55.9
70 / 74	0	2	0	2	56.0	0	3	1	4	54.6	2	9	3	13	54.5
65 / 69	1	8	1	10	55.3	1	11	3	16	54.3	4	16	6	25	54.5
60 / 64	6	46	14	65	53.7	9	43	18	70	53.2	11	80	33	125	54.4
55 / 59	49	92	75	216	51.0	38	77	66	181	50.8	51	86	95	232	51.4
50 / 54	112	76	111	300	46.8	95	60	91	245	46.9	115	40	86	241	47.3
45 / 49	69	20	42	131	42.7	66	21	38	125	42.5	55	10	22	87	42.9
40 / 44	9	3	5	16	38.8	12	5	6	23	38.1	7	2	3	12	39.0
35 / 39	3	1	1	5	35.3	3	1	2	6	34.6	2	1	1	4	36.0
30 / 34						0		0	0	32.1	0	0	0	0	32.8

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.

IRAKLION (CIV/AFB) GR

WMO No. 167540

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

Period of Record = 1973 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	66.0
100 / 104												0		0	67.8
95 / 99		0		0	59.3		1	0	1	62.7	0	1	0	2	66.3
90 / 94		1	0	1	60.6		3	0	3	61.6	0	6	2	8	66.4
85 / 89		1	0	1	57.4	1	4	1	6	60.6	2	11	5	18	66.0
80 / 84	1	4	1	6	56.9	3	10	4	16	61.2	11	50	20	80	66.2
75 / 79	5	11	5	20	55.6	8	35	15	58	61.7	36	116	76	228	65.5
70 / 74	8	24	12	45	55.7	22	90	51	164	61.4	80	49	95	223	62.9
65 / 69	10	47	22	79	56.6	39	72	67	178	59.2	62	5	34	100	59.9
60 / 64	36	110	77	223	55.0	94	29	86	209	56.5	44	1	10	55	57.0
55 / 59	86	33	91	209	51.5	65	2	25	92	52.7	4		0	5	53.9
50 / 54	84	6	31	121	48.0	14	0	2	16	49.0	0			0	48.0
45 / 49	12	0	2	13	44.4	0			0	44.4					
40 / 44	0			0	40.5										
35 / 39															
30 / 34															

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.

IRAKLION (CIV/AFB) GR

WMO No. 167540

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

Period of Record = 1973 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															
100 / 104		0	0	0	71.2							0		0	68.3
95 / 99	0	1	0	1	67.2		0	0	0	68.5		0		0	68.3
90 / 94	0	6	1	8	68.7	0	3	1	3	68.0	0	2	0	2	67.8
85 / 89	2	19	7	28	69.1	1	15	4	20	69.3	0	4	1	5	67.6
80 / 84	19	126	58	203	69.2	14	135	48	197	70.0	3	46	9	58	69.3
75 / 79	109	90	141	341	67.0	104	93	149	345	67.5	30	145	85	259	67.0
70 / 74	88	3	41	131	63.8	104	2	45	151	64.3	105	40	110	256	63.6
65 / 69	25	0	2	27	61.2	24		2	26	61.3	67	3	27	96	60.8
60 / 64	4		0	4	58.7	2			2	58.5	31	1	7	40	58.1
55 / 59											2	0	0	3	54.9
50 / 54															
45 / 49															
40 / 44															
35 / 39															
30 / 34															

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IRAKLION (CIV/AFB) GR

WMO No. 167540

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

Period of Record = 1973 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		0		0	61.2										
90 / 94		1	0	1	66.2										
85 / 89	0	3	0	4	64.4		0		0	62.7					
80 / 84	1	14	3	18	65.2	0	1	0	2	60.8					
75 / 79	7	52	16	76	65.5	1	6	1	8	61.6					
70 / 74	31	95	69	196	63.4	3	37	8	48	61.2	1	6	1	8	57.9
65 / 69	67	47	77	192	60.1	18	59	32	109	59.2	2	23	4	28	57.1
60 / 64	100	27	65	192	57.2	66	78	89	233	56.1	24	80	40	144	55.0
55 / 59	36	5	17	58	53.2	107	46	88	241	52.1	87	82	107	275	51.6
50 / 54	5	0	1	6	49.5	38	9	22	69	47.8	101	43	79	223	47.4
45 / 49	0			0	43.5	7	1	2	10	43.8	33	10	19	61	42.7
40 / 44						0	0	0	0	40.6	3	0	1	4	39.8
35 / 39											0	0		0	36.6
30 / 34															

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IRAKLION (CIV/AFB) GR**WMO No. 167540****Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)****Period of Record = 1973 to 1996**

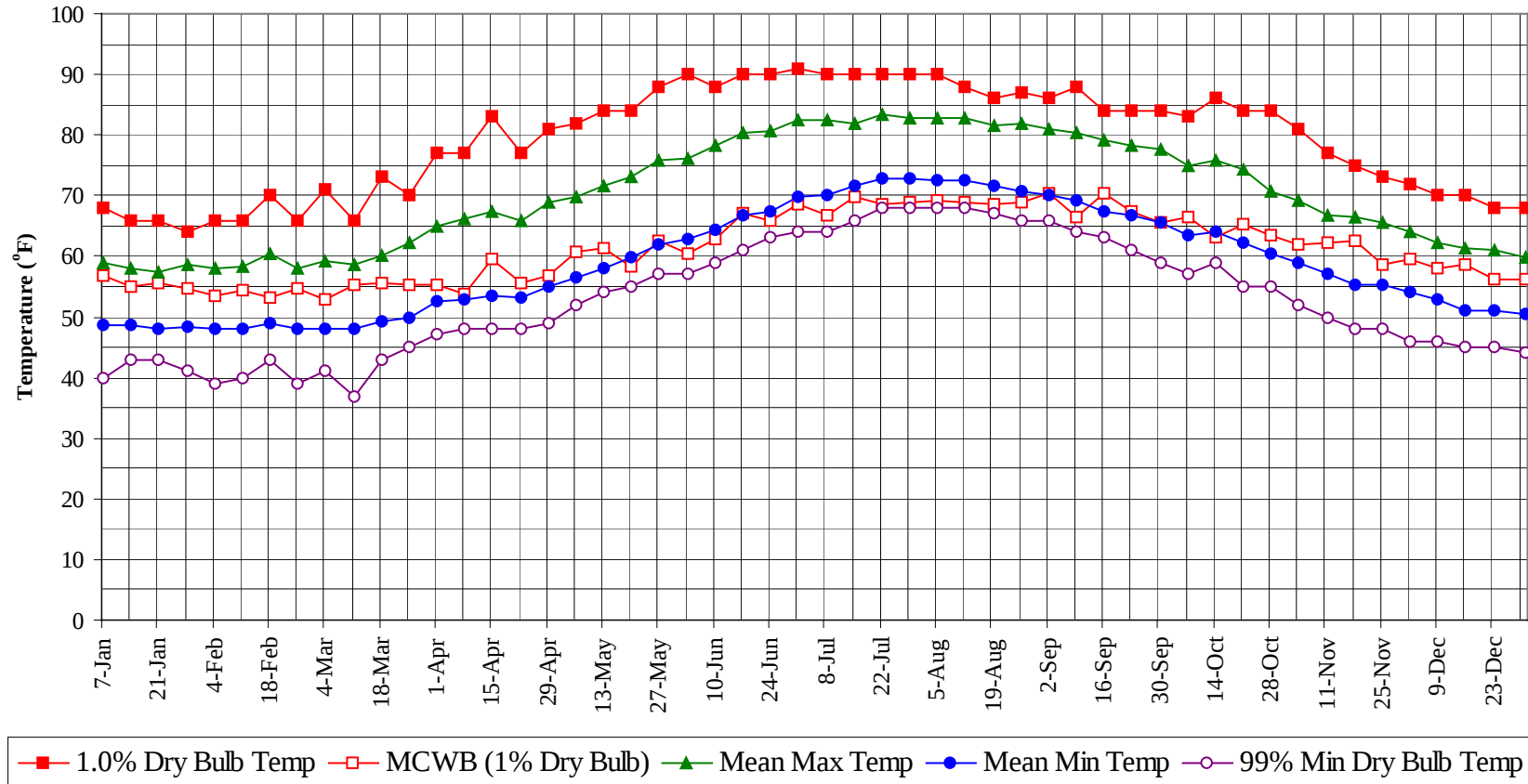
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109		0		0	66.0
100 / 104		1	0	1	69.4
95 / 99	0	5	1	5	65.3
90 / 94	1	21	5	27	66.6
85 / 89	6	57	18	81	67.3
80 / 84	51	381	143	575	68.5
75 / 79	296	549	483	1328	66.3
70 / 74	440	362	435	1237	62.7
65 / 69	319	290	277	887	59.2
60 / 64	428	498	441	1367	55.7
55 / 59	527	426	566	1518	51.6
50 / 54	569	236	425	1230	47.3
45 / 49	244	62	126	432	42.8
40 / 44	32	10	15	57	38.7
35 / 39	8	3	4	15	35.3
30 / 34	0	0	0	1	32.3

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.

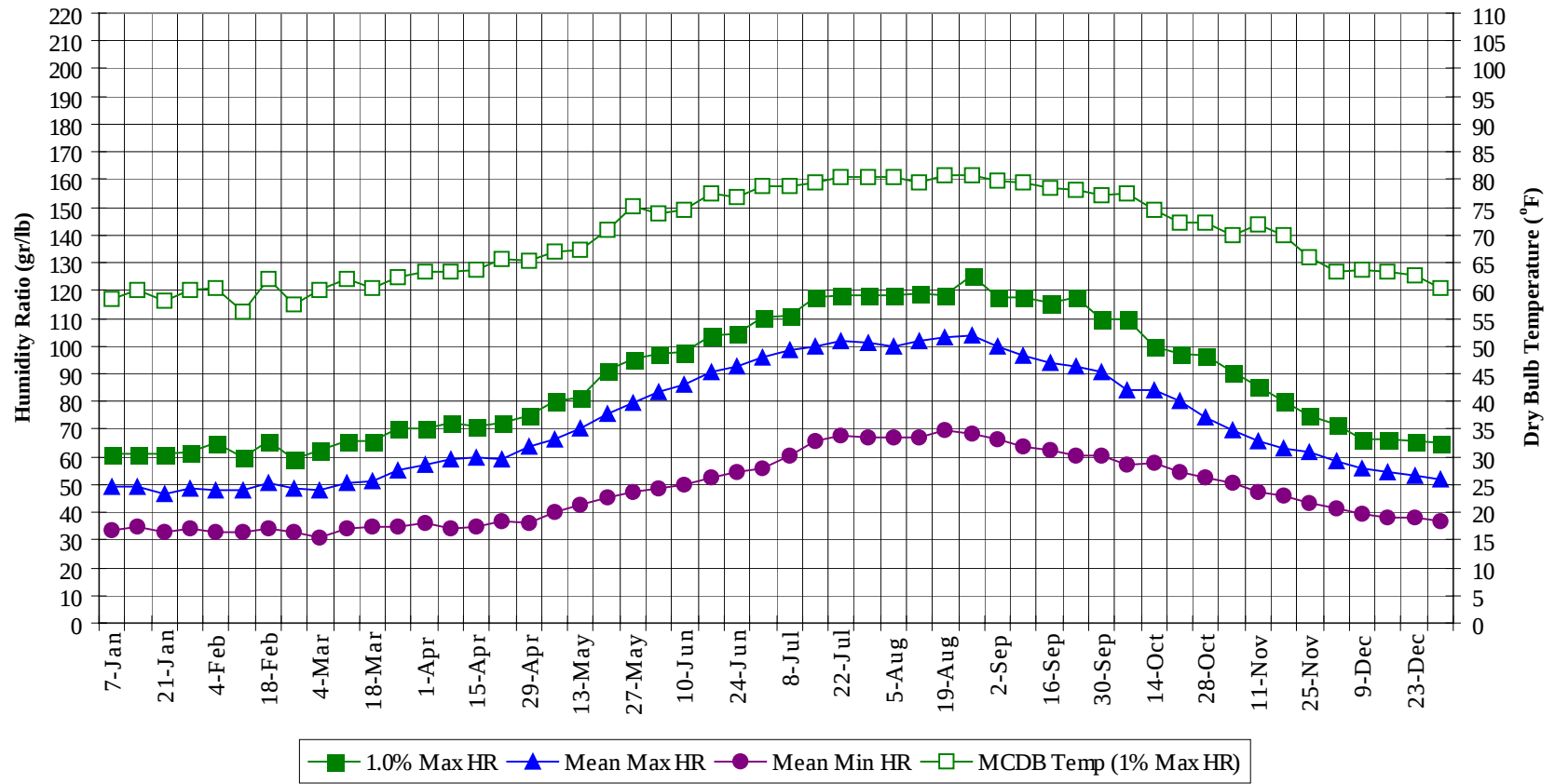
IRAKLION (CIV/AFB) GR

WMO No. 167540

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



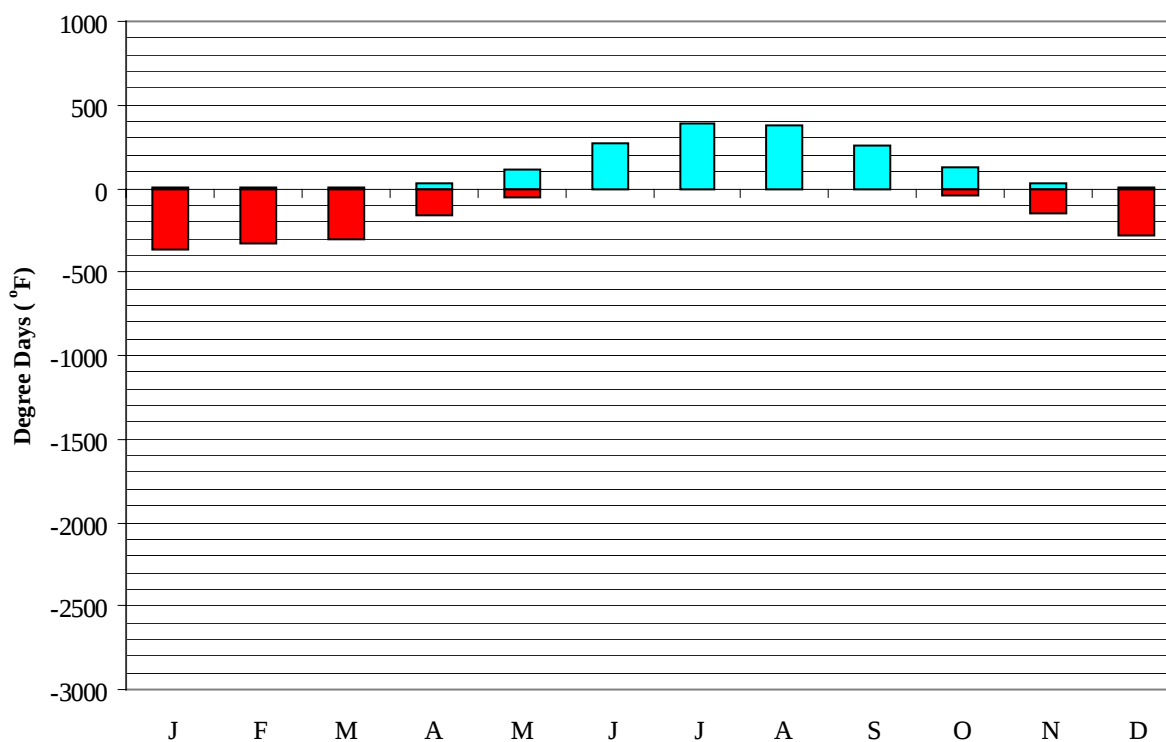
IRAKLION (CIV/AFB) GR**WMO No. 167540****Long Term Dry Bulb Temperature and Humidity Summary**

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	56.7	58.9	48.8	40.0	60.9	58.3	49.4	33.8
14-Jan	66.0	54.9	58.1	48.5	43.0	60.9	60.2	49.2	34.8
21-Jan	66.0	55.5	57.5	48.0	43.0	60.9	58.2	46.9	32.9
28-Jan	64.0	54.8	58.5	48.4	41.0	61.6	60.1	48.8	34.3
4-Feb	66.0	53.5	57.9	48.1	39.0	65.1	60.3	47.9	32.6
11-Feb	66.0	54.5	58.3	48.0	40.0	59.5	56.3	47.8	32.9
18-Feb	70.0	53.2	60.4	49.0	43.0	65.8	62.0	50.6	33.9
25-Feb	66.0	54.7	57.9	48.1	39.0	58.8	57.6	48.5	32.7
4-Mar	71.0	52.9	59.1	48.1	41.0	62.3	60.1	48.2	30.7
11-Mar	66.0	55.3	58.6	48.1	37.0	65.8	61.9	50.6	34.1
18-Mar	73.0	55.6	60.3	49.4	43.0	65.8	60.5	51.5	34.5
25-Mar	70.0	55.2	62.1	49.9	45.0	70.0	62.3	55.3	35.1
1-Apr	77.0	55.3	65.1	52.7	47.0	70.0	63.3	57.2	36.3
8-Apr	77.0	53.8	66.2	53.0	48.0	72.1	63.3	58.9	34.3
15-Apr	83.0	59.4	67.4	53.6	48.0	70.7	63.6	59.7	34.7
22-Apr	77.0	55.5	66.0	53.1	48.0	72.1	65.6	58.9	36.6
29-Apr	81.0	56.8	68.9	54.9	49.0	74.9	65.2	63.4	36.2
6-May	82.0	60.7	69.8	56.5	52.0	79.8	66.9	66.2	40.0
13-May	84.0	61.2	71.6	58.1	54.0	81.2	67.2	70.5	43.0
20-May	84.0	58.4	73.0	59.7	55.0	91.0	70.9	75.3	45.4
27-May	88.0	62.4	75.9	62.0	57.0	95.2	75.2	79.5	47.0
3-Jun	90.0	60.4	76.1	62.9	57.0	97.3	73.8	83.1	48.9
10-Jun	88.0	62.8	78.2	64.2	59.0	98.0	74.5	85.8	49.8
17-Jun	90.0	67.0	80.3	66.7	61.0	103.6	77.5	90.4	52.6
24-Jun	90.0	65.9	80.8	67.2	63.0	104.3	76.7	92.8	54.5
1-Jul	91.0	68.6	82.4	69.8	64.0	110.6	78.8	95.9	56.1
8-Jul	90.0	66.7	82.4	70.1	64.0	111.3	78.9	98.5	60.6
15-Jul	90.0	69.7	81.8	71.5	66.0	117.6	79.5	99.5	65.5
22-Jul	90.0	68.5	83.3	72.7	68.0	118.3	80.4	101.9	67.3
29-Jul	90.0	68.9	82.7	72.7	68.0	118.3	80.5	101.2	67.0
5-Aug	90.0	69.2	82.7	72.5	68.0	118.3	80.4	99.9	66.8
12-Aug	88.0	69.0	82.7	72.4	68.0	119.0	79.6	101.7	67.3
19-Aug	86.0	68.7	81.7	71.5	67.0	118.3	80.7	102.9	69.7
26-Aug	87.0	69.0	81.7	70.7	66.0	125.3	80.9	103.9	68.2
2-Sep	86.0	70.4	80.9	70.0	66.0	117.6	80.0	99.6	66.5
9-Sep	88.0	66.6	80.3	69.1	64.0	117.6	79.5	96.3	63.6
16-Sep	84.0	70.3	79.2	67.4	63.0	115.5	78.3	94.2	62.4
23-Sep	84.0	67.4	78.4	66.8	61.0	117.6	78.2	92.4	60.5
30-Sep	84.0	65.5	77.6	65.7	59.0	109.9	77.2	90.5	60.7
7-Oct	83.0	66.3	75.0	63.4	57.0	109.9	77.4	84.1	56.9
14-Oct	86.0	63.0	75.7	63.9	59.0	100.1	74.7	83.8	57.9
21-Oct	84.0	65.4	74.3	62.1	55.0	97.3	72.1	79.8	54.5
28-Oct	84.0	63.3	70.7	60.5	55.0	96.6	72.2	74.4	52.5
4-Nov	81.0	61.9	69.3	58.8	52.0	90.3	69.9	69.6	50.8
11-Nov	77.0	62.4	66.8	57.1	50.0	85.4	71.9	65.5	47.0
18-Nov	75.0	62.5	66.4	55.4	48.0	79.8	70.0	63.1	45.8
25-Nov	73.0	58.5	65.6	55.2	48.0	74.9	66.0	61.5	43.3
2-Dec	72.0	59.4	63.9	54.0	46.0	71.4	63.5	58.5	41.1
9-Dec	70.0	57.9	62.4	52.8	46.0	66.5	63.8	56.1	39.2
16-Dec	70.0	58.6	61.3	51.0	45.0	66.5	63.3	54.7	37.8
23-Dec	68.0	56.3	61.0	50.9	45.0	65.8	62.6	53.5	37.9
31-Dec	68.0	56.3	59.9	50.3	44.0	65.1	60.4	51.8	37.0

IRAKLION (CIV/AFB) GR

WMO No. 167540

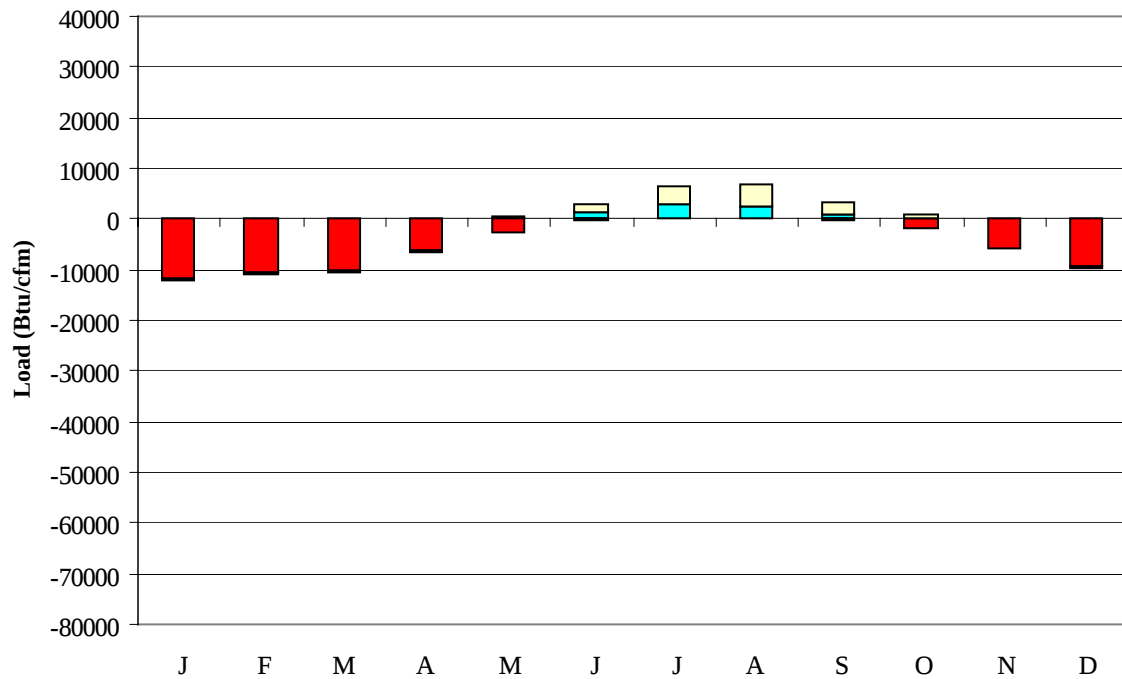
Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	1	363
FEB	3	330
MAR	7	302
APR	34	165
MAY	108	56
JUN	268	6
JUL	388	0
AUG	377	0
SEP	257	4
OCT	124	37
NOV	26	144
DEC	4	277
ANN	1597	1684

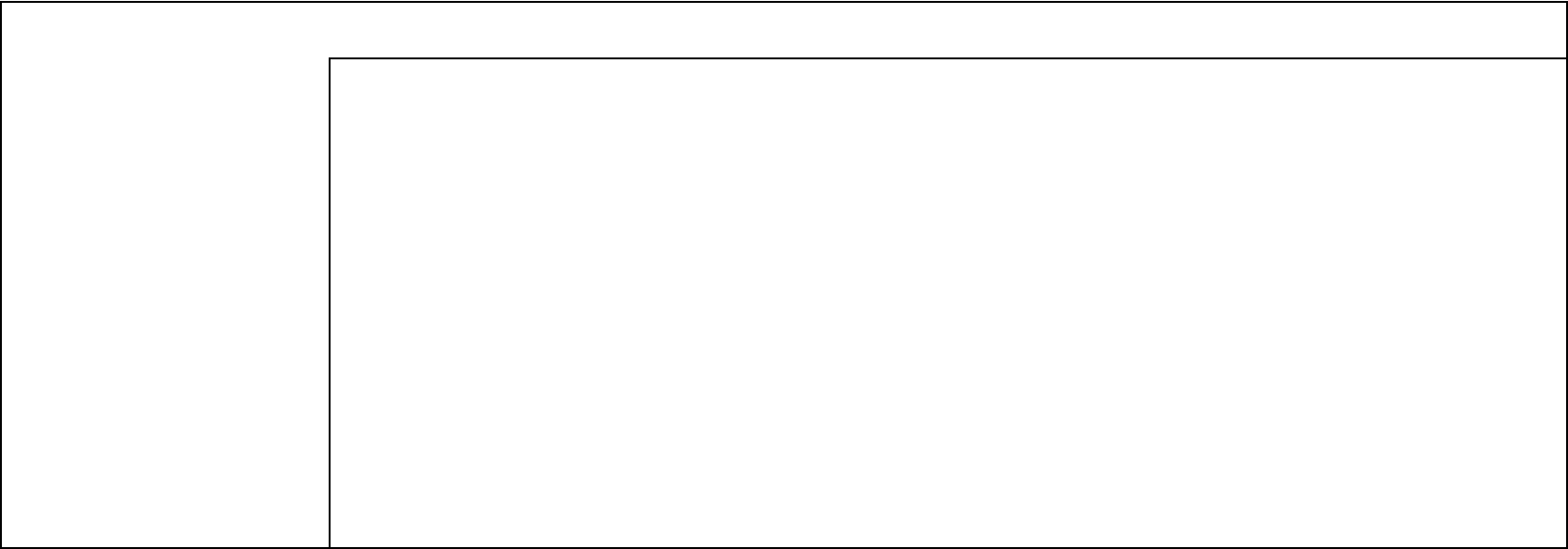
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	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	0	-11808	0	-286
FEB	2	-10712	0	-356
MAR	9	-10148	0	-235
APR	109	-6243	1	-243
MAY	361	-2661	220	-93
JUN	1412	-430	1338	-21
JUL	2714	-36	3537	0
AUG	2443	-22	4335	-1
SEP	987	-302	2492	0
OCT	318	-1983	780	-6
NOV	23	-5655	45	-36
DEC	0	-9506	0	-150
ANN	8378	-59506	12748	-1427

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

No Solar Radiation
Data Available

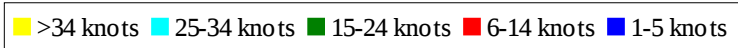
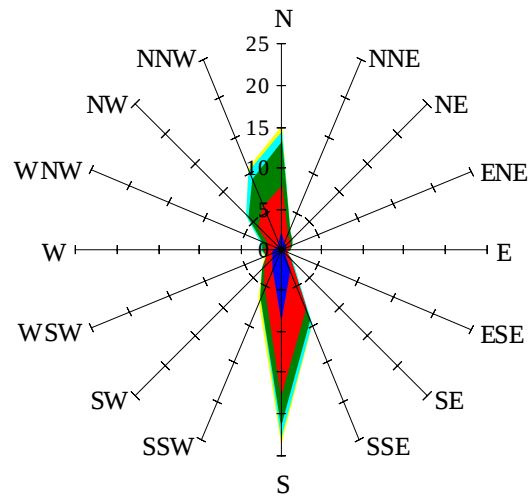


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

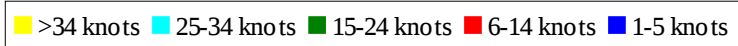
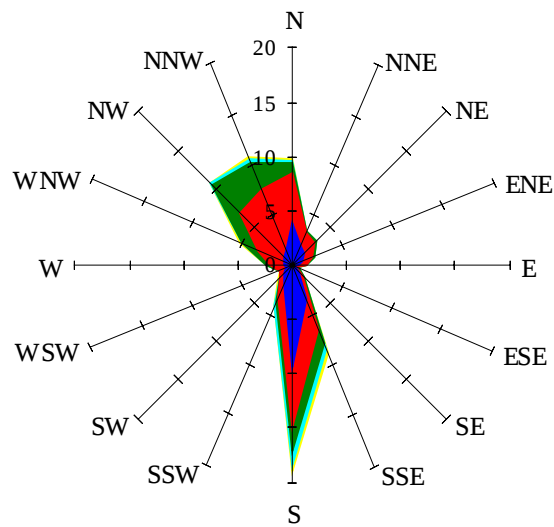
Labels of Percent Frequency on North Axis



Percent Calm = 10.56

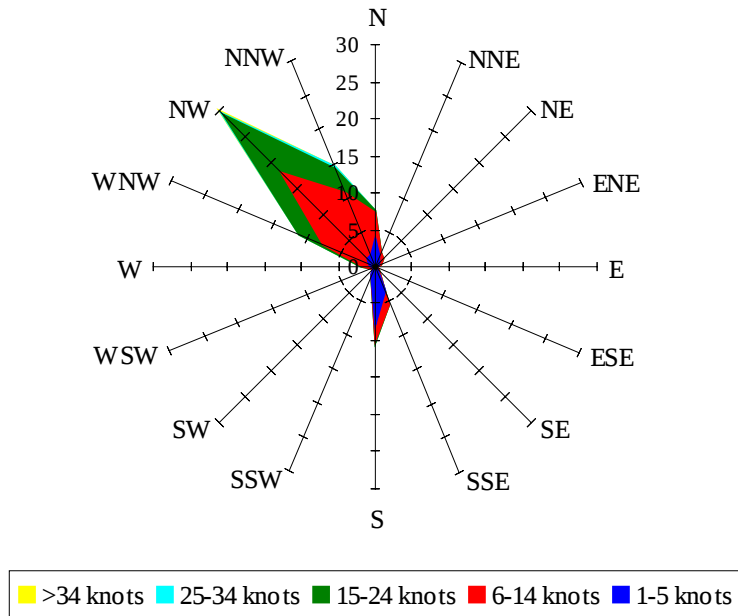
Wind Summary - March, April, and May

Labels of Percent Frequency on North Axis



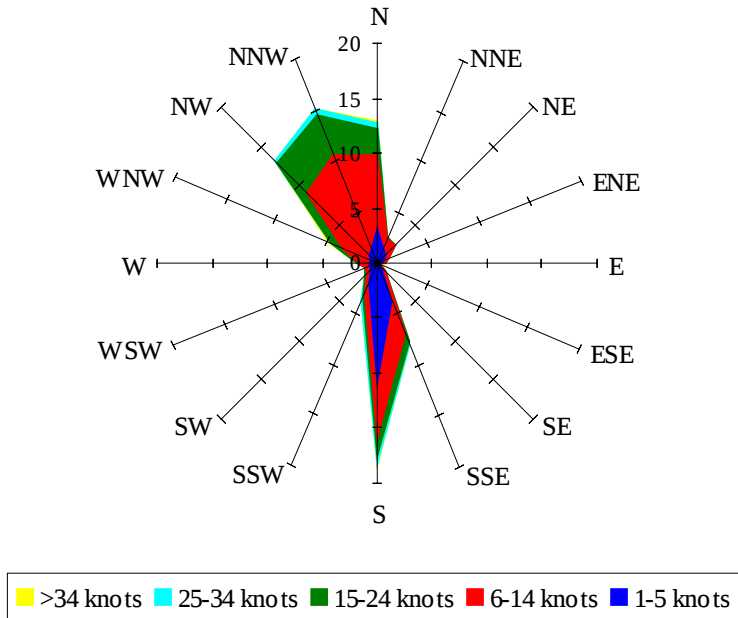
Percent Calm = 15.03

Wind Summary - June, July, and August **Labels of Percent Frequency on North Axis**



Percent Calm = 11.56

Wind Summary - September, October, and November **Labels of Percent Frequency on North Axis**



Percent Calm = 11.31