

ADANA/INCIRLIK AFB TU

Latitude = 37.00 N

WMO No. 173500

Longitude = 35.42 E

Elevation = 217 feet

Period of Record = 1973 to 1995

Average Pressure = 29.64 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	104	70	54	9.1	NNE
0.4% Occurrence	97	71	75	8.2	WSW
1.0% Occurrence	95	71	78	8.6	SW
2.0% Occurrence	93	72	86	8.9	SSW
Mean Daily Range	20	-	-	-	-
97.5% Occurrence	39	35	24	5.3	NNE
99.0% Occurrence	36	32	20	5.3	NNE
99.6% Occurrence	32	28	17	5.5	NNE
Median of Extreme Lows	28	25	14	4.6	NNE
	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	82	95	146	8.2	SSW
0.4% Occurrence	79	90	133	7.9	SSW
1.0% Occurrence	78	88	131	7.0	SSW
2.0% Occurrence	77	87	126	7.1	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	146	85	0.95	2.6	SSW
0.4% Occurrence	137	81	0.90	2.5	S
1.0% Occurrence	134	82	0.88	3.8	SSW
2.0% Occurrence	129	81	0.85	3.9	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		179	1675	1161	2510

Other Site Data

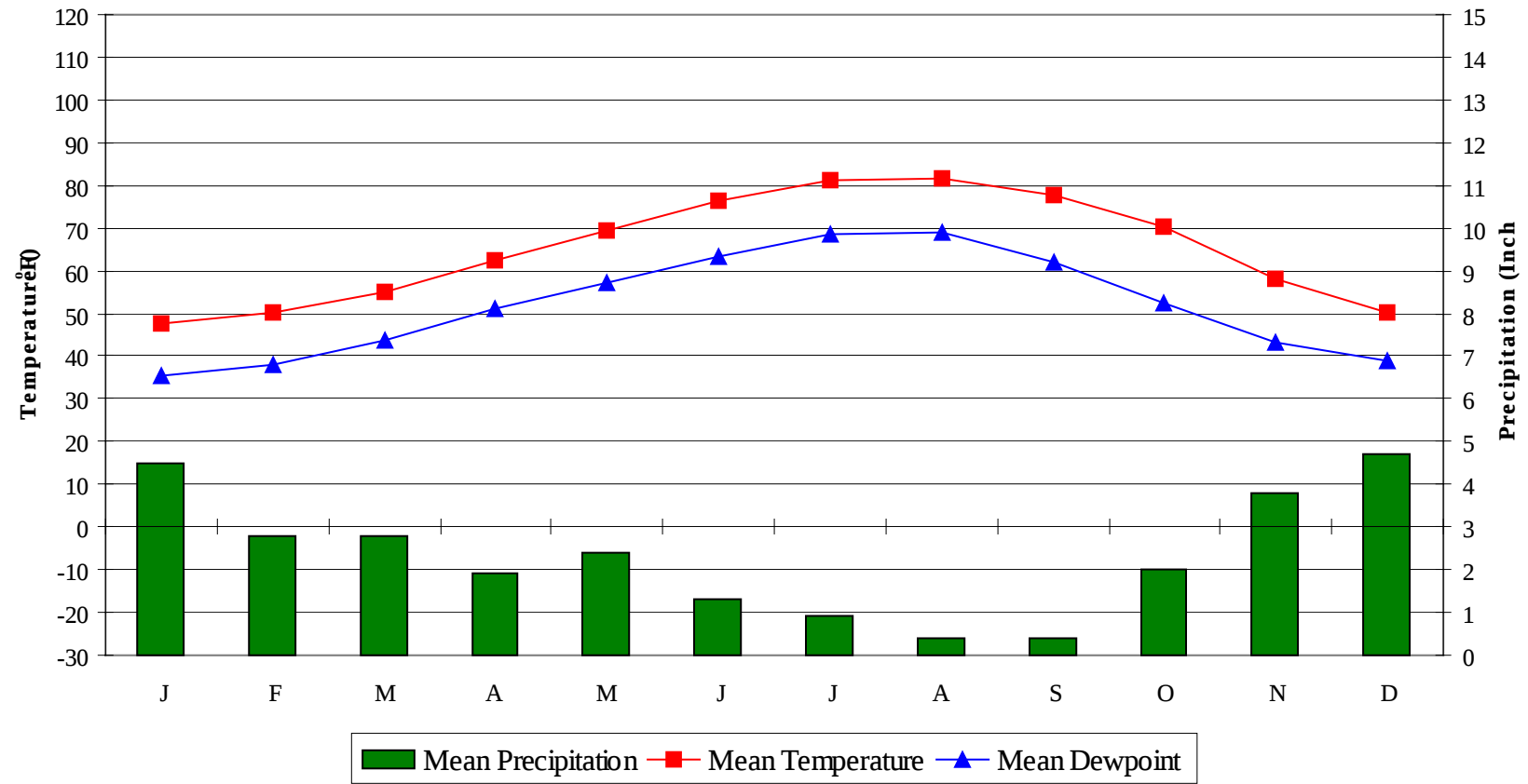
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
11	N/A	N/A	3.0 + 1.8
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
67.7	N/A	N/A	5

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

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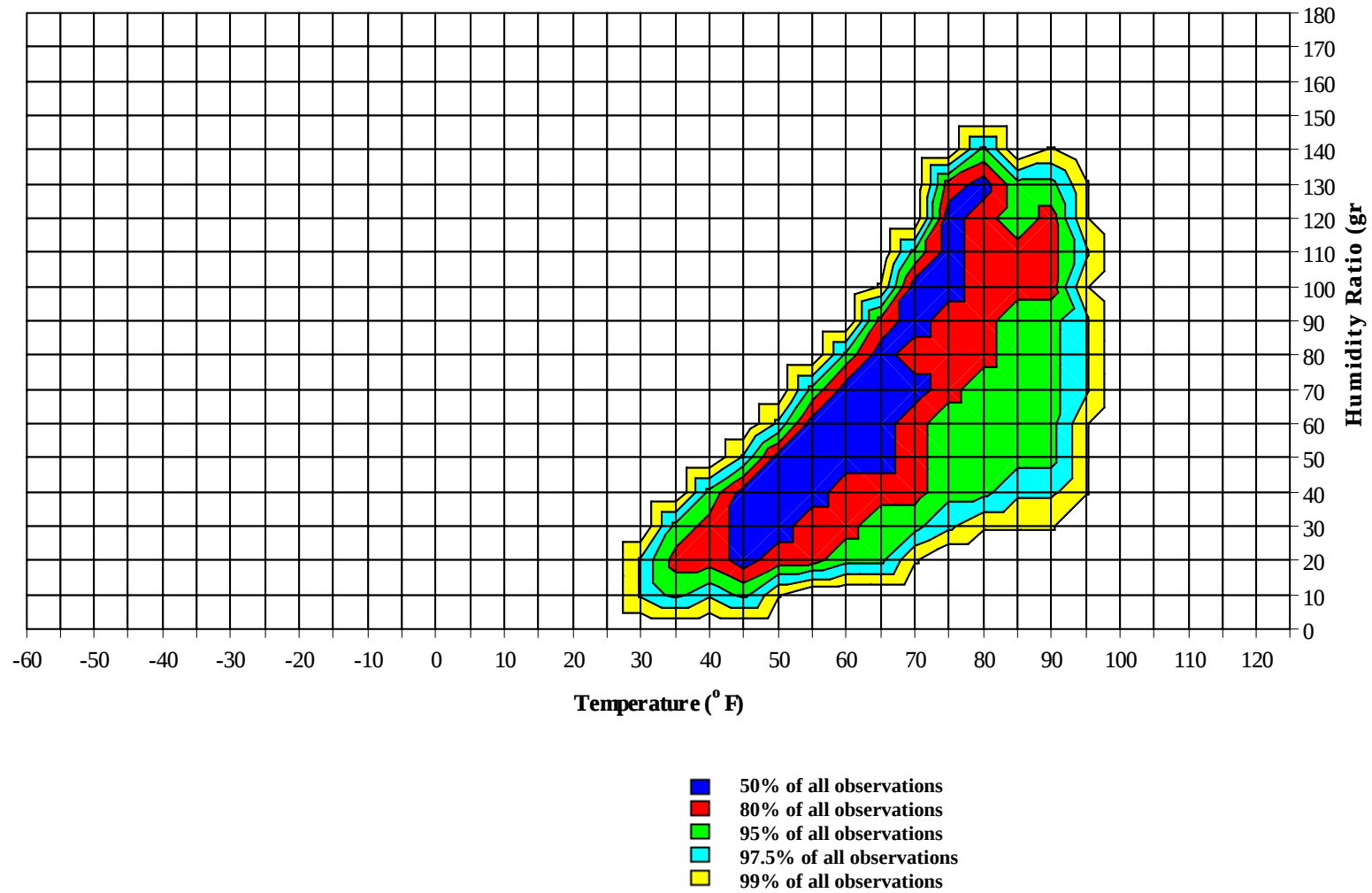
Average Annual Climate



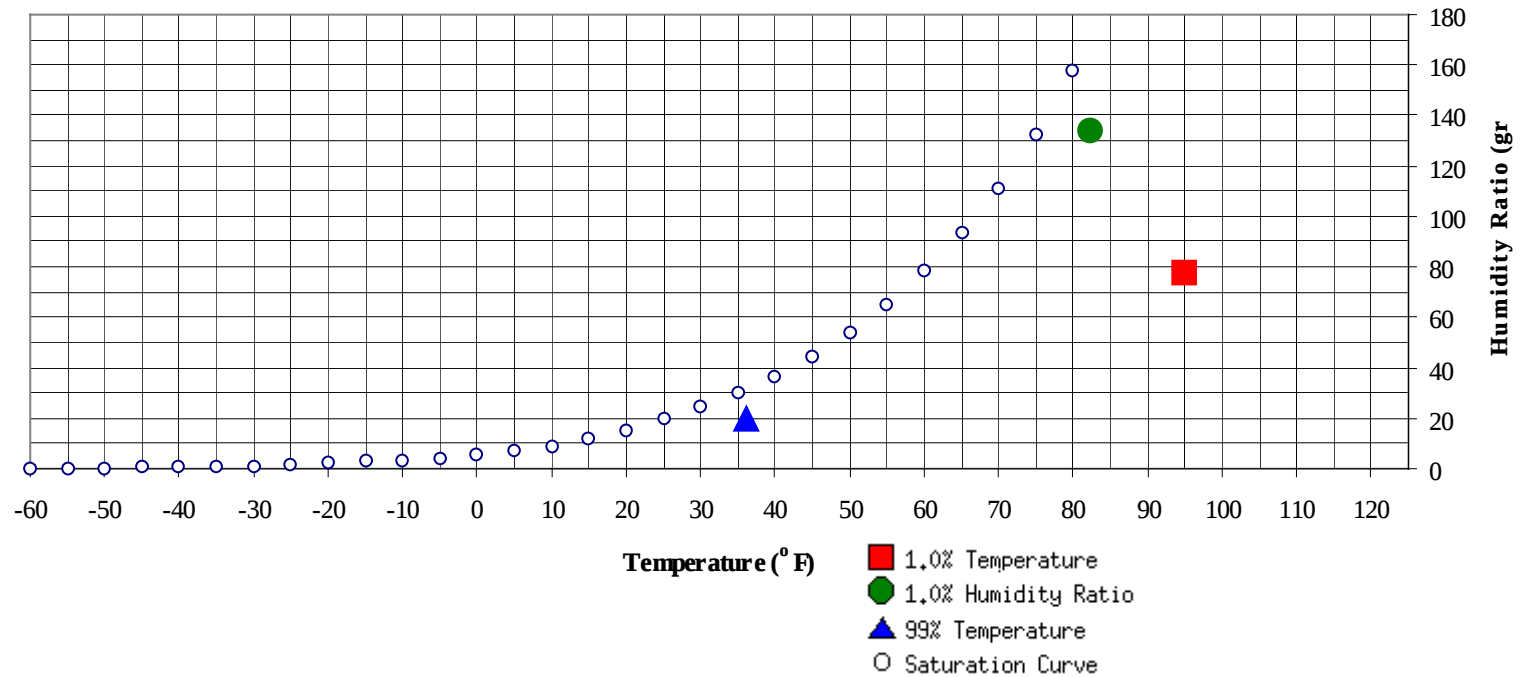
ADANA/INCIRLIK AFB TU

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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	36	20.2	11.7	Ratio	134.4	82.3	77.1	75.2	40.8

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	95	77.7	71.1	35.0

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

Period of Record = 1973 to 1995

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												0		0	64.0
80 / 84												1	0	1	61.9
75 / 79							0		0	56.0		12	1	13	59.2
70 / 74		0		0	52.5		6	0	6	55.9	0	32	7	39	57.6
65 / 69		3	0	3	51.1		14	2	16	54.8	1	45	13	59	56.3
60 / 64	0	36	3	39	51.2	1	53	11	65	52.0	10	70	37	117	54.1
55 / 59	6	73	22	101	48.8	12	65	36	112	49.5	35	50	60	145	51.6
50 / 54	29	83	62	174	46.0	47	54	68	169	47.0	76	29	69	174	48.2
45 / 49	83	41	81	205	42.7	73	23	57	153	43.0	75	8	42	125	43.8
40 / 44	53	8	40	101	37.8	40	6	26	71	38.1	31	1	13	45	39.1
35 / 39	53	3	33	89	33.5	36	2	19	56	33.8	16	0	6	22	34.4
30 / 34	21	1	8	30	28.8	14	0	6	20	28.3	4		1	5	28.1
25 / 29	3		0	3	25.0	2	0	0	2	24.2	0		0	0	25.0
20 / 24						0			0	19.0					

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.

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

Period of Record = 1973 to 1995

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	69.0		1	0	1	69.2
95 / 99		0	0	0	64.7		5	1	6	68.2		10	1	11	69.5
90 / 94		3	0	3	65.0	0	16	3	19	67.7	0	37	6	43	70.3
85 / 89		6	1	7	64.6	1	21	5	27	67.4	1	57	14	72	70.8
80 / 84	0	16	4	20	63.3	2	48	13	63	66.6	6	90	41	137	69.9
75 / 79	1	37	8	46	61.9	8	70	32	110	65.0	38	36	74	148	69.1
70 / 74	5	62	20	87	60.1	28	56	55	139	63.6	81	7	72	160	67.4
65 / 69	13	54	30	97	58.5	43	19	52	113	62.1	62	1	23	86	64.5
60 / 64	45	45	69	159	56.9	76	10	56	143	59.6	44	1	9	54	60.8
55 / 59	74	12	64	150	54.1	67	2	27	96	55.4	8	0	1	9	56.0
50 / 54	74	4	38	115	50.2	21	0	5	26	51.2	0			0	51.8
45 / 49	26	0	7	33	45.3	2		0	2	45.6					
40 / 44	3		0	3	40.2										
35 / 39	0			0	36.8										
30 / 34															
25 / 29															
20 / 24															

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 3 of 5)**Period of Record = 1973 to 1995**

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	0	69.2		0		0	74.5		0		0	69.6
100 / 104	0	4	1	5	71.2		3	0	3	73.3		4	0	4	69.0
95 / 99	0	20	2	22	73.0	0	19	2	21	73.8	0	17	1	18	69.5
90 / 94	1	88	15	104	74.3	1	111	15	126	75.0	0	61	6	67	70.3
85 / 89	3	83	32	118	74.0	2	79	36	117	74.6	1	76	17	93	71.1
80 / 84	28	48	75	151	73.5	36	34	88	157	74.5	10	64	48	122	70.4
75 / 79	107	4	104	215	72.8	105	1	92	197	72.8	42	17	85	143	69.2
70 / 74	87	0	18	105	68.6	89	1	15	104	68.5	84	2	54	140	66.1
65 / 69	19	0	2	21	64.5	15		1	16	63.9	64	0	20	84	63.0
60 / 64	3		0	3	60.5	1		0	1	60.2	35	0	9	44	58.3
55 / 59	0			0	54.0						4		1	5	51.7
50 / 54															
45 / 49															
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															

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ADANA/INCIRLIK AFB TU

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1973 to 1995**

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		0		0	68.3										
95 / 99		6	0	6	65.6										
90 / 94	0	22	2	24	65.6										
85 / 89	0	33	3	36	65.4		1		1	63.1					
80 / 84	2	65	13	80	64.8		8	0	8	60.9					
75 / 79	9	68	36	113	63.3	1	28	2	31	59.3					
70 / 74	27	34	57	119	61.9	1	48	7	56	58.0	0	3		3	55.3
65 / 69	45	12	46	104	59.9	5	44	16	65	56.0	0	11	0	11	54.3
60 / 64	95	6	61	163	57.4	25	56	46	127	54.4	3	60	8	71	52.6
55 / 59	54	1	23	78	52.4	65	36	66	168	51.6	19	84	38	140	49.9
50 / 54	13	0	6	19	46.8	75	16	61	152	47.1	62	60	80	202	47.4
45 / 49	3		1	4	43.6	48	3	31	81	41.6	77	25	68	170	42.8
40 / 44						14	0	8	22	37.4	44	4	31	79	38.2
35 / 39						6		3	9	33.2	34	1	19	54	33.8
30 / 34						1		0	1	28.5	8	0	4	12	29.7
25 / 29											1			1	25.3
20 / 24															

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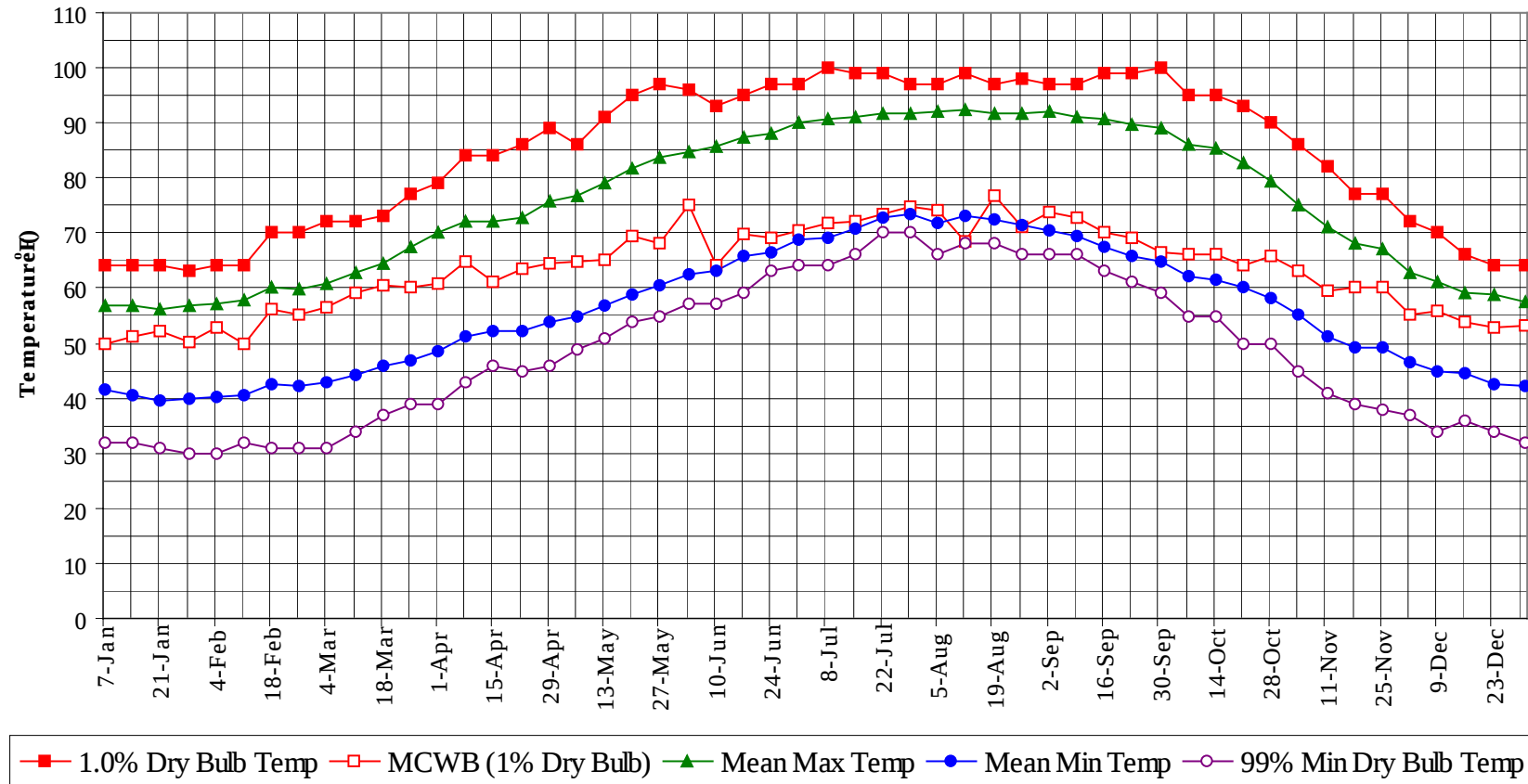
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

Period of Record = 1973 to 1995

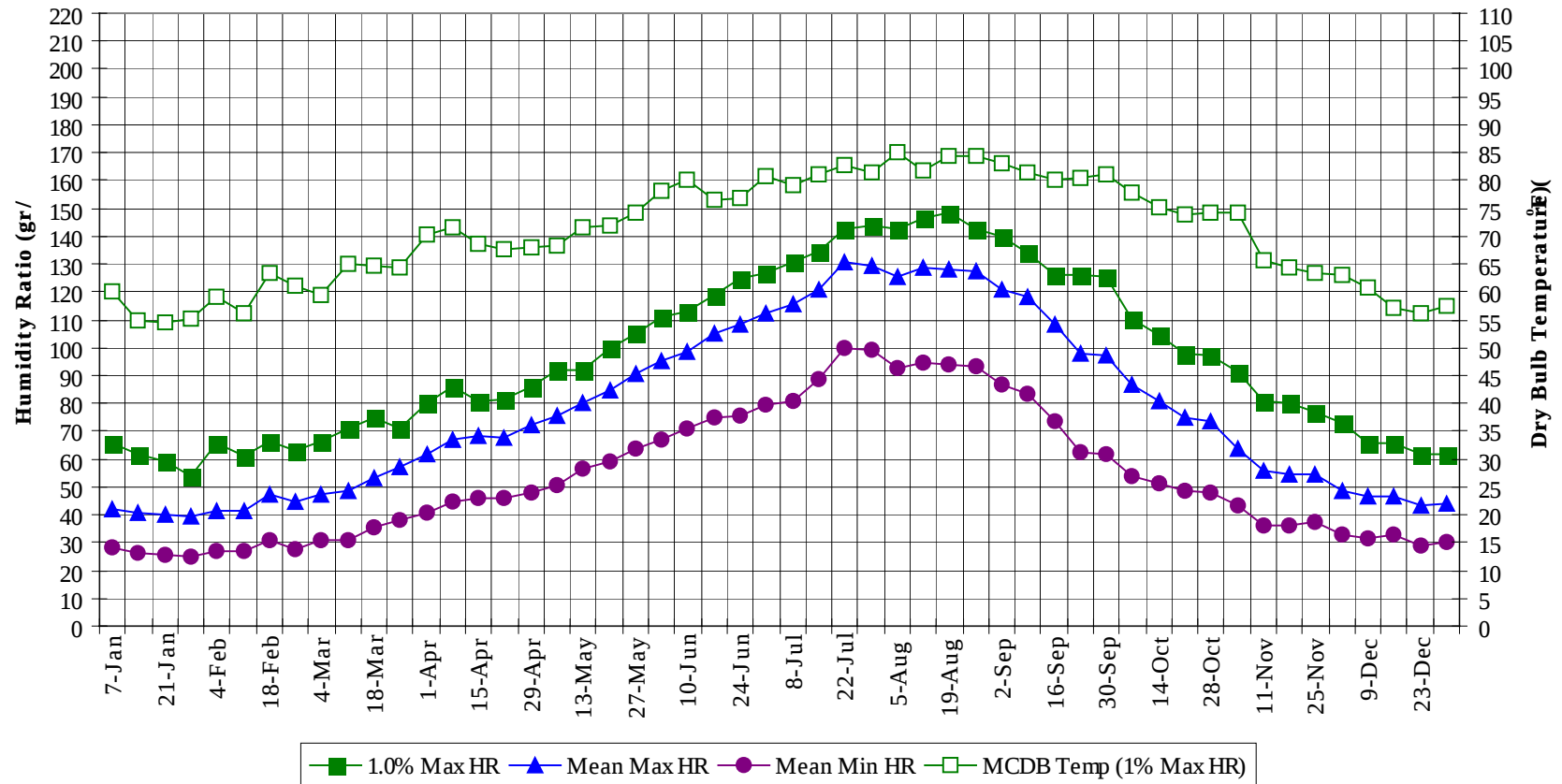
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109		1	0	1	70.1
100 / 104	0	15	1	16	70.4
95 / 99	0	80	7	87	71.0
90 / 94	2	342	47	391	72.5
85 / 89	8	359	110	477	72.0
80 / 84	85	377	287	748	70.6
75 / 79	313	270	437	1019	68.9
70 / 74	407	247	305	960	64.6
65 / 69	270	202	204	676	60.4
60 / 64	337	334	305	977	56.2
55 / 59	337	320	331	989	51.7
50 / 54	391	244	385	1019	47.6
45 / 49	385	100	284	768	43.0
40 / 44	185	21	118	324	38.1
35 / 39	146	7	79	232	33.7
30 / 34	48	1	20	69	28.7
25 / 29	6	0	1	7	24.7
20 / 24	0			0	19.0

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.

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



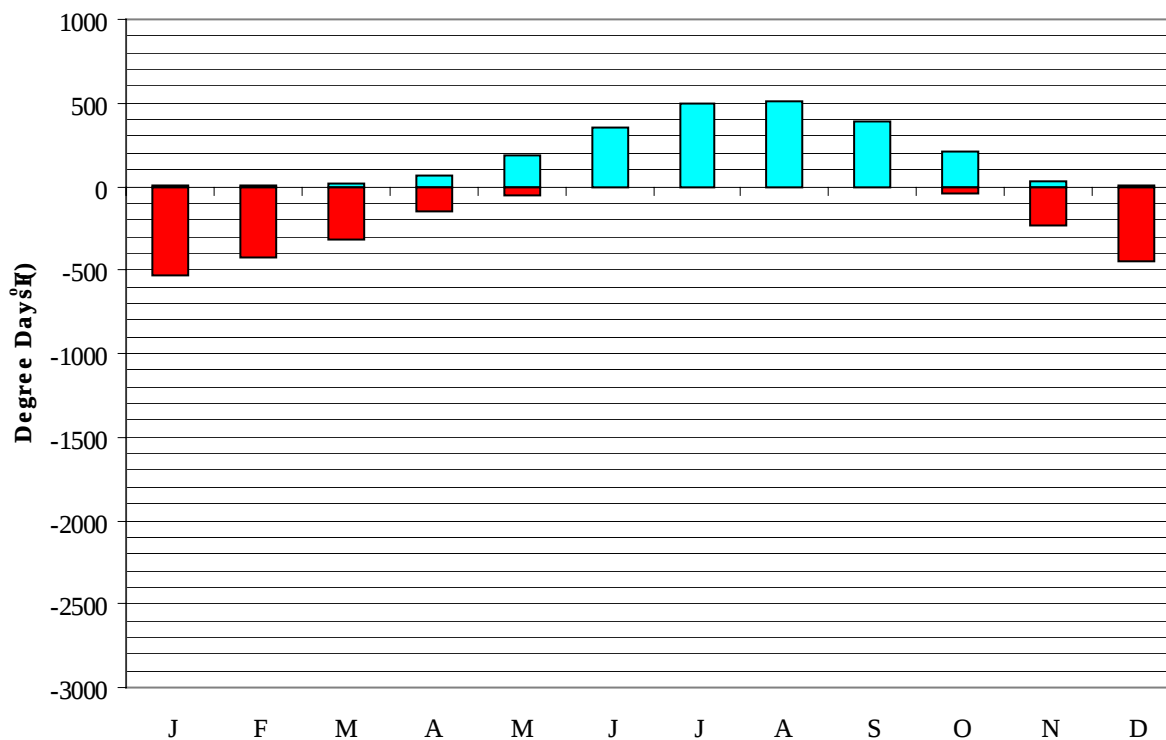
ADANA/INCIRLIK AFB TU

WMO No. 173500

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	64.0	49.7	56.9	41.5	32.0	65.8	60.0	42.2	28.5
14-Jan	64.0	51.1	57.0	40.5	32.0	61.6	54.9	41.0	26.4
21-Jan	64.0	52.2	56.1	39.6	31.0	58.8	54.5	40.2	25.5
28-Jan	63.0	50.1	56.8	40.0	30.0	53.9	55.0	39.7	25.1
4-Feb	64.0	53.0	57.1	40.1	30.0	65.8	59.0	41.7	27.0
11-Feb	64.0	50.0	57.8	40.5	32.0	60.9	56.3	41.7	27.0
18-Feb	70.0	56.1	60.3	42.6	31.0	66.5	63.4	47.0	30.8
25-Feb	70.0	55.0	60.0	42.3	31.0	63.0	61.0	44.7	27.5
4-Mar	72.0	56.4	60.7	42.8	31.0	66.5	59.3	47.1	30.7
11-Mar	72.0	59.0	62.7	44.3	34.0	70.7	65.1	48.3	30.8
18-Mar	73.0	60.6	64.4	45.9	37.0	74.9	64.7	53.2	35.6
25-Mar	77.0	60.2	67.6	46.8	39.0	70.7	64.5	57.4	38.3
1-Apr	79.0	60.7	70.1	48.6	39.0	79.8	70.2	62.0	40.6
8-Apr	84.0	64.8	72.0	51.2	43.0	86.1	71.7	66.9	45.0
15-Apr	84.0	61.0	72.1	52.1	46.0	80.5	68.7	68.5	46.2
22-Apr	86.0	63.6	72.7	52.3	45.0	81.2	67.6	67.6	45.8
29-Apr	89.0	64.5	75.8	53.8	46.0	86.1	68.0	72.0	48.2
6-May	86.0	64.9	76.8	54.8	49.0	91.7	68.2	75.5	50.9
13-May	91.0	65.2	79.2	56.9	51.0	91.7	71.5	79.9	56.3
20-May	95.0	69.5	81.7	58.7	54.0	100.1	72.0	84.4	59.1
27-May	97.0	68.1	83.7	60.6	55.0	105.0	74.3	90.4	63.6
3-Jun	96.0	75.0	84.7	62.6	57.0	111.3	78.1	95.2	67.2
10-Jun	93.0	64.0	85.7	63.1	57.0	112.7	80.2	98.7	70.6
17-Jun	95.0	69.7	87.4	65.7	59.0	119.0	76.7	105.4	75.0
24-Jun	97.0	69.1	88.1	66.5	63.0	124.6	77.0	108.3	75.7
1-Jul	97.0	70.5	90.0	68.7	64.0	126.7	80.9	112.5	79.5
8-Jul	100.0	71.9	90.8	69.2	64.0	130.9	79.0	115.5	80.7
15-Jul	99.0	72.2	91.1	70.9	66.0	134.4	81.1	120.7	88.4
22-Jul	99.0	73.3	91.8	72.7	70.0	142.8	82.8	130.6	99.8
29-Jul	97.0	74.8	91.8	73.5	70.0	143.5	81.3	129.4	99.2
5-Aug	97.0	74.0	92.2	71.8	66.0	142.8	85.0	125.3	92.8
12-Aug	99.0	68.6	92.4	73.0	68.0	146.3	81.8	128.7	94.5
19-Aug	97.0	76.8	91.8	72.4	68.0	148.4	84.5	128.4	93.8
26-Aug	98.0	71.0	91.6	71.4	66.0	142.8	84.4	127.2	93.1
2-Sep	97.0	73.7	92.0	70.4	66.0	140.0	83.0	120.8	86.8
9-Sep	97.0	72.7	91.0	69.5	66.0	133.7	81.4	118.1	83.1
16-Sep	99.0	70.1	90.9	67.3	63.0	126.0	80.2	108.2	73.6
23-Sep	99.0	69.1	89.8	65.8	61.0	126.0	80.6	97.8	62.6
30-Sep	100.0	66.5	89.0	64.9	59.0	125.3	81.0	97.1	61.7
7-Oct	95.0	66.0	86.1	62.0	55.0	110.6	77.8	86.4	53.5
14-Oct	95.0	66.2	85.3	61.3	55.0	104.3	75.3	80.8	51.3
21-Oct	93.0	64.0	82.8	60.2	50.0	98.0	74.0	74.8	48.5
28-Oct	90.0	65.9	79.5	58.2	50.0	97.3	74.3	73.6	47.7
4-Nov	86.0	63.1	75.3	55.2	45.0	91.0	74.3	63.4	43.1
11-Nov	82.0	59.5	71.1	51.1	41.0	80.5	65.8	55.8	36.0
18-Nov	77.0	60.1	68.1	49.3	39.0	80.2	64.4	54.3	36.3
25-Nov	77.0	60.0	67.0	49.2	38.0	77.0	63.4	54.5	37.2
2-Dec	72.0	55.3	62.7	46.6	37.0	72.8	63.2	48.8	33.0
9-Dec	70.0	55.7	61.0	44.8	34.0	65.8	60.6	46.8	31.8
16-Dec	66.0	53.9	59.1	44.5	36.0	65.8	57.3	46.6	32.7
23-Dec	64.0	53.0	58.7	42.5	34.0	61.6	56.2	43.5	28.6
31-Dec	64.0	53.3	57.5	42.4	32.0	61.6	57.6	44.1	30.1

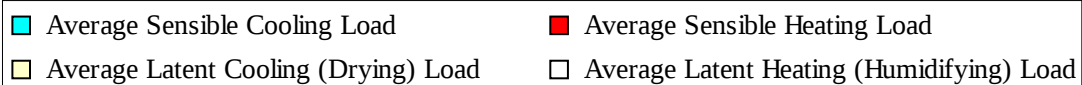
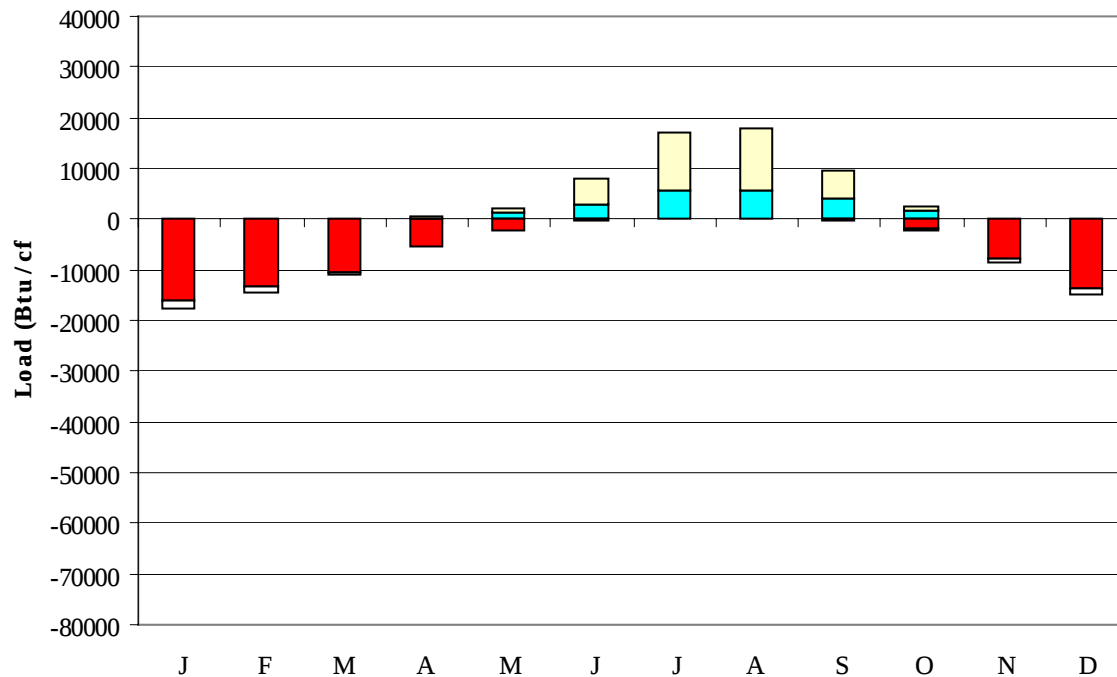
Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	531
FEB	2	429
MAR	17	322
APR	69	145
MAY	190	50
JUN	349	6
JUL	502	0
AUG	512	0
SEP	395	4
OCT	211	44
NOV	33	235
DEC	1	447
ANN	2280	2213

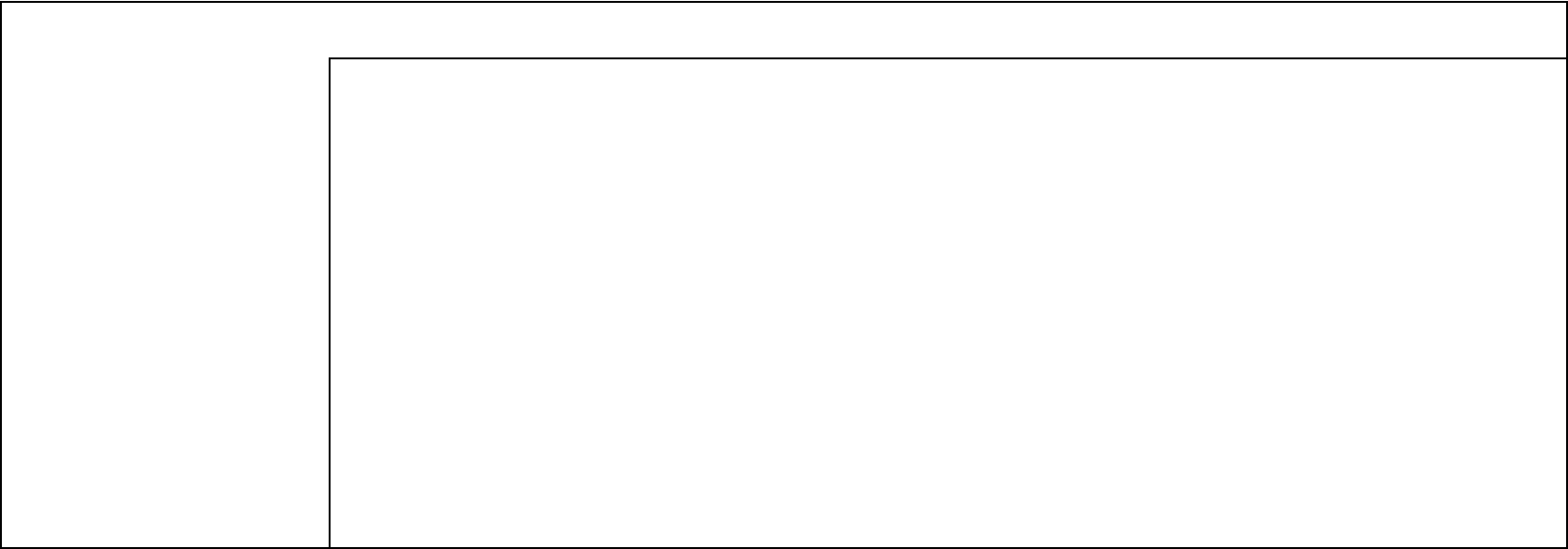
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	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	-16122	0	-1632
FEB	0	-13241	0	-1078
MAR	23	-10488	2	-529
APR	309	-5404	51	-25
MAY	1296	-2242	980	-5
JUN	2983	-380	5142	-3
JUL	5469	-25	11616	-1
AUG	5717	-14	12136	-4
SEP	3905	-274	5581	-17
OCT	1532	-1980	794	-121
NOV	86	-7911	18	-570
DEC	0	-13875	0	-878
ANN	21320	-71956	36320	-4863

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

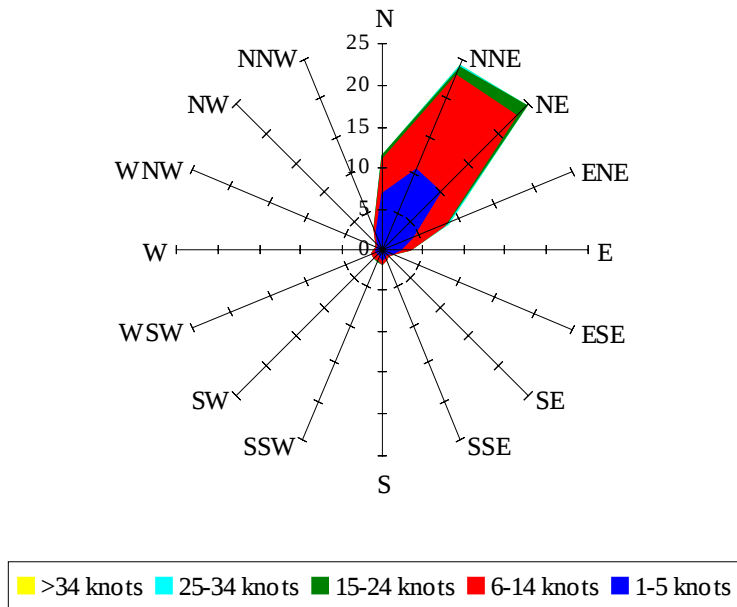
No Solar Radiation
Data Available



Average Annual Solar Heat and Illumination – Nearest Available Site

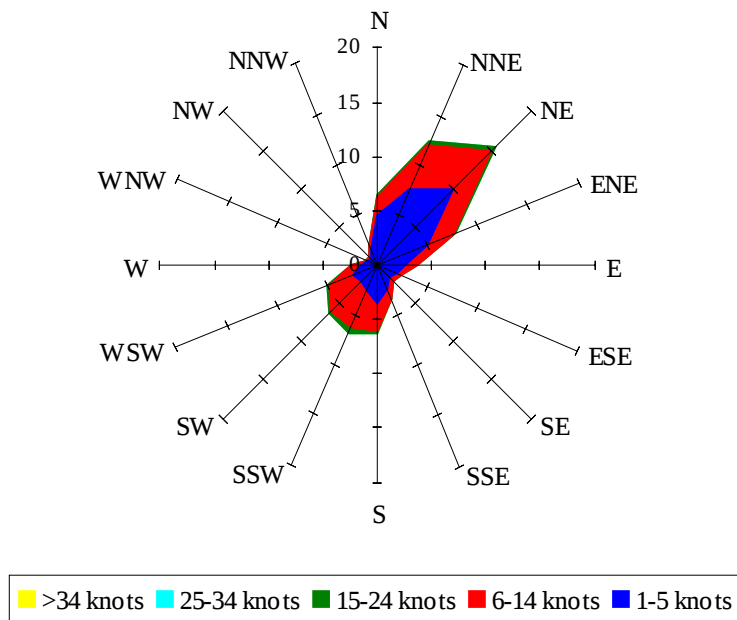
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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



Percent Calm = 12.98

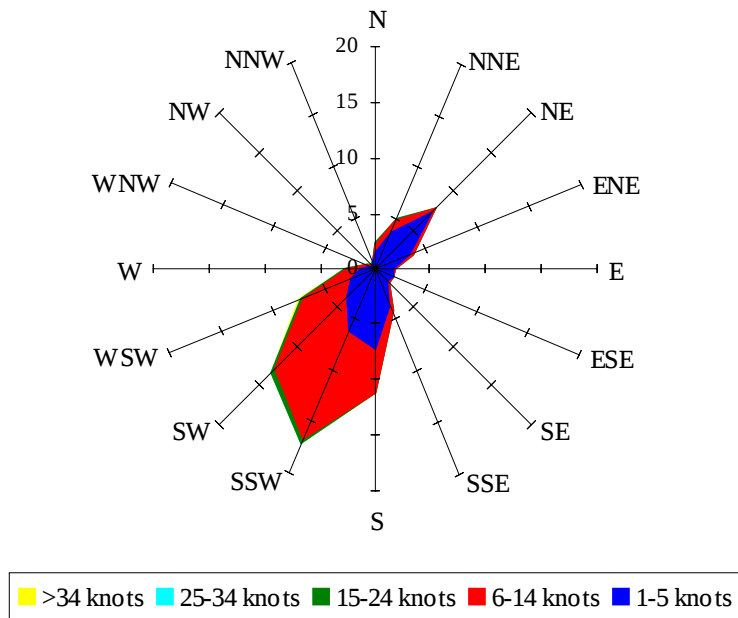
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 16.08

Wind Summary - June, July, and August

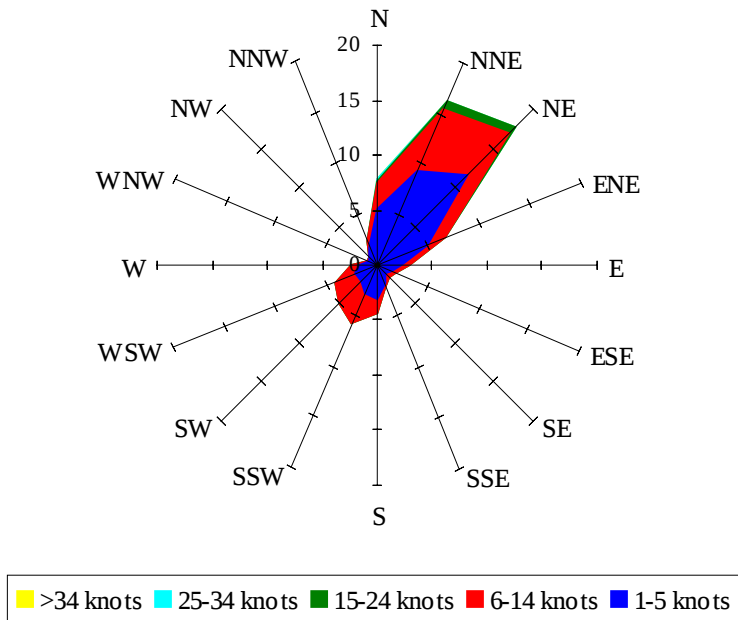
Labels of Percent Frequency on North Axis



Percent Calm = 18.60

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 17.26