

TEGUCIGALPA/TONCONTIN HO

Latitude = 14.05 N

WMO No. 787200

Longitude = 87.22 W

Elevation = 3261 feet

Period of Record = 1967 to 1996

Average Pressure = 26.62 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	92	68	76	8.8	N
0.4% Occurrence	90	68	78	8.9	N
1.0% Occurrence	88	68	82	9.2	E
2.0% Occurrence	86	68	85	9.2	E
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	57	55	69	4.0	N
99.0% Occurrence	55	53	65	3.2	N
99.6% Occurrence	53	52	61	2.7	N
Median of Extreme Lows	48	47	53	1.8	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	78	84	148	8.2	NE
0.4% Occurrence	73	82	118	7.8	N
1.0% Occurrence	72	81	114	7.8	N
2.0% Occurrence	71	80	110	7.8	N
	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	150	80	0.88	7.7	NW
0.4% Occurrence	124	77	0.74	6.4	N
1.0% Occurrence	117	75	0.69	5.2	N
2.0% Occurrence	116	75	0.69	5.2	N
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		3	1396	40	2704

Other Site Data

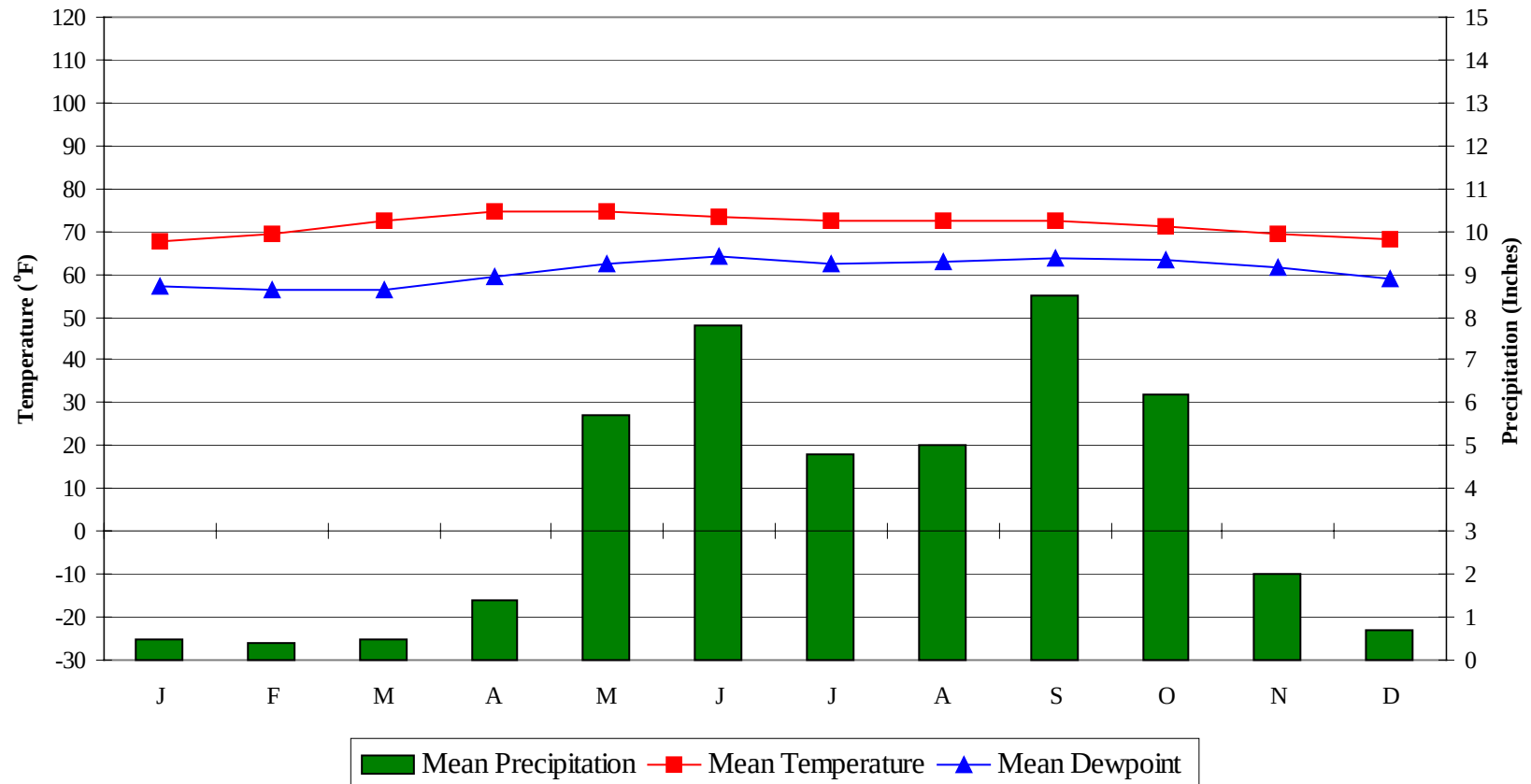
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	N/A	N/A	2.0 + 1.0
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
74.0	N/A	N/A	0

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

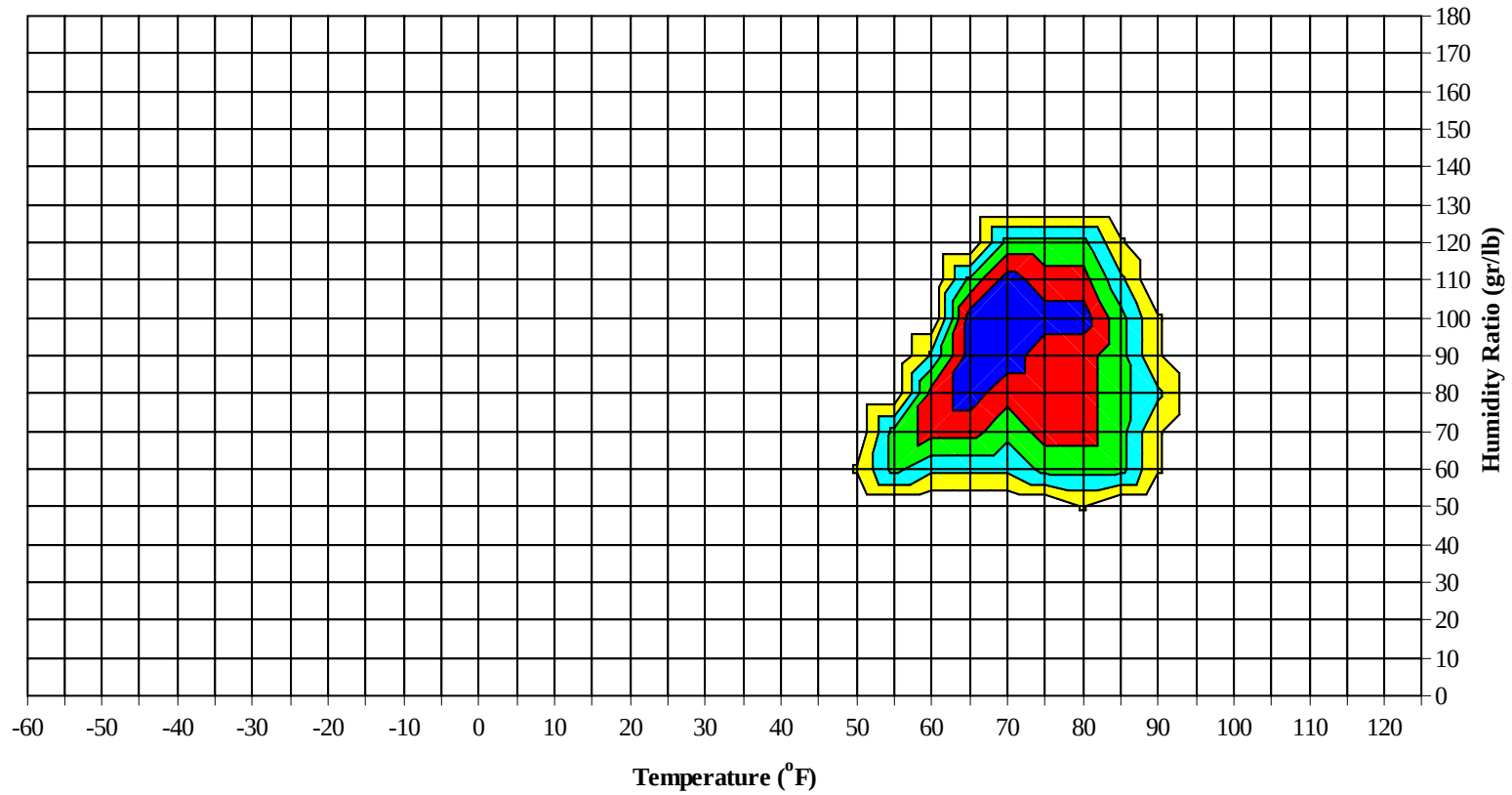
TEGUCIGALPA/TONCONTIN HO

WMO No. 787200

Average Annual Climate

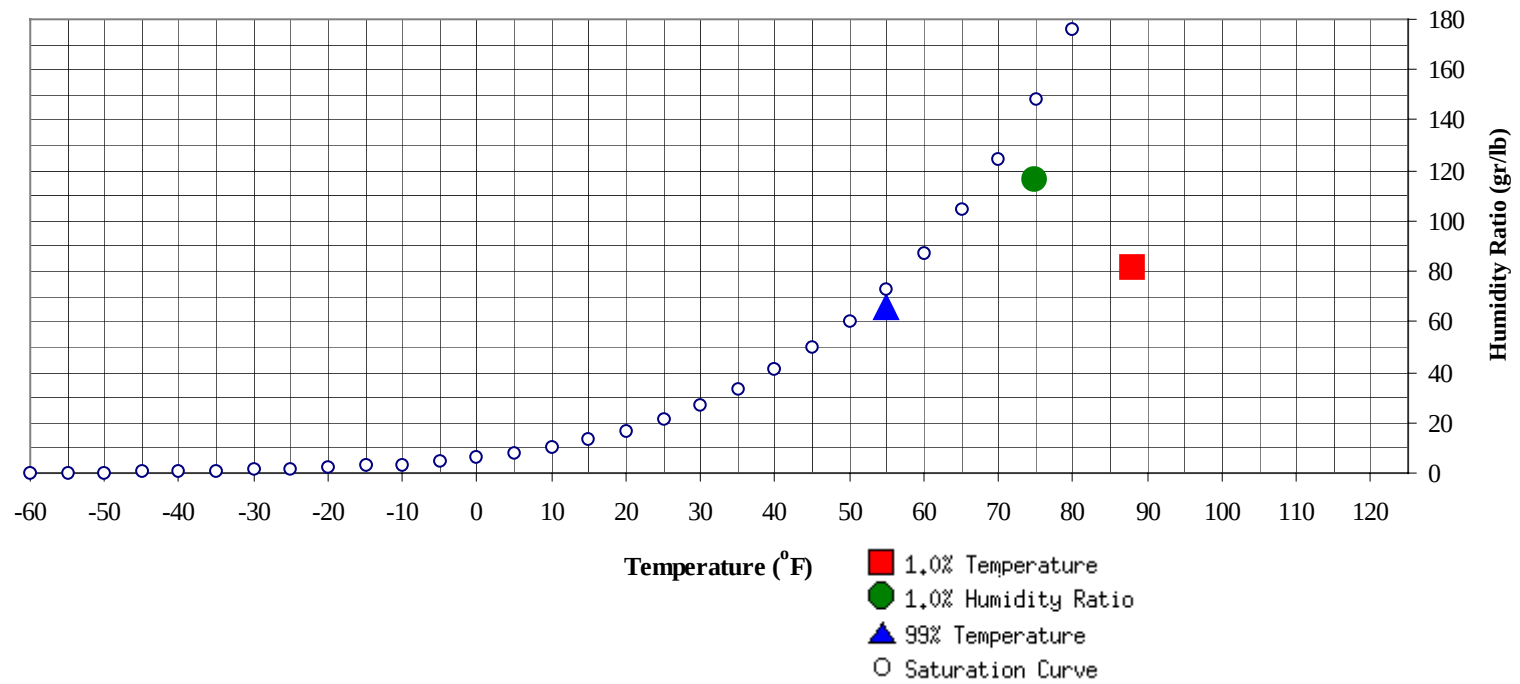


Long Term Psychrometric Summary



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

Psychrometric Summary of Peak Design Values



99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	55	65.7	23.4		116.9	74.7	70.1	68	36.2

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	88	81.4	67.4	33.9

TEGUCIGALPA/TONCONTIN HO

WMO No. 787200

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		
95 / 99															
90 / 94		0		0	66.5		1	0	1	68.2		13	1	14	66.2
85 / 89		3	0	3	66.0		13	1	14	65.9		42	7	49	65.9
80 / 84		34	4	38	65.3	0	55	14	69	64.6	0	76	33	109	64.8
75 / 79		89	26	115	63.9	0	69	37	105	63.6	1	61	55	117	64.0
70 / 74	1	68	63	132	62.9	3	51	65	119	62.5	20	40	79	140	63.0
65 / 69	26	36	72	133	61.8	37	24	53	113	61.4	61	13	46	120	61.5
60 / 64	129	17	63	209	59.6	104	11	43	159	58.9	106	3	22	131	58.8
55 / 59	70	2	19	91	55.5	62	1	10	73	55.0	49	0	5	54	54.9
50 / 54	20	0	2	22	51.4	17		1	18	51.2	9		0	9	51.1
45 / 49	2			2	46.5	1			1	46.7	1			1	46.3
40 / 44	0			0	42.3						0			0	43.0

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.

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WMO No. 787200

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		
95 / 99		0		0	64.7										
90 / 94		19	0	19	68.1		7	0	7	68.4		2	0	2	72.6
85 / 89		56	6	62	67.4	0	50	4	54	68.4		19	1	20	70.1
80 / 84	1	87	41	129	66.0	0	99	35	134	67.9		95	17	112	69.0
75 / 79	2	51	74	126	65.6	6	63	68	137	67.5	3	88	47	138	68.2
70 / 74	61	24	89	175	64.7	82	25	101	207	66.4	60	33	110	203	67.0
65 / 69	96	3	28	127	63.1	116	3	39	158	65.0	141	3	64	208	65.5
60 / 64	68	0	3	71	59.5	42	0	1	43	61.2	33		2	35	62.1
55 / 59	11	0	0	11	55.5	2			2	56.2	2			2	57.2
50 / 54	0		0	0	50.0										
45 / 49															
40 / 44															

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TEGUCIGALPA/TONCONTIN HO

WMO No. 787200

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		
95 / 99															
90 / 94		0		0	71.0		0		0	72.3		0		0	70.0
85 / 89		6	0	6	68.3		13	0	13	68.7		13	0	13	69.1
80 / 84	0	85	14	98	67.5		97	18	115	67.9	0	92	11	102	68.7
75 / 79	1	104	46	151	67.1	1	90	47	138	67.5	1	90	39	129	68.2
70 / 74	41	51	104	196	65.9	40	44	98	182	66.2	32	42	93	167	66.8
65 / 69	145	3	79	227	64.6	143	4	79	225	65.0	141	4	92	236	65.4
60 / 64	59	0	5	64	61.8	61	0	6	67	62.0	64	0	7	70	62.4
55 / 59	2			2	57.5	2			2	57.4	2			2	57.9
50 / 54															
45 / 49															
40 / 44															

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TEGUCIGALPA/TONCONTIN HO

WMO No. 787200

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		
95 / 99															
90 / 94															
85 / 89		3	0	3	69.5		1		1	70.1		0		0	77.0
80 / 84	0	70	3	73	68.8	0	40	1	40	67.9	0	28	1	29	66.7
75 / 79	1	106	32	139	68.0	0	104	23	127	66.8	0	95	20	114	65.1
70 / 74	21	60	84	165	66.5	9	72	71	152	65.5	2	81	63	146	64.0
65 / 69	126	8	107	241	65.0	89	19	93	201	64.1	46	32	86	164	62.9
60 / 64	89	1	22	113	61.7	108	4	48	159	60.9	135	10	64	209	60.3
55 / 59	9		0	9	56.8	28	0	5	33	56.5	45	1	14	60	55.7
50 / 54	1			1	53.4	6		0	6	52.1	18		1	19	51.3
45 / 49						0			0	46.5	2			2	46.6
40 / 44															

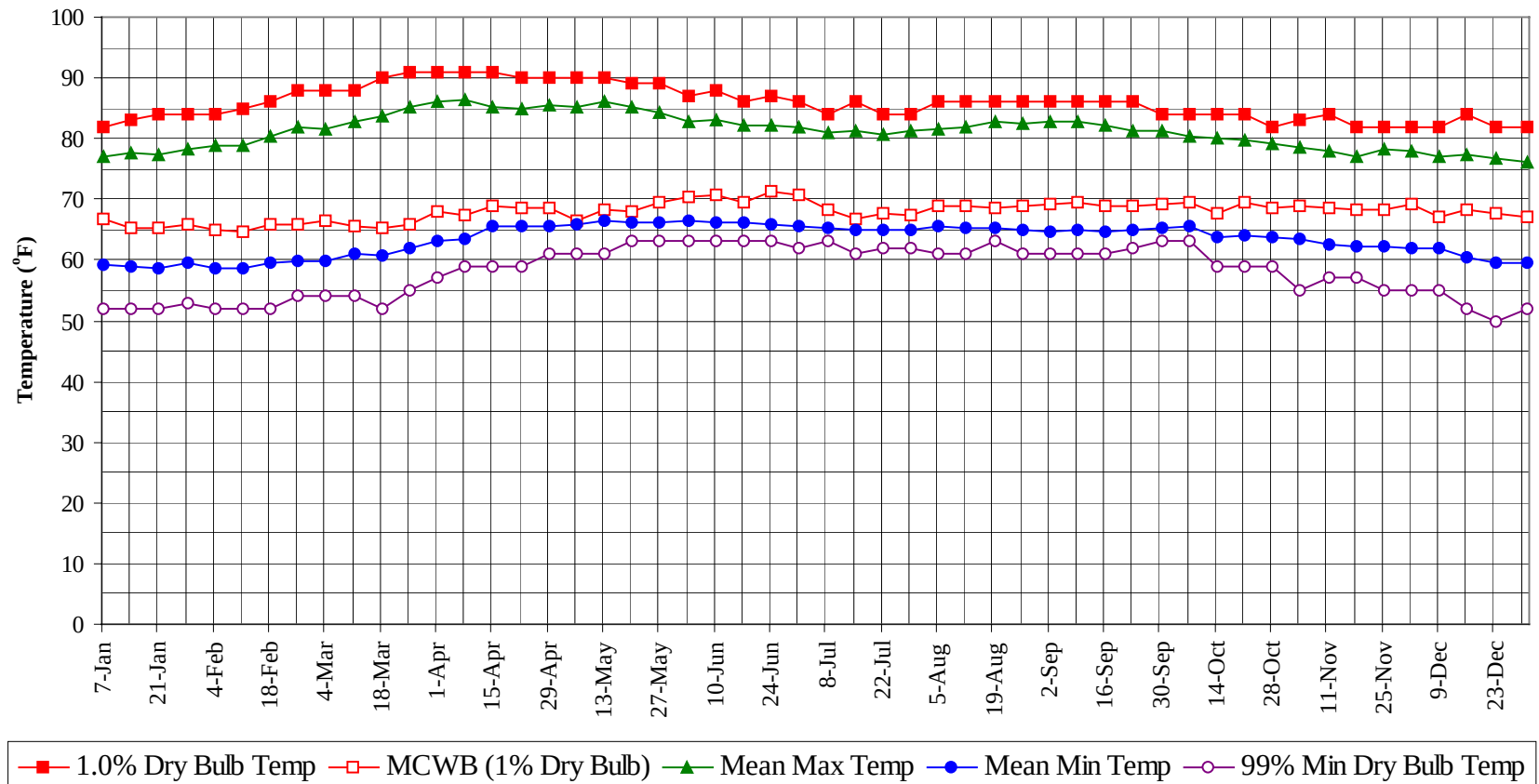
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

TEGUCIGALPA/TONCONTIN HO WMO No. 787200
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1967 to 1996

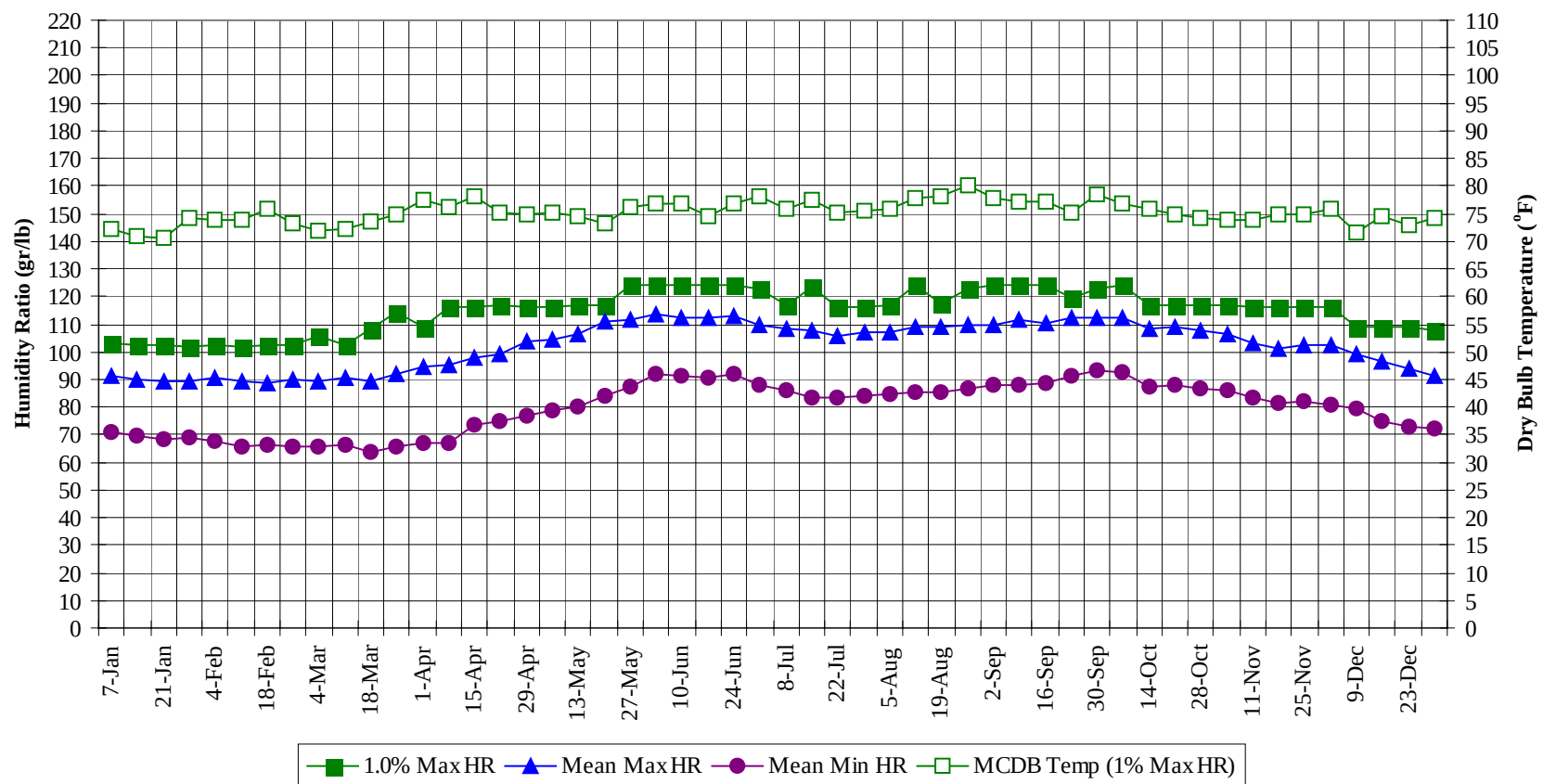
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99		0		0	65.8
90 / 94		41	2	43	67.7
85 / 89	0	219	18	237	67.7
80 / 84	2	861	191	1054	67.2
75 / 79	17	1010	511	1538	66.4
70 / 74	372	590	1021	1984	65.3
65 / 69	1171	148	834	2153	64.1
60 / 64	997	46	285	1328	60.3
55 / 59	287	5	53	344	55.5
50 / 54	69	0	4	73	51.4
45 / 49	6			6	46.6
40 / 44	0			0	42.4

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

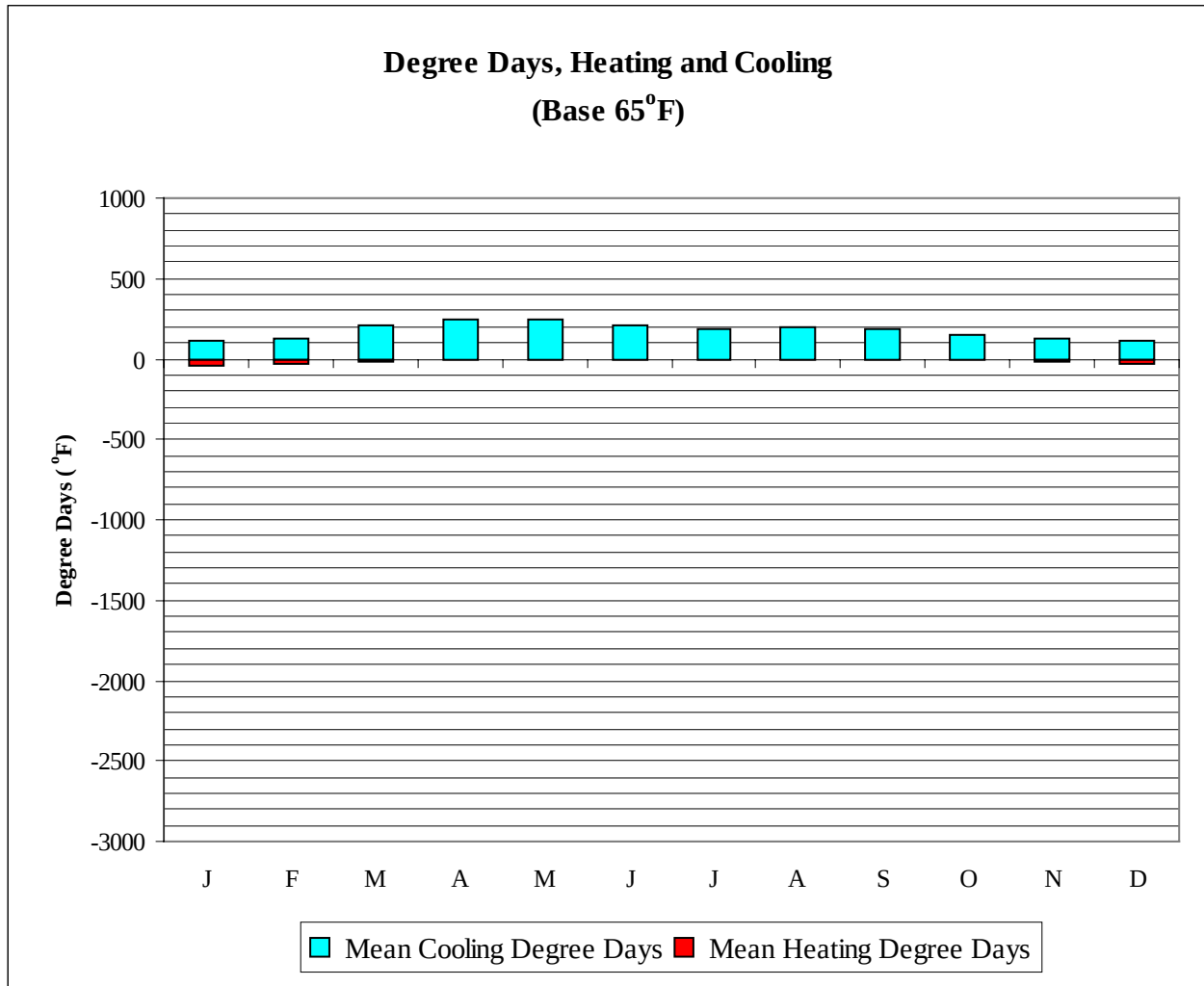


TEGUCIGALPA/TONCONTIN HO

WMO No. 787200

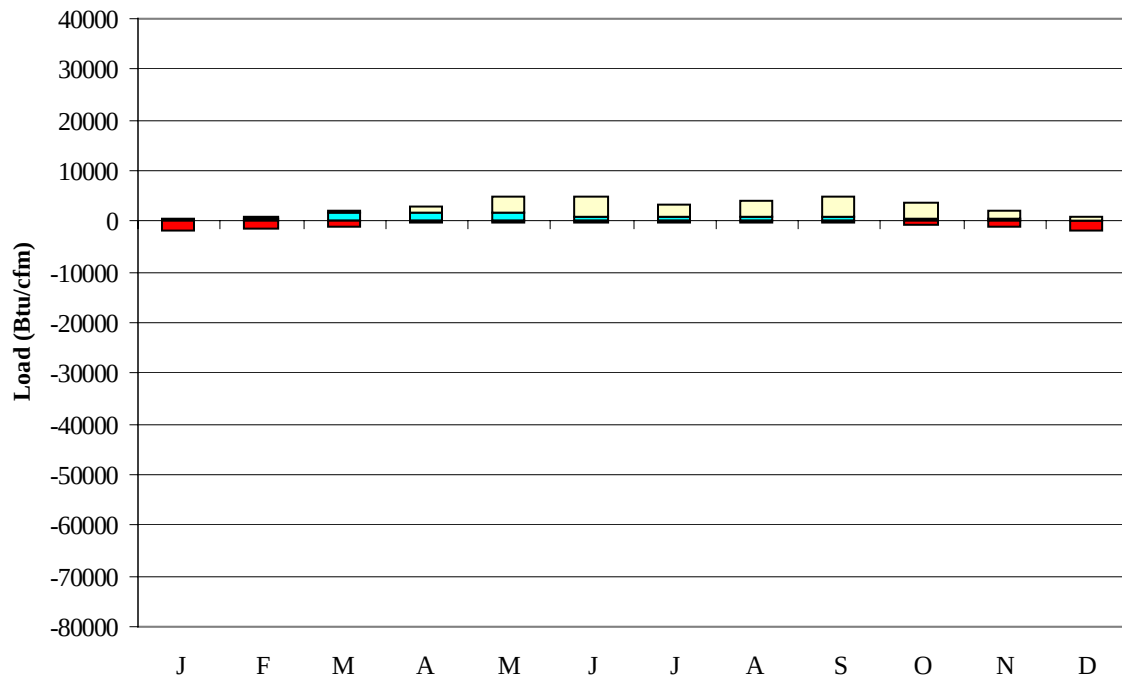
Long Term Dry Bulb Temperature and Humidity Summary

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	82.0	66.9	76.9	59.3	52.0	102.9	72.3	91.3	71.1
14-Jan	83.0	65.4	77.6	58.9	52.0	102.2	70.9	90.1	69.7
21-Jan	84.0	65.2	77.4	58.7	52.0	102.2	70.7	89.5	68.5
28-Jan	84.0	65.8	78.2	59.6	53.0	101.5	74.2	89.4	69.1
4-Feb	84.0	64.9	78.9	58.7	52.0	102.2	73.9	90.6	67.4
11-Feb	85.0	64.7	78.7	58.7	52.0	101.5	73.8	89.3	66.0
18-Feb	86.0	66.0	80.4	59.4	52.0	102.2	76.0	88.5	66.5
25-Feb	88.0	65.9	82.0	60.0	54.0	102.2	73.2	89.8	65.4
4-Mar	88.0	66.6	81.4	59.7	54.0	105.7	72.0	89.3	65.7
11-Mar	88.0	65.6	82.7	60.9	54.0	102.2	72.3	90.4	66.0
18-Mar	90.0	65.3	83.6	60.8	52.0	108.5	73.5	89.2	63.7
25-Mar	91.0	66.0	85.1	61.8	55.0	114.1	75.0	92.2	65.6
1-Apr	91.0	67.9	86.1	63.1	57.0	109.2	77.4	94.3	66.7
8-Apr	91.0	67.5	86.3	63.5	59.0	116.2	76.1	95.5	67.3
15-Apr	91.0	68.8	85.1	65.5	59.0	116.2	78.2	97.8	73.5
22-Apr	90.0	68.5	84.8	65.5	59.0	116.9	75.3	99.1	75.0
29-Apr	90.0	68.7	85.6	65.7	61.0	116.2	74.8	103.8	77.1
6-May	90.0	66.4	85.2	65.8	61.0	116.2	75.2	104.6	78.5
13-May	90.0	68.3	86.1	66.5	61.0	116.9	74.5	106.4	80.2
20-May	89.0	68.0	85.3	66.2	63.0	116.9	73.4	110.7	84.2
27-May	89.0	69.5	84.3	66.0	63.0	123.9	76.2	111.5	87.5
3-Jun	87.0	70.3	82.9	66.3	63.0	123.9	76.8	113.5	91.8
10-Jun	88.0	70.7	83.2	66.1	63.0	123.9	77.0	112.1	91.4
17-Jun	86.0	69.5	82.1	66.1	63.0	123.9	74.4	112.4	90.6
24-Jun	87.0	71.3	82.1	65.9	63.0	123.9	76.9	113.1	91.7
1-Jul	86.0	70.7	81.9	65.7	62.0	122.5	78.3	109.9	88.0
8-Jul	84.0	68.3	81.0	65.2	63.0	116.9	75.9	108.3	86.2
15-Jul	86.0	66.6	81.4	64.9	61.0	123.2	77.4	107.9	83.7
22-Jul	84.0	67.6	80.7	65.0	62.0	116.2	75.2	105.8	83.5
29-Jul	84.0	67.4	81.4	64.9	62.0	116.2	75.4	106.8	83.8
5-Aug	86.0	68.9	81.6	65.5	61.0	116.9	75.8	106.8	84.5
12-Aug	86.0	68.9	81.8	65.2	61.0	123.9	77.9	109.3	85.5
19-Aug	86.0	68.7	82.7	65.4	63.0	117.6	78.1	109.1	85.3
26-Aug	86.0	68.9	82.4	64.9	61.0	122.5	80.2	109.9	86.5
2-Sep	86.0	69.2	82.7	64.8	61.0	123.9	77.8	109.8	88.0
9-Sep	86.0	69.5	82.9	65.0	61.0	123.9	77.2	111.4	87.9
16-Sep	86.0	68.9	82.1	64.7	61.0	123.9	77.3	110.5	88.6
23-Sep	86.0	69.0	81.3	64.8	62.0	119.7	75.2	112.5	91.1
30-Sep	84.0	69.3	81.4	65.3	63.0	122.5	78.4	112.4	93.2
7-Oct	84.0	69.4	80.5	65.5	63.0	123.9	76.9	112.0	92.6
14-Oct	84.0	67.7	80.2	63.7	59.0	116.9	75.9	108.4	87.2
21-Oct	84.0	69.4	79.7	63.9	59.0	116.9	74.8	108.9	88.2
28-Oct	82.0	68.7	79.3	63.9	59.0	116.9	74.4	107.5	86.8
4-Nov	83.0	69.0	78.6	63.3	55.0	116.9	73.9	106.4	86.3
11-Nov	84.0	68.5	78.0	62.6	57.0	116.2	73.9	103.0	83.1
18-Nov	82.0	68.4	77.2	62.3	57.0	116.2	74.8	100.9	81.2
25-Nov	82.0	68.3	78.2	62.3	55.0	116.2	74.9	102.4	81.8
2-Dec	82.0	69.1	78.1	61.9	55.0	116.2	75.8	102.6	80.6
9-Dec	82.0	67.1	77.0	62.0	55.0	109.2	71.7	99.3	79.3
16-Dec	84.0	68.1	77.3	60.3	52.0	109.2	74.6	96.5	74.7
23-Dec	82.0	67.7	76.9	59.4	50.0	109.2	72.8	94.1	72.7
31-Dec	82.0	67.0	76.2	59.5	52.0	107.8	74.2	91.2	72.0



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	110	41
FEB	130	32
MAR	208	22
APR	242	6
MAY	251	2
JUN	210	2
JUL	189	3
AUG	201	3
SEP	183	3
OCT	155	7
NOV	125	17
DEC	108	32
ANN	2111	170

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



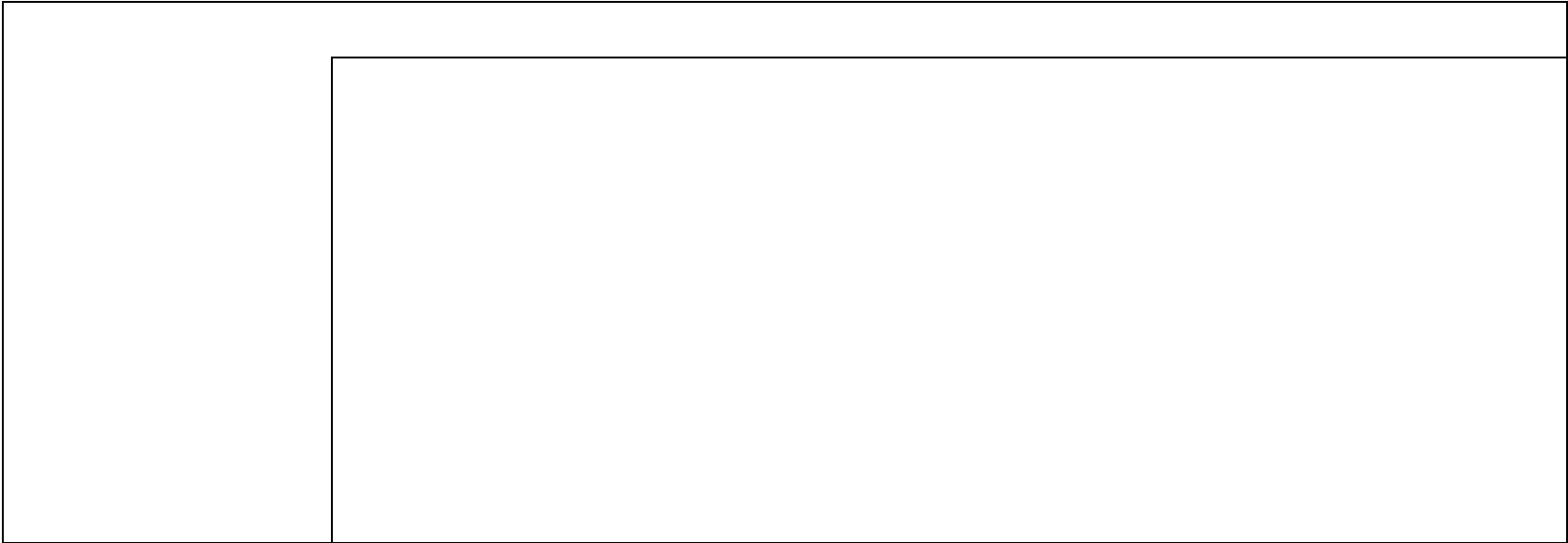
■ Average Sensible Cooling Load	■ Average Sensible Heating Load
■ Average Latent Cooling (Drying) Load	■ Average Latent Heating (Humidifying) Load

	Average Sensible Cooling Load	Average Sensible Heating Load	Average Latent Cooling Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	389	-1988	283	0
FEB	685	-1548	214	0
MAR	1564	-1082	438	0
APR	1838	-386	1200	0
MAY	1783	-222	2942	0
JUN	1087	-216	3769	0
JUL	805	-359	2660	0
AUG	1049	-376	3110	0
SEP	957	-398	3941	0
OCT	607	-579	3141	0
NOV	381	-1043	1842	0
DEC	303	-1672	777	0
ANN	11448	-9869	24317	0

Average Annual Solar Radiation – Nearest Available Site

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

No Solar Radiation
Data Available

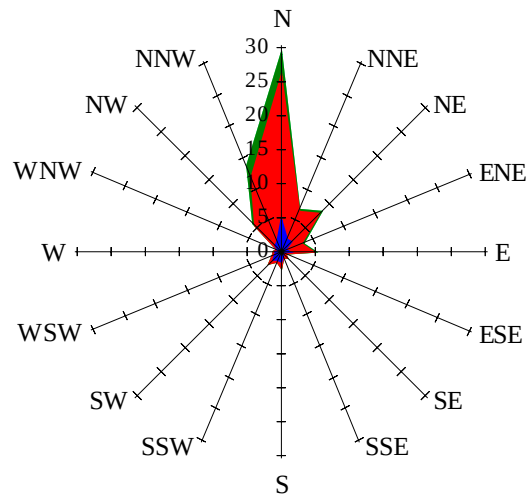


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

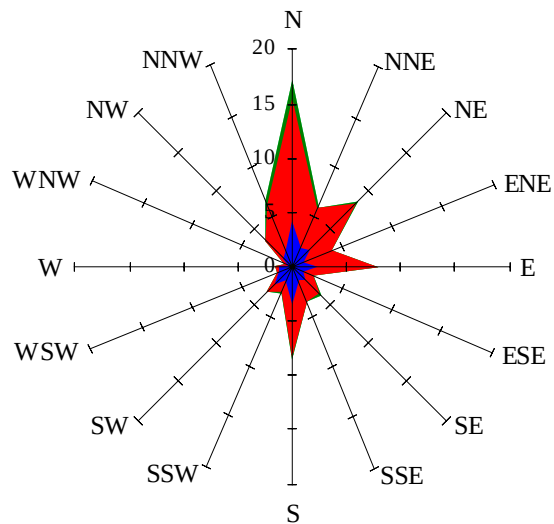
Labels of Percent Frequency on North Axis



Percent Calm = 17.13

Wind Summary - March, April, and May

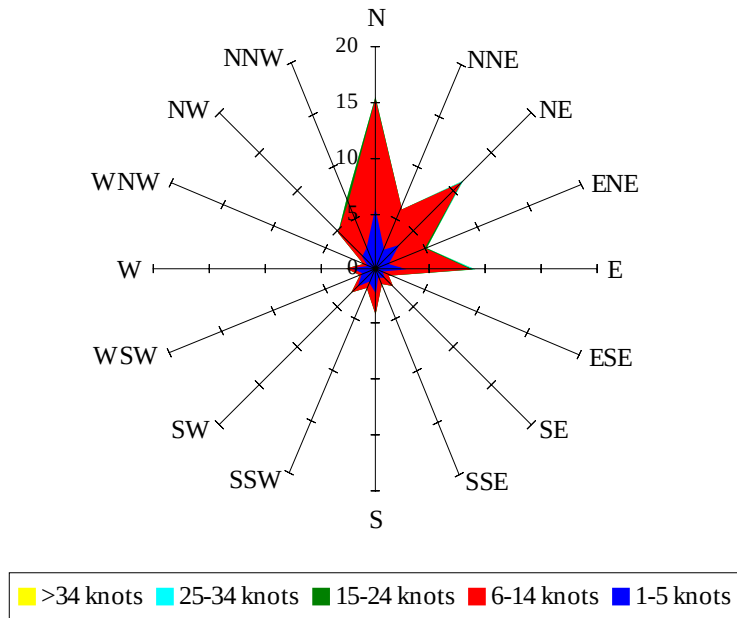
Labels of Percent Frequency on North Axis



Percent Calm = 21.18

Wind Summary - June, July, and August

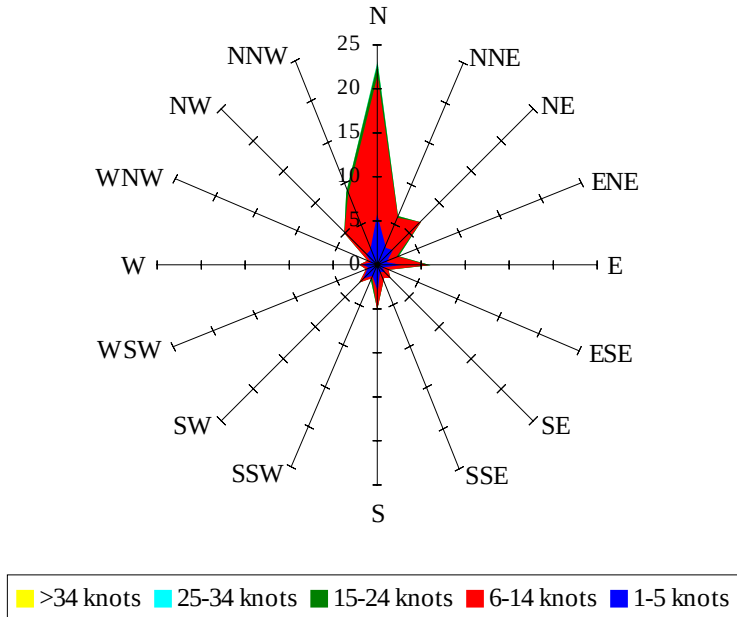
Labels of Percent Frequency on North Axis



Percent Calm = 25.55

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 26.18