BERMUDA NAS/KINDLEY BE	
Latitude = 32.37 N	WMO No. 780160
Longitude = 64.68 W	Elevation = 10 feet
Period of Record = 1967 to 1996	Average Pressure = 30.03 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	90	78	125	10.0	S
0.4% Occurrence	88	78	126	10.3	S
1.0% Occurrence	87	77	124	10.4	S
2.0% Occurrence	86	77	123	10.4	S
Mean Daily Range	8	-	-	-	-
97.5% Occurrence	58	52	46	13.6	WNW
99.0% Occurrence	56	50	44	14.8	WNW
99.6% Occurrence	54	49	42	16.3	WNW
Median of Extreme Lows	50	46	41	20.8	W
		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	82	86	154	10.7	SSW
0.4% Occurrence	80	85	142	11.1	SSW
1.0% Occurrence	79	84	137	11.4	SSW
2.0% Occurrence	78	83	133	11.2	SSW
		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	167	84	1.11	7.6	ESE
0.4% Occurrence	148	84	0.99	10.3	SW
1.0% Occurrence	141	82	0.94	12.4	SSW
2.0% Occurrence	139	83	0.94	10.9	SSW
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	1775	2337	4242

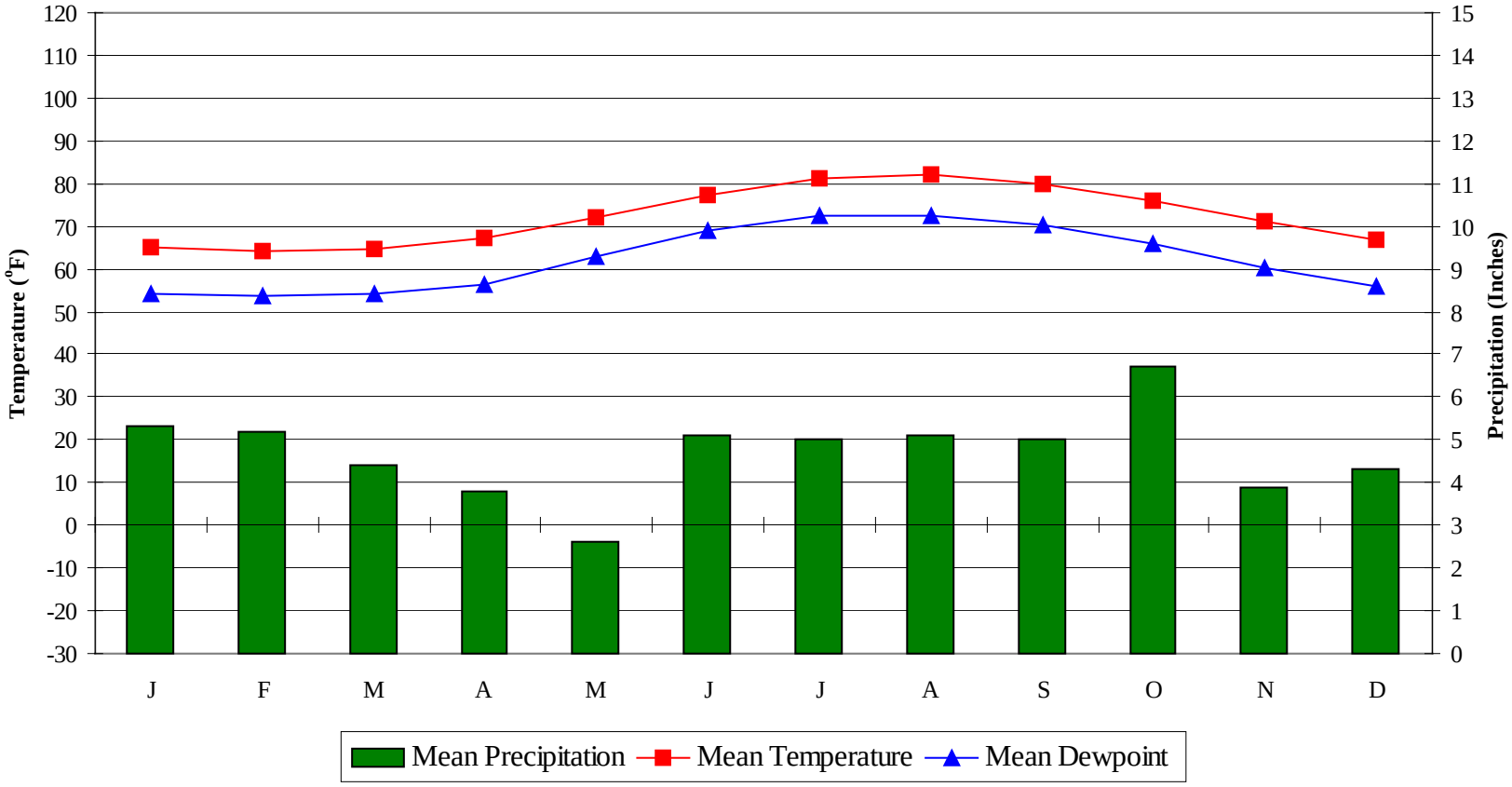
Other Site Data

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^oF-RH 60% Latent + Sensible
10	N/A	N/A	7.6 + 1.6
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 (#)**
74.8	N/A	N/A	0

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

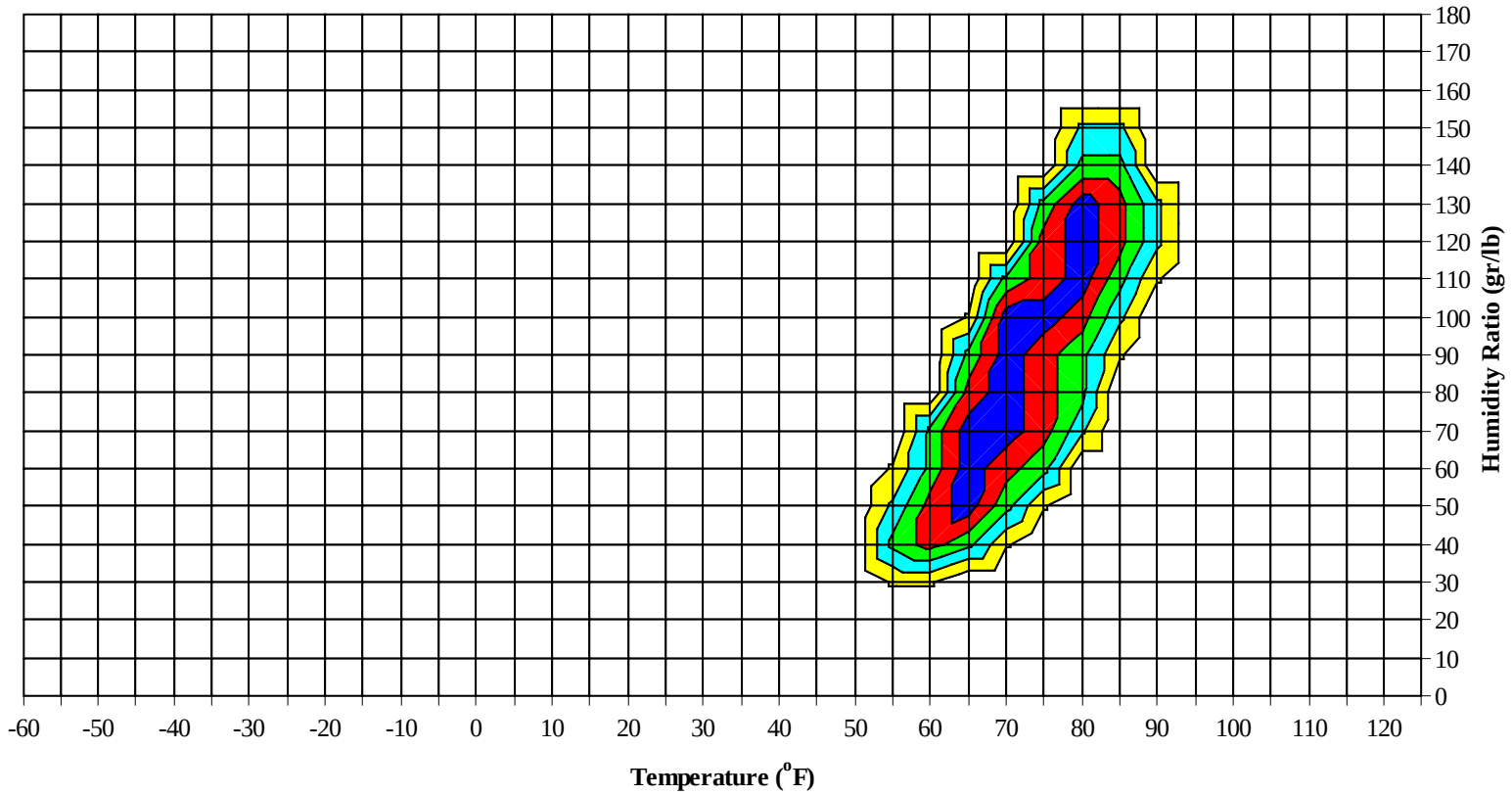
BERMUDA NAS/KINDLEY BE WMO No. 780160

Average Annual Climate



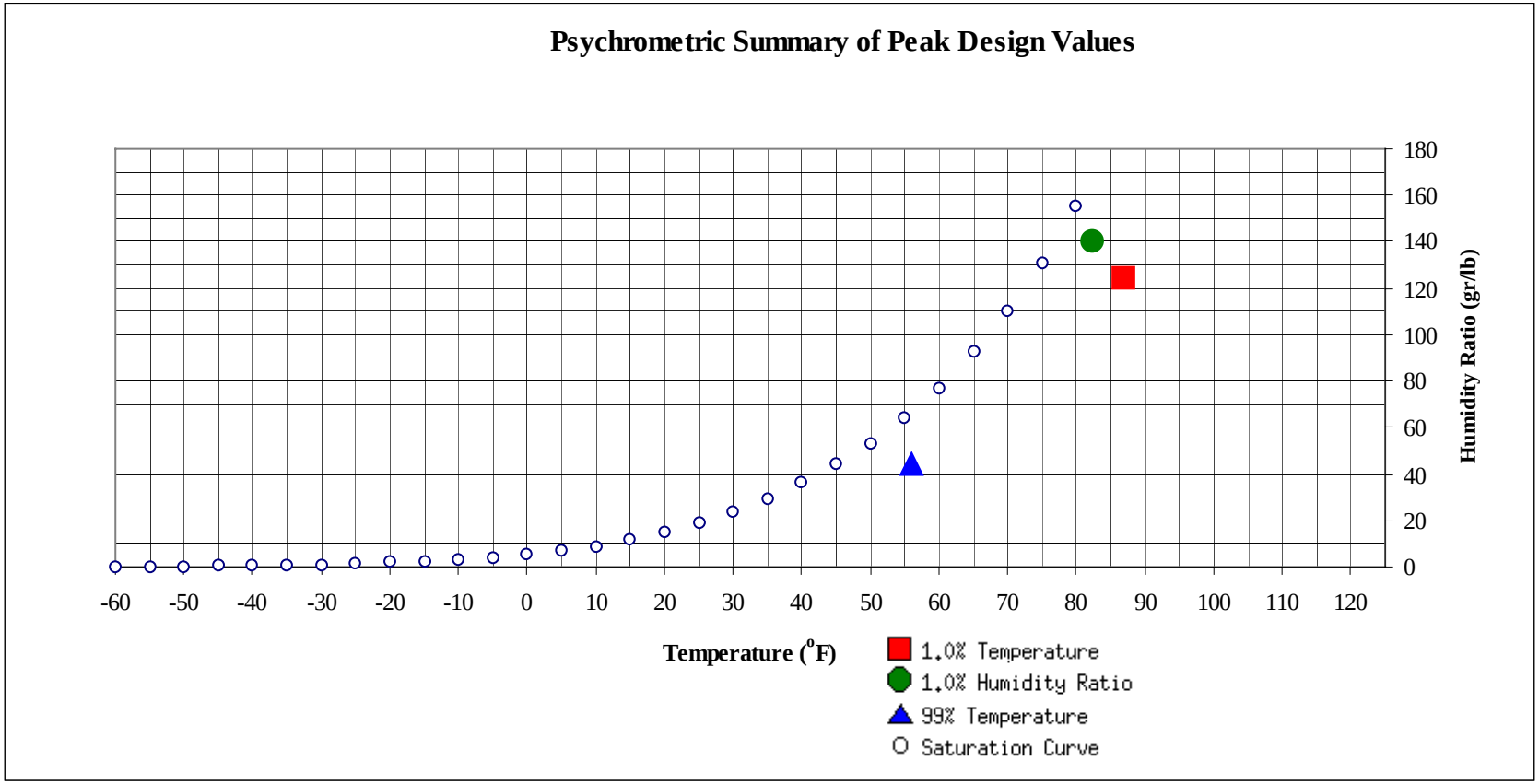
BERMUDA NAS/KINDLEY BE WMO No. 780160

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

BERMUDA NAS/KINDLEY BE WMO No. 780160



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	56	44.1	20.3

		MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	(gr/lb)				
	140.7	82.2	78.4	77	41.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	87	124.1	77.3	40.4

BERMUDA NAS/KINDLEY BE WMO No. 780160

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															
85 / 89															
80 / 84	0	0		0	69.3		0		0	69.0	0	0	0	0	70.0
75 / 79	0	5	0	6	67.8	0	3	0	3	66.7	0	6	0	6	68.0
70 / 74	32	78	41	151	65.1	16	60	25	100	64.9	18	79	31	128	64.9
65 / 69	82	82	85	249	61.0	61	71	70	203	61.4	76	84	88	249	61.5
60 / 64	93	63	88	243	55.9	96	68	88	252	56.1	106	62	95	263	56.1
55 / 59	35	16	29	80	51.2	43	20	37	100	51.0	44	14	31	89	50.9
50 / 54	7	2	5	14	47.7	8	2	4	13	48.1	4	1	3	9	47.6
45 / 49	0	0	0	0	44.4	0	0	0	1	44.9	0	0		0	44.0

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.

BERMUDA NAS/KINDLEY BE WMO No. 780160

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															
85 / 89							0		0	78.0	0	10	1	11	76.4
80 / 84	0	0	0	0	68.7	0	13	2	15	73.4	18	105	40	164	74.5
75 / 79	0	18	1	20	67.6	20	108	40	168	69.8	140	107	146	393	72.0
70 / 74	34	113	57	205	64.7	134	105	142	381	66.5	76	15	48	139	68.0
65 / 69	102	80	104	286	61.0	76	21	55	153	61.7	7	3	3	12	63.6
60 / 64	91	27	70	188	56.1	17	1	8	26	56.5	0		0	0	61.6
55 / 59	12	1	7	20	51.5	0	0	0	1	54.5					
50 / 54	1	0	0	1	49.0										
45 / 49															

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.

BERMUDA NAS/KINDLEY BE WMO No. 780160

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

Period of Record = 1967 to 1996

	July					August					September				
	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB
Temperature Range (°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)
90 / 94		2	0	2	77.0	0	9	0	10	78.3		2		2	78.8
85 / 89	2	71	12	86	77.0	6	105	23	134	77.3	1	50	4	55	76.3
80 / 84	117	150	159	426	75.5	162	115	179	455	75.4	78	143	116	337	74.5
75 / 79	124	21	76	221	73.4	80	16	45	141	73.1	146	41	113	301	71.7
70 / 74	5	2	2	9	70.3	3	1	1	5	69.7	15	2	7	24	67.7
65 / 69		0	0	0	68.0			0	0	64.0	0	0		0	62.5
60 / 64															
55 / 59															
50 / 54															
45 / 49															

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.

BERMUDA NAS/KINDLEY BE WMO No. 780160

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	09 To 16	17 To 00	Total Obs	MCWB (°F)	November Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	December Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
90 / 94															
85 / 89		4	0	4	77.5										
80 / 84	14	85	24	123	74.0	0	7	0	7	72.5	0	0	0	0	64.3
75 / 79	128	119	136	383	70.4	24	92	36	152	69.4	3	17	3	23	69.0
70 / 74	94	34	80	209	65.6	120	103	123	347	65.1	49	105	62	217	65.0
65 / 69	11	4	8	22	60.9	72	31	64	167	60.0	93	77	98	268	60.6
60 / 64	2	0	1	3	57.9	23	6	16	45	56.3	86	42	74	203	55.8
55 / 59	0		0	0	54.0	1	0	1	3	52.5	15	6	10	32	52.3
50 / 54											1	0	1	1	50.0
45 / 49															

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.

BERMUDA NAS/KINDLEY BE WMO No. 780160

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

Period of Record = 1967 to 1996

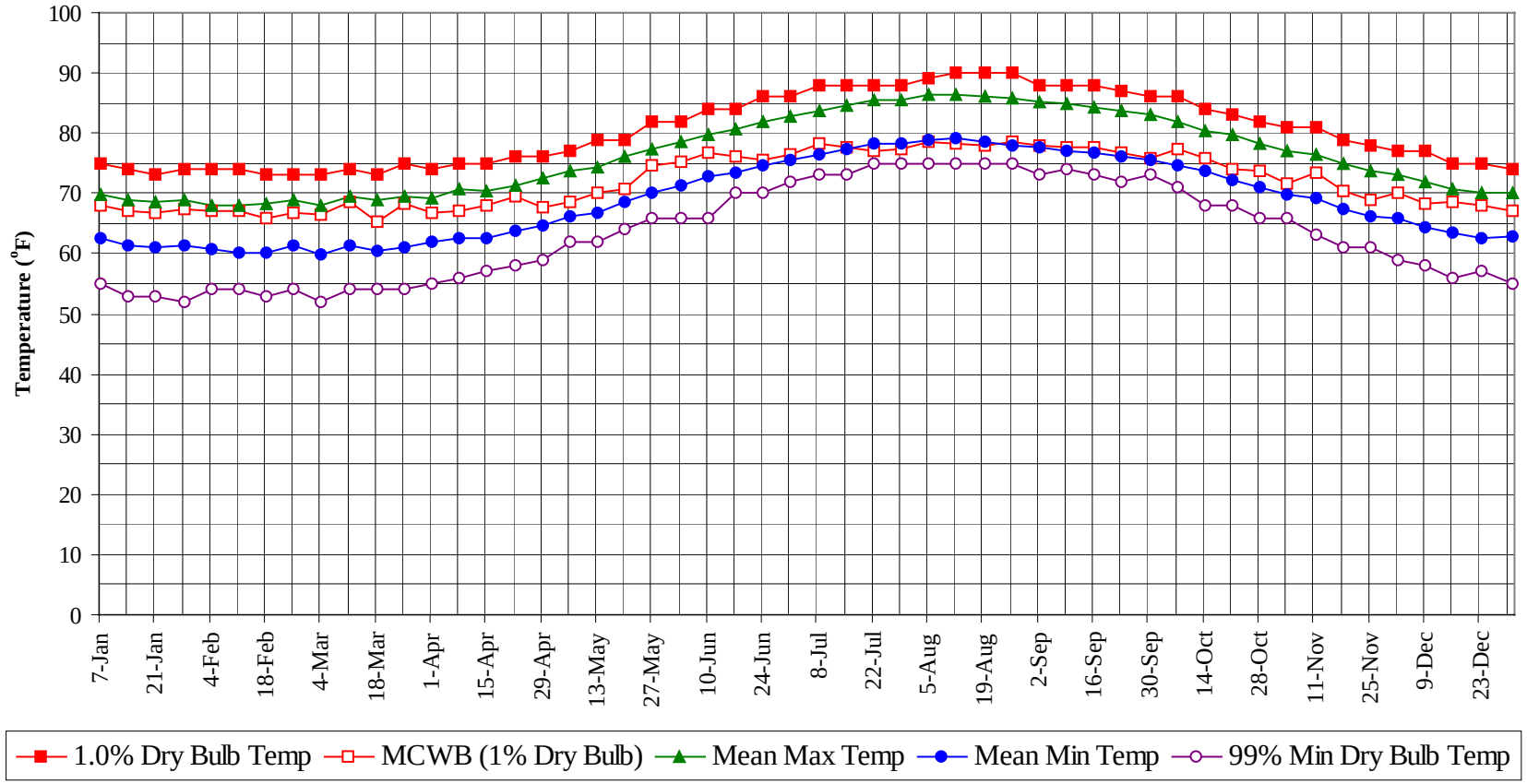
Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
90 / 94	0	13	0	13	78.1
85 / 89	9	237	40	286	77.0
80 / 84	383	610	513	1506	75.0
75 / 79	655	549	588	1793	71.3
70 / 74	596	703	620	1918	65.6
65 / 69	587	460	583	1629	61.1
60 / 64	522	275	446	1243	56.0
55 / 59	155	59	118	331	51.2
50 / 54	21	6	13	39	47.9
45 / 49	1	0	0	1	44.6

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.

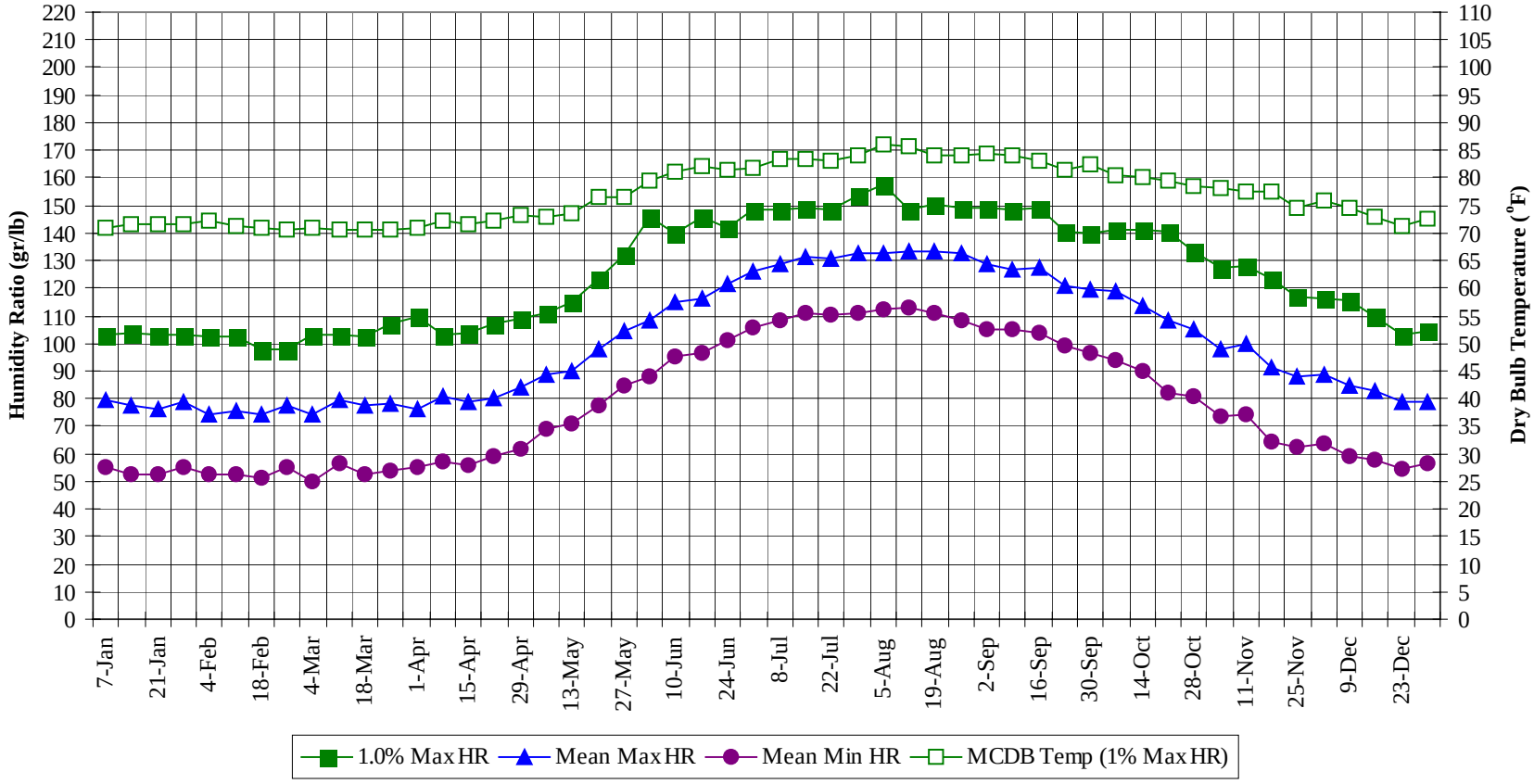
BERMUDA NAS/KINDLEY BE WMO No. 780160

Annual Summary of Temperatures



BERMUDA NAS/KINDLEY BE WMO No. 780160

Long Term Humidity and Dry Bulb Temperature Summary



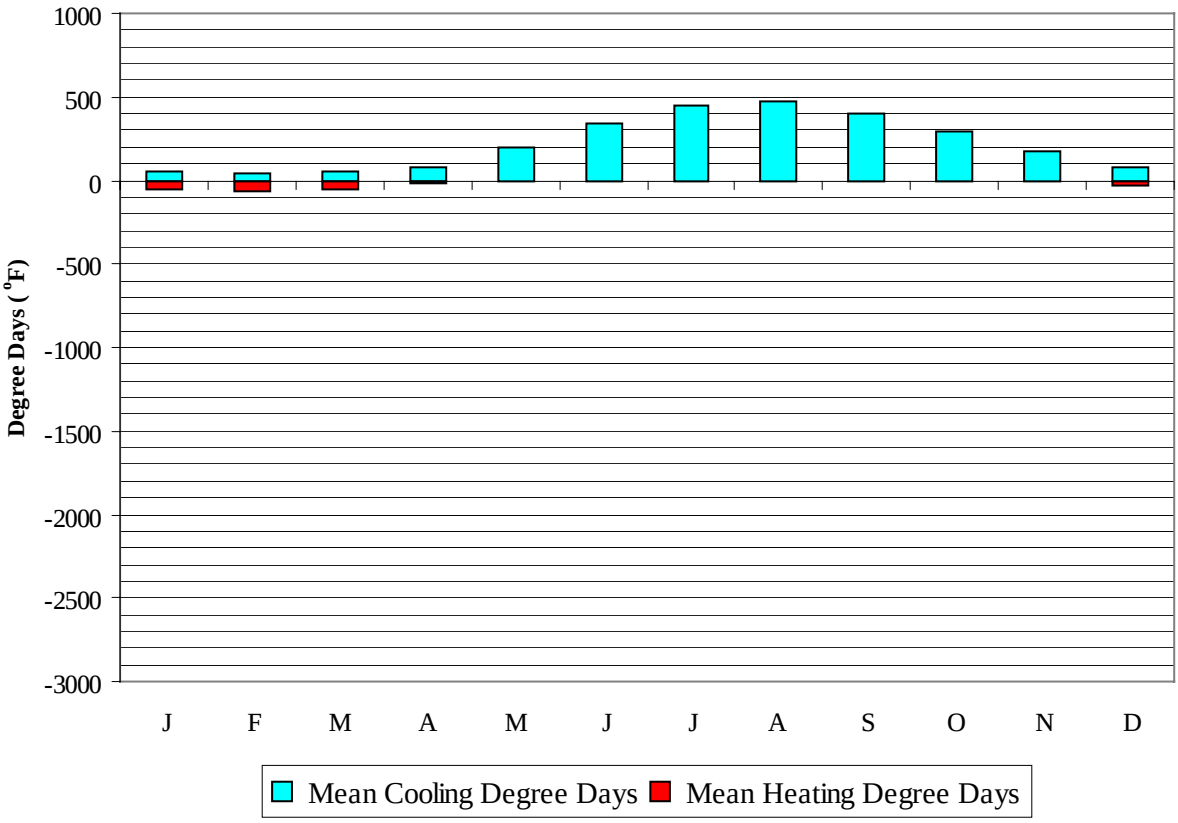
BERMUDA NAS/KINDLEY BE WMO No. 780160

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	75.0	68.0	69.7	62.5	55.0	102.9	70.9	79.7	54.9
14-Jan	74.0	67.0	68.9	61.5	53.0	103.6	71.5	77.4	52.7
21-Jan	73.0	66.9	68.7	61.2	53.0	102.9	71.7	76.1	52.7
28-Jan	74.0	67.5	68.9	61.4	52.0	102.9	71.6	79.1	55.3
4-Feb	74.0	67.2	68.1	60.6	54.0	102.2	72.4	74.4	52.3
11-Feb	74.0	67.1	68.0	60.1	54.0	102.2	71.4	75.8	52.4
18-Feb	73.0	66.0	68.2	60.2	53.0	98.0	70.9	74.2	51.3
25-Feb	73.0	66.6	68.9	61.3	54.0	98.0	70.5	77.4	54.9
4-Mar	73.0	66.5	67.8	59.7	52.0	102.9	70.9	74.3	50.1
11-Mar	74.0	68.5	69.4	61.2	54.0	102.9	70.6	79.5	56.6
18-Mar	73.0	65.3	68.9	60.5	54.0	102.2	70.6	77.2	52.8
25-Mar	75.0	68.3	69.4	61.2	54.0	107.1	70.5	77.9	54.2
1-Apr	74.0	66.9	69.3	61.9	55.0	109.9	71.0	76.3	54.9
8-Apr	75.0	67.2	70.6	62.5	56.0	102.9	72.2	80.9	57.2
15-Apr	75.0	68.0	70.5	62.5	57.0	103.6	71.5	78.9	56.1
22-Apr	76.0	69.6	71.4	63.6	58.0	107.1	72.2	80.1	59.0
29-Apr	76.0	67.8	72.6	64.7	59.0	109.2	73.3	83.8	61.8
6-May	77.0	68.7	73.8	66.0	62.0	111.3	72.9	88.9	68.8
13-May	79.0	70.1	74.3	66.9	62.0	114.8	73.5	90.2	70.9
20-May	79.0	70.8	76.0	68.5	64.0	123.2	76.6	98.1	77.7
27-May	82.0	74.7	77.3	70.1	66.0	132.3	76.4	104.3	84.5
3-Jun	82.0	75.2	78.5	71.3	66.0	145.6	79.4	108.2	88.2
10-Jun	84.0	76.7	79.7	72.9	66.0	140.0	81.0	114.6	95.6
17-Jun	84.0	76.2	80.6	73.5	70.0	145.6	82.1	116.2	96.3
24-Jun	86.0	75.4	81.8	74.5	70.0	142.1	81.4	121.3	100.9
1-Jul	86.0	76.6	82.7	75.5	72.0	148.4	81.8	126.3	105.7
8-Jul	88.0	78.3	83.7	76.6	73.0	148.4	83.5	128.7	108.4
15-Jul	88.0	77.6	84.6	77.2	73.0	149.1	83.5	131.6	110.8
22-Jul	88.0	77.0	85.4	78.4	75.0	148.4	83.2	130.5	110.5
29-Jul	88.0	77.4	85.5	78.3	75.0	154.0	84.2	132.7	111.0
5-Aug	89.0	78.6	86.3	78.7	75.0	157.5	85.9	132.8	112.0
12-Aug	90.0	78.3	86.5	79.0	75.0	148.4	85.6	133.6	112.9
19-Aug	90.0	78.0	86.0	78.5	75.0	150.5	84.2	133.6	111.1
26-Aug	90.0	78.6	85.7	77.8	75.0	149.1	84.1	132.4	108.1
2-Sep	88.0	78.1	85.3	77.6	73.0	149.1	84.4	128.7	105.2
9-Sep	88.0	77.7	84.8	77.1	74.0	148.4	84.0	126.8	105.2
16-Sep	88.0	77.6	84.2	76.7	73.0	149.1	83.2	127.2	103.6
23-Sep	87.0	76.7	83.6	76.0	72.0	140.7	81.5	120.9	98.8
30-Sep	86.0	75.7	83.0	75.6	73.0	140.0	82.3	119.7	96.8
7-Oct	86.0	77.4	82.0	74.6	71.0	141.4	80.5	119.1	94.0
14-Oct	84.0	75.8	80.4	73.7	68.0	141.4	80.3	113.6	89.9
21-Oct	83.0	74.0	79.7	72.4	68.0	140.7	79.5	108.5	82.2
28-Oct	82.0	73.6	78.3	71.0	66.0	133.0	78.5	104.8	80.7
4-Nov	81.0	71.5	76.9	69.8	66.0	127.4	78.2	98.1	73.3
11-Nov	81.0	73.4	76.4	69.3	63.0	128.1	77.4	99.6	74.3
18-Nov	79.0	70.5	74.9	67.4	61.0	123.2	77.5	91.3	64.5
25-Nov	78.0	69.0	73.6	66.3	61.0	116.9	74.5	88.2	62.5
2-Dec	77.0	70.0	73.1	65.7	59.0	116.2	75.7	88.6	63.8
9-Dec	77.0	68.3	71.9	64.2	58.0	115.5	74.5	84.9	59.4
16-Dec	75.0	68.5	70.8	63.4	56.0	109.9	73.0	82.6	57.8
23-Dec	75.0	68.1	70.0	62.6	57.0	102.9	71.3	78.8	54.5
31-Dec	74.0	67.0	70.0	62.9	55.0	104.3	72.7	78.7	56.4

BERMUDA NAS/KINDLEY BE WMO No. 780160

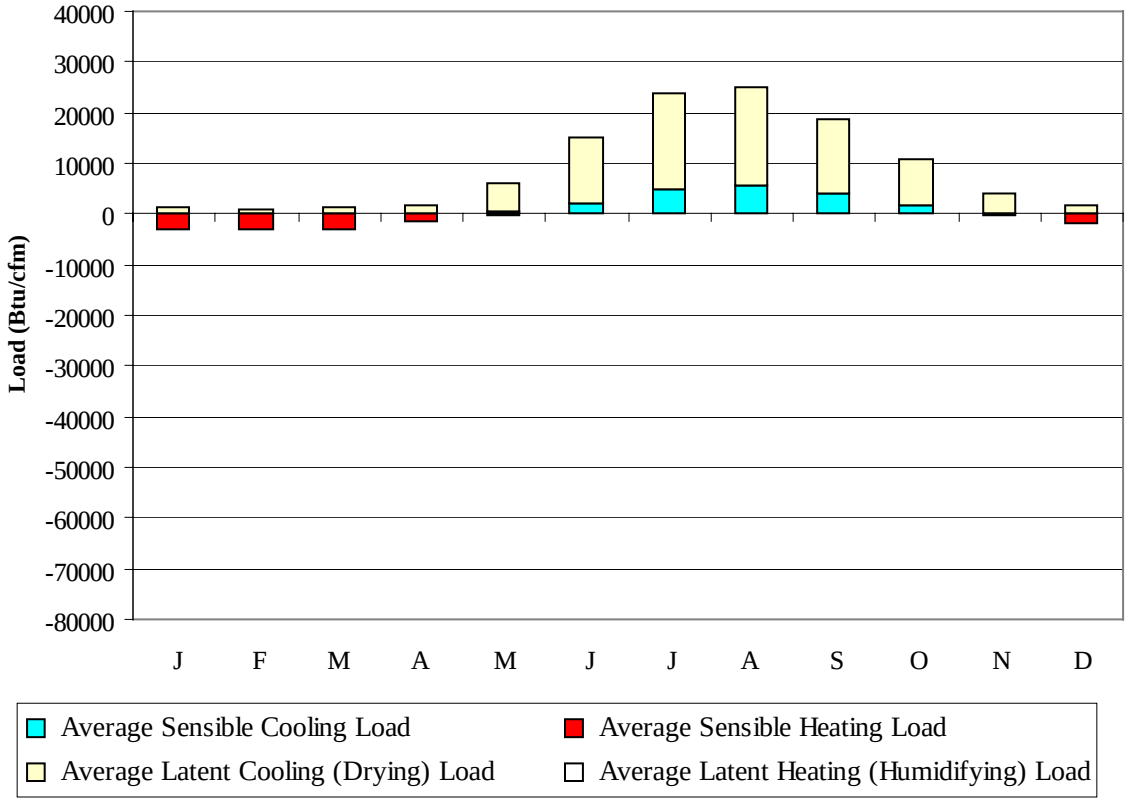
Degree Days, Heating and Cooling
(Base 65°F)



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	58	55
FEB	39	65
MAR	50	58
APR	81	23
MAY	200	2
JUN	340	0
JUL	450	0
AUG	478	0
SEP	407	0
OCT	298	0
NOV	171	4
DEC	81	28
ANN	2654	235

BERMUDA NAS/KINDLEY BE WMO No. 780160

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	1	-2836	1287	-2
FEB	1	-3155	893	-3
MAR	2	-2989	1339	-2
APR	14	-1604	1607	-1
MAY	341	-262	5785	0
JUN	2126	-11	12902	0
JUL	4945	0	18924	0
AUG	5729	0	19090	0
SEP	4002	0	14679	0
OCT	1596	-25	9187	0
NOV	247	-418	3791	0
DEC	16	-1794	1796	0
ANN	19020	-13094	91280	-8

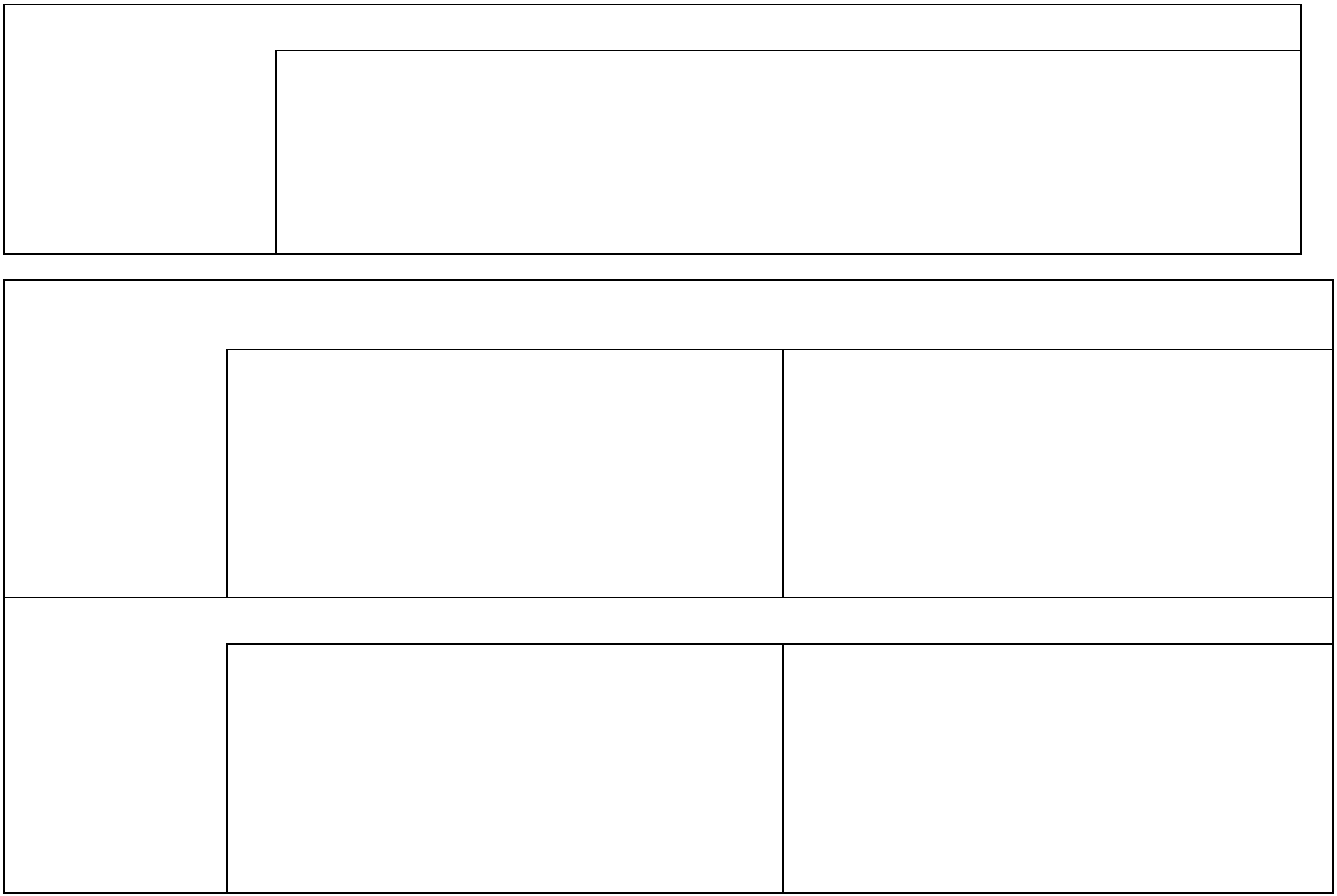
Average Annual Solar Radiation – Nearest Available Site

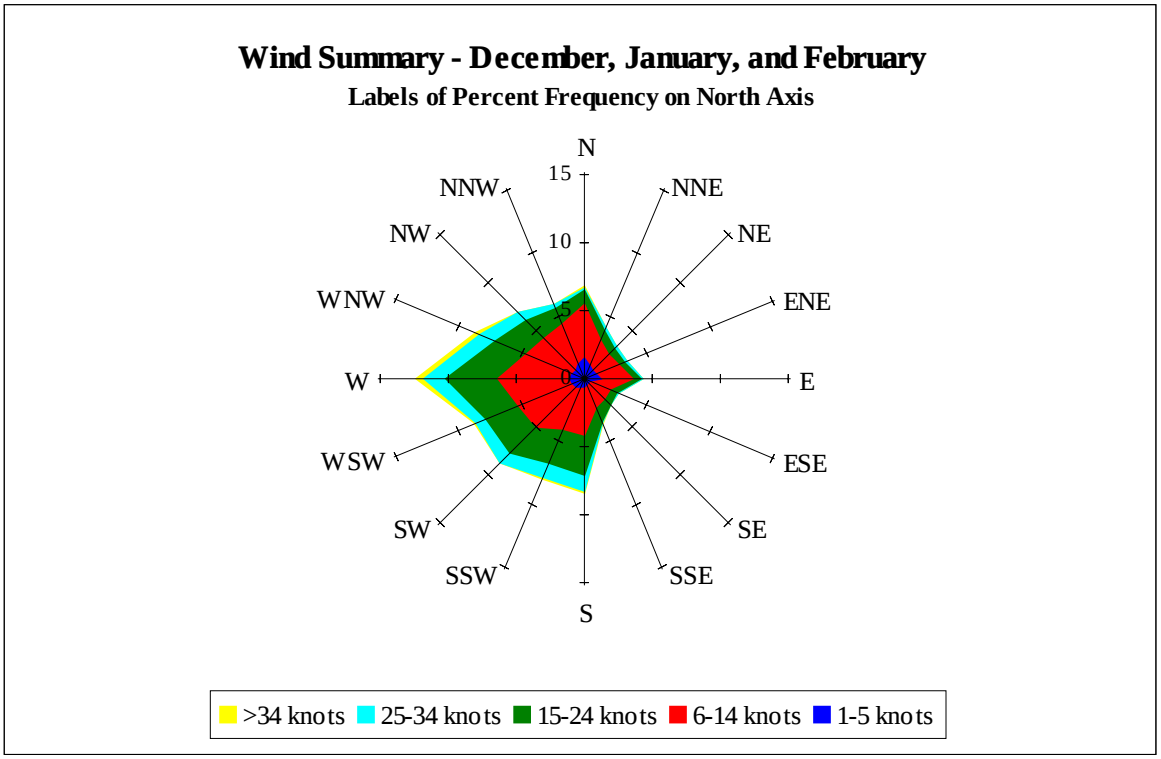
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

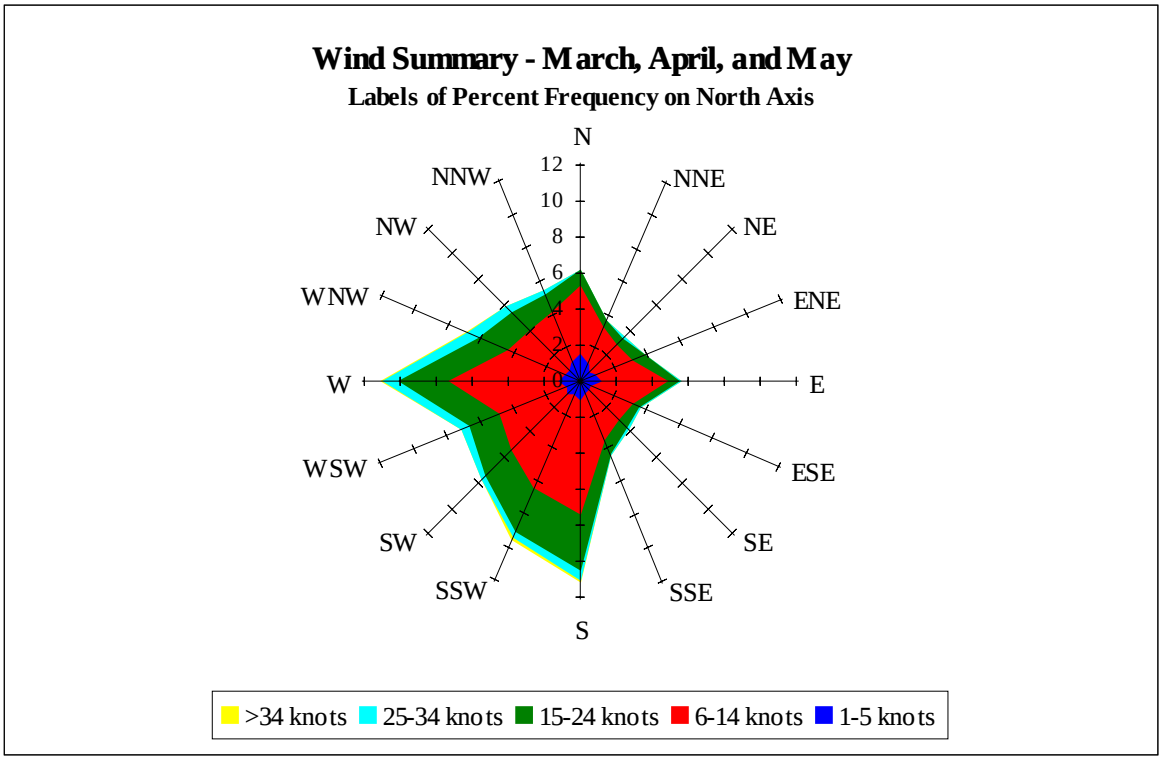
Average Annual Solar Heat and Illumination – Nearest Available Site

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

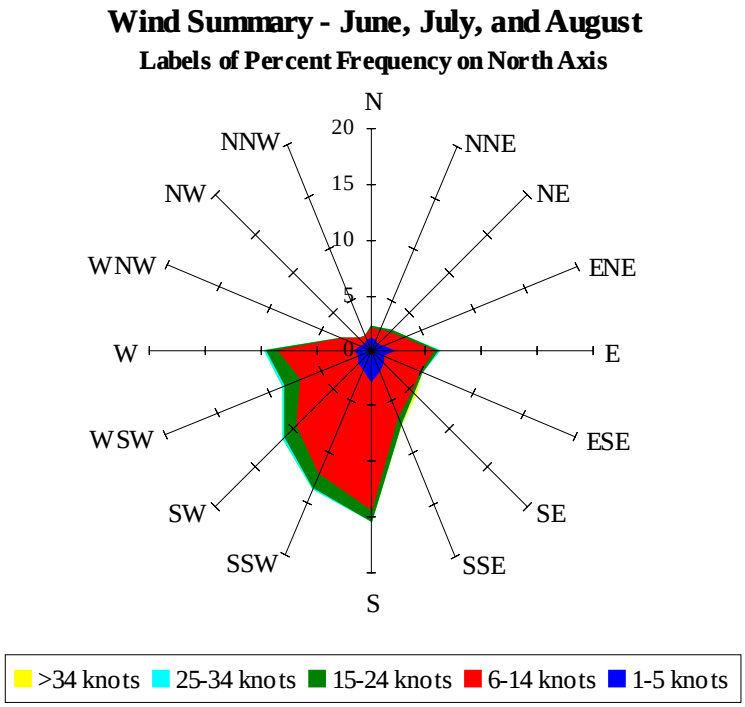




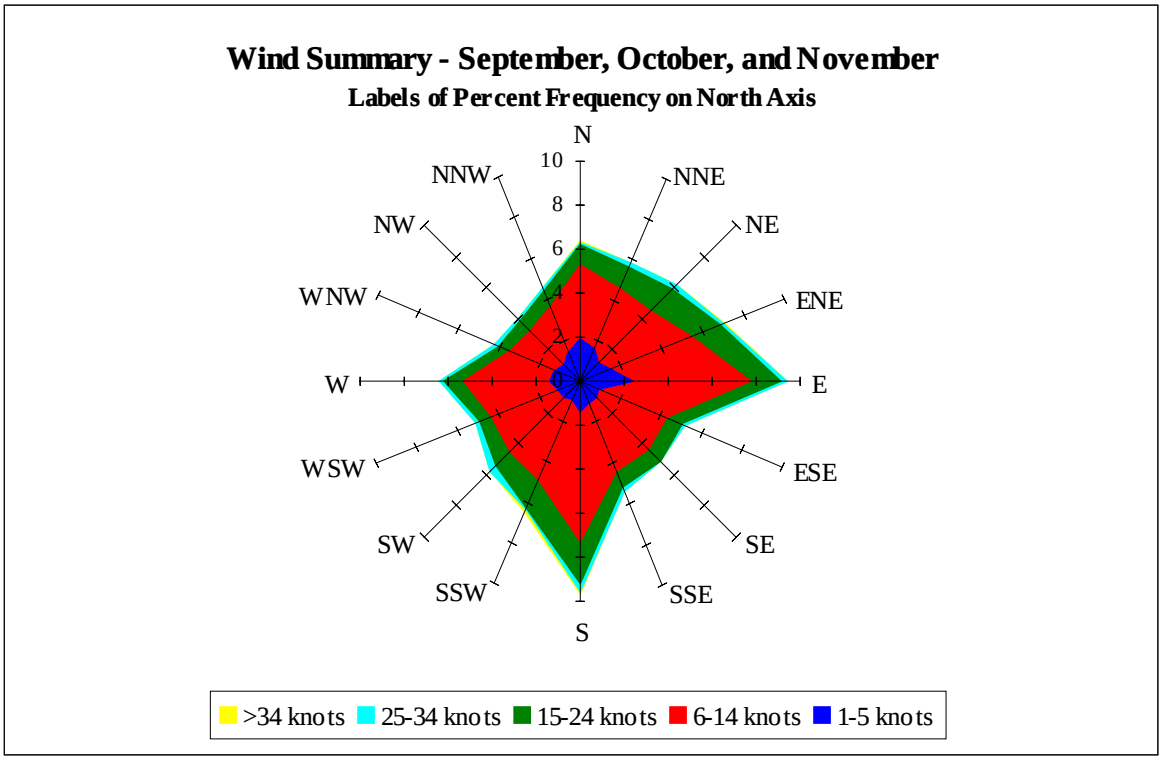
Percent Calm = 2.88



Percent Calm = 1.91



Percent Calm = 2.17



Percent Calm = 3.47