SANDSPIT CN	
Latitude = 53.25 N	WMO No. 711010
Longitude =131.80 W	Elevation = 20 feet
Period of Record = 1973 to 1996	Average Pressure = 29.87 inches Hg

Design Criteria Data

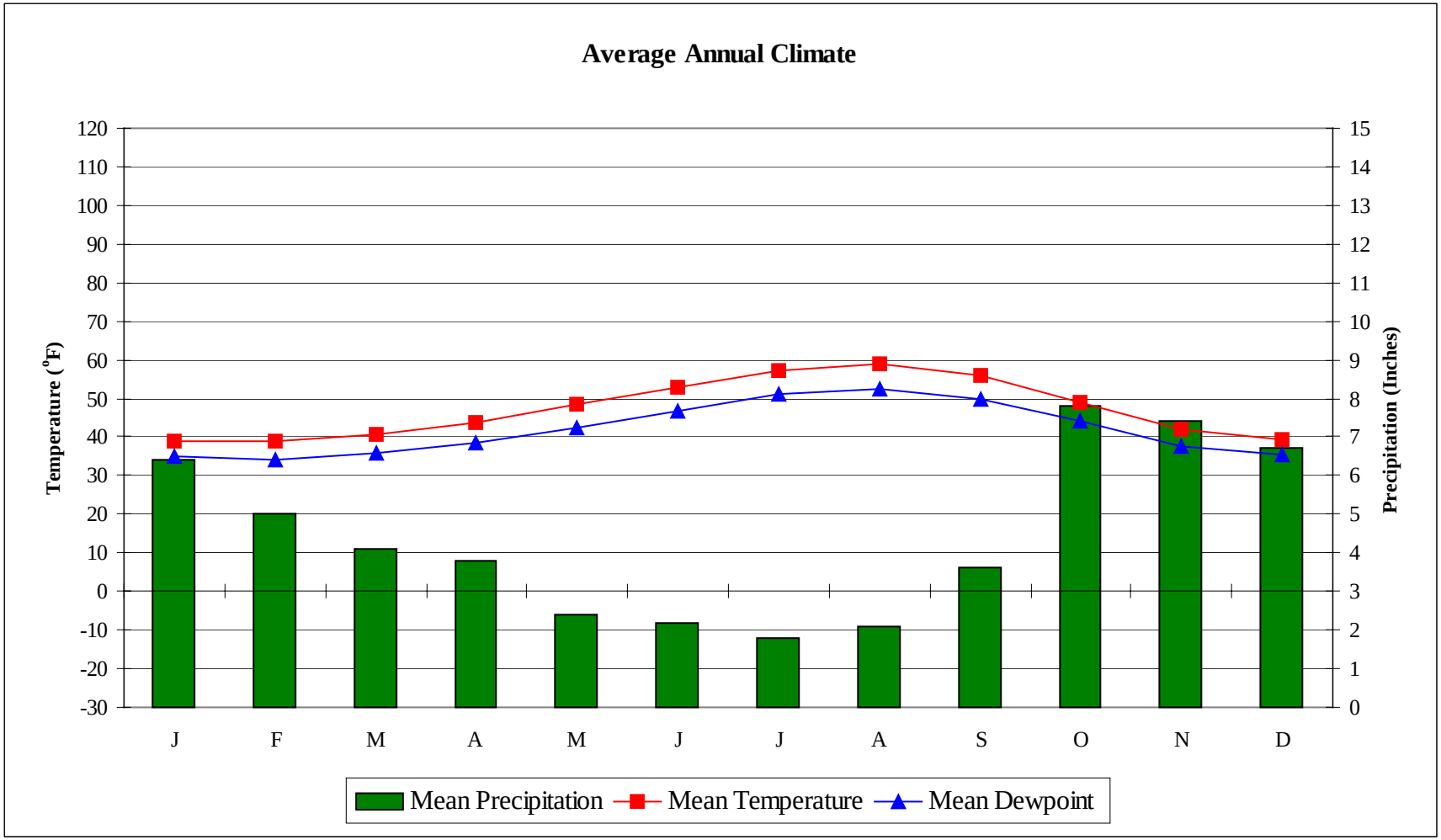
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	72	62	67	12.2	NNW
0.4% Occurrence	68	60	65	10.2	W
1.0% Occurrence	66	59	64	10.4	W
2.0% Occurrence	63	58	62	10.7	W
Mean Daily Range	8	-	-	-	-
97.5% Occurrence	30	28	18	11.9	NNW
99.0% Occurrence	27	25	15	13.5	NNW
99.6% Occurrence	23	21	12	17.8	NNW
Median of Extreme Lows	18	16	9	18.4	NW
		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	63	68	75	10.8	W
0.4% Occurrence	61	65	71	10.3	W
1.0% Occurrence	60	63	69	10.2	W
2.0% Occurrence	59	62	67	10.4	W
		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	80	64	0.54	10.2	SE
0.4% Occurrence	75	62	0.50	10.2	SE
1.0% Occurrence	71	60	0.47	12.0	SE
2.0% Occurrence	69	61	0.47	10.8	SE
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	0	0	0

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
6	N/A	N/A	0.0 + 0.0
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 (#)**
49.7	N/A	N/A	19

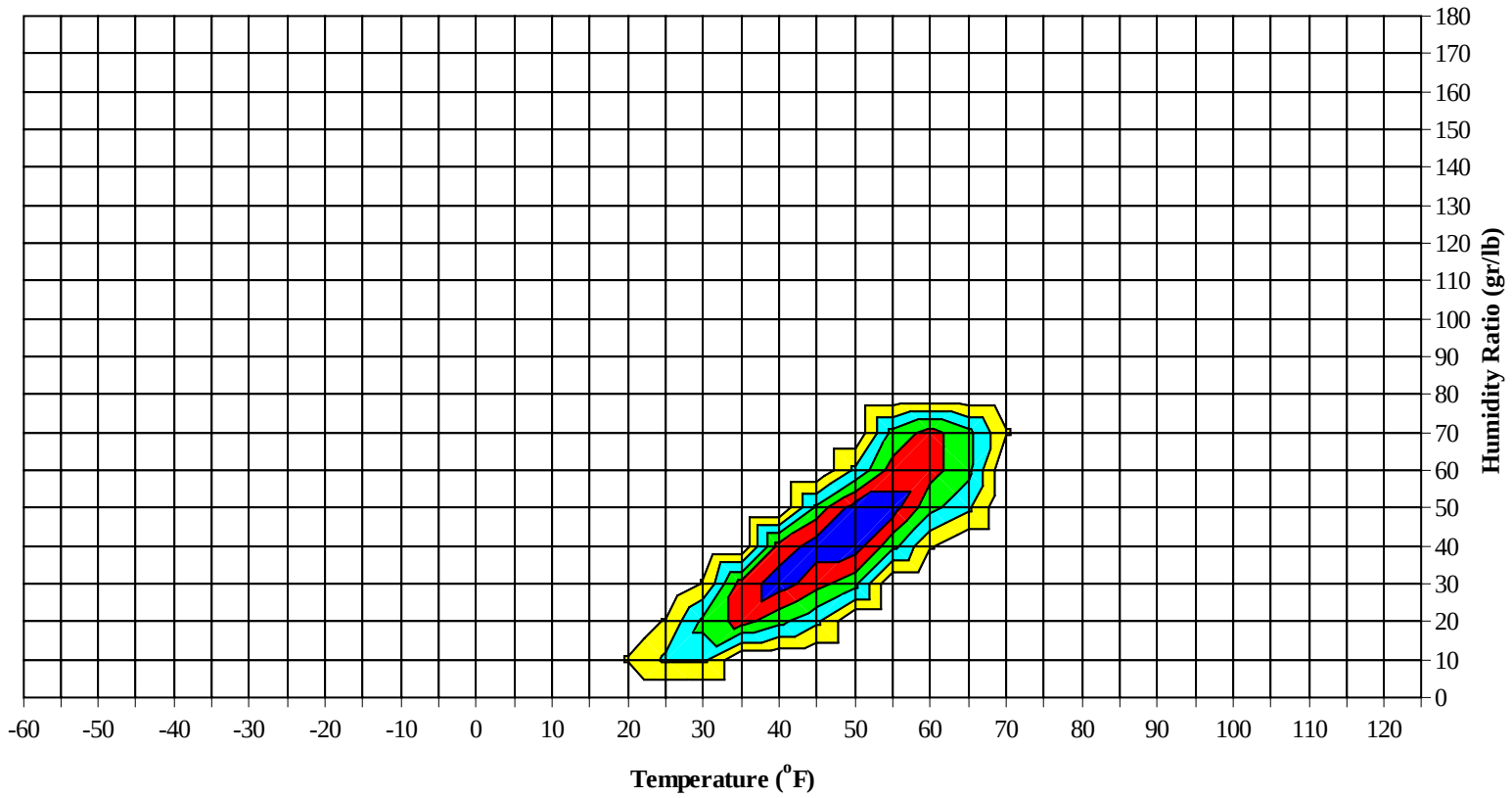
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

SANDSPIT **CN** WMO No. 711010



SANDSPIT **CN** WMO No. 711010

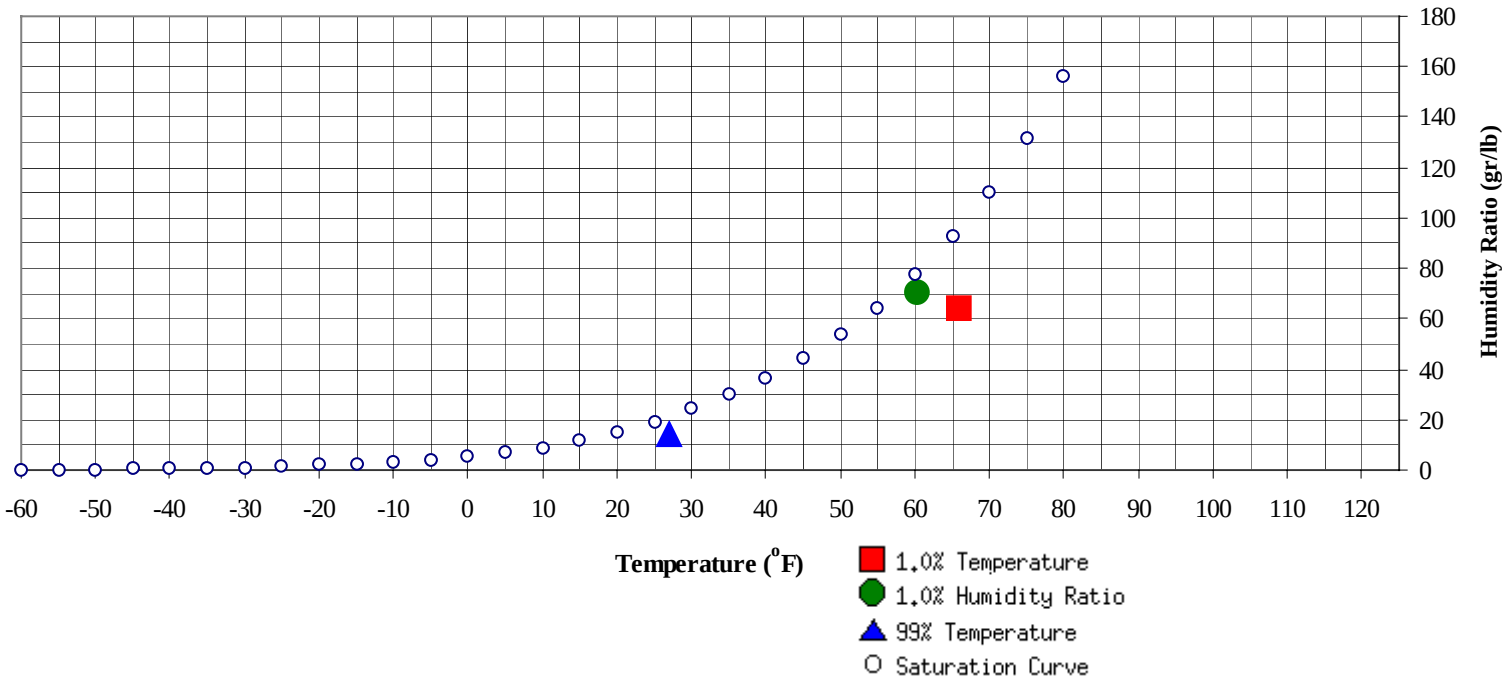
Long Term Psychrometric Summary



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

SANDSPIT **CN** WMO No. 711010

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	27	14.1	8.6

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	70.7	60.3	58.5	57.2	25.5

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	66	63.9	59.6	25.8

SANDSPIT CN WMO No. 711010

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)
75 / 79															
70 / 74															
65 / 69															
60 / 64															
55 / 59															
50 / 54	2	5	4	11	48.4	0	4	1	5	47.4	0	8	1	9	46.5
45 / 49	47	64	50	161	44.8	37	65	49	151	44.3	31	100	61	193	43.6
40 / 44	50	60	56	166	40.4	45	60	53	158	40.0	64	86	82	232	39.7
35 / 39	81	75	81	237	35.9	78	61	75	214	35.5	113	46	85	244	35.7
30 / 34	47	31	40	118	30.7	49	25	35	109	30.4	37	6	17	60	31.0
25 / 29	15	8	12	35	25.3	11	5	7	23	25.0	3	1	2	6	24.6
20 / 24	4	3	3	10	20.0	3	2	2	7	20.0	0	0	0	0	18.5
15 / 19	2	2	2	6	16.5	2	1	1	4	15.3	0			0	17.0
10 / 14		0	0	0	11.4	0	0	0	0	10.8					
5 / 9		0		0											
0 / 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.

SANDSPIT CN WMO No. 711010

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)
75 / 79												0		0	64.0
70 / 74							0		0	58.0		1	0	1	60.0
65 / 69							1	0	1	56.4	0	2	2	4	57.8
60 / 64		0	0	0	50.6	1	3	3	7	54.3	1	16	8	25	55.5
55 / 59	0	4	2	6	49.7	3	26	13	42	51.2	21	108	69	198	52.5
50 / 54	3	38	13	54	46.9	41	135	88	263	48.0	143	107	133	384	49.3
45 / 49	67	138	111	316	43.7	138	80	119	337	44.2	70	6	27	102	45.1
40 / 44	82	52	77	211	39.7	52	3	23	78	40.1	5	0	1	6	40.6
35 / 39	78	8	35	121	36.1	14	0	3	17	36.8	0	0		0	37.3
30 / 34	10	0	3	13	31.9	0			0	32.0					
25 / 29	0			0	27.3										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 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.

SANDSPIT CN WMO No. 711010

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)
75 / 79		0	0	0	62.3		0	0	0	62.3					
70 / 74		3	2	5	61.8	0	9	5	14	61.6		1	0	1	62.6
65 / 69	1	15	7	23	59.5	1	23	11	35	60.0	0	8	2	10	59.8
60 / 64	10	80	46	136	56.8	29	114	69	212	57.4	9	60	26	96	57.1
55 / 59	126	129	142	397	53.8	155	96	142	393	54.3	93	133	121	347	53.8
50 / 54	107	21	50	177	50.6	61	6	21	88	50.8	112	37	82	231	49.9
45 / 49	4	0	1	5	46.3	2	0	0	2	45.9	24	1	9	34	45.2
40 / 44						0			0	39.0	1		0	1	41.2
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 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.

SANDSPIT CN WMO No. 711010

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

Period of Record = 1973 to 1996

	October					November					December				
	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)
75 / 79															
70 / 74		0		0	63.0										
65 / 69		0	0	0	61.5										
60 / 64	1	4	1	6	58.0										
55 / 59	16	42	19	77	53.8	1	2	0	3	53.8					
50 / 54	74	125	98	297	49.3	17	30	20	67	49.1	4	5	4	13	48.9
45 / 49	101	62	91	255	44.5	66	97	70	233	44.4	50	63	54	167	44.7
40 / 44	39	11	29	79	40.3	62	57	67	186	39.9	57	73	62	192	40.2
35 / 39	15	3	8	26	36.3	66	37	58	161	35.9	84	69	80	233	35.9
30 / 34	1	1	1	3	29.3	21	13	18	52	29.7	39	24	34	97	30.8
25 / 29	1	0	0	1	24.4	6	3	5	14	23.9	10	9	10	29	24.3
20 / 24						1	1	1	3	20.3	3	2	3	8	19.9
15 / 19						0	0	0	0	15.6	2	2	2	6	15.4
10 / 14						1	0	0	1	9.6	0	0	0	0	12.5
5 / 9						0	0	0	0	6.2					
0 / 4							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.

SANDSPIT CN WMO No. 711010

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

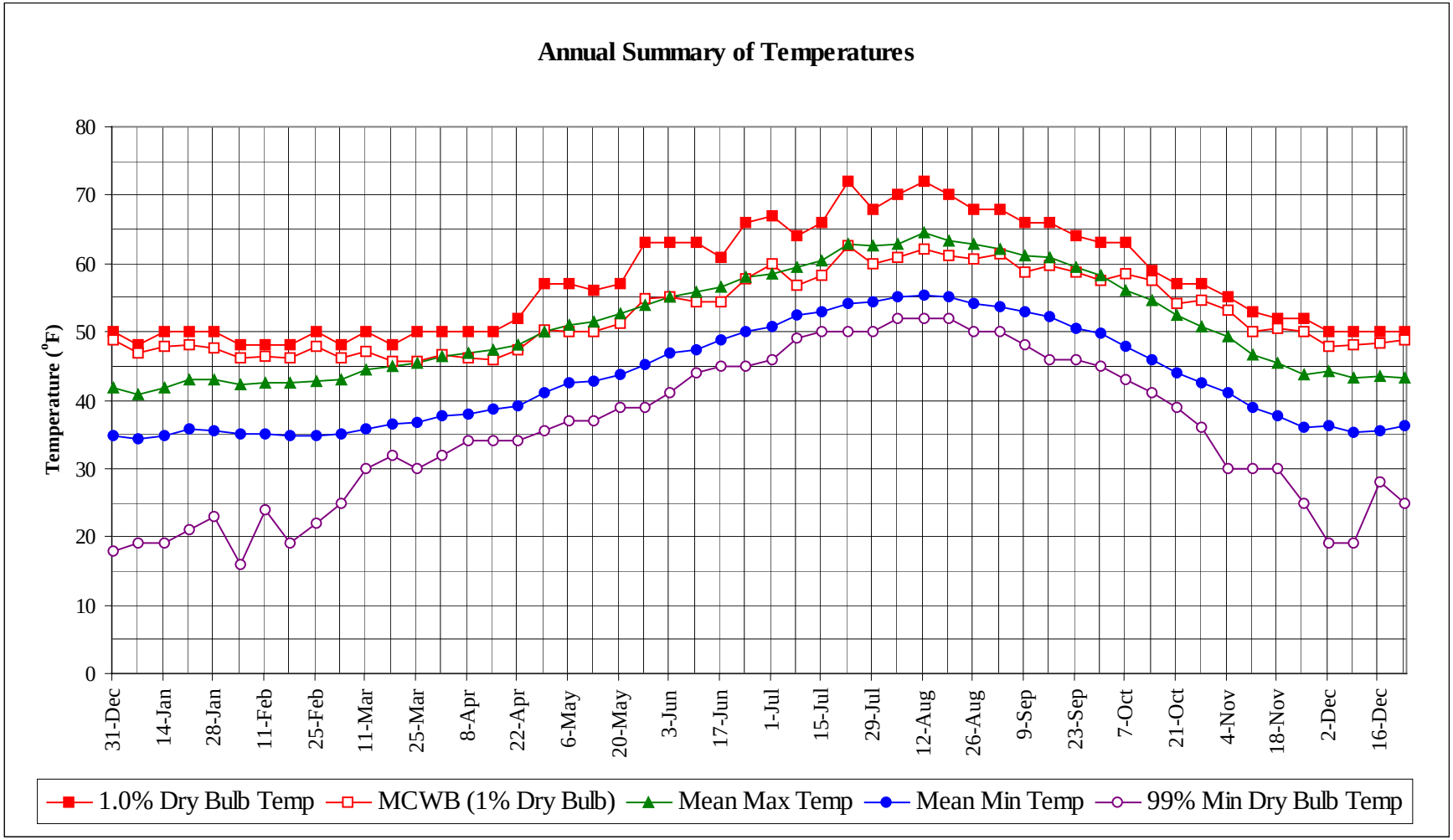
Period of Record = 1973 to 1996

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
75 / 79		1	0	1	62.3
70 / 74	0	14	7	21	61.6
65 / 69	2	48	22	72	59.7
60 / 64	49	278	153	480	57.1
55 / 59	415	534	502	1451	53.7
50 / 54	556	516	509	1580	49.3
45 / 49	635	682	645	1961	44.3
40 / 44	459	405	453	1317	40.0
35 / 39	533	301	428	1261	35.8
30 / 34	207	101	150	458	30.6
25 / 29	47	27	37	111	24.7
20 / 24	10	9	9	28	19.9
15 / 19	6	5	5	16	15.8
10 / 14	1	1	1	3	10.8
5 / 9	0	0	0	0	6.2
0 / 4		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.

SANDSPIT **CN** WMO No. 711010



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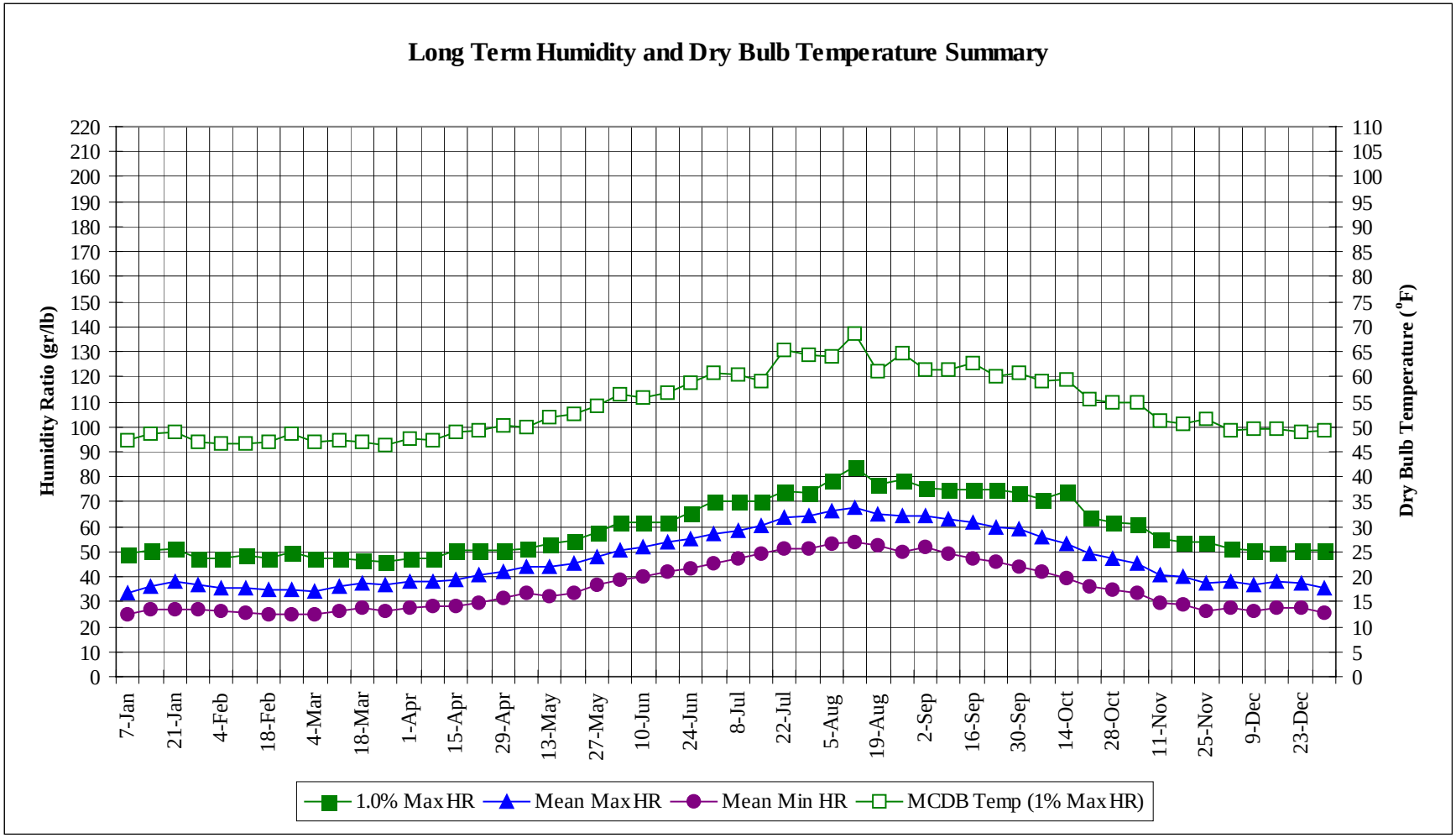
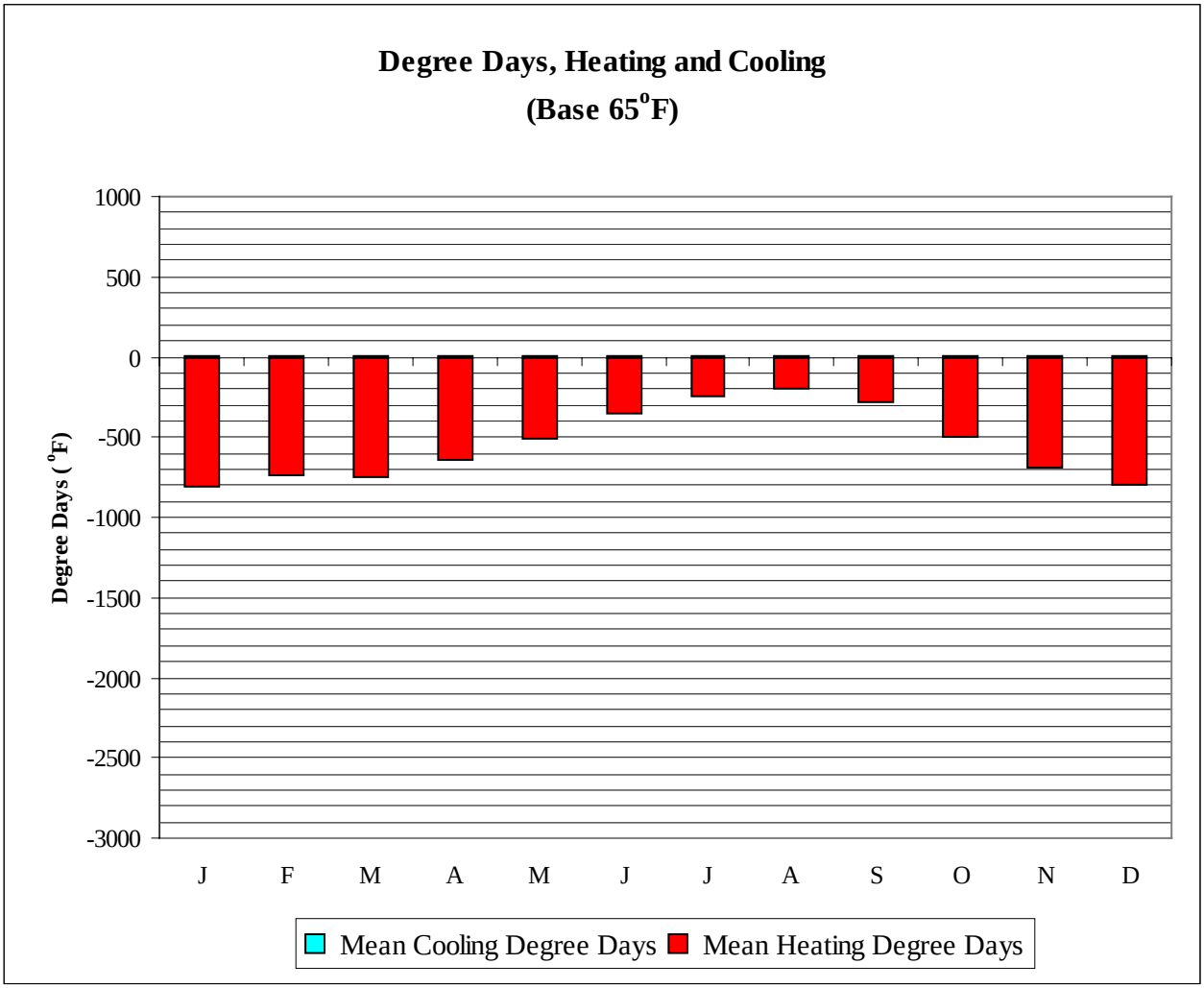


SANDSPIT CN WMO No. 711010

Long Term Dry Bulb Temperature and Humidity Summary

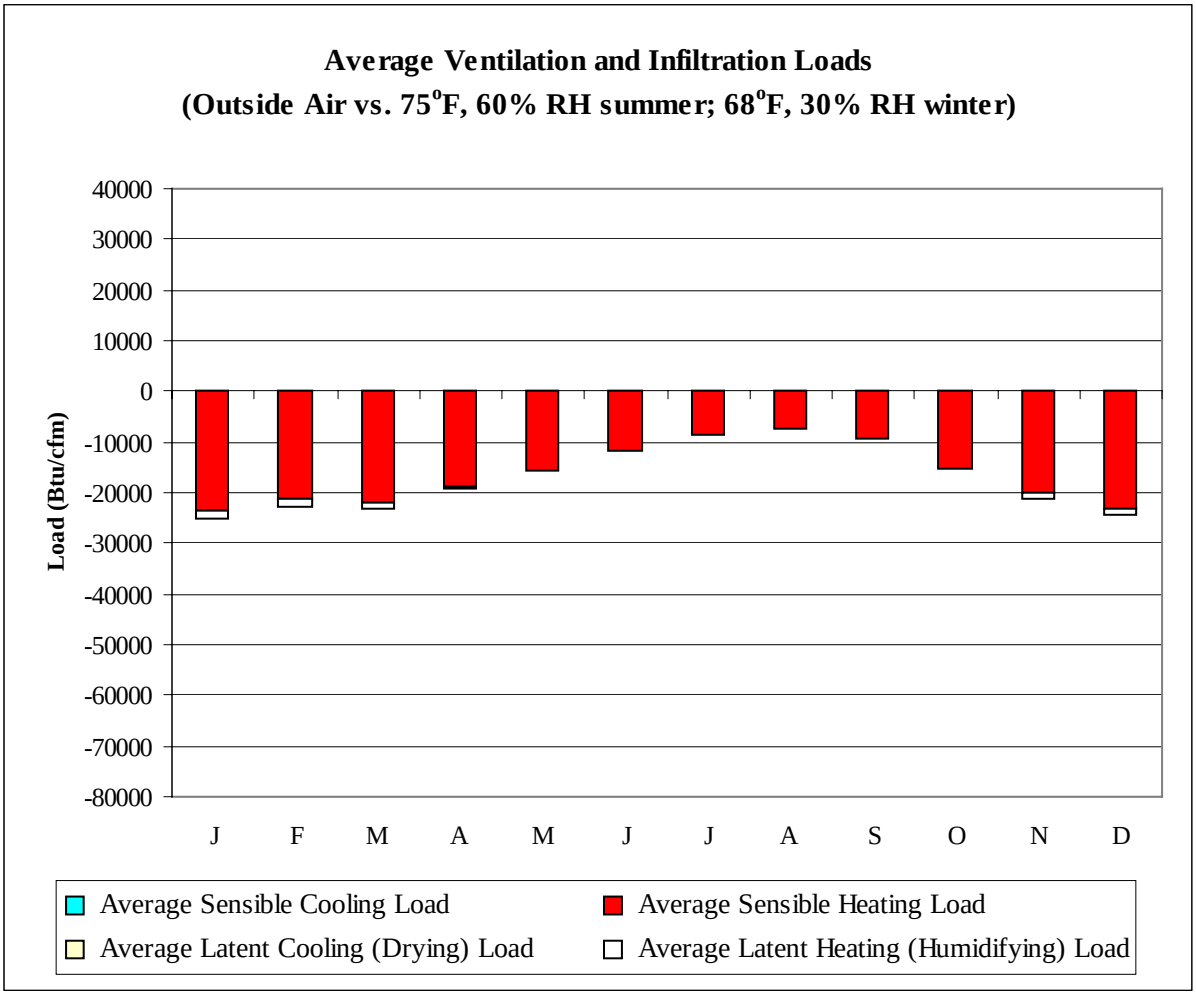
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	48.0	46.8	40.9	34.4	19.0	49.0	47.3	33.7	24.7
14-Jan	50.0	47.9	41.8	34.9	19.0	50.4	48.6	36.1	26.9
21-Jan	50.0	48.1	43.0	35.8	21.0	51.1	49.0	37.8	27.0
28-Jan	50.0	47.7	42.9	35.6	23.0	47.6	47.1	36.5	26.6
4-Feb	48.0	46.1	42.3	35.0	16.0	47.6	46.7	35.6	26.0
11-Feb	48.0	46.3	42.6	35.0	24.0	48.3	46.6	35.4	25.9
18-Feb	48.0	46.1	42.4	34.7	19.0	47.6	46.9	34.6	25.0
25-Feb	50.0	47.8	42.8	34.8	22.0	49.7	48.7	35.0	24.7
4-Mar	48.0	46.2	43.1	35.1	25.0	47.6	47.0	34.1	24.9
11-Mar	50.0	47.1	44.4	35.8	30.0	47.6	47.1	36.4	26.3
18-Mar	48.0	45.7	45.0	36.6	32.0	46.9	46.9	37.4	27.7
25-Mar	50.0	45.7	45.5	36.7	30.0	46.2	46.3	36.7	26.5
1-Apr	50.0	46.7	46.5	37.6	32.0	47.6	47.7	37.8	27.7
8-Apr	50.0	46.2	47.0	38.0	34.0	47.6	47.3	38.3	28.1
15-Apr	50.0	45.9	47.3	38.6	34.0	50.4	48.9	38.6	28.1
22-Apr	52.0	47.4	48.1	39.1	34.0	50.4	49.2	40.5	29.4
29-Apr	57.0	50.2	50.1	41.1	35.5	50.4	50.1	42.3	31.5
6-May	57.0	50.1	51.1	42.5	37.0	51.1	50.0	44.1	33.5
13-May	56.0	50.0	51.6	42.7	37.0	53.2	52.0	43.8	32.4
20-May	57.0	51.2	52.6	43.7	39.0	54.6	52.6	45.1	33.5
27-May	63.0	54.8	53.9	45.2	39.0	58.1	54.3	48.2	36.6
3-Jun	63.0	55.2	55.2	46.9	41.0	61.6	56.3	50.4	39.0
10-Jun	63.0	54.4	55.9	47.4	44.0	61.6	56.0	51.7	39.9
17-Jun	61.0	54.3	56.5	48.9	45.0	61.6	56.7	53.7	41.8
24-Jun	66.0	57.7	58.0	49.9	45.0	65.8	58.7	54.9	43.5
1-Jul	67.0	60.0	58.6	50.9	46.0	70.0	60.7	56.8	45.5
8-Jul	64.0	56.8	59.5	52.3	49.0	70.0	60.5	58.6	47.5
15-Jul	66.0	58.2	60.4	53.0	50.0	70.0	59.1	60.7	49.4
22-Jul	72.0	62.7	62.8	54.0	50.0	74.2	65.5	63.9	50.9
29-Jul	68.0	59.9	62.6	54.3	50.0	73.5	64.5	64.3	51.5
5-Aug	70.0	60.8	62.9	55.1	52.0	79.1	63.9	66.2	53.0
12-Aug	72.0	62.2	64.5	55.4	52.0	84.0	68.5	67.6	54.0
19-Aug	70.0	61.1	63.3	55.1	52.0	77.0	61.0	65.3	52.3
26-Aug	68.0	60.6	62.8	54.1	50.0	79.1	64.6	64.4	49.7
2-Sep	68.0	61.4	62.0	53.6	50.0	75.6	61.3	64.5	51.6
9-Sep	66.0	58.8	61.2	52.8	48.0	74.9	61.4	63.3	49.1
16-Sep	66.0	59.8	60.9	52.1	46.0	74.9	62.6	61.7	47.1
23-Sep	64.0	58.7	59.5	50.6	46.0	74.9	60.2	59.8	45.8
30-Sep	63.0	57.6	58.2	49.7	45.0	73.5	60.7	59.2	44.1
7-Oct	63.0	58.5	56.0	47.9	43.0	70.7	59.2	55.5	42.2
14-Oct	59.0	57.6	54.6	45.8	41.0	74.2	59.3	53.1	39.1
21-Oct	57.0	54.2	52.4	43.9	39.0	63.7	55.6	49.5	36.3
28-Oct	57.0	54.7	50.7	42.6	36.0	61.6	55.0	47.1	34.9
4-Nov	55.0	53.1	49.4	41.2	30.0	60.9	54.9	45.3	33.4
11-Nov	53.0	50.0	46.8	39.0	30.0	55.3	51.3	40.7	29.7
18-Nov	52.0	50.6	45.6	37.8	30.0	53.9	50.7	40.4	29.1
25-Nov	52.0	49.9	43.8	36.0	25.0	53.9	51.6	37.4	26.4
2-Dec	50.0	47.9	44.1	36.2	19.0	51.1	49.3	38.0	27.3
9-Dec	50.0	48.1	43.2	35.3	19.0	50.4	49.5	36.8	26.3
16-Dec	50.0	48.4	43.6	35.6	28.0	49.7	49.5	38.2	27.4
23-Dec	50.0	48.8	43.2	36.3	25.0	50.4	49.0	37.6	27.5
31-Dec	50.0	48.8	41.8	34.8	18.0	50.4	49.1	35.7	25.7

SANDSPIT **CN** WMO No. 711010



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	814
FEB	0	734
MAR	0	753
APR	0	636
MAY	0	514
JUN	1	359
JUL	3	245
AUG	6	199
SEP	1	278
OCT	0	494
NOV	0	684
DEC	0	795
ANN	10	6505

SANDSPIT CN WMO No. 711010



	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	-23515	0	-1711
FEB	0	-21233	0	-1705
MAR	0	-21931	0	-1258
APR	0	-18818	0	-527
MAY	0	-15741	0	-91
JUN	0	-11638	0	-2
JUL	0	-8700	2	0
AUG	0	-7458	15	0
SEP	0	-9530	3	-4
OCT	0	-15205	0	-132
NOV	0	-20059	0	-1016
DEC	0	-23005	0	-1533
ANN	0	-196833	20	-7979

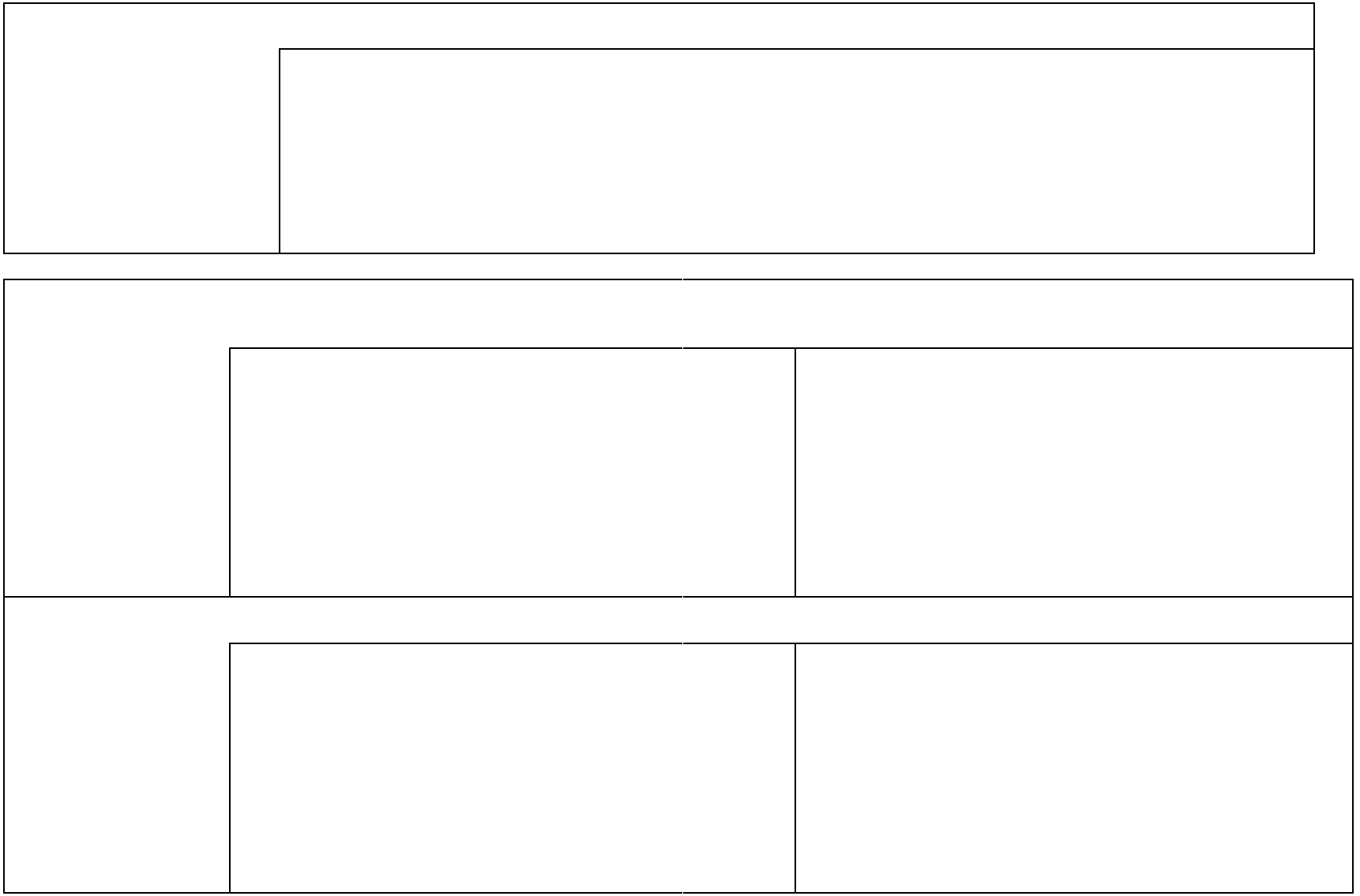
Average Annual Solar Radiation – Nearest Available Site

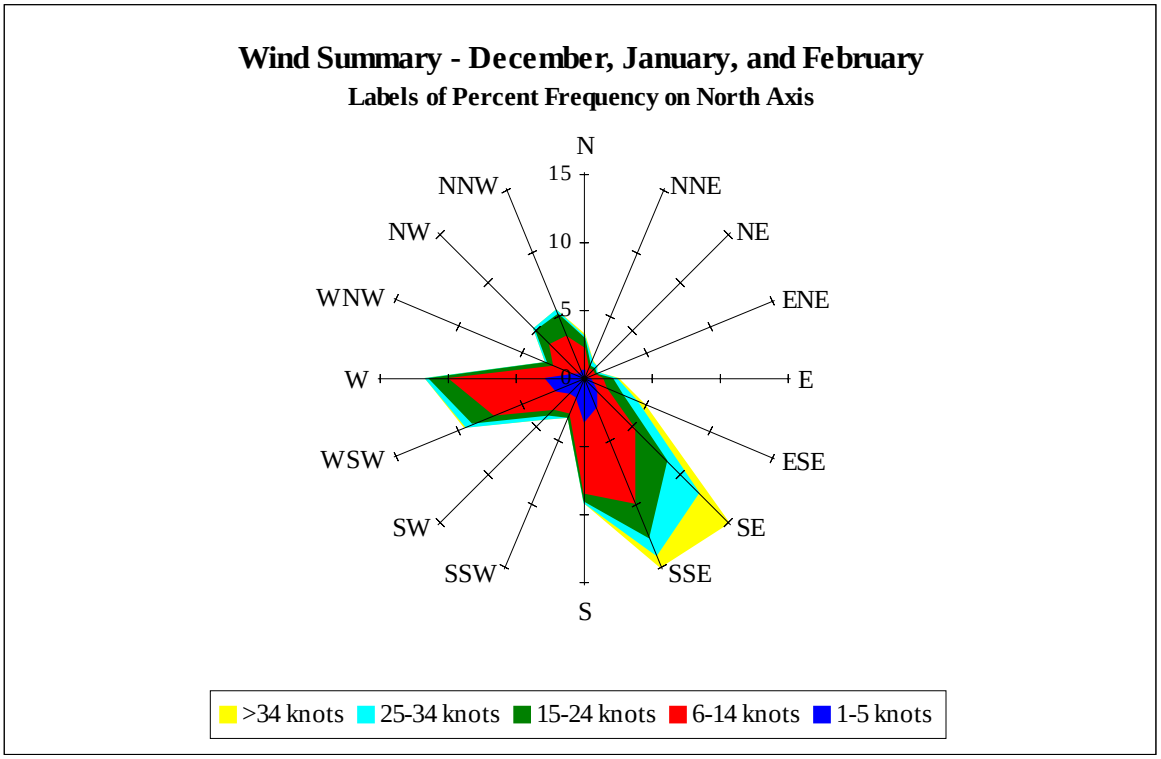
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

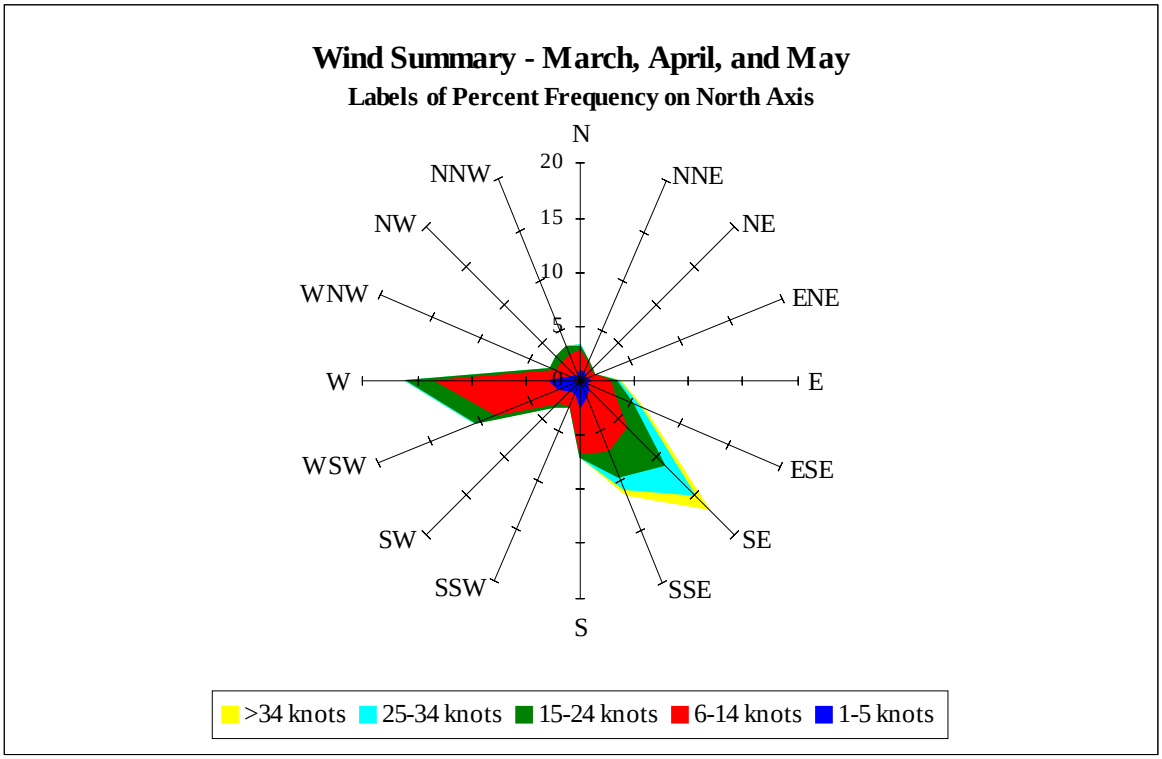
Average Annual Solar Heat and Illumination – Nearest Available Site

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

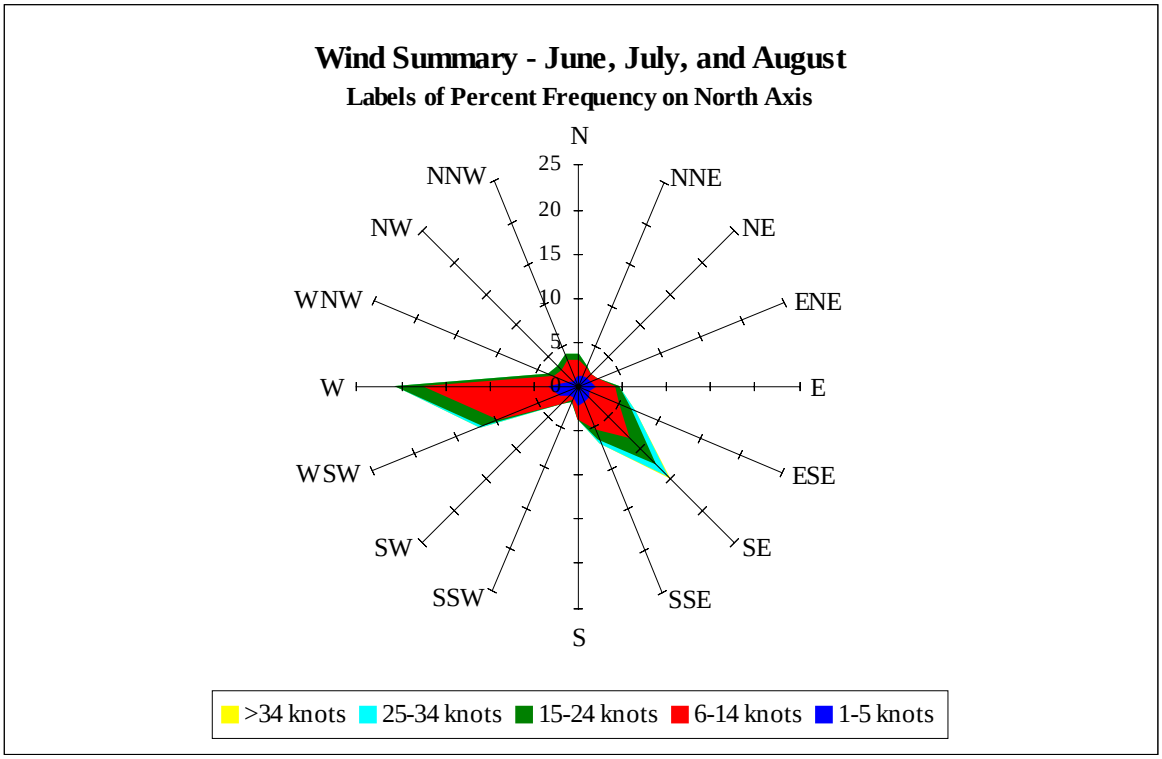




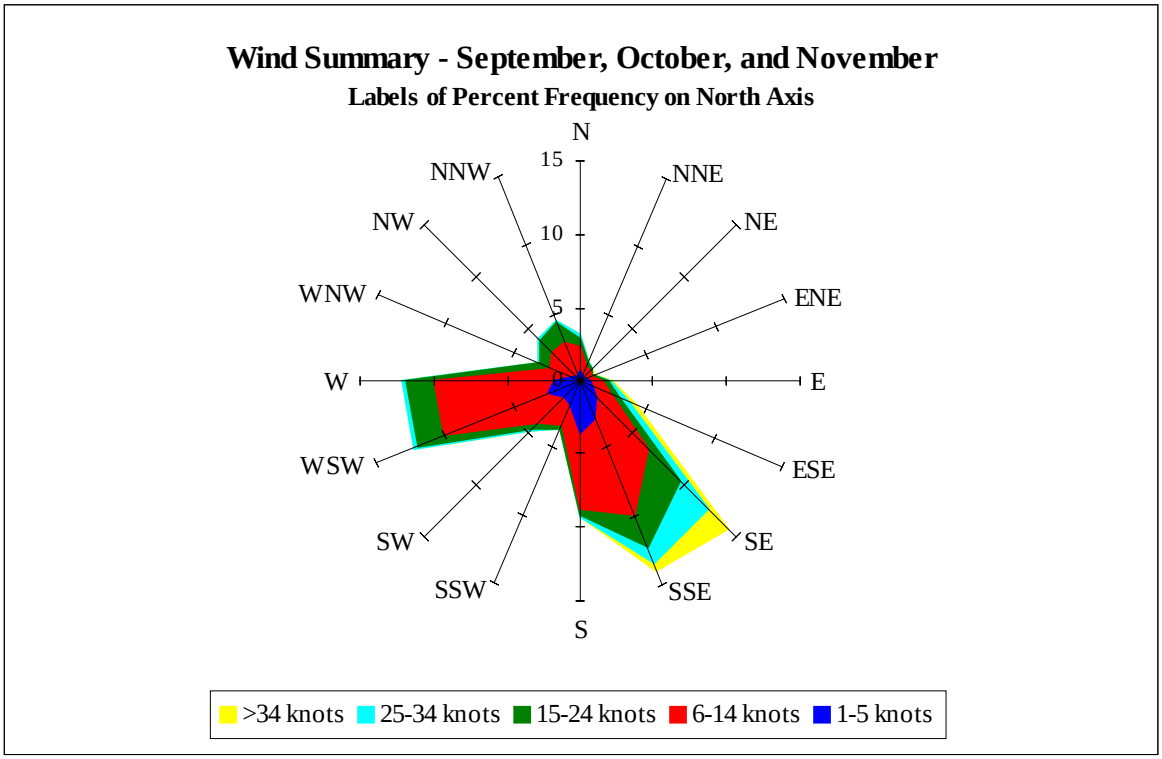
Percent Calm = 5.40



Percent Calm = 4.78



Percent Calm = 6.20



Percent Calm = 5.03