ANIAK AK	
Latitude = 61.58 N	WMO No. 702320
Longitude =159.50 W	Elevation = 85 feet
Period of Record = 1973 to 1996	Average Pressure = 29.67 inches Hg

Design Criteria Data

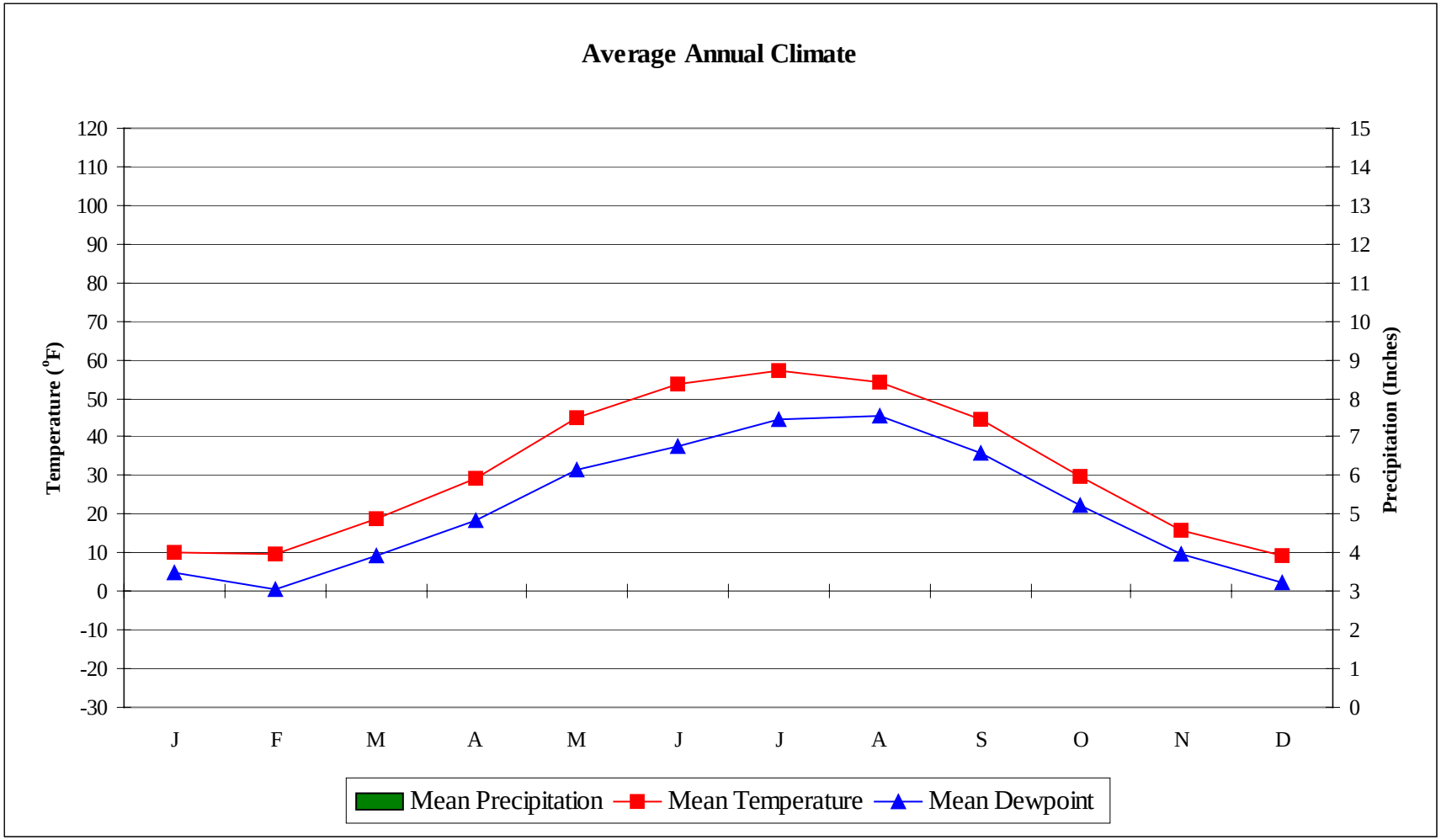
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	80	60	51	6.3	MISSING
0.4% Occurrence	74	58	49	6.9	NW
1.0% Occurrence	70	57	48	6.6	NW
2.0% Occurrence	67	55	47	6.3	SE
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	-20	-20	1	3.9	N
99.0% Occurrence	-30	-30	1	2.0	N
99.6% Occurrence	-38	-38	0	2.2	NNE
Median of Extreme Lows	-42	-42	0	1.8	NNE
		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	64	75	69	5.8	ESE
0.4% Occurrence	61	71	52	6.9	E
1.0% Occurrence	59	68	43	6.2	N
2.0% Occurrence	57	65	40	5.5	N
		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	76	67	0.50	4.4	S
0.4% Occurrence	67	63	0.45	5.2	E
1.0% Occurrence	62	61	0.42	5.1	E
2.0% Occurrence	58	59	0.39	5.0	E
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	6	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
4	0.7	110	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 (#)**
34.3	N/A	N/A	53

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

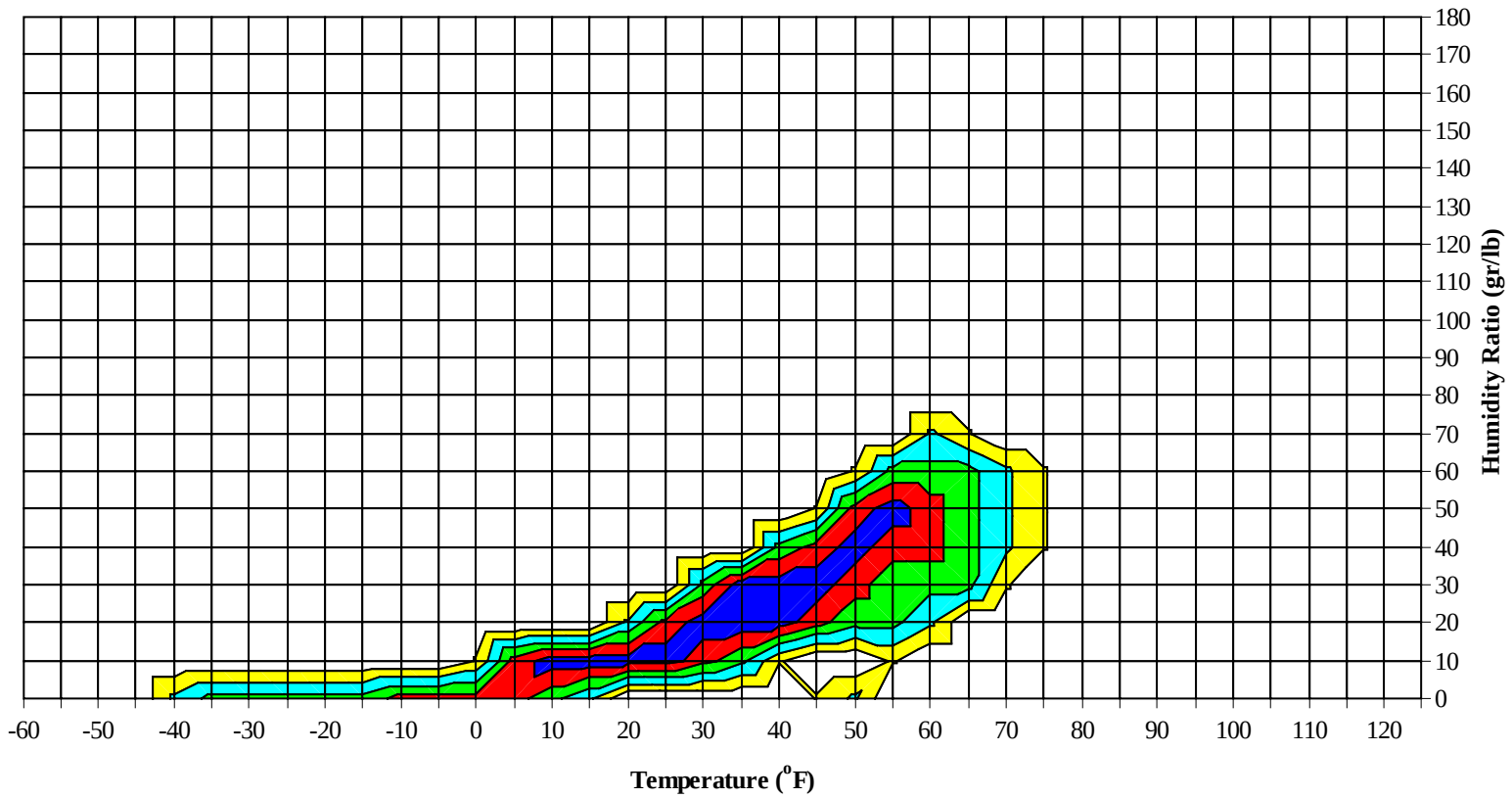
ANIAK AK WMO No. 702320



No Precipitation Data Available

ANIAK AK WMO No. 702320

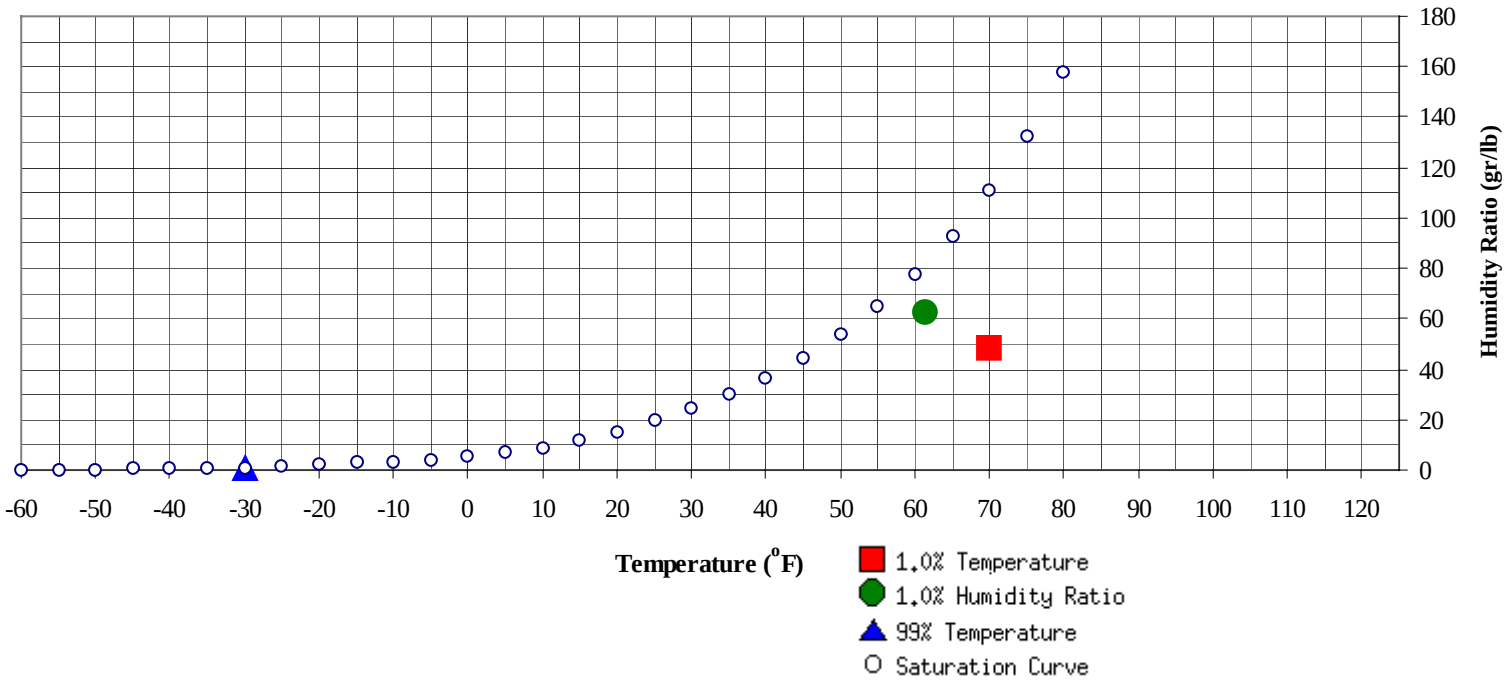
Long Term Psychrometric Summary



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

ANIAK AK WMO No. 702320

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	-30	0.7	-7.1

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	62.3	61.3	57	54	24.4

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	70	48.6	56.8	24.4

ANIAK AK WMO No. 702320

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)
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64															
55 / 59															
50 / 54							0	0	0	42.5			0	0	39.0
45 / 49	0	0	0	0	36.4	1	1	0	2	40.6	0	1	1	2	37.7
40 / 44	6	7	5	18	35.6	5	9	10	24	37.4	3	18	13	35	35.5
35 / 39	20	21	23	63	32.9	19	23	22	64	33.2	22	33	36	91	32.7
30 / 34	24	23	25	72	29.3	20	21	19	60	29.1	33	31	41	106	29.4
25 / 29	25	22	24	71	25.4	15	15	17	48	24.9	27	30	27	84	24.4
20 / 24	17	17	19	52	20.8	14	16	16	47	20.0	27	25	25	77	19.8
15 / 19	23	21	24	68	15.7	17	17	17	51	15.5	22	23	26	71	14.9
10 / 14	27	24	25	76	10.9	17	17	17	51	10.7	20	23	26	69	10.3
5 / 9	26	26	26	78	6.3	18	17	17	52	5.6	23	20	19	62	5.6
0 / 4	19	19	18	55	1.1	17	19	17	53	0.8	21	18	16	55	0.8
-5 / -1	10	12	11	34	-3.2	12	13	15	41	-3.6	16	9	7	31	-3.2
-10 / -6	9	11	8	29	-7.5	13	15	15	44	-7.8	13	8	4	25	-7.4
-15 / -11	6	7	7	21	-12.3	13	12	13	39	-12.8	9	4	3	16	-12.3
-20 / -16	7	7	6	21	-17.3	15	11	13	39	-17.2	5	3	1	9	-17.0
-25 / -21	3	7	6	17	-21.5	11	7	6	24	-21.6	4	1	1	6	-21.4
-30 / -26	4	6	6	16	-26.8	7	3	4	14	-27.0	2	0	0	2	-26.6
-35 / -31	6	6	5	17	-31.7	4	2	1	7	-31.7	1	0	0	1	-31.5
-40 / -36	5	6	5	16	-37.0	3	3	1	7	-36.8	0	0		0	-36.3
-45 / -41	6	4	3	13	-41.8	2	1	0	3	-41.1					
-50 / -46	2	1	1	4	-46.7	0	0	0	0						
-55 / -51	1	1	0	2	-51.7	0	0		0						
-60 / -56	0	0	0	0	-56.6	0	0		0						
-65 / -61	1		0	1	-61.5										

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.

ANIAK AK WMO No. 702320

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)
85 / 89												0	0	0	60.7
80 / 84												1	1	2	59.6
75 / 79							1	0	1	56.5		2	3	5	57.9
70 / 74							3	2	5	54.9		10	9	19	55.2
65 / 69							5	5	10	51.7	0	21	21	42	53.0
60 / 64						0	15	14	29	48.9	2	46	44	92	50.9
55 / 59		1	1	2	43.8	1	31	32	64	45.9	15	61	63	140	48.6
50 / 54		7	5	12	41.1	6	53	46	105	43.7	62	58	57	177	45.9
45 / 49		22	17	39	38.8	38	59	60	157	41.1	92	32	32	156	42.7
40 / 44	7	45	41	93	36.1	75	40	45	160	38.0	56	9	8	72	39.1
35 / 39	40	51	59	150	33.0	65	24	25	114	34.3	12	1	1	14	35.3
30 / 34	58	36	42	136	29.2	44	14	14	72	30.2	1	0		1	31.3
25 / 29	42	25	21	88	24.6	14	3	4	21	25.5					
20 / 24	23	15	15	54	19.7	3	1	0	4	20.5					
15 / 19	17	13	13	44	15.1	1	0	0	1	15.6					
10 / 14	13	10	11	34	10.5	1			1	10.4					
5 / 9	11	7	6	24	6.0										
0 / 4	9	4	4	17	1.1										
-5 / -1	5	2	2	9	-3.2										
-10 / -6	4	1	1	6	-7.4										
-15 / -11	5	1	1	7	-12.0										
-20 / -16	3	0	0	3	-16.9										
-25 / -21	1			1	-21.9										
-30 / -26	0			0	-25.9										
-35 / -31	0			0	-32.3										
-40 / -36															
-45 / -41															
-50 / -46															
-55 / -51															
-60 / -56															
-65 / -61															

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.

ANIAK AK WMO No. 702320

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)
85 / 89		0		0	63.0		0	0	0	66.0					
80 / 84		1	2	3	60.6		0	0	0	64.5					
75 / 79		6	7	13	58.6		3	3	6	61.6					
70 / 74		16	18	35	58.0		7	6	13	59.8		0	0	0	56.5
65 / 69	0	34	34	68	56.2	0	17	16	34	56.7		1	1	2	53.9
60 / 64	8	59	59	127	53.9	4	44	41	89	54.5	1	8	5	14	52.3
55 / 59	57	74	72	203	51.4	35	75	80	190	52.0	3	28	21	52	50.0
50 / 54	112	49	49	211	48.1	102	73	74	248	48.7	20	57	56	134	46.7
45 / 49	62	9	6	77	44.0	74	24	20	118	44.8	69	64	72	205	43.5
40 / 44	7	0	0	7	40.7	21	5	5	31	39.5	57	39	40	137	38.9
35 / 39	1			1	35.7	9	1	2	12	35.3	39	25	25	89	34.2
30 / 34						3	0	0	3	30.5	32	13	13	59	30.0
25 / 29											10	4	5	19	25.0
20 / 24											6	1	1	8	20.4
15 / 19											2	0		2	16.3
10 / 14											0	0		0	12.3
5 / 9											0			0	8.0
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															
-45 / -41															
-50 / -46															
-55 / -51															
-60 / -56															
-65 / -61															

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.

ANIAK AK WMO No. 702320

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

Period of Record = 1973 to 1996

Temperature Range (°F)	October Hour Group (LST) 01 To 08	October 09 To 16	October 17 To 00	October Total Obs	October MCWB (°F)	November Hour Group (LST) 01 To 08	November 09 To 16	November 17 To 00	November Total Obs	November MCWB (°F)	December Hour Group (LST) 01 To 08	December 09 To 16	December 17 To 00	December Total Obs	December MCWB (°F)
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64															
55 / 59		1	0	1	48.8										
50 / 54	1	6	3	10	44.4							0		0	44.0
45 / 49	10	14	18	43	41.7	0	1	1	2	41.1	0	0	1	1	39.7
40 / 44	23	31	28	82	38.5	8	8	7	24	36.9	6	5	7	18	36.0
35 / 39	35	44	44	123	34.2	21	22	21	63	33.9	20	24	22	66	33.5
30 / 34	49	49	53	151	29.9	22	23	23	67	29.9	23	21	20	65	29.7
25 / 29	43	38	38	118	25.0	22	23	24	69	25.2	16	17	17	51	25.1
20 / 24	31	27	29	87	20.0	25	26	27	78	20.6	14	17	17	49	20.6
15 / 19	24	18	18	60	15.7	27	33	31	91	15.8	19	17	20	57	15.6
10 / 14	16	10	9	35	10.8	30	29	32	91	11.0	19	21	19	60	11.1
5 / 9	8	6	4	18	6.3	28	24	27	79	6.2	23	23	24	70	6.1
0 / 4	4	3	2	9	1.4	21	19	17	56	1.2	22	23	23	68	1.1
-5 / -1	1	1	1	3	-3.0	10	10	10	31	-3.1	15	14	16	46	-3.3
-10 / -6	2	0	0	2	-7.2	12	9	10	32	-7.4	15	18	14	48	-7.4
-15 / -11	0	0		0	-12.0	7	5	5	17	-12.1	11	13	10	35	-12.5
-20 / -16	0			0	-15.0	3	3	2	8	-16.7	12	13	12	38	-17.1
-25 / -21						3	2	1	6	-22.2	9	10	11	30	-21.9
-30 / -26						0	1	1	2	-26.3	9	5	7	21	-26.6
-35 / -31						1	1	0	2	-31.2	6	3	3	12	-31.5
-40 / -36						0	1	0	1	-35.0	2	1	2	5	-36.8
-45 / -41						0	0		0	-40.0	2	1	0	3	-40.6
-50 / -46												0		0	
-55 / -51															
-60 / -56															
-65 / -61															

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.

ANIAK AK WMO No. 702320

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

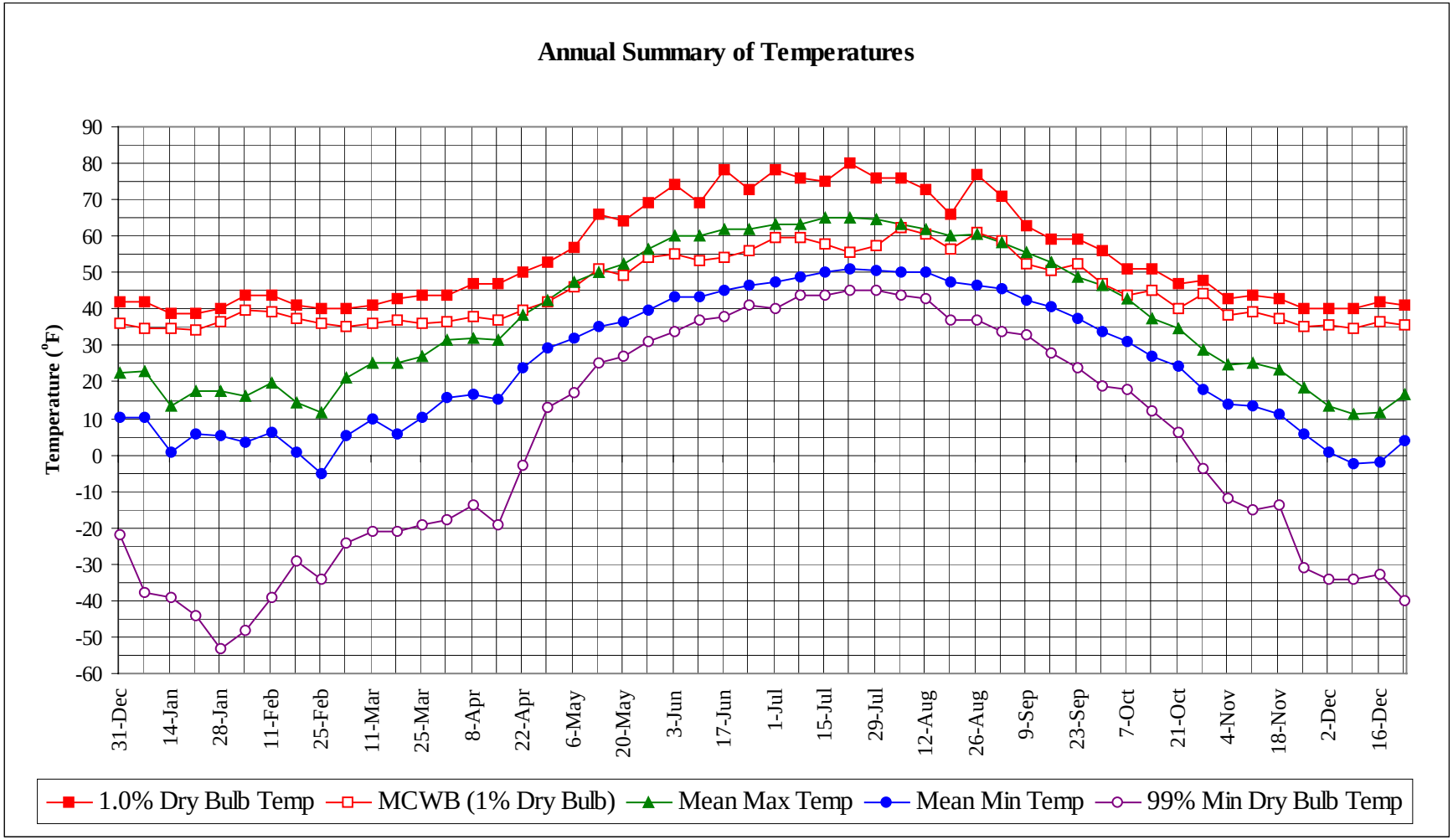
Period of Record = 1973 to 1996

Annual Totals

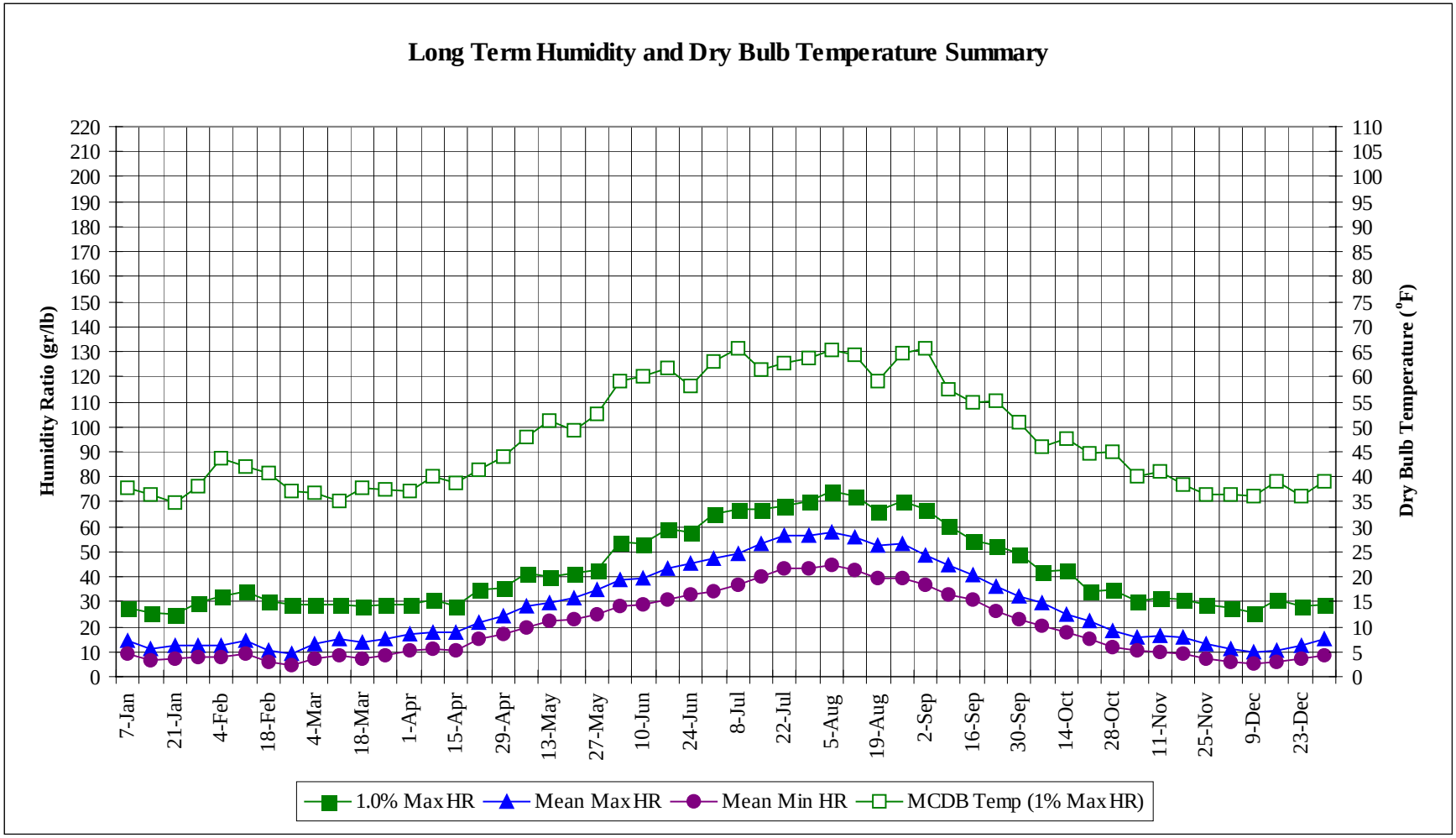
Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
85 / 89		0	0	0	62.8
80 / 84		3	3	6	60.6
75 / 79		11	13	24	59.0
70 / 74		35	37	72	57.3
65 / 69	1	79	79	159	55.1
60 / 64	15	172	165	352	52.7
55 / 59	114	270	272	656	50.2
50 / 54	308	304	294	906	46.9
45 / 49	352	230	233	816	42.7
40 / 44	280	215	213	708	37.9
35 / 39	302	268	278	848	33.6
30 / 34	310	231	250	792	29.6
25 / 29	214	180	177	571	24.9
20 / 24	159	146	151	456	20.2
15 / 19	149	146	148	442	15.5
10 / 14	142	134	138	414	10.8
5 / 9	135	122	120	376	6.0
0 / 4	111	104	95	310	1.0
-5 / -1	69	61	62	192	-3.3
-10 / -6	70	62	53	185	-7.5
-15 / -11	50	42	39	131	-12.5
-20 / -16	45	35	35	115	-17.1
-25 / -21	31	26	24	81	-21.7
-30 / -26	23	15	18	56	-26.7
-35 / -31	17	11	10	38	-31.6
-40 / -36	9	10	8	27	-36.9
-45 / -41	9	6	3	18	-41.5
-50 / -46	2	1	1	4	-46.7
-55 / -51	1	1	0	2	-51.7
-60 / -56	0	0	0	0	-56.6
-65 / -61	1		0	1	-61.5

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.

ANIAK AK WMO No. 702320



ANIAK AK WMO No. 702320

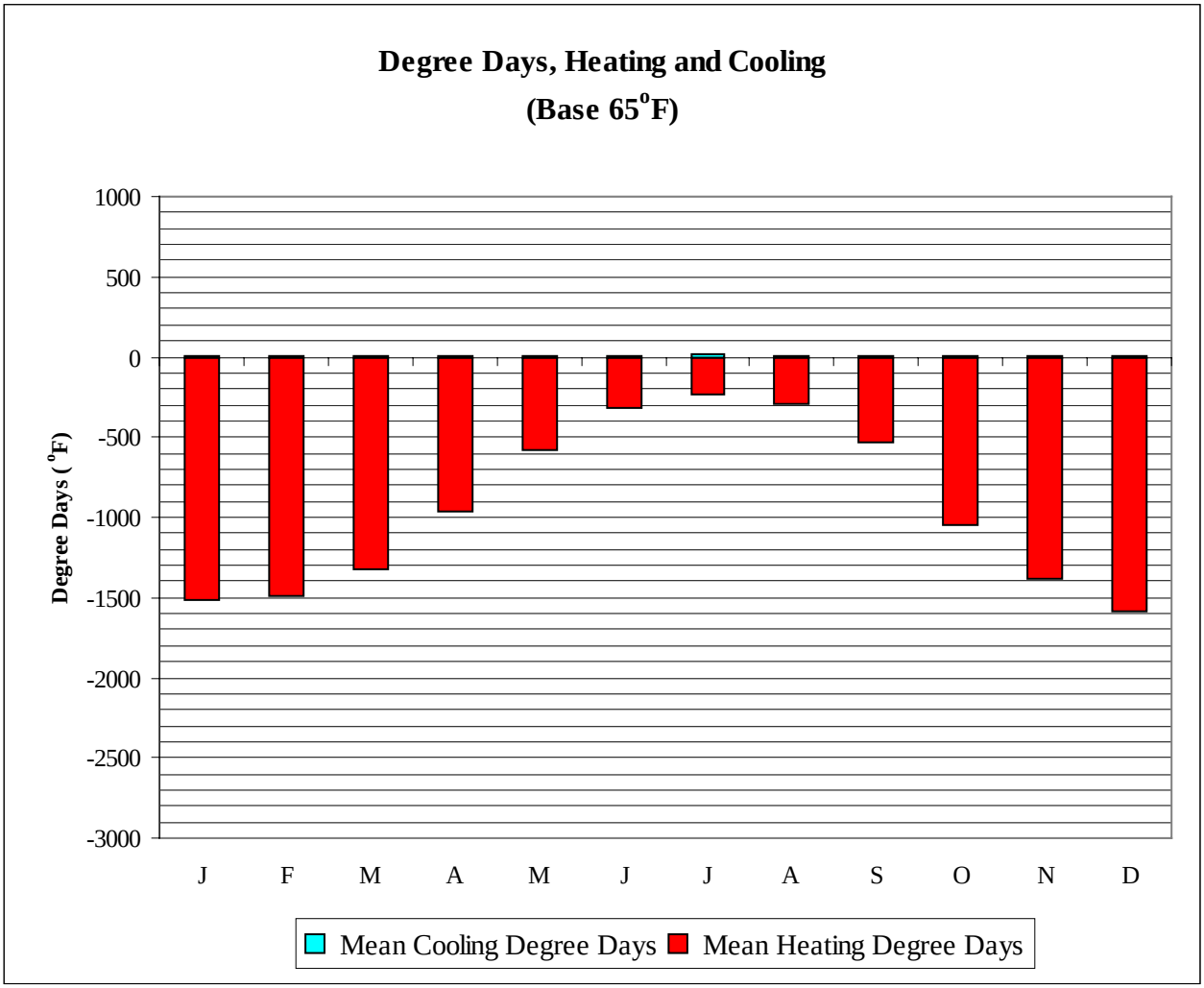


ANIAK AK WMO No. 702320

Long Term Dry Bulb Temperature and Humidity Summary

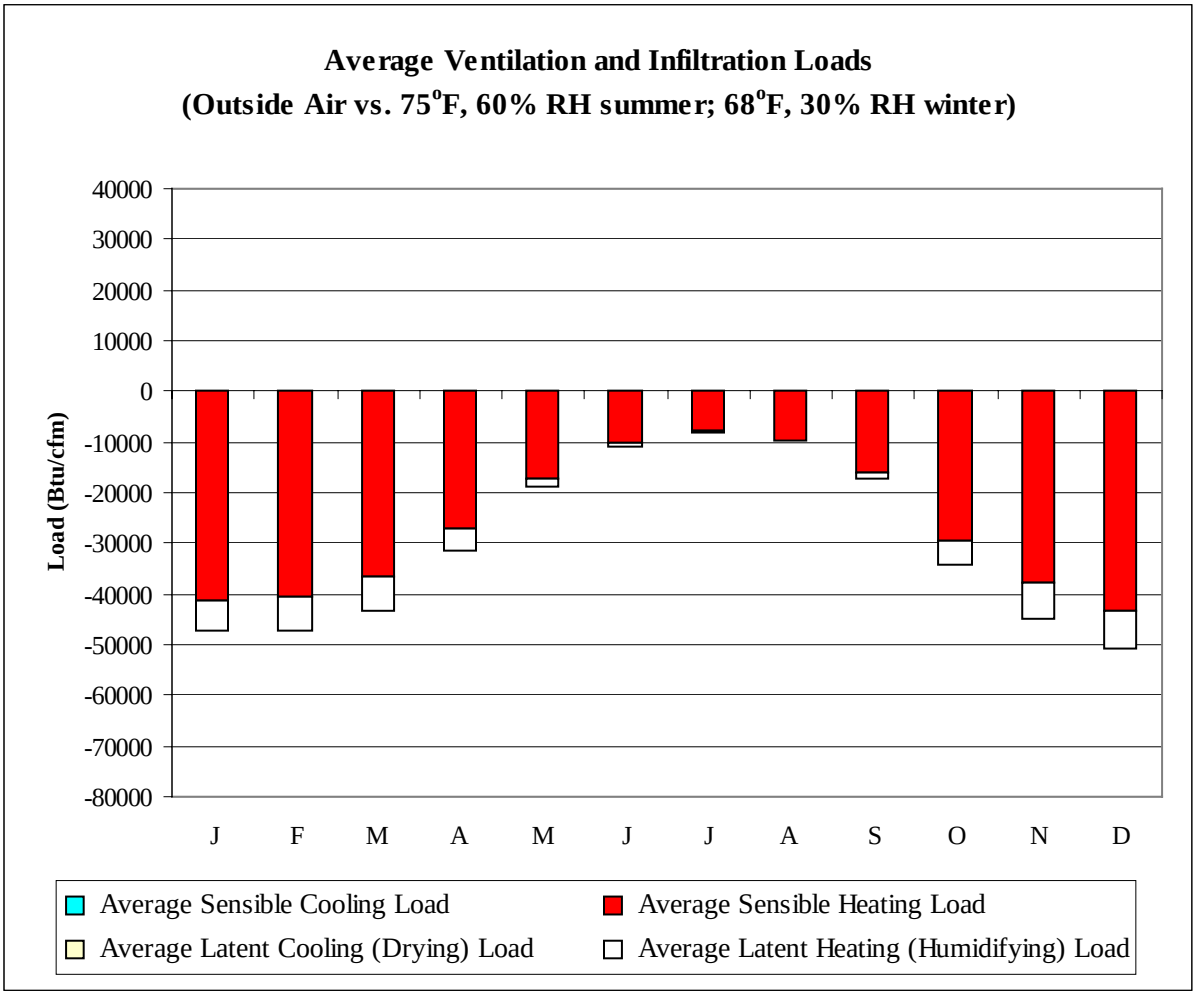
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	42.0	34.6	22.8	10.5	-38.0	27.3	37.6	14.7	9.1
14-Jan	39.0	34.6	13.6	0.7	-39.0	25.9	36.3	11.3	6.6
21-Jan	39.0	34.1	17.4	5.7	-44.0	25.2	34.8	12.8	7.5
28-Jan	40.0	36.4	17.5	5.2	-53.0	29.4	38.1	12.8	7.6
4-Feb	44.0	39.9	16.3	3.5	-48.0	32.2	43.7	12.2	7.6
11-Feb	44.0	39.1	19.8	6.3	-39.0	34.3	41.9	14.8	9.1
18-Feb	41.0	37.4	14.5	0.8	-29.0	30.1	40.8	10.7	5.9
25-Feb	40.0	36.1	11.8	-5.1	-34.0	28.7	37.1	9.5	4.5
4-Mar	40.0	35.1	21.0	5.2	-24.0	28.7	36.8	13.3	7.2
11-Mar	41.0	36.1	25.4	9.7	-21.0	28.7	35.0	15.0	8.4
18-Mar	43.0	37.1	25.3	5.9	-21.0	28.0	37.9	13.8	7.1
25-Mar	44.0	36.0	27.2	10.4	-19.0	28.7	37.3	15.0	8.8
1-Apr	44.0	36.7	31.7	15.7	-18.0	28.7	37.2	17.4	10.8
8-Apr	47.0	37.8	32.1	16.7	-14.0	30.8	40.2	17.5	11.0
15-Apr	47.0	37.1	31.6	15.3	-19.0	28.0	38.6	17.5	10.4
22-Apr	50.0	39.5	38.5	23.8	-3.0	35.0	41.3	21.5	14.9
29-Apr	53.0	41.9	42.6	29.2	13.0	35.7	43.8	24.1	17.0
6-May	57.0	45.8	47.2	31.9	17.0	41.3	47.9	28.0	19.8
13-May	66.0	51.1	50.2	35.0	25.0	39.9	51.1	29.8	22.1
20-May	64.0	49.1	52.5	36.6	27.0	41.3	49.2	31.6	22.9
27-May	69.0	54.1	56.3	39.5	31.0	42.7	52.7	34.6	24.8
3-Jun	74.0	55.1	60.1	43.3	34.0	53.9	59.1	38.4	27.9
10-Jun	69.0	53.3	60.3	43.2	37.0	53.2	60.1	39.3	28.6
17-Jun	78.0	54.0	62.0	45.3	38.0	58.8	61.9	43.2	30.8
24-Jun	73.0	56.2	61.8	46.4	41.0	58.1	58.1	45.3	33.0
1-Jul	78.0	59.6	63.2	47.4	40.0	65.1	63.0	47.0	33.9
8-Jul	76.0	59.7	63.3	48.9	44.0	67.2	65.8	49.3	37.0
15-Jul	75.0	57.7	65.3	50.3	44.0	67.2	61.4	53.1	40.1
22-Jul	80.0	55.6	65.3	50.8	45.0	68.6	62.7	56.8	43.4
29-Jul	76.0	57.5	64.7	50.6	45.0	70.0	63.5	56.8	43.5
5-Aug	76.0	62.4	63.3	50.3	44.0	74.2	65.4	57.8	44.4
12-Aug	73.0	60.3	61.8	50.0	43.0	72.1	64.3	55.8	42.9
19-Aug	66.0	56.4	60.1	47.2	37.0	66.5	59.1	52.5	39.6
26-Aug	77.0	61.1	60.5	46.5	37.0	70.0	64.6	53.1	39.2
2-Sep	71.0	58.6	58.3	45.4	34.0	67.2	65.7	48.8	36.8
9-Sep	63.0	52.6	55.6	42.2	33.0	60.2	57.5	44.7	32.9
16-Sep	59.0	50.7	52.7	40.6	28.0	54.6	54.9	40.6	30.6
23-Sep	59.0	52.2	49.0	37.5	24.0	52.5	55.2	36.4	26.0
30-Sep	56.0	47.1	46.5	33.9	19.0	49.0	50.8	32.4	23.3
7-Oct	51.0	44.0	42.8	31.2	18.0	42.0	46.1	29.6	20.5
14-Oct	51.0	45.1	37.4	27.2	12.0	42.7	47.8	25.2	17.5
21-Oct	47.0	40.4	34.6	24.5	6.0	34.3	44.6	22.4	15.3
28-Oct	48.0	44.2	29.0	18.0	-4.0	35.0	44.9	18.5	11.9
4-Nov	43.0	38.3	24.5	14.1	-12.0	30.1	40.0	15.9	10.4
11-Nov	44.0	39.1	25.0	13.3	-15.0	31.5	40.9	16.5	10.1
18-Nov	43.0	37.7	23.2	11.2	-14.0	30.8	38.3	15.8	9.3
25-Nov	40.0	35.3	18.6	5.9	-31.0	28.7	36.4	12.8	7.2
2-Dec	40.0	35.4	13.6	0.9	-34.0	27.7	36.4	11.1	5.9
9-Dec	40.0	34.9	11.4	-2.5	-34.0	25.9	36.1	9.9	5.1
16-Dec	42.0	36.7	11.6	-2.0	-33.0	30.8	39.0	10.6	6.2
23-Dec	41.0	35.5	16.4	3.9	-40.0	28.0	36.3	12.8	7.5
31-Dec	42.0	35.9	22.5	10.2	-22.0	28.7	39.1	15.1	8.8

ANIAK AK WMO No. 702320



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1515
FEB	0	1491
MAR	0	1318
APR	0	965
MAY	2	575
JUN	11	319
JUL	19	230
AUG	7	297
SEP	0	538
OCT	0	1053
NOV	0	1378
DEC	0	1588
ANN	39	11267

ANIAK AK WMO No. 702320



	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	-41334	0	-6009
FEB	0	-40631	0	-6663
MAR	0	-36403	0	-6846
APR	0	-27195	0	-4400
MAY	1	-17122	0	-1841
JUN	22	-10320	0	-658
JUL	40	-7954	1	-264
AUG	10	-9731	3	-136
SEP	0	-16033	0	-1177
OCT	0	-29623	0	-4676
NOV	0	-37872	0	-6822
DEC	0	-43331	0	-7534
ANN	73	-317549	4	-47026

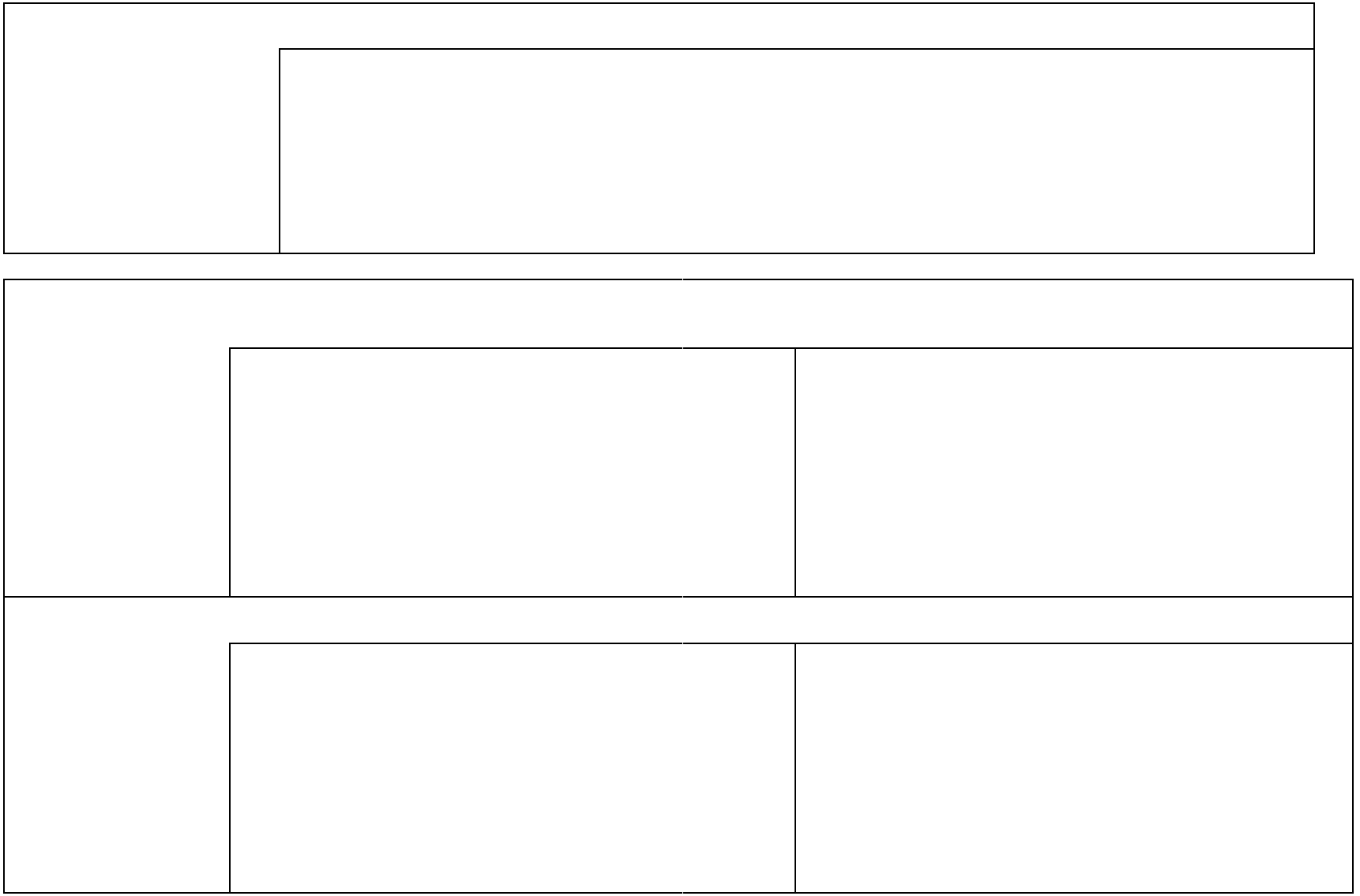
Average Annual Solar Radiation – Nearest Available Site

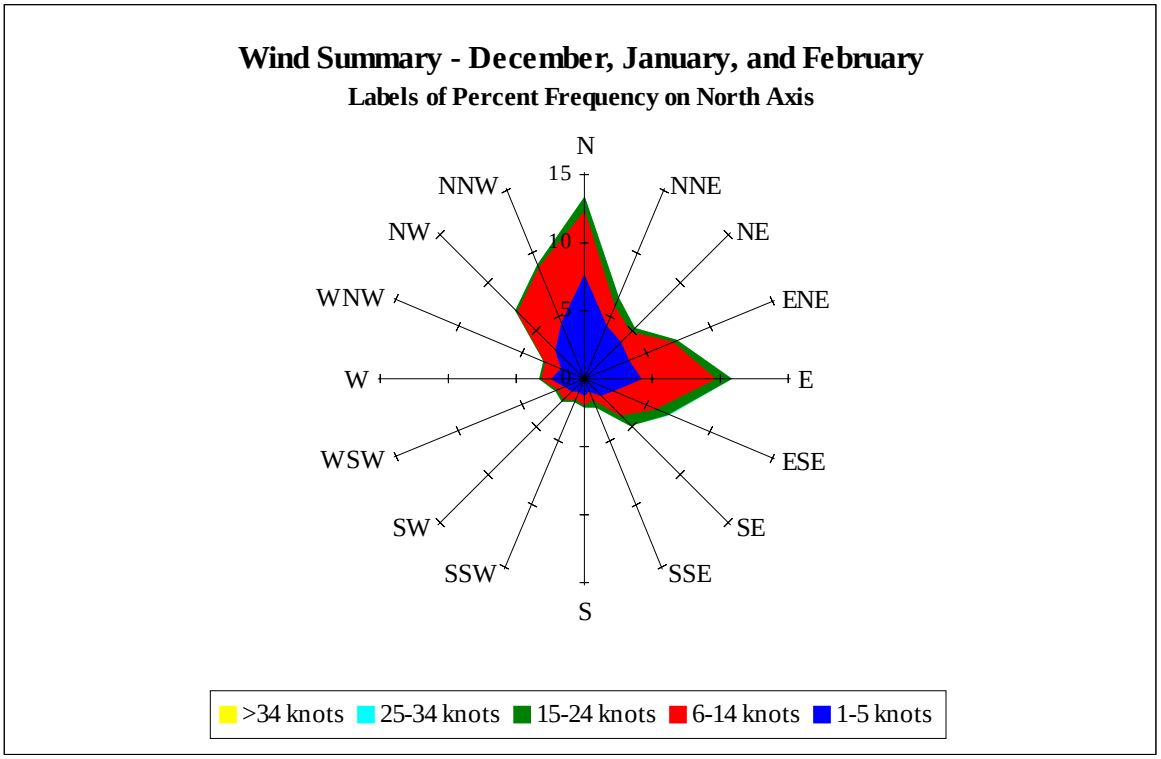
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

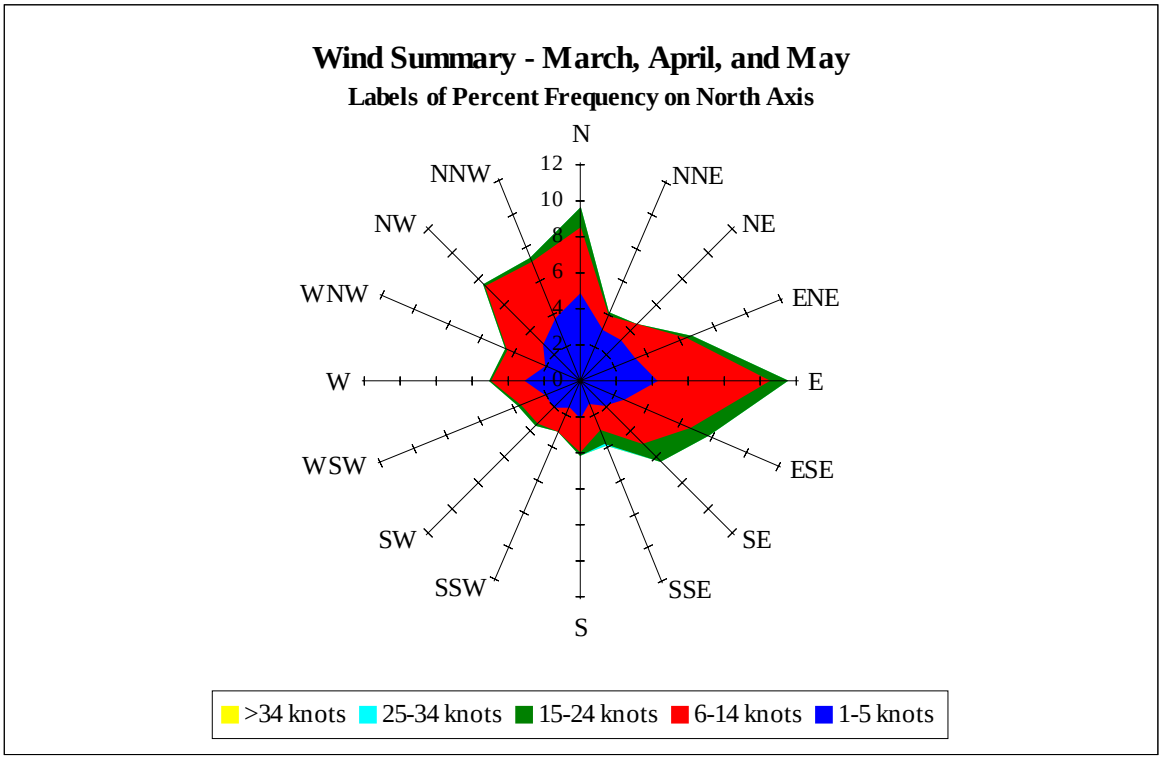
Average Annual Solar Heat and Illumination – Nearest Available Site

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

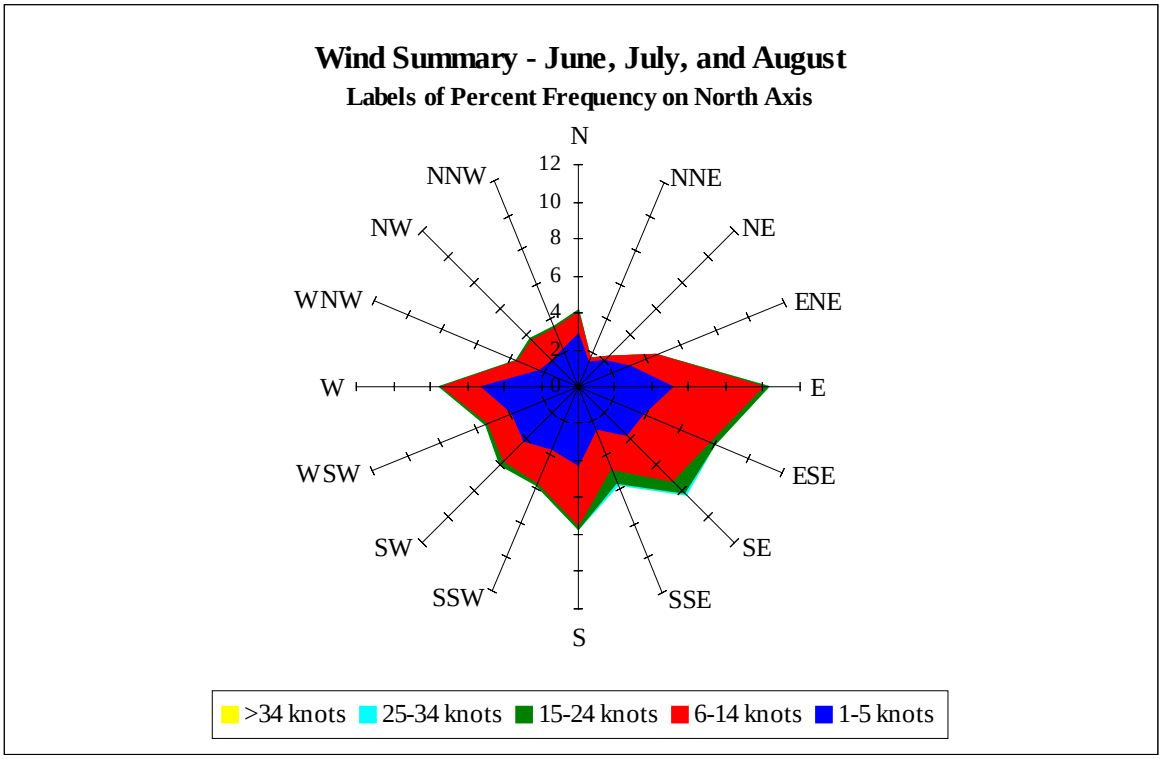




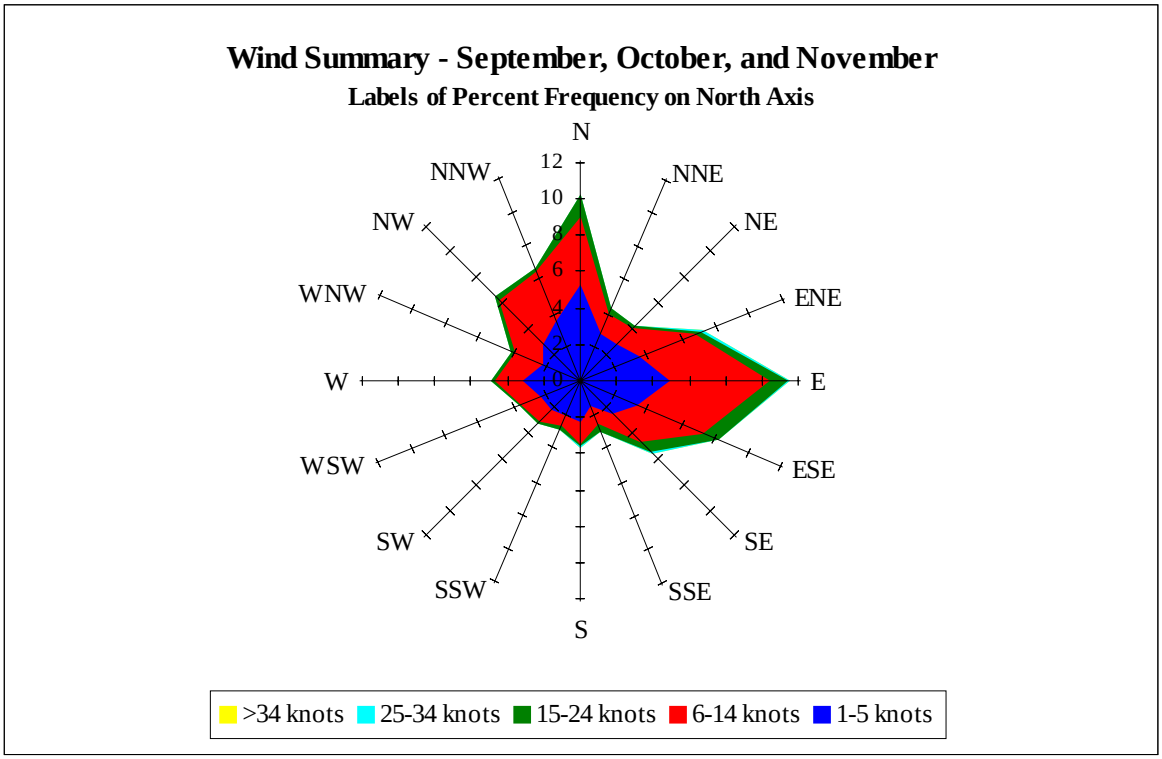
Percent Calm = 13.01



Percent Calm = 8.13



Percent Calm = 12.29



Percent Calm = 11.26