ELMENDORF AFB AK	
Latitude = 61.25 N	WMO No. 702720
Longitude =149.80 W	Elevation = 213 feet
Period of Record = 1967 to 1996	Average Pressure = 29.51 inches Hg

Design Criteria Data

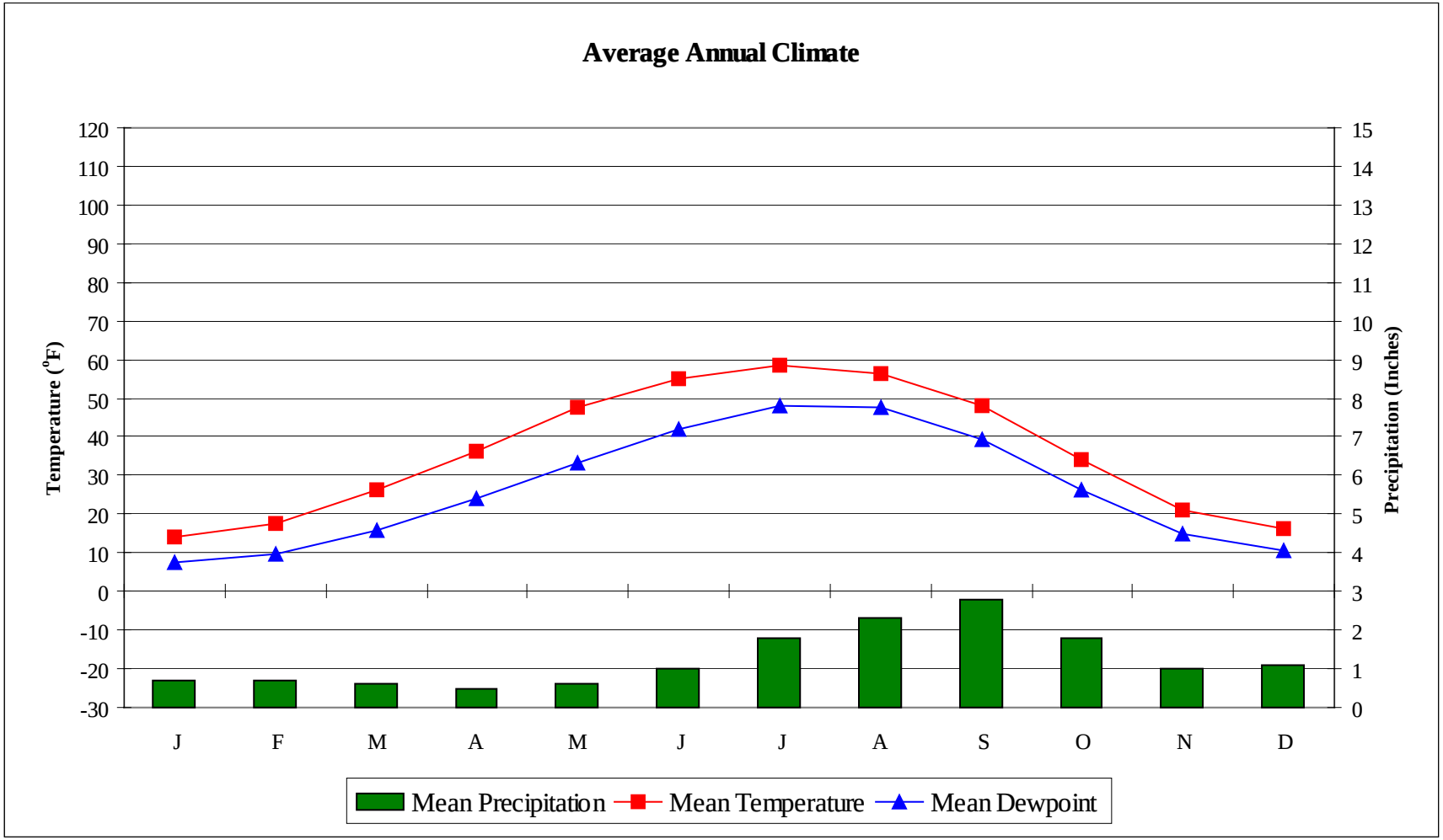
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	76	60	54	7.9	W
0.4% Occurrence	72	59	52	7.6	W
1.0% Occurrence	69	57	50	7.4	W
2.0% Occurrence	66	55	49	6.9	W
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	-4	-5	3	3.8	ENE
99.0% Occurrence	-10	-11	2	3.5	ENE
99.6% Occurrence	-14	-14	2	3.6	ENE
Median of Extreme Lows	-17	-17	1	4.7	ENE
		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	74	68	6.5	W
0.4% Occurrence	60	69	62	6.6	W
1.0% Occurrence	58	66	59	5.8	W
2.0% Occurrence	57	64	58	5.5	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	73	65	0.49	4.6	W
0.4% Occurrence	67	62	0.45	4.2	W
1.0% Occurrence	64	61	0.44	5.1	W
2.0% Occurrence	61	59	0.41	4.0	W
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	1	0	0

Other Site Data

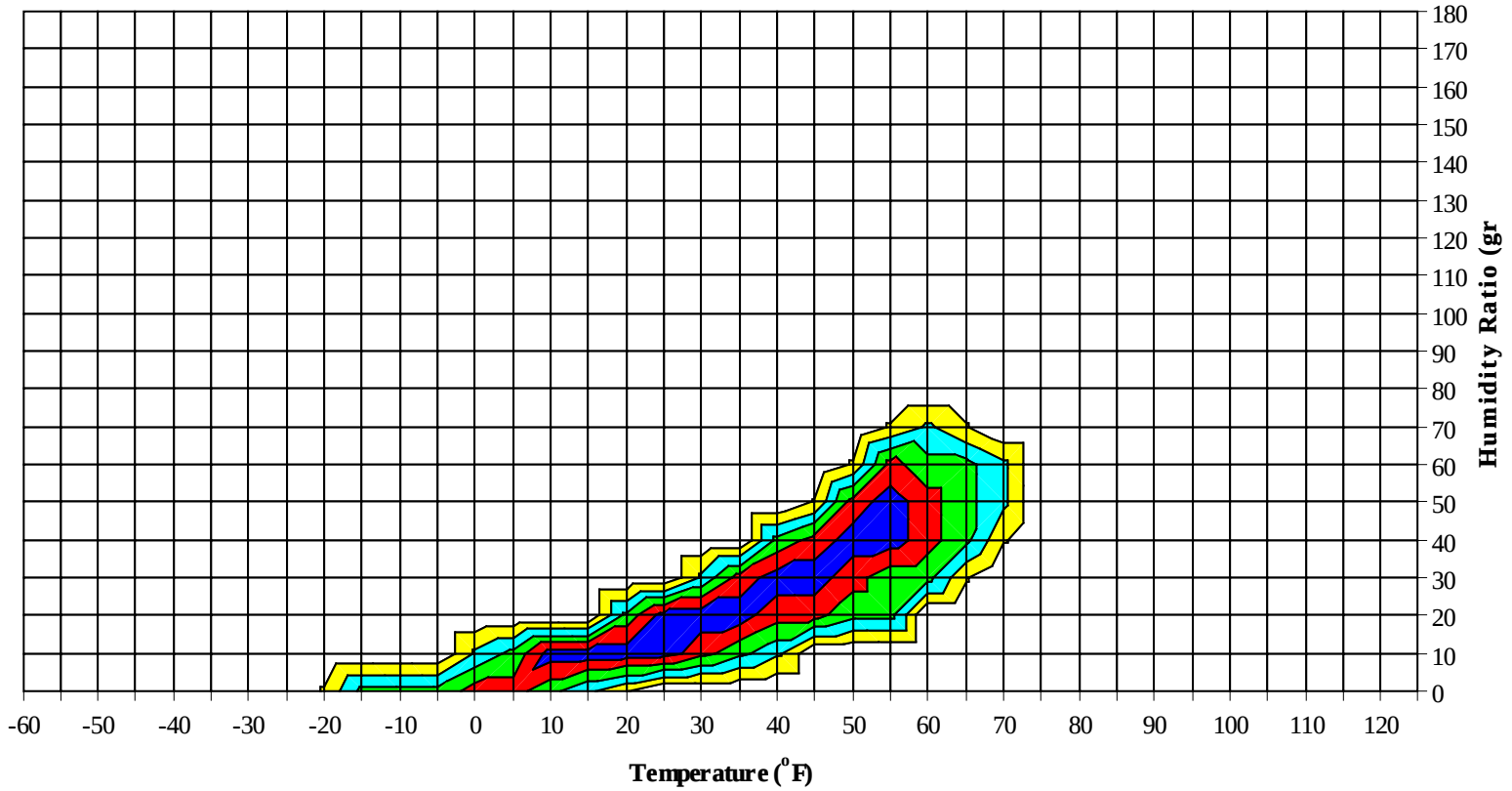
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75^oF-RH 60% Latent + Sensible
4	0.6	100	0.0 + 0.0
Ground Water Temperature (^oF) 50 Foot Depth *	**Frost Depth 50 Year Recurrence (in.)**	**Ground Snow Load 50 Year Recurrence (lb/ft^2)**	**Average Annual Freeze-Thaw Cycles (#)**
38.5	129	65	72

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

ELMENDORF AFB AK WMO No. 702720



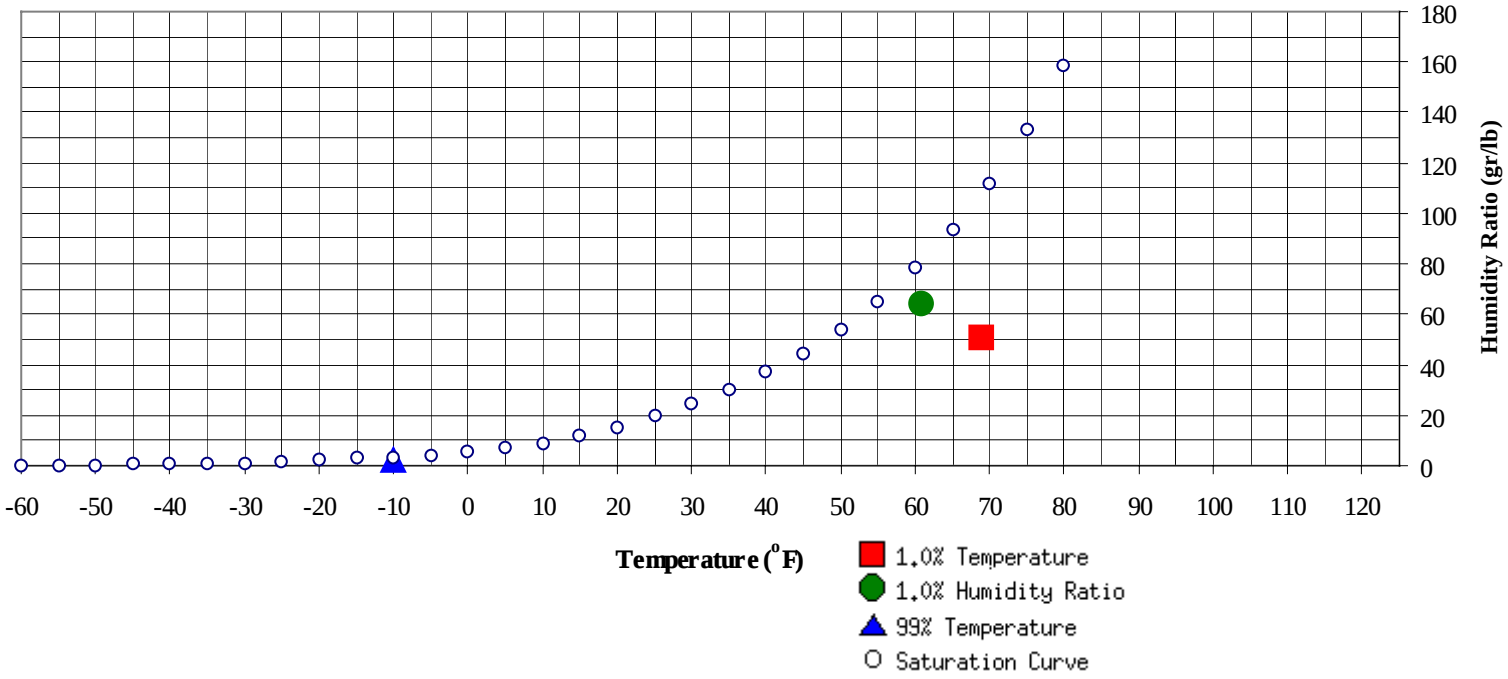
Long Term Psychrometric Summary



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

ELMENDORF AFB **AK** WMO No. 702720

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	-10	2.1	-2.1

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	64.4	60.8	57.2	54.9	24.6

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	69	50.4	57	24.4

ELMENDORF AFB AK WMO No. 702720

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	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)
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64															
55 / 59												0		0	43.0
50 / 54												1		1	40.8
45 / 49	1	0	0	1	37.1	0	0	0	1	37.2	0	5	2	7	37.9
40 / 44	3	3	3	9	35.2	2	5	4	11	35.2	3	20	14	37	35.2
35 / 39	9	10	9	27	32.8	9	18	13	40	33.0	16	44	45	104	32.3
30 / 34	19	23	22	63	29.3	25	30	33	88	29.5	44	60	61	164	28.7
25 / 29	30	33	34	97	25.0	30	33	36	99	24.9	53	46	51	151	24.4
20 / 24	34	37	35	107	20.6	30	32	29	91	20.3	42	33	34	110	19.6
15 / 19	32	31	31	94	15.8	27	30	26	84	15.4	32	20	19	72	15.1
10 / 14	27	27	24	79	10.9	23	26	25	75	10.5	22	11	12	45	10.5
5 / 9	27	27	25	79	6.0	18	20	23	61	5.8	15	5	6	26	5.9
0 / 4	22	22	23	67	1.2	19	13	16	48	1.0	11	2	3	16	1.4
-5 / -1	14	13	15	41	-3.1	15	7	9	32	-3.2	4	1	1	5	-3.0
-10 / -6	14	11	13	37	-7.3	13	6	6	25	-7.5	3	0	0	3	-7.1
-15 / -11	10	6	8	25	-12.3	8	2	3	13	-12.1	1	0	0	2	-12.3
-20 / -16	5	3	4	11	-16.6	2	1	1	4	-16.4	1	0	0	1	-16.0
-25 / -21	2	1	1	4	-21.7	1	0	0	1	-21.8	0			0	-21.2
-30 / -26	1	0	1	2	-26.4	0		0	0	-26.3					
-35 / -31	0	0	0	1	-31.5										
-40 / -36	0	0		0	-36.1										

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.

ELMENDORF AFB AK WMO No. 702720

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)
80 / 84												0	0	0	59.8
75 / 79							1	0	1	55.9		1	0	2	59.9
70 / 74							1	1	2	54.3	0	8	5	13	56.8
65 / 69		0	0	0	48.5		5	4	8	52.1	1	23	19	43	54.3
60 / 64		0	0	1	46.4	0	17	13	30	49.6	4	54	44	102	51.8
55 / 59		3	2	5	44.6	2	45	34	81	46.5	37	79	77	193	49.5
50 / 54		15	10	25	41.9	18	77	69	163	43.7	92	59	72	223	47.1
45 / 49	1	42	31	74	38.8	63	72	76	212	41.2	86	15	21	123	44.0
40 / 44	17	64	61	142	36.0	95	28	42	165	38.1	19	0	1	20	40.0
35 / 39	64	61	73	198	32.9	54	4	9	68	34.3	1			1	36.1
30 / 34	83	32	41	156	29.2	13	0	1	15	29.9					
25 / 29	45	12	14	71	24.5	1			1	24.7					
20 / 24	15	6	5	26	19.7										
15 / 19	7	3	2	12	14.7										
10 / 14	4	1	1	6	10.3										
5 / 9	1	0	0	2	5.7										
0 / 4	1	0	0	1	0.9										
-5 / -1	0			0	-3.3										
-10 / -6	0			0	-6.0										
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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.

ELMENDORF AFB AK WMO No. 702720

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

Period of Record = 1967 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)
80 / 84		1	1	1	62.0		0		0	62.7					
75 / 79		4	2	6	60.9		2	1	2	62.3					
70 / 74	0	15	11	26	58.7	0	9	5	14	59.3		0		0	54.8
65 / 69	2	41	34	77	56.4	0	33	25	58	56.8		2	1	4	54.1
60 / 64	20	78	76	174	54.4	10	71	63	144	54.6	1	14	9	23	51.8
55 / 59	98	82	91	270	52.4	69	85	93	247	52.6	7	49	36	91	50.1
50 / 54	110	27	32	168	49.6	105	42	51	198	49.3	40	82	79	200	47.6
45 / 49	18	1	2	21	45.5	50	6	10	66	44.9	86	58	68	212	44.0
40 / 44	1	0		1	41.7	11	0	1	11	39.8	59	22	28	109	39.3
35 / 39						2		0	3	34.6	29	9	13	51	34.1
30 / 34						0			0	30.0	13	3	4	21	29.1
25 / 29											5	1	1	6	25.1
20 / 24											1		0	1	20.6
15 / 19											1			1	16.9
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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.

ELMENDORF AFB AK WMO No. 702720

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)
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64		0	0	0	51.2										
55 / 59	0	1	0	2	46.3										
50 / 54	3	9	5	18	44.2	1	0	1	1	41.7					
45 / 49	13	34	26	73	41.7	2	3	2	7	39.4	1	1	1	3	38.8
40 / 44	34	48	45	126	38.4	6	8	5	19	37.9	3	3	2	7	35.8
35 / 39	48	54	51	154	34.1	13	18	15	47	34.2	7	8	9	25	33.8
30 / 34	63	51	60	173	29.9	28	35	33	96	30.0	23	23	22	68	29.9
25 / 29	38	27	30	95	25.2	41	43	39	123	25.1	35	38	39	113	25.3
20 / 24	20	12	14	46	20.5	38	43	43	124	20.6	42	43	39	124	20.7
15 / 19	13	6	8	27	15.8	37	34	35	106	15.8	36	37	38	110	16.0
10 / 14	7	3	5	15	11.2	27	26	25	79	11.1	26	25	27	79	11.2
5 / 9	5	2	2	8	6.7	20	15	19	54	6.2	21	22	22	65	6.2
0 / 4	2	1	2	5	1.5	14	9	13	37	1.4	19	20	17	55	1.3
-5 / -1	1	0	0	2	-3.3	6	4	5	15	-3.2	12	12	12	36	-3.0
-10 / -6	0			0	-6.4	5	2	3	9	-7.2	13	10	11	33	-7.5
-15 / -11						1	0	1	2	-11.9	7	4	7	18	-12.1
-20 / -16						1	0	0	2	-17.0	3	1	2	6	-16.7
-25 / -21						0	0	0	0	-20.8	1	0	1	2	-21.4
-30 / -26											0		0	0	-25.0
-35 / -31															
-40 / -36															

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.

ELMENDORF AFB AK WMO No. 702720

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

Period of Record = 1967 to 1996

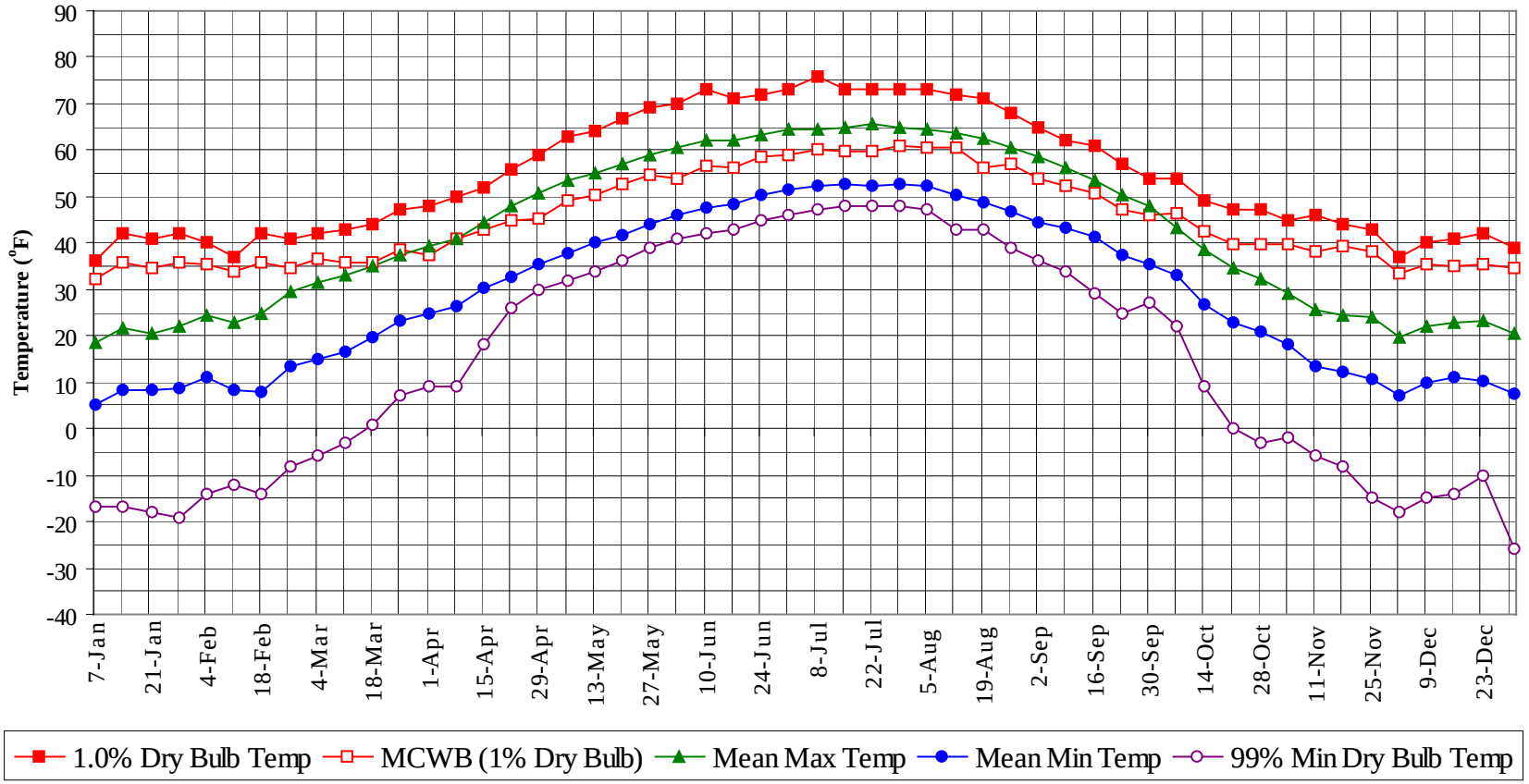
Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
80 / 84		1	1	1	61.8
75 / 79		7	4	11	60.7
70 / 74	0	32	23	55	58.3
65 / 69	3	104	83	190	55.8
60 / 64	34	234	205	473	53.4
55 / 59	213	344	332	888	51.0
50 / 54	368	312	317	997	47.3
45 / 49	321	237	241	799	42.6
40 / 44	252	201	205	658	37.7
35 / 39	252	227	238	717	33.4
30 / 34	313	256	276	845	29.5
25 / 29	278	234	244	756	24.9
20 / 24	223	206	200	629	20.3
15 / 19	184	162	159	505	15.7
10 / 14	138	120	120	378	10.9
5 / 9	107	91	98	296	6.1
0 / 4	89	68	73	229	1.2
-5 / -1	53	36	42	131	-3.1
-10 / -6	48	28	33	109	-7.4
-15 / -11	28	12	19	59	-12.2
-20 / -16	11	5	8	24	-16.6
-25 / -21	5	2	2	8	-21.6
-30 / -26	1	0	1	2	-26.4
-35 / -31	0	0	0	1	-31.5
-40 / -36	0	0		0	-36.1

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.

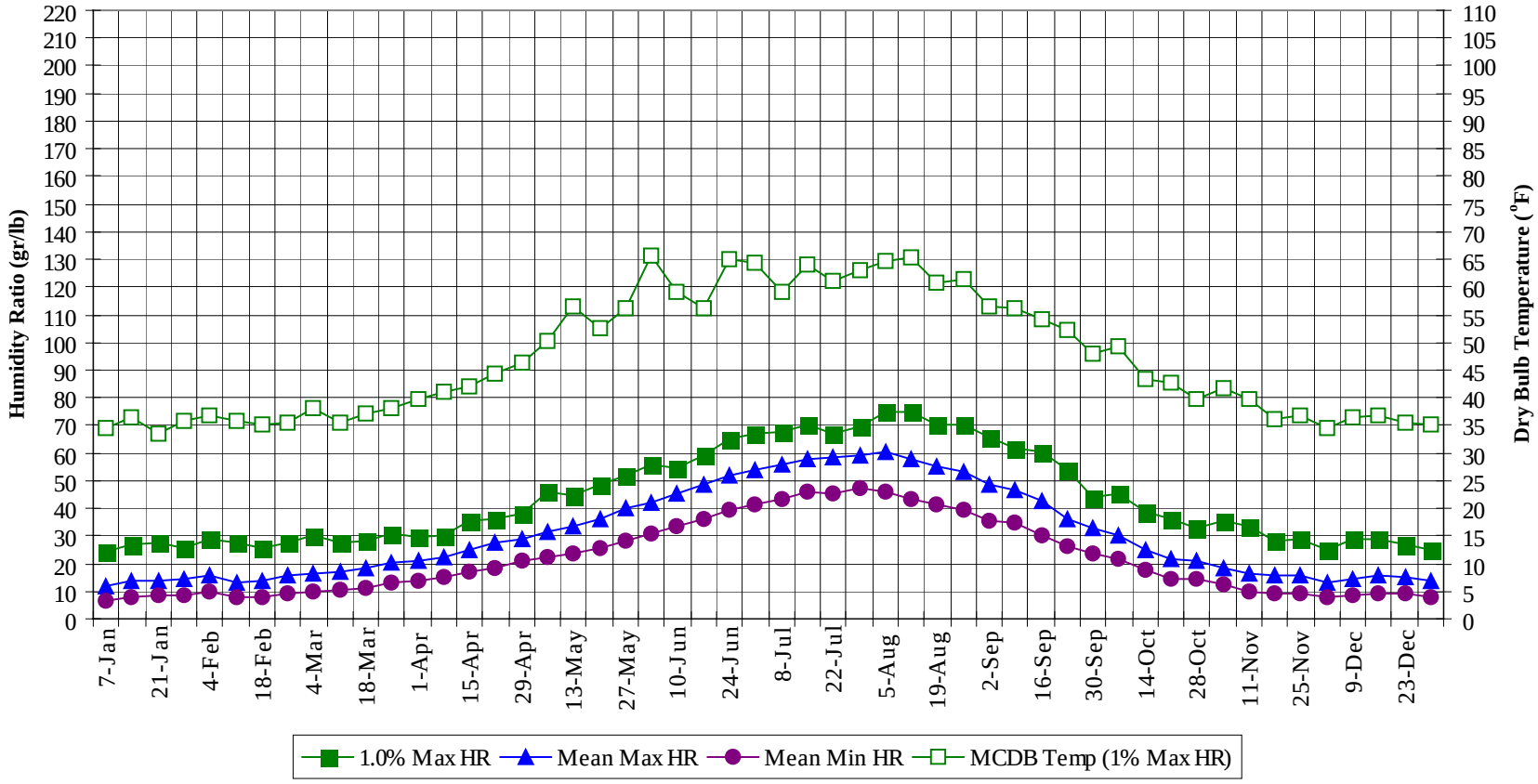
ELMENDORF AFB AK WMO No. 702720

Annual Summary of Temperatures



ELMENDORF AFB AK WMO No. 702720

Long Term Humidity and Dry Bulb Temperature Summary



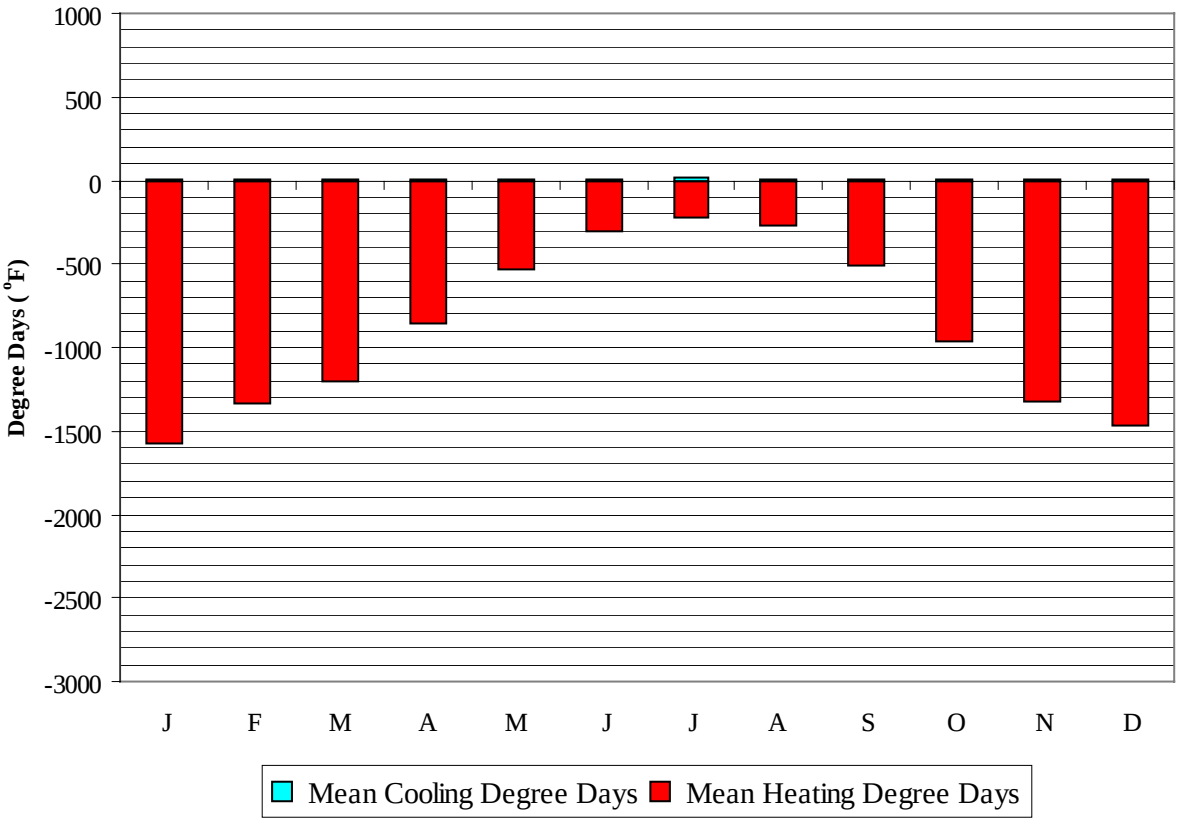
ELMENDORF AFB AK WMO No. 702720

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	36.0	32.4	18.5	5.1	-17.0	24.5	34.5	11.8	6.5
14-Jan	42.0	36.0	21.6	8.3	-17.0	26.6	36.5	13.9	8.0
21-Jan	41.0	34.4	20.4	8.3	-18.0	27.3	33.6	13.6	8.3
28-Jan	42.0	35.9	22.2	8.8	-19.0	25.9	35.7	14.1	8.3
4-Feb	40.0	35.5	24.2	11.1	-14.0	28.7	36.9	15.6	9.5
11-Feb	37.0	33.7	22.9	8.3	-12.0	27.3	35.8	13.4	7.7
18-Feb	42.0	35.8	24.7	7.9	-14.0	25.9	35.1	13.7	7.6
25-Feb	41.0	34.6	29.6	13.5	-8.0	27.3	35.3	15.9	9.4
4-Mar	42.0	36.7	31.3	14.9	-6.0	30.1	38.1	16.5	9.9
11-Mar	43.0	35.8	32.9	16.7	-3.0	27.3	35.6	17.2	10.3
18-Mar	44.0	35.8	35.2	19.6	1.0	28.0	37.0	18.1	11.4
25-Mar	47.0	38.4	37.3	23.4	7.0	30.8	38.1	20.1	13.3
1-Apr	48.0	37.4	39.3	24.8	9.0	29.4	39.8	21.0	13.8
8-Apr	50.0	41.0	40.7	26.5	9.0	30.1	40.9	22.2	14.8
15-Apr	52.0	42.8	44.3	30.1	18.0	35.7	42.0	24.8	17.0
22-Apr	56.0	44.9	48.0	32.6	26.0	36.4	44.5	27.3	18.6
29-Apr	59.0	45.4	50.7	35.5	30.0	37.8	46.2	29.0	20.7
6-May	63.0	49.1	53.3	37.6	32.0	46.2	50.3	31.5	22.1
13-May	64.0	50.4	55.2	40.1	34.0	44.8	56.4	33.2	23.6
20-May	67.0	52.6	57.2	41.7	36.0	48.3	52.4	36.1	25.5
27-May	69.0	54.6	58.9	44.2	39.0	51.8	56.0	40.2	28.6
3-Jun	70.0	54.0	60.4	46.0	41.0	56.0	65.8	42.4	30.7
10-Jun	73.0	56.6	62.1	47.6	42.0	54.6	59.0	45.2	33.2
17-Jun	71.0	56.2	62.0	48.5	43.0	58.8	56.2	48.3	36.0
24-Jun	72.0	58.4	63.5	50.2	45.0	65.1	65.1	51.6	39.2
1-Jul	73.0	58.9	64.5	51.4	46.0	67.2	64.2	54.1	41.4
8-Jul	76.0	60.1	64.6	52.2	47.0	67.9	59.1	55.8	43.6
15-Jul	73.0	59.7	64.9	52.8	48.0	70.0	64.0	57.8	45.9
22-Jul	73.0	59.9	65.6	52.5	48.0	67.2	61.2	58.7	45.2
29-Jul	73.0	60.9	64.8	52.6	48.0	69.3	63.0	59.2	47.1
5-Aug	73.0	60.6	64.4	52.3	47.0	74.9	64.5	60.2	46.1
12-Aug	72.0	60.6	63.7	50.3	43.0	74.9	65.3	57.5	43.1
19-Aug	71.0	56.4	62.5	48.7	43.0	70.0	60.7	55.0	41.3
26-Aug	68.0	57.2	60.7	46.9	39.0	70.0	61.3	53.3	39.4
2-Sep	65.0	53.9	58.7	44.5	36.0	65.8	56.6	48.4	35.2
9-Sep	62.0	52.4	56.3	43.4	34.0	61.6	56.2	46.8	34.6
16-Sep	61.0	50.7	53.7	41.4	29.0	60.2	54.1	42.5	30.5
23-Sep	57.0	47.3	50.2	37.3	25.0	53.9	52.3	36.4	26.3
30-Sep	54.0	46.0	47.9	35.3	27.0	44.1	48.1	33.0	23.4
7-Oct	54.0	46.3	43.3	32.9	22.0	45.5	49.1	30.3	21.8
14-Oct	49.0	42.5	38.5	26.9	9.0	38.5	43.4	25.3	17.6
21-Oct	47.0	39.9	34.8	22.8	0.0	36.4	42.8	21.6	14.8
28-Oct	47.0	39.7	32.2	20.8	-3.0	32.9	39.7	21.3	14.2
4-Nov	45.0	39.8	29.1	18.1	-2.0	35.7	41.6	18.6	12.3
11-Nov	46.0	38.3	25.7	13.3	-6.0	33.6	39.7	16.6	10.2
18-Nov	44.0	39.2	24.3	12.1	-8.0	28.0	36.1	15.6	9.4
25-Nov	43.0	38.1	24.2	10.9	-15.0	28.7	36.7	15.5	9.2
2-Dec	37.0	33.3	19.7	7.2	-18.0	25.2	34.5	13.3	7.7
9-Dec	40.0	35.4	21.9	10.0	-15.0	28.7	36.5	14.8	8.8
16-Dec	41.0	34.9	22.8	11.2	-14.0	28.7	36.9	15.5	9.4
23-Dec	42.0	35.4	23.1	10.4	-10.0	26.6	35.6	15.4	9.0
31-Dec	39.0	34.8	20.5	7.4	-26.0	25.2	35.2	13.6	7.9

ELMENDORF AFB AK WMO No. 702720

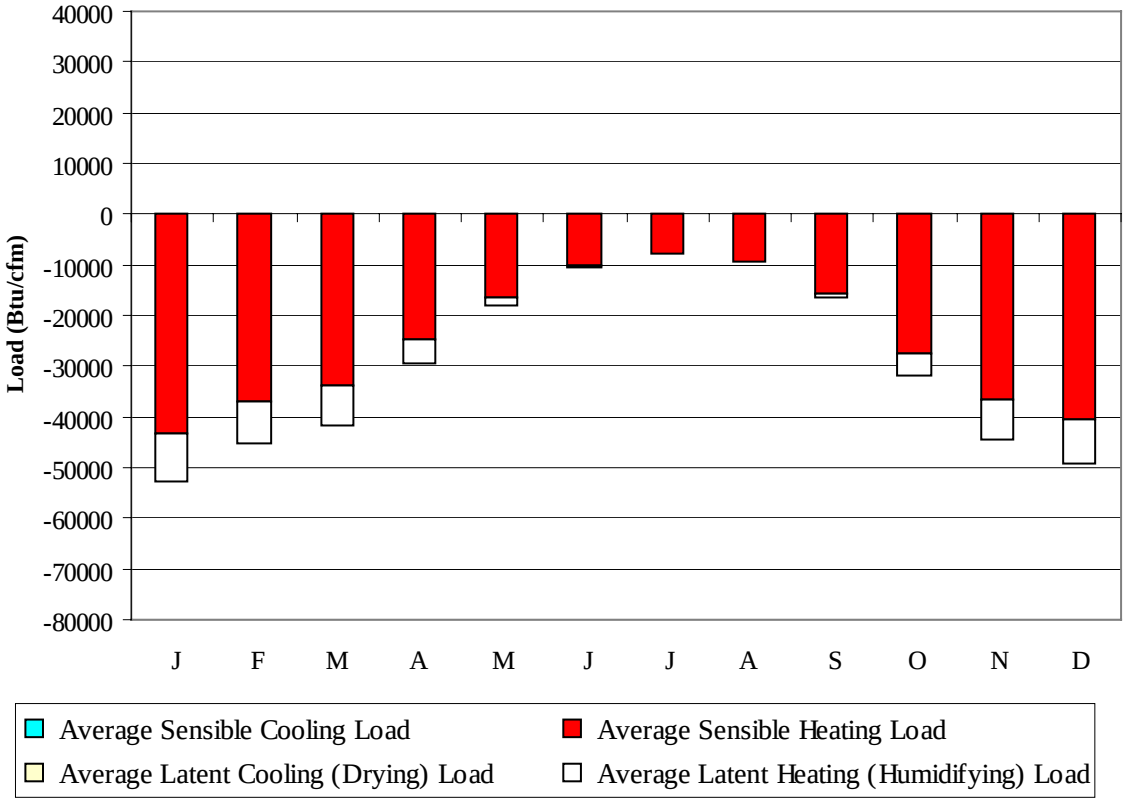
Degree Days, Heating and Cooling
(Base 65°F)



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1574
FEB	0	1340
MAR	0	1207
APR	0	860
MAY	1	537
JUN	7	310
JUL	15	219
AUG	8	270
SEP	0	508
OCT	0	961
NOV	0	1323
DEC	0	1467
ANN	31	10576

ELMENDORF AFB AK WMO No. 702720

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	-43215	0	-9398
FEB	0	-36919	0	-8378
MAR	0	-33708	0	-7836
APR	0	-24623	0	-4941
MAY	1	-16308	0	-1908
JUN	3	-10241	0	-166
JUL	15	-7850	0	-3
AUG	4	-9274	3	-76
SEP	0	-15506	0	-804
OCT	0	-27313	0	-4357
NOV	0	-36626	0	-7818
DEC	0	-40348	0	-8740
ANN	23	-301931	3	-54425

Average Annual Solar Radiation – Nearest Available Site

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

City: ANCHORAGE
State: AK
WBAN No: 26451
Lat(N): 61.17
Long(W): 150.02
Elev(ft): 115

Stn Type: Secondary
SHADING GEOMETRY IN DIMENSIONLESS UNITS
Window: 1
Overhang: 0.154
Vert Gap: 0.2

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day), Percentage Uncertainty = 9

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Global	90	300	720	1150	1440	1560	1470	1120	710	350	130	49	760
	Std Dev	10	41	65	115	129	149	134	105	70	31	15	6	25
	Minimum	70	230	550	1000	1190	1310	1160	920	580	280	110	38	710
	Maximum	110	400	830	1420	1660	1890	1700	1320	820	430	160	57	800
	Diffuse	66	190	410	600	750	850	800	630	410	230	92	39	420
Clear Day	Global	110	370	910	1640	2210	2490	2330	1790	1110	500	160	60	1150
NORTH	Global	38	110	240	370	510	600	550	390	240	130	53	22	270
	Diffuse	38	110	240	360	460	520	490	370	240	130	53	22	250
Clear Day	Global	38	100	210	370	630	840	730	430	240	120	51	25	320
EAST	Global	81	240	540	800	930	940	870	710	490	260	110	44	500
	Diffuse	49	140	310	460	550	600	560	450	300	160	69	27	310
Clear Day	Global	140	400	830	1310	1610	1740	1650	1370	950	500	190	82	900
SOUTH	Global	310	660	1040	1120	1060	1010	990	930	810	600	380	190	760
	Diffuse	110	250	420	530	580	620	590	490	360	240	140	70	370
Clear Day	Global	690	1340	1840	1910	1750	1660	1670	1770	1800	1470	840	470	1440
WEST	Global	82	250	540	790	920	980	950	740	500	270	120	44	520
	Diffuse	49	150	310	460	550	610	580	450	300	160	69	28	310
Clear Day	Global	140	400	830	1310	1610	1740	1650	1370	950	500	190	82	900

Average Annual Solar Heat and Illumination – Nearest Available Site

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

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	51	180	460	790	1020	1110	1040	780	470	220	75	28	520
NORTH	Unshaded	26	76	160	250	350	410	370	270	170	91	37	15	190
	Shaded	25	74	160	250	340	400	360	260	160	89	36	15	180
EAST	Unshaded	51	170	380	570	670	670	620	500	340	180	73	27	350
	Shaded	50	160	370	560	650	650	610	490	340	180	72	26	350
SOUTH	Unshaded	240	500	770	800	730	690	680	650	590	450	290	150	540
	Shaded	240	500	760	790	720	670	660	640	580	440	290	150	540
WEST	Unshaded	52	170	380	560	660	700	680	530	350	180	76	27	360
	Shaded	51	170	370	550	640	680	660	520	350	180	75	26	360

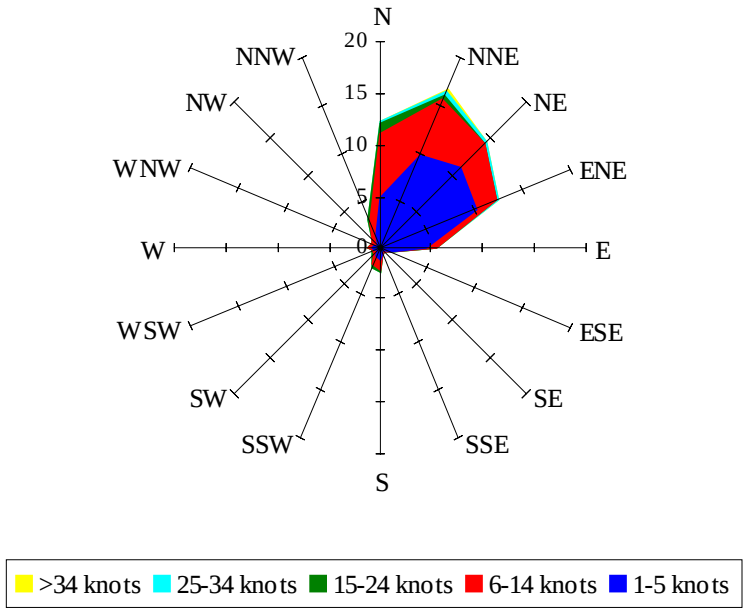
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9

		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	9	31	45	42	24	34	59	76	80	68
	M.Cloudy	7	21	31	29	17	20	35	47	50	43
NORTH	M.Clear	4	9	11	10	7	15	13	15	15	14
	M.Cloudy	3	9	12	11	7	10	13	16	16	14
EAST	M.Clear	30	54	25	10	7	70	76	48	15	14
	M.Cloudy	9	23	17	11	7	24	34	28	16	14
SOUTH	M.Clear	13	57	85	79	43	9	39	67	74	55
	M.Cloudy	5	24	37	34	17	8	22	36	40	31
WEST	M.Clear	4	9	11	39	54	9	13	15	26	64
	M.Cloudy	3	9	12	21	20	8	13	16	21	35
M.Clear	(% hrs)	30	29	30	31	29	14	17	17	18	18

		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	7	30	48	51	39	0	0	6	4	0
	M.Cloudy	4	16	26	28	21	0	0	5	3	0
NORTH	M.Clear	3	8	11	11	10	0	0	3	2	0
	M.Cloudy	2	7	10	11	8	0	0	2	1	0
EAST	M.Clear	27	59	41	11	10	0	0	6	2	0
	M.Cloudy	6	18	18	11	8	0	0	3	1	0
SOUTH	M.Clear	5	42	75	83	58	0	0	28	16	0
	M.Cloudy	2	14	27	30	20	0	0	7	4	0
WEST	M.Clear	3	8	11	24	56	0	0	3	8	0
	M.Cloudy	2	7	10	14	19	0	0	2	2	0
M.Clear	(% hrs)	18	18	20	20	21	27	24	24	24	26

Wind Summary - December, January, and February

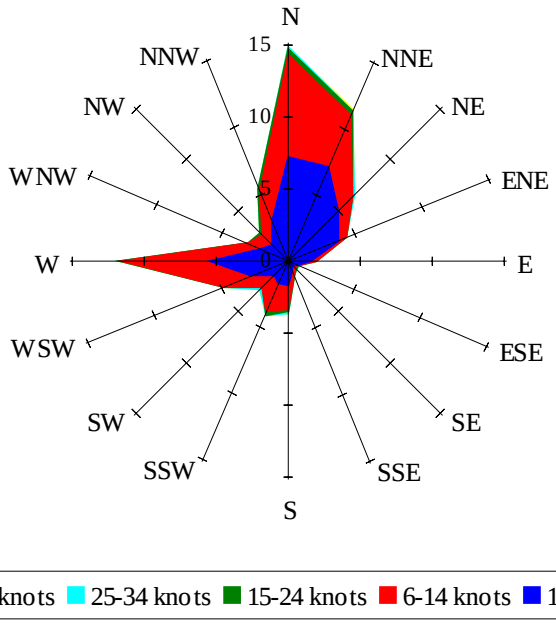
Labels of Percent Frequency on North Axis



Percent Calm = 24.05

Wind Summary - March, April, and May

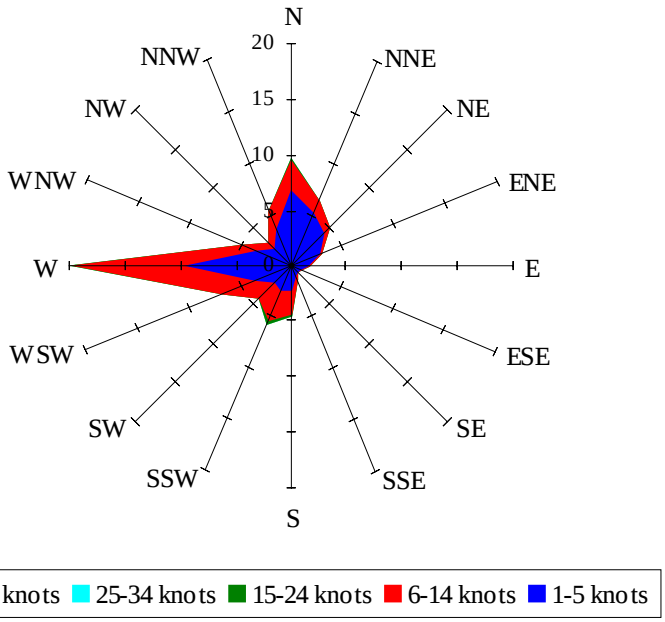
Labels of Percent Frequency on North Axis



Percent Calm = 21.07

Wind Summary - June, July, and August

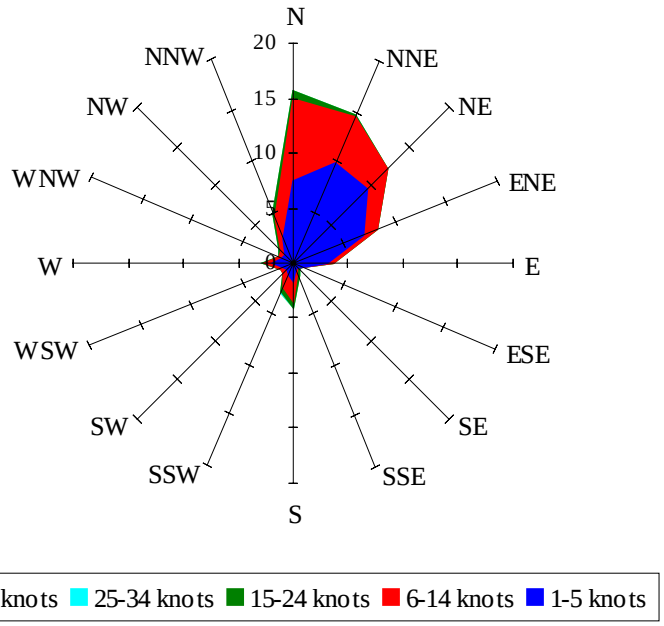
Labels of Percent Frequency on North Axis



Percent Calm = 18.68

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 22.64