

EIELSON AFB	AK	WMO No. 702650
Latitude = 64.67 N		Elevation = 548 feet
Longitude = 147.10 W		Average Pressure = 29.19 inches Hg
Period of Record = 1967 to 1996		

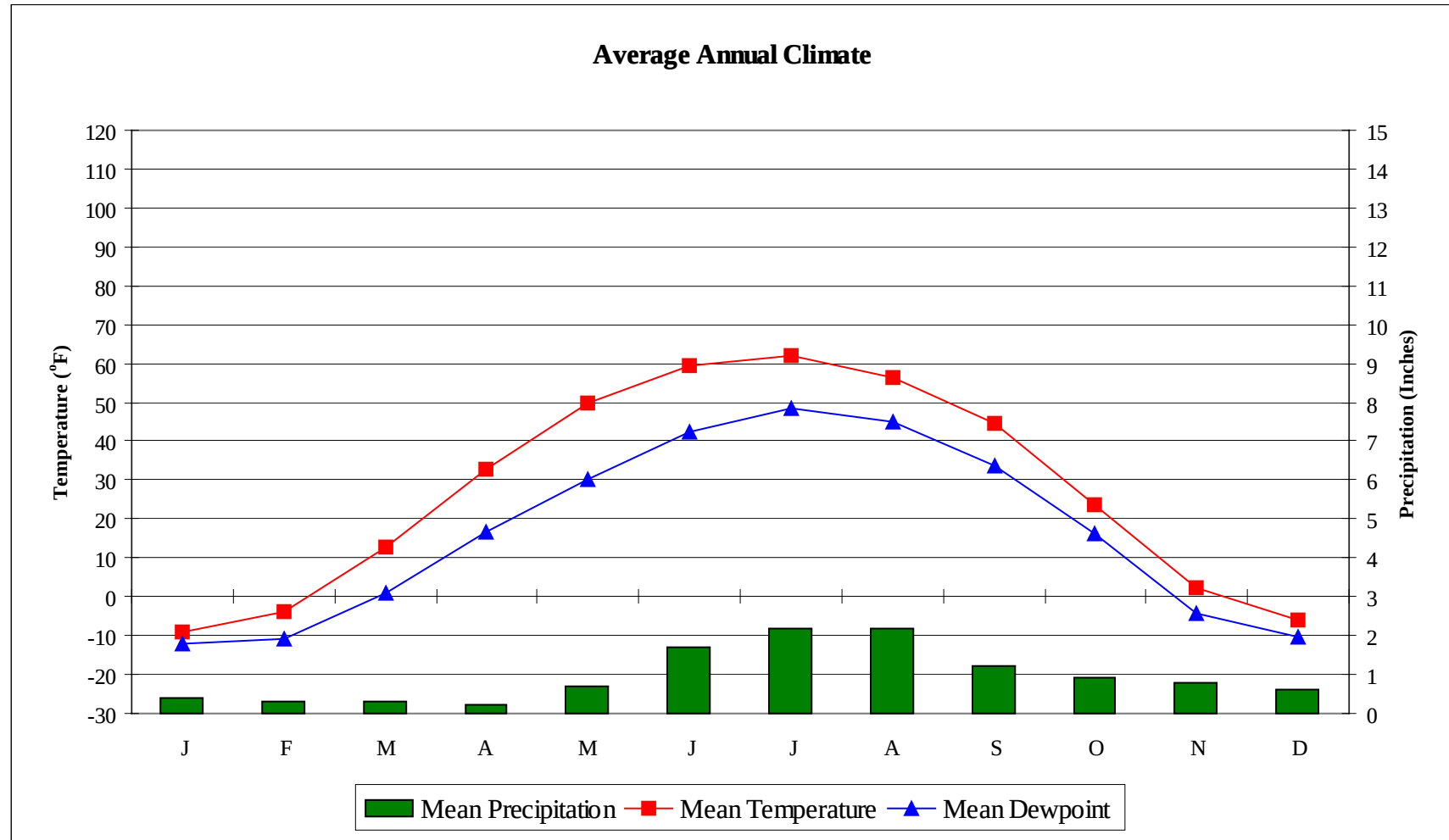
Design Criteria Data

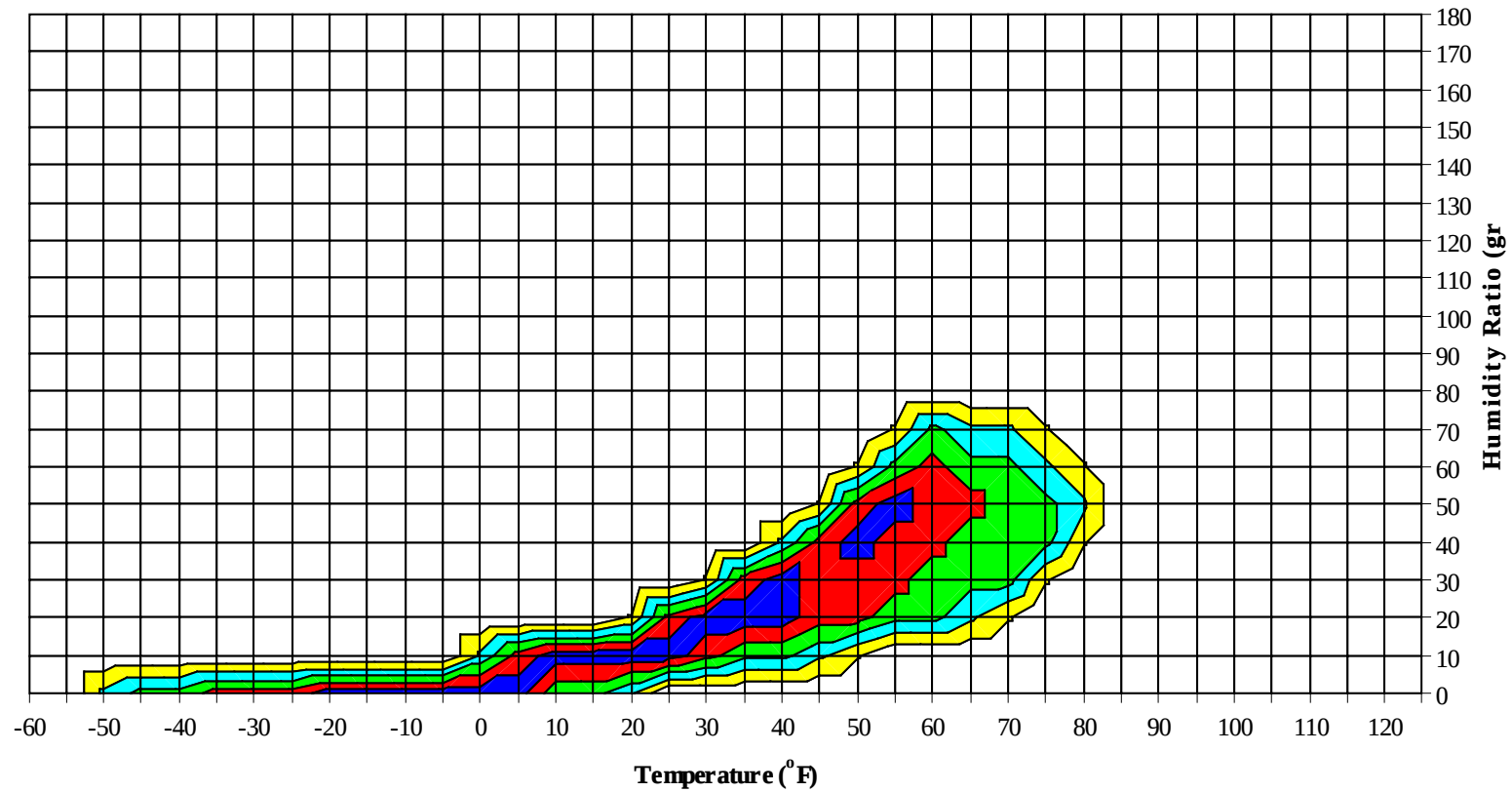
	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	85	63	57	4.8	NW
0.4% Occurrence	80	61	53	5.1	W
1.0% Occurrence	77	60	52	5.4	W
2.0% Occurrence	74	58	50	5.0	W
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	-35	-35	1	0.4	SSE
99.0% Occurrence	-42	-42	0	0.2	S
99.6% Occurrence	-47	.	.	0.0	CALM
Median of Extreme Lows	-47	.	.	0.0	CALM
	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	66	79	74	3.7	WNW
0.4% Occurrence	63	77	65	4.2	W
1.0% Occurrence	61	73	62	4.2	W
2.0% Occurrence	60	72	60	4.2	W
	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	81	69	0.54	4.9	VARIABLE
0.4% Occurrence	74	66	0.49	2.7	S
1.0% Occurrence	68	66	0.45	2.9	S
2.0% Occurrence	64	64	0.42	3.2	W
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		0	46	0	7

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
2	1.0	90	0.0 + 0.0
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 (#)
Permafrost	Permafrost	60	56

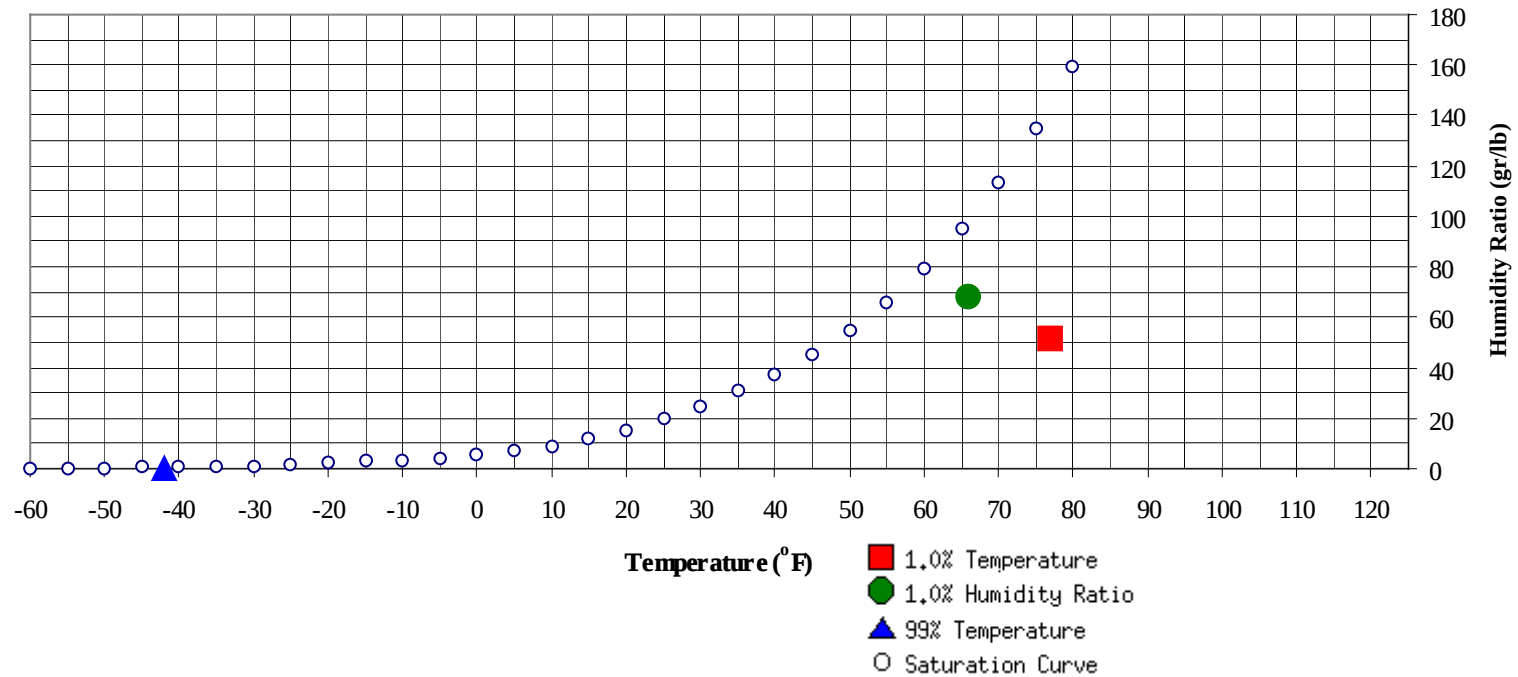
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.



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



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
99% Dry Bulb	-42	0	-10.1		67.9	65.9	59.7	55.9	26.4

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	77	51.8	59.9	26.6

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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		
90 / 94															
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64															
55 / 59															
50 / 54							0		0	38.0		1	0	1	38.3
45 / 49	0	0	0	1	36.5	0	0	0	1	36.8	1	4	2	7	36.1
40 / 44	2	2	2	6	33.1	2	4	2	7	33.7	2	13	10	24	33.5
35 / 39	2	3	3	7	30.3	4	5	4	13	30.5	4	17	15	37	30.6
30 / 34	4	3	4	11	27.7	4	5	6	15	27.6	9	21	20	50	27.1
25 / 29	4	4	5	13	23.7	5	8	7	21	24.0	14	26	27	68	23.2
20 / 24	7	8	7	22	19.6	8	11	10	30	19.5	22	30	32	83	19.0
15 / 19	12	11	10	32	15.0	11	15	13	39	15.2	25	29	31	85	14.7
10 / 14	13	16	15	44	10.4	11	17	17	46	10.4	24	30	32	86	10.0
5 / 9	19	19	18	56	5.7	16	18	19	53	5.7	33	27	27	86	5.6
0 / 4	25	27	28	80	0.9	19	22	22	63	0.7	32	18	19	69	0.8
-5 / -1	20	24	21	64	-3.3	18	19	16	53	-3.4	21	10	11	43	-3.5
-10 / -6	24	23	27	73	-7.8	22	21	22	65	-7.7	22	9	10	41	-7.7
-15 / -11	21	20	21	62	-12.3	21	20	20	60	-12.6	17	5	5	27	-12.4
-20 / -16	16	16	14	46	-17.1	17	15	17	49	-17.2	9	3	3	15	-17.3
-25 / -21	13	14	12	39	-22.0	16	14	14	43	-21.9	5	2	2	9	-22.0
-30 / -26	11	13	13	37	-27.0	17	11	12	40	-26.9	5	1	1	7	-27.0
-35 / -31	14	13	14	42	-31.8	12	7	8	28	-31.8	3	1	0	5	-31.7
-40 / -36	13	12	13	38	-35.5	9	6	7	22	-35.5	2	0	0	2	-35.0
-45 / -41	13	11	11	35	-42.3	8	4	3	15	-41.0	1	0		1	
-50 / -46	9	7	7	23		5	2	1	8	-45.0					
-55 / -51	3	2	2	8		1	0	0	1						
-60 / -56	2	1	2	5											
-65 / -61		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.

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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		
90 / 94												0	0	1	65.4
85 / 89												2	2	4	62.9
80 / 84							0	0	1	59.1		7	6	12	60.9
75 / 79							3	2	5	54.7	0	15	15	30	58.1
70 / 74			0	0	52.0		8	7	15	53.1	1	34	28	63	56.0
65 / 69		1	1	2	49.3	0	22	17	40	50.4	5	52	44	101	53.9
60 / 64		3	2	5	46.3	2	44	35	80	47.7	19	55	55	129	52.2
55 / 59		10	8	18	43.5	9	55	49	113	45.4	51	40	48	140	50.3
50 / 54	0	24	17	41	40.4	24	52	53	129	43.0	82	27	32	141	47.3
45 / 49	3	35	31	69	37.5	51	34	42	127	40.2	58	7	9	73	43.7
40 / 44	11	39	39	89	34.6	65	18	26	110	36.9	20	1	1	22	39.1
35 / 39	30	37	42	109	31.5	56	8	12	77	32.9	3	0		3	34.8
30 / 34	56	29	36	121	28.0	33	3	4	40	28.8	0			0	29.5
25 / 29	46	24	28	97	23.6	6	1	1	7	24.0					
20 / 24	33	16	15	63	19.1	1	0	0	1	18.7					
15 / 19	22	10	9	40	14.7	1	0	0	1	14.8					
10 / 14	12	7	5	25	10.0	0			0	10.3					
5 / 9	11	3	4	18	5.6										
0 / 4	7	2	2	11	1.0										
-5 / -1	4	1	1	5	-3.2										
-10 / -6	3	0	1	4	-7.6										
-15 / -11	2	0	0	2	-12.3										
-20 / -16	1		0	1	-16.8										
-25 / -21	0			0	-20.8										
-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.

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		
90 / 94		0	0	0	63.2			0	0	69.0					
85 / 89		2	2	4	63.2		1	1	1	68.0					
80 / 84		10	8	18	62.2		3	3	5	63.5					
75 / 79	0	26	23	49	60.3		10	9	19	60.3		0	0	0	55.0
70 / 74	1	47	42	89	58.6	0	24	16	41	58.3		3	1	4	55.4
65 / 69	7	58	50	115	56.8	2	37	34	73	56.1	1	9	5	15	52.1
60 / 64	34	56	59	150	55.0	10	54	51	115	53.9	1	26	16	43	49.7
55 / 59	92	36	46	174	52.6	41	55	56	152	51.7	3	38	29	70	47.6
50 / 54	84	11	16	111	49.0	81	42	48	171	48.4	14	42	42	98	45.7
45 / 49	26	2	3	31	45.0	61	16	22	99	44.2	39	41	44	124	42.7
40 / 44	3		0	3	40.0	33	5	7	46	39.3	52	34	43	130	38.7
35 / 39	0			0	36.5	14	1	2	17	34.8	55	27	30	112	34.2
30 / 34						4			5	30.2	48	14	20	82	29.9
25 / 29						1			1	26.2	19	5	6	29	25.3
20 / 24											5	1	2	8	20.4
15 / 19											2	0	1	3	15.2
10 / 14											1	0	0	1	10.8
5 / 9											1	0		1	6.7
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															

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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		
90 / 94															
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69															
60 / 64	1	1	1	3	46.9										
55 / 59	0	3	1	4	44.4										
50 / 54	2	6	4	12	41.9	0			0	40.0					
45 / 49	5	10	7	22	39.1	1	1	1	3	38.3	0	0	0	1	37.9
40 / 44	6	17	14	37	36.6	2	2	2	6	35.2	2	1	2	4	35.6
35 / 39	15	28	27	70	33.2	3	3	4	10	31.8	2	3	3	8	31.2
30 / 34	41	38	41	121	29.4	6	6	5	17	28.9	3	3	4	10	28.4
25 / 29	39	39	40	118	24.8	8	11	9	28	24.8	5	5	5	15	24.3
20 / 24	40	32	33	105	20.5	13	14	16	44	20.2	9	9	9	27	20.5
15 / 19	28	28	28	84	15.8	19	25	21	64	15.5	12	12	10	33	15.7
10 / 14	25	18	22	66	11.2	25	26	24	76	10.7	17	17	17	51	10.8
5 / 9	15	10	11	37	6.2	26	29	27	82	5.9	19	23	21	62	6.0
0 / 4	11	8	8	27	1.2	29	29	31	88	1.1	27	26	29	82	1.0
-5 / -1	7	3	5	15	-3.0	20	23	22	65	-3.2	21	20	23	64	-3.3
-10 / -6	5	3	3	12	-7.4	25	22	23	70	-7.5	26	27	26	80	-7.7
-15 / -11	4	2	1	7	-11.9	18	14	16	49	-12.4	25	26	22	73	-12.4
-20 / -16	2	1	1	4	-16.6	15	12	14	41	-17.1	19	18	21	58	-17.0
-25 / -21	0	0	0	1	-21.7	13	10	11	35	-21.9	16	15	15	46	-21.9
-30 / -26	0	0	0	1	-26.8	8	6	7	21	-26.8	14	12	12	38	-26.9
-35 / -31	0	0	0	1	-31.8	6	3	4	12	-31.6	11	10	10	31	-31.8
-40 / -36		0		0		3	2	1	6	-35.8	8	8	8	25	-35.3
-45 / -41						1	1	1	2		8	7	8	23	
-50 / -46											4	3	3	9	
-55 / -51											2	1	1	4	
-60 / -56															
-65 / -61															

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EIELSON AFB AK WMO No. 702650
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1967 to 1996

Temperature Range (°F)	Annual Totals				
	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
90 / 94		0	0	1	65.2
85 / 89		4	4	9	63.8
80 / 84		20	16	37	61.9
75 / 79	0	55	49	103	59.4
70 / 74	2	116	94	212	57.3
65 / 69	14	179	151	344	54.8
60 / 64	67	239	219	525	52.4
55 / 59	196	236	238	670	49.9
50 / 54	287	204	212	703	46.3
45 / 49	245	151	161	557	41.8
40 / 44	200	135	150	485	37.0
35 / 39	188	132	143	463	32.6
30 / 34	209	122	140	471	28.7
25 / 29	146	123	128	397	24.2
20 / 24	137	122	124	383	19.8
15 / 19	130	129	122	382	15.2
10 / 14	130	132	132	393	10.5
5 / 9	139	129	127	395	5.8
0 / 4	150	132	139	420	0.9
-5 / -1	109	101	99	309	-3.3
-10 / -6	127	106	111	344	-7.7
-15 / -11	107	87	86	280	-12.4
-20 / -16	79	65	71	215	-17.1
-25 / -21	63	54	56	173	-21.9
-30 / -26	55	43	46	144	-26.9
-35 / -31	47	35	37	118	-31.8
-40 / -36	34	29	29	93	-35.4
-45 / -41	31	22	23	76	-42.1
-50 / -46	18	11	11	40	-45.0
-55 / -51	5	4	3	13	
-60 / -56	2	1	2	5	
-65 / -61		0		0	

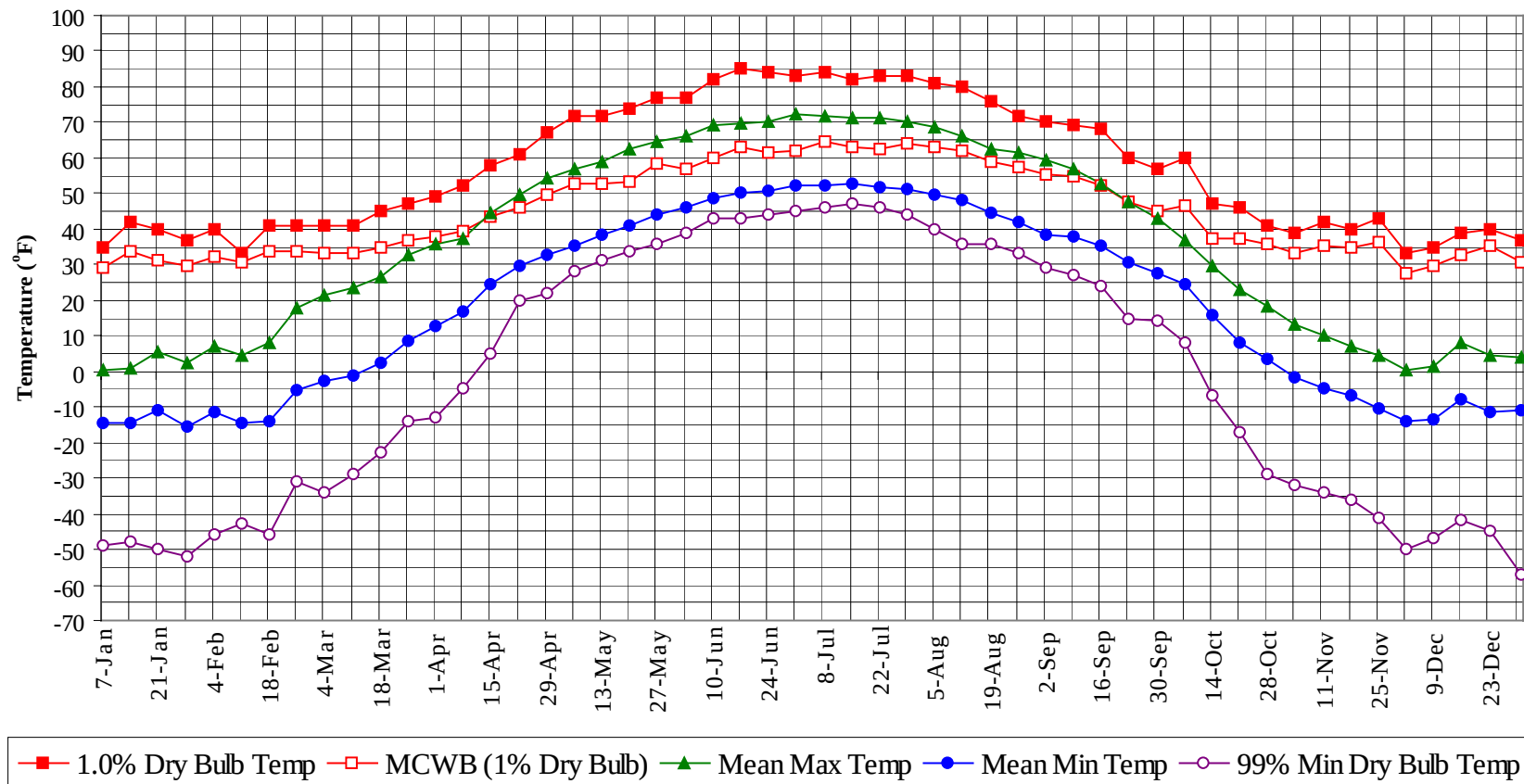
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WMO No. 702650

Annual Summary of Temperatures

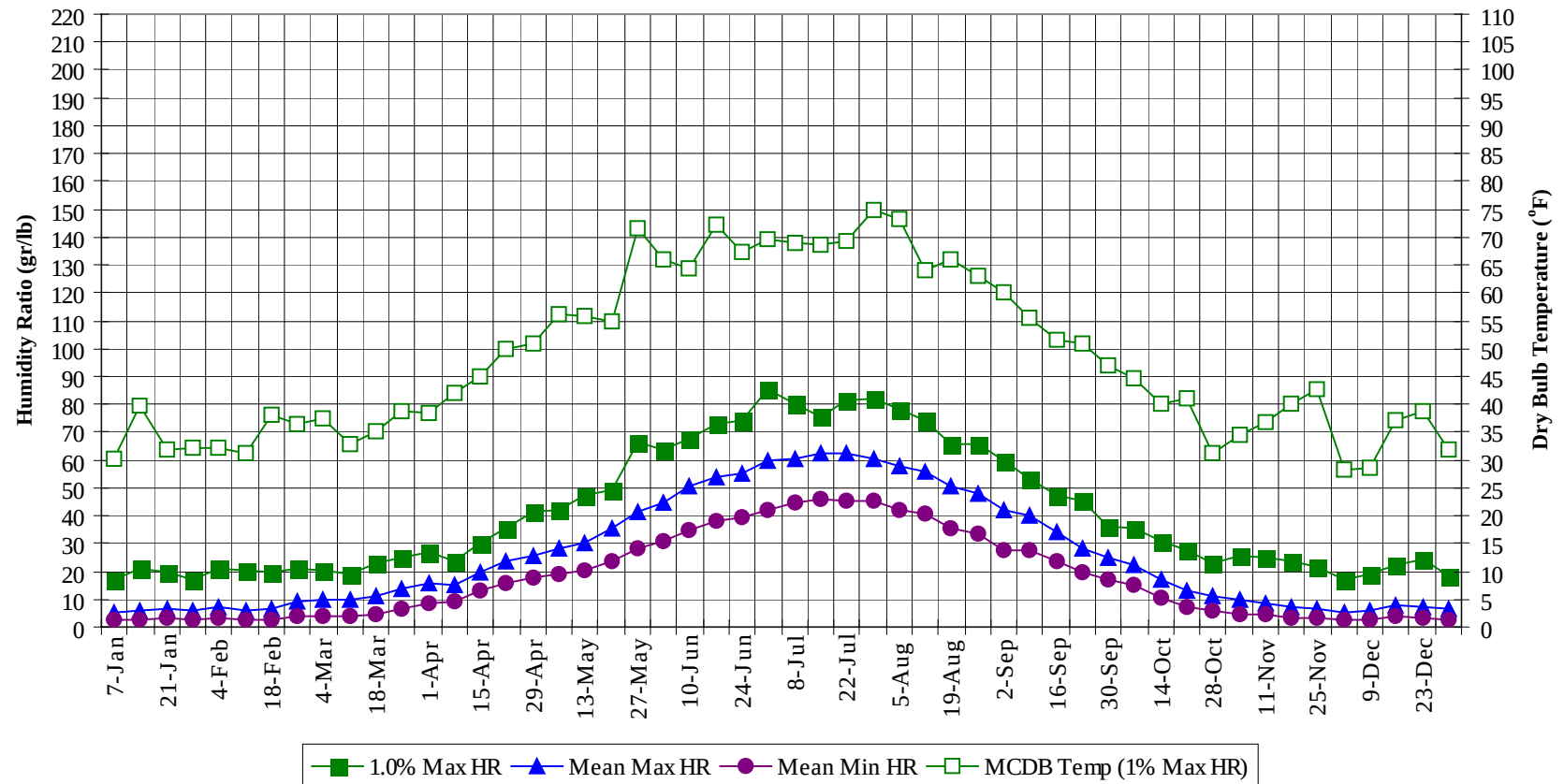


EIELSON AFB

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Long Term Humidity and Dry Bulb Temperature Summary



EIELSON AFB

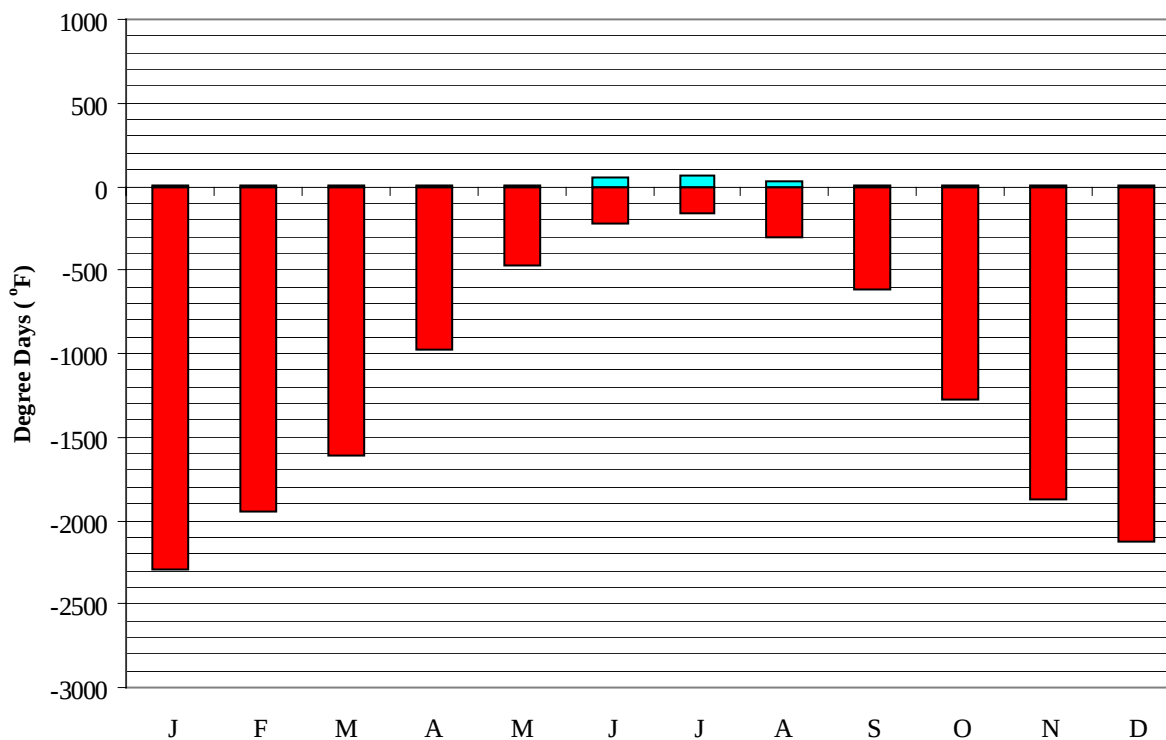
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Long Term Dry Bulb Temperature and Humidity Summary

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	35.0	29.3	0.6	-14.6	-49.0	16.8	30.3	5.3	2.4
14-Jan	42.0	33.7	1.1	-14.8	-48.0	21.0	39.6	5.7	2.6
21-Jan	40.0	31.3	5.7	-10.9	-50.0	19.6	31.9	6.6	3.0
28-Jan	37.0	29.8	2.3	-15.6	-52.0	16.8	32.3	5.8	2.3
4-Feb	40.0	32.4	6.9	-11.2	-46.0	21.0	32.1	7.1	3.1
11-Feb	33.0	30.6	4.4	-14.6	-43.0	20.3	31.3	5.9	2.5
18-Feb	41.0	33.6	8.2	-14.2	-46.0	19.6	38.2	6.8	2.6
25-Feb	41.0	33.6	17.8	-5.1	-31.0	21.0	36.3	9.3	4.0
4-Mar	41.0	33.4	21.7	-2.6	-34.0	20.3	37.5	9.9	4.2
11-Mar	41.0	33.1	23.5	-1.4	-29.0	18.9	32.8	10.1	4.2
18-Mar	45.0	34.9	26.7	2.2	-23.0	23.1	35.2	10.9	4.9
25-Mar	47.0	36.7	32.6	8.3	-14.0	25.2	38.7	13.6	6.8
1-Apr	49.0	38.0	35.9	12.8	-13.0	26.6	38.6	15.7	8.7
8-Apr	52.0	39.4	37.6	16.8	-5.0	23.8	42.0	15.4	9.3
15-Apr	58.0	43.5	44.7	24.4	5.0	30.1	45.1	19.5	13.0
22-Apr	61.0	46.0	49.4	29.6	20.0	35.7	49.9	23.4	15.9
29-Apr	67.0	49.8	54.3	33.0	22.0	41.3	50.9	25.7	17.5
6-May	72.0	52.9	57.0	35.4	28.0	42.0	56.1	28.1	19.3
13-May	72.0	52.5	59.1	38.2	31.0	47.6	55.9	30.4	20.5
20-May	74.0	53.1	62.3	40.8	34.0	49.0	54.7	35.4	23.7
27-May	77.0	58.3	64.6	43.8	36.0	66.5	71.7	41.6	28.4
3-Jun	77.0	56.7	66.3	46.1	39.0	63.7	66.0	44.6	30.5
10-Jun	82.0	60.0	69.3	48.7	43.0	67.9	64.3	50.3	35.1
17-Jun	85.0	63.1	69.9	50.0	43.0	72.8	72.3	53.9	38.3
24-Jun	84.0	61.5	70.3	50.9	44.0	74.2	67.3	54.9	39.4
1-Jul	83.0	61.9	72.1	52.2	45.0	85.4	69.5	59.6	41.9
8-Jul	84.0	64.5	71.5	52.2	46.0	79.8	69.0	60.6	44.9
15-Jul	82.0	63.2	71.3	52.6	47.0	75.6	68.7	62.2	45.8
22-Jul	83.0	62.6	71.0	51.8	46.0	81.2	69.4	62.2	45.3
29-Jul	83.0	64.0	70.0	51.4	44.0	81.9	74.7	60.7	45.3
5-Aug	81.0	63.3	68.6	49.8	40.0	78.4	73.2	57.6	42.3
12-Aug	80.0	62.1	66.0	47.9	36.0	74.2	64.1	55.7	40.6
19-Aug	76.0	58.9	62.8	44.3	36.0	65.8	66.0	50.9	35.8
26-Aug	72.0	57.6	61.4	42.2	33.0	65.8	63.1	48.3	33.4
2-Sep	70.0	55.3	59.3	38.5	29.0	59.5	60.0	42.1	27.8
9-Sep	69.0	55.0	57.0	37.6	27.0	53.2	55.4	39.9	27.6
16-Sep	68.0	52.1	52.8	35.2	24.0	47.6	51.5	33.9	23.5
23-Sep	60.0	47.4	47.5	30.6	15.0	45.5	50.8	28.4	19.5
30-Sep	57.0	44.9	43.2	27.8	14.0	36.4	46.9	25.2	16.9
7-Oct	60.0	46.4	36.6	24.4	8.0	35.7	44.7	22.3	15.1
14-Oct	47.0	37.5	29.5	15.6	-7.0	30.8	39.9	17.0	10.8
21-Oct	46.0	37.4	23.0	8.3	-17.0	27.3	40.9	13.2	7.5
28-Oct	41.0	36.0	18.5	3.4	-29.0	23.1	31.2	11.5	6.2
4-Nov	39.0	33.3	13.1	-1.9	-32.0	25.9	34.6	9.7	4.9
11-Nov	42.0	35.5	10.1	-4.7	-34.0	25.2	36.8	8.8	4.7
18-Nov	40.0	35.0	7.1	-7.0	-36.0	23.8	40.0	7.2	3.4
25-Nov	43.0	36.1	4.3	-10.6	-41.0	21.7	42.6	6.7	3.2
2-Dec	33.0	27.6	0.2	-14.1	-50.0	16.8	28.2	5.5	2.5
9-Dec	35.0	29.6	1.5	-13.6	-47.0	18.9	28.6	5.9	2.7
16-Dec	39.0	32.7	8.0	-8.0	-42.0	22.4	37.3	8.1	3.7
23-Dec	40.0	35.4	4.7	-11.5	-45.0	24.5	38.7	7.0	3.0
31-Dec	37.0	30.8	4.2	-11.1	-57.0	18.2	31.7	6.3	2.8

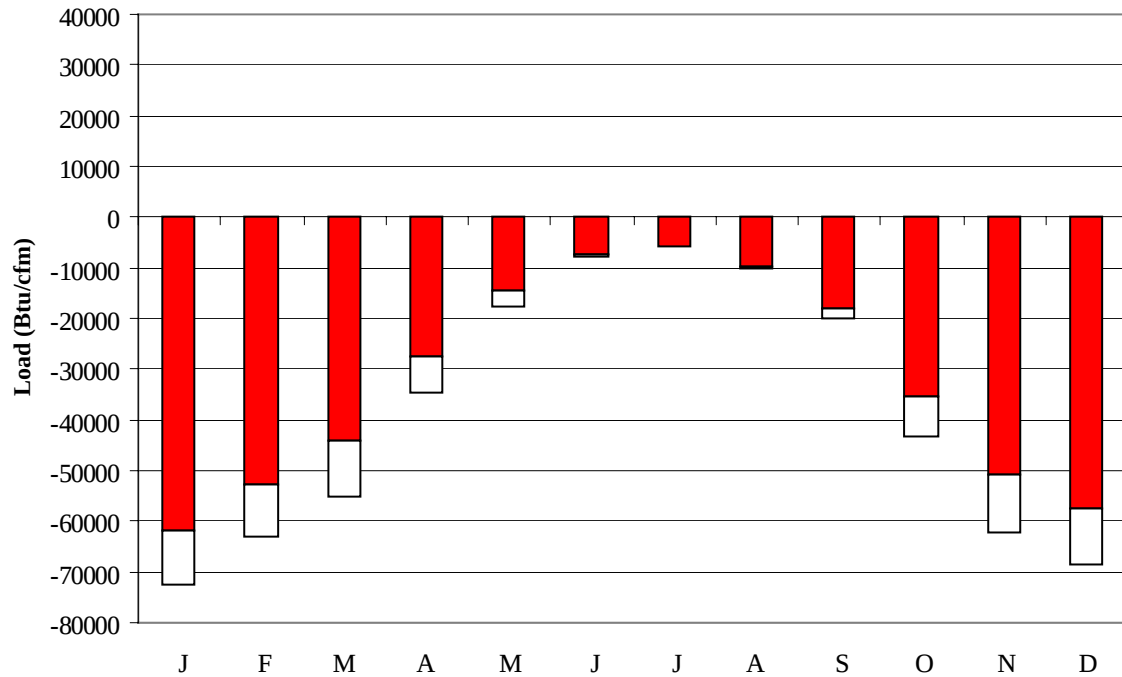
Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	2293
FEB	0	1947
MAR	0	1615
APR	0	971
MAY	9	477
JUN	49	219
JUL	69	161
AUG	29	302
SEP	2	614
OCT	0	1276
NOV	0	1876
DEC	0	2129
ANN	157	13880

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 (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-61852	0	-10686
FEB	0	-52667	0	-10349
MAR	0	-44272	0	-10870
APR	0	-27496	0	-7212
MAY	11	-14648	0	-3103
JUN	195	-7462	6	-286
JUL	268	-5868	36	-24
AUG	89	-9897	7	-235
SEP	0	-18200	0	-1973
OCT	0	-35493	0	-7692
NOV	0	-50965	0	-11118
DEC	0	-57505	0	-10929
ANN	563	-386325	49	-74477

Average Annual Solar Radiation – Nearest Available Site

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

City: FAIRBANKS
 State: AK
 WBAN No: 26411
 Lat(N): 64.82
 Long(W): 147.87
 Elev(ft): 453

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.176
 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	38	240	720	1270	1610	1780	1630	1190	720	300	83	5	800
	Std Dev	4	18	49	94	99	134	122	81	76	23	7	2	26
	Minimum	32	220	570	1030	1430	1490	1300	1020	570	250	73	3	750
	Maximum	44	290	810	1470	1820	2010	1840	1350	920	340	98	6	860
	Diffuse	26	140	360	640	770	900	840	660	400	210	58	3	420
Clear Day	Global	44	260	810	1580	2190	2500	2320	1730	1000	390	79	6	1080
NORTH	Global	16	87	230	410	610	750	650	430	240	120	34	1	300
	Diffuse	16	87	230	390	500	590	540	400	240	120	34	1	260
Clear Day	Global	19	73	180	370	710	1000	840	460	220	100	29	0	340
EAST	Global	46	230	620	970	1190	1210	1090	810	550	240	84	11	590
	Diffuse	20	120	310	520	620	690	630	480	310	150	45	2	330
Clear Day	Global	86	340	830	1380	1720	1870	1770	1440	960	460	130	25	920
SOUTH	Global	240	740	1280	1380	1290	1230	1180	1060	940	590	350	94	860
	Diffuse	60	240	440	600	650	700	660	540	390	240	110	5	390
Clear Day	Global	500	1250	1890	2030	1870	1780	1790	1870	1860	1430	680	240	1430
WEST	Global	47	240	620	950	1080	1180	1090	850	560	250	85	11	580
	Diffuse	21	120	310	520	620	700	650	500	310	150	45	2	330
Clear Day	Global	86	340	830	1380	1720	1870	1770	1440	960	460	130	25	920

Average Annual Solar Heat and Illumination – Nearest Available Site

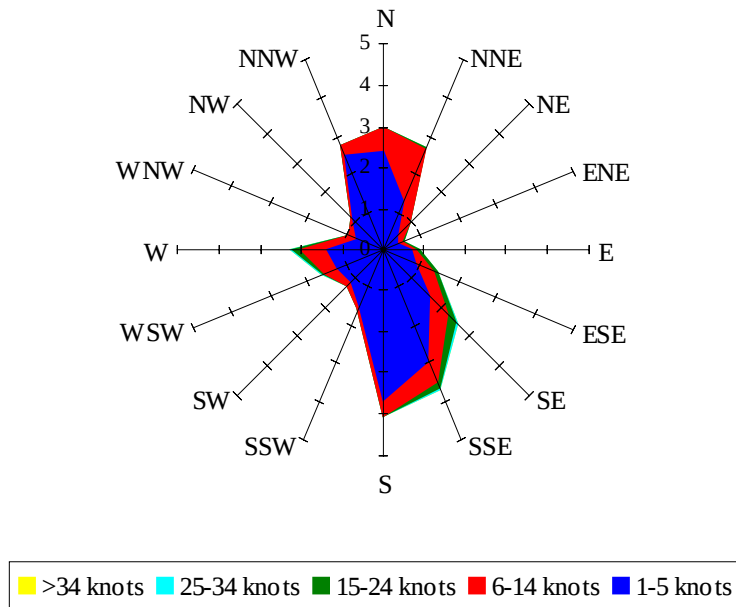
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	19	130	440	860	1120	1250	1140	820	470	180	45	3	540
NORTH	Unshaded	10	60	160	280	410	510	440	290	170	82	24	0	200
	Shaded	10	58	150	270	400	500	430	280	160	79	23	0	200
EAST	Unshaded	27	160	440	700	860	870	780	580	390	170	54	5	420
	Shaded	27	150	430	680	840	850	760	560	380	170	53	5	410
SOUTH	Unshaded	190	570	950	990	900	850	810	750	690	440	270	74	620
	Shaded	190	560	940	970	880	820	790	740	680	440	270	73	610
WEST	Unshaded	28	160	440	680	780	840	780	610	400	170	54	5	410
	Shaded	27	160	430	660	760	820	760	590	390	170	54	5	400

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	29	40	36	20	37	60	73	75	64
	M.Cloudy	8	23	32	29	16	25	41	52	55	46
NORTH	M.Clear	4	8	10	9	7	12	13	15	15	14
	M.Cloudy	4	9	12	11	7	10	14	16	16	15
EAST	M.Clear	34	51	21	9	7	75	75	44	15	14
	M.Cloudy	14	26	17	11	7	34	42	32	16	15
SOUTH	M.Clear	16	60	86	77	38	10	45	72	76	55
	M.Cloudy	8	30	45	40	19	10	28	46	50	36
WEST	M.Clear	4	8	10	40	51	10	13	15	29	65
	M.Cloudy	4	9	12	24	24	10	14	16	24	41
M.Clear	(% hrs)	39	42	41	39	39	25	24	22	19	16

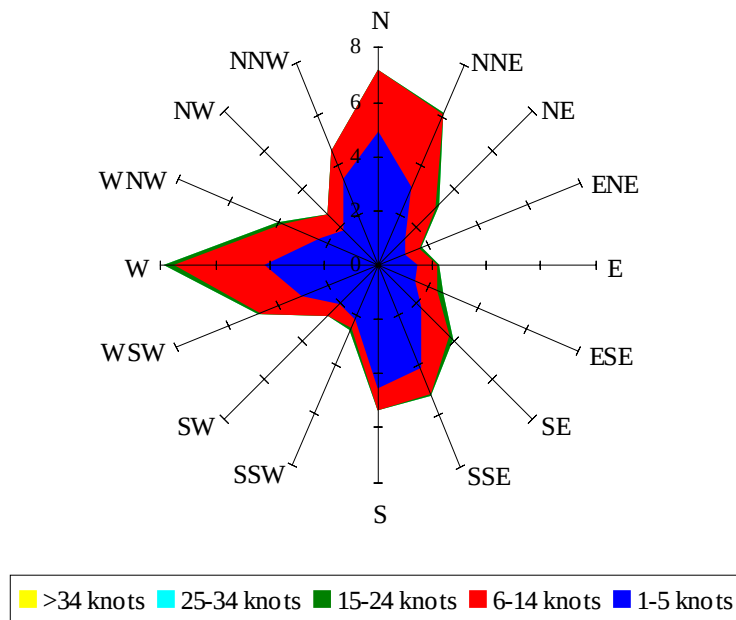
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	8	28	43	46	34	0	0	1	0	0
	M.Cloudy	5	18	27	29	21	0	0	1	0	0
NORTH	M.Clear	4	8	10	11	9	0	0	0	0	0
	M.Cloudy	3	7	10	11	8	0	0	0	0	0
EAST	M.Clear	31	58	37	11	9	0	0	1	0	0
	M.Cloudy	9	21	19	11	8	0	0	0	0	0
SOUTH	M.Clear	7	45	77	81	55	0	0	4	0	0
	M.Cloudy	3	18	32	36	24	0	0	1	0	0
WEST	M.Clear	4	8	10	26	55	0	0	0	0	0
	M.Cloudy	3	7	10	16	24	0	0	0	0	0
M.Clear	(% hrs)	22	23	23	21	22	35	29	27	30	30

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 69.14

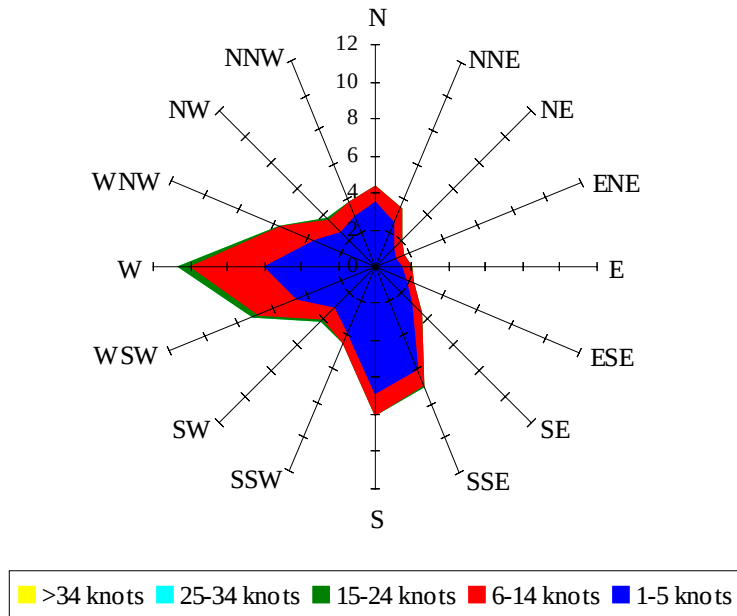
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 34.01

Wind Summary - June, July, and August

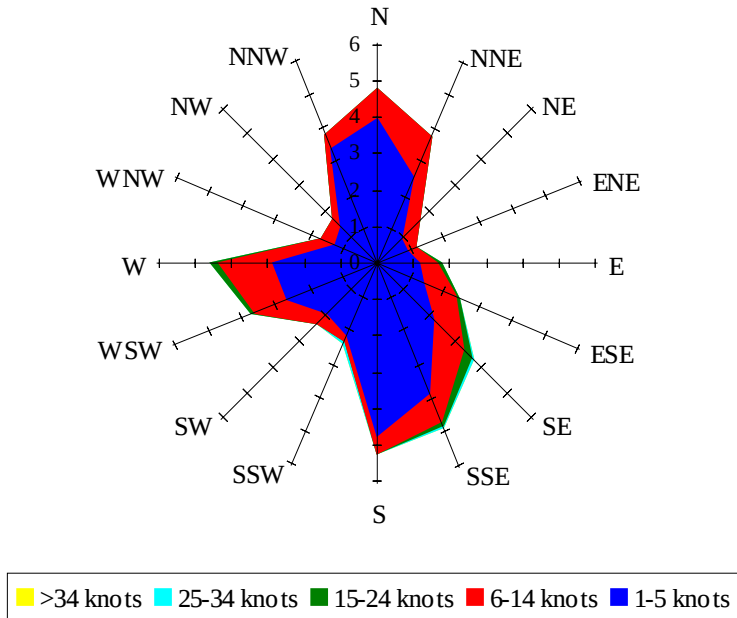
Labels of Percent Frequency on North Axis



Percent Calm = 26.17

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 50.84