

MEDFORD/JACKSON CO. OR

Latitude = 42.37 N

WMO No. 725970

Longitude = 122.80 W

Elevation = 1329 feet

Period of Record = 1973 to 1996

Average Pressure = 28.61 inches Hg

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	104	68	52	8.4	WNW
0.4% Occurrence	99	67	53	8.7	WNW
1.0% Occurrence	95	66	53	8.8	WNW
2.0% Occurrence	92	65	52	8.5	WNW
Mean Daily Range	25	-	-	-	-
97.5% Occurrence	28	27	21	2.4	N
99.0% Occurrence	25	24	18	2.3	SE
99.6% Occurrence	22	21	15	2.5	SE
Median of Extreme Lows	18	17	12	2.7	N
	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	72	98	77	8.8	WNW
0.4% Occurrence	69	94	69	8.1	WNW
1.0% Occurrence	67	91	64	8.0	WNW
2.0% Occurrence	66	89	62	7.8	WNW
	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	94	72	0.60	4.8	WNW
0.4% Occurrence	81	75	0.52	5.3	WNW
1.0% Occurrence	76	74	0.49	5.2	WNW
2.0% Occurrence	73	73	0.47	5.2	WNW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		151	741	2	131

Other Site Data

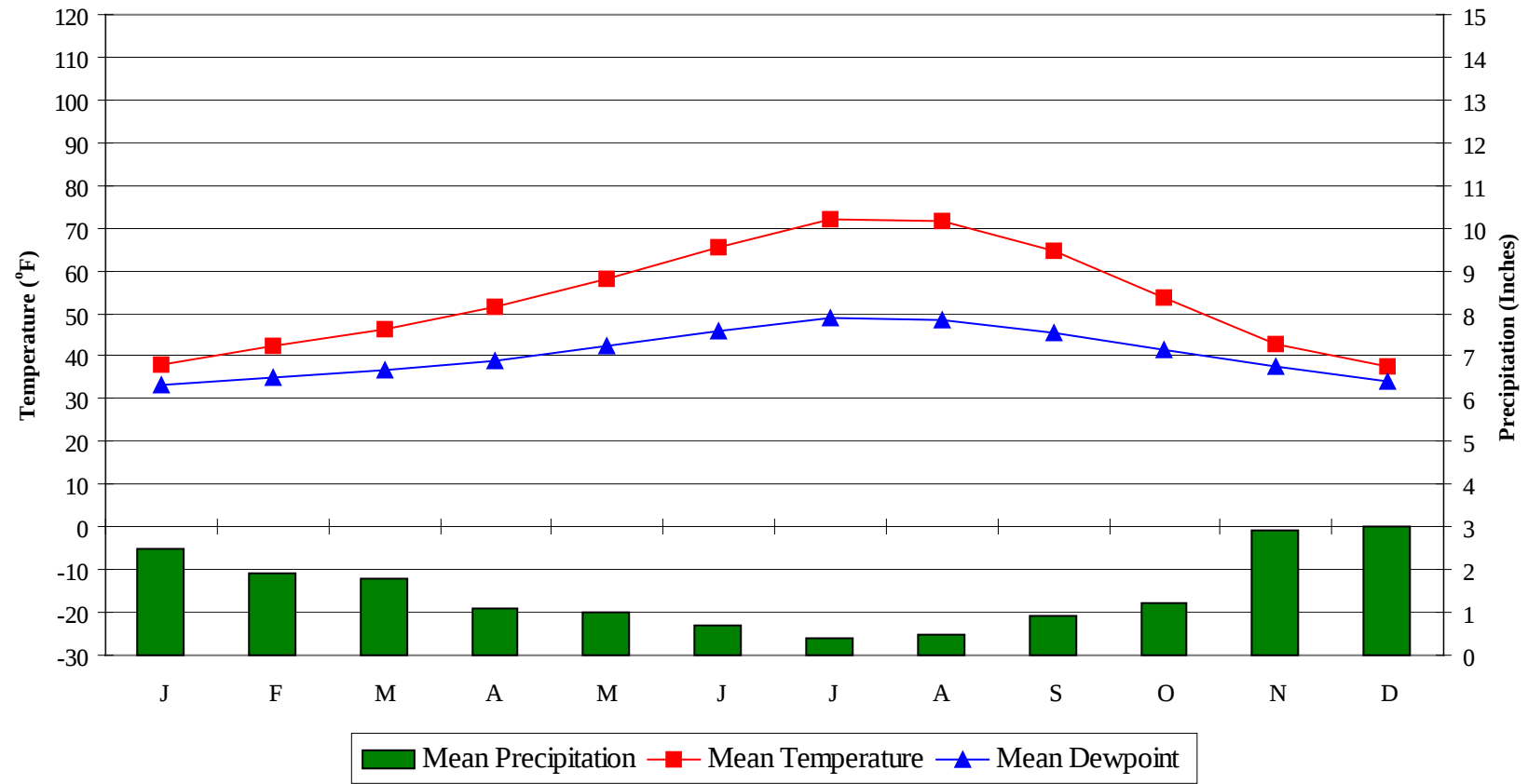
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
7	1.0	N/A	0.0 + 0.9
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
56.3	N/A	6	53

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

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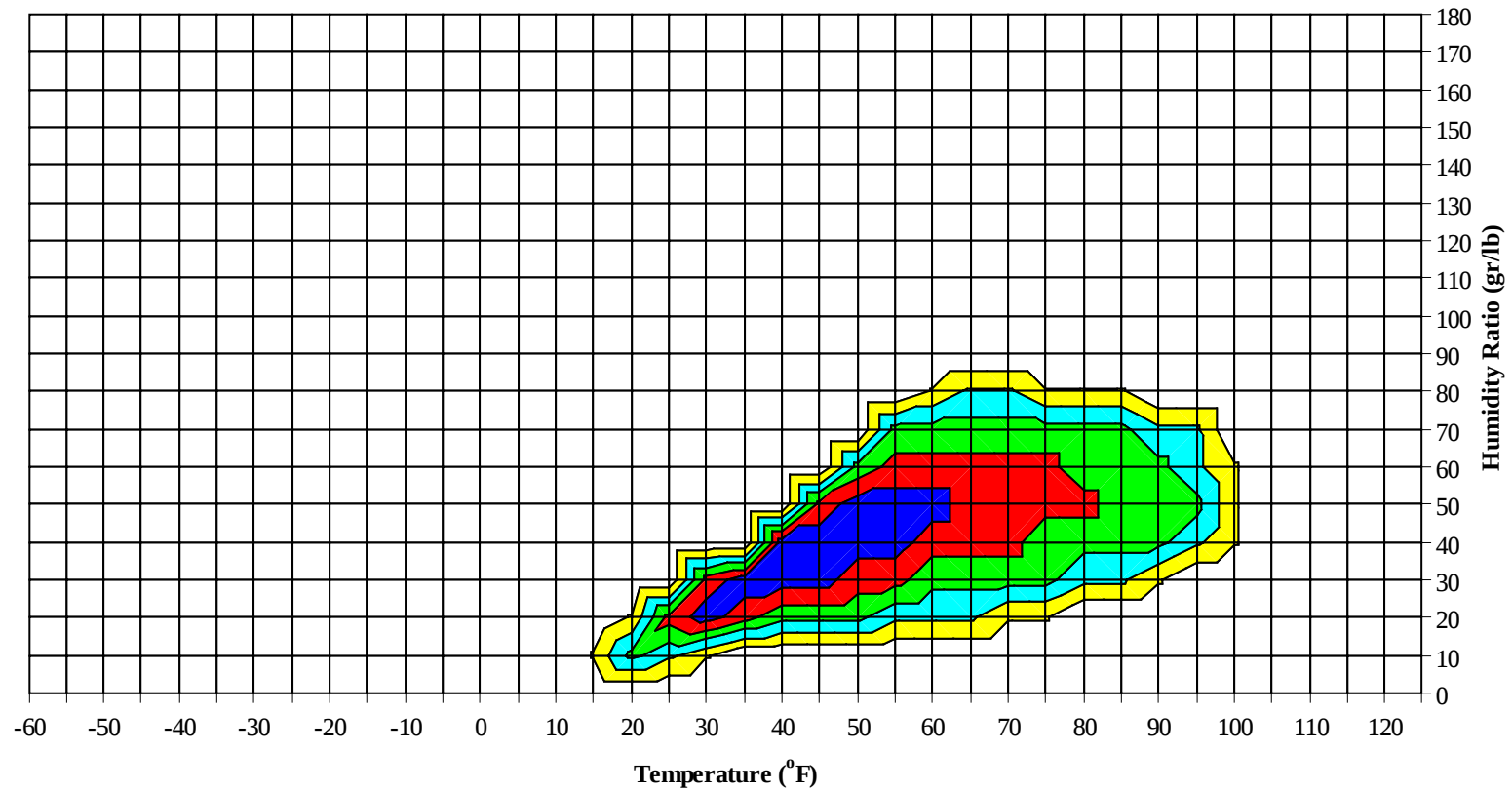
Average Annual Climate



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Long Term Psychrometric Summary

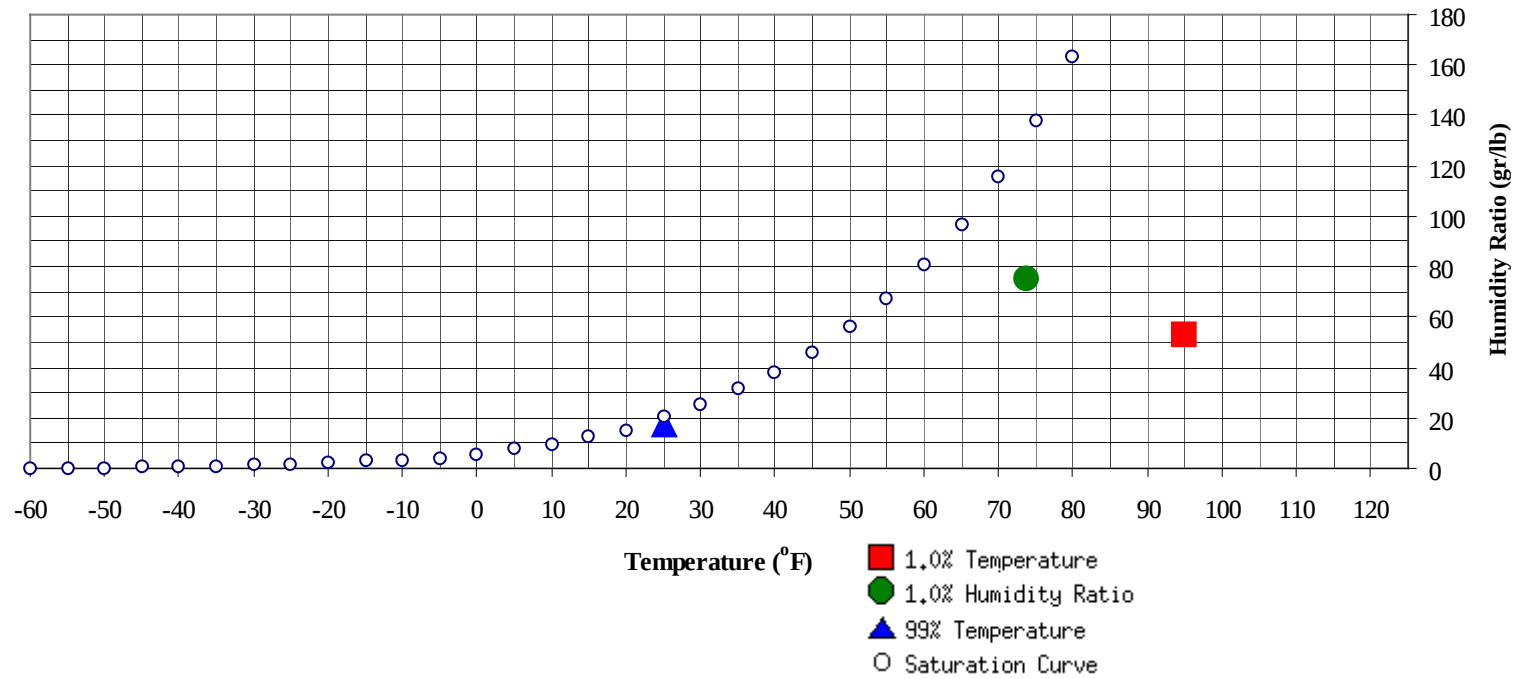


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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Psychrometric Summary of Peak Design Values



99% Dry Bulb	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)	1.0% Humidity Ratio	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
	25	17.7	8.7		75.6	73.7	63.5	57.9	29.5

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	95	52.8	65.9	31.1

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1973 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		
110 / 114															
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84												0	0	0	54.5
75 / 79							0	0	0	58.4		1	1	2	55.8
70 / 74		0		0	53.0		2	0	2	55.1		6	3	9	54.5
65 / 69		0	0	1	51.1		5	2	7	52.5		13	6	19	52.3
60 / 64	0	3	1	5	49.2	1	13	5	19	50.7	0	26	13	39	50.5
55 / 59	3	11	5	18	47.8	2	26	15	43	48.2	1	42	27	70	48.3
50 / 54	6	28	13	47	45.7	7	40	29	76	45.9	11	56	50	117	46.0
45 / 49	12	43	30	86	43.2	23	50	49	121	43.3	43	56	61	159	43.2
40 / 44	36	59	58	153	39.7	46	45	55	145	39.7	68	34	53	155	39.6
35 / 39	59	53	67	180	35.8	54	24	39	118	35.5	68	12	29	109	35.4
30 / 34	68	37	55	160	31.2	51	15	22	88	31.1	47	2	6	55	31.2
25 / 29	40	10	16	65	26.5	30	4	5	40	26.4	9	0	1	10	26.8
20 / 24	19	2	3	24	21.7	9	0	1	10	21.3	0			0	23.0
15 / 19	5	0	0	5	17.0	2	0	0	2	15.7					
10 / 14	1			1	12.6	1	0		1	10.9					
5 / 9															
0 / 4															
-5 / -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.

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Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1973 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		
110 / 114															
105 / 109												0	0	0	69.5
100 / 104												1	0	1	68.8
95 / 99							1	0	2	67.6		5	2	7	66.5
90 / 94		0		0	64.0		4	2	6	65.3		15	7	23	65.0
85 / 89		1	0	2	62.4		8	4	12	63.1		24	12	36	63.2
80 / 84		4	3	7	59.9		15	8	23	61.1	0	30	17	48	61.3
75 / 79		11	5	16	57.5	0	23	11	35	58.7	1	36	23	60	59.4
70 / 74		17	8	25	55.3	0	35	19	54	56.4	5	41	31	77	57.5
65 / 69	0	25	15	40	53.1	3	40	26	70	54.1	15	38	39	93	55.6
60 / 64	1	36	23	59	51.1	11	46	38	95	52.4	39	30	43	112	53.8
55 / 59	8	48	36	92	48.6	31	41	46	119	49.9	66	14	37	117	51.2
50 / 54	32	52	51	135	46.4	61	26	50	136	47.1	66	4	21	91	47.9
45 / 49	59	34	50	143	43.3	70	8	30	108	43.8	37	0	6	43	44.4
40 / 44	67	12	34	113	39.6	49	1	12	62	40.0	10	0	0	10	40.5
35 / 39	50	1	12	64	35.6	19	0	1	20	35.8	1			1	36.1
30 / 34	20	0	1	21	31.2	2			2	31.7					
25 / 29	2			2	27.1										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1973 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		
110 / 114						0	0	0	72.0						
105 / 109		1	0	1	68.3	1	0	2	69.7		0	0	0	70.4	
100 / 104		9	4	13	68.4	7	3	10	67.7		2	0	2	65.7	
95 / 99		19	10	29	67.0	18	8	26	66.2		7	3	10	64.4	
90 / 94		30	17	47	65.4	28	15	43	64.7		17	7	24	63.0	
85 / 89	0	37	22	60	63.7	36	21	58	63.2	0	25	11	35	61.7	
80 / 84	0	45	30	75	62.1	0	44	27	71	61.9	0	33	15	48	60.4
75 / 79	4	40	35	79	60.6	2	38	34	75	60.5	0	31	21	52	59.0
70 / 74	15	34	43	93	59.0	12	36	43	91	58.8	1	37	31	68	57.3
65 / 69	40	19	41	100	57.2	33	26	44	103	57.2	5	34	36	75	55.6
60 / 64	73	10	30	113	55.0	72	11	36	119	55.2	27	29	47	103	53.9
55 / 59	68	3	13	84	52.1	77	2	15	94	52.2	64	17	41	122	51.7
50 / 54	35	0	4	38	48.6	41	0	2	43	48.6	76	7	23	106	48.4
45 / 49	11		0	11	45.3	9		0	9	44.7	47	1	6	53	44.5
40 / 44	2		0	2	41.4	0			0	42.2	17	0	0	18	40.5
35 / 39	0			0	38.0						4		0	4	36.4
30 / 34											0			0	33.0
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															

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MEDFORD/JACKSON CO. OR

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

Period of Record = 1973 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		
110 / 114															
105 / 109															
100 / 104															
95 / 99		0	0	0	64.0										
90 / 94		2	0	3	61.9										
85 / 89		5	1	6	60.9										
80 / 84		11	3	13	59.5										
75 / 79		18	6	24	57.5										
70 / 74		28	11	39	55.7		1		1	58.9					
65 / 69	0	34	17	51	53.9		3	1	4	53.0		1		1	52.5
60 / 64	2	38	30	71	52.1	1	12	3	15	51.7	0	2	1	2	51.2
55 / 59	13	41	46	100	50.4	3	23	11	37	50.3	1	7	4	12	48.4
50 / 54	44	39	56	139	47.8	11	50	28	89	47.5	7	22	9	38	46.4
45 / 49	64	20	46	130	44.4	40	56	56	152	44.3	19	47	29	95	43.9
40 / 44	67	9	25	101	40.5	51	48	64	163	40.3	40	61	57	158	40.1
35 / 39	42	2	5	50	36.1	60	31	48	139	36.0	60	55	67	182	36.0
30 / 34	13	0	0	14	31.7	48	12	25	85	31.6	60	38	54	152	31.5
25 / 29	2			2	26.4	17	2	6	25	26.7	37	14	24	75	26.8
20 / 24	0			0	22.0	6	0	1	8	21.3	19	3	3	25	22.2
15 / 19						2		0	2	16.3	1	0	1	3	16.3
10 / 14						1			1	11.8	1	0	0	1	11.6
5 / 9											0	0	0	1	7.5
0 / 4											1	0		1	1.8
-5 / -1											0			0	-2.5

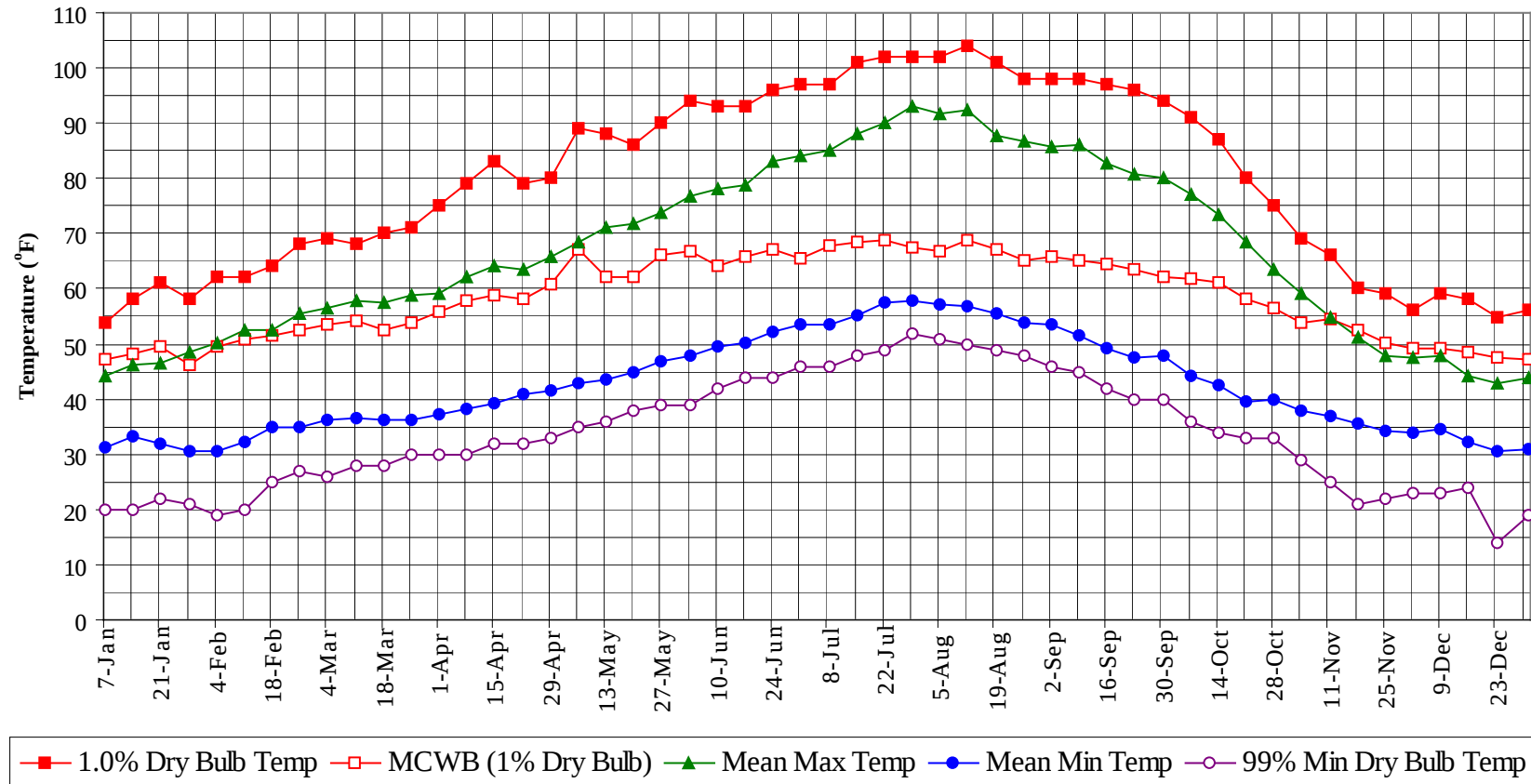
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

MEDFORD/JACKSON CO. OR WMO No. 725970
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1973 to 1996

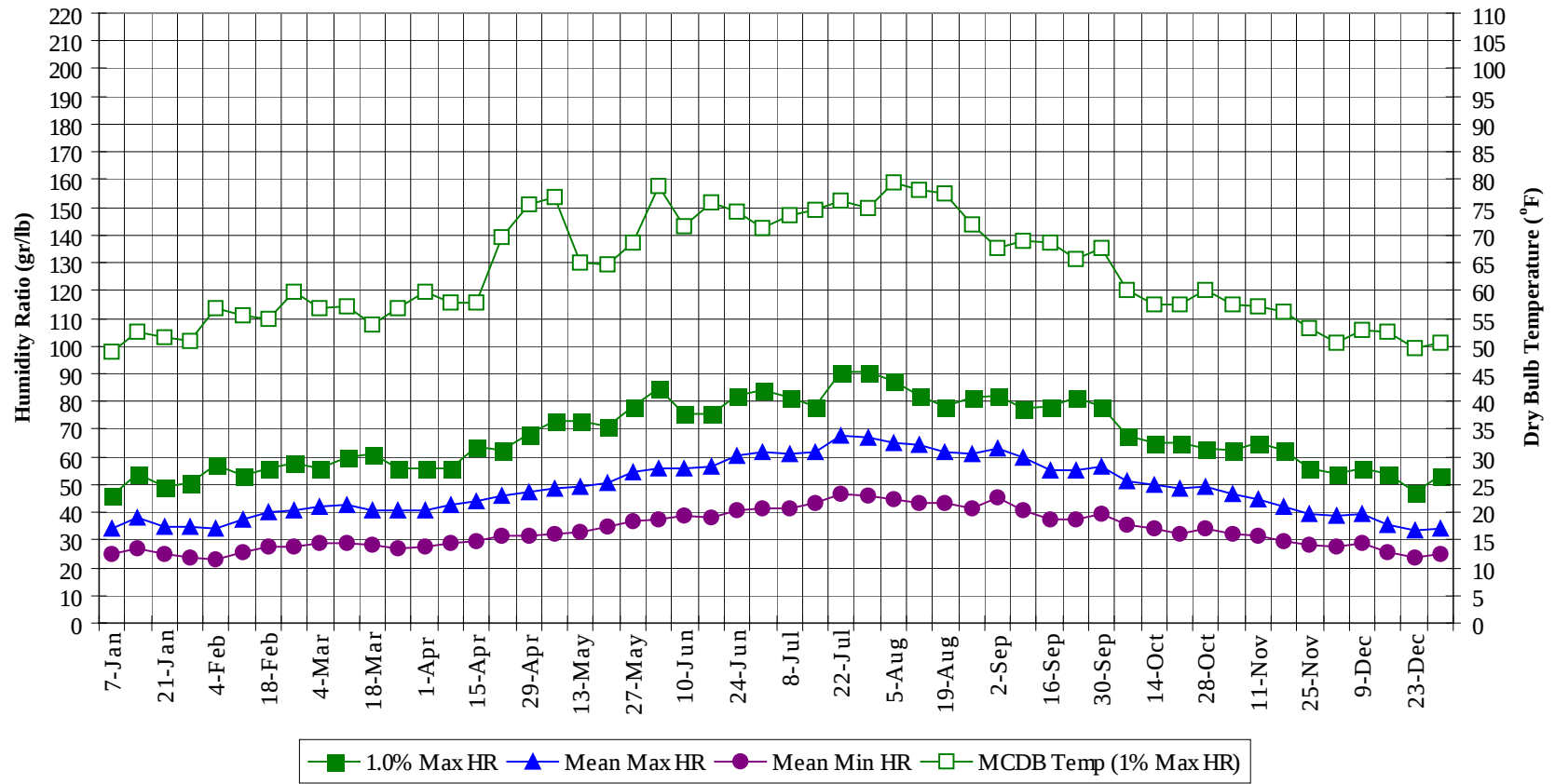
Temperature Range (°F)	Annual Totals				
	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
110 / 114		0	0	0	72.0
105 / 109		3	1	4	69.3
100 / 104		19	8	27	67.9
95 / 99		50	24	74	66.3
90 / 94		97	48	145	64.7
85 / 89	0	136	72	209	63.0
80 / 84	1	181	103	285	61.4
75 / 79	7	199	136	342	59.5
70 / 74	33	237	189	459	57.6
65 / 69	98	239	226	563	55.5
60 / 64	228	254	267	749	53.3
55 / 59	337	274	295	907	50.4
50 / 54	394	325	334	1053	47.2
45 / 49	431	316	363	1110	43.8
40 / 44	453	270	359	1083	39.9
35 / 39	418	180	270	868	35.8
30 / 34	312	104	165	580	31.3
25 / 29	138	30	52	220	26.6
20 / 24	53	6	8	67	21.8
15 / 19	10	1	1	12	16.5
10 / 14	3	0	0	3	11.7
5 / 9	0	0	0	1	7.5
0 / 4	1	0		1	1.8
-5 / -1	0			0	-2.5

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



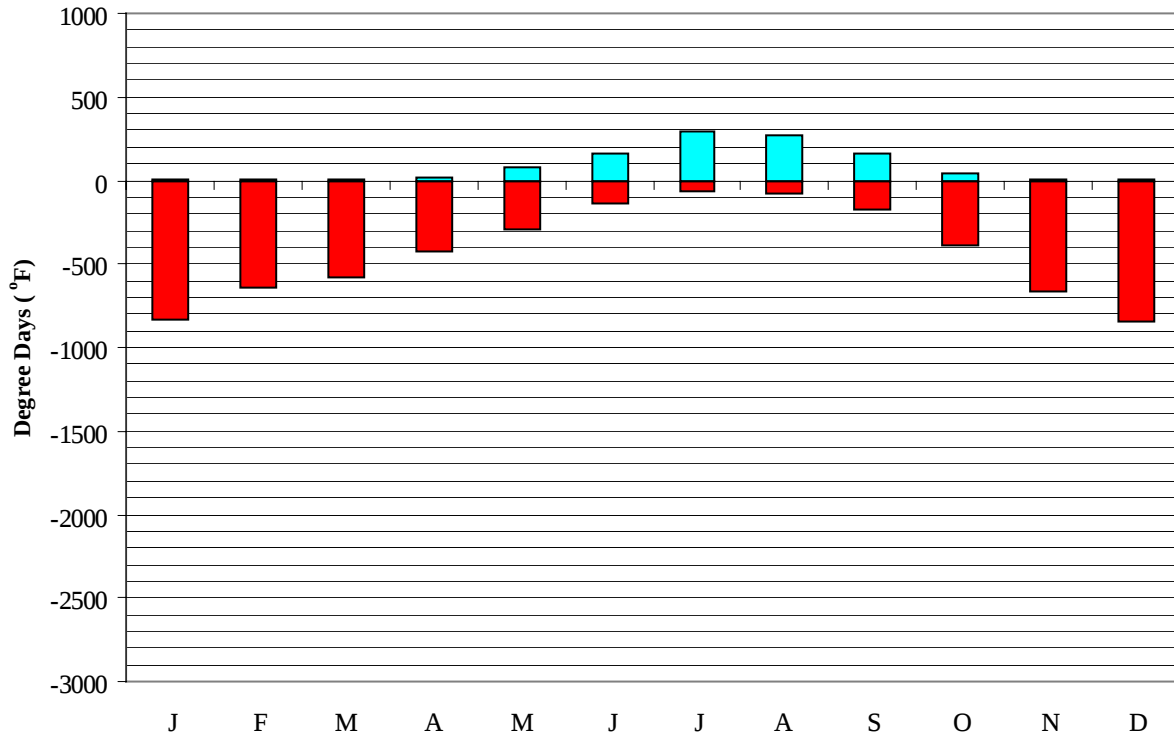
MEDFORD/JACKSON CO. OR

WMO No. 725970

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	54.0	47.1	44.2	31.4	20.0	46.2	48.8	33.8	24.7
14-Jan	58.0	48.2	46.3	33.1	20.0	53.9	52.4	38.0	27.2
21-Jan	61.0	49.6	46.4	31.8	22.0	49.0	51.5	34.8	24.9
28-Jan	58.0	46.3	48.5	30.7	21.0	50.4	51.0	35.0	23.6
4-Feb	62.0	49.5	50.3	30.4	19.0	57.4	56.8	34.5	22.8
11-Feb	62.0	50.7	52.6	32.3	20.0	53.2	55.5	37.6	25.4
18-Feb	64.0	51.6	52.6	34.9	25.0	56.0	54.7	40.4	27.6
25-Feb	68.0	52.6	55.6	34.8	27.0	58.1	59.9	40.7	27.7
4-Mar	69.0	53.6	56.4	36.2	26.0	56.0	56.8	41.8	28.7
11-Mar	68.0	54.3	57.9	36.4	28.0	59.5	57.1	42.9	29.0
18-Mar	70.0	52.6	57.5	36.4	28.0	60.9	53.9	40.8	28.0
25-Mar	71.0	53.9	58.8	36.3	30.0	56.0	56.8	40.7	26.9
1-Apr	75.0	56.0	59.3	37.1	30.0	56.0	59.7	40.7	27.7
8-Apr	79.0	57.9	62.2	38.1	30.0	56.0	57.8	42.5	28.7
15-Apr	83.0	58.8	64.2	39.3	32.0	63.7	58.0	43.8	29.5
22-Apr	79.0	58.3	63.4	40.9	32.0	62.3	69.6	45.7	31.5
29-Apr	80.0	60.7	65.8	41.4	33.0	68.6	75.6	47.2	31.5
6-May	89.0	67.0	68.4	42.8	35.0	72.8	77.0	48.7	32.4
13-May	88.0	62.2	71.0	43.4	36.0	72.8	64.9	49.4	32.6
20-May	86.0	62.1	71.9	44.9	38.0	70.7	64.6	50.9	34.7
27-May	90.0	66.0	73.8	46.8	39.0	78.4	68.7	54.2	36.9
3-Jun	94.0	66.7	76.8	47.8	39.0	84.7	78.9	56.0	37.2
10-Jun	93.0	64.2	78.1	49.5	42.0	75.6	71.4	56.0	38.7
17-Jun	93.0	65.7	78.7	50.3	44.0	75.6	76.0	56.6	38.3
24-Jun	96.0	67.0	83.2	52.0	44.0	81.9	74.1	60.4	40.7
1-Jul	97.0	65.5	84.2	53.5	46.0	84.0	71.2	61.7	41.5
8-Jul	97.0	67.9	84.9	53.5	46.0	81.2	73.4	60.8	41.3
15-Jul	101.0	68.4	88.2	55.1	48.0	78.4	74.5	61.8	43.3
22-Jul	102.0	68.8	90.2	57.3	49.0	90.3	76.3	67.5	46.5
29-Jul	102.0	67.5	92.9	57.9	52.0	90.3	74.8	67.1	46.1
5-Aug	102.0	66.8	91.8	57.2	51.0	87.5	79.4	64.9	44.4
12-Aug	104.0	68.7	92.4	57.0	50.0	81.9	78.0	64.4	43.7
19-Aug	101.0	67.1	87.7	55.6	49.0	78.4	77.7	62.0	43.2
26-Aug	98.0	65.0	86.9	54.0	48.0	81.2	71.9	61.4	41.6
2-Sep	98.0	65.8	85.7	53.4	46.0	81.9	67.8	63.2	45.0
9-Sep	98.0	65.2	86.1	51.6	45.0	77.7	68.8	59.5	40.7
16-Sep	97.0	64.4	82.7	49.3	42.0	78.4	68.5	55.5	37.8
23-Sep	96.0	63.5	80.7	47.4	40.0	81.2	65.7	55.5	37.4
30-Sep	94.0	62.2	80.0	47.9	40.0	78.4	67.7	56.2	39.3
7-Oct	91.0	61.9	77.0	44.2	36.0	67.9	60.0	51.4	35.3
14-Oct	87.0	61.3	73.5	42.5	34.0	65.1	57.4	50.2	34.3
21-Oct	80.0	58.2	68.5	39.6	33.0	65.1	57.3	48.7	32.3
28-Oct	75.0	56.5	63.4	40.0	33.0	63.0	60.2	49.4	33.9
4-Nov	69.0	53.8	59.1	38.0	29.0	62.3	57.6	46.4	32.1
11-Nov	66.0	54.6	55.0	37.0	25.0	65.1	57.3	44.5	31.3
18-Nov	60.0	52.4	51.2	35.4	21.0	62.3	56.1	41.9	29.7
25-Nov	59.0	50.2	47.8	34.4	22.0	56.0	53.2	39.5	28.4
2-Dec	56.0	49.1	47.4	33.9	23.0	53.9	50.5	39.0	27.9
9-Dec	59.0	49.2	47.8	34.6	23.0	56.0	53.0	39.6	28.9
16-Dec	58.0	48.6	44.1	32.2	24.0	53.9	52.5	35.6	25.9
23-Dec	55.0	47.4	42.9	30.5	14.0	47.6	49.6	33.4	23.9
31-Dec	56.0	47.3	43.9	31.0	19.0	53.2	50.7	34.1	24.7

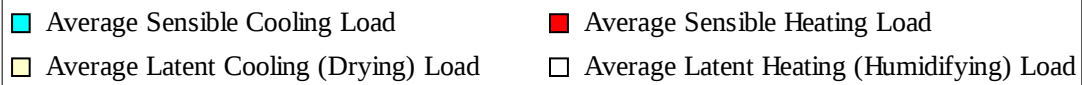
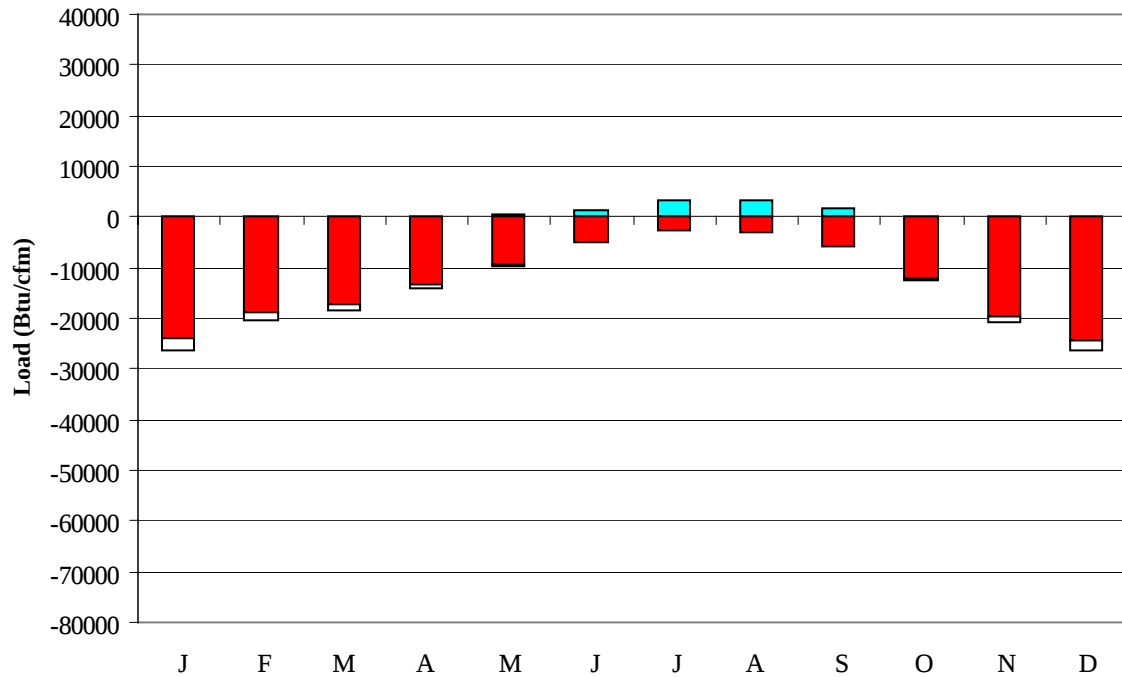
Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	830
FEB	1	638
MAR	5	578
APR	23	430
MAY	72	289
JUN	159	140
JUL	292	69
AUG	273	73
SEP	158	168
OCT	45	388
NOV	0	669
DEC	0	842
ANN	1027	5114

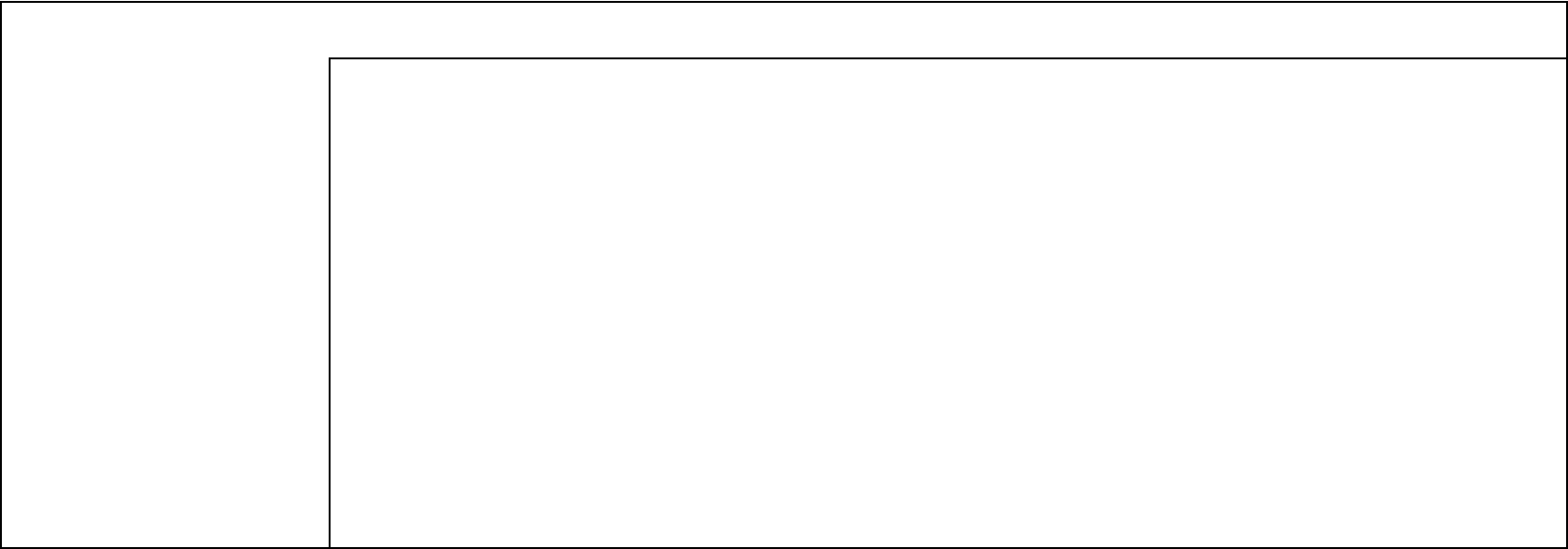
Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



	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	-23915	0	-2256
FEB	1	-18710	0	-1627
MAR	2	-17328	0	-1141
APR	96	-13265	0	-708
MAY	517	-9349	5	-281
JUN	1481	-4975	11	-82
JUL	3368	-2713	55	-30
AUG	3093	-2877	16	-29
SEP	1592	-5766	7	-136
OCT	271	-12104	0	-368
NOV	0	-19671	0	-1121
DEC	0	-24223	0	-2009
ANN	10421	-154896	94	-9788

Average Annual Solar Radiation – Nearest Available Site
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

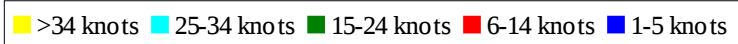
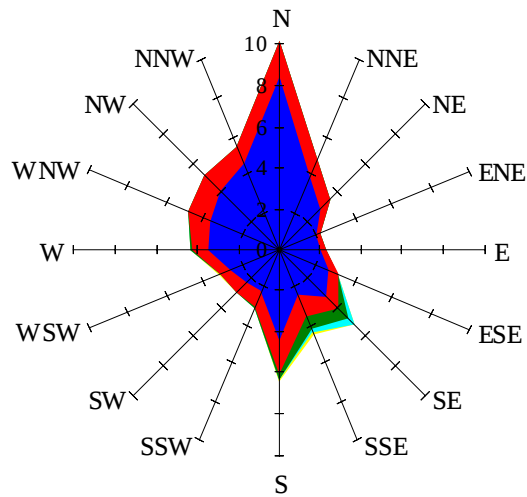


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

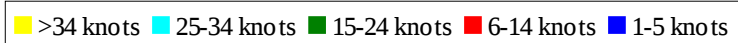
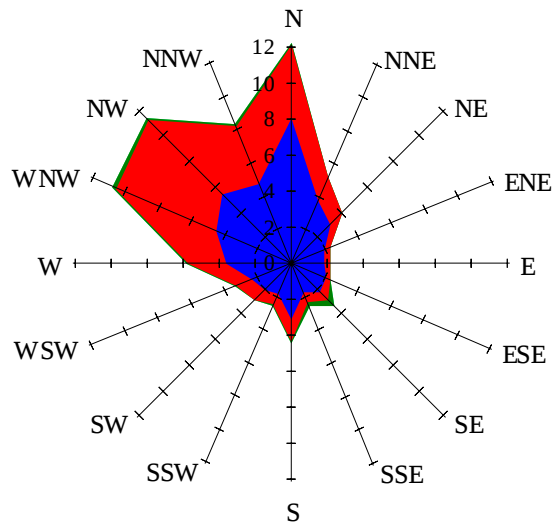
Labels of Percent Frequency on North Axis



Percent Calm = 30.30

Wind Summary - March, April, and May

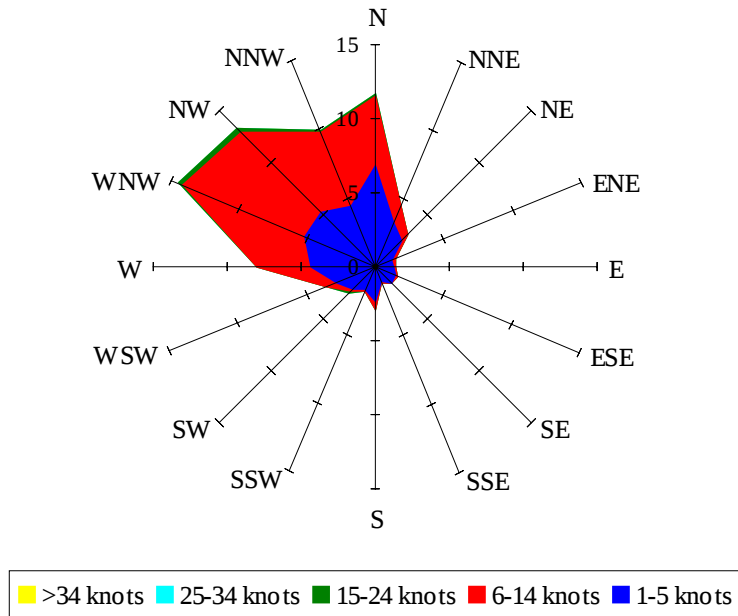
Labels of Percent Frequency on North Axis



Percent Calm = 17.63

Wind Summary - June, July, and August

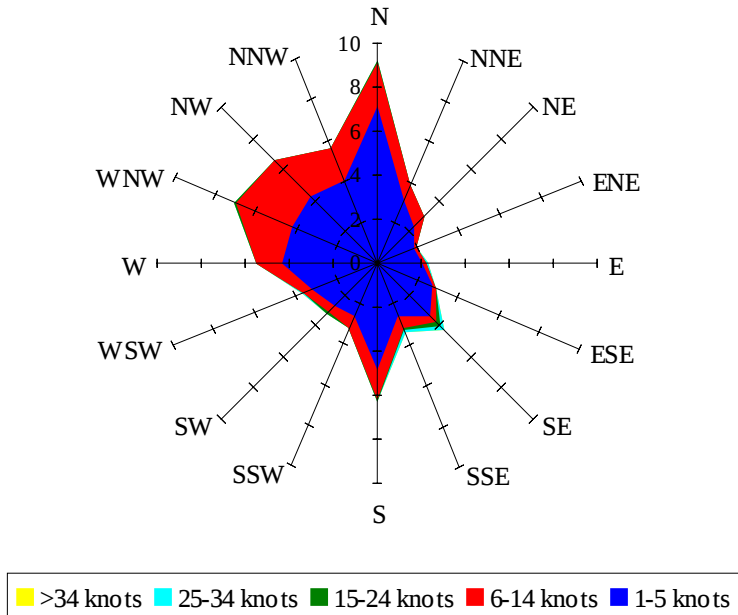
Labels of Percent Frequency on North Axis



Percent Calm = 17.77

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 28.90