

HANFORD WA

Latitude = 46.57 N

WMO No. 727840

Longitude = 119.60 W

Elevation = 732 feet

Period of Record = 1973 to 1996

Average Pressure = 29.19 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	105	69	51	8.2	S
0.4% Occurrence	100	67	48	7.6	N
1.0% Occurrence	97	66	46	7.9	N
2.0% Occurrence	93	64	45	7.9	N
Mean Daily Range	19	-	-	-	-
97.5% Occurrence	20	19	13	4.8	NW
99.0% Occurrence	12	11	8	5.6	WNW
99.6% Occurrence	4	3	5	5.8	NNE
Median of Extreme Lows	5	4	5	5.3	NW
	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	70	100	62	8.1	NNW
0.4% Occurrence	68	96	57	7.9	N
1.0% Occurrence	67	94	56	7.8	N
2.0% Occurrence	65	90	53	7.9	N
	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	88	81	0.57	6.9	NNE
0.4% Occurrence	74	71	0.48	7.5	NW
1.0% Occurrence	68	73	0.45	7.8	NW
2.0% Occurrence	63	74	0.42	7.8	NW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		209	942	1	91

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	85	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 (#)
56.6	N/A	N/A	43

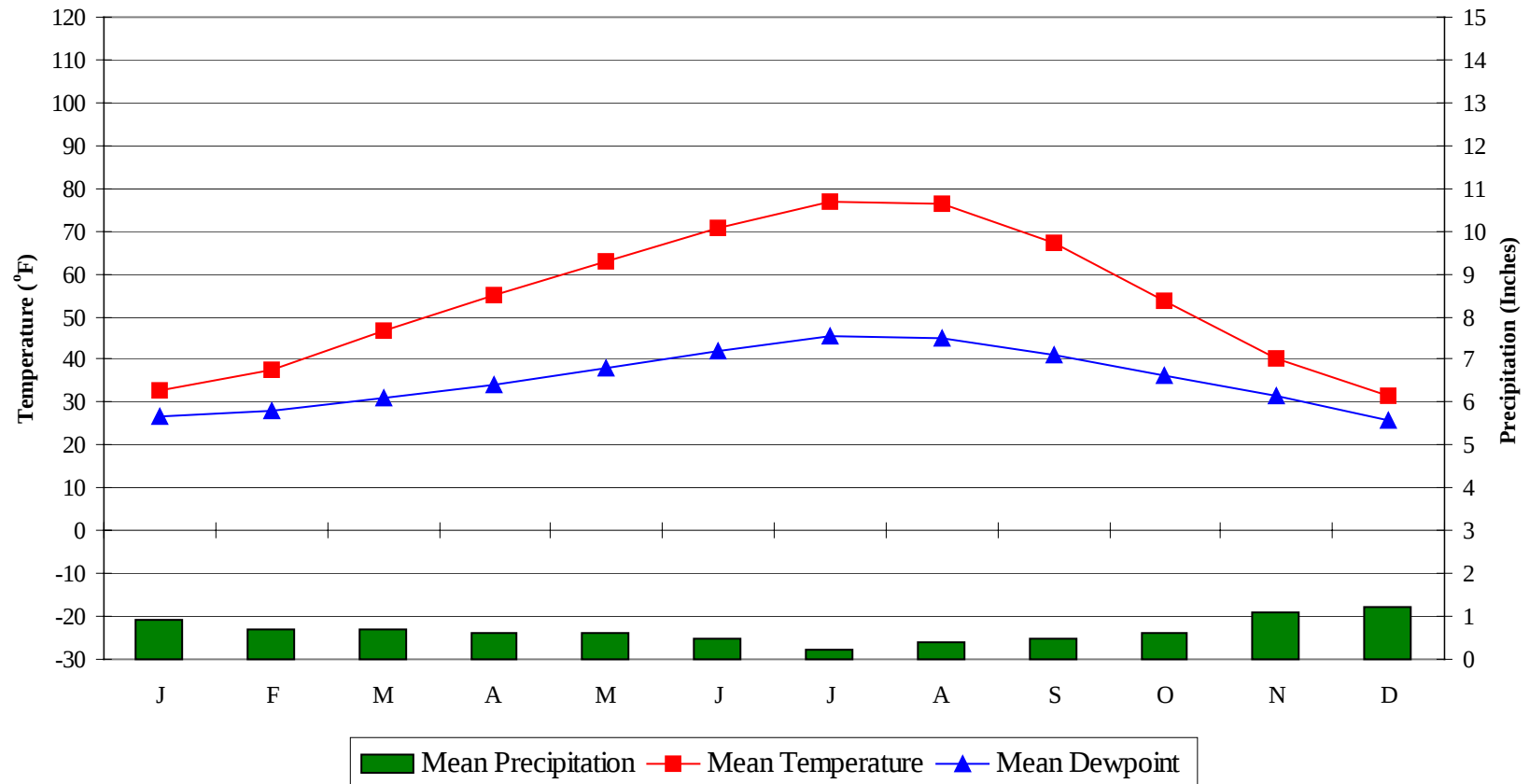
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

HANFORD

WA

WMO No. 727840

Average Annual Climate

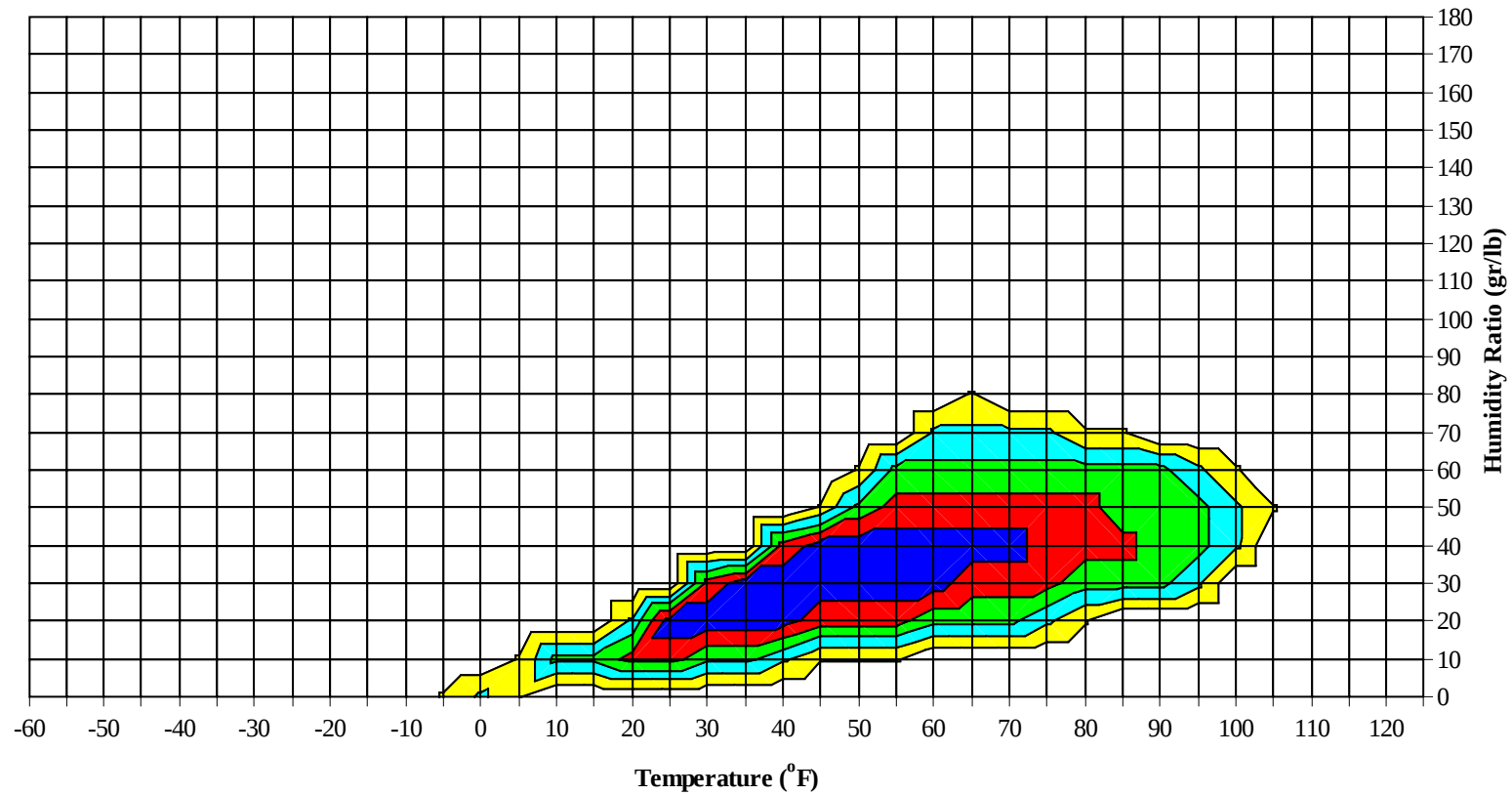


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WA

WMO No. 727840

Long Term Psychrometric Summary



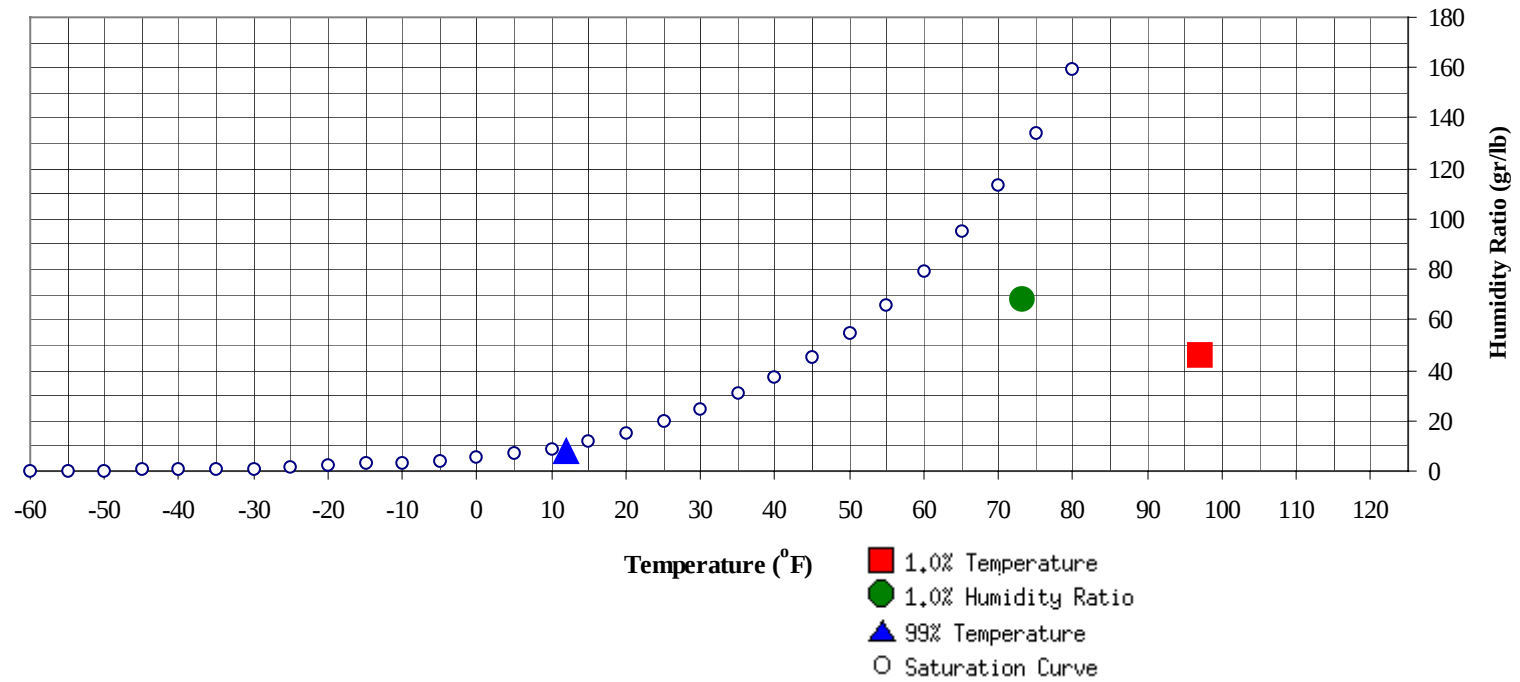
- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

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WA

WMO No. 727840

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)
	12	7.9	4.1		67.9	73.1	62.1	55.7	28.2

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	97	45.9	65.6	30.5

HANFORD

WA

WMO No. 727840

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															
75 / 79												1	0	1	53.3
70 / 74							0	0	0	56.4		5	1	6	52.4
65 / 69		0		0	53.8		2	0	2	53.0		11	3	14	51.1
60 / 64		1	0	1	51.4	2	7	3	12	51.3	1	33	10	44	48.6
55 / 59	1	6	3	11	47.6	2	16	5	23	46.8	5	56	23	85	45.9
50 / 54	6	14	6	26	44.1	5	35	13	53	43.6	14	63	49	127	43.3
45 / 49	7	22	14	43	40.9	14	45	31	90	41.1	42	46	63	151	40.8
40 / 44	19	38	26	82	38.1	30	33	48	111	38.2	63	18	54	135	37.5
35 / 39	42	53	59	153	34.7	50	33	45	128	34.4	67	8	29	104	33.6
30 / 34	73	50	63	185	30.7	55	27	36	119	29.9	39	4	12	54	29.6
25 / 29	42	31	34	107	25.7	32	15	21	68	25.2	10	2	2	14	24.9
20 / 24	31	17	22	70	21.0	12	6	9	26	20.4	4	1	2	7	20.6
15 / 19	15	9	12	35	16.3	10	2	4	16	16.1	2	0	0	2	17.2
10 / 14	8	6	5	19	11.4	4	2	3	9	11.3	0			0	12.0
5 / 9	3	1	3	7	6.5	2	1	1	4	6.3					
0 / 4	1	1	1	3	0.9	3	2	2	7	1.2					
-5 / -1	1	0	0	1	-3.5	1	0	1	2	-3.0					
-10 / -6	0	0	0	0	-7.8	0	0	1	1	-7.7					
-15 / -11	0		0	0	-12.5	0		0	0	-11.4					
-20 / -16	0			0	-16.2	0			0	-16.3					

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.

HANFORD

WA

WMO No. 727840

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												0	0	0	70.5
105 / 109												1	0	1	69.5
100 / 104							1	0	1	70.1		3	2	5	67.9
95 / 99							3	1	4	66.4		8	3	11	65.5
90 / 94		0	0	0	64.7		8	3	12	63.1	1	21	11	33	63.5
85 / 89		1	0	1	62.2	0	13	6	19	60.9	1	28	13	42	61.5
80 / 84		5	1	6	59.2	1	22	9	32	58.7	4	42	23	69	59.5
75 / 79	0	14	5	19	56.7	3	31	16	51	56.8	11	47	31	89	57.6
70 / 74	1	25	10	36	53.6	9	45	26	80	54.3	27	45	41	112	55.6
65 / 69	2	39	16	57	51.5	17	49	33	100	52.3	42	26	40	108	53.8
60 / 64	10	58	33	101	49.0	39	47	48	134	50.4	54	14	41	108	51.7
55 / 59	28	58	48	133	46.5	50	22	53	126	48.1	54	5	25	83	49.3
50 / 54	51	32	59	142	44.3	64	6	36	105	45.3	36	1	11	48	46.3
45 / 49	61	8	45	114	41.0	38	0	14	52	41.2	9	0	1	10	42.4
40 / 44	51	1	20	72	37.2	19	0	2	22	37.4	1		0	1	38.5
35 / 39	28	0	3	31	33.6	6		0	6	34.0	0			0	35.0
30 / 34	7	0	0	7	29.4	1			1	29.4					
25 / 29	1	0		1	25.6										
20 / 24		0		0	23.0										
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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HANFORD

WA

WMO No. 727840

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	72.5										
105 / 109		4	1	5	70.1		2	1	3	69.8		0		0	70.0
100 / 104		14	5	19	67.1		11	4	15	67.5		1	0	1	66.6
95 / 99		28	12	40	65.5		24	10	33	65.8		4	1	5	64.6
90 / 94	1	39	17	57	63.8	0	39	17	56	63.8		16	5	22	63.0
85 / 89	4	39	25	68	62.5	2	45	22	70	62.3	0	29	8	37	61.4
80 / 84	15	49	35	100	60.7	11	53	35	99	60.5	1	38	14	53	59.5
75 / 79	27	38	45	110	58.8	26	40	46	111	58.9	3	45	24	71	57.5
70 / 74	49	24	42	115	57.2	47	25	49	120	57.1	14	45	39	99	55.4
65 / 69	54	9	38	101	55.3	58	6	38	102	55.2	31	31	45	107	53.7
60 / 64	59	3	20	83	53.0	60	3	21	84	53.1	53	20	49	122	51.4
55 / 59	27	1	6	34	50.5	32	1	4	37	50.0	55	8	34	97	48.9
50 / 54	10		1	11	46.3	9		1	10	46.6	49	2	17	68	46.1
45 / 49	1		0	1	43.3	3			3	43.8	26	1	4	31	42.4
40 / 44						0			0	41.7	7		0	7	38.8
35 / 39											1		0	1	34.6
30 / 34											0			0	32.0
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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HANFORD

WA

WMO No. 727840

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												0		0	
95 / 99												0		0	
90 / 94												0		0	
85 / 89		1		1	61.0							0		0	
80 / 84		8	1	9	59.5							0		0	
75 / 79	0	14	2	16	57.5							0		0	
70 / 74	1	25	7	33	54.7		1		1	57.1		0		0	
65 / 69	4	40	16	60	52.2	0	3	0	3	54.7		0		0	52.0
60 / 64	12	56	31	99	50.1	3	11	4	18	51.9	0	1	0	1	49.9
55 / 59	21	46	45	111	47.8	6	21	10	37	48.5	1	4	2	7	47.9
50 / 54	49	33	58	140	45.1	10	46	17	73	44.6	3	14	4	21	44.2
45 / 49	58	18	49	124	41.8	25	51	42	119	42.0	8	19	12	39	41.0
40 / 44	53	5	25	83	38.3	48	40	52	140	38.9	16	28	20	64	37.9
35 / 39	35	2	8	45	34.3	57	28	50	136	34.7	34	45	36	114	34.9
30 / 34	11	1	4	17	29.9	43	22	35	100	30.2	71	69	75	215	30.7
25 / 29	3	0	1	4	25.6	23	8	13	44	25.9	51	35	45	131	26.1
20 / 24	1	0	0	1	21.3	10	4	5	19	20.7	37	20	32	89	21.3
15 / 19	0			0	17.0	5	2	3	10	16.0	16	7	12	35	16.7
10 / 14						2	3	4	9	10.7	4	4	4	12	11.2
5 / 9						4	1	2	7	6.8	2	3	2	7	5.7
0 / 4						1	0	1	2	2.3	3	1	3	7	1.4
-5 / -1						1	0	1	2	-2.3	1	0	1	2	-3.0
-10 / -6						0		0	0	-7.2	1		0	1	-7.4
-15 / -11								0	0	-10.0	0		0	0	-10.2
-20 / -16															

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HANFORD

WA

WMO No. 727840

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)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
110 / 114		0	0	0	71.5
105 / 109		6	2	8	69.9
100 / 104		28	11	39	67.4
95 / 99		66	26	92	65.6
90 / 94	1	123	52	176	63.6
85 / 89	7	155	71	233	61.9
80 / 84	31	214	115	359	60.0
75 / 79	68	227	165	459	58.0
70 / 74	146	236	210	592	55.8
65 / 69	207	215	224	645	53.5
60 / 64	288	250	257	796	51.0
55 / 59	279	241	258	778	47.9
50 / 54	306	245	273	824	44.7
45 / 49	294	213	275	782	41.4
40 / 44	309	167	252	728	38.1
35 / 39	322	172	233	727	34.4
30 / 34	304	177	232	712	30.4
25 / 29	164	93	120	377	25.8
20 / 24	98	47	71	216	21.0
15 / 19	48	21	32	101	16.4
10 / 14	20	14	17	50	11.2
5 / 9	11	7	11	29	6.3
0 / 4	8	4	9	20	1.4
-5 / -1	4	1	3	8	-2.9
-10 / -6	2	0	1	3	-7.6
-15 / -11	1		1	2	-11.5
-20 / -16	1			1	-16.2

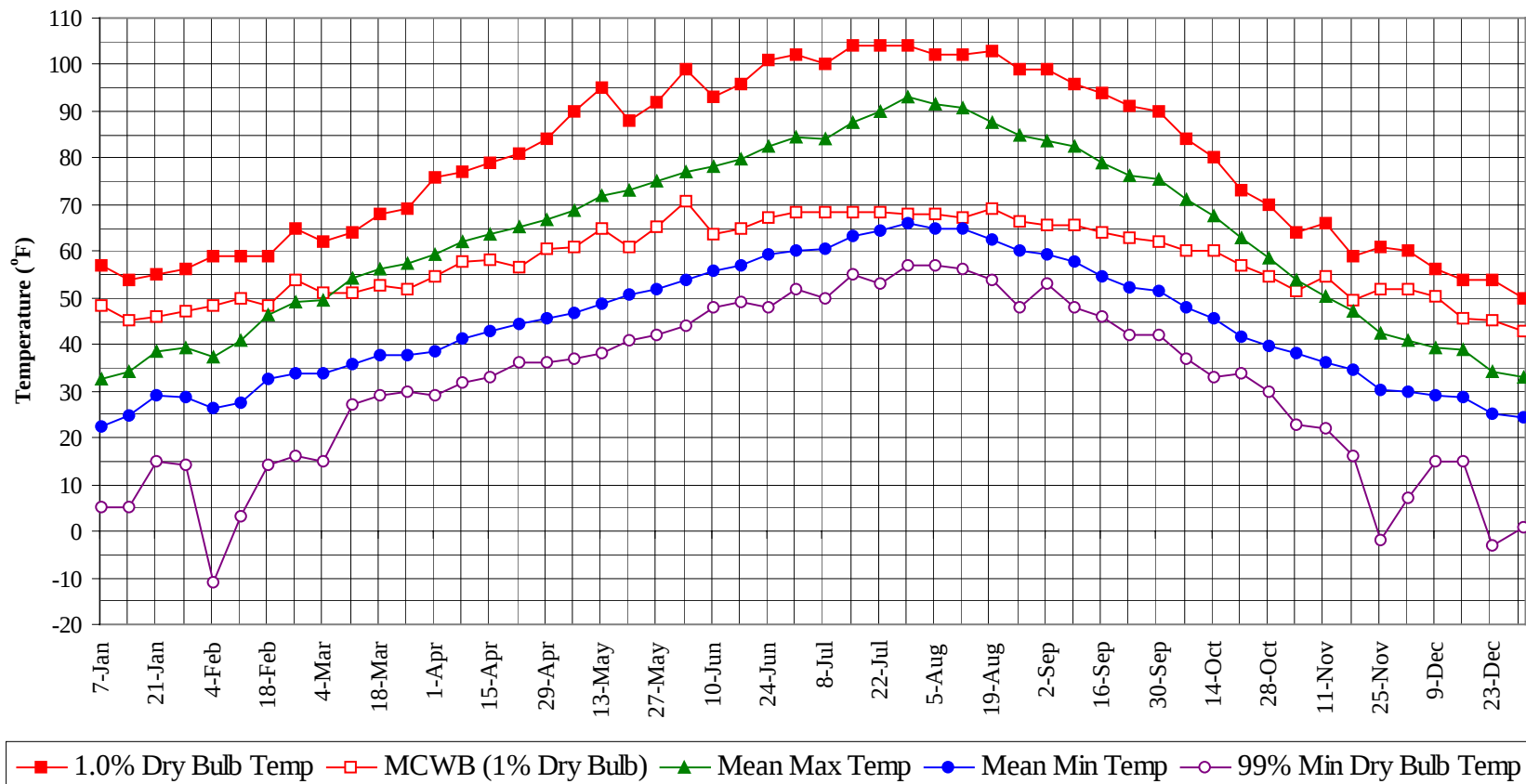
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WA

WMO No. 727840

Annual Summary of Temperatures

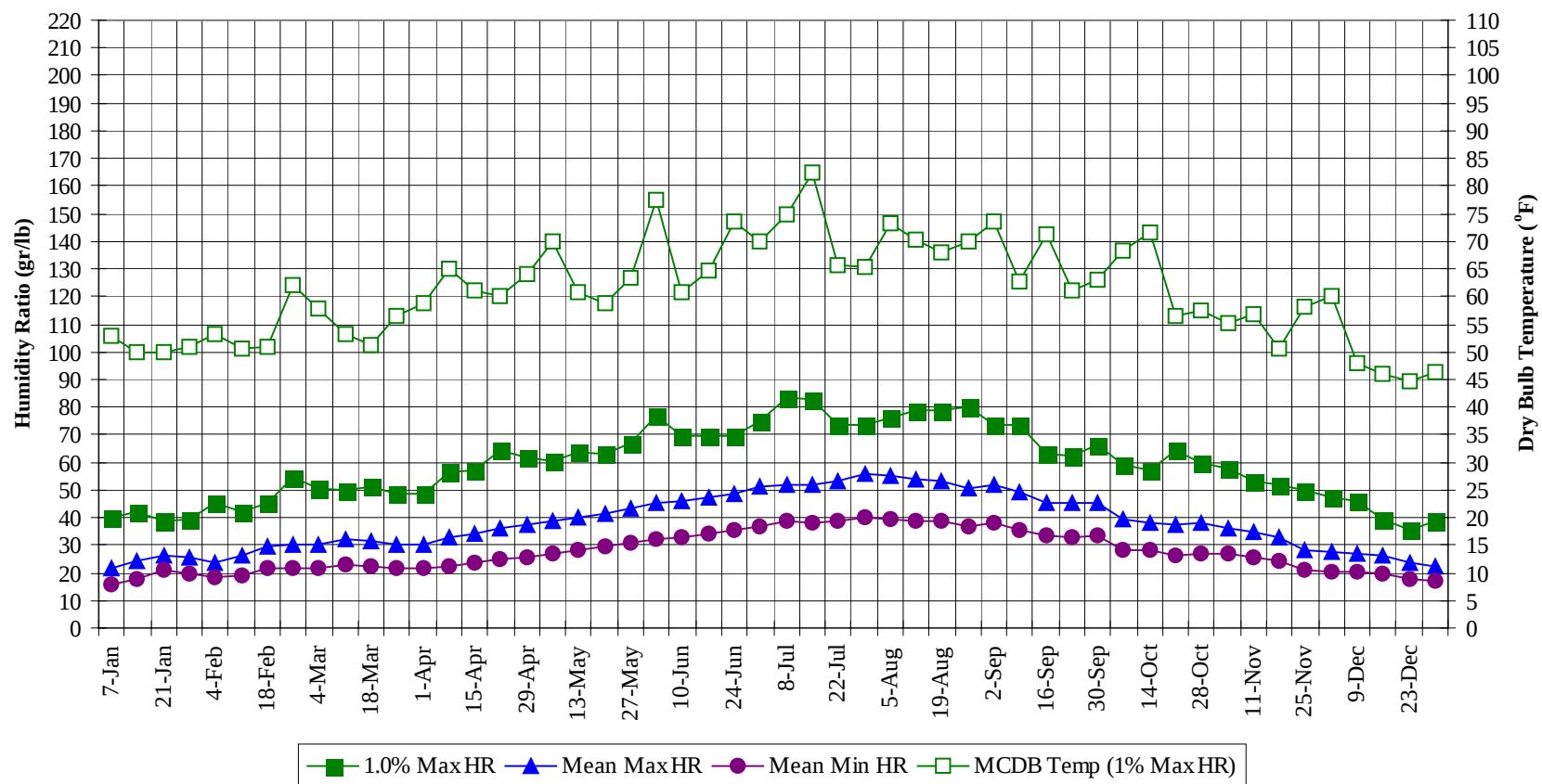


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WA

WMO No. 727840

Long Term Humidity and Dry Bulb Temperature Summary



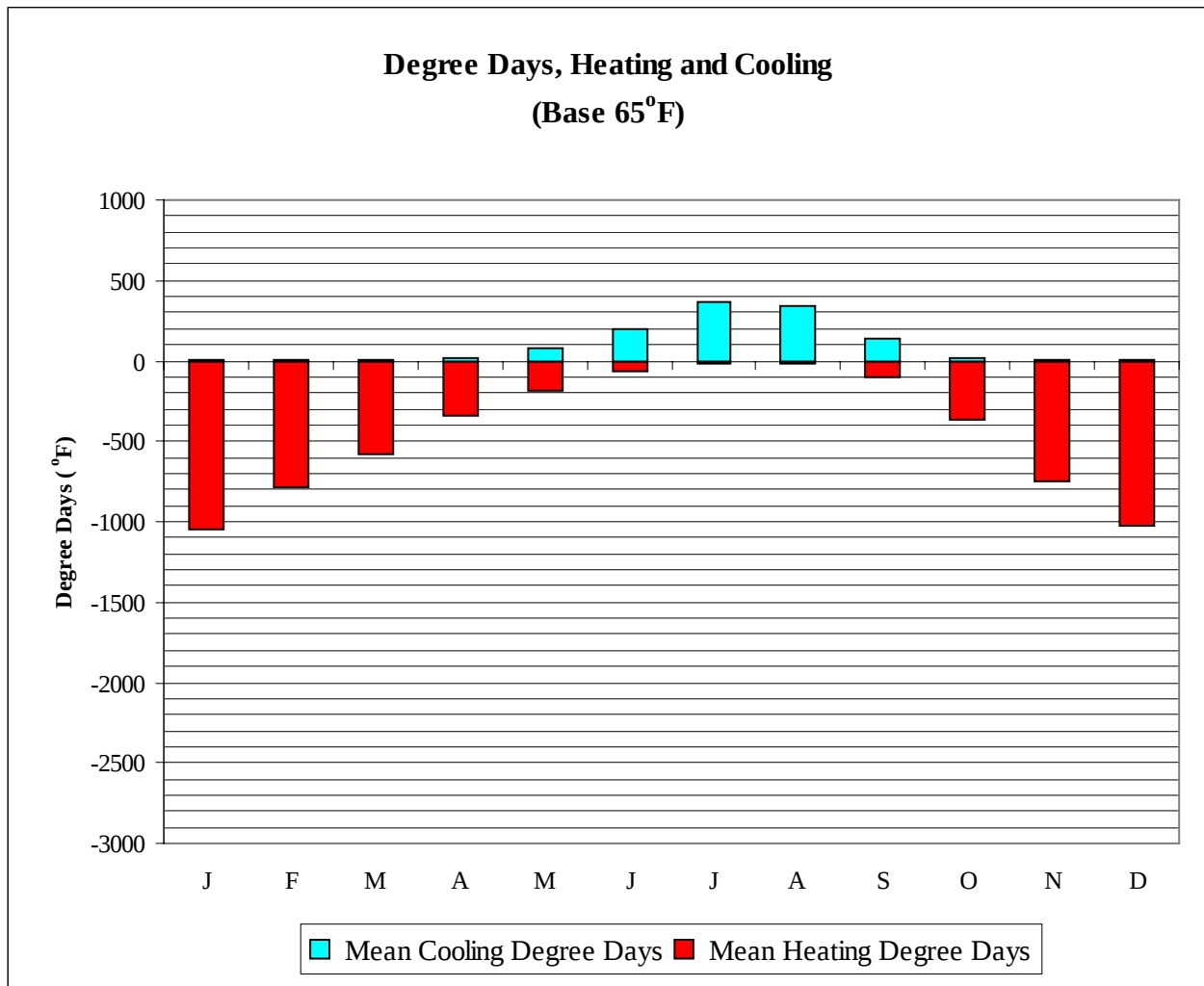
HANFORD**WA****WMO No. 727840****Long Term Dry Bulb Temperature and Humidity Summary**

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	57.0	48.3	32.5	22.3	5.0	39.9	52.9	21.4	15.6
14-Jan	54.0	45.2	34.3	24.7	5.0	42.0	50.1	24.1	17.7
21-Jan	55.0	46.0	38.5	29.3	15.0	38.5	49.8	26.0	20.7
28-Jan	56.0	47.1	39.2	28.6	14.0	39.2	50.9	25.6	19.7
4-Feb	59.0	48.3	37.2	26.4	-11.0	45.5	53.2	23.9	18.4
11-Feb	59.0	49.8	41.1	27.5	3.0	42.0	50.5	26.0	19.1
18-Feb	59.0	48.5	46.5	32.6	14.0	45.5	51.0	29.6	21.7
25-Feb	65.0	53.7	49.0	33.8	16.0	54.6	62.0	30.2	22.0
4-Mar	62.0	51.0	49.7	33.7	15.0	50.4	57.7	30.0	21.9
11-Mar	64.0	51.0	54.2	35.9	27.0	49.7	53.2	32.0	23.1
18-Mar	68.0	52.7	56.3	37.8	29.0	51.1	51.2	31.2	22.4
25-Mar	69.0	51.7	57.4	37.9	30.0	48.3	56.3	30.3	21.5
1-Apr	76.0	54.6	59.4	38.5	29.0	48.3	58.7	30.1	21.4
8-Apr	77.0	57.7	62.1	41.2	32.0	56.7	65.2	33.1	22.4
15-Apr	79.0	58.1	63.7	42.7	33.0	57.4	61.2	34.4	24.0
22-Apr	81.0	56.8	65.3	44.5	36.0	64.4	60.0	36.3	25.2
29-Apr	84.0	60.3	66.8	45.6	36.0	61.6	64.0	37.3	25.9
6-May	90.0	60.9	68.9	46.8	37.0	60.2	70.0	38.6	27.1
13-May	95.0	64.7	72.0	48.6	38.0	63.7	60.8	40.3	28.1
20-May	88.0	61.1	73.2	50.6	41.0	63.0	58.7	41.2	29.5
27-May	92.0	65.2	74.9	51.8	42.0	67.2	63.2	43.4	30.7
3-Jun	99.0	70.7	76.9	53.7	44.0	77.0	77.5	45.2	32.2
10-Jun	93.0	63.7	78.2	55.6	48.0	69.3	60.8	45.9	33.1
17-Jun	96.0	65.0	79.8	57.1	49.0	69.3	64.8	47.1	34.3
24-Jun	101.0	67.4	82.6	59.2	48.0	69.3	73.5	48.6	35.3
1-Jul	102.0	68.5	84.4	60.0	52.0	74.9	69.9	50.9	36.7
8-Jul	100.0	68.4	84.3	60.6	50.0	83.3	74.8	52.0	38.9
15-Jul	104.0	68.2	87.8	63.1	55.0	82.6	82.4	51.6	38.0
22-Jul	104.0	68.5	90.1	64.5	53.0	73.5	65.8	53.0	38.6
29-Jul	104.0	68.1	93.0	66.2	57.0	73.5	65.5	55.7	40.3
5-Aug	102.0	68.0	91.6	65.0	57.0	76.3	73.4	55.0	39.7
12-Aug	102.0	67.4	90.7	64.9	56.0	79.1	70.3	53.6	38.5
19-Aug	103.0	69.0	87.7	62.7	54.0	79.1	67.9	53.2	38.9
26-Aug	99.0	66.4	84.7	60.1	48.0	79.8	70.0	50.7	37.0
2-Sep	99.0	65.8	83.8	59.4	53.0	73.5	73.5	51.9	38.2
9-Sep	96.0	65.6	82.5	57.6	48.0	73.5	62.6	49.1	35.4
16-Sep	94.0	64.2	79.2	54.4	46.0	63.0	71.3	45.3	33.5
23-Sep	91.0	63.0	76.3	52.3	42.0	62.3	61.2	45.0	32.9
30-Sep	90.0	61.9	75.4	51.3	42.0	66.5	63.0	45.1	33.2
7-Oct	84.0	60.0	71.1	48.0	37.0	58.8	68.4	39.2	28.4
14-Oct	80.0	60.2	67.7	45.6	33.0	57.4	71.7	38.4	28.0
21-Oct	73.0	56.9	63.0	41.6	34.0	64.4	56.3	37.3	26.4
28-Oct	70.0	54.7	58.5	39.8	30.0	59.5	57.5	38.2	27.1
4-Nov	64.0	51.3	53.8	38.2	23.0	58.1	55.3	36.3	26.8
11-Nov	66.0	54.7	50.4	36.2	22.0	53.2	56.7	34.6	25.9
18-Nov	59.0	49.5	47.1	34.7	16.0	51.8	50.6	32.6	24.2
25-Nov	61.0	51.8	42.5	30.3	-2.0	49.7	58.1	28.3	20.8
2-Dec	60.0	52.0	41.1	29.9	7.0	47.6	60.1	27.6	20.3
9-Dec	56.0	50.1	39.2	28.9	15.0	46.2	48.1	26.9	20.1
16-Dec	54.0	45.7	38.9	28.8	15.0	39.2	46.0	26.3	19.4
23-Dec	54.0	45.1	34.2	25.2	-3.0	35.7	44.6	23.5	17.8
31-Dec	50.0	42.8	33.0	24.3	1.0	38.5	46.2	22.3	17.3

HANFORD

WA

WMO No. 727840



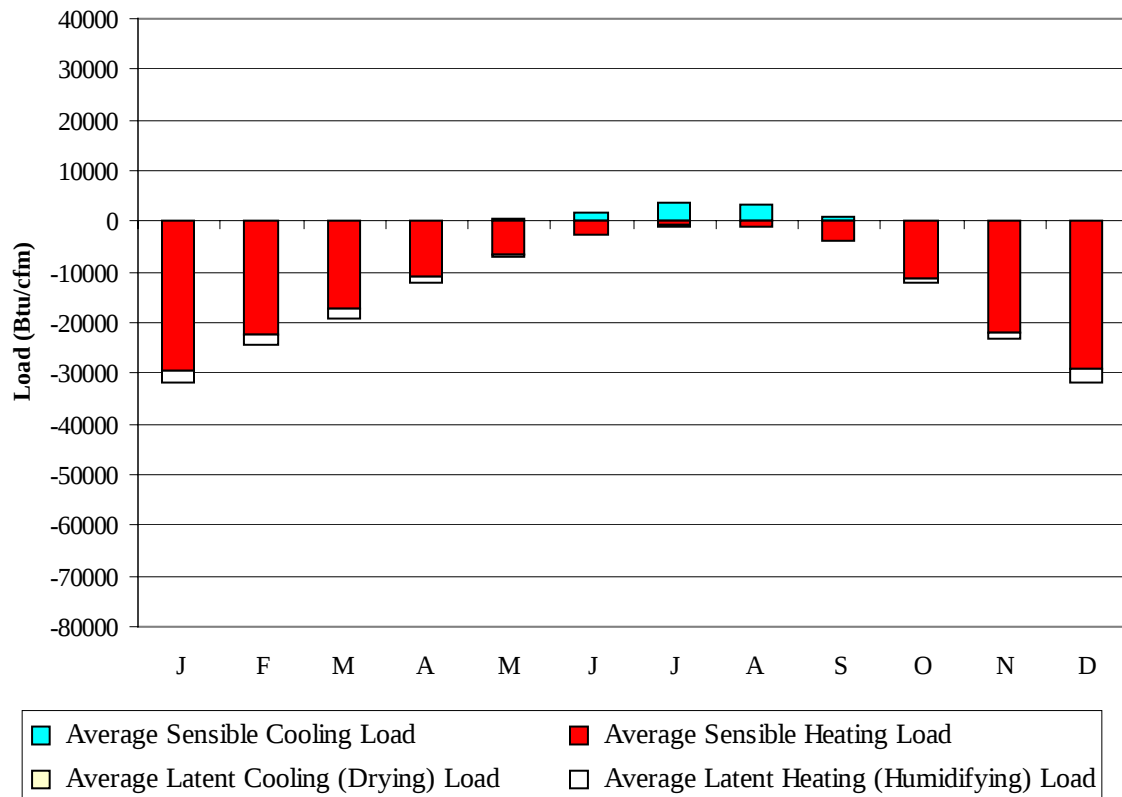
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1045
FEB	0	781
MAR	2	585
APR	18	344
MAY	80	181
JUN	195	60
JUL	369	16
AUG	337	19
SEP	137	97
OCT	16	364
NOV	0	750
DEC	0	1026
ANN	1155	5268

HANFORD

WA

WMO No. 727840

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 Load	Average Latent Heating Load
	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)	(Btu/cfm)
JAN	0	-29474	0	-2366
FEB	0	-22347	0	-1928
MAR	1	-17430	0	-1626
APR	61	-11093	0	-1079
MAY	516	-6511	1	-567
JUN	1554	-2553	2	-156
JUL	3830	-835	10	-42
AUG	3291	-948	7	-40
SEP	898	-3710	1	-223
OCT	59	-11489	0	-787
NOV	0	-21785	0	-1539
DEC	1	-29046	0	-2621
ANN	10211	-157221	21	-12974

Average Annual Solar Radiation – Nearest Available Site

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

City: YAKIMA
 State: WA
 WBAN No: 24243
 Lat(N): 46.57
 Long(W): 120.53
 Elev(ft): 1066

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS
 Window: 1
 Overhang: 0.723
 Vert Gap: 0.329

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	430	700	1130	1570	1970	2190	2280	1960	1490	940	490	360	1300
	Std Dev	29	69	75	107	125	125	114	135	108	62	40	23	27
	Minimum	380	530	960	1300	1670	1900	2060	1730	1260	770	410	330	1250
	Maximum	490	800	1290	1760	2150	2430	2480	2200	1690	1050	550	420	1350
	Diffuse	280	380	500	650	720	730	610	530	430	350	280	240	470
Clear Day	Global	640	1000	1540	2130	2540	2700	2600	2240	1710	1140	700	540	1630
NORTH	Global	160	220	320	430	570	660	630	480	340	250	170	130	360
	Diffuse	160	220	320	420	490	530	500	430	340	250	170	130	330
Clear Day	Global	140	200	280	400	590	720	650	470	310	220	150	120	350
EAST	Global	300	480	760	1020	1220	1300	1380	1240	1010	670	340	250	830
	Diffuse	190	280	400	520	600	630	600	530	430	310	210	160	410
Clear Day	Global	570	800	1120	1410	1570	1620	1580	1440	1190	880	600	490	1110
SOUTH	Global	740	990	1210	1160	1070	1000	1110	1260	1430	1300	810	660	1060
	Diffuse	310	390	490	560	590	590	560	530	480	410	300	270	450
Clear Day	Global	1790	1960	1940	1640	1320	1160	1210	1470	1790	1930	1790	1680	1640
WEST	Global	310	480	740	960	1150	1260	1350	1210	980	650	350	260	810
	Diffuse	200	280	400	530	610	640	600	530	430	310	210	170	410
Clear Day	Global	570	800	1120	1410	1570	1620	1580	1440	1190	880	600	490	1110

Average Annual Solar Heat and Illumination – Nearest Available Site

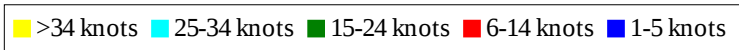
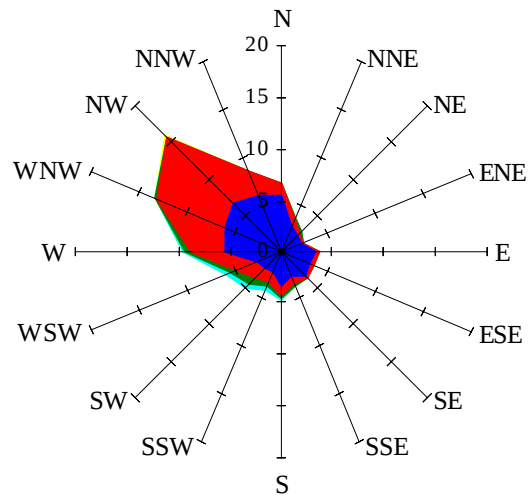
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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	270	460	780	1120	1430	1590	1660	1410	1050	630	310	220	910
NORTH	Unshaded	110	160	220	290	370	430	400	310	230	170	120	92	240
	Shaded	87	130	190	250	320	370	350	280	210	150	94	73	210
EAST	Unshaded	200	330	540	730	880	930	990	890	720	470	240	170	590
	Shaded	170	280	450	590	700	730	790	720	590	390	200	140	480
SOUTH	Unshaded	560	740	860	780	680	620	680	820	1000	950	610	500	730
	Shaded	530	660	630	430	340	350	340	370	630	800	570	480	510
WEST	Unshaded	210	330	520	680	820	900	970	870	700	460	240	180	570
	Shaded	180	280	430	550	650	710	770	700	580	380	200	150	470

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	35	63	71	55	22	51	83	97	92	69
	M.Cloudy	22	43	49	38	15	35	60	73	69	47
NORTH	M.Clear	9	13	14	12	7	13	15	16	16	14
	M.Cloudy	9	14	15	13	6	13	16	18	18	15
EAST	M.Clear	72	54	14	12	7	84	72	30	16	14
	M.Cloudy	31	32	15	13	6	46	49	26	18	15
SOUTH	M.Clear	42	78	88	68	26	11	41	57	52	27
	M.Cloudy	20	43	50	38	13	12	31	44	40	21
WEST	M.Clear	9	13	22	63	60	11	15	16	51	81
	M.Cloudy	9	14	19	36	25	12	16	18	40	48
M.Clear	(% hrs)	32	31	27	26	29	50	46	43	41	44
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	27	62	78	71	44	7	28	33	18	0
	M.Cloudy	18	42	56	50	29	5	17	20	12	0
NORTH	M.Clear	8	12	14	14	10	3	8	9	6	0
	M.Cloudy	7	13	16	15	10	2	8	9	5	0
EAST	M.Clear	69	69	26	14	10	26	32	9	6	0
	M.Cloudy	30	41	23	15	10	7	13	9	5	0
SOUTH	M.Clear	24	63	83	75	43	25	71	82	52	0
	M.Cloudy	13	39	55	48	24	6	21	26	16	0
WEST	M.Clear	8	12	14	52	76	3	8	19	39	0
	M.Cloudy	7	13	16	36	39	2	8	11	13	0
M.Clear	(% hrs)	61	61	59	57	56	17	19	21	20	21

Wind Summary - December, January, and February

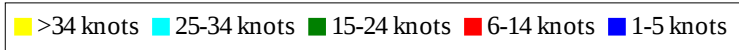
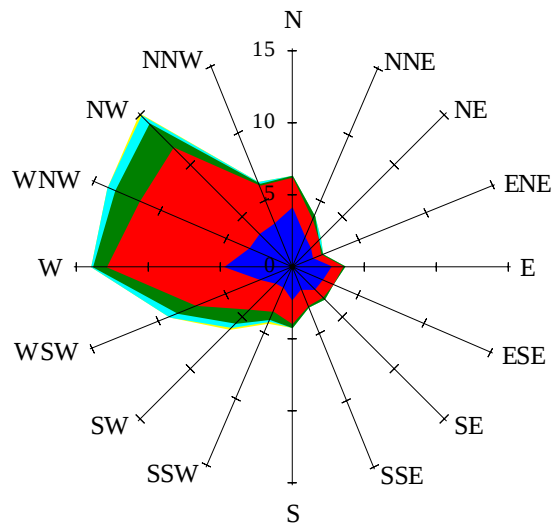
Labels of Percent Frequency on North Axis



Percent Calm = 3.66

Wind Summary - March, April, and May

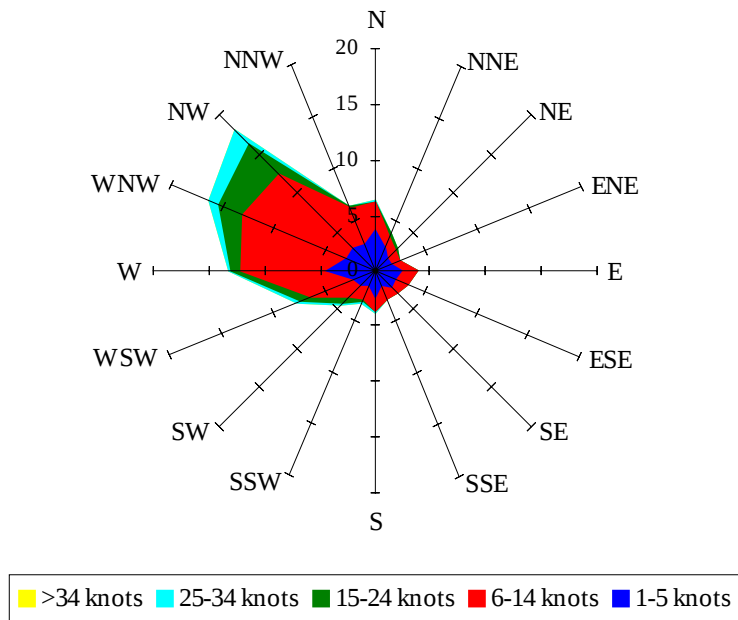
Labels of Percent Frequency on North Axis



Percent Calm = 0.87

Wind Summary - June, July, and August

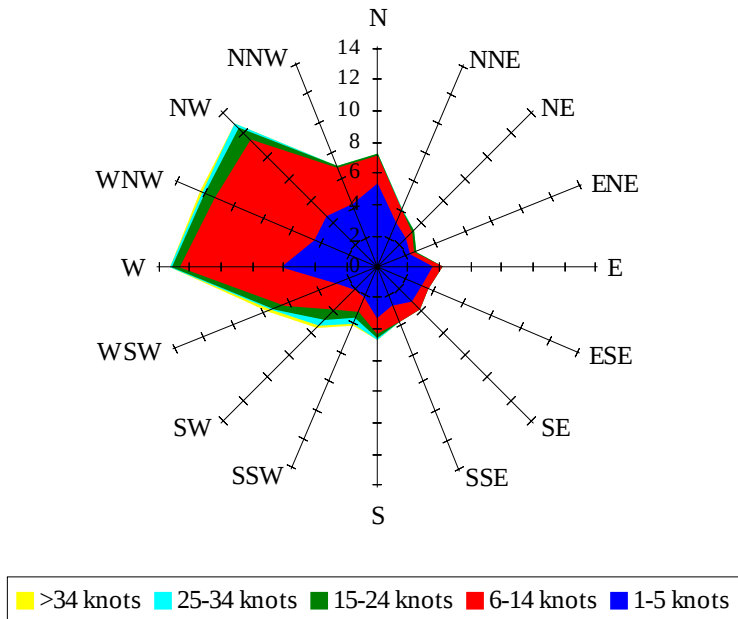
Labels of Percent Frequency on North Axis



Percent Calm = 0.65

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 2.00