

GLASGOW MT	
Latitude = 48.22 N	WMO No. 727680
Longitude = 106.60 W	Elevation = 2297 feet
Period of Record = 1973 to 1996	Average Pressure = 27.52 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	99	66	52	13.1	S
0.4% Occurrence	94	64	51	12.4	S
1.0% Occurrence	90	63	52	11.9	SSE
2.0% Occurrence	87	63	54	11.4	S
Mean Daily Range	22	-	-	-	-
97.5% Occurrence	-9	-9	3	9.2	ESE
99.0% Occurrence	-17	-17	2	8.2	ESE
99.6% Occurrence	-23	-23	1	7.3	NNW
Median of Extreme Lows	-29	-29	1	7.0	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	72	85	105	11.9	SE
0.4% Occurrence	68	86	82	12.0	ESE
1.0% Occurrence	66	84	73	11.9	ESE
2.0% Occurrence	64	82	68	11.6	ESE
	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	109	78	0.67	11.6	ESE
0.4% Occurrence	92	74	0.56	12.1	ESE
1.0% Occurrence	85	71	0.52	10.9	ESE
2.0% Occurrence	78	70	0.49	10.8	ESE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		52	474	4	71

Other Site Data

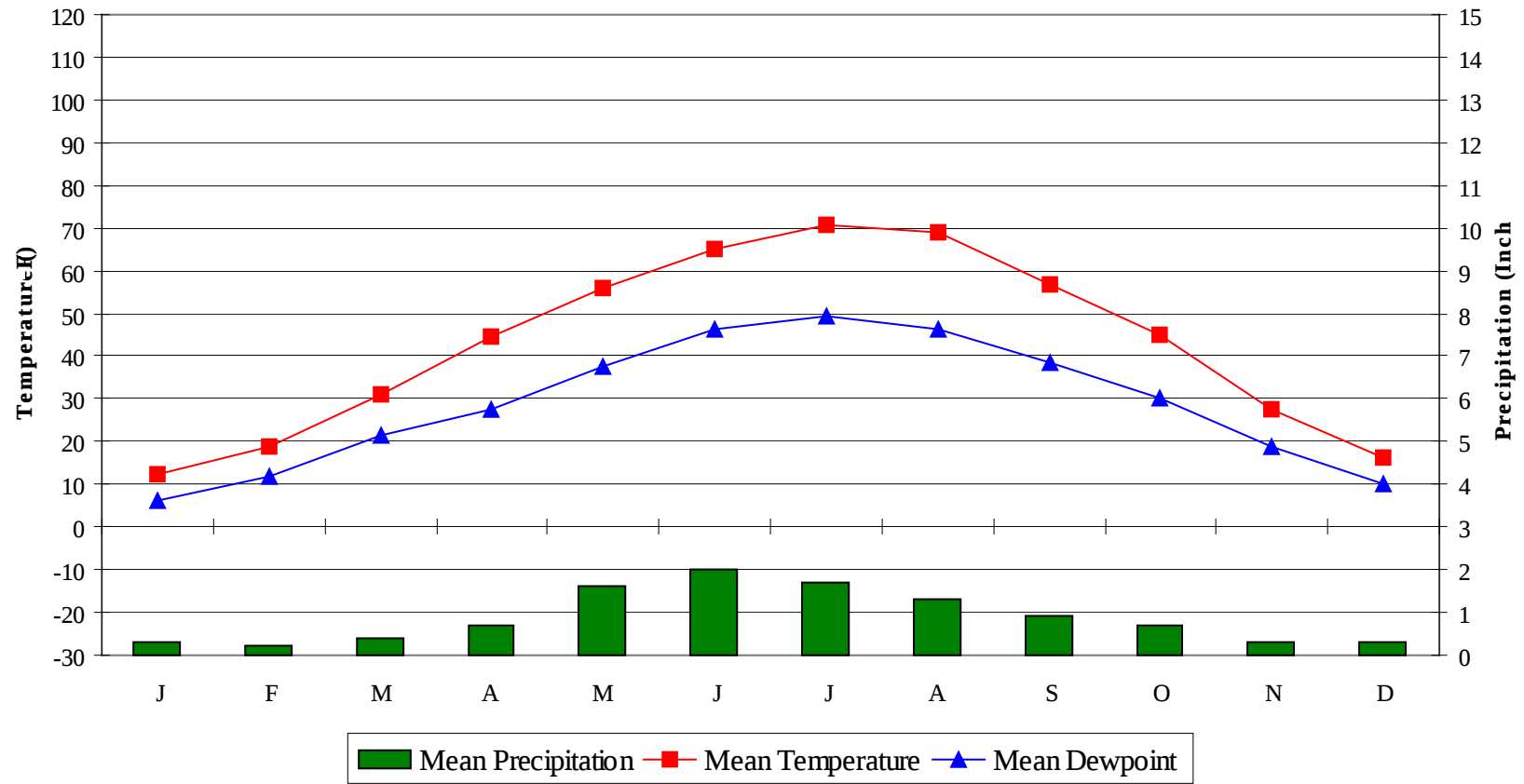
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
5	2.0	90	0.0 + 0.5
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
45.3	N/A	19	85

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

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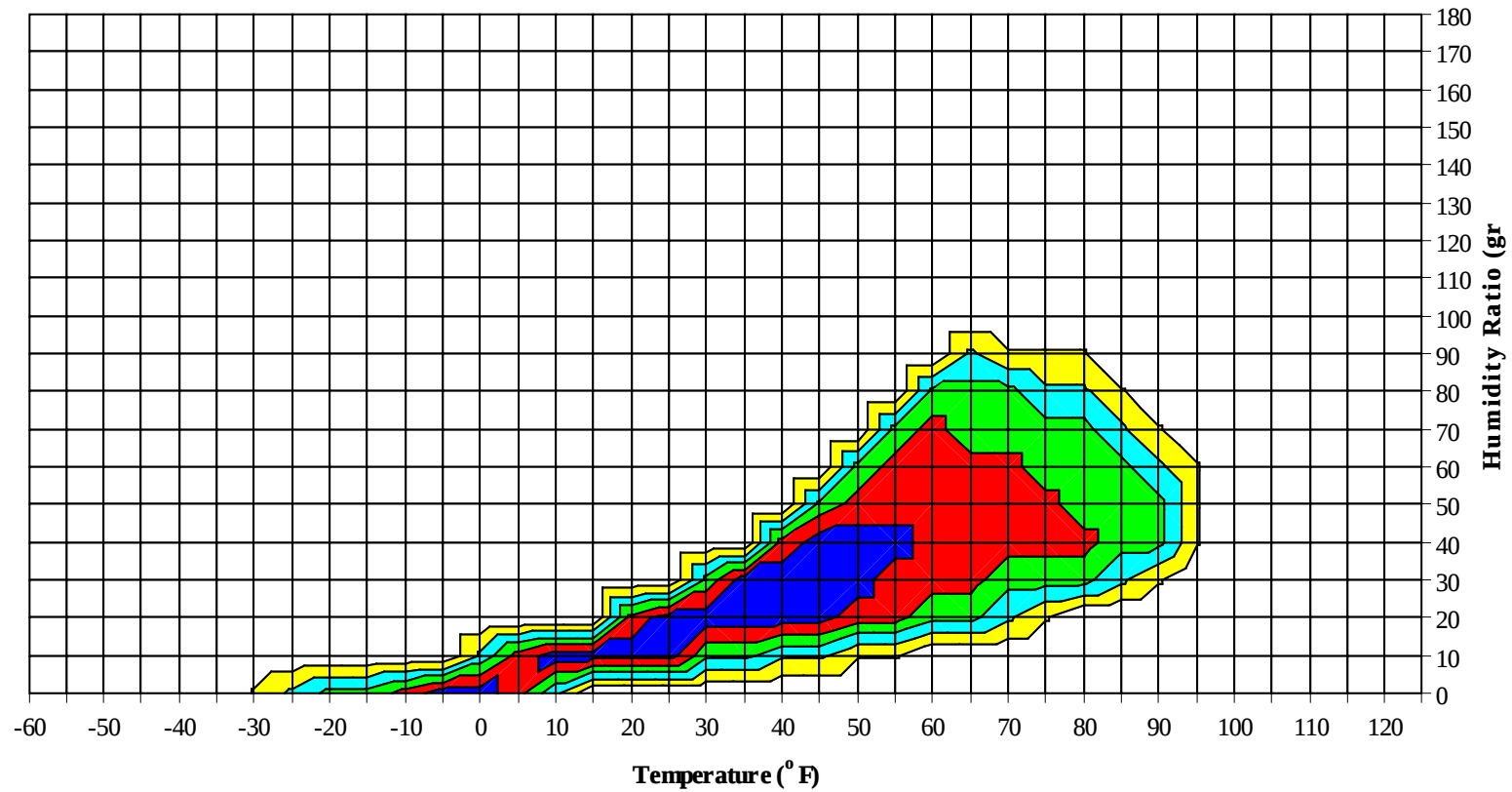
Average Annual Climate



GLASGOW MT

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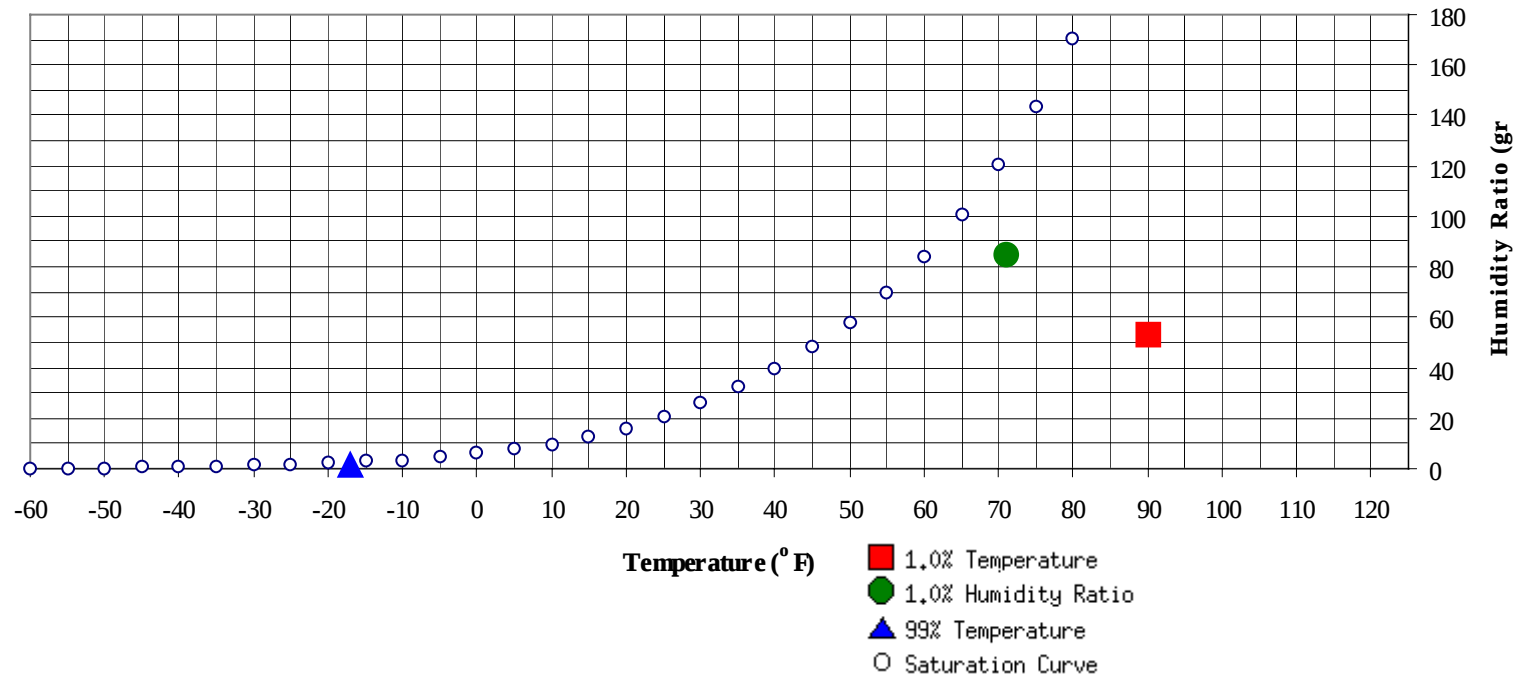
Long Term Psychrometric Summary



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

GLASGOW MT

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Psychrometric Summary of Peak Design Values

	(°F)	MCHR	Enthalpy	1.0% Humidity	(gr/lb)	MCDB	MCWB	MC Dewpt	Enthalpy
		(gr/lb)	(btu/lb)			(°F)	(°F)	(°F)	(btu/lb)
99% Dry Bulb	-17	1.6	-3.8	Ratio	84.7	70.9	63.7	60.1	30.2

1.0% Dry Bulb	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
	90	53.1	63.6	30.0

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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		
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0	0	0	53.8
70 / 74							0		0	48.0		0	0	0	52.2
65 / 69							0	0	0	45.9		2	1	3	48.8
60 / 64							1	0	1	46.7		6	2	8	46.3
55 / 59							2	0	2	44.1	0	12	4	16	43.5
50 / 54		1	0	1	41.1	0	5	1	6	41.5	0	22	10	32	41.0
45 / 49	1	3	1	4	38.7	1	10	4	14	39.0	2	28	16	46	38.7
40 / 44	3	11	4	18	36.1	3	21	11	35	36.0	9	32	29	70	36.2
35 / 39	8	19	15	42	33.0	13	28	30	71	33.0	30	43	49	122	33.3
30 / 34	17	22	21	60	29.2	30	27	36	93	29.7	64	36	50	150	29.8
25 / 29	22	26	27	76	25.2	32	21	23	76	25.3	49	20	32	101	25.2
20 / 24	30	30	34	94	20.8	27	18	20	65	20.8	36	17	21	74	20.5
15 / 19	29	23	27	78	16.2	17	16	17	51	15.9	20	10	11	41	16.0
10 / 14	27	21	20	68	11.1	22	20	21	63	11.0	14	7	9	30	10.7
5 / 9	20	19	16	55	6.0	20	17	17	54	6.1	9	5	6	20	5.9
0 / 4	19	18	19	56	1.1	15	12	12	38	1.0	4	3	3	10	1.2
-5 / -1	13	16	15	44	-3.3	10	8	10	28	-3.1	3	2	2	7	-3.2
-10 / -6	20	19	22	61	-7.6	12	9	9	30	-7.4	3	1	2	7	-7.4
-15 / -11	17	11	14	42	-12.2	6	3	6	15	-12.0	3	0	1	4	-12.2
-20 / -16	13	6	7	25	-16.9	7	3	4	13	-16.9	1	0	0	2	-16.6
-25 / -21	6	3	4	13	-21.6	5	2	3	10	-22.1	0	0	0	1	-21.3
-30 / -26	2	1	1	5	-26.7	2	1	1	4	-26.6	0			0	-25.3
-35 / -31	2	0	0	2	-30.9	1	0	0	2	-31.1					
-40 / -36	0	0		0	-35.3	0			0	-35.0					

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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		
105 / 109												0	0	0	68.2
100 / 104							0		0	62.0		1	0	1	66.1
95 / 99							0	0	1	62.8		4	1	5	66.4
90 / 94		0		0	56.0		2	1	2	61.7		8	4	12	64.9
85 / 89		1	0	1	57.8		5	2	7	60.0	0	14	8	22	63.4
80 / 84		2	1	3	56.3	0	12	5	17	58.6	1	26	14	41	61.5
75 / 79		7	3	10	53.5	0	22	10	33	56.5	3	40	24	67	59.5
70 / 74		13	5	18	51.8	1	30	16	47	54.5	9	46	33	88	57.3
65 / 69	0	19	11	30	49.3	5	40	26	72	52.0	23	46	42	110	55.6
60 / 64	2	25	14	40	46.9	15	42	37	93	50.1	47	32	45	124	54.1
55 / 59	4	27	21	53	44.3	31	35	41	106	48.3	61	15	37	114	51.4
50 / 54	14	39	33	85	41.8	56	31	48	135	45.8	60	7	23	90	48.0
45 / 49	27	35	35	98	39.8	59	15	31	105	42.7	26	1	7	34	44.0
40 / 44	44	28	40	111	36.6	41	8	19	68	38.4	8	0	1	9	40.1
35 / 39	52	20	37	110	33.4	27	5	10	42	34.5	1		0	1	35.8
30 / 34	52	12	26	91	29.7	10	1	2	13	30.4	0			0	33.0
25 / 29	27	5	9	41	25.3	2	0	0	2	25.6					
20 / 24	9	3	4	16	20.3	0			0	21.4					
15 / 19	4	1	2	8	16.0										
10 / 14	2	1	1	5	10.8										
5 / 9	1	0	0	1	6.6										
0 / 4	0		0	0	0.0										
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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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		
105 / 109							0	0	0	67.0					
100 / 104		1	0	1	66.3		1	0	2	66.1		0	0	0	64.5
95 / 99		7	3	10	65.6		6	2	9	64.3		0	0	0	63.0
90 / 94		20	10	29	64.5		21	8	29	63.2		3	1	3	60.8
85 / 89		34	17	51	63.4	0	29	15	44	62.3		8	3	11	59.7
80 / 84	1	50	29	79	61.7	1	41	25	67	60.9		15	5	20	58.3
75 / 79	7	55	41	104	60.2	5	46	34	85	59.2	0	25	11	36	56.6
70 / 74	25	41	44	111	59.1	19	38	41	98	57.6	1	31	18	50	54.6
65 / 69	50	23	44	118	57.3	43	32	44	120	56.0	5	36	26	67	52.6
60 / 64	69	12	37	118	55.3	64	18	40	122	54.2	18	36	36	91	50.7
55 / 59	61	4	18	84	52.6	60	9	23	92	51.4	33	30	41	104	48.4
50 / 54	29	0	4	34	49.0	39	3	13	55	48.2	56	28	43	127	46.0
45 / 49	5	0	0	5	45.4	14	1	3	17	44.0	58	14	32	103	42.7
40 / 44	0			0	43.4	4	0	1	5	40.2	38	8	15	61	38.8
35 / 39						0			0	36.9	19	3	7	29	34.3
30 / 34											10	1	3	14	29.9
25 / 29											2		1	3	25.8
20 / 24											0		0	1	20.2
15 / 19											0			0	15.7
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															
-35 / -31															
-40 / -36															

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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		
105 / 109															
100 / 104															
95 / 99															
90 / 94		0		0	58.0										
85 / 89		1	0	1	56.7										
80 / 84		3	0	3	56.2										
75 / 79		5	1	6	54.5										
70 / 74		10	2	13	52.6		0		0	52.0					
65 / 69	0	20	5	25	50.7		2		2	50.2					
60 / 64	1	29	13	42	48.2		4	0	4	47.7					
55 / 59	5	34	20	60	45.7	0	7	2	9	45.0	0	1		1	46.3
50 / 54	14	41	39	94	43.2	1	14	4	20	41.9	0	3	1	4	41.5
45 / 49	35	37	47	118	40.7	4	22	10	36	38.9	1	6	2	8	38.8
40 / 44	57	28	45	130	37.5	11	29	23	63	36.1	2	11	6	19	35.7
35 / 39	57	20	37	113	33.8	23	35	38	96	32.8	8	23	16	47	32.7
30 / 34	39	11	22	73	29.6	42	34	43	119	29.4	21	29	27	76	29.2
25 / 29	25	5	11	40	25.1	47	24	34	105	25.1	30	32	33	95	25.0
20 / 24	10	2	3	15	20.8	34	20	27	81	20.6	37	32	35	104	20.7
15 / 19	3	1	1	5	16.0	26	18	18	62	16.1	30	25	31	86	16.1
10 / 14	1	1	1	3	11.3	19	10	14	43	11.0	32	24	27	82	11.0
5 / 9	0	1	1	1	6.5	9	7	10	26	6.3	25	19	20	64	6.2
0 / 4	0	0	0	1	0.6	8	6	8	22	1.2	16	15	16	47	1.2
-5 / -1	0		0	1	-2.4	5	3	4	12	-3.1	10	7	10	28	-3.2
-10 / -6	0			0	-5.0	6	2	4	11	-7.4	10	8	8	26	-7.6
-15 / -11						2	1	1	4	-11.8	8	6	5	19	-12.4
-20 / -16						1	1	1	3	-17.0	8	5	5	18	-16.9
-25 / -21						1	0	0	1	-21.5	4	3	4	10	-21.7
-30 / -26						0			0	-25.5	3	1	2	6	-26.5
-35 / -31											1	0	1	2	-31.6
-40 / -36											1	0		1	-35.7

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

Period of Record = 1973 to 1996

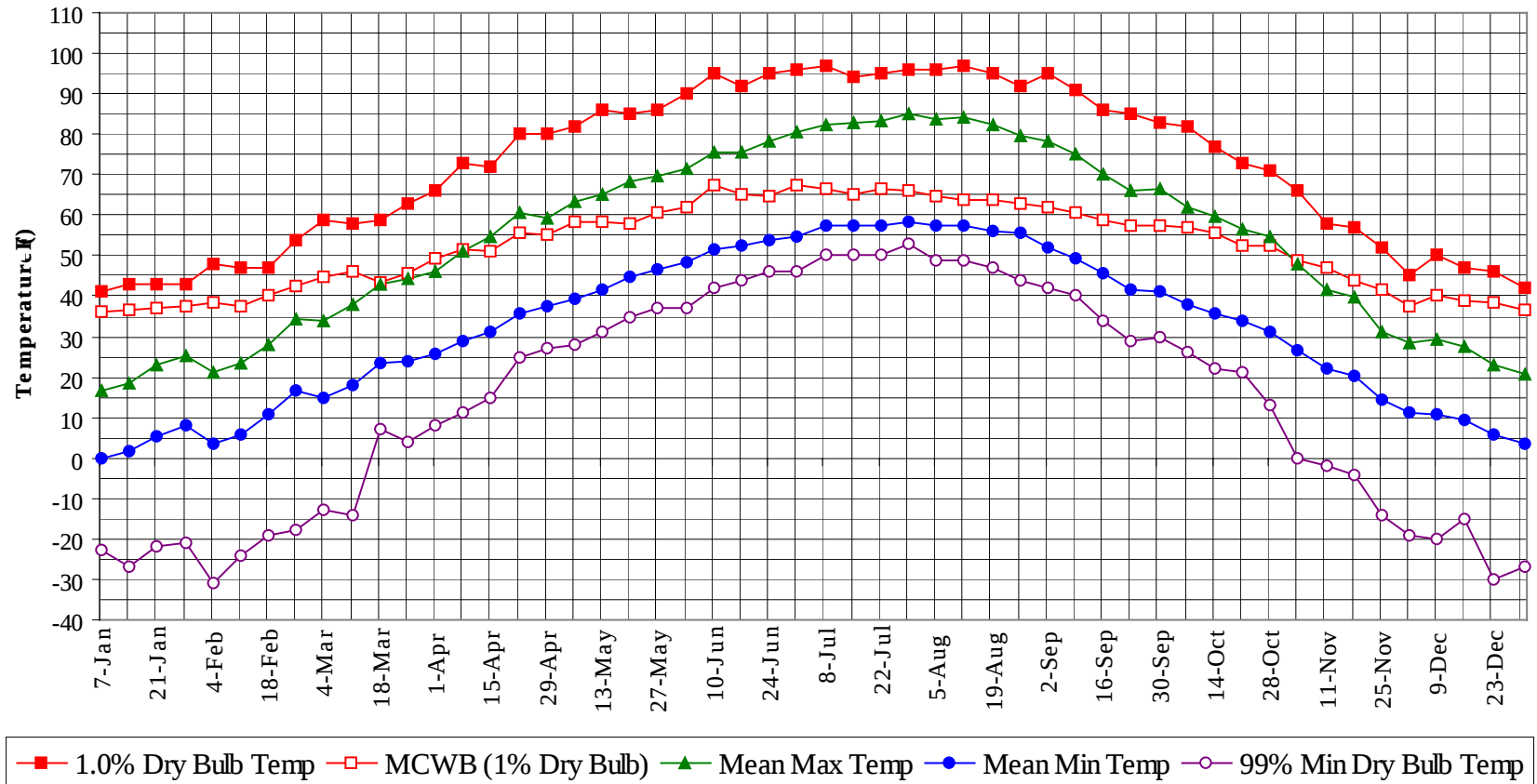
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
105 / 109		0	0	1	67.8
100 / 104		3	1	4	66.0
95 / 99		18	7	25	65.2
90 / 94		54	23	77	63.8
85 / 89	0	93	45	138	62.5
80 / 84	2	150	79	231	60.8
75 / 79	15	201	124	340	58.8
70 / 74	56	209	161	426	56.8
65 / 69	128	218	198	545	54.6
60 / 64	217	202	224	643	52.3
55 / 59	256	174	207	638	49.1
50 / 54	269	192	216	677	45.3
45 / 49	229	169	184	583	41.2
40 / 44	216	175	192	583	37.1
35 / 39	237	195	238	671	33.3
30 / 34	285	174	231	689	29.6
25 / 29	236	134	171	541	25.2
20 / 24	185	123	144	453	20.7
15 / 19	131	95	108	335	16.1
10 / 14	118	85	94	297	11.0
5 / 9	87	67	71	225	6.1
0 / 4	64	54	58	176	1.1
-5 / -1	43	36	43	121	-3.2
-10 / -6	52	40	45	137	-7.5
-15 / -11	36	22	27	85	-12.2
-20 / -16	30	14	18	62	-16.9
-25 / -21	16	8	10	35	-21.8
-30 / -26	8	3	5	16	-26.6
-35 / -31	4	1	2	7	-31.3
-40 / -36	2	0		2	-35.6

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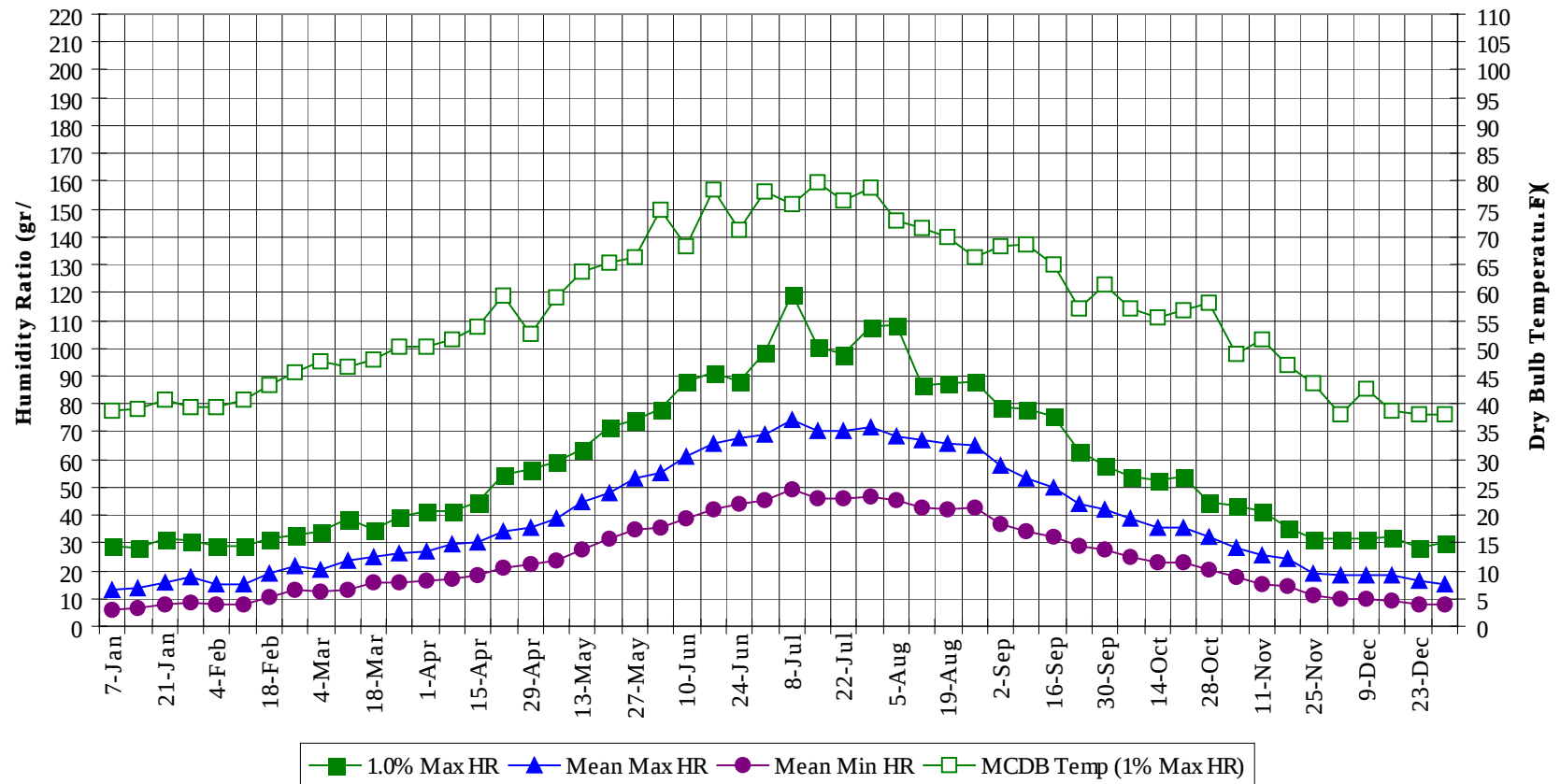
Annual Summary of Temperatures



GLASGOW MT

WMO No. 727680

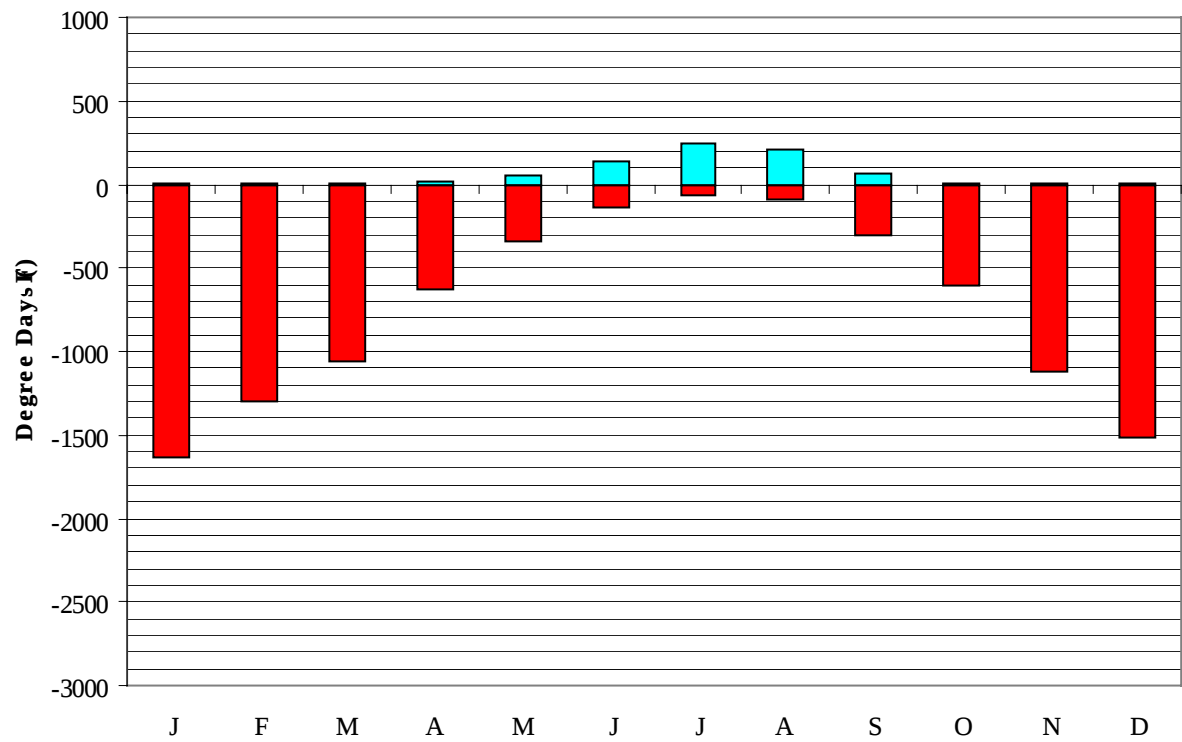
Long Term Humidity and Dry Bulb Temperature Summary



GLASGOW**MT****WMO No. 727680****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	41.0	36.2	16.6	-0.3	-23.0	28.7	38.8	13.0	6.2
14-Jan	43.0	36.8	18.3	1.5	-27.0	28.0	39.0	14.0	6.8
21-Jan	43.0	37.0	22.8	5.1	-22.0	31.5	40.8	15.9	7.9
28-Jan	43.0	37.6	25.1	8.2	-21.0	30.8	39.5	17.6	8.7
4-Feb	48.0	38.3	21.1	3.6	-31.0	28.7	39.3	15.1	8.2
11-Feb	47.0	37.3	23.7	5.8	-24.0	28.7	40.6	15.4	7.9
18-Feb	47.0	40.2	27.9	10.6	-19.0	31.5	43.4	18.9	10.7
25-Feb	54.0	42.6	34.3	16.6	-18.0	32.9	45.8	21.7	13.0
4-Mar	59.0	44.8	33.9	14.8	-13.0	34.3	47.6	20.7	12.2
11-Mar	58.0	46.0	37.9	18.1	-14.0	38.5	46.7	23.7	13.4
18-Mar	59.0	43.6	43.0	23.5	7.0	35.0	48.0	25.1	15.8
25-Mar	63.0	45.8	44.2	23.9	4.0	39.2	50.3	26.5	15.7
1-Apr	66.0	49.1	46.1	25.7	8.0	41.3	50.1	26.6	16.6
8-Apr	73.0	51.4	51.3	28.9	11.0	41.3	51.7	29.3	17.2
15-Apr	72.0	51.1	54.5	31.0	15.0	44.8	53.9	30.2	18.5
22-Apr	80.0	55.4	60.5	35.6	25.0	54.6	59.3	34.3	21.1
29-Apr	80.0	55.3	59.1	37.3	27.0	56.7	52.4	35.4	22.4
6-May	82.0	58.1	63.4	39.4	28.0	58.8	59.0	38.5	23.9
13-May	86.0	58.5	65.1	41.7	31.0	63.7	63.7	44.4	27.6
20-May	85.0	58.1	68.4	44.8	35.0	71.4	65.3	48.2	31.7
27-May	86.0	60.8	69.7	46.7	37.0	74.2	66.4	52.9	34.5
3-Jun	90.0	61.8	71.4	48.2	37.0	78.4	74.8	55.5	35.7
10-Jun	95.0	67.2	75.7	51.4	42.0	88.2	68.2	60.9	38.8
17-Jun	92.0	65.1	75.6	52.3	44.0	91.0	78.5	65.4	42.3
24-Jun	95.0	64.5	78.4	53.9	46.0	88.2	71.4	67.6	43.7
1-Jul	96.0	67.6	80.6	54.9	46.0	98.7	78.1	68.8	45.1
8-Jul	97.0	66.5	82.1	57.5	50.0	119.7	75.9	74.5	49.0
15-Jul	94.0	65.0	82.7	57.2	50.0	100.8	79.7	70.3	46.2
22-Jul	95.0	66.3	83.2	57.4	50.0	98.0	76.5	70.5	45.9
29-Jul	96.0	66.0	84.9	58.4	53.0	107.8	78.7	71.7	46.5
5-Aug	96.0	64.8	83.7	57.6	49.0	108.5	73.0	68.4	45.1
12-Aug	97.0	63.6	84.2	57.6	49.0	86.8	71.5	66.9	42.4
19-Aug	95.0	63.9	82.5	56.3	47.0	87.5	69.9	65.9	42.1
26-Aug	92.0	62.9	79.8	55.5	44.0	88.2	66.5	65.0	42.9
2-Sep	95.0	62.0	78.2	52.1	42.0	79.1	68.3	57.5	36.9
9-Sep	91.0	60.5	74.9	49.2	40.0	78.4	68.7	53.2	34.0
16-Sep	86.0	58.9	70.0	45.7	34.0	75.6	65.1	49.8	32.5
23-Sep	85.0	57.4	65.9	41.4	29.0	63.0	57.2	44.1	29.0
30-Sep	83.0	57.2	66.5	41.1	30.0	58.1	61.5	42.4	27.6
7-Oct	82.0	56.9	61.9	38.0	26.0	53.9	57.1	38.9	24.9
14-Oct	77.0	55.5	59.6	35.8	22.0	52.5	55.5	35.3	22.9
21-Oct	73.0	52.4	56.4	33.9	21.0	53.9	56.9	35.2	22.7
28-Oct	71.0	52.4	54.9	31.3	13.0	44.8	58.0	32.2	20.1
4-Nov	66.0	49.0	48.0	26.4	0.0	43.4	49.0	28.5	17.7
11-Nov	58.0	47.1	41.8	22.2	-2.0	41.3	51.4	25.4	15.0
18-Nov	57.0	43.7	39.9	20.4	-4.0	35.7	47.1	24.2	14.2
25-Nov	52.0	41.5	31.1	14.4	-14.0	31.5	43.6	19.4	11.4
2-Dec	45.0	37.6	28.4	11.4	-19.0	31.5	38.2	18.7	9.8
9-Dec	50.0	40.3	29.1	10.8	-20.0	31.5	42.6	18.3	9.6
16-Dec	47.0	38.6	27.4	9.5	-15.0	32.2	38.8	18.3	9.2
23-Dec	46.0	38.3	23.2	5.6	-30.0	28.0	38.1	16.3	8.0
31-Dec	42.0	36.5	20.6	3.5	-27.0	30.1	38.0	15.1	7.7

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



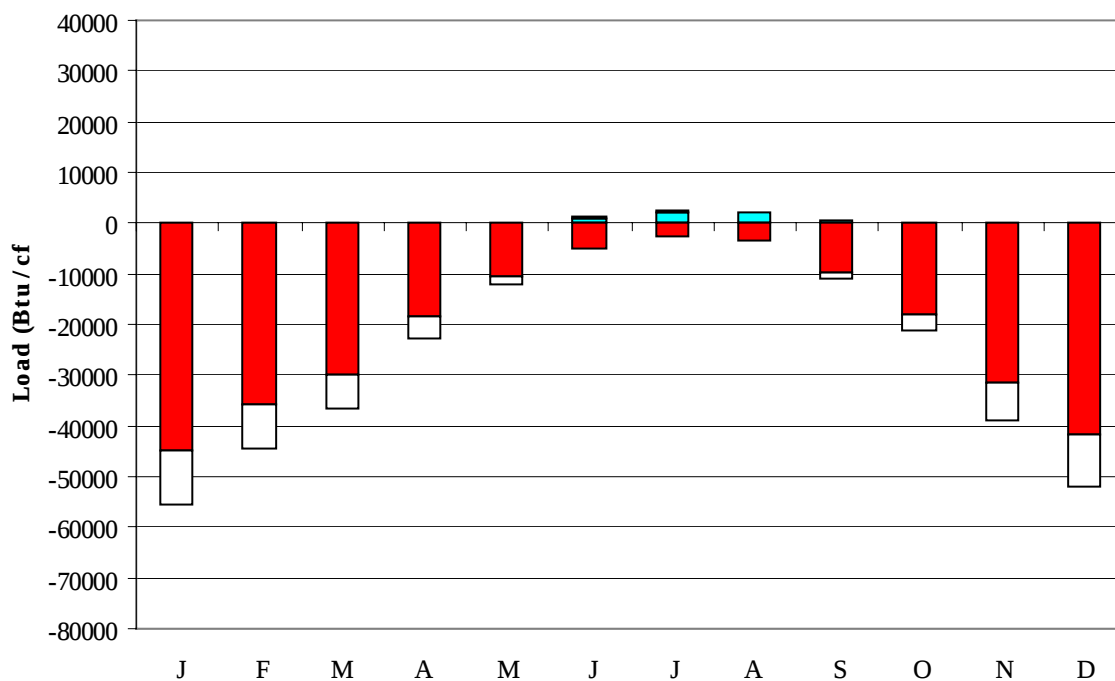
Mean Cooling Degree Days Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1632
FEB	0	1299
MAR	0	1054
APR	15	624
MAY	54	337
JUN	135	134
JUL	241	62
AUG	212	90
SEP	65	306
OCT	11	610
NOV	0	1125
DEC	0	1510
ANN	734	8783

GLASGOW MT

WMO No. 727680

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	-44699	0	-10949
FEB	0	-35866	0	-8600
MAR	0	-29736	0	-6836
APR	52	-18371	0	-4254
MAY	323	-10680	0	-1464
JUN	1051	-4839	72	-207
JUL	2204	-2541	326	-77
AUG	1972	-3419	32	-166
SEP	424	-9757	0	-1101
OCT	43	-18007	0	-3320
NOV	0	-31487	0	-7465
DEC	0	-41556	0	-10240
ANN	6069	-250958	430	-54679

Average Annual Solar Radiation – Nearest Available Site

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

City: GLASGOW
 State: MT
 WBAN No: 94008
 Lat(N): 48.22
 Long(W): 106.62
 Elev(ft): 2297

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.771
 Vert Gap: 0.324

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	460	740	1130	1500	1800	2050	2130	1810	1290	840	490	370	1220
	Std Dev	30	66	103	120	149	140	110	110	121	46	32	23	31
	Minimum	410	590	880	1310	1510	1760	1880	1570	1030	730	440	330	1180
	Maximum	540	840	1320	1720	2110	2340	2350	2020	1490	920	550	420	1300
	Diffuse	260	380	540	660	760	770	660	580	490	350	250	210	490
Clear Day	Global	600	960	1520	2100	2520	2700	2590	2210	1670	1090	660	500	1600
NORTH	Global	150	230	330	430	560	650	620	470	340	240	160	130	360
	Diffuse	150	230	330	420	490	530	500	430	330	240	160	130	330
Clear Day	Global	130	190	280	390	590	740	660	460	300	210	130	110	350
EAST	Global	350	520	760	980	1120	1250	1310	1160	880	610	370	290	800
	Diffuse	200	290	420	510	590	630	600	530	420	300	200	160	410
Clear Day	Global	570	810	1140	1430	1590	1660	1610	1460	1200	870	600	490	1120
SOUTH	Global	950	1150	1240	1130	1010	990	1090	1210	1250	1210	960	840	1080
	Diffuse	330	430	520	550	580	600	580	540	480	400	310	290	470
Clear Day	Global	1840	2030	2020	1690	1380	1220	1270	1520	1840	1960	1830	1710	1690
WEST	Global	350	530	770	940	1060	1190	1270	1130	860	600	380	290	780
	Diffuse	200	300	420	520	600	640	620	540	420	300	200	170	410
Clear Day	Global	570	810	1140	1430	1590	1660	1610	1460	1200	870	600	490	1120

Average Annual Solar Heat and Illumination – Nearest Available Site

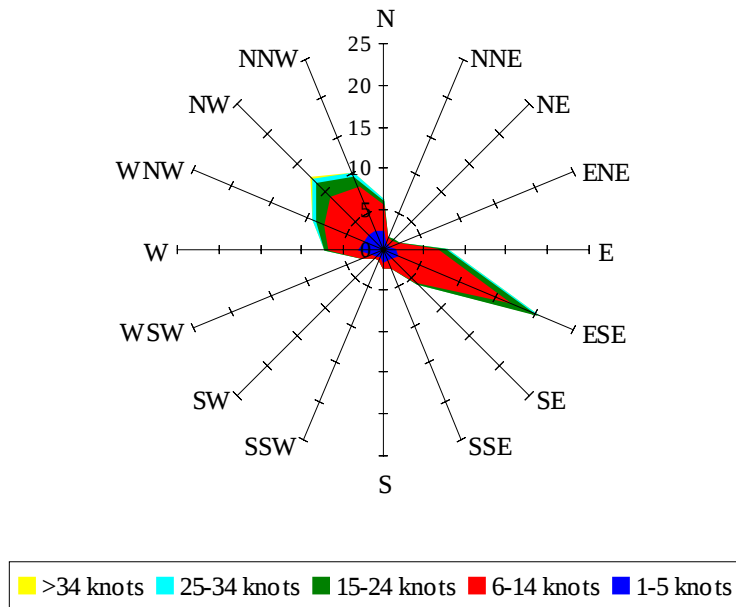
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

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 NORTH	Unshaded	280	480	780	1060	1290	1490	1550	1300	900	560	300	220	850
	Unshaded	110	160	230	290	370	430	400	310	230	160	110	88	240
	Shaded	85	130	190	240	310	360	340	270	200	140	89	70	200
EAST	Unshaded	240	360	540	700	800	900	940	830	630	430	250	190	570
	Shaded	200	300	430	550	620	690	730	650	500	360	210	170	450
SOUTH	Unshaded	720	860	880	770	650	630	690	800	870	890	720	640	760
	Shaded	690	770	640	410	330	340	340	360	550	750	690	620	540
WEST	Unshaded	240	370	540	670	760	850	910	810	610	420	260	200	550
	Shaded	200	310	440	540	590	660	700	640	490	350	220	170	440

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	32	60	69	55	23	49	79	94	91	68
	M.Cloudy	22	42	50	40	17	32	56	70	65	49
NORTH	M.Clear	8	12	13	12	7	13	15	16	16	14
	M.Cloudy	9	14	16	13	7	12	16	18	17	15
EAST	M.Clear	71	55	13	12	7	84	71	31	16	14
	M.Cloudy	30	32	16	13	7	41	47	27	17	15
SOUTH	M.Clear	41	79	91	72	30	11	41	59	54	29
	M.Cloudy	20	41	52	41	15	11	31	44	40	23
WEST	M.Clear	8	12	19	63	65	11	15	16	49	79
	M.Cloudy	9	14	19	37	27	11	16	18	37	50
M.Clear	(% hrs)	27	29	24	25	26	44	42	37	33	33

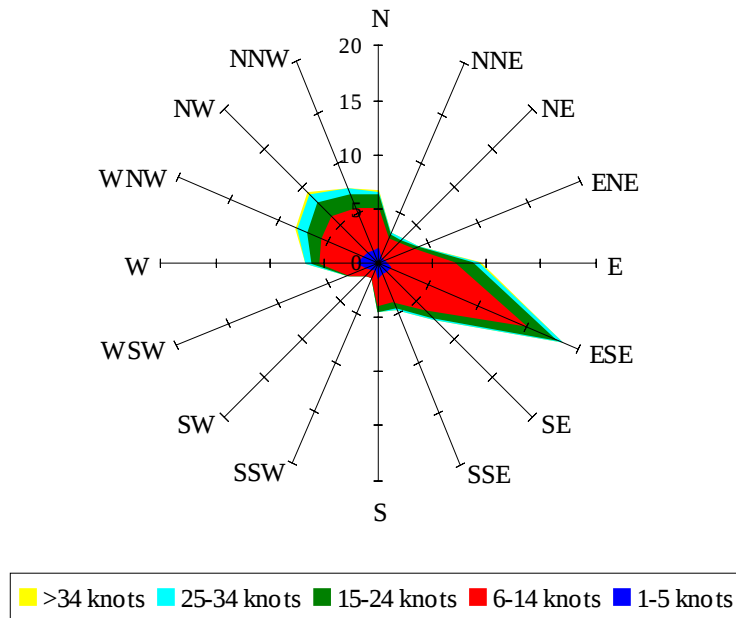
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	25	58	74	69	43	5	26	31	17	0
	M.Cloudy	15	37	49	44	28	4	18	22	12	0
NORTH	M.Clear	7	12	14	13	10	3	7	8	6	0
	M.Cloudy	6	13	15	14	10	2	7	9	6	0
EAST	M.Clear	66	68	27	13	10	22	33	8	6	0
	M.Cloudy	25	36	22	14	10	7	15	9	6	0
SOUTH	M.Clear	23	62	83	76	44	20	72	82	52	0
	M.Cloudy	11	34	47	42	24	7	27	35	20	0
WEST	M.Clear	7	12	14	49	74	3	7	17	38	0
	M.Cloudy	6	13	15	30	36	2	7	12	16	0
M.Clear	(% hrs)	44	42	41	39	38	25	26	23	23	30

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



Percent Calm = 5.97

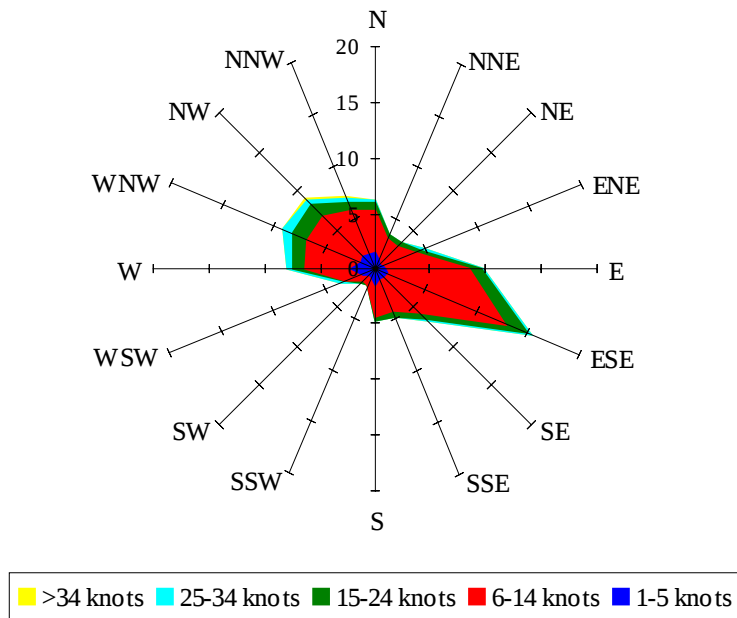
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 2.43

Wind Summary - June, July, and August

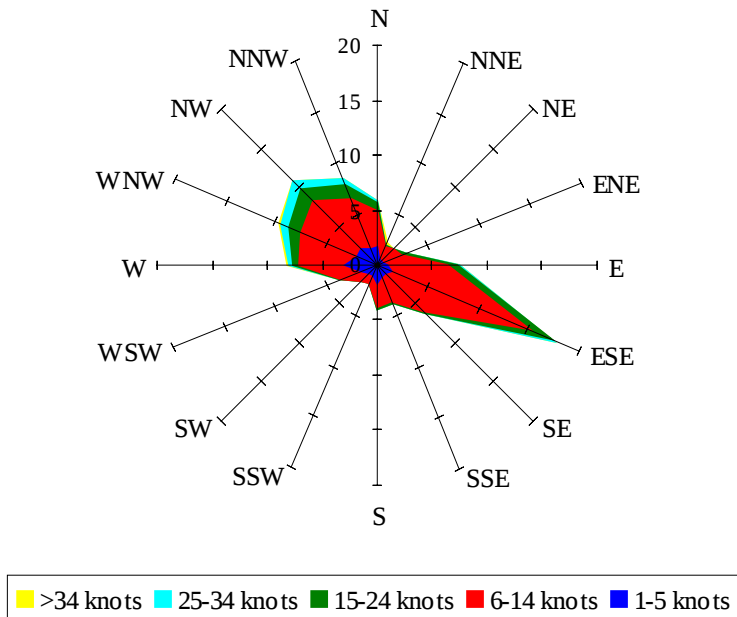
Labels of Percent Frequency on North Axis



Percent Calm = 2.20

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 3.71