FLAGSTAFF AZ	
Latitude = 35.13 N	WMO No. 723755
Longitude =111.60 W	Elevation = 7011 feet
Period of Record = 1973 to 1996	Average Pressure = 23.24 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	89	57	37	8.8	WSW
0.4% Occurrence	86	56	38	9.6	SW
1.0% Occurrence	84	56	41	9.3	SSW
2.0% Occurrence	81	56	45	8.9	SW
Mean Daily Range	27	-	-	-	-
97.5% Occurrence	15	13	11	3.7	NE
99.0% Occurrence	9	8	8	3.1	NE
99.6% Occurrence	3	2	6	3.2	NNE
Median of Extreme Lows	-4	-5	4	3.5	NE
		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	75	91	7.4	SSW
0.4% Occurrence	62	75	85	7.2	SSW
1.0% Occurrence	61	75	80	7.0	SSW
2.0% Occurrence	59	73	73	6.6	SSW
		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	100	66	0.52	5.0	SSW
0.4% Occurrence	92	66	0.49	5.3	SW
1.0% Occurrence	86	64	0.45	4.8	SSW
2.0% Occurrence	83	64	0.44	4.4	SSW
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	256	0	0

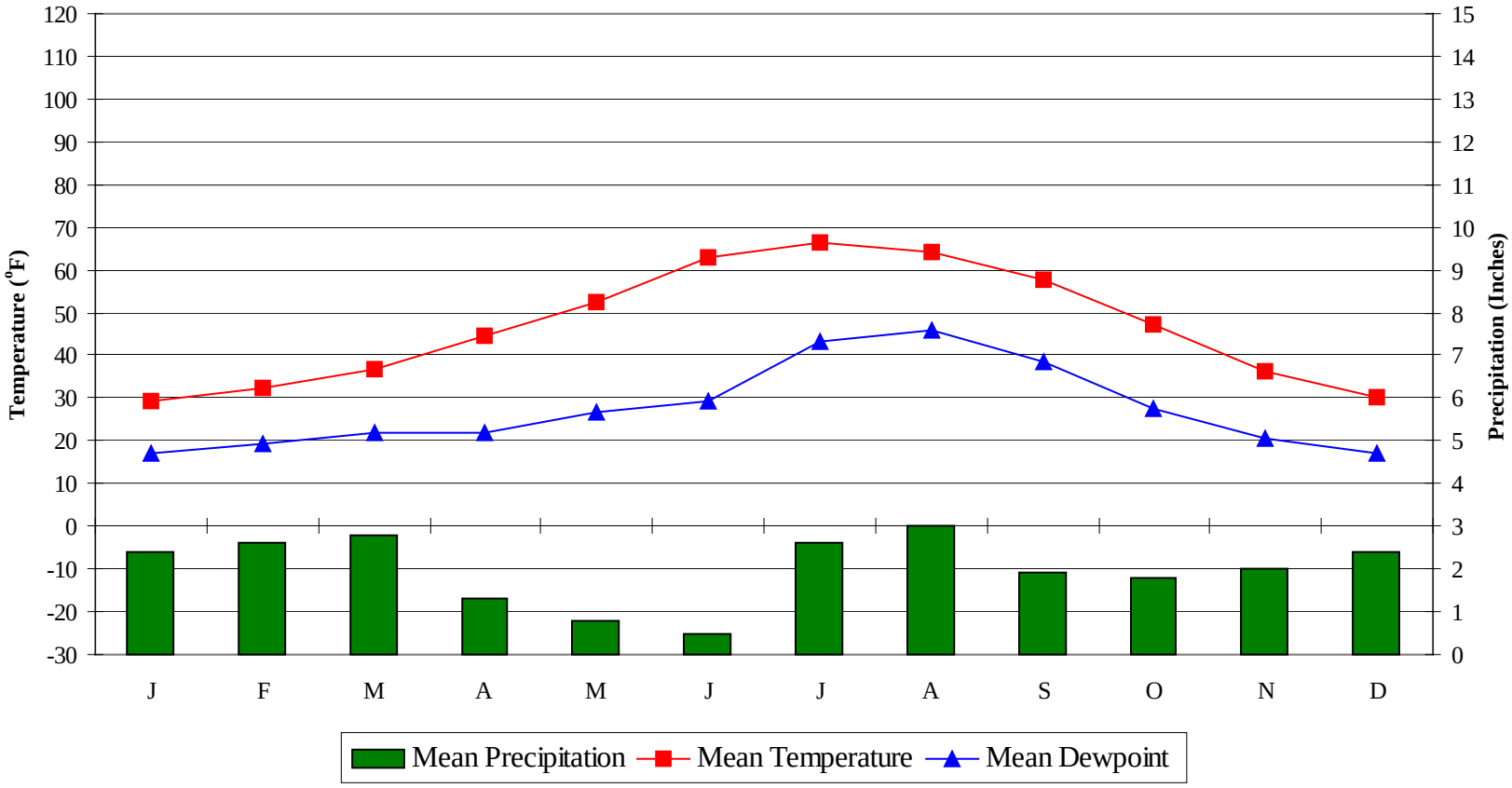
Other Site Data

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
6	2.5	90	0.0 + 0.2
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 (#)**
49.1	N/A	48	155

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

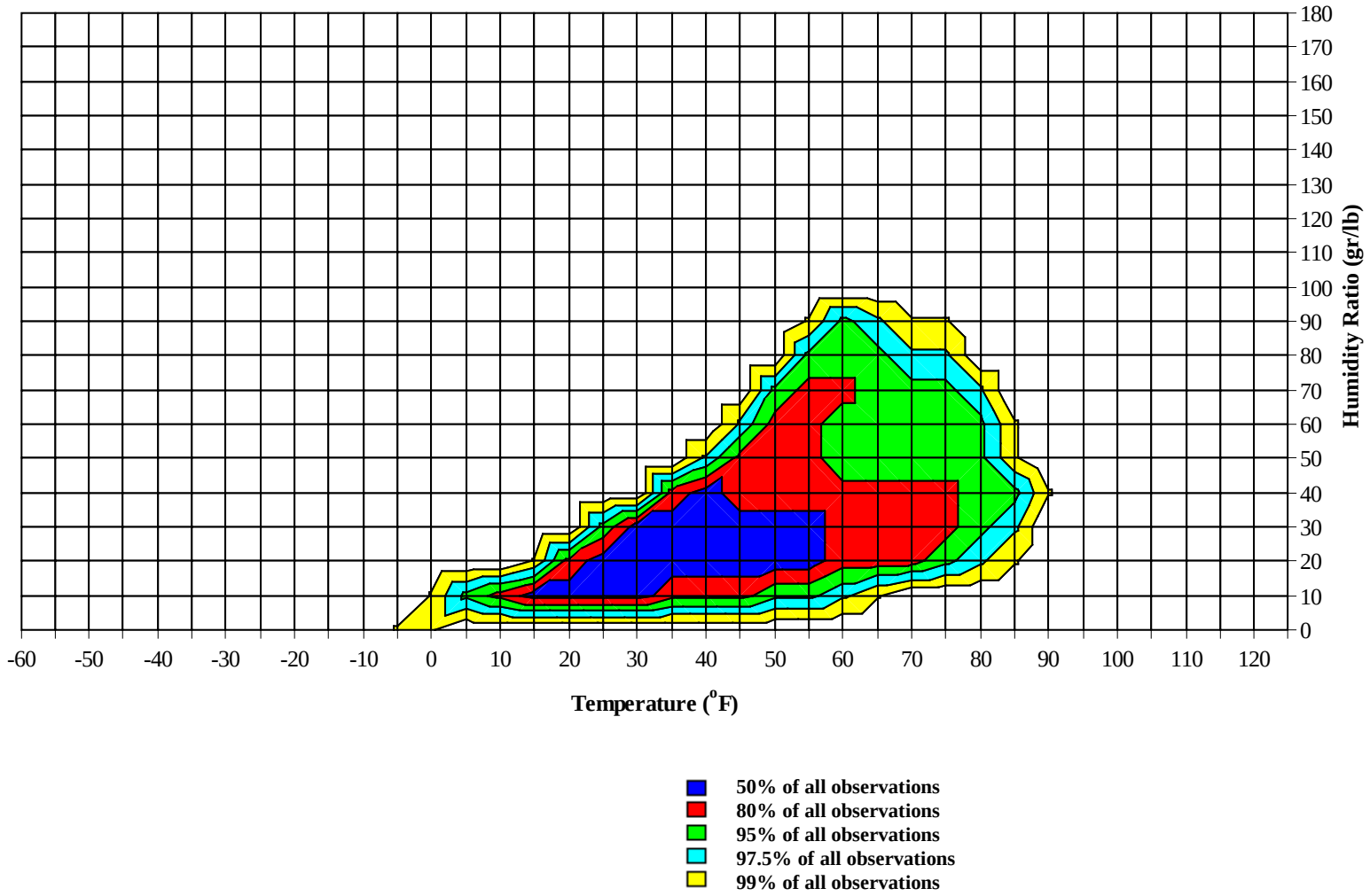
FLAGSTAFF AZ WMO No. 723755

Average Annual Climate



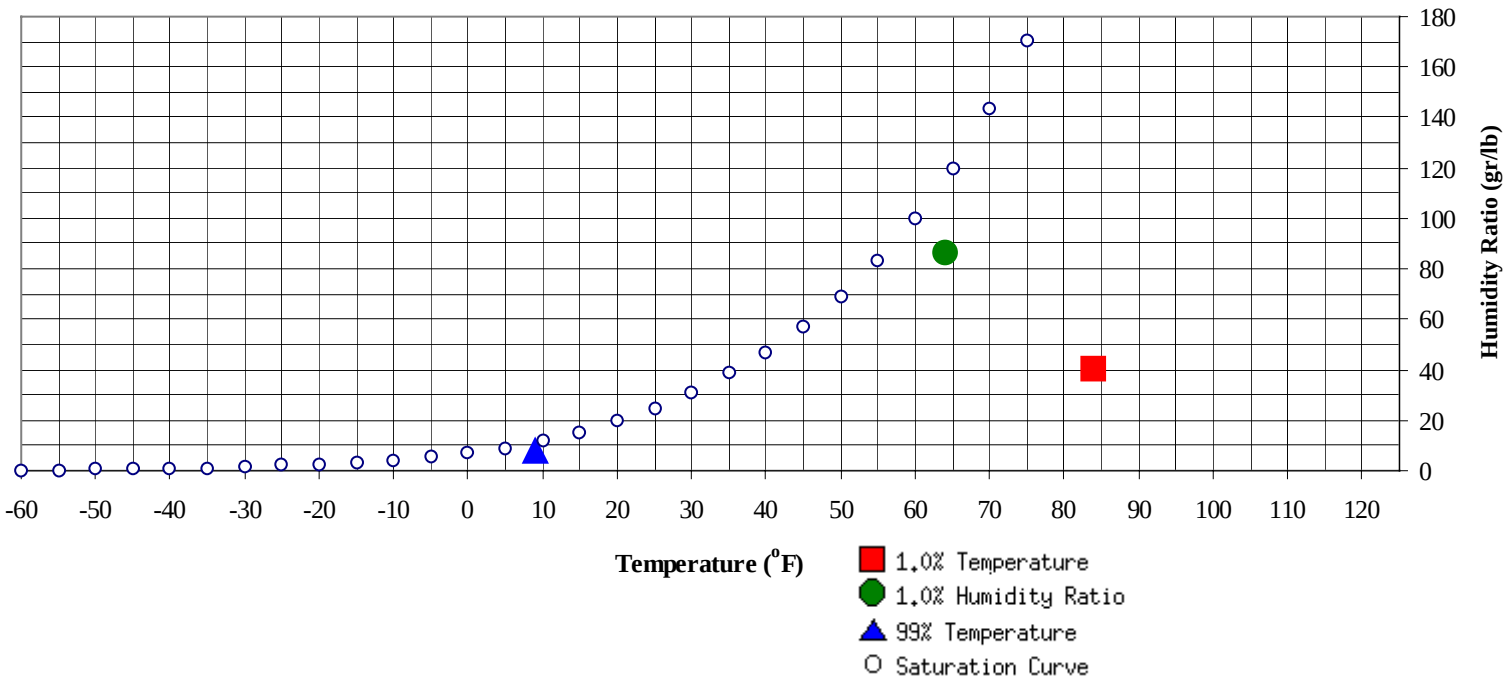
FLAGSTAFF AZ WMO No. 723755

Long Term Psychrometric Summary



FLAGSTAFF AZ WMO No. 723755

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	9	8.2	3.4

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	86.1	64	58.6	56	28.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	84	40.6	56	26.5

FLAGSTAFF AZ WMO No. 723755

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

Period of Record = 1973 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)
90 / 94															
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69							1	0	1	46.2	0	2	0	2	45.2
60 / 64		1		1	40.7		4	1	5	42.8	0	13	3	16	42.9
55 / 59		6	0	6	39.3		11	2	13	39.7	0	26	8	34	40.8
50 / 54		17	2	19	37.3		24	7	31	37.6	0	36	15	51	38.5
45 / 49		30	6	36	35.1	0	33	13	46	35.7	3	42	28	73	36.1
40 / 44	2	39	15	56	32.9	4	37	22	63	33.7	11	39	35	85	34.2
35 / 39	14	47	37	99	31.2	15	44	40	99	31.5	33	42	53	128	31.8
30 / 34	40	54	60	155	28.3	45	39	55	139	28.6	64	33	55	151	29.0
25 / 29	53	32	63	147	23.9	56	19	48	124	24.3	73	13	37	122	24.6
20 / 24	54	13	34	101	19.6	47	8	21	76	19.9	37	2	11	50	20.1
15 / 19	39	7	16	63	15.4	31	2	8	41	15.7	17	1	3	21	15.7
10 / 14	20	2	7	29	10.7	13	1	3	17	11.0	7	0	0	7	10.8
5 / 9	11	1	4	16	6.0	7	1	2	10	6.6	2		0	2	6.6
0 / 4	9	0	2	11	1.4	3	0	1	4	1.1	1		0	1	1.4
-5 / -1	2	0	1	3	-3.3	2	0	0	2	-2.9	0			0	-3.0
-10 / -6	2	0	0	2	-7.6	1	0		1	-6.1					
-15 / -11	1			1	-11.8	0			0	-13.0					
-20 / -16	0			0	-18.0	0			0	-17.5					
-25 / -21						0			0	-20.0					

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.

FLAGSTAFF AZ WMO No. 723755

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)				MCWB	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB
	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)
90 / 94												4	1	5	57.3
85 / 89							0		0	52.8		17	6	23	55.2
80 / 84							2	1	3	51.7	0	38	15	53	53.3
75 / 79		2	0	2	49.6		16	4	20	50.1	2	55	25	83	51.3
70 / 74		9	2	11	47.3	0	35	12	47	48.4	6	54	34	94	49.6
65 / 69	0	25	8	33	45.3	2	51	22	75	46.7	16	39	34	89	48.0
60 / 64	0	40	16	56	43.3	6	53	29	88	44.8	24	18	35	77	46.4
55 / 59	3	46	24	73	40.9	12	41	40	94	43.0	31	10	32	73	44.6
50 / 54	8	40	32	81	38.8	25	24	43	92	40.9	41	3	28	73	41.7
45 / 49	16	28	41	85	36.4	48	15	43	105	38.5	48	1	19	68	38.2
40 / 44	33	19	36	88	34.1	51	6	26	83	35.5	40	1	6	47	34.7
35 / 39	49	17	34	100	31.1	49	4	17	70	32.0	25	0	2	27	31.1
30 / 34	59	11	28	98	28.3	36	2	8	46	28.5	6		0	6	27.8
25 / 29	49	3	14	66	24.2	17	0	2	19	24.1	1		0	1	25.4
20 / 24	18	1	3	22	19.9	2		0	2	19.5					
15 / 19	4		0	4	15.6	0			0	15.1					
10 / 14	1		0	1	10.9										
5 / 9	0			0	5.7										
0 / 4	0			0	0.0										
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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.

FLAGSTAFF AZ WMO No. 723755

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

Period of Record = 1973 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)
90 / 94		2	1	3	57.0		0	0	0	58.1					
85 / 89		19	5	24	56.6		9	1	10	57.6		1	0	1	57.5
80 / 84	0	55	18	74	56.5	0	38	8	46	57.7		11	2	13	56.0
75 / 79	2	68	31	100	56.1	0	73	23	96	57.0	0	40	8	48	54.3
70 / 74	9	52	35	96	55.8	3	63	31	97	56.4	0	64	18	82	53.0
65 / 69	22	31	47	100	54.7	12	38	41	91	55.6	2	57	26	85	51.9
60 / 64	42	15	55	112	53.4	32	21	59	112	54.3	9	37	38	83	50.4
55 / 59	77	5	43	124	51.1	76	7	58	140	52.1	23	18	49	91	48.8
50 / 54	61	0	11	73	46.7	72	0	21	94	48.2	57	9	50	116	46.5
45 / 49	26		2	28	41.1	39	0	5	44	42.8	65	4	32	101	42.4
40 / 44	7		0	7	34.9	12		0	12	37.2	45	1	13	59	37.7
35 / 39	2			2	31.7	2			2	33.2	28	0	4	32	33.2
30 / 34						0			0	33.0	9	0	0	9	29.1
25 / 29											1			1	23.2
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															

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.

FLAGSTAFF AZ WMO No. 723755

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

Period of Record = 1973 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)
90 / 94															
85 / 89															
80 / 84		1	0	1	51.0										
75 / 79		11	1	12	49.7										
70 / 74		25	4	30	48.4		1	0	1	47.3					
65 / 69	0	40	8	48	47.2		8	0	8	44.5		0		0	44.2
60 / 64	0	48	15	63	45.6		17	2	19	43.8		3	0	3	42.7
55 / 59	2	43	21	66	44.1		28	4	32	41.5		12	0	12	39.8
50 / 54	11	31	36	78	42.3	0	36	10	46	39.0		23	2	25	37.6
45 / 49	27	25	49	101	39.6	4	39	23	66	36.8	0	36	8	44	35.1
40 / 44	46	11	47	104	36.3	19	36	33	88	34.8	3	40	17	60	33.0
35 / 39	64	7	38	108	32.3	34	34	45	113	31.7	19	49	43	111	31.4
30 / 34	56	4	19	80	28.4	49	26	52	127	27.8	44	40	56	139	28.2
25 / 29	31	1	9	41	24.5	62	12	45	119	23.8	49	26	58	132	23.8
20 / 24	7		1	8	19.9	36	4	17	57	19.6	50	11	34	95	19.6
15 / 19	2		0	2	15.5	20	1	5	26	15.5	39	6	15	60	15.3
10 / 14	1			1	11.5	10	0	2	12	10.9	21	2	7	30	10.8
5 / 9	0			0	8.0	3		1	4	6.3	13	1	4	18	6.1
0 / 4						1		0	1	0.7	5	0	3	8	1.0
-5 / -1						1			1	-3.7	2	0	1	3	-3.5
-10 / -6						0			0	-5.5	2	0	0	2	-7.5
-15 / -11											1	0	0	1	-11.9
-20 / -16											0		0	0	-17.6
-25 / -21											0			0	-21.3

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.

FLAGSTAFF AZ WMO No. 723755

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

Period of Record = 1973 to 1996

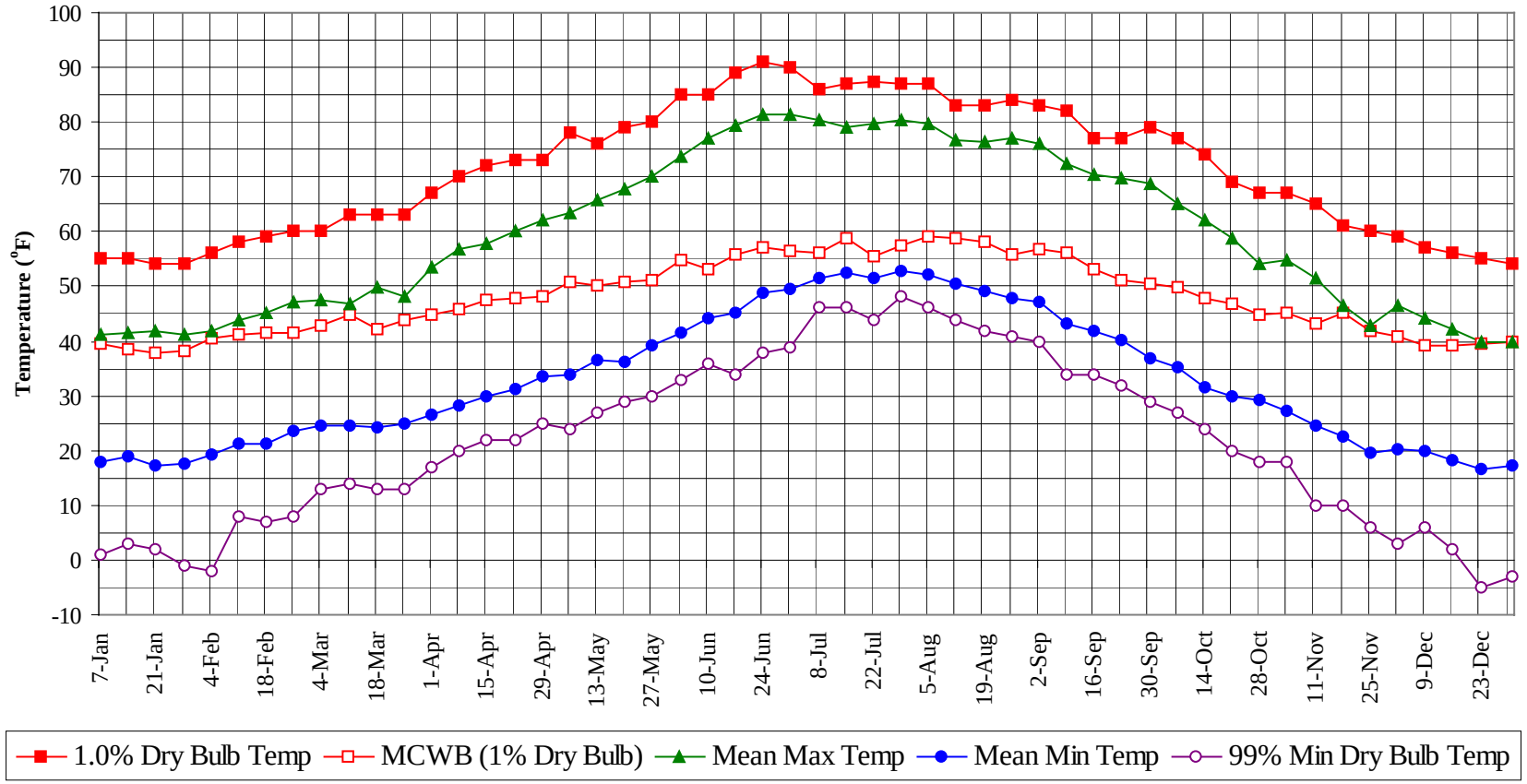
Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
90 / 94		6	1	7	57.2
85 / 89		46	12	58	56.3
80 / 84	0	144	44	188	55.8
75 / 79	4	262	92	358	54.4
70 / 74	18	302	135	455	52.6
65 / 69	52	292	184	528	50.6
60 / 64	110	269	249	627	48.7
55 / 59	219	253	281	754	46.4
50 / 54	272	244	255	772	42.5
45 / 49	271	253	267	791	38.3
40 / 44	273	227	254	754	34.8
35 / 39	335	244	315	894	31.7
30 / 34	411	208	339	959	28.4
25 / 29	395	106	279	781	24.1
20 / 24	254	39	124	417	19.7
15 / 19	156	17	49	222	15.5
10 / 14	75	6	20	101	10.8
5 / 9	39	3	10	52	6.2
0 / 4	19	1	6	26	1.2
-5 / -1	7	0	2	9	-3.3
-10 / -6	4	0	1	5	-7.3
-15 / -11	1	0	0	1	-11.9
-20 / -16	1		0	1	-17.6
-25 / -21	1			1	-21.2

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.

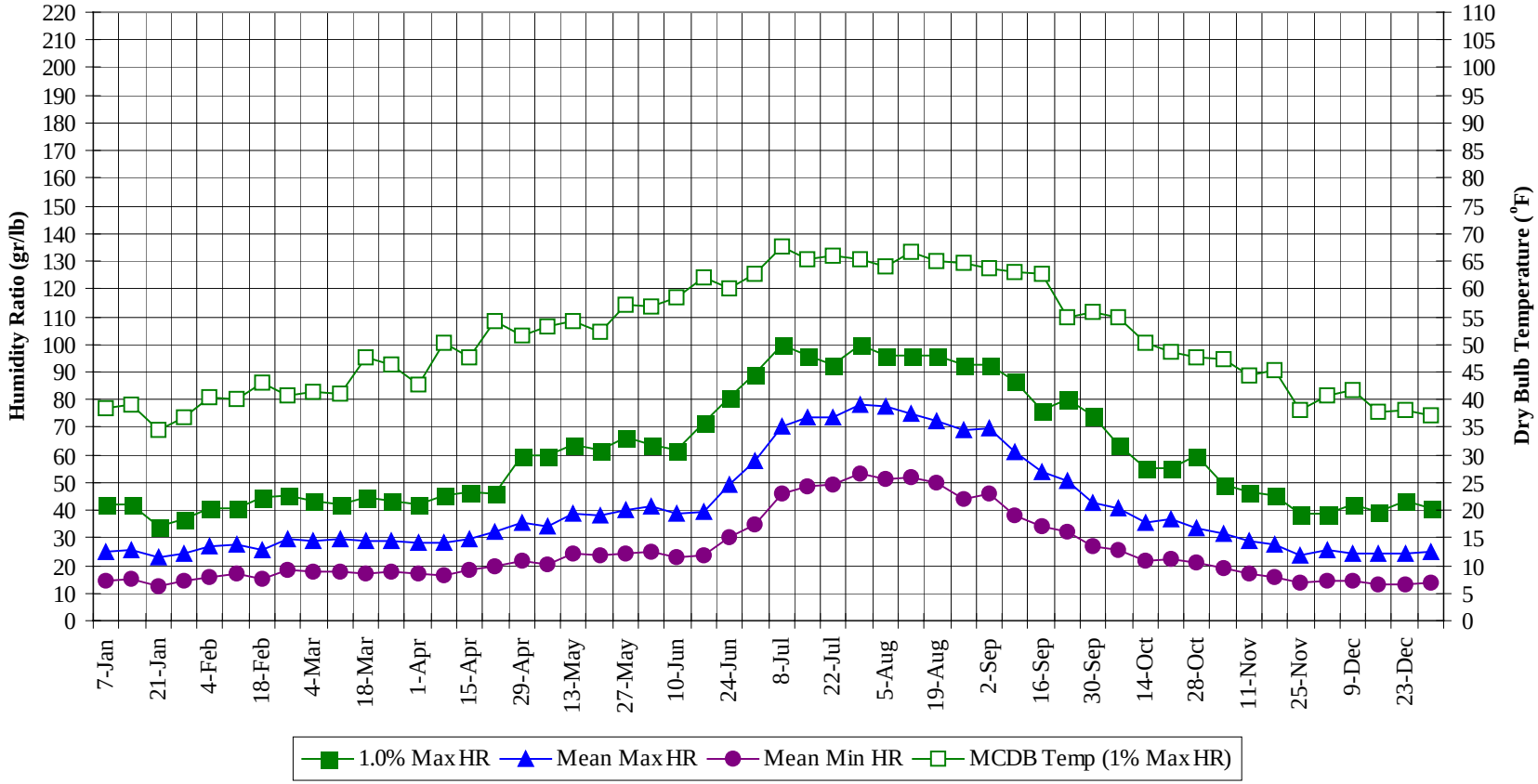
FLAGSTAFF AZ WMO No. 723755

Annual Summary of Temperatures



FLAGSTAFF AZ WMO No. 723755

Long Term Humidity and Dry Bulb Temperature Summary



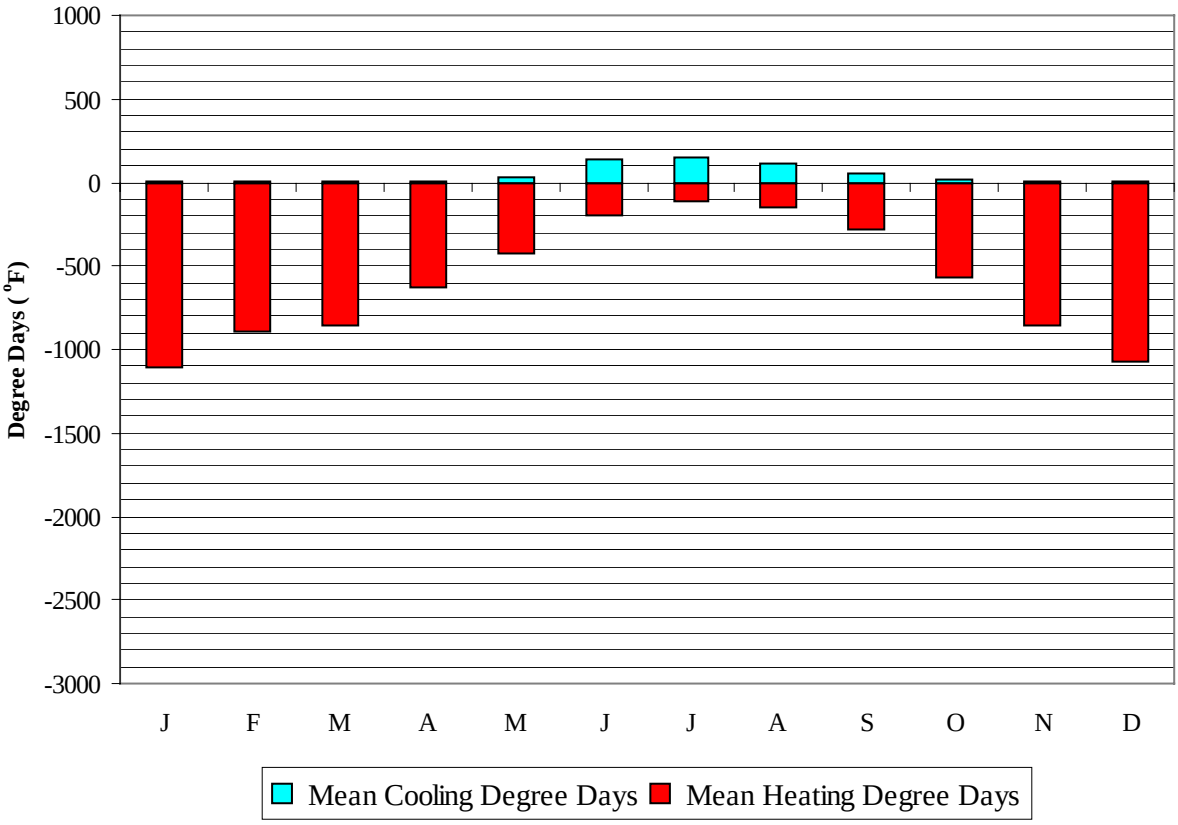
FLAGSTAFF AZ WMO No. 723755

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	55.0	39.6	41.1	18.0	1.0	42.0	38.5	24.8	14.3
14-Jan	55.0	38.4	41.4	19.0	3.0	42.0	39.0	25.5	14.8
21-Jan	54.0	37.7	42.0	17.1	2.0	34.3	34.6	23.0	12.5
28-Jan	54.0	38.2	41.2	17.6	-1.0	37.1	36.9	24.4	14.1
4-Feb	56.0	40.5	41.7	19.3	-2.0	40.6	40.4	26.7	15.7
11-Feb	58.0	41.1	44.0	21.4	8.0	40.6	39.9	27.5	17.0
18-Feb	59.0	41.6	45.3	21.3	7.0	44.8	43.1	25.5	15.2
25-Feb	60.0	41.4	47.0	23.6	8.0	45.5	40.8	29.7	18.3
4-Mar	60.0	42.9	47.5	24.6	13.0	43.4	41.2	29.1	17.7
11-Mar	63.0	44.8	47.0	24.6	14.0	42.0	40.9	29.3	18.0
18-Mar	63.0	42.2	49.8	24.2	13.0	44.8	47.5	28.8	17.4
25-Mar	63.0	43.9	48.2	24.8	13.0	43.4	46.2	28.9	17.5
1-Apr	67.0	44.9	53.3	26.6	17.0	42.0	42.8	28.5	17.2
8-Apr	70.0	45.8	57.0	28.2	20.0	45.5	50.4	28.4	16.4
15-Apr	72.0	47.6	57.8	30.0	22.0	46.9	47.7	29.8	18.1
22-Apr	73.0	47.8	60.1	31.1	22.0	46.2	54.3	32.0	19.6
29-Apr	73.0	48.0	62.1	33.4	25.0	59.5	51.5	35.6	21.7
6-May	78.0	50.7	63.4	33.7	24.0	59.5	53.3	34.2	20.7
13-May	76.0	50.0	65.8	36.5	27.0	63.7	54.1	39.0	24.0
20-May	79.0	50.9	67.8	36.3	29.0	61.6	52.1	37.9	23.5
27-May	80.0	51.1	70.0	39.2	30.0	66.5	57.0	40.2	24.6
3-Jun	85.0	54.8	73.7	41.5	33.0	63.7	56.9	41.2	25.1
10-Jun	85.0	53.3	77.2	44.1	36.0	61.6	58.5	38.9	23.1
17-Jun	89.0	55.8	79.3	45.1	34.0	71.4	62.2	39.1	23.5
24-Jun	91.0	57.2	81.3	48.8	38.0	80.5	60.0	49.1	30.0
1-Jul	90.0	56.4	81.3	49.4	39.0	89.6	62.7	57.9	34.7
8-Jul	86.0	56.2	80.2	51.6	46.0	100.1	67.5	70.2	46.2
15-Jul	87.0	58.9	79.0	52.5	46.0	95.9	65.5	73.8	48.7
22-Jul	87.5	55.5	79.7	51.5	44.0	92.4	66.1	73.3	49.2
29-Jul	87.0	57.6	80.3	52.9	48.0	100.1	65.5	78.1	53.0
5-Aug	87.0	59.2	79.8	52.0	46.0	95.9	64.1	77.7	51.2
12-Aug	83.0	58.9	76.9	50.5	44.0	95.9	66.7	75.1	52.1
19-Aug	83.0	58.1	76.3	49.3	42.0	95.9	64.9	72.5	49.8
26-Aug	84.0	55.8	77.0	47.9	41.0	92.4	64.6	69.0	44.2
2-Sep	83.0	56.7	76.0	47.2	40.0	92.4	63.7	69.4	46.2
9-Sep	82.0	56.1	72.5	43.3	34.0	86.8	63.0	60.9	38.3
16-Sep	77.0	53.1	70.5	41.8	34.0	76.3	62.6	54.2	33.8
23-Sep	77.0	51.3	69.8	40.2	32.0	79.8	55.0	50.4	31.9
30-Sep	79.0	50.6	68.7	36.9	29.0	74.2	55.8	42.8	26.9
7-Oct	77.0	49.9	65.1	35.3	27.0	63.7	55.0	40.5	25.3
14-Oct	74.0	48.0	62.0	31.5	24.0	55.3	50.4	35.6	21.9
21-Oct	69.0	46.9	58.9	30.0	20.0	55.3	48.7	36.5	22.3
28-Oct	67.0	44.9	54.2	29.2	18.0	59.5	47.7	33.5	21.1
4-Nov	67.0	45.1	54.7	27.2	18.0	49.0	47.2	31.2	19.0
11-Nov	65.0	43.2	51.4	24.5	10.0	46.9	44.2	28.9	16.8
18-Nov	61.0	45.3	46.6	22.7	10.0	45.5	45.2	27.6	15.6
25-Nov	60.0	42.0	42.8	19.6	6.0	38.5	38.2	23.4	13.5
2-Dec	59.0	40.9	46.5	20.3	3.0	38.5	40.7	25.6	14.5
9-Dec	57.0	39.3	44.1	19.9	6.0	42.0	41.7	24.4	14.3
16-Dec	56.0	39.3	42.1	18.3	2.0	39.2	37.9	24.0	13.4
23-Dec	55.0	39.5	39.7	16.6	-5.0	43.4	38.1	24.2	13.4
31-Dec	54.0	39.7	39.8	17.2	-3.0	40.6	37.2	25.2	13.9

FLAGSTAFF AZ WMO No. 723755

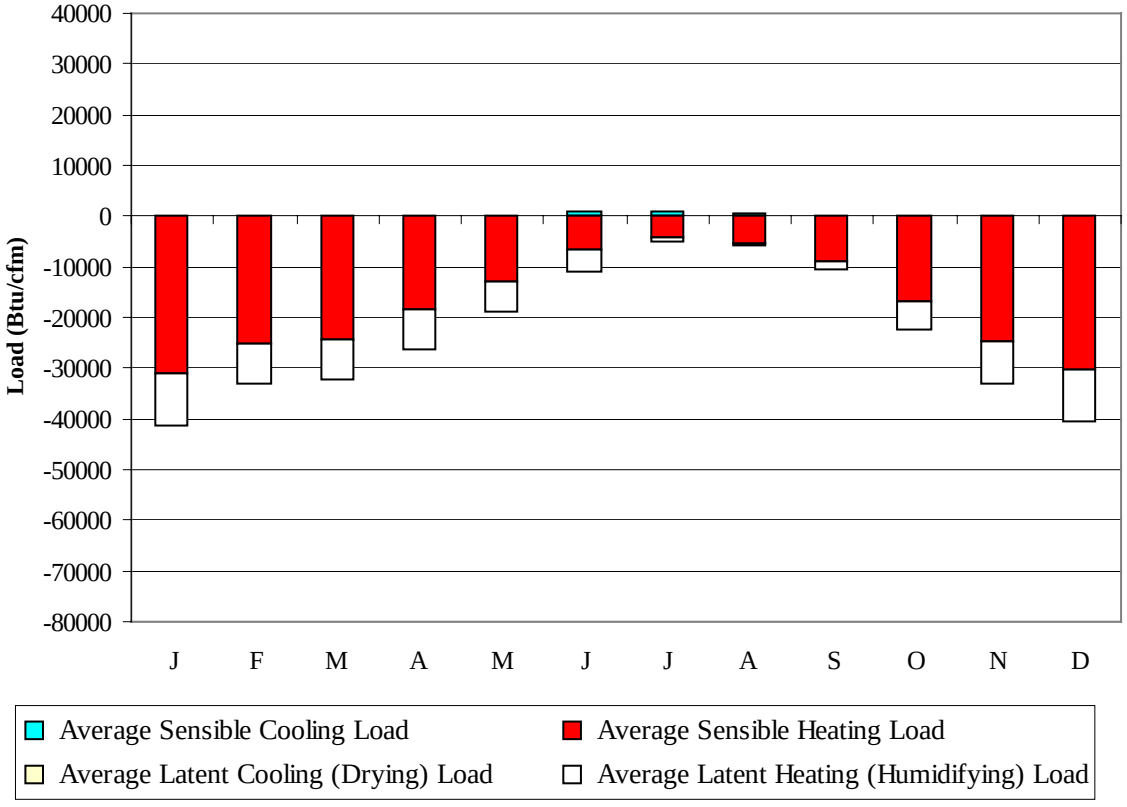
Degree Days, Heating and Cooling
(Base 65°F)



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1106
FEB	0	888
MAR	0	852
APR	6	627
MAY	29	424
JUN	133	195
JUL	155	114
AUG	117	150
SEP	59	276
OCT	17	564
NOV	1	860
DEC	0	1077
ANN	515	7133

FLAGSTAFF AZ WMO No. 723755

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	-31068	0	-10084
FEB	0	-25120	0	-8026
MAR	0	-24413	0	-7710
APR	2	-18487	0	-7683
MAY	52	-13043	0	-5811
JUN	888	-6384	0	-4398
JUL	1058	-4176	7	-982
AUG	629	-5300	5	-473
SEP	173	-8868	0	-1648
OCT	27	-16814	0	-5426
NOV	0	-24600	0	-8330
DEC	0	-30324	0	-10098
ANN	2829	-208597	12	-70669

Average Annual Solar Radiation – Nearest Available Site

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

City: FLAGSTAFF
State: AZ
WBAN No: 3103
Lat(N): 35.13
Long(W): 111.67
Elev(ft): 7005

Stn Type: Secondary
SHADING GEOMETRY IN DIMENSIONLESS UNITS
Window: 1
Overhang: 0.397
Vert Gap: 0.287

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	970	1260	1600	2000	2280	2440	2020	1870	1710	1410	1050	880	1630
	Std Dev	75	85	129	120	124	143	146	178	127	117	78	73	48
	Minimum	830	1100	1370	1720	1970	2090	1660	1390	1440	1070	820	700	1530
	Maximum	1110	1410	1870	2170	2470	2670	2340	2150	2040	1590	1180	1000	1690
	Diffuse	300	400	500	530	550	530	680	600	460	330	270	260	450
Clear Day	Global	1190	1540	2010	2450	2710	2790	2690	2450	2090	1640	1240	1080	1990
NORTH	Global	230	290	360	440	580	700	600	470	370	290	230	210	400
	Diffuse	230	290	360	420	460	490	480	420	360	290	230	210	350
Clear Day	Global	200	250	320	420	600	730	660	470	340	270	210	180	390
EAST	Global	680	850	1030	1230	1360	1420	1240	1190	1110	940	730	630	1030
	Diffuse	280	360	450	510	550	560	570	520	450	350	280	250	430
Clear Day	Global	870	1070	1290	1460	1540	1550	1510	1430	1300	1090	890	810	1230
SOUTH	Global	1580	1550	1340	1090	820	710	690	880	1220	1540	1600	1560	1210
	Diffuse	380	450	490	500	490	480	500	500	480	420	360	340	450
Clear Day	Global	2200	2140	1830	1300	910	750	800	1090	1560	1970	2140	2180	1570
WEST	Global	660	810	960	1160	1250	1310	1040	1000	1010	900	720	610	950
	Diffuse	290	370	450	520	550	570	570	530	460	360	280	250	430
Clear Day	Global	870	1070	1290	1460	1540	1550	1510	1430	1300	1090	890	810	1230

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

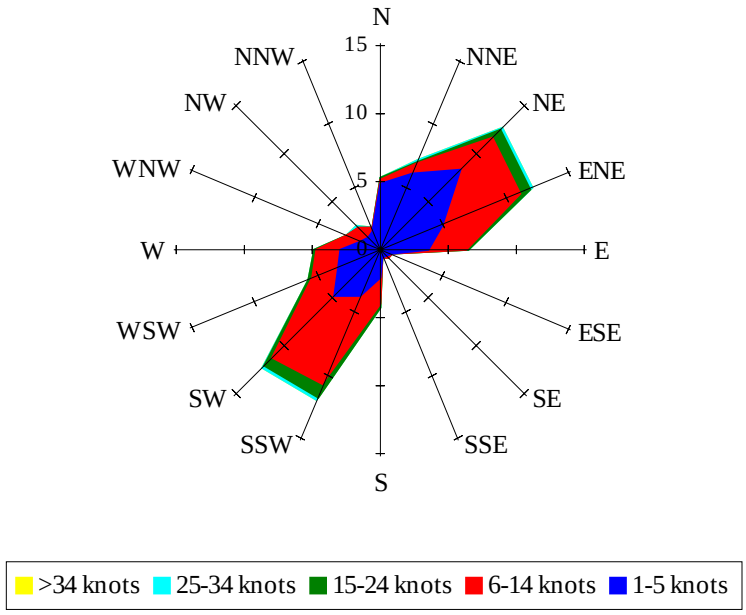
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	640	870	1140	1460	1670	1790	1470	1360	1230	990	700	570	1160
NORTH	Unshaded	160	200	250	290	360	420	380	300	250	200	160	140	260
	Shaded	150	190	240	280	340	390	350	290	240	190	150	130	240
EAST	Unshaded	470	600	740	890	980	1020	890	860	800	670	510	430	740
	Shaded	440	560	680	810	890	930	800	780	730	620	480	410	680
SOUTH	Unshaded	1180	1120	900	670	470	400	410	520	790	1090	1190	1180	820
	Shaded	1170	1060	750	450	320	320	320	360	600	990	1170	1170	720
WEST	Unshaded	460	570	690	830	890	940	740	720	720	640	500	420	680
	Shaded	430	530	630	750	810	850	670	650	660	590	470	400	620

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	38	77	92	79	42	63	96	106	94	60
	M.Cloudy	25	52	64	55	27	48	72	82	69	40
NORTH	M.Clear	9	13	15	14	10	17	15	16	15	18
	M.Cloudy	9	15	17	16	10	16	16	16	16	15
EAST	M.Clear	85	69	18	14	10	87	63	16	15	12
	M.Cloudy	39	43	19	16	10	60	49	16	16	12
SOUTH	M.Clear	35	69	82	70	38	12	30	38	29	12
	M.Cloudy	19	43	53	46	21	13	27	33	26	12
WEST	M.Clear	9	13	15	65	85	12	15	17	65	86
	M.Cloudy	9	15	17	42	40	13	16	17	48	50
M.Clear	(% hrs)	49	47	42	36	36	75	69	62	58	60
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	46	80	91	75	38	15	48	60	45	11
	M.Cloudy	30	56	66	54	26	10	32	41	30	7
NORTH	M.Clear	10	14	15	14	9	5	10	12	10	4
	M.Cloudy	10	15	16	15	9	4	11	13	10	3
EAST	M.Clear	84	62	15	14	9	54	53	12	10	4
	M.Cloudy	42	42	16	15	9	20	28	13	10	3
SOUTH	M.Clear	33	61	71	58	27	43	88	100	84	33
	M.Cloudy	20	42	51	39	17	16	43	55	43	12
WEST	M.Clear	10	14	19	66	78	5	10	15	57	46
	M.Cloudy	10	15	19	45	40	4	11	14	31	15
M.Clear	(% hrs)	68	60	49	45	49	52	52	48	46	45

Wind Summary - December, January, and February

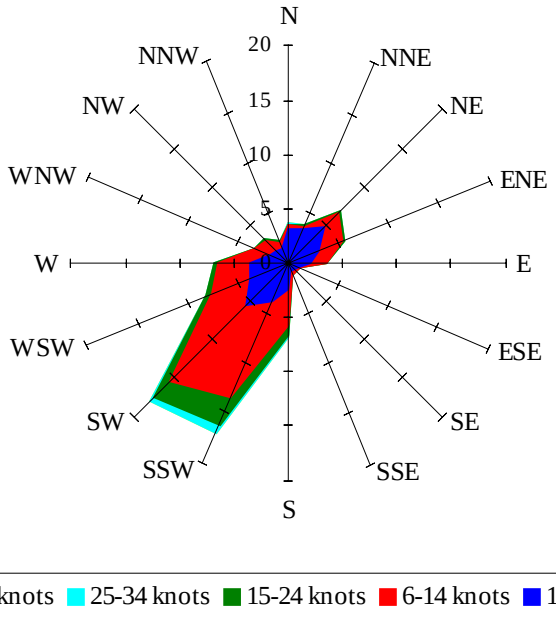
Labels of Percent Frequency on North Axis



Percent Calm = 9.16

Wind Summary - March, April, and May

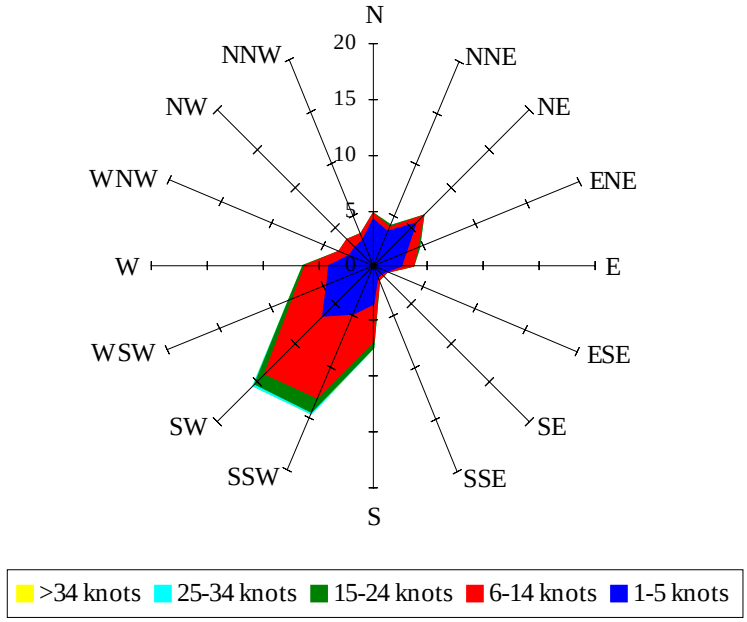
Labels of Percent Frequency on North Axis



Percent Calm = 8.11

Wind Summary - June, July, and August

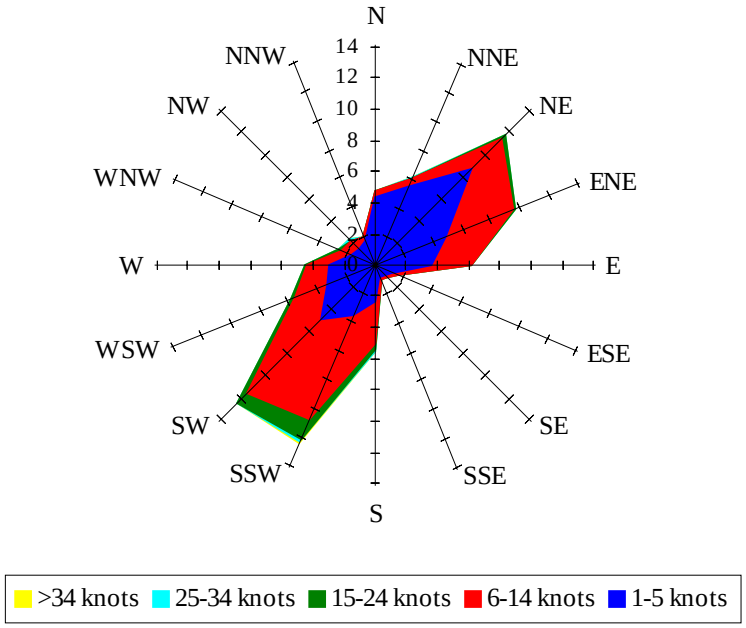
Labels of Percent Frequency on North Axis



Percent Calm = 11.22

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 11.17