

NEWBURGH/STEWART NY

Latitude = 41.50 N

WMO No. 725038

Longitude = 74.10 W

Elevation = 492 feet

Period of Record = 1973 to 1995

Average Pressure = 29.49 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	92	75	106	11.9	W
0.4% Occurrence	89	74	104	9.9	WSW
1.0% Occurrence	86	72	97	9.1	WSW
2.0% Occurrence	83	70	93	8.7	WSW
Mean Daily Range	15	-	-	-	-
97.5% Occurrence	14	12	6	8.7	W
99.0% Occurrence	9	7	5	9.4	W
99.6% Occurrence	4	3	4	10.0	W
Median of Extreme Lows	-5	-6	3	8.3	W
	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	81	90	148	9.8	W
0.4% Occurrence	76	84	123	8.5	WSW
1.0% Occurrence	75	83	119	8.6	W
2.0% Occurrence	73	81	111	7.8	WSW
	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	149	83	0.97	12.2	SW
0.4% Occurrence	129	82	0.85	6.6	WSW
1.0% Occurrence	120	80	0.79	7.4	WSW
2.0% Occurrence	112	78	0.74	6.7	WSW
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		6	383	179	838

Other Site Data

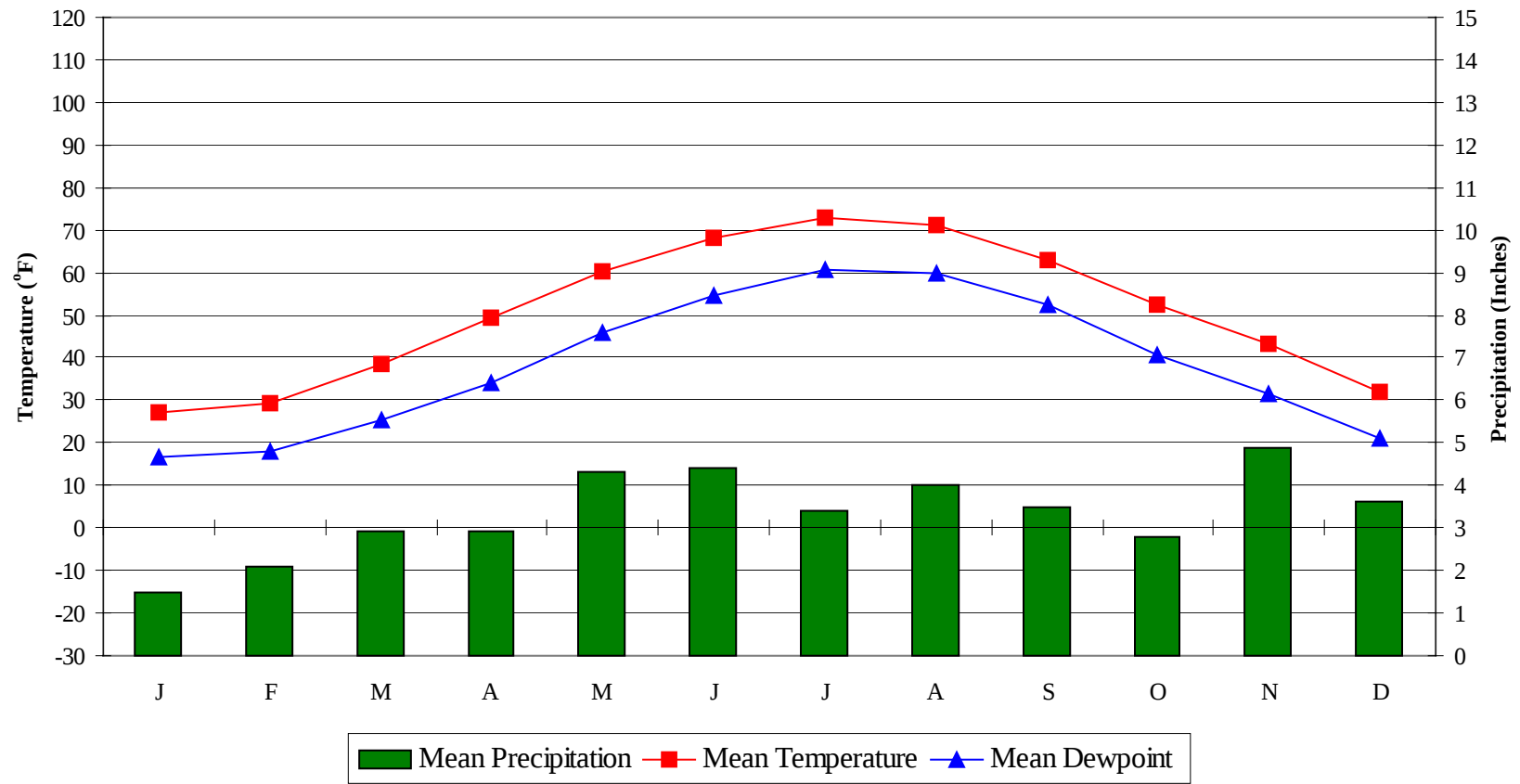
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
6	2.8	100	0.9 + 0.3
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
52.9	54	35	58

*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

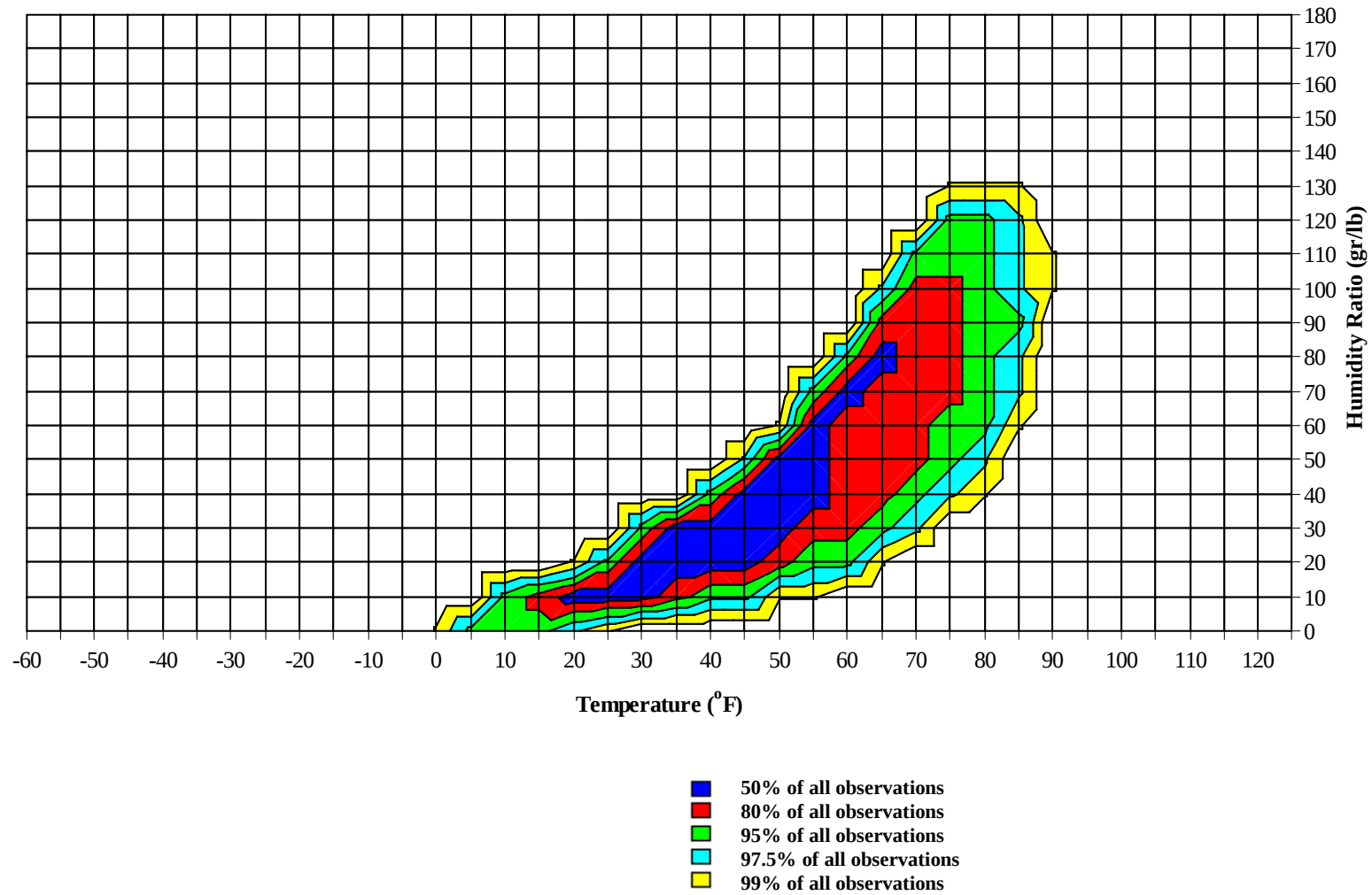


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Long Term Psychrometric Summary

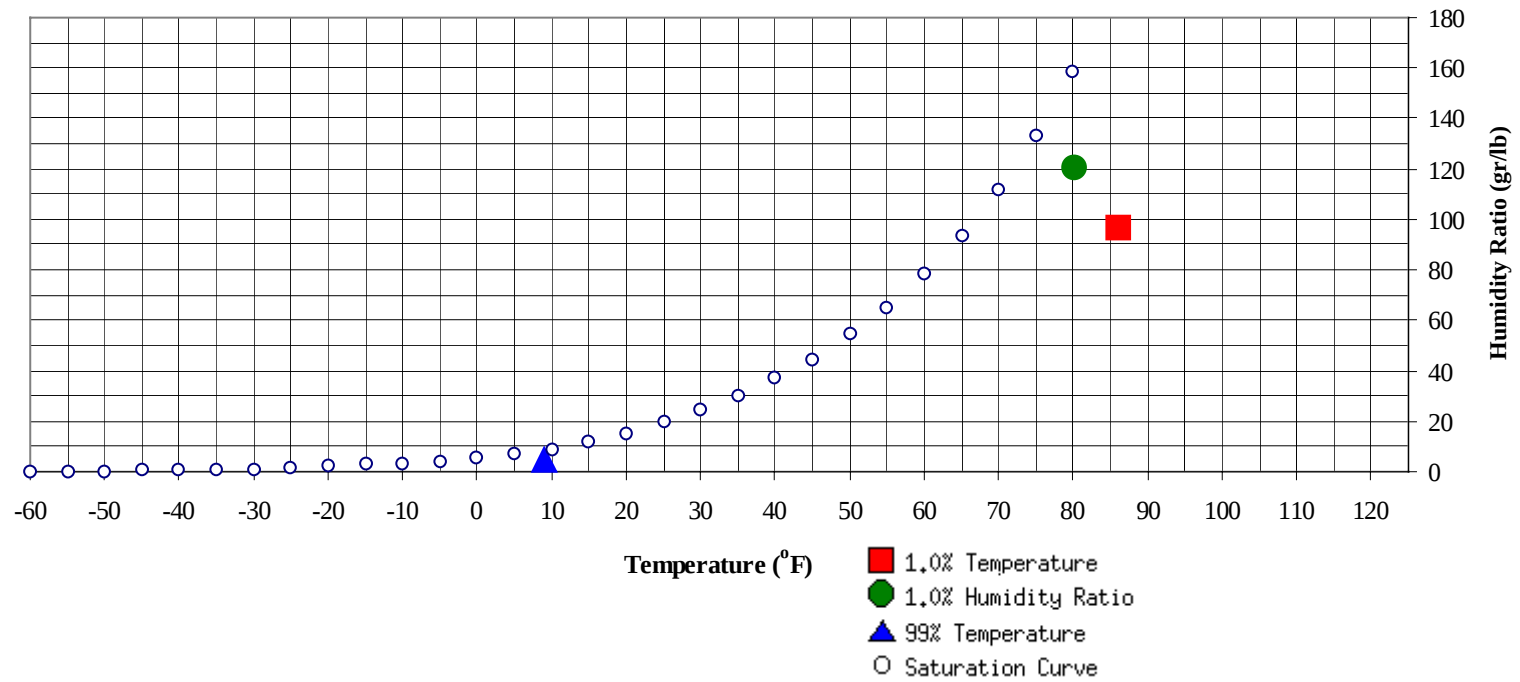


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Psychrometric Summary of Peak Design Values



	(°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	9	5	2.9		120.4	80.1	74.3	72	38.1

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	86	97	71.9	35.9

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

Period of Record = 1973 to 1995

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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84											0	0		0	64.4
75 / 79											0	1	1	2	64.6
70 / 74											0	2	2	4	59.6
65 / 69							0	0	0	54.6	0	5	3	8	55.2
60 / 64	0	1	0	1	56.2		2	1	3	51.3	1	8	6	15	52.0
55 / 59	3	3	2	7	52.1	1	4	3	8	50.6	5	13	10	29	48.8
50 / 54	1	3	3	7	48.3	3	8	6	16	46.6	9	22	17	48	45.0
45 / 49	3	8	6	16	42.1	8	14	12	34	41.8	19	37	33	88	40.7
40 / 44	10	20	17	48	37.5	14	30	22	66	37.1	30	48	50	128	36.9
35 / 39	29	42	36	107	33.2	21	35	33	89	33.0	49	46	48	143	32.7
30 / 34	45	51	47	143	28.7	36	39	42	118	28.5	57	33	41	132	28.4
25 / 29	39	37	44	120	23.9	39	36	38	112	23.7	32	19	20	71	23.5
20 / 24	34	36	36	105	19.5	35	26	30	91	19.0	22	9	13	44	19.1
15 / 19	30	24	27	81	14.8	26	16	18	61	14.7	14	4	5	22	14.4
10 / 14	25	12	15	53	10.1	23	9	11	42	10.3	6	1	1	8	9.8
5 / 9	15	8	9	32	5.7	11	4	6	21	5.8	2	0	0	2	5.4
0 / 4	8	3	5	15	1.3	4	2	2	7	0.9	1		0	1	1.8
-5 / -1	3	1	1	4	-3.2	3	0	0	3	-3.1					
-10 / -6	4	0	1	5	-7.2	1			1	-6.3					
-15 / -11	1	0	0	1	-11.7	0			0	-11.0					
-20 / -16	0			0	-17.0										

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 = 1973 to 1995**

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		
100 / 104															
95 / 99			0	0	66.0										
90 / 94		0	0	0	66.3		0	0	0	71.0		3	1	4	74.8
85 / 89		1	0	1	68.5		4	2	6	68.9	0	12	6	17	71.8
80 / 84		3	2	5	65.1		13	7	20	66.5	0	30	16	47	68.7
75 / 79	0	4	3	7	61.7	0	22	16	38	63.8	4	49	33	85	65.7
70 / 74	1	8	6	15	58.2	5	33	27	65	60.7	22	59	58	139	62.9
65 / 69	1	16	11	29	54.7	20	45	37	102	57.5	61	42	54	157	60.4
60 / 64	6	27	20	53	51.6	33	47	45	125	54.3	64	28	40	132	56.4
55 / 59	18	37	31	87	48.4	56	42	53	152	51.1	52	13	23	88	52.4
50 / 54	30	45	46	120	44.8	61	27	39	127	47.1	27	3	8	38	48.0
45 / 49	51	44	51	146	41.1	45	10	17	72	42.6	8	1	2	11	43.7
40 / 44	59	36	36	131	37.6	21	3	5	29	38.4	1		0	1	38.9
35 / 39	42	12	24	78	33.1	6	1	1	8	33.7					
30 / 34	21	5	8	33	28.7	1	0		1	29.6					
25 / 29	7	1	2	10	23.7										
20 / 24	2	1	1	4	18.8										
15 / 19	1	0	0	1	14.8										
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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NEWBURGH/STEWART NY

WMO No. 725038

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1973 to 1995**

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		
100 / 104		0	0	0	76.2										
95 / 99		1	0	1	75.8		0		0	75.3					
90 / 94		8	2	10	76.0		4	1	5	75.0		1	0	1	74.9
85 / 89	0	26	13	38	72.9		19	8	27	73.5		3	1	4	73.9
80 / 84	2	58	35	96	70.2	0	47	24	72	70.8		12	5	17	69.9
75 / 79	17	69	59	145	67.6	11	67	48	125	68.0	2	28	16	46	67.3
70 / 74	62	53	68	183	65.4	49	62	72	183	65.6	14	43	33	90	64.3
65 / 69	87	25	48	160	62.2	80	34	56	169	62.2	33	58	48	138	60.6
60 / 64	57	8	19	84	57.9	60	12	27	100	57.4	48	49	55	152	56.6
55 / 59	19	1	5	25	53.1	35	4	10	49	53.3	58	33	48	139	52.5
50 / 54	4	0	0	4	48.3	12	0	2	14	48.5	46	11	22	79	48.0
45 / 49	0			0	43.8	1	0	0	1	42.5	25	3	11	38	43.1
40 / 44						0			0	39.7	13	0	2	15	39.2
35 / 39											1		0	1	35.7
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															

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.

NEWBURGH/STEWART NY

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1973 to 1995**

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		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84		1	0	1	66.1										
75 / 79	0	4	1	5	64.6		1	0	1	63.1					
70 / 74	1	15	6	22	62.6		3	1	4	61.6					
65 / 69	5	27	18	50	59.0	0	7	5	12	58.6	0	1	0	1	59.2
60 / 64	15	37	34	86	55.4	7	12	11	31	55.6	1	2	1	4	57.1
55 / 59	29	50	43	122	51.1	10	21	17	48	51.1	3	4	3	10	51.9
50 / 54	43	52	51	147	46.2	20	36	27	83	46.6	5	9	7	20	46.7
45 / 49	51	37	48	137	42.0	31	46	39	117	41.9	8	16	12	36	42.3
40 / 44	53	19	33	104	37.8	40	44	47	130	37.0	19	34	30	82	37.5
35 / 39	34	5	12	51	33.5	52	39	46	137	32.6	42	53	49	144	33.1
30 / 34	14	1	2	17	29.6	47	22	33	102	28.5	52	52	56	160	28.6
25 / 29	2	0	0	2	24.6	22	6	10	39	24.2	42	32	34	108	24.0
20 / 24	0	0	0	0	19.5	7	2	3	12	19.5	31	23	25	79	19.2
15 / 19						2	1	1	4	15.7	20	14	18	52	14.9
10 / 14						0	0		0	12.6	17	6	10	33	10.4
5 / 9											6	2	3	11	6.0
0 / 4											1	1	0	2	1.3
-5 / -1											1	0	0	1	-3.1
-10 / -6											0	0	0	0	-6.5
-15 / -11															
-20 / -16															

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 5 of 5)

Period of Record = 1973 to 1995

Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		0	0	0	76.2
95 / 99		2	0	2	75.3
90 / 94		15	4	19	75.1
85 / 89	0	61	28	89	72.6
80 / 84	2	160	84	246	69.6
75 / 79	35	239	167	440	66.8
70 / 74	154	271	261	686	64.0
65 / 69	288	257	271	816	60.3
60 / 64	296	231	252	779	55.7
55 / 59	290	227	244	761	51.3
50 / 54	265	217	229	711	46.4
45 / 49	252	217	235	704	41.8
40 / 44	261	237	249	747	37.4
35 / 39	276	239	257	772	33.0
30 / 34	270	206	237	713	28.6
25 / 29	181	133	153	467	23.9
20 / 24	128	97	113	339	19.2
15 / 19	92	59	70	220	14.8
10 / 14	69	30	39	138	10.2
5 / 9	35	15	18	68	5.8
0 / 4	13	4	7	24	1.2
-5 / -1	6	2	2	10	-3.2
-10 / -6	5	1	1	7	-6.8
-15 / -11	1	0	0	1	-11.4
-20 / -16	0			0	-17.0

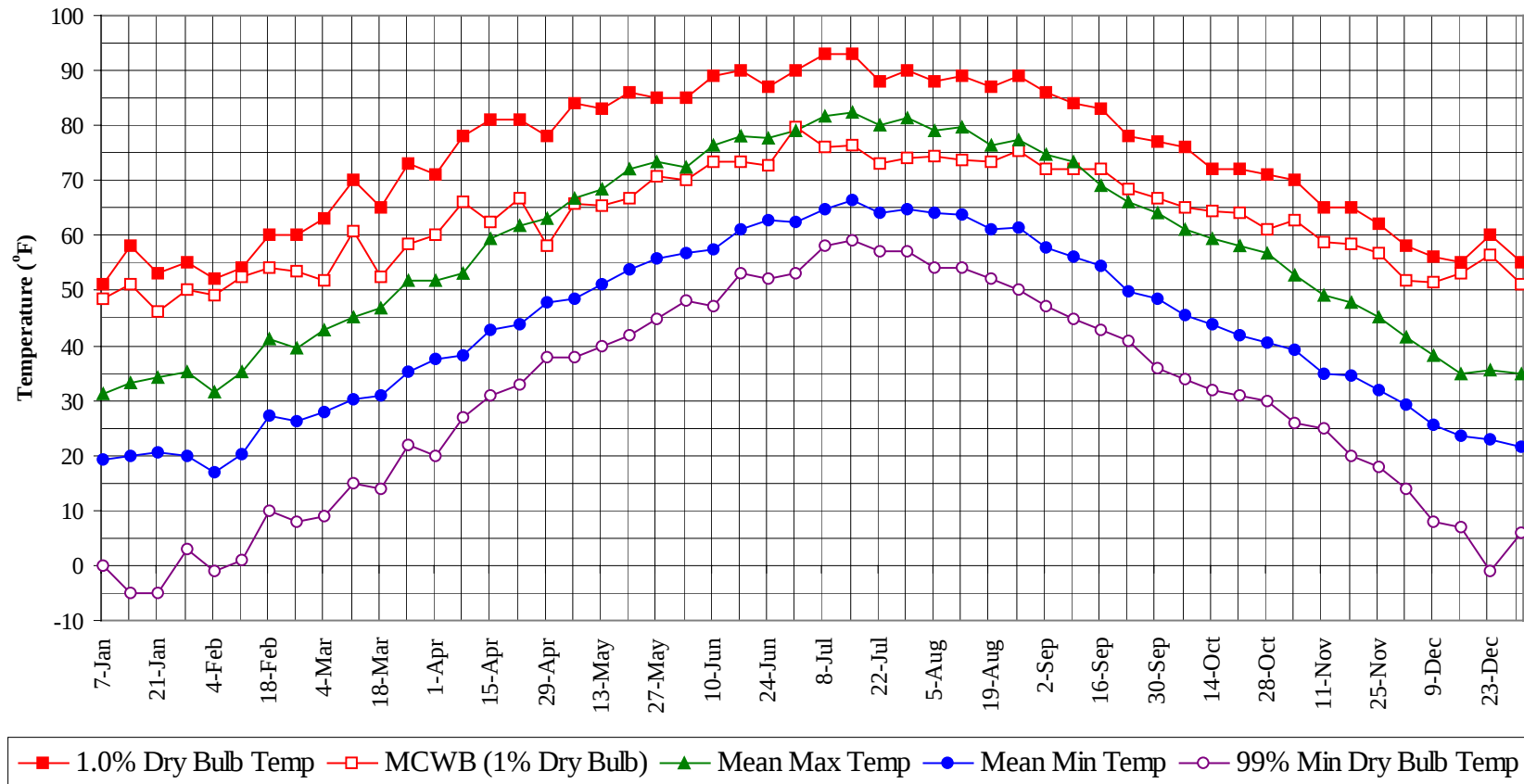
Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary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

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Annual Summary of Temperatures

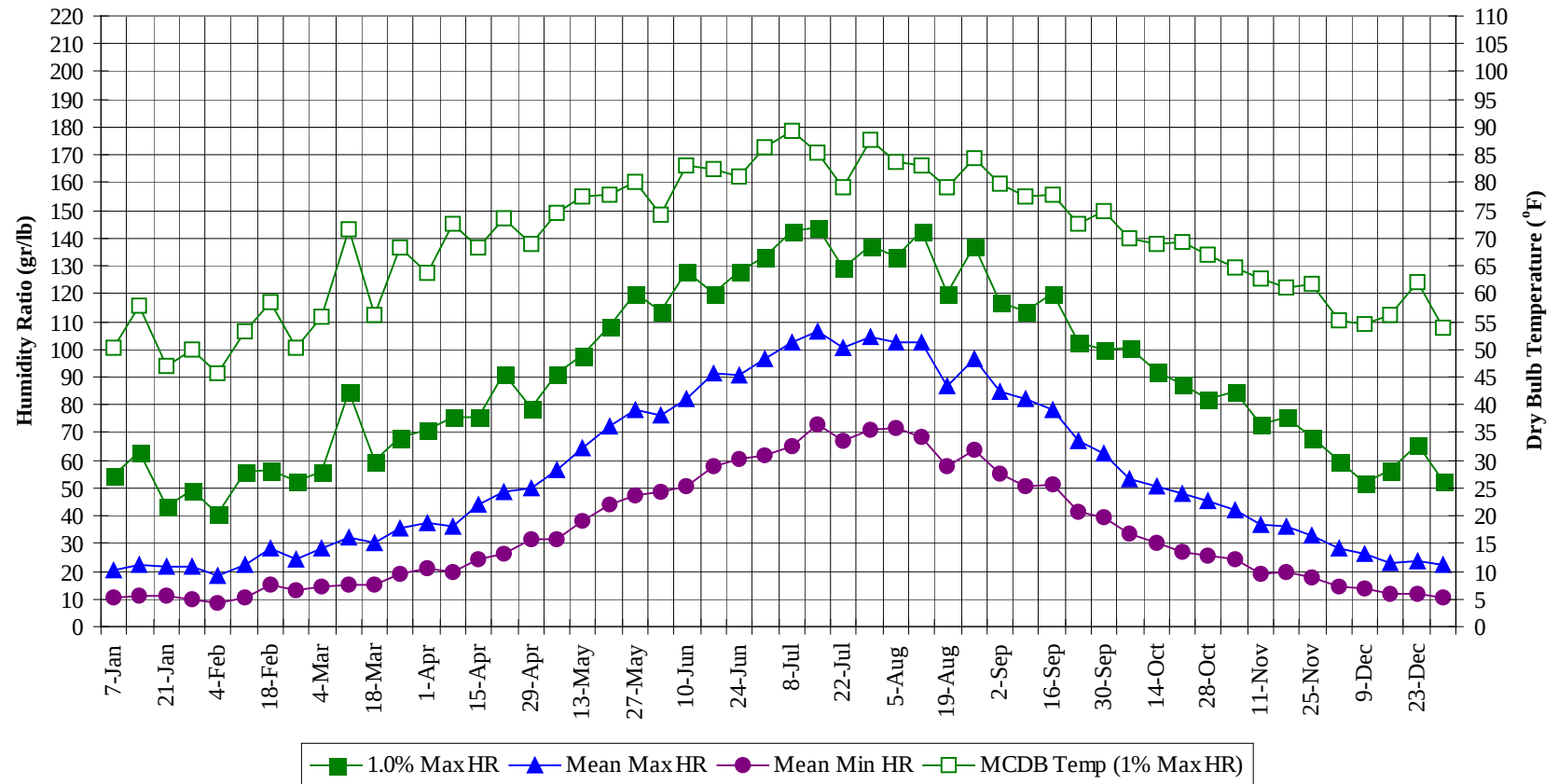


NEWBURGH/STEWART

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Long Term Humidity and Dry Bulb Temperature Summary



NEWBURGH/STEWART NY

WMO No. 725038

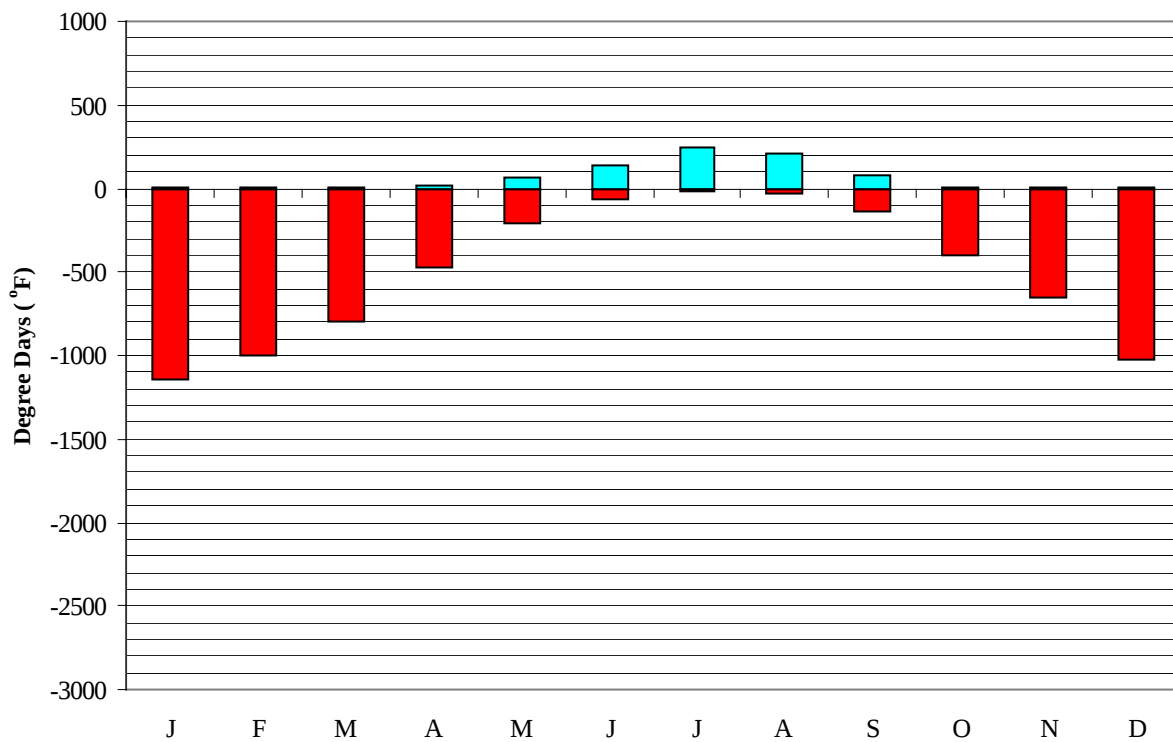
Long Term Dry Bulb Temperature and Humidity Summary

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	51.0	48.3	31.3	19.2	0.0	54.6	50.3	20.6	10.2
14-Jan	58.0	51.0	33.3	19.8	-5.0	63.0	57.9	22.4	11.1
21-Jan	53.0	46.2	34.0	20.7	-5.0	43.4	47.0	21.8	11.3
28-Jan	55.0	50.0	35.1	19.9	3.0	49.0	49.8	21.9	10.0
4-Feb	52.0	49.3	31.6	16.9	-1.0	40.6	45.7	18.1	8.2
11-Feb	54.0	52.5	35.2	20.2	1.0	56.0	53.2	22.3	10.7
18-Feb	60.0	54.1	41.2	27.4	10.0	56.7	58.6	28.0	15.1
25-Feb	60.0	53.5	39.5	26.1	8.0	52.5	50.3	24.1	13.1
4-Mar	63.0	51.7	43.0	28.0	9.0	56.0	55.8	28.6	14.7
11-Mar	70.0	60.8	45.3	30.1	15.0	84.7	71.6	31.9	15.1
18-Mar	65.0	52.4	46.8	30.9	14.0	59.5	56.3	30.5	15.3
25-Mar	73.0	58.6	51.8	35.4	22.0	68.6	68.3	35.8	19.0
1-Apr	71.0	60.2	51.7	37.4	20.0	70.7	63.6	37.6	20.9
8-Apr	78.0	66.0	53.3	38.1	27.0	75.6	72.6	35.9	19.8
15-Apr	81.0	62.6	59.5	42.8	31.0	75.6	68.3	44.0	24.4
22-Apr	81.0	66.8	61.9	44.0	33.0	91.0	73.4	48.6	26.2
29-Apr	78.0	58.3	63.1	47.7	38.0	79.1	69.0	50.0	31.3
6-May	84.0	65.8	66.6	48.3	38.0	91.0	74.7	56.8	31.3
13-May	83.0	65.4	68.5	51.2	40.0	98.0	77.6	64.4	38.3
20-May	86.0	66.9	72.0	53.8	42.0	108.5	77.9	72.1	44.2
27-May	85.0	70.6	73.4	55.8	45.0	120.4	80.3	78.0	47.5
3-Jun	85.0	70.3	72.4	56.9	48.0	113.4	74.3	76.0	48.7
10-Jun	89.0	73.5	76.5	57.6	47.0	128.1	83.2	82.4	50.7
17-Jun	90.0	73.3	78.2	61.1	53.0	120.4	82.3	91.1	57.9
24-Jun	87.0	72.8	77.6	62.7	52.0	128.1	81.2	90.4	60.6
1-Jul	90.0	79.6	79.0	62.5	53.0	133.0	86.3	96.4	61.8
8-Jul	93.0	76.1	81.7	64.6	58.0	142.8	89.3	102.2	65.2
15-Jul	93.0	76.4	82.5	66.6	59.0	143.5	85.3	106.6	72.7
22-Jul	88.0	72.9	80.2	64.0	57.0	129.5	79.1	100.7	67.0
29-Jul	90.0	74.1	81.3	64.7	57.0	137.2	87.6	104.5	71.0
5-Aug	88.0	74.5	79.1	64.0	54.0	133.0	83.8	102.4	71.9
12-Aug	89.0	73.8	79.6	63.9	54.0	142.8	83.2	102.3	68.2
19-Aug	87.0	73.4	76.4	61.0	52.0	120.4	79.2	86.9	57.8
26-Aug	89.0	75.5	77.6	61.5	50.0	137.2	84.3	96.3	64.0
2-Sep	86.0	72.0	74.6	57.8	47.0	116.9	80.0	84.7	55.2
9-Sep	84.0	72.0	73.4	56.0	45.0	113.4	77.3	82.0	50.5
16-Sep	83.0	72.3	68.9	54.3	43.0	120.4	77.9	78.2	51.5
23-Sep	78.0	68.5	66.0	49.8	41.0	102.2	72.5	67.0	41.1
30-Sep	77.0	66.6	64.2	48.6	36.0	100.1	75.0	62.3	39.3
7-Oct	76.0	65.2	61.3	45.4	34.0	100.8	70.1	53.5	33.4
14-Oct	72.0	64.3	59.4	44.0	32.0	91.7	68.9	50.5	30.1
21-Oct	72.0	64.2	58.0	41.7	31.0	87.5	69.3	48.2	26.9
28-Oct	71.0	61.2	56.8	40.5	30.0	81.9	66.9	45.3	25.5
4-Nov	70.0	62.9	52.9	39.2	26.0	84.7	64.6	42.3	24.2
11-Nov	65.0	58.8	49.0	34.9	25.0	72.8	62.6	36.7	19.2
18-Nov	65.0	58.5	47.9	34.7	20.0	75.6	61.2	36.2	19.8
25-Nov	62.0	56.8	45.1	31.9	18.0	68.6	61.9	32.9	18.0
2-Dec	58.0	51.8	41.4	29.2	14.0	59.5	55.2	28.6	14.6
9-Dec	56.0	51.5	38.1	25.6	8.0	51.8	54.4	26.3	14.0
16-Dec	55.0	53.0	34.8	23.6	7.0	56.7	56.0	22.8	11.8
23-Dec	60.0	56.3	35.7	22.8	-1.0	65.8	62.0	23.8	12.1
31-Dec	55.0	51.0	34.8	21.6	6.0	52.5	53.8	22.5	10.4

NEWBURGH/STEWART NY

WMO No. 725038

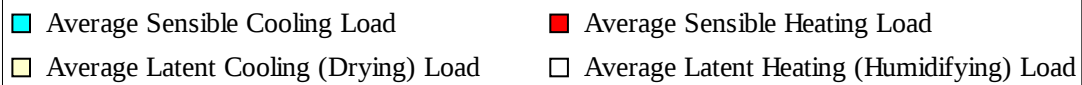
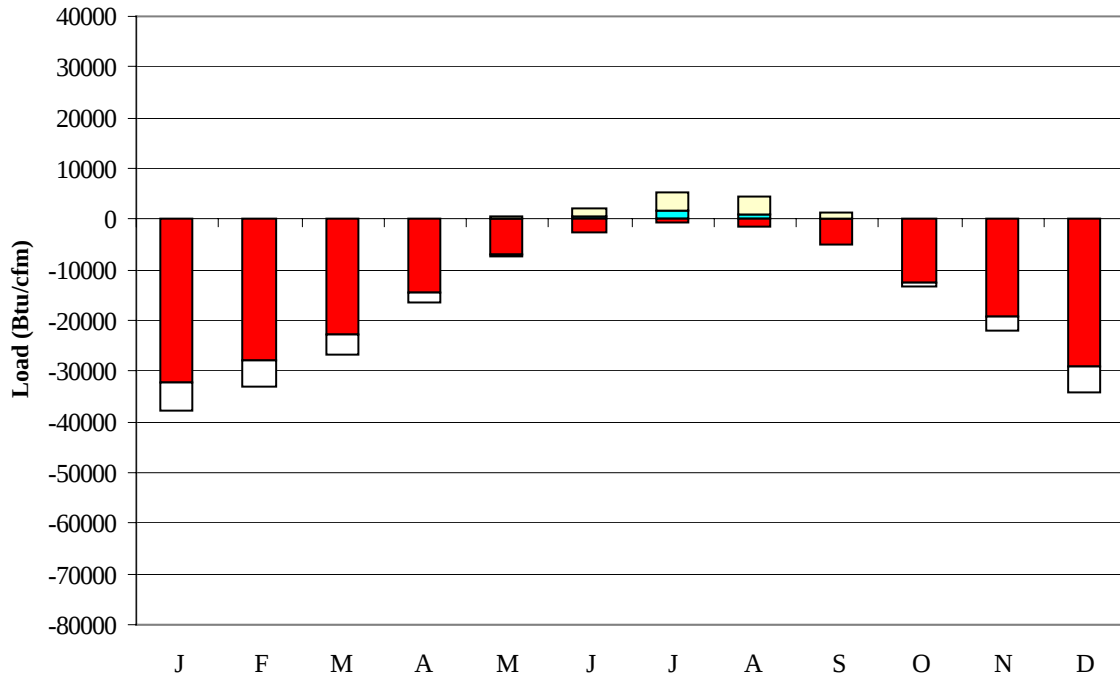
Degree Days, Heating and Cooling (Base 65°F)



■ Mean Cooling Degree Days
 ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1147
FEB	0	998
MAR	2	796
APR	14	470
MAY	63	206
JUN	142	61
JUL	250	14
AUG	205	27
SEP	74	135
OCT	11	397
NOV	2	652
DEC	0	1024
ANN	764	5927

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	-32084	1	-5723
FEB	0	-28017	0	-5183
MAR	4	-22958	18	-3910
APR	69	-14321	32	-1981
MAY	266	-7079	354	-431
JUN	660	-2543	1623	-34
JUL	1560	-819	3876	-3
AUG	1051	-1302	3594	-5
SEP	253	-5051	1198	-76
OCT	11	-12511	150	-958
NOV	1	-19212	13	-2736
DEC	0	-28930	0	-5257
ANN	3875	-174827	10859	-26297

Average Annual Solar Radiation – Nearest Available Site

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

City: NEW YORK CITY
 State: NY
 WBAN No: 94728
 Lat(N): 40.78
 Long(W): 73.97
 Elev(ft): 187

Stn Type: Primary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.556
 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	610	870	1220	1560	1800	1940	1910	1710	1370	1010	640	510	1260
	Std Dev	35	73	74	108	134	122	106	87	87	67	52	39	30
	Minimum	530	720	1050	1360	1520	1600	1670	1540	1220	910	540	430	1180
	Maximum	690	1040	1400	1740	2040	2170	2080	1870	1540	1200	750	570	1320
	Diffuse	320	430	580	740	900	970	950	840	660	470	340	280	630
Clear Day	Global	840	1190	1670	2160	2470	2580	2500	2210	1780	1290	890	730	1700
NORTH	Global	190	260	350	450	550	620	600	500	390	290	210	170	380
	Diffuse	190	260	350	440	520	560	550	480	390	290	210	170	370
Clear Day	Global	180	240	330	430	580	670	620	480	360	270	200	160	380
EAST	Global	410	560	740	910	1000	1040	1050	970	820	650	430	350	750
	Diffuse	240	330	430	540	630	670	660	600	490	370	260	210	450
Clear Day	Global	640	840	1090	1300	1410	1430	1390	1300	1120	880	660	560	1050
SOUTH	Global	980	1090	1100	990	870	820	850	970	1080	1140	940	860	970
	Diffuse	350	430	510	560	600	620	620	610	550	470	360	310	500
Clear Day	Global	1800	1890	1770	1440	1120	980	1030	1270	1590	1780	1760	1710	1510
WEST	Global	410	550	740	890	980	1040	1030	950	800	630	410	340	730
	Diffuse	240	330	440	540	630	680	670	600	490	370	250	200	450
Clear Day	Global	640	840	1090	1300	1410	1430	1390	1300	1120	880	660	560	1050

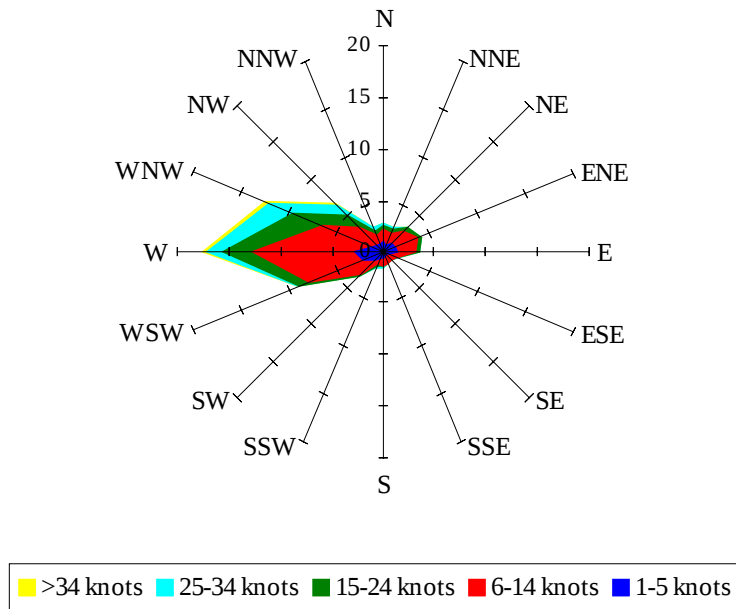
Average Annual Solar Heat and Illumination – Nearest Available Site

(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	390	590	860	1120	1300	1400	1380	1230	980	700	430	320	890
NORTH	Unshaded	130	180	240	310	370	410	400	340	270	200	140	120	260
	Shaded	120	160	210	270	320	360	350	300	240	180	130	100	230
EAST	Unshaded	280	390	520	650	700	740	740	690	580	450	300	230	520
	Shaded	250	340	450	550	590	610	620	580	500	400	260	210	450
SOUTH	Unshaded	730	800	770	650	550	510	530	620	740	820	700	650	670
	Shaded	710	730	600	430	370	370	380	400	530	720	670	630	540
WEST	Unshaded	280	380	520	630	690	730	730	670	570	440	280	230	510
	Shaded	250	340	450	530	580	610	610	560	490	380	250	200	440

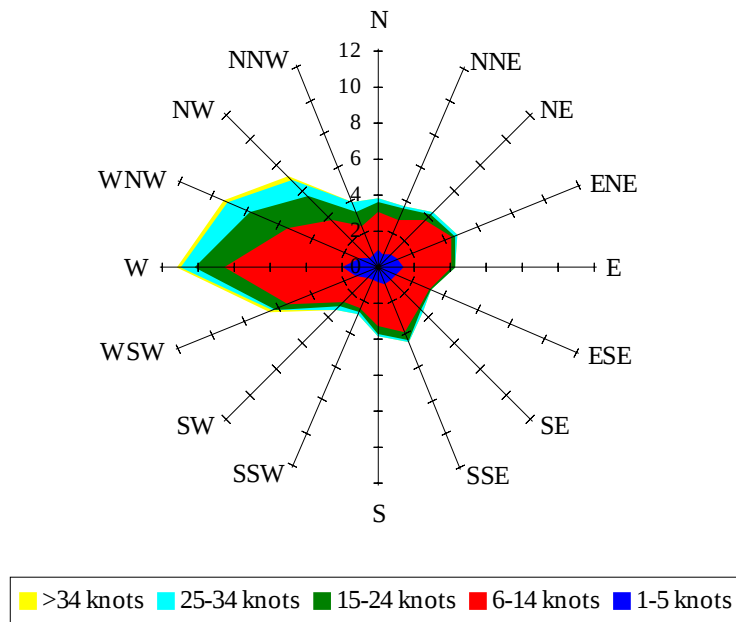
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	39	71	79	60	22	48	83	100	93	64
	M.Cloudy	23	45	48	38	14	31	54	71	67	44
NORTH	M.Clear	10	14	15	13	7	17	17	18	18	16
	M.Cloudy	9	15	16	14	6	13	18	20	20	16
EAST	M.Clear	69	53	15	13	7	72	69	29	18	16
	M.Cloudy	25	30	16	14	6	33	40	26	20	16
SOUTH	M.Clear	40	73	82	62	22	13	35	49	43	21
	M.Cloudy	17	38	41	32	10	12	25	37	33	18
WEST	M.Clear	10	14	26	66	55	13	17	18	55	75
	M.Cloudy	9	15	20	33	19	12	18	20	39	42
M.Clear	(% hrs)	38	35	34	32	34	38	39	34	34	35
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	28	66	82	73	42	14	38	42	24	0
	M.Cloudy	17	41	56	50	27	9	23	25	15	0
NORTH	M.Clear	9	15	17	16	12	5	10	10	7	0
	M.Cloudy	8	15	18	17	11	4	9	10	6	0
EAST	M.Clear	60	65	26	16	12	34	34	10	7	0
	M.Cloudy	21	33	22	17	11	11	16	10	6	0
SOUTH	M.Clear	22	58	75	65	34	33	75	81	52	0
	M.Cloudy	11	30	44	38	19	10	28	29	18	0
WEST	M.Clear	9	15	17	54	66	5	10	22	42	0
	M.Cloudy	8	15	18	33	30	4	9	13	15	0
M.Clear	(% hrs)	43	46	40	39	39	33	32	31	30	35

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



Percent Calm = 25.59

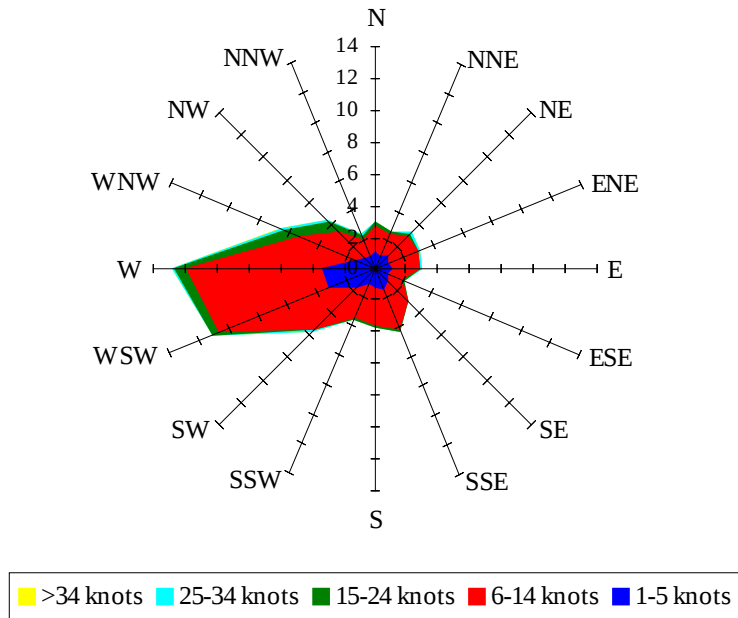
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 21.68

Wind Summary - June, July, and August

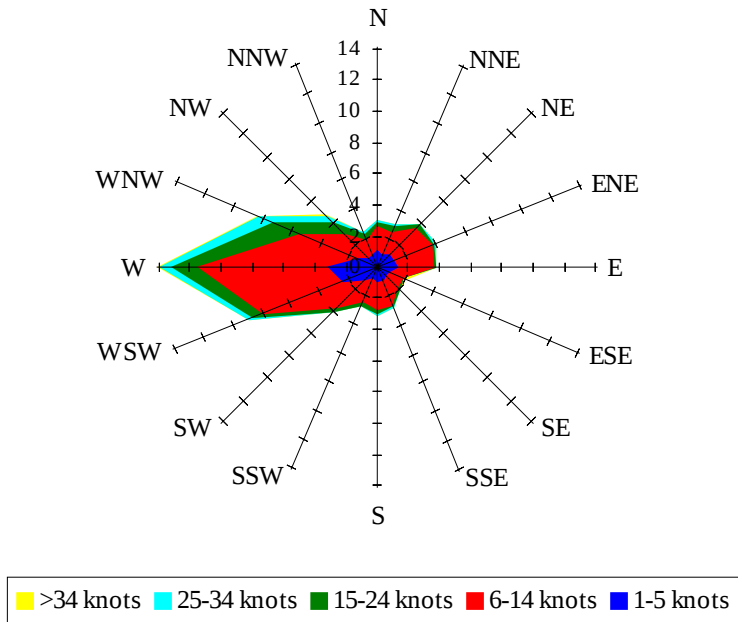
Labels of Percent Frequency on North Axis



Percent Calm = 27.35

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 28.36