

PARIS, FRANCE

Latitude = 48.73 N

Longitude = 2.40 E

Period of Record = 1973 to 1996

WMO No. 071490

Elevation = 315 feet

Average Pressure = 29.66 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	91	69	73	8.5	E
0.4% Occurrence	86	68	75	7.5	E
1.0% Occurrence	82	66	72	7.8	E
2.0% Occurrence	79	65	71	8.1	E
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	28	26	18	7.1	NE
99.0% Occurrence	25	23	15	7.2	ENE
99.6% Occurrence	21	20	12	7.1	ENE
Median of Extreme Lows	19	17	11	7.3	ENE
	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	74	86	105	8.2	E
0.4% Occurrence	70	81	90	7.8	E
1.0% Occurrence	68	79	85	8.0	E
2.0% Occurrence	67	77	83	8.0	E
	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	111	80	0.73	8.1	E
0.4% Occurrence	98	74	0.65	7.4	E
1.0% Occurrence	92	72	0.61	7.5	WSW
2.0% Occurrence	86	71	0.57	7.9	NE
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		6	157	8	186

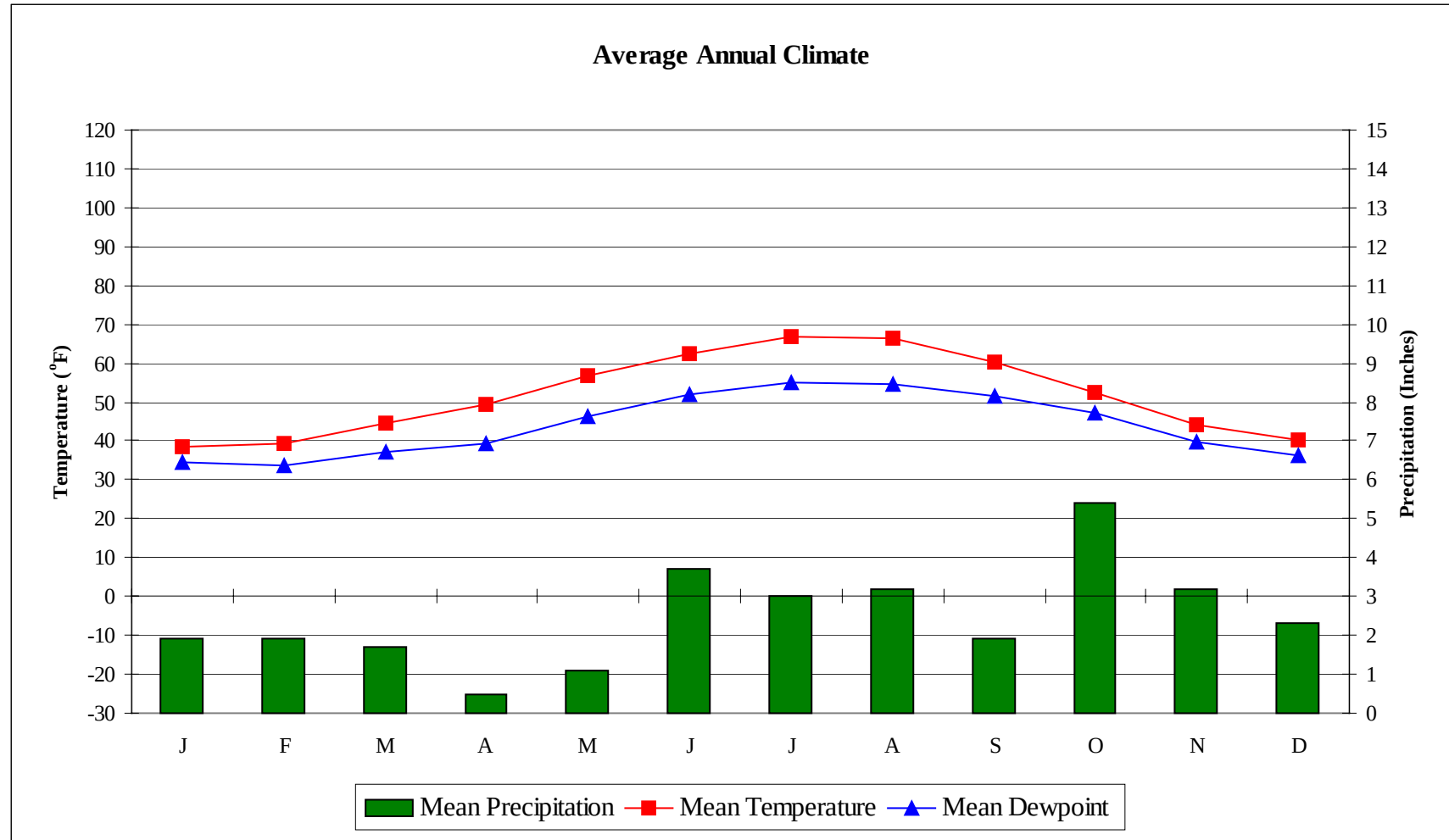
Other Site Data

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	N/A	N/A	0.2 + 0.2
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 (#)
54.3	N/A	N/A	25

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

PARIS, FRANCE

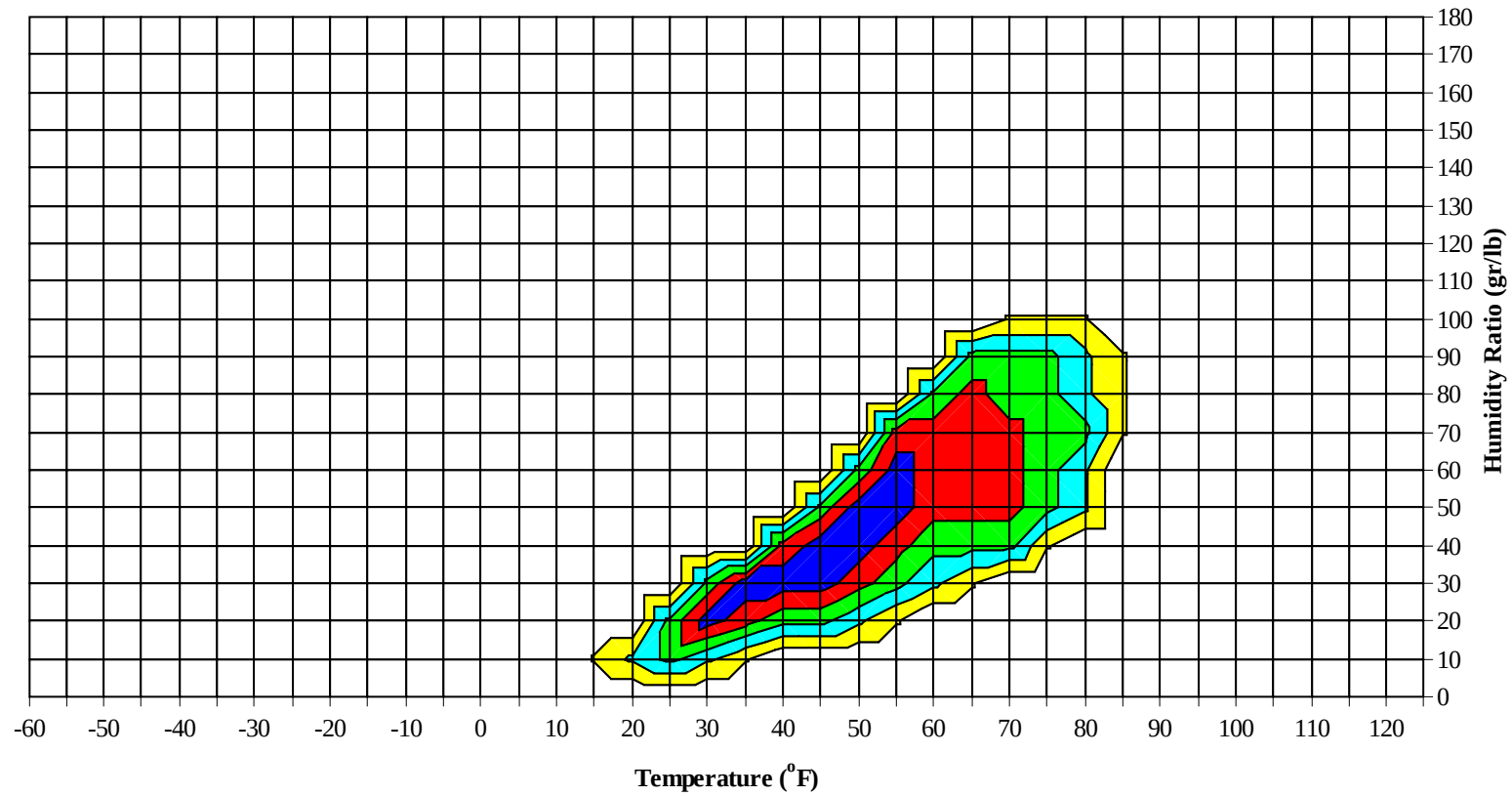
WMO No. 071490



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WMO No. 071490

Long Term Psychrometric Summary

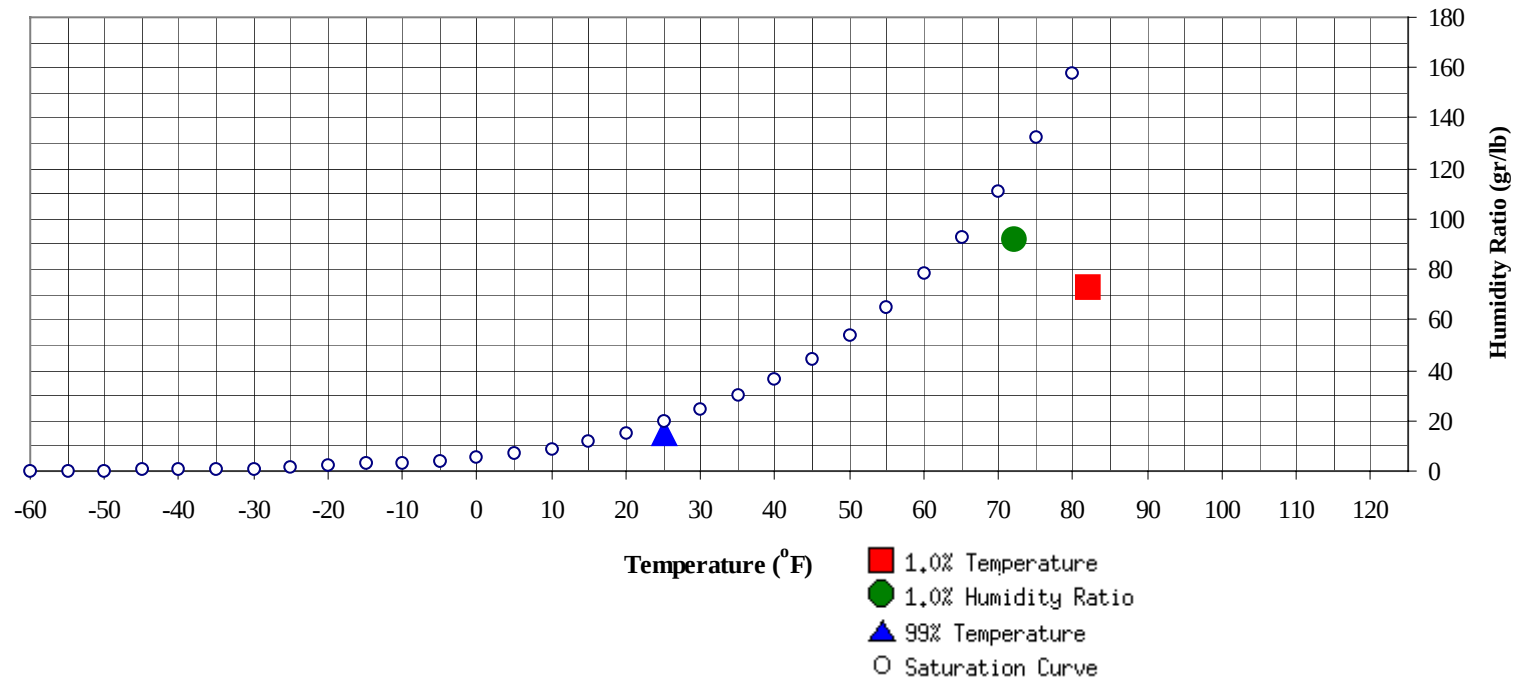


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

PARIS, FRANCE

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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	25	14.8	8.3		91.7	72.1	66.9	64.4	31.6

1.0% Dry Bulb	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
	82	73.1	66.5	31.1

PARIS, FRANCE

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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		
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0		0	58.0
70 / 74												1	0	1	58.2
65 / 69							0	0	0	54.3		2	1	3	54.8
60 / 64							1	0	1	53.2	0	10	7	17	53.3
55 / 59	1	3	2	6	52.8	0	6	3	9	50.1	3	24	21	48	50.6
50 / 54	16	26	20	62	48.9	9	26	23	58	47.9	25	56	50	130	47.5
45 / 49	39	56	51	146	44.3	33	50	49	132	43.7	50	72	77	199	43.1
40 / 44	39	45	47	131	40.1	32	40	43	115	39.5	56	44	46	145	39.3
35 / 39	61	55	63	178	35.8	57	48	50	155	35.3	68	30	36	134	35.2
30 / 34	53	37	40	130	30.9	55	34	41	130	30.3	40	8	9	57	30.6
25 / 29	23	15	14	52	25.5	30	16	13	59	25.5	7	1	1	9	25.6
20 / 24	8	6	5	19	20.7	6	2	1	9	20.6	0	0		0	22.2
15 / 19	5	4	3	12	16.4	2	1	1	4	16.2					
10 / 14	3	2	2	7	11.1	0	0	0	0	10.5					
5 / 9	0	0	0	0	6.7										
0 / 4	0	0	0	0	2.2										

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.

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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		
95 / 99												0		0	69.4
90 / 94												2	2	4	69.3
85 / 89							0	0	0	63.7		3	2	5	69.3
80 / 84		0		0	61.0		3	2	5	63.2	0	10	7	17	67.0
75 / 79		2	1	3	59.2	0	12	8	20	61.9	2	25	18	45	64.3
70 / 74		6	5	11	57.2	0	24	18	42	59.9	5	36	33	74	61.8
65 / 69	0	11	7	18	55.3	2	28	23	53	57.6	13	41	35	89	59.6
60 / 64	1	24	20	45	52.8	17	53	51	121	55.1	48	67	65	179	56.9
55 / 59	11	46	41	98	50.0	53	62	60	175	52.0	79	44	52	176	53.6
50 / 54	41	65	64	170	47.0	79	46	56	182	48.6	70	11	23	105	49.8
45 / 49	66	56	60	182	43.0	68	18	25	112	44.2	21	0	2	23	45.4
40 / 44	57	22	27	106	39.4	23	1	3	27	40.3	2		0	2	40.4
35 / 39	51	7	14	72	35.7	6	0	1	7	36.6	0			0	37.7
30 / 34	13	1	1	15	31.3	0		0	0	32.5					
25 / 29	1			1	27.1										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															

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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		
95 / 99		0	0	0	71.4		1	1	2	71.0					
90 / 94		3	3	6	69.5		3	2	5	68.8		0	0	0	68.8
85 / 89		9	5	14	68.9		6	4	10	67.6		1	0	1	67.6
80 / 84	0	23	20	43	67.1		20	15	35	65.7		5	3	8	67.0
75 / 79	3	40	36	79	64.6	1	40	32	73	64.1		14	8	22	64.5
70 / 74	15	56	52	124	62.3	11	64	57	132	62.0	0	34	24	59	61.5
65 / 69	33	48	47	128	60.5	27	51	51	128	60.2	6	42	32	81	59.5
60 / 64	81	52	55	189	58.2	83	48	58	189	58.1	36	72	70	177	57.6
55 / 59	83	14	27	125	54.6	90	14	25	129	54.4	77	53	67	197	54.0
50 / 54	31	1	2	34	50.7	32	1	3	36	50.5	81	16	30	127	49.9
45 / 49	2			2	46.1	5		0	5	45.8	37	2	5	44	45.6
40 / 44	0			0							4		0	4	41.2
35 / 39											0			0	39.0
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															

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 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		
95 / 99															
90 / 94															
85 / 89		0		0	67.0										
80 / 84		0	0	0	67.2										
75 / 79		2	1	3	64.8										
70 / 74		9	3	12	61.7										
65 / 69	0	13	7	20	59.9		1	0	1	57.9					
60 / 64	7	38	28	73	57.2	1	6	2	9	56.3		0	0	0	54.0
55 / 59	40	69	64	173	53.6	10	26	21	57	53.5	3	8	6	17	52.9
50 / 54	75	70	76	222	49.7	38	54	48	140	49.6	21	30	29	80	49.2
45 / 49	69	32	52	153	44.9	52	63	60	175	44.5	47	58	53	158	44.5
40 / 44	33	10	13	56	40.7	43	37	45	125	40.2	40	46	44	130	40.4
35 / 39	21	4	4	29	37.0	50	31	38	119	36.0	58	54	60	172	35.9
30 / 34	3	0	0	3	32.6	33	17	20	70	30.8	52	38	40	130	30.8
25 / 29	0			0	28.0	14	4	5	23	25.7	24	11	13	48	25.7
20 / 24						1	0	0	1	21.3	4	2	1	7	20.8
15 / 19											1	0	1	2	16.4
10 / 14											0	0	0	0	12.7
5 / 9															
0 / 4															

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.

PARIS, FRANCE

WMO No. 071490

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

Period of Record = 1973 to 1996

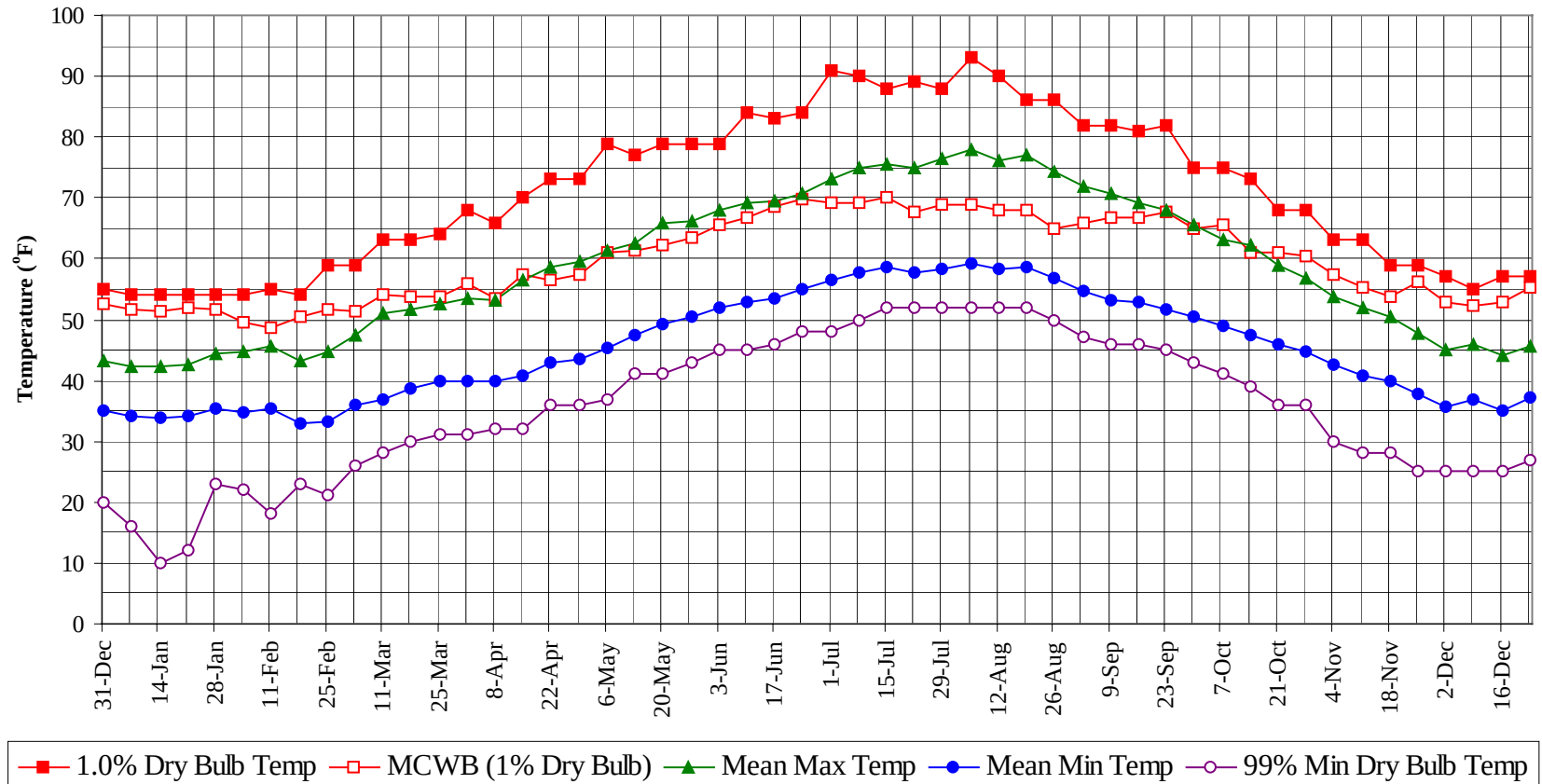
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
95 / 99		1	1	2	71.0
90 / 94		9	6	15	69.2
85 / 89		19	13	32	68.4
80 / 84	0	62	47	109	66.4
75 / 79	6	136	105	247	64.1
70 / 74	31	231	193	454	61.6
65 / 69	81	237	203	520	59.6
60 / 64	272	367	355	994	57.0
55 / 59	447	369	390	1206	53.2
50 / 54	516	404	425	1345	48.9
45 / 49	490	410	434	1334	44.1
40 / 44	329	247	268	844	39.9
35 / 39	372	230	266	868	35.7
30 / 34	248	136	153	538	30.7
25 / 29	97	46	46	190	25.6
20 / 24	20	10	8	38	20.7
15 / 19	8	5	4	17	16.4
10 / 14	3	2	2	7	11.0
5 / 9	0	0	0	0	6.7
0 / 4	0	0	0	0	2.2

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.

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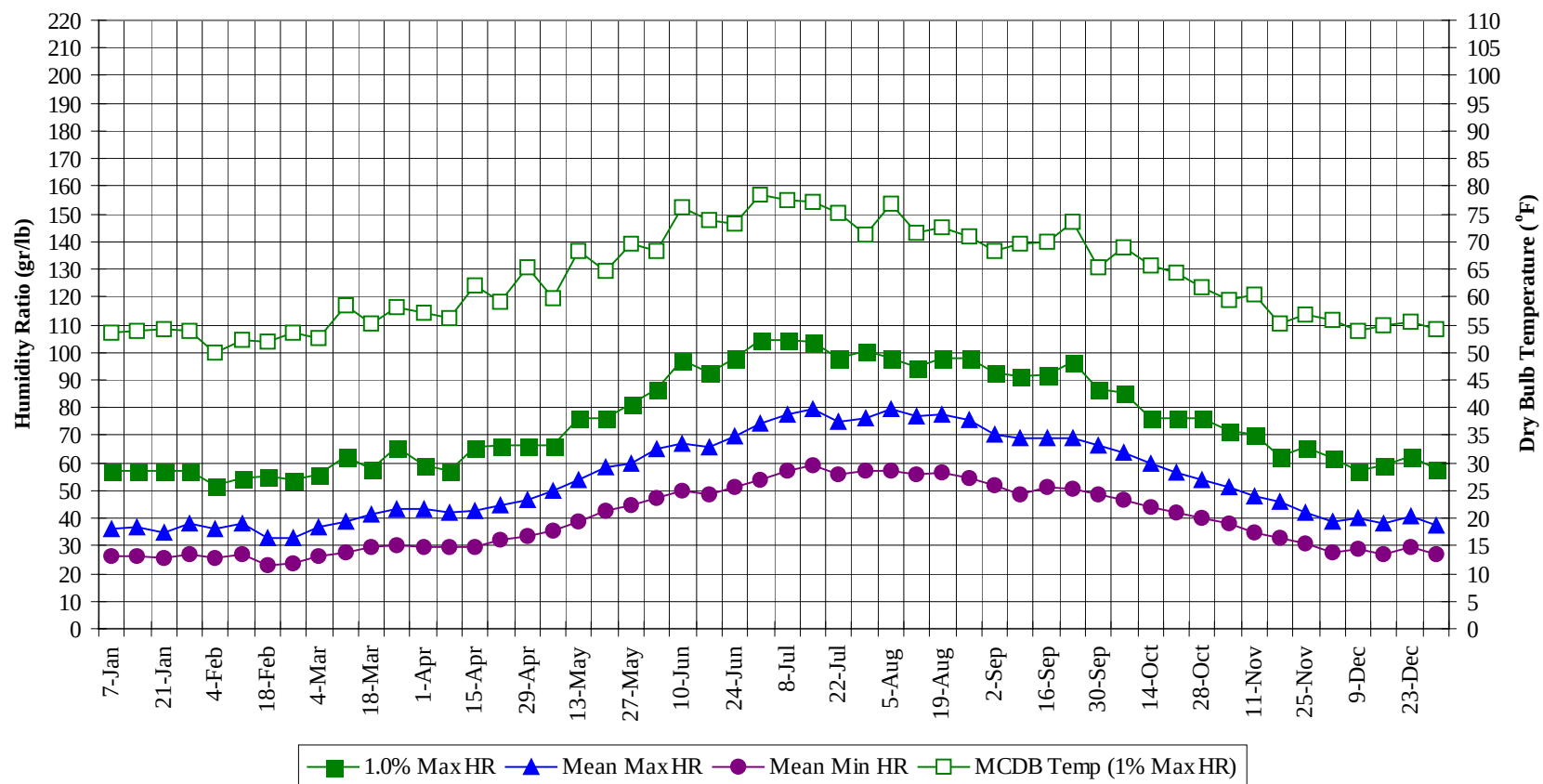
Annual Summary of Temperatures



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Long Term Humidity and Dry Bulb Temperature Summary

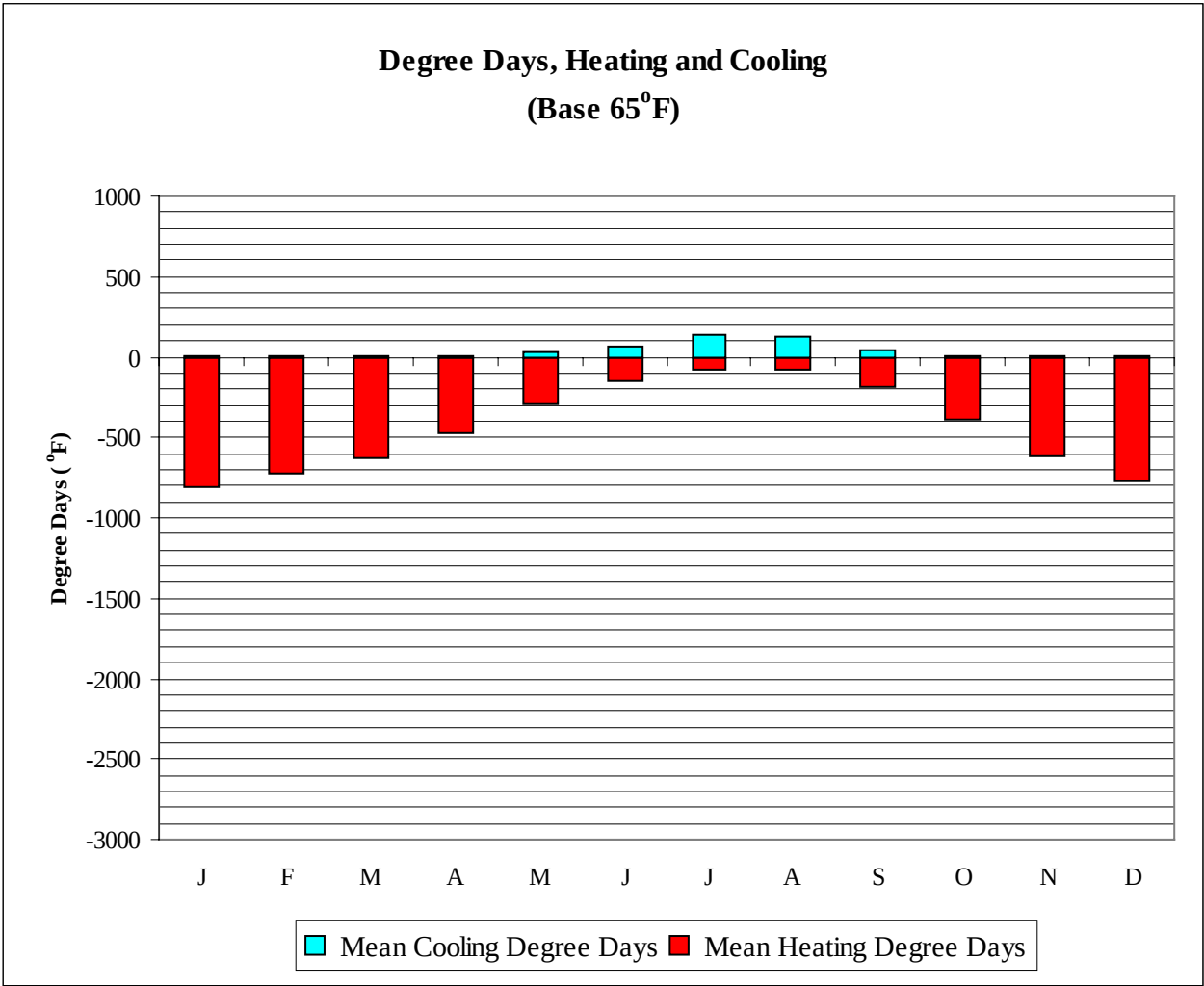


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WMO No. 071490

Long Term Dry Bulb Temperature and Humidity Summary

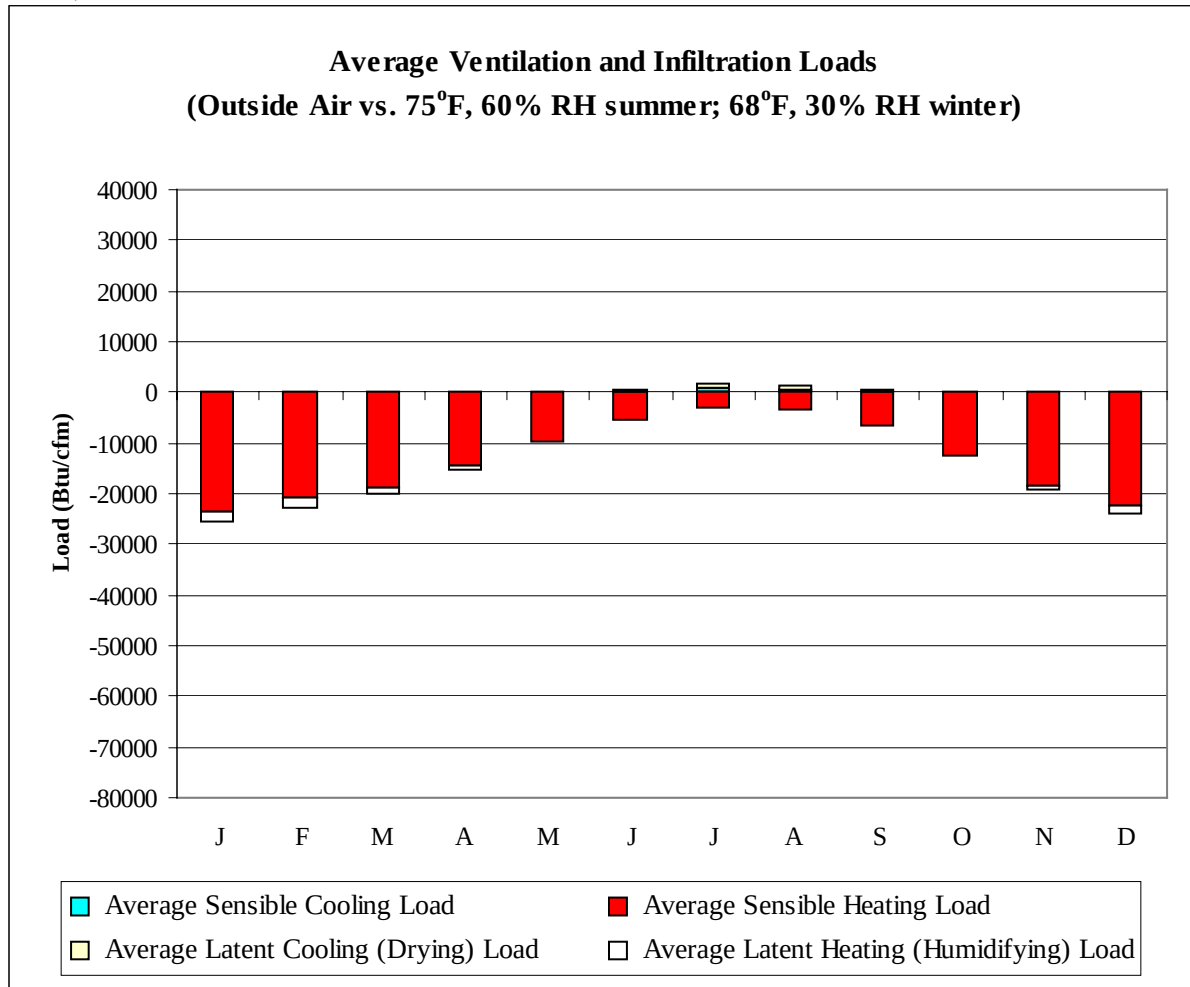
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	54.0	51.7	42.4	34.1	16.0	57.4	53.5	36.2	26.1
14-Jan	54.0	51.5	42.3	33.8	10.0	57.4	54.0	36.6	26.5
21-Jan	54.0	52.1	42.7	34.1	12.0	57.4	54.2	35.0	25.9
28-Jan	54.0	51.7	44.4	35.4	23.0	57.4	53.9	37.8	26.7
4-Feb	54.0	49.5	44.6	34.6	22.0	51.8	49.9	36.2	25.7
11-Feb	55.0	48.8	45.5	35.4	18.0	54.6	52.2	37.9	26.7
18-Feb	54.0	50.5	43.1	32.8	23.0	55.3	51.8	32.6	23.2
25-Feb	59.0	51.5	44.8	33.3	21.0	53.9	53.5	33.1	23.7
4-Mar	59.0	51.3	47.6	36.0	26.0	56.0	52.6	36.8	26.0
11-Mar	63.0	54.0	51.0	36.9	28.0	62.3	58.4	38.9	27.4
18-Mar	63.0	53.8	51.6	38.7	30.0	58.1	55.2	41.2	29.2
25-Mar	64.0	53.8	52.5	39.8	31.0	65.8	58.2	43.3	30.0
1-Apr	68.0	55.9	53.5	39.7	31.0	58.8	57.1	43.5	29.8
8-Apr	66.0	53.5	53.2	39.8	32.0	57.4	56.0	41.9	29.6
15-Apr	70.0	57.3	56.4	40.8	32.0	65.8	62.0	42.9	29.5
22-Apr	73.0	56.6	58.5	42.8	36.0	66.5	59.3	44.7	32.0
29-Apr	73.0	57.6	59.6	43.6	36.0	66.5	65.3	47.0	33.3
6-May	79.0	61.1	61.3	45.4	37.0	66.5	59.8	50.1	35.6
13-May	77.0	61.4	62.4	47.3	41.0	76.3	68.2	53.6	38.6
20-May	79.0	62.2	65.9	49.3	41.0	76.3	64.8	58.3	42.7
27-May	79.0	63.4	66.1	50.4	43.0	81.2	69.6	60.0	44.5
3-Jun	79.0	65.6	68.1	51.9	45.0	86.8	68.5	64.7	47.2
10-Jun	84.0	66.7	69.1	52.9	45.0	97.3	76.2	67.0	49.6
17-Jun	83.0	68.5	69.6	53.6	46.0	92.4	74.0	66.0	48.5
24-Jun	84.0	69.8	70.7	55.1	48.0	98.0	73.4	69.3	51.5
1-Jul	91.0	69.2	73.2	56.4	48.0	104.3	78.4	74.1	54.1
8-Jul	90.0	69.3	74.9	57.8	50.0	104.3	77.5	77.5	57.1
15-Jul	88.0	70.1	75.6	58.7	52.0	103.6	77.1	79.6	58.9
22-Jul	89.0	67.6	75.0	57.6	52.0	98.0	75.4	74.7	55.9
29-Jul	88.0	69.0	76.5	58.3	52.0	100.8	71.4	76.2	57.2
5-Aug	93.0	69.0	78.1	59.1	52.0	98.0	76.8	79.5	57.4
12-Aug	90.0	67.9	76.2	58.2	52.0	94.5	71.7	76.6	55.8
19-Aug	86.0	67.9	77.2	58.5	52.0	98.0	72.6	77.2	56.7
26-Aug	86.0	64.8	74.4	56.8	50.0	98.0	70.9	75.3	54.7
2-Sep	82.0	65.9	72.0	54.5	47.0	92.4	68.2	70.4	51.6
9-Sep	82.0	66.7	70.8	53.1	46.0	91.0	69.5	69.1	48.9
16-Sep	81.0	66.7	69.2	52.9	46.0	91.7	69.9	69.1	51.0
23-Sep	82.0	67.6	67.9	51.6	45.0	96.6	73.6	68.8	50.3
30-Sep	75.0	64.9	65.7	50.6	43.0	86.8	65.4	66.1	48.9
7-Oct	75.0	65.6	63.1	49.1	41.0	85.4	68.9	63.6	46.6
14-Oct	73.0	61.1	62.2	47.4	39.0	76.3	65.7	59.8	44.2
21-Oct	68.0	60.9	58.9	45.9	36.0	76.3	64.3	56.4	41.8
28-Oct	68.0	60.4	56.8	44.7	36.0	76.3	61.7	53.9	40.1
4-Nov	63.0	57.3	53.7	42.6	30.0	71.4	59.5	51.0	38.0
11-Nov	63.0	55.3	52.1	40.7	28.0	70.0	60.4	47.7	34.7
18-Nov	59.0	53.8	50.5	39.9	28.0	62.3	55.3	45.9	32.7
25-Nov	59.0	56.3	47.7	37.9	25.0	65.8	56.8	42.1	30.8
2-Dec	57.0	52.9	44.9	35.6	25.0	61.6	55.7	38.6	27.7
9-Dec	55.0	52.2	45.9	36.9	25.0	57.4	54.0	40.0	29.0
16-Dec	57.0	52.7	44.1	35.2	25.0	58.8	54.7	37.9	27.0
23-Dec	57.0	55.3	45.7	37.3	27.0	62.3	55.3	40.8	29.8
31-Dec	55.0	52.6	43.2	35.2	20.0	58.1	54.0	37.4	27.2



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	810
FEB	0	720
MAR	1	627
APR	6	475
MAY	28	288
JUN	67	144
JUL	134	74
AUG	124	80
SEP	39	188
OCT	6	390
NOV	0	620
DEC	0	767
ANN	404	5183

PARIS, FRANCE

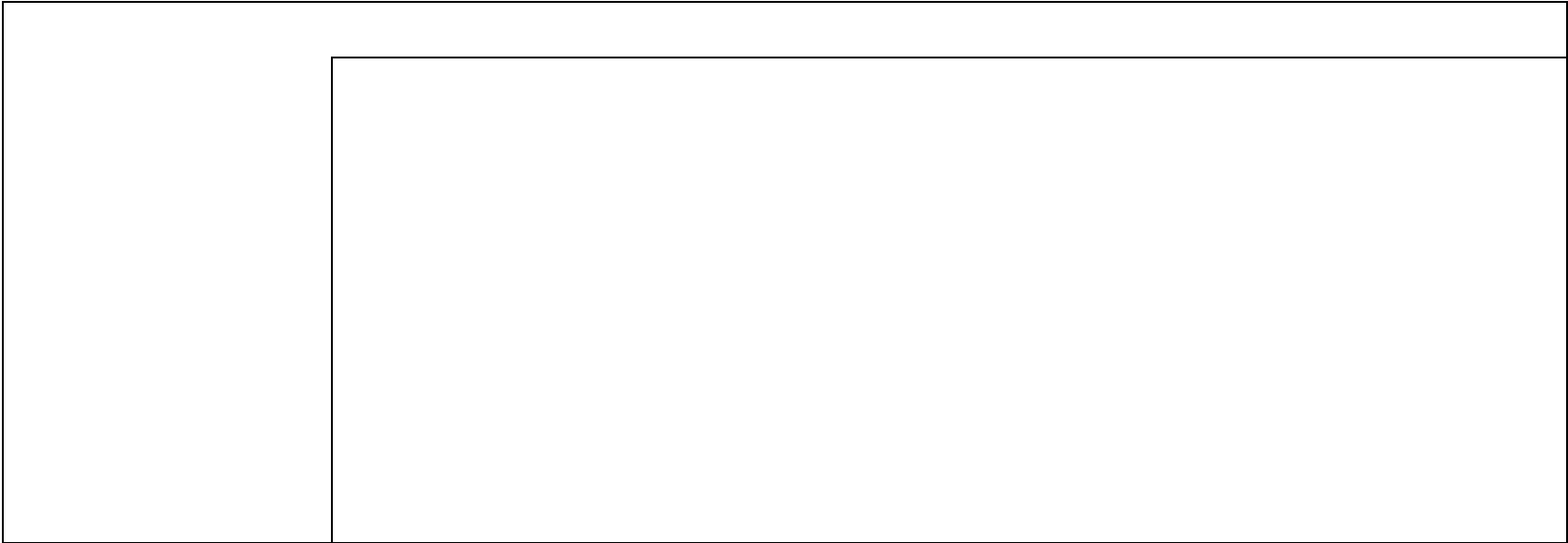
WMO No. 071490



	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	-23401	0	-1990
FEB	0	-20818	0	-2048
MAR	0	-18661	0	-1233
APR	4	-14562	0	-712
MAY	67	-9570	28	-85
JUN	320	-5367	345	-7
JUL	752	-3168	763	0
AUG	646	-3362	527	-1
SEP	119	-6756	246	-4
OCT	8	-12416	16	-54
NOV	0	-18406	0	-873
DEC	0	-22288	0	-1536
ANN	1916	-158775	1925	-8543

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

No Solar Radiation
Data Available

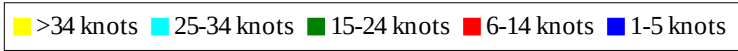
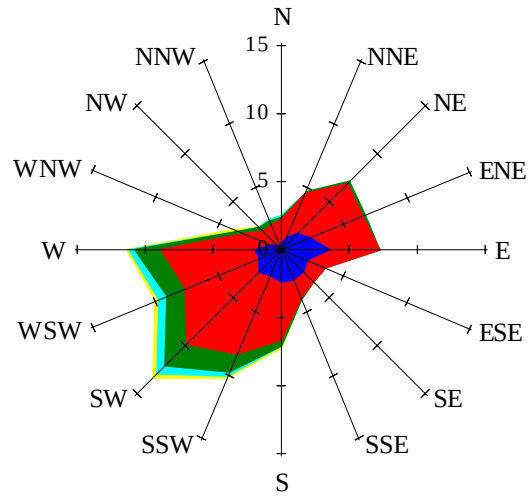


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

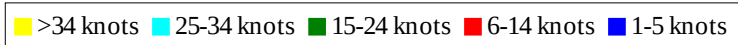
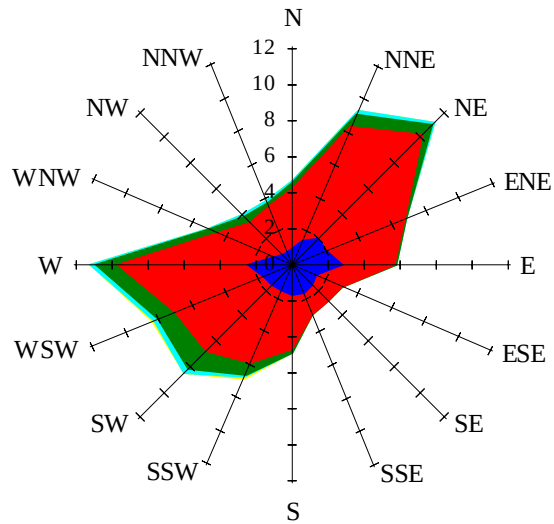
Labels of Percent Frequency on North Axis



Percent Calm = 2.11

Wind Summary - March, April, and May

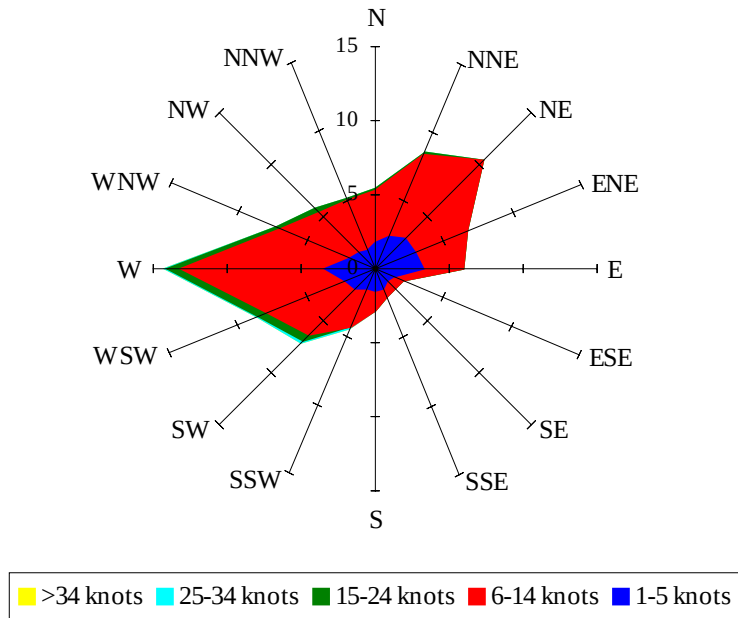
Labels of Percent Frequency on North Axis



Percent Calm = 1.73

Wind Summary - June, July, and August

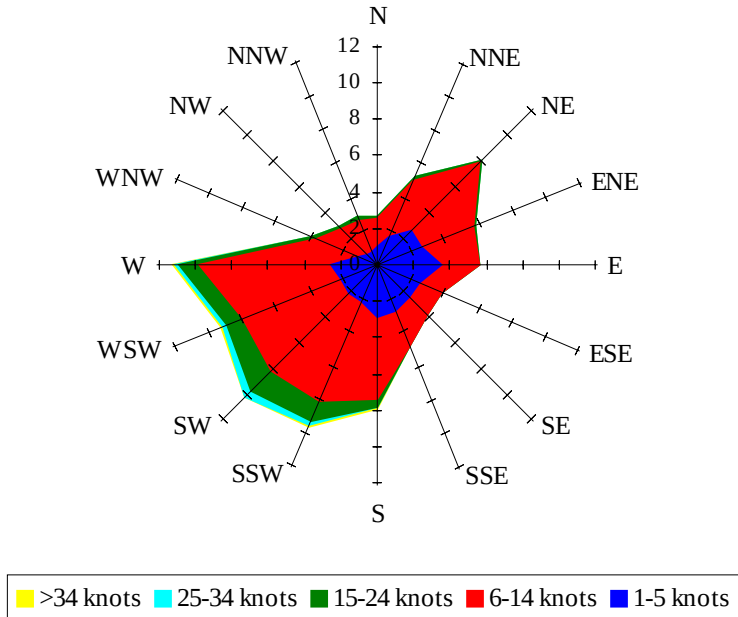
Labels of Percent Frequency on North Axis



Percent Calm = 1.78

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 2.63