RAF WOODBRIDGE, UK	
Latitude = 52.08 N	WMO No. 035953
Longitude = 1.40 E	Elevation = 95 feet
Period of Record = 1964 to 1993	Average Pressure = 29.83 inches Hg

Design Criteria Data

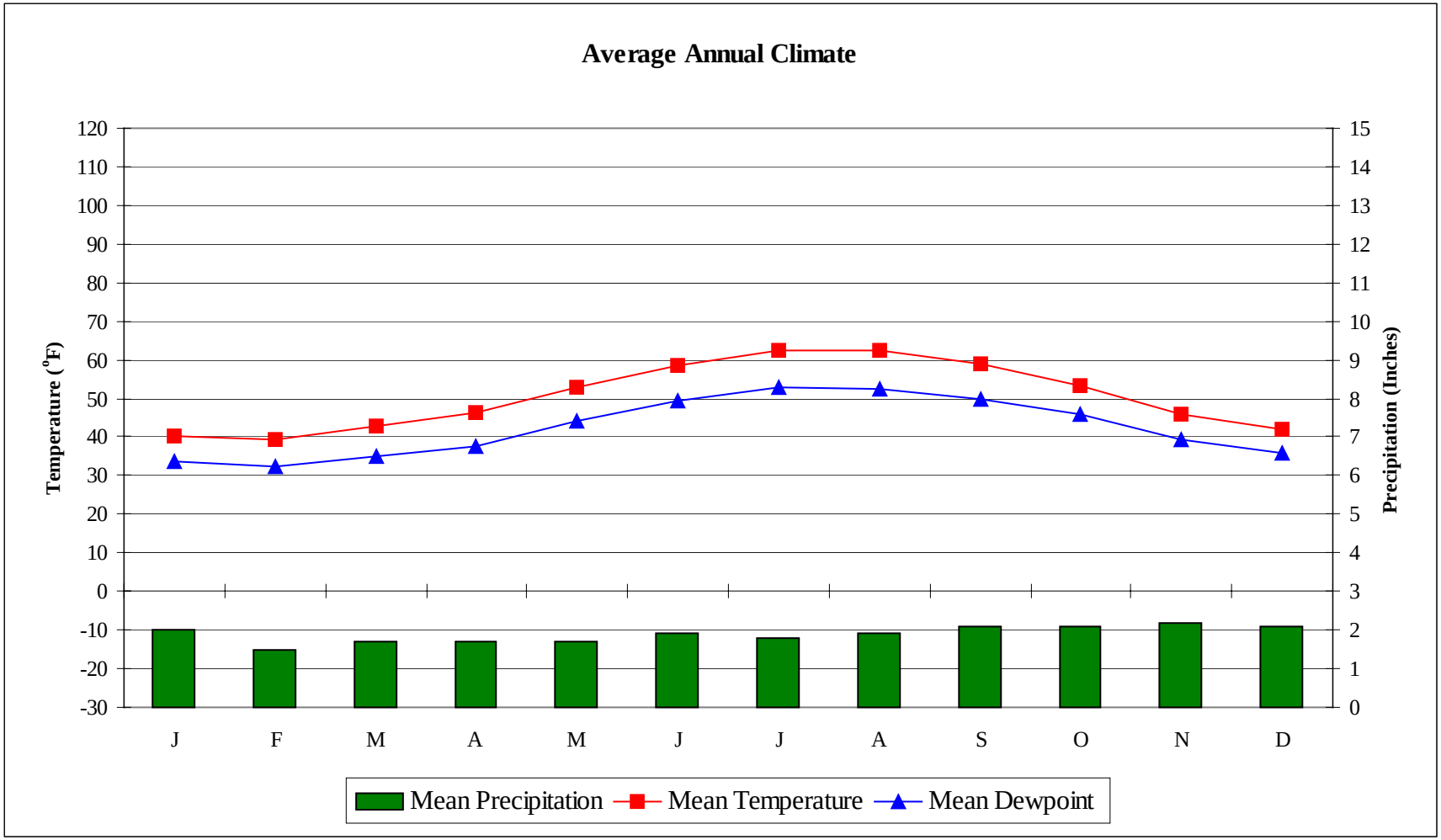
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	82	67	73	9.7	E
0.4% Occurrence	77	65	72	9.5	S
1.0% Occurrence	73	62	68	9.1	VARIABLE
2.0% Occurrence	72	62	68	9.1	VARIABLE
Mean Daily Range	11	-	-	-	-
97.5% Occurrence	32	30	20	6.3	WNW
99.0% Occurrence	29	27	17	6.4	WNW
99.6% Occurrence	27	26	16	6.4	ENE
Median of Extreme Lows	21	19	12	3.3	NNW
		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	69	79	86	8.8	S
0.4% Occurrence	66	73	81	8.1	S
1.0% Occurrence	65	72	79	8.1	S
2.0% Occurrence	63	69	74	8.0	S
		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	91	72	0.61	7.0	SSW
0.4% Occurrence	85	69	0.57	6.8	S
1.0% Occurrence	81	68	0.54	7.3	S
2.0% Occurrence	76	65	0.51	8.6	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	10	0	25

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	0.0 + 0.0
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 (#)
53.0	N/A	N/A	19

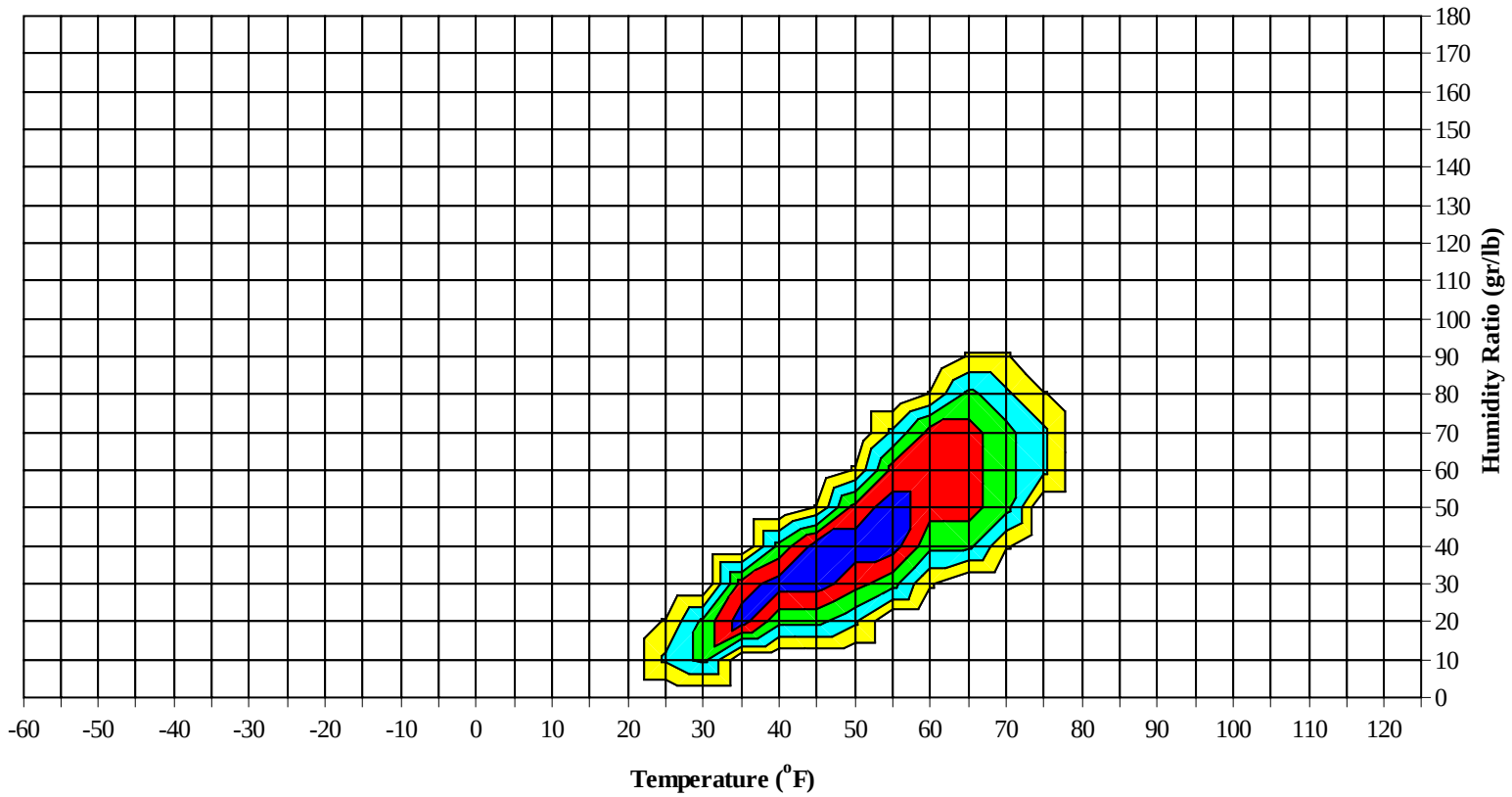
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

RAF WOODBRIDGE, UK WMO No. 035953



RAF WOODBRIDGE, UK WMO No. 035953

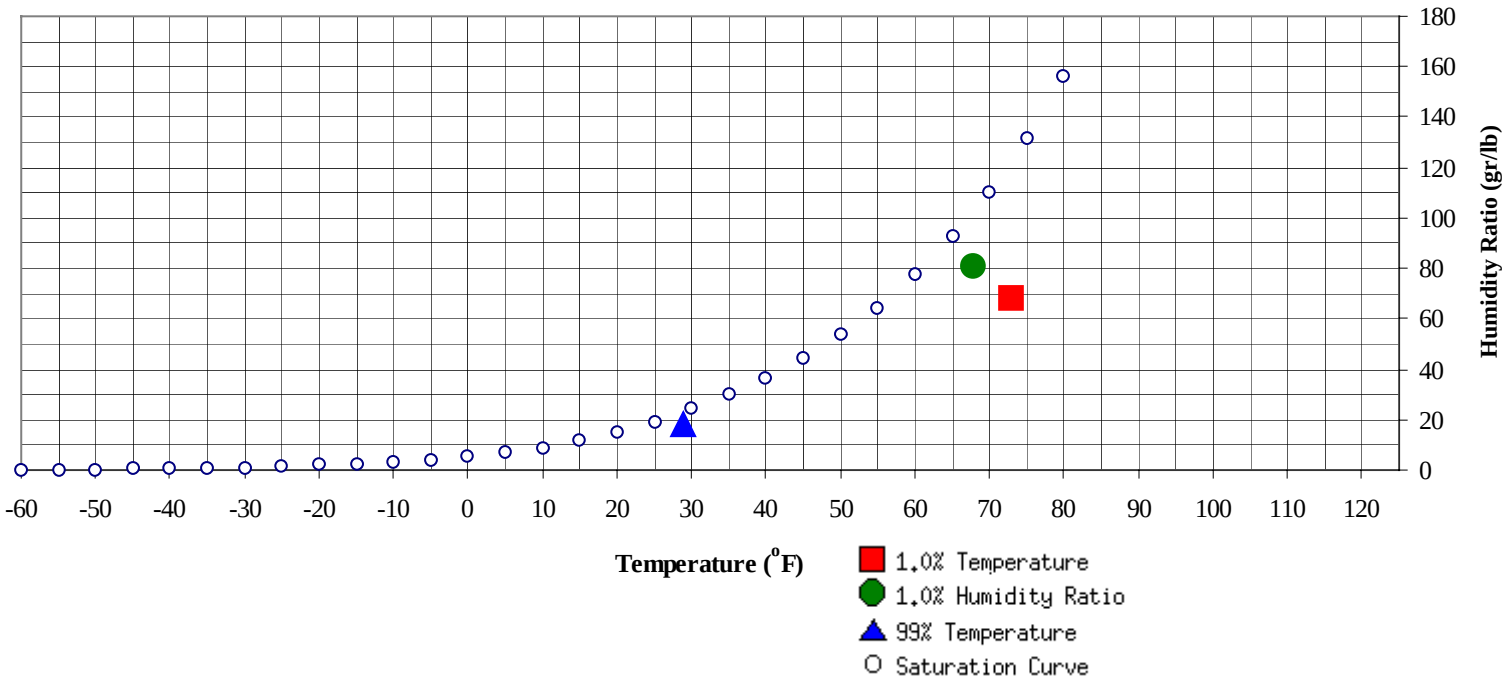
Long Term Psychrometric Summary



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

RAF WOODBRIDGE, UK WMO No. 035953

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	29	18.4	9.8

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	80.5	67.7	63.3	60.8	28.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	73	68.4	62.7	28.2

RAF WOODBRIDGE, UK WMO No. 035953

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

Period of Record = 1964 to 1993

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															
60 / 64												2	0	2	52.1
55 / 59	0	1	1	2	51.7	0	3	1	4	51.0	0	14	4	18	49.7
50 / 54	10	22	16	49	47.8	4	18	8	30	47.2	9	51	26	86	46.5
45 / 49	44	67	50	161	43.3	30	58	42	130	42.8	51	89	72	212	42.6
40 / 44	55	58	58	171	39.5	39	49	47	135	39.1	64	53	66	184	39.1
35 / 39	75	63	75	213	34.9	76	67	75	218	34.4	86	34	62	182	34.9
30 / 34	45	29	39	113	30.2	58	25	42	125	29.9	33	6	16	54	30.1
25 / 29	14	6	9	29	25.1	14	4	9	27	25.2	4	0	2	6	26.4
20 / 24	2	1	1	4	20.6	2	0	1	3	20.5					
15 / 19	1	0	0	1	17.0	1		0	1	17.4					
10 / 14	0	0		0	12.2										

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.

RAF WOODBRIDGE, UK WMO No. 035953

Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1964 to 1993

Temperature Range (°F)	April Hour Group (LST) 01 To 08	April 09 To 16	April 17 To 00	April Total Obs	April MCWB (°F)	May Hour Group (LST) 01 To 08	May 09 To 16	May 17 To 00	May Total Obs	May MCWB (°F)	June Hour Group (LST) 01 To 08	June 09 To 16	June 17 To 00	June Total Obs	June MCWB (°F)
90 / 94															
85 / 89												0		0	69.4
80 / 84											0	2	0	2	67.4
75 / 79							1		1	60.8	0	7	1	8	64.3
70 / 74		0	0	0	59.0	0	8	1	9	59.7	1	28	8	37	61.4
65 / 69	0	2	0	2	56.0	0	16	4	20	57.3	4	40	17	61	58.6
60 / 64	0	12	2	14	53.3	6	55	21	82	54.5	28	87	59	175	55.9
55 / 59	2	40	13	54	49.8	33	80	57	170	51.2	94	60	93	247	52.9
50 / 54	23	71	44	138	46.6	84	66	90	240	48.0	78	15	48	141	49.4
45 / 49	79	78	87	244	42.6	90	21	62	173	44.2	28	1	11	40	44.9
40 / 44	68	29	56	153	39.3	23	1	11	35	40.3	5	0	2	7	41.2
35 / 39	51	9	33	93	35.3	10	0	3	13	36.1	1	0		1	37.5
30 / 34	15	0	6	21	31.0	1		0	1	31.6					
25 / 29	1		0	1	27.5										
20 / 24															
15 / 19															
10 / 14															

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.

RAF WOODBRIDGE, UK WMO No. 035953

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

Period of Record = 1964 to 1993

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		0	0	0	68.8										
85 / 89		0	0	0	68.5		0	0	0	68.2					
80 / 84		3	0	3	66.5		3	0	3	66.6		0		0	67.5
75 / 79	0	18	4	22	64.7	0	20	4	24	64.5		3	1	4	63.6
70 / 74	3	60	23	86	62.2	3	61	20	84	61.8	0	24	5	29	61.4
65 / 69	14	60	37	111	59.8	12	68	37	117	59.6	2	49	15	66	59.0
60 / 64	79	83	98	260	57.3	86	79	107	271	57.3	49	104	81	234	56.6
55 / 59	104	23	66	193	53.7	97	17	64	177	53.7	84	53	84	221	52.8
50 / 54	41	2	18	61	49.9	43	1	15	59	49.4	70	7	42	119	48.9
45 / 49	7		2	9	45.4	6		1	7	44.9	30	0	11	41	44.4
40 / 44						1		0	1	40.7	5		1	6	40.9
35 / 39											0		0	0	37.8
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															

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.

RAF WOODBRIDGE, UK WMO No. 035953

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

Period of Record = 1964 to 1993

Temperature Range (°F)	October					November					December				
	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															
85 / 89															
80 / 84															
75 / 79															
70 / 74		2	0	2	62.7										
65 / 69	0	10	1	11	60.3										
60 / 64	14	55	25	94	57.0	0	4	1	5	55.9	0	0		0	55.3
55 / 59	63	96	74	232	52.8	14	30	17	61	52.5	3	7	3	13	52.2
50 / 54	73	64	83	219	48.4	43	64	50	157	48.4	27	33	29	89	48.5
45 / 49	66	20	48	134	43.8	69	82	73	224	43.5	58	73	58	189	43.5
40 / 44	21	2	14	37	40.0	45	36	48	129	39.4	51	60	61	172	39.4
35 / 39	11		4	15	35.8	46	20	38	104	34.9	68	52	61	182	35.0
30 / 34	0			0	32.5	19	4	12	35	30.6	30	20	28	78	30.4
25 / 29						3	0	1	4	26.3	10	3	7	20	25.5
20 / 24											1	0	1	2	21.5
15 / 19											0		0	0	18.1
10 / 14															

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.

RAF WOODBRIDGE, UK WMO No. 035953

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

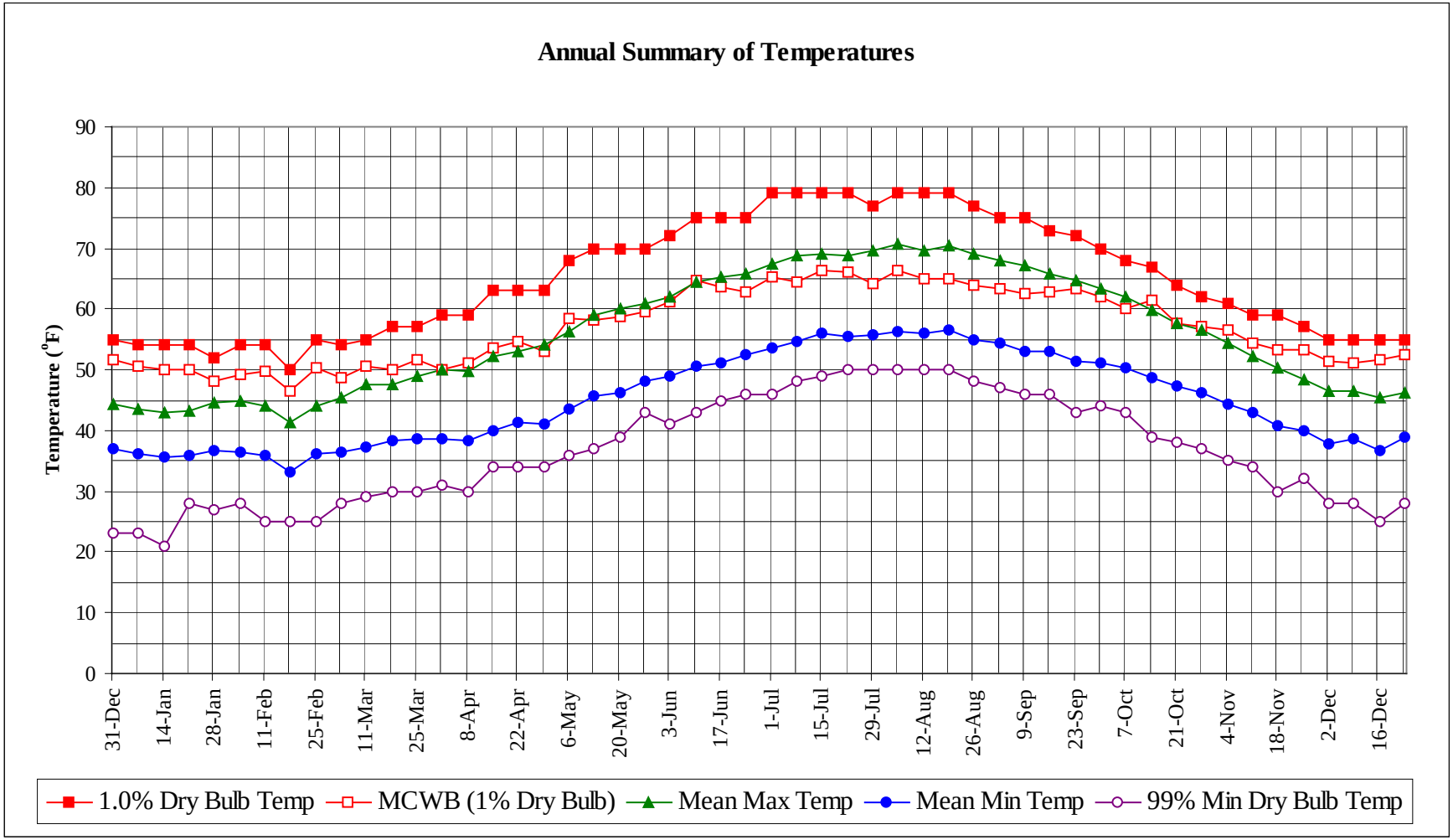
Period of Record = 1964 to 1993

Annual Totals

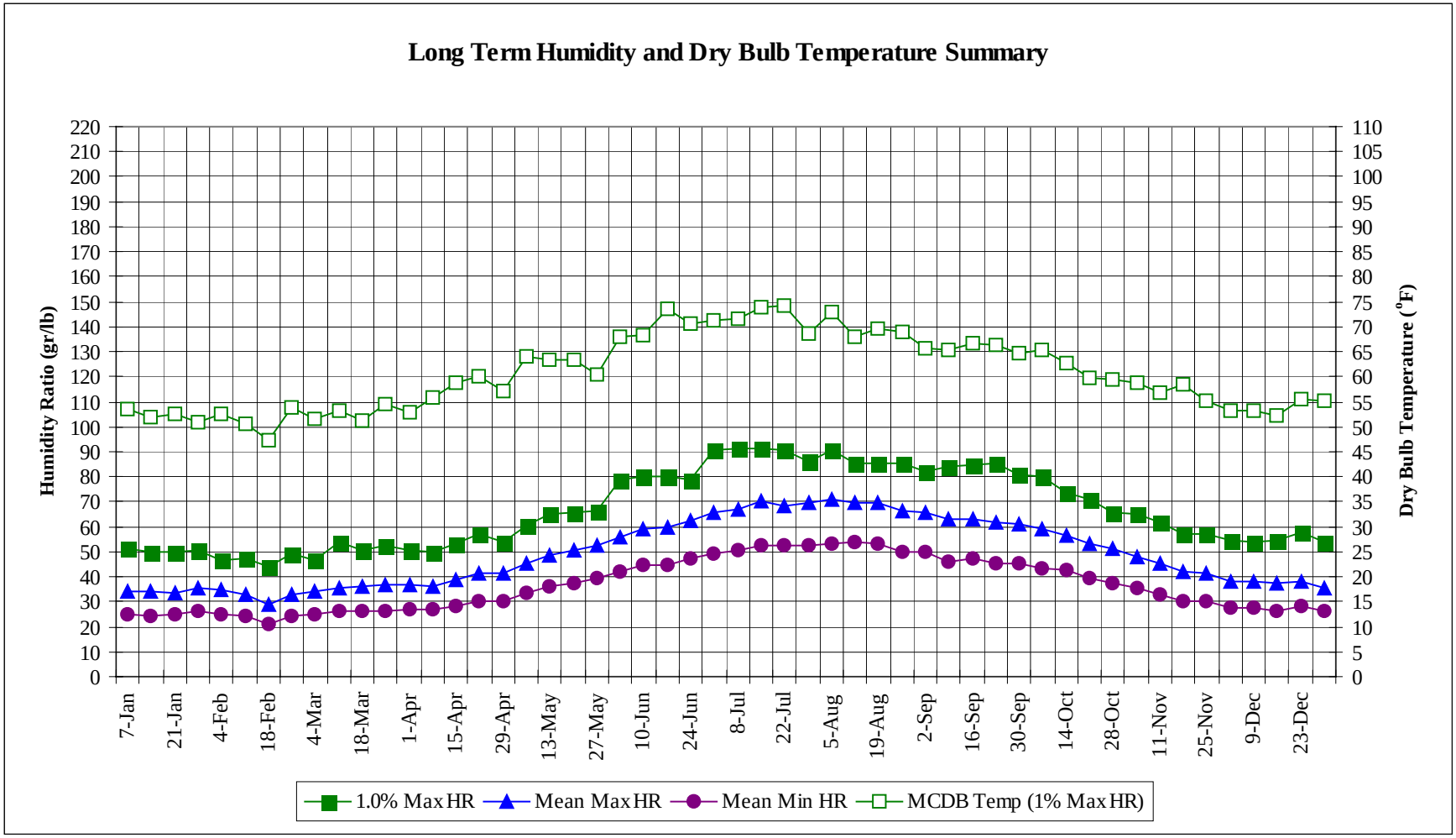
Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
90 / 94		0	0	0	68.8
85 / 89		1	0	1	68.7
80 / 84	0	8	1	9	66.7
75 / 79	0	49	10	59	64.4
70 / 74	8	183	58	249	61.7
65 / 69	34	245	112	390	59.3
60 / 64	266	482	398	1147	56.6
55 / 59	502	423	479	1404	52.7
50 / 54	512	413	470	1395	48.2
45 / 49	559	487	517	1563	43.3
40 / 44	374	286	359	1019	39.4
35 / 39	417	243	346	1007	34.9
30 / 34	196	84	141	420	30.2
25 / 29	45	14	27	86	25.4
20 / 24	4	1	3	8	20.8
15 / 19	2	0	1	3	17.3
10 / 14	0	0		0	12.2

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.

RAF WOODBRIDGE, UK WMO No. 035953



RAF WOODBRIDGE, UK WMO No. 035953

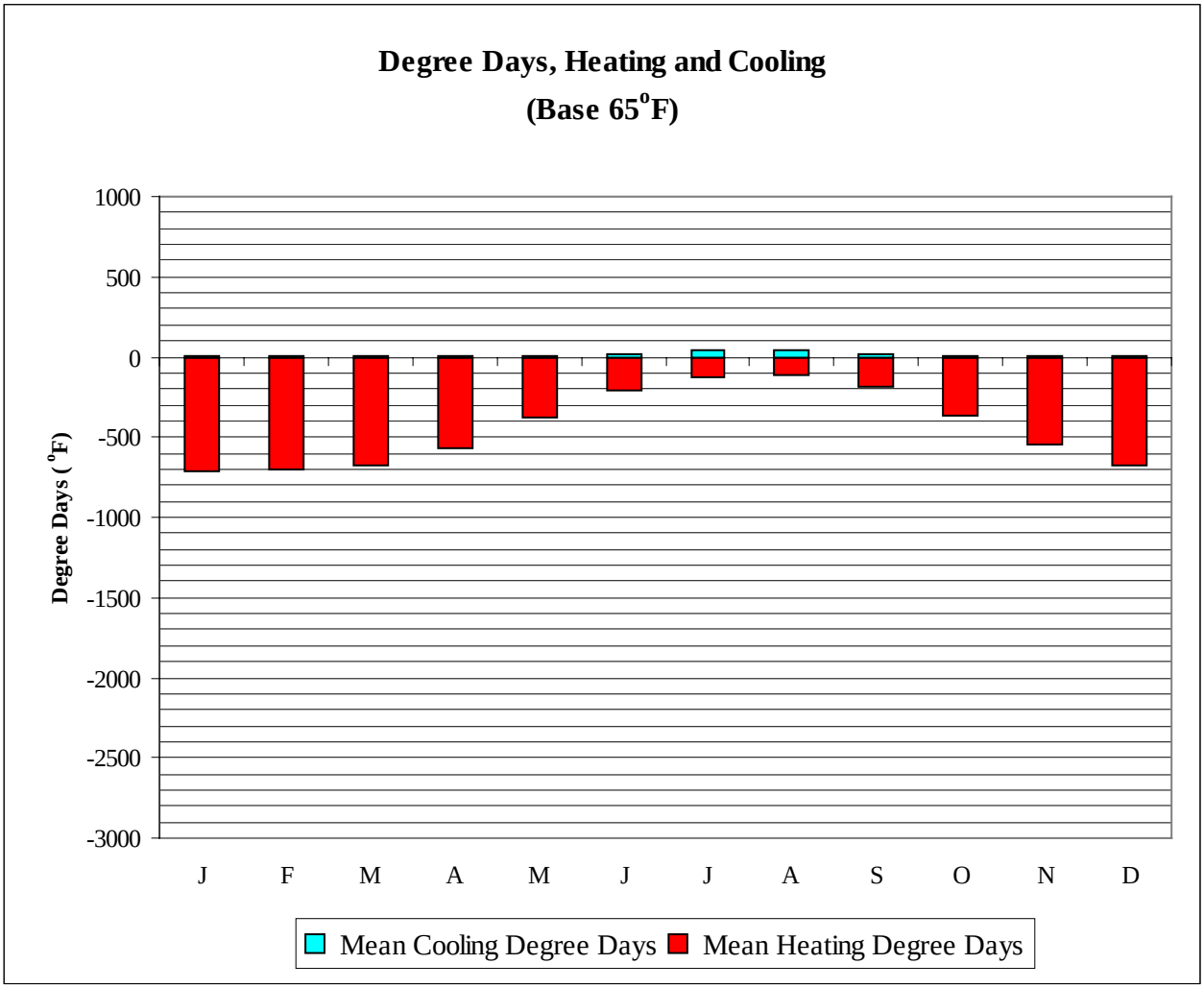


RAF WOODBRIDGE, UK WMO No. 035953

Long Term Dry Bulb Temperature and Humidity Summary

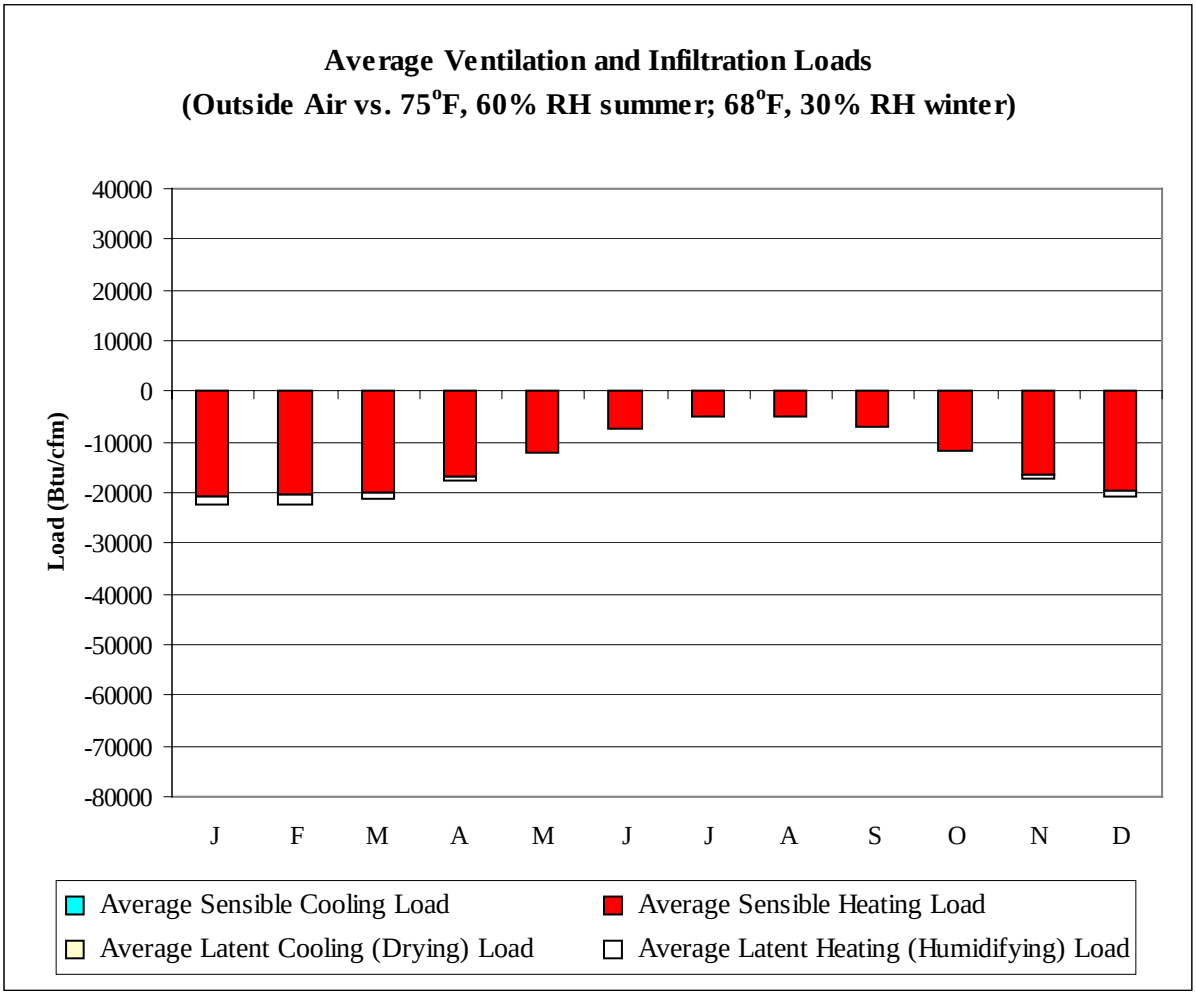
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	54.0	50.4	43.5	36.1	23.0	51.1	53.5	34.1	24.8
14-Jan	54.0	50.0	43.0	35.7	21.0	49.7	51.7	33.9	24.3
21-Jan	54.0	50.0	43.3	35.9	28.0	49.7	52.5	33.6	24.7
28-Jan	52.0	48.2	44.5	36.8	27.0	50.4	50.9	35.6	26.2
4-Feb	54.0	49.2	44.8	36.6	28.0	46.9	52.5	34.8	25.3
11-Feb	54.0	49.8	43.9	35.9	25.0	47.6	50.5	33.2	24.4
18-Feb	50.0	46.4	41.3	33.1	25.0	44.1	47.3	29.0	21.1
25-Feb	55.0	50.3	44.0	36.2	25.0	49.0	54.0	32.6	24.1
4-Mar	54.0	48.8	45.3	36.5	28.0	46.9	51.5	34.0	25.2
11-Mar	55.0	50.5	47.7	37.3	29.0	53.9	53.1	35.8	26.2
18-Mar	57.0	50.1	47.7	38.2	30.0	50.4	51.1	36.0	26.5
25-Mar	57.0	51.6	48.9	38.5	30.0	52.5	54.7	37.0	26.4
1-Apr	59.0	50.0	50.0	38.6	31.0	50.4	52.9	36.9	26.8
8-Apr	59.0	51.1	49.7	38.4	30.0	49.7	55.7	35.9	26.7
15-Apr	63.0	53.6	52.2	39.9	34.0	53.2	58.9	39.0	28.2
22-Apr	63.0	54.8	53.1	41.2	34.0	57.4	60.2	41.6	30.0
29-Apr	63.0	53.1	54.0	41.0	34.0	53.9	57.0	41.5	30.2
6-May	68.0	58.5	56.3	43.5	36.0	60.2	64.0	45.4	33.6
13-May	70.0	58.3	59.1	45.6	37.0	65.1	63.2	48.6	35.9
20-May	70.0	58.8	60.0	46.3	39.0	65.8	63.5	50.4	37.4
27-May	70.0	59.6	60.9	48.1	43.0	66.5	60.6	52.7	39.6
3-Jun	72.0	61.3	62.0	48.9	41.0	79.1	68.1	55.7	42.1
10-Jun	75.0	64.7	64.4	50.5	43.0	79.8	68.4	59.2	44.5
17-Jun	75.0	63.5	65.2	51.2	45.0	79.8	73.6	59.6	44.7
24-Jun	75.0	62.9	65.7	52.4	46.0	79.1	70.6	62.7	47.4
1-Jul	79.0	65.4	67.3	53.5	46.0	90.3	71.4	65.4	49.0
8-Jul	79.0	64.4	68.7	54.6	48.0	91.0	71.5	66.9	50.9
15-Jul	79.0	66.5	69.1	56.0	49.0	91.0	74.0	70.3	52.9
22-Jul	79.0	66.2	68.7	55.4	50.0	90.3	74.2	68.3	52.4
29-Jul	77.0	64.1	69.6	55.8	50.0	86.1	68.6	69.3	52.8
5-Aug	79.0	66.3	70.6	56.4	50.0	90.3	72.8	70.9	53.4
12-Aug	79.0	65.0	69.6	56.1	50.0	85.4	68.0	69.9	53.8
19-Aug	79.0	64.9	70.4	56.4	50.0	85.4	69.6	69.5	53.1
26-Aug	77.0	63.8	69.0	55.0	48.0	85.4	68.9	66.1	50.2
2-Sep	75.0	63.5	67.8	54.3	47.0	81.9	65.8	65.4	49.6
9-Sep	75.0	62.6	67.2	53.0	46.0	84.0	65.5	63.1	46.2
16-Sep	73.0	62.8	65.8	53.0	46.0	84.7	66.7	63.1	47.2
23-Sep	72.0	63.4	64.7	51.4	43.0	85.4	66.3	62.0	45.2
30-Sep	70.0	62.1	63.4	51.1	44.0	80.5	64.7	60.9	45.2
7-Oct	68.0	60.1	61.9	50.4	43.0	79.8	65.2	59.4	43.7
14-Oct	67.0	61.4	60.0	48.7	39.0	73.5	62.6	56.5	42.4
21-Oct	64.0	57.7	57.7	47.4	38.0	70.7	59.8	53.3	39.5
28-Oct	62.0	57.0	56.5	46.1	37.0	65.8	59.3	51.4	37.3
4-Nov	61.0	56.6	54.3	44.4	35.0	65.1	58.6	48.1	35.4
11-Nov	59.0	54.3	52.2	42.9	34.0	61.6	56.8	45.5	33.2
18-Nov	59.0	53.3	50.3	40.8	30.0	57.4	58.5	42.3	30.0
25-Nov	57.0	53.2	48.5	39.9	32.0	57.4	55.2	41.4	29.9
2-Dec	55.0	51.4	46.5	37.7	28.0	54.6	53.3	38.0	27.4
9-Dec	55.0	51.2	46.4	38.7	28.0	53.9	53.2	38.2	27.9
16-Dec	55.0	51.7	45.3	36.6	25.0	54.6	52.3	37.5	26.3
23-Dec	55.0	52.4	46.1	38.8	28.0	58.1	55.6	38.0	28.0
31-Dec	55.0	51.8	44.2	36.9	23.0	53.9	55.1	35.7	26.4

RAF WOODBRIDGE, UK WMO No. 035953



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	718
FEB	0	704
MAR	0	678
APR	0	565
MAY	4	377
JUN	18	211
JUL	39	123
AUG	39	119
SEP	12	190
OCT	1	362
NOV	0	549
DEC	0	674
ANN	113	5270

RAF WOODBRIDGE, UK WMO No. 035953



	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	-20851	0	-1590
FEB	0	-20406	0	-1981
MAR	0	-19969	0	-1158
APR	0	-16970	0	-753
MAY	1	-12104	0	-99
JUN	29	-7506	40	-6
JUL	60	-4983	140	0
AUG	64	-4872	92	-1
SEP	5	-6955	38	-6
OCT	0	-11756	3	-96
NOV	0	-16455	0	-666
DEC	0	-19762	0	-1104
ANN	159	-162589	313	-7460

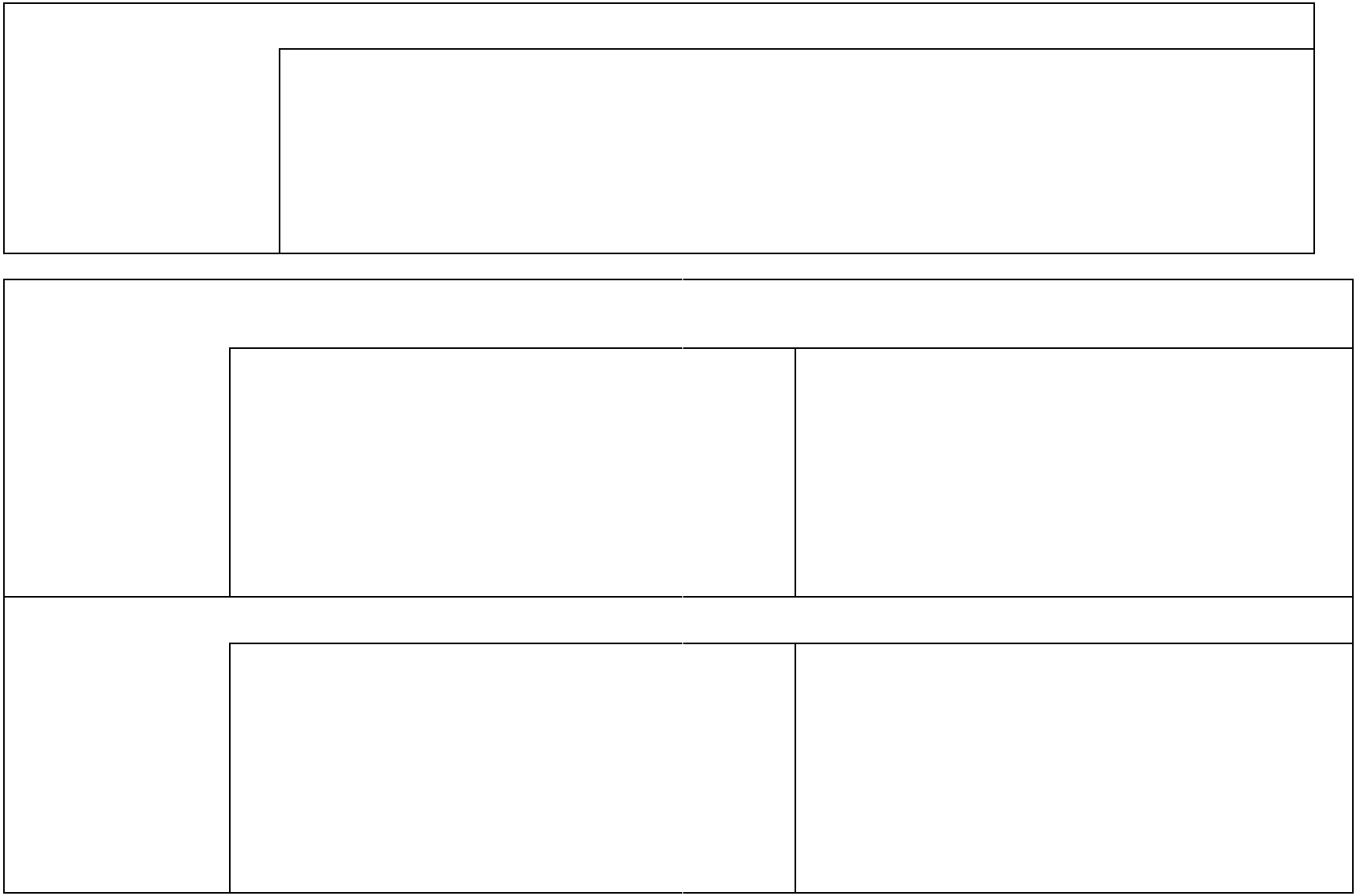
Average Annual Solar Radiation – Nearest Available Site

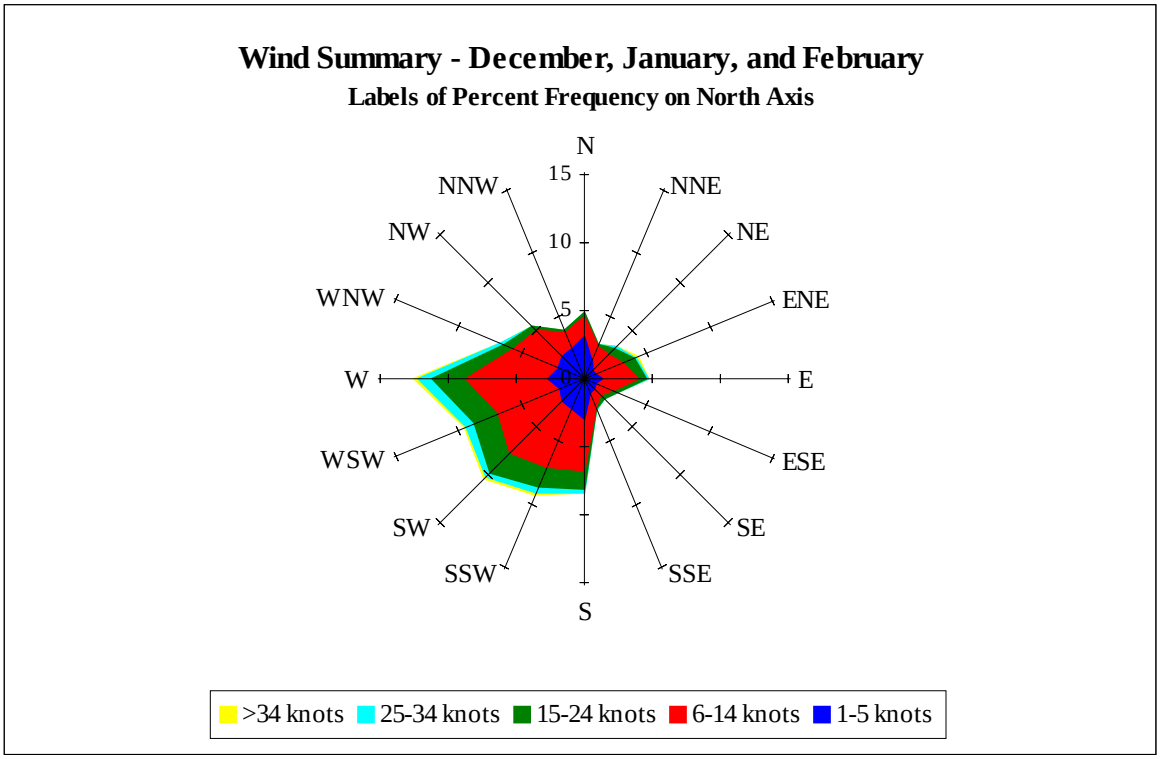
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

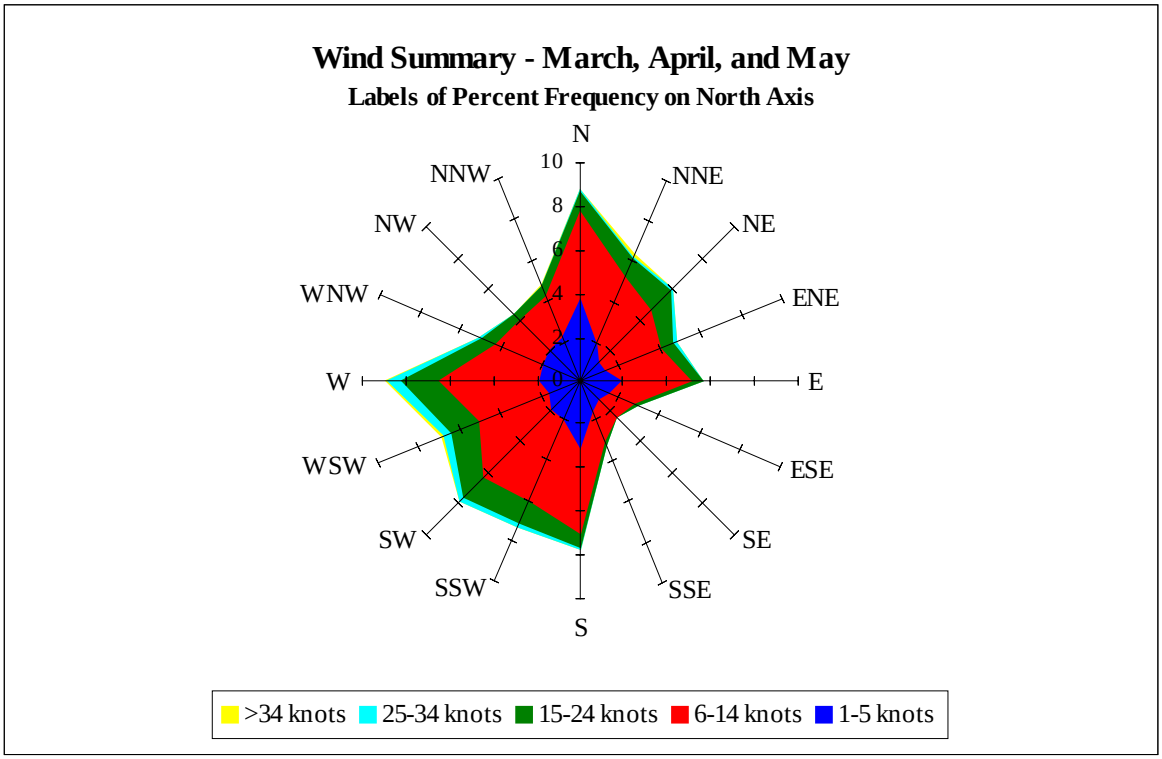
Average Annual Solar Heat and Illumination – Nearest Available Site

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

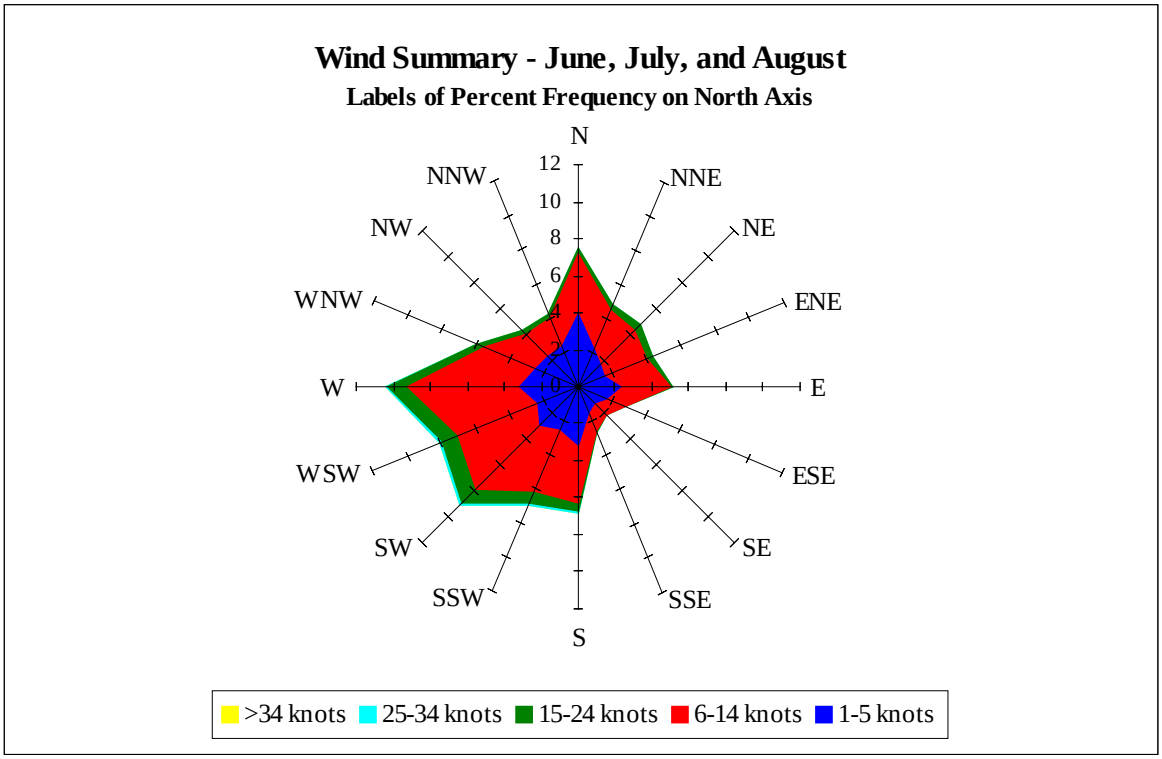




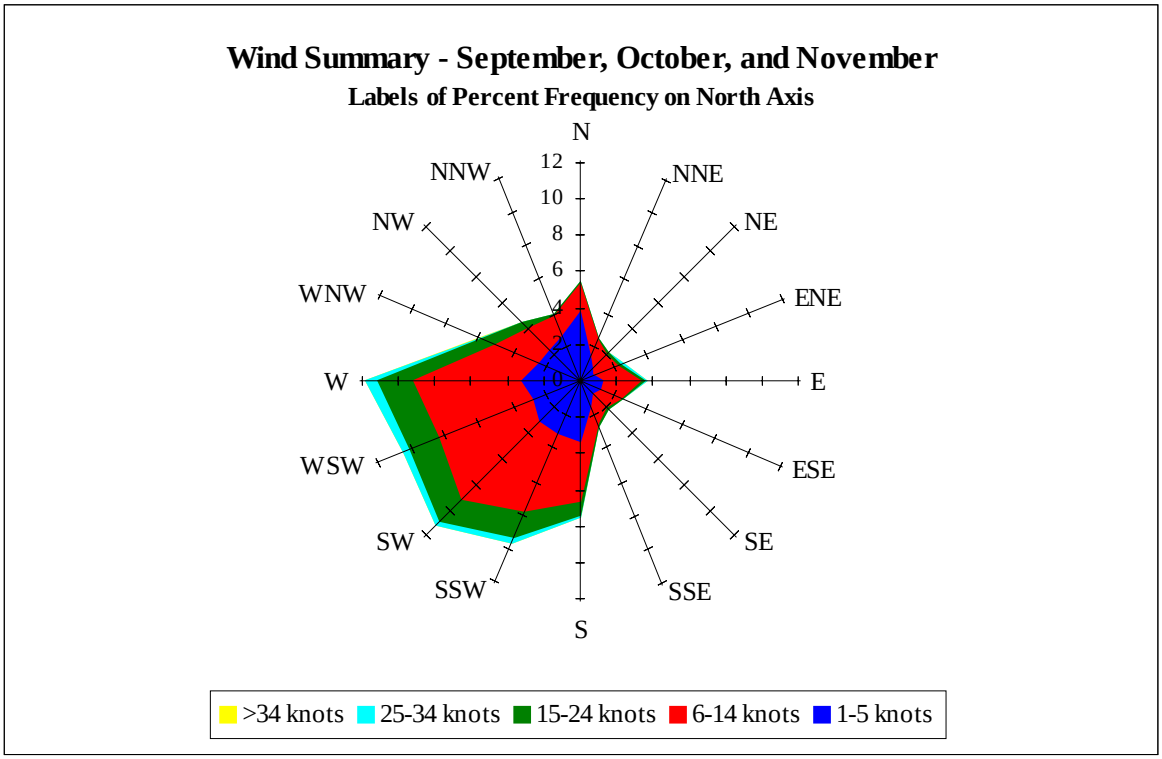
Percent Calm = 7.96



Percent Calm = 7.93



Percent Calm = 10.49



Percent Calm = 11.72