SYDNEY AU	
Latitude = 33.90 S	WMO No. 947670
Longitude =151.18 E	Elevation = 10 feet
Period of Record = 1973 to 1996	Average Pressure = 29.97 inches Hg

Design Criteria Data

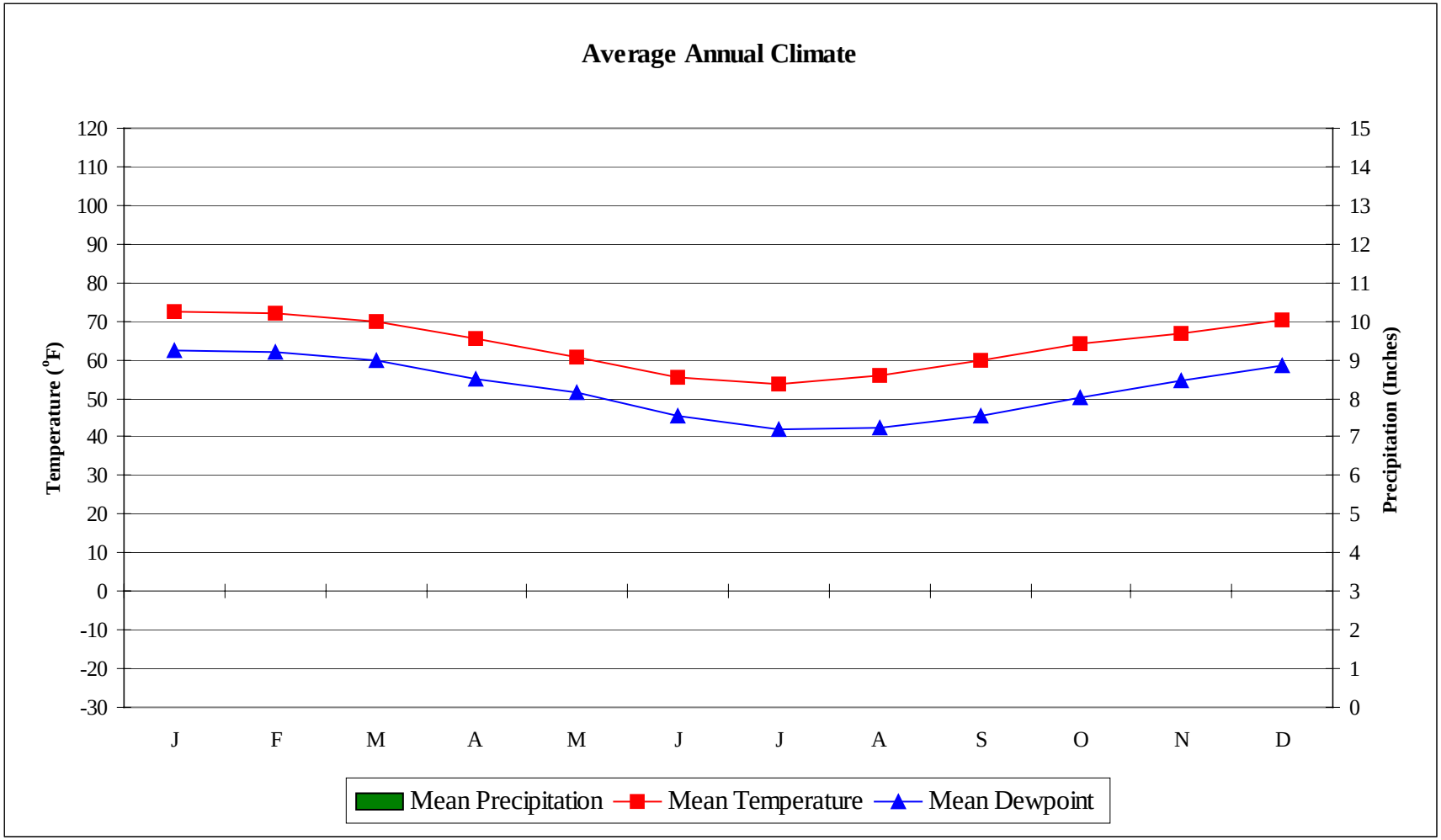
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	104	70	56	16.4	W
0.4% Occurrence	91	67	65	11.9	WNW
1.0% Occurrence	86	68	75	11.3	NE
2.0% Occurrence	82	68	79	11.4	NE
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	46	43	35	3.7	NW
99.0% Occurrence	43	40	32	3.1	NW
99.6% Occurrence	41	39	30	3.7	NW
Median of Extreme Lows	37	35	27	3.2	NW
		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	76	87	114	8.1	NE
0.4% Occurrence	73	80	108	9.0	NNE
1.0% Occurrence	72	79	106	8.8	NNE
2.0% Occurrence	71	77	102	8.9	NNE
		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	125	80	0.83	5.8	NE
0.4% Occurrence	116	76	0.78	7.2	S
1.0% Occurrence	110	75	0.74	7.5	NNE
2.0% Occurrence	106	75	0.71	8.7	S
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	25	321	73	1111

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
9	N/A	N/A	0.8 + 0.3
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 (#)
66.5	N/A	N/A	0

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

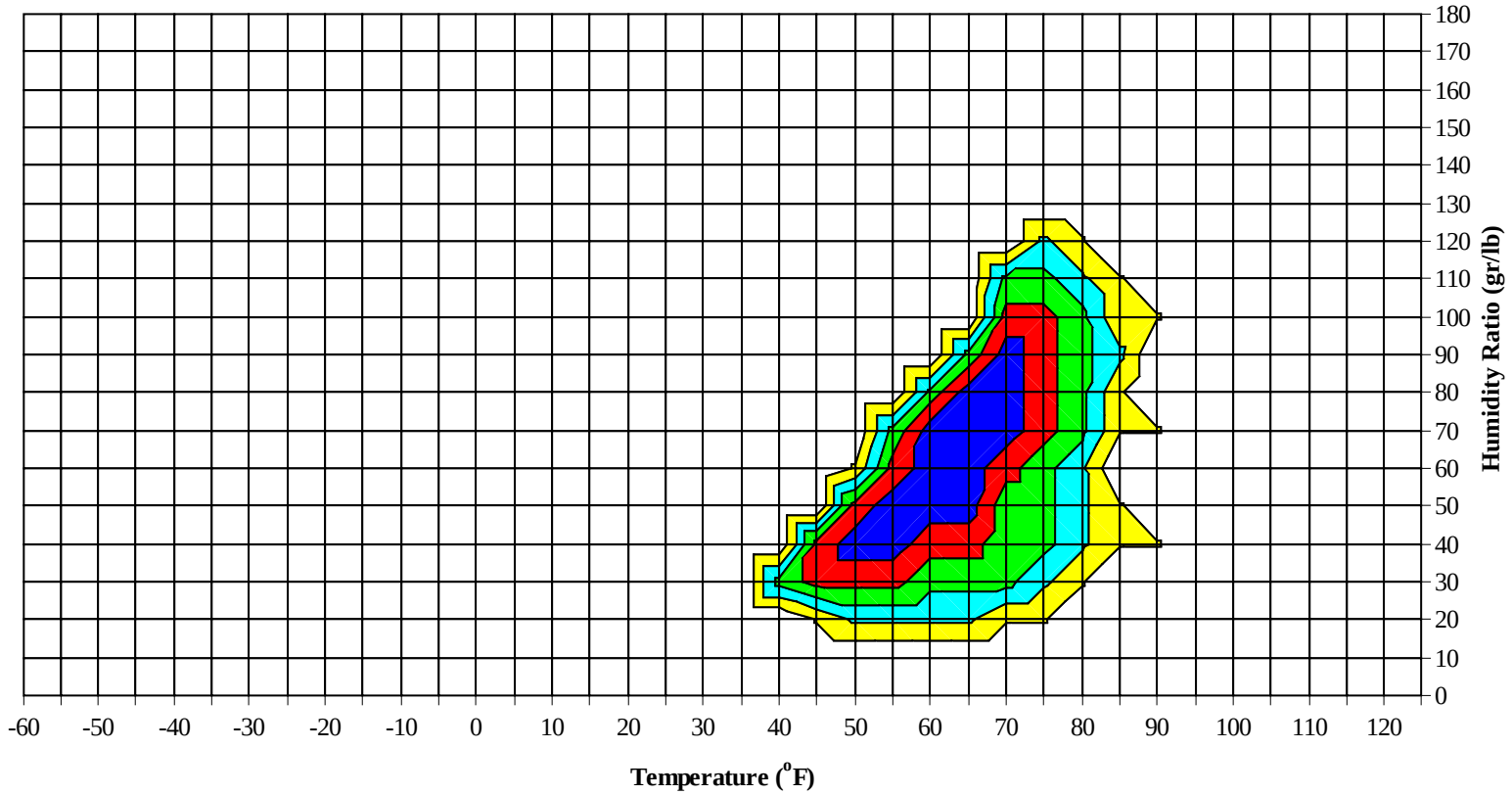
SYDNEY AU WMO No. 947670



No Precipitation Data Available

SYDNEY AU WMO No. 947670

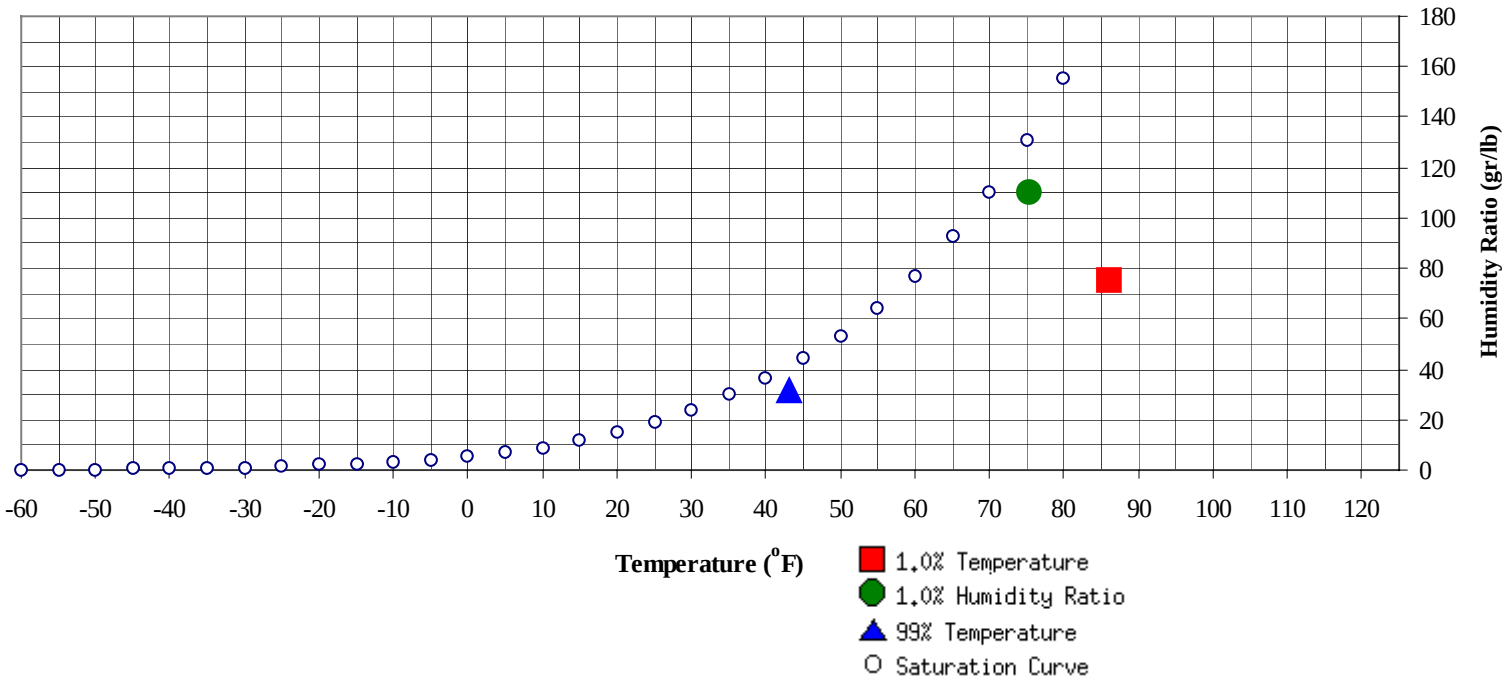
Long Term Psychrometric Summary



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

SYDNEY AU WMO No. 947670

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	43	31.8	15.2

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	109.9	75.3	71.4	69.8	35.3

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	86	75.3	67.9	32.5

SYDNEY AU WMO No. 947670

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)
105 / 109		0		0	79.0		0		0	72.3					
100 / 104		1		1	70.1		1	0	1	70.8		0		0	67.3
95 / 99		2	0	2	70.2		3	1	4	72.9		1		1	66.7
90 / 94	0	6	1	7	70.6	0	4	1	5	70.7		2	0	2	68.0
85 / 89	1	10	1	12	70.9	0	6	2	9	71.8		4	0	4	68.0
80 / 84	2	42	11	55	70.0	1	32	8	41	70.0	0	25	2	27	67.9
75 / 79	14	72	55	142	68.5	12	70	45	127	68.3	2	66	30	98	67.2
70 / 74	101	87	122	310	66.1	96	78	118	292	66.1	56	99	111	266	65.4
65 / 69	95	26	50	171	63.1	80	27	41	148	63.0	93	41	83	218	62.5
60 / 64	30	3	7	40	59.8	31	4	8	43	59.4	75	10	21	105	59.3
55 / 59	4	0	0	4	55.5	4	0		4	54.9	21	0	1	22	54.2
50 / 54		0		0		0			0	49.0	1		0	1	49.1
45 / 49											0			0	45.0
40 / 44															
35 / 39															
30 / 34															

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.

SYDNEY AU WMO No. 947670

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

Period of Record = 1973 to 1996

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)
105 / 109															
100 / 104															
95 / 99		0		0	65.7										
90 / 94		1		1	65.6										
85 / 89		2	0	2	63.7	0			0						
80 / 84	0	7	1	8	64.4	0	1		1	62.8		0		0	63.0
75 / 79	0	32	4	36	64.0	0	9	1	10	61.6		1		1	58.7
70 / 74	10	78	48	137	63.1	0	33	9	42	61.0		5	0	5	58.9
65 / 69	37	69	85	192	61.2	9	76	40	124	60.0	1	26	7	34	56.8
60 / 64	90	45	82	217	58.3	52	88	110	251	57.6	11	90	37	139	54.7
55 / 59	74	5	17	97	53.7	88	34	69	192	53.8	47	81	113	242	52.1
50 / 54	25	0	2	27	49.2	71	7	17	95	49.2	72	29	66	167	48.0
45 / 49	3			3	43.5	26	1	1	28	44.8	86	7	16	109	43.6
40 / 44						1	0	0	1	39.7	20	0	1	21	39.7
35 / 39						0	0	0	0	37.8	2	0		2	36.0
30 / 34							0	0	0		0			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.

SYDNEY AU WMO No. 947670

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)
105 / 109															
100 / 104															
95 / 99												0		0	
90 / 94												1	0	1	59.6
85 / 89							0		0	63.4		2	0	2	60.0
80 / 84							2	0	2	58.8		5	1	7	59.6
75 / 79		1		1	60.4		4	1	6	58.0	1	15	4	20	58.3
70 / 74		6	0	6	56.0	1	12	5	18	55.9	2	32	12	46	56.8
65 / 69	0	18	2	20	54.2	2	33	8	43	54.1	5	49	24	79	55.7
60 / 64	5	72	25	102	52.6	7	82	42	131	52.5	27	84	72	183	54.4
55 / 59	25	93	96	215	50.4	48	79	105	232	50.8	75	46	97	218	51.5
50 / 54	68	39	95	202	47.1	70	31	71	172	46.9	88	6	27	121	47.9
45 / 49	104	18	28	150	43.2	90	4	16	110	43.0	39	0	2	41	43.5
40 / 44	38	2	1	41	39.7	28	0	0	28	40.0	3			3	40.0
35 / 39	7	0	0	7	36.2	2			2	36.2					
30 / 34	0	0		0	32.3	0			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.

SYDNEY AU WMO No. 947670

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)
105 / 109							0		0	70.0		0		0	68.5
100 / 104		0		0	63.0		1	0	1	68.4		1		1	67.8
95 / 99	0	1	0	1	63.0		2	0	2	68.2	0	3	0	3	68.2
90 / 94	0	4	1	5	62.4	0	3	0	3	65.2	0	5	1	7	67.6
85 / 89	0	4	0	4	62.4	0	5	1	6	65.8	0	7	1	8	67.7
80 / 84	0	9	3	12	62.0	1	13	3	17	65.4	1	28	8	37	67.7
75 / 79	1	26	8	34	60.4	2	37	11	50	64.0	7	66	30	103	66.4
70 / 74	6	61	22	89	59.6	19	76	47	142	62.6	64	81	101	246	64.8
65 / 69	22	64	54	140	58.8	47	60	83	190	60.6	90	43	72	206	61.8
60 / 64	85	63	108	256	56.5	104	36	74	215	57.5	68	13	33	114	58.3
55 / 59	89	16	47	153	52.7	53	7	19	79	53.4	17	0	1	18	53.8
50 / 54	40	1	4	46	48.7	13	1	1	15	49.3	1			1	50.8
45 / 49	5	0	0	5	44.5	1			1	45.7					
40 / 44															
35 / 39															
30 / 34															

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.

SYDNEY AU WMO No. 947670

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

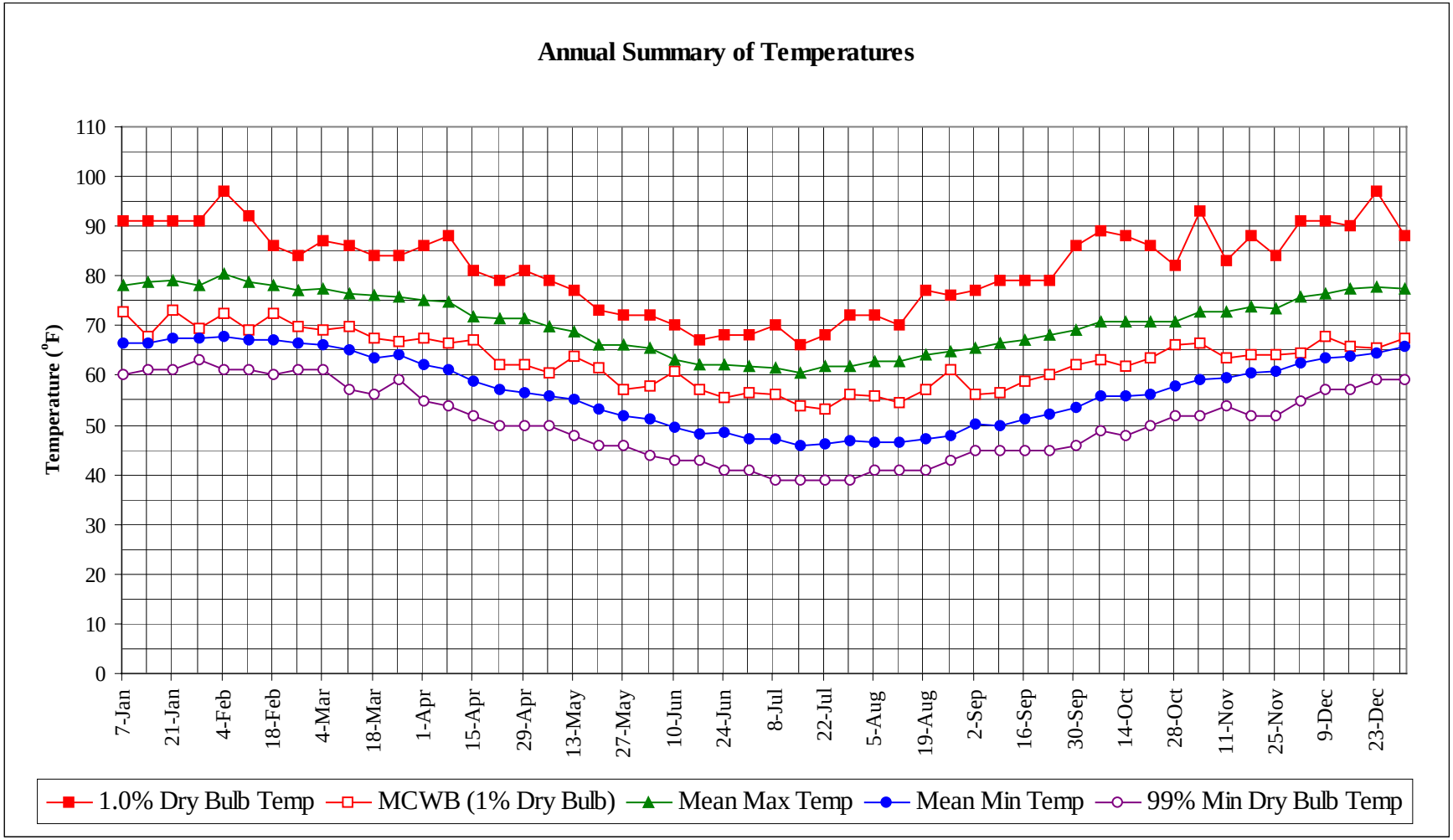
Period of Record = 1973 to 1996

Annual Totals

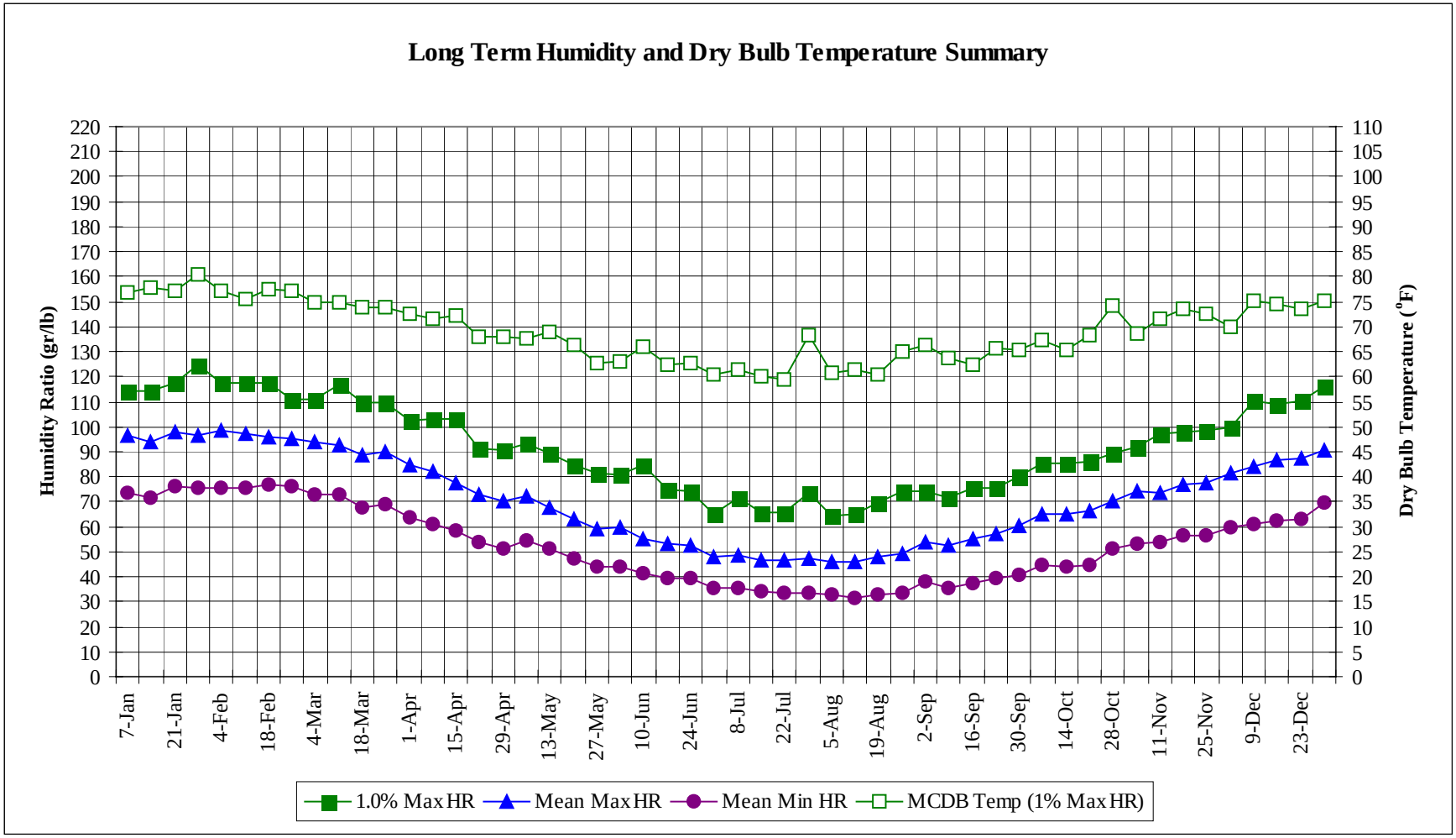
Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
105 / 109		1		1	71.4
100 / 104		4	0	4	69.0
95 / 99	0	10	1	11	69.3
90 / 94	0	24	3	28	67.4
85 / 89	1	39	8	48	68.0
80 / 84	6	165	37	208	67.7
75 / 79	39	400	189	628	66.2
70 / 74	351	656	595	1603	64.2
65 / 69	481	536	562	1579	60.7
60 / 64	597	587	634	1818	56.5
55 / 59	553	357	558	1468	52.1
50 / 54	449	111	270	830	47.8
45 / 49	343	29	61	433	43.4
40 / 44	86	2	2	90	39.8
35 / 39	11	0	0	11	36.2
30 / 34	1	0	0	1	32.3

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.

SYDNEY AU WMO No. 947670



SYDNEY AU WMO No. 947670

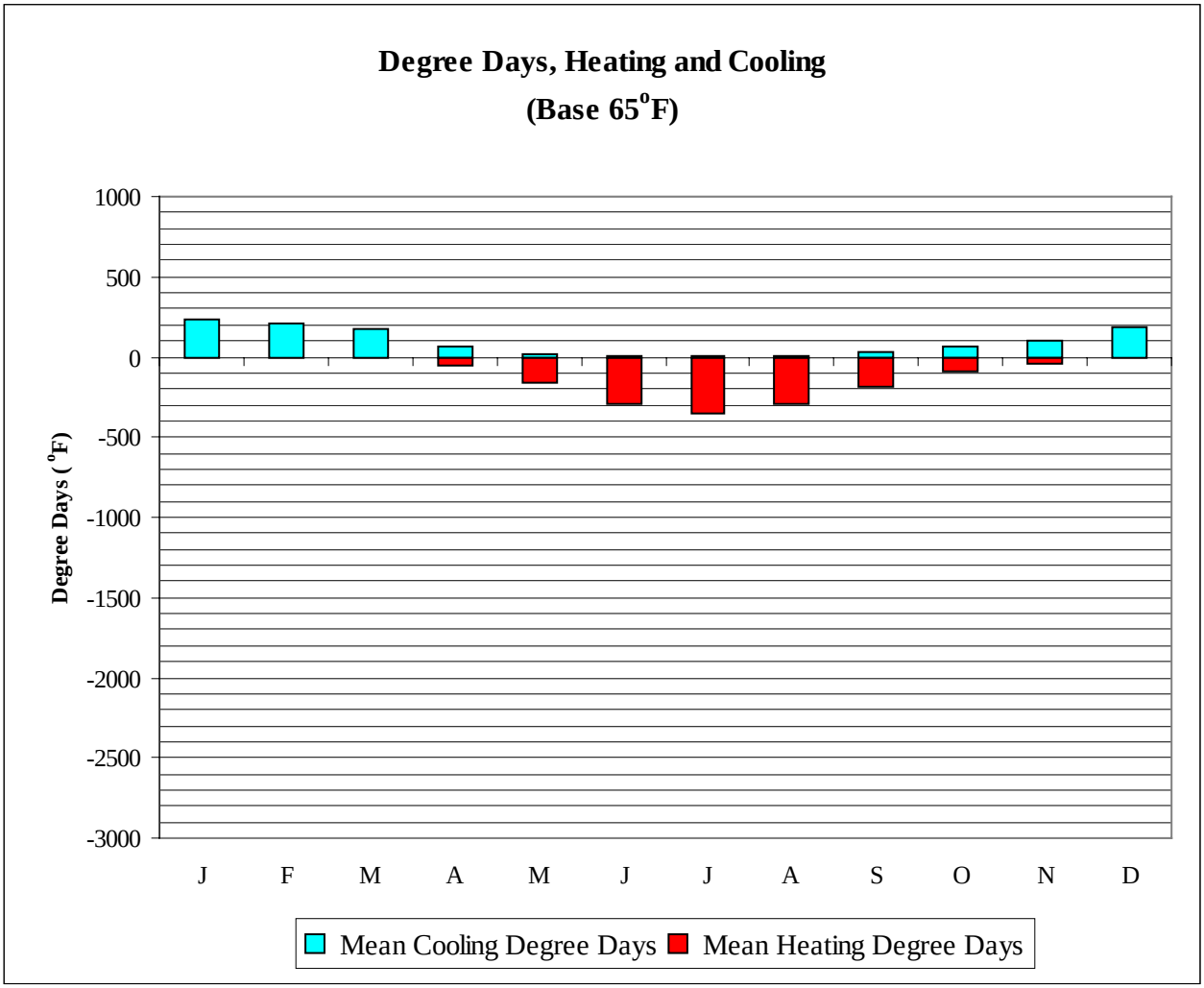


SYDNEY AU WMO No. 947670

Long Term Dry Bulb Temperature and Humidity Summary

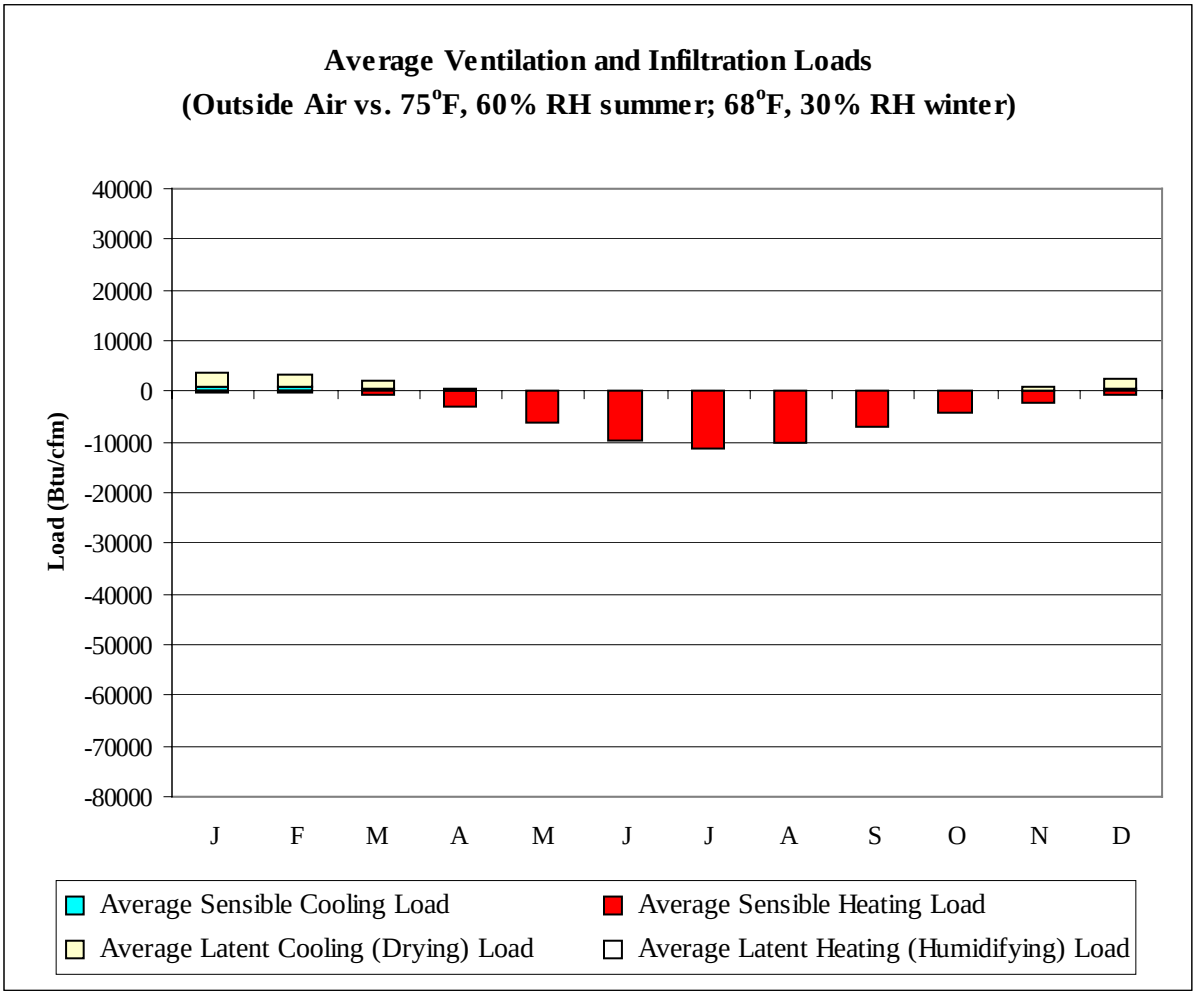
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	91.0	72.8	78.0	66.6	60.0	114.1	76.8	96.5	73.6
14-Jan	91.0	67.8	78.9	66.6	61.0	114.1	77.7	93.6	71.4
21-Jan	91.0	73.2	79.0	67.5	61.0	117.6	77.2	97.6	75.9
28-Jan	91.0	69.4	77.9	67.3	63.0	124.6	80.4	96.7	75.5
4-Feb	97.0	72.4	80.4	67.7	61.0	117.6	77.1	98.2	75.8
11-Feb	92.0	69.0	78.9	67.2	61.0	117.6	75.6	97.4	75.6
18-Feb	86.0	72.5	78.1	67.1	60.0	117.6	77.6	96.1	76.8
25-Feb	84.0	69.7	77.0	66.6	61.0	111.3	77.0	95.4	76.3
4-Mar	87.0	69.0	77.3	66.2	61.0	111.3	74.8	94.0	73.1
11-Mar	86.0	69.8	76.6	65.1	57.0	116.9	74.7	92.7	73.1
18-Mar	84.0	67.5	76.1	63.6	56.0	109.9	74.0	88.7	67.6
25-Mar	84.0	66.9	75.7	64.0	59.0	109.9	74.0	89.7	69.2
1-Apr	86.0	67.5	75.1	62.2	55.0	102.2	72.5	84.9	63.6
8-Apr	88.0	66.3	74.7	61.1	54.0	102.9	71.7	81.9	61.3
15-Apr	81.0	67.1	71.7	59.0	52.0	102.9	72.1	77.7	58.3
22-Apr	79.0	62.3	71.5	57.2	50.0	91.0	68.0	73.2	54.1
29-Apr	81.0	62.3	71.3	56.5	50.0	90.3	68.1	70.2	51.5
6-May	79.0	60.5	69.7	55.9	50.0	93.1	67.8	72.2	54.3
13-May	77.0	64.0	68.7	55.0	48.0	89.6	68.9	67.5	50.9
20-May	73.0	61.4	66.3	53.2	46.0	84.7	66.3	63.3	47.1
27-May	72.0	57.1	66.2	51.8	46.0	81.2	62.8	59.1	44.2
3-Jun	72.0	57.9	65.3	51.2	44.0	80.5	63.0	59.6	44.3
10-Jun	70.0	60.7	63.3	49.5	43.0	84.7	65.9	55.5	41.1
17-Jun	67.0	57.0	62.0	48.2	43.0	74.9	62.4	53.5	39.7
24-Jun	68.0	55.5	62.0	48.6	41.0	74.2	62.6	52.3	39.1
1-Jul	68.0	56.3	61.7	47.1	41.0	65.1	60.3	48.0	35.7
8-Jul	70.0	56.2	61.4	47.1	39.0	71.4	61.3	48.3	35.4
15-Jul	66.0	54.0	60.4	45.8	39.0	65.8	60.1	46.6	34.0
22-Jul	68.0	53.3	61.8	46.1	39.0	65.8	59.4	46.9	33.3
29-Jul	72.0	56.3	61.9	46.7	39.0	73.5	68.3	47.4	33.6
5-Aug	72.0	55.7	63.0	46.4	41.0	64.4	60.7	46.0	32.7
12-Aug	70.0	54.6	62.8	46.7	41.0	65.1	61.4	45.8	31.7
19-Aug	77.0	57.2	64.1	47.3	41.0	69.3	60.4	48.2	32.8
26-Aug	76.0	61.0	64.7	47.8	43.0	74.2	65.2	49.1	33.8
2-Sep	77.0	56.1	65.3	50.3	45.0	74.2	66.2	53.7	37.9
9-Sep	79.0	56.4	66.6	49.9	45.0	71.4	63.6	52.6	35.2
16-Sep	79.0	58.7	67.0	51.3	45.0	75.6	62.4	55.4	37.6
23-Sep	79.0	60.3	68.2	52.1	45.0	75.6	65.5	57.4	39.2
30-Sep	86.0	62.3	69.2	53.5	46.0	79.8	65.5	60.5	41.0
7-Oct	89.0	63.0	70.9	55.8	49.0	85.4	67.4	65.3	44.7
14-Oct	88.0	61.8	71.0	55.7	48.0	85.4	65.5	65.0	43.9
21-Oct	86.0	63.3	70.8	56.0	50.0	86.1	68.2	66.6	44.7
28-Oct	82.0	66.0	70.8	57.7	52.0	89.6	74.2	70.0	51.1
4-Nov	93.0	66.3	72.9	59.3	52.0	91.7	68.6	74.1	53.0
11-Nov	83.0	63.3	72.8	59.6	54.0	97.3	71.7	73.3	53.7
18-Nov	88.0	64.0	73.7	60.4	52.0	98.0	73.5	77.1	56.8
25-Nov	84.0	64.0	73.4	60.7	52.0	98.7	72.5	77.2	56.3
2-Dec	91.0	64.6	75.7	62.4	55.0	100.1	70.0	81.6	59.9
9-Dec	91.0	67.8	76.6	63.6	57.0	110.6	75.0	84.2	61.3
16-Dec	90.0	65.9	77.4	64.0	57.0	109.2	74.4	86.8	62.5
23-Dec	97.0	65.4	77.6	64.6	59.0	110.6	73.5	87.4	63.2
31-Dec	88.0	67.5	77.3	65.9	59.0	116.2	75.3	90.4	69.9

SYDNEY AU WMO No. 947670



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	238	3
FEB	212	3
MAR	169	10
APR	67	56
MAY	17	161
JUN	2	295
JUL	2	352
AUG	7	295
SEP	27	184
OCT	60	94
NOV	99	43
DEC	185	10
ANN	1085	1506

SYDNEY AU WMO No. 947670



	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	964	-292	2787	-1
FEB	773	-260	2458	-1
MAR	385	-808	1694	-3
APR	102	-2887	472	-12
MAY	13	-6241	116	-14
JUN	1	-9796	8	-95
JUL	1	-11336	0	-164
AUG	15	-9961	1	-203
SEP	81	-6851	5	-176
OCT	219	-4220	86	-61
NOV	309	-2295	438	-27
DEC	703	-807	1604	-8
ANN	3566	-55754	9669	-765

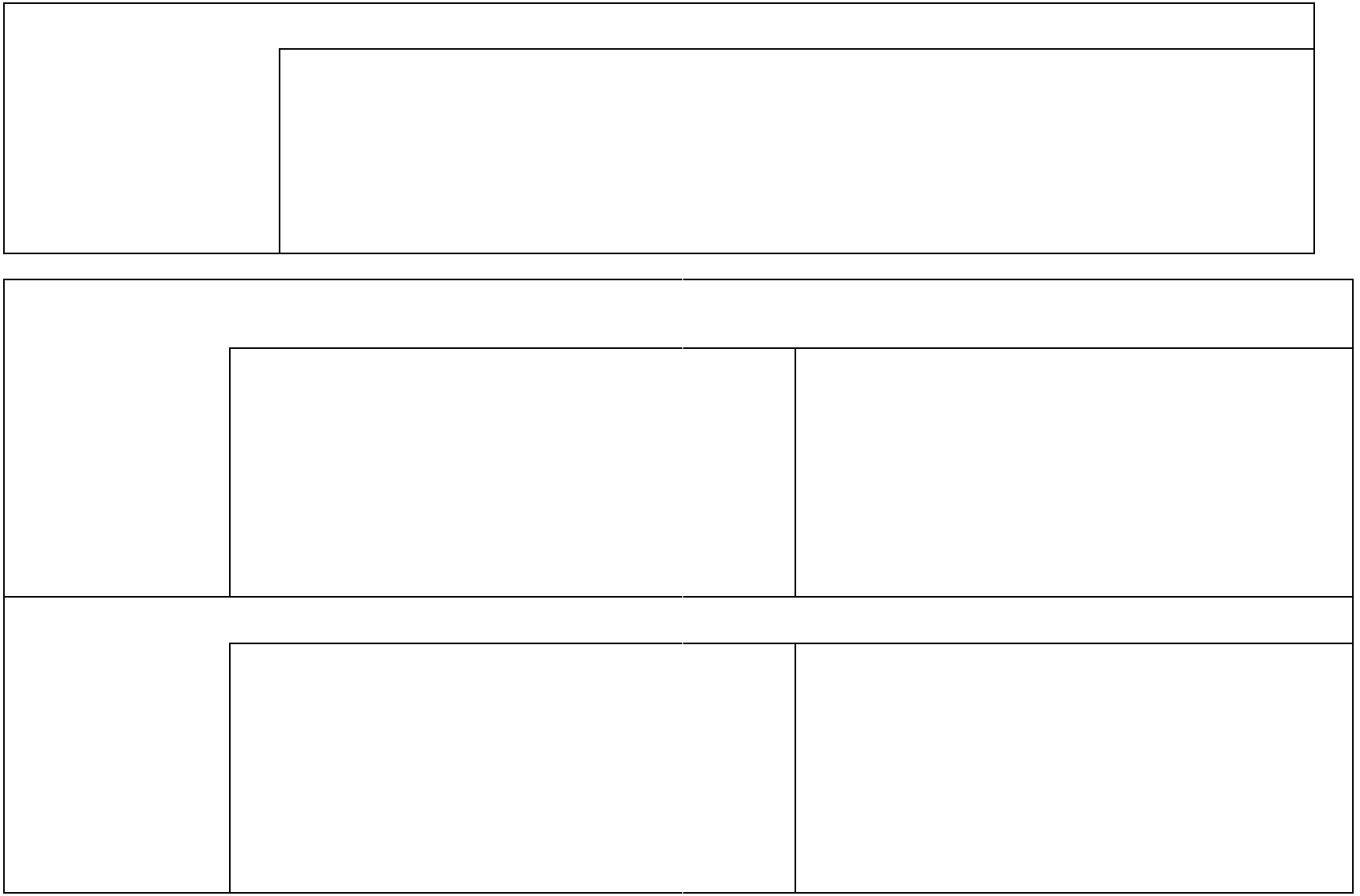
Average Annual Solar Radiation – Nearest Available Site

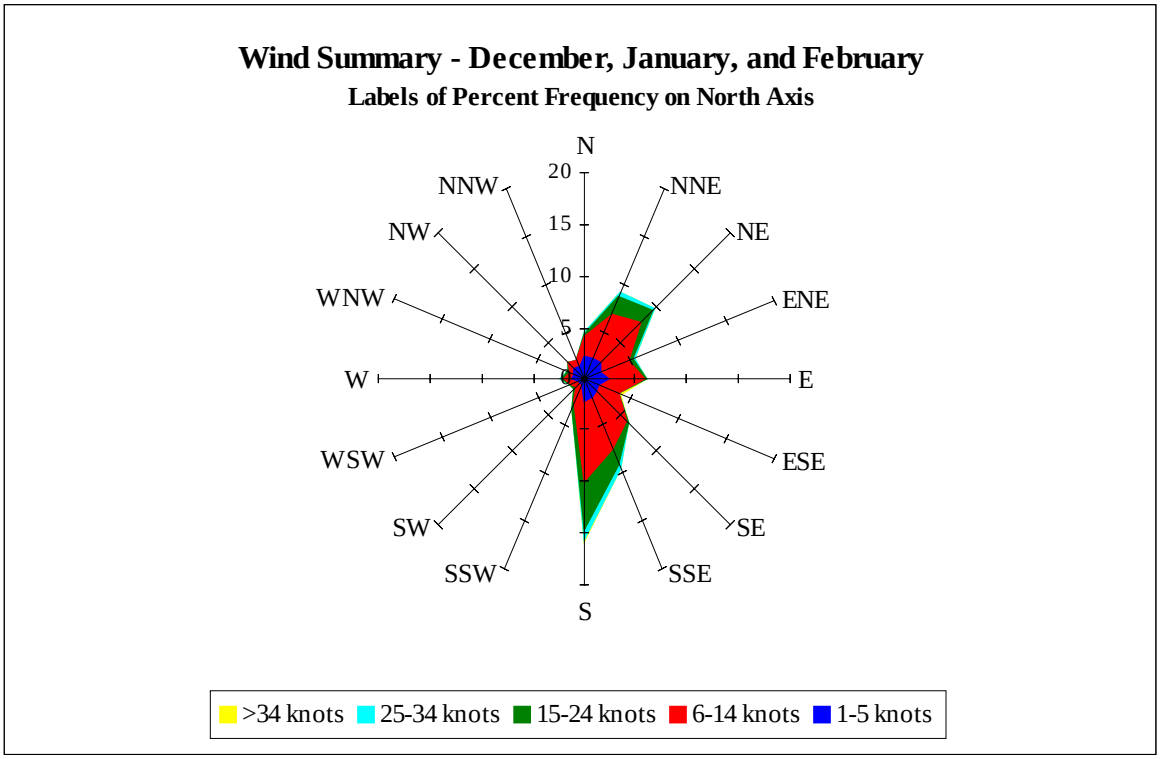
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

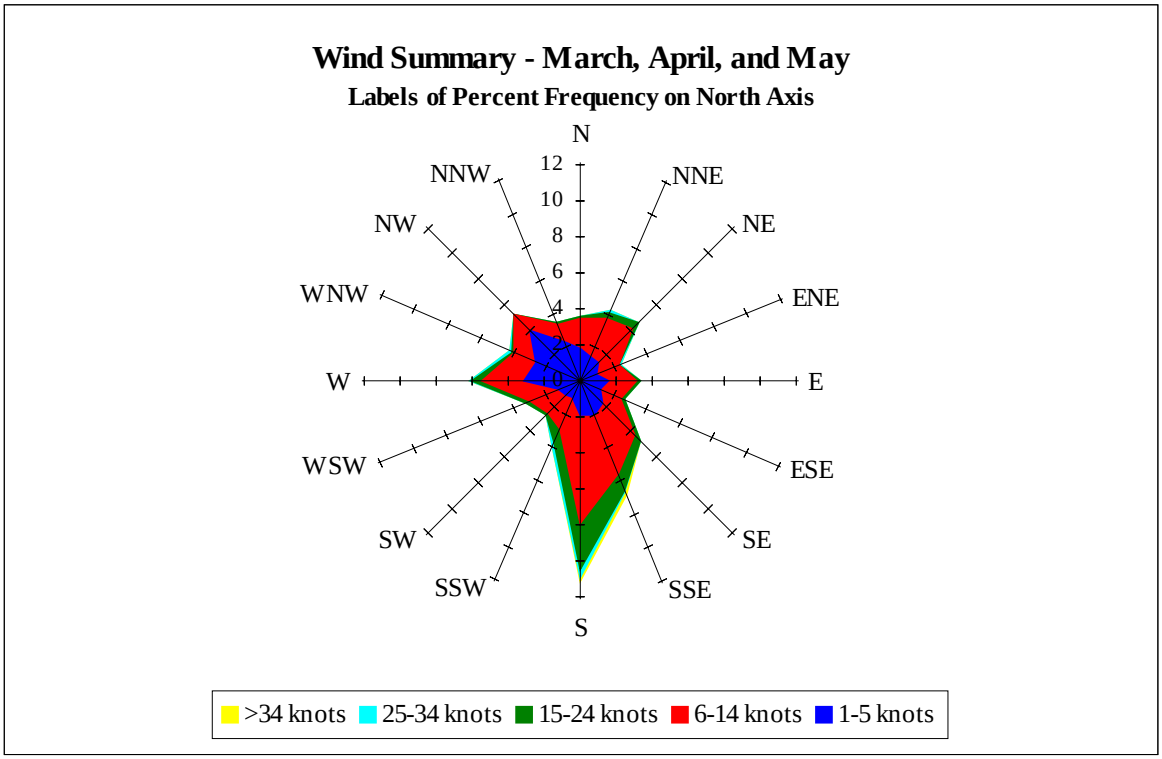
Average Annual Solar Heat and Illumination – Nearest Available Site

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

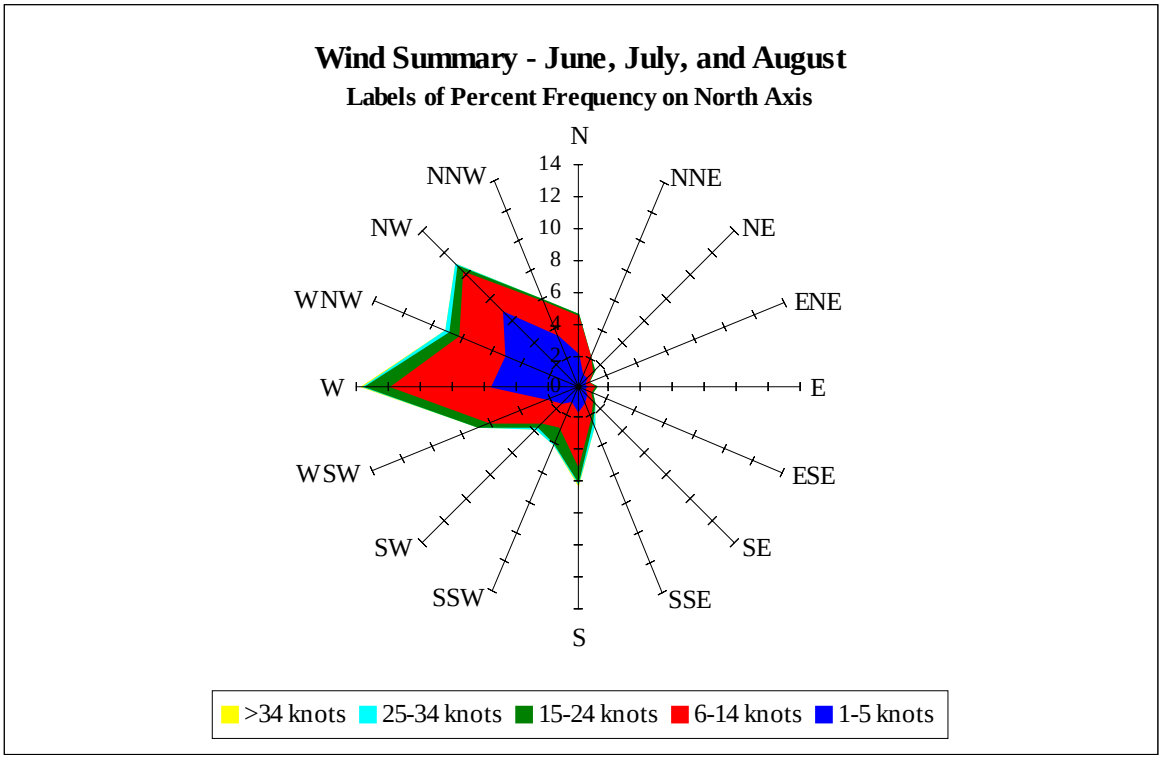




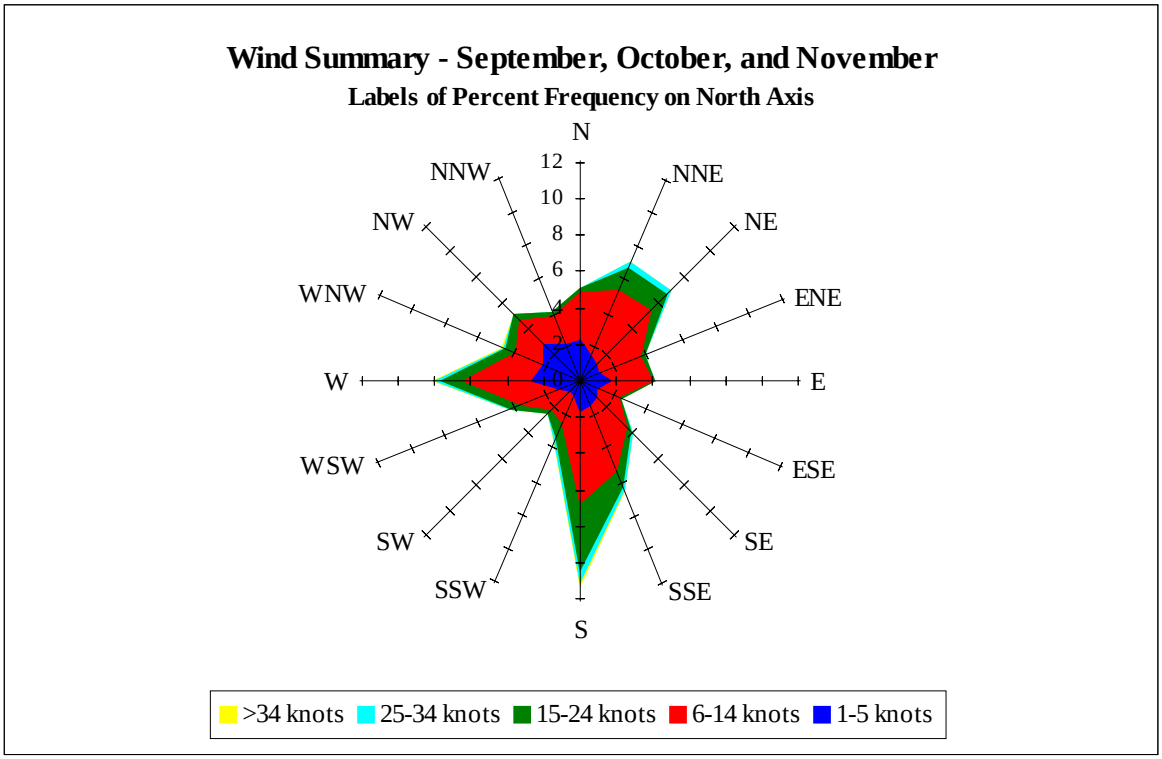
Percent Calm = 16.33



Percent Calm = 28.61



Percent Calm = 25.01



Percent Calm = 17.23