

DIYARBAKIR, TURKEY

Latitude = 37.88 N

Longitude = 40.18 E

Period of Record = 1973 to 1996

WMO No. 172800

Elevation = 2221 feet

Average Pressure = 27.58 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	108	71	64	7.1	S
0.4% Occurrence	104	71	69	7.0	S
1.0% Occurrence	102	70	70	7.0	N
2.0% Occurrence	100	69	68	7.1	N
Mean Daily Range	23	-	-	-	-
97.5% Occurrence	26	23	15	4.9	NW
99.0% Occurrence	21	19	12	4.9	NW
99.6% Occurrence	16	14	9	4.7	NW
Median of Extreme Lows	12	11	8	3.8	NW
	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	77	97	117	6.4	N
0.4% Occurrence	75	96	106	6.7	N
1.0% Occurrence	73	96	94	7.2	N
2.0% Occurrence	72	96	89	7.2	N
	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	128	96	0.78	6.9	N
0.4% Occurrence	113	91	0.69	6.6	N
1.0% Occurrence	102	88	0.63	6.8	N
2.0% Occurrence	93	86	0.57	6.7	N
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		642	1791	113	741

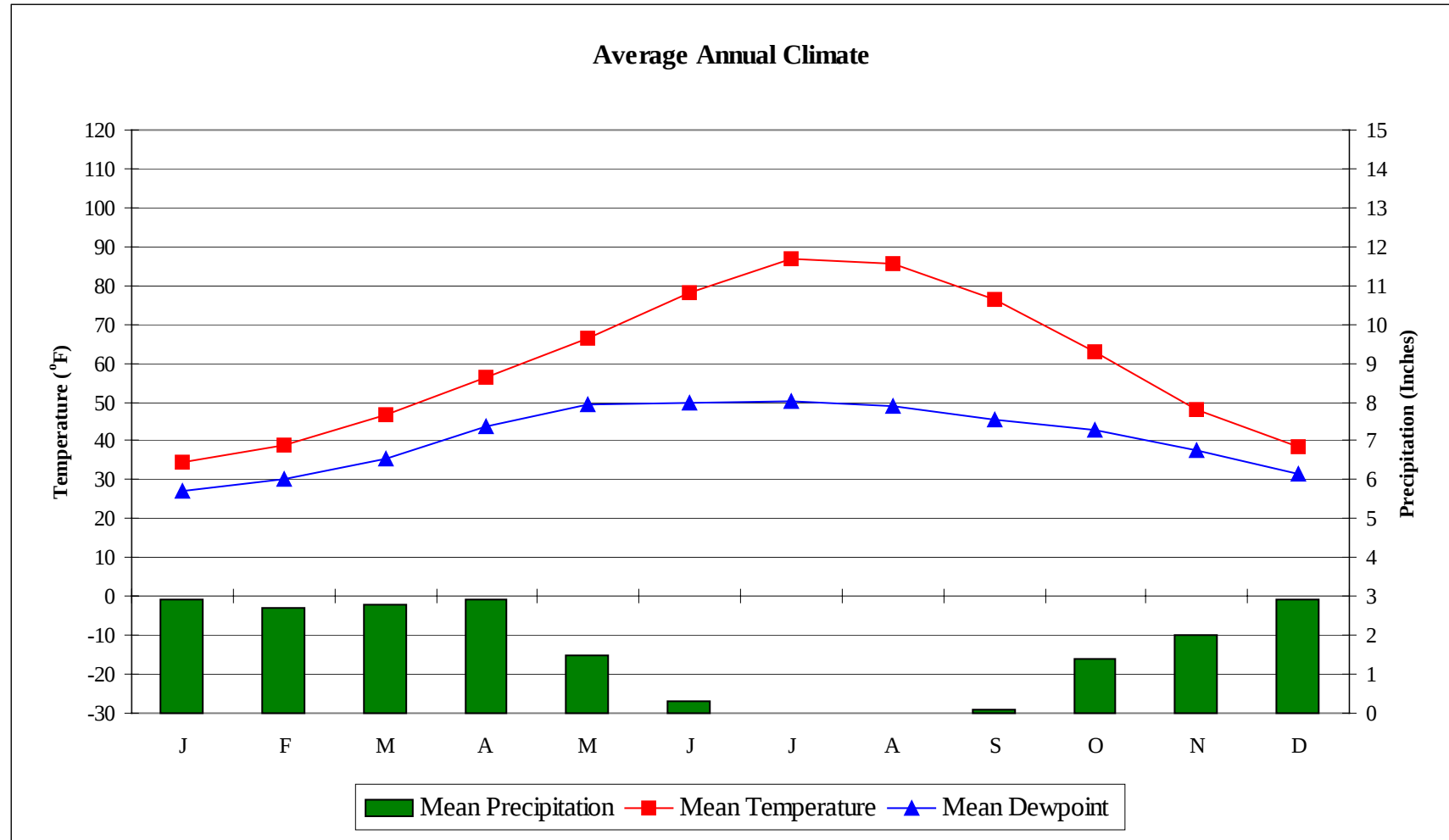
Other Site Data

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
11	N/A	N/A	0.2 + 2.3
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 (#)
62.7	N/A	N/A	52

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

DIYARBAKIR, TURKEY

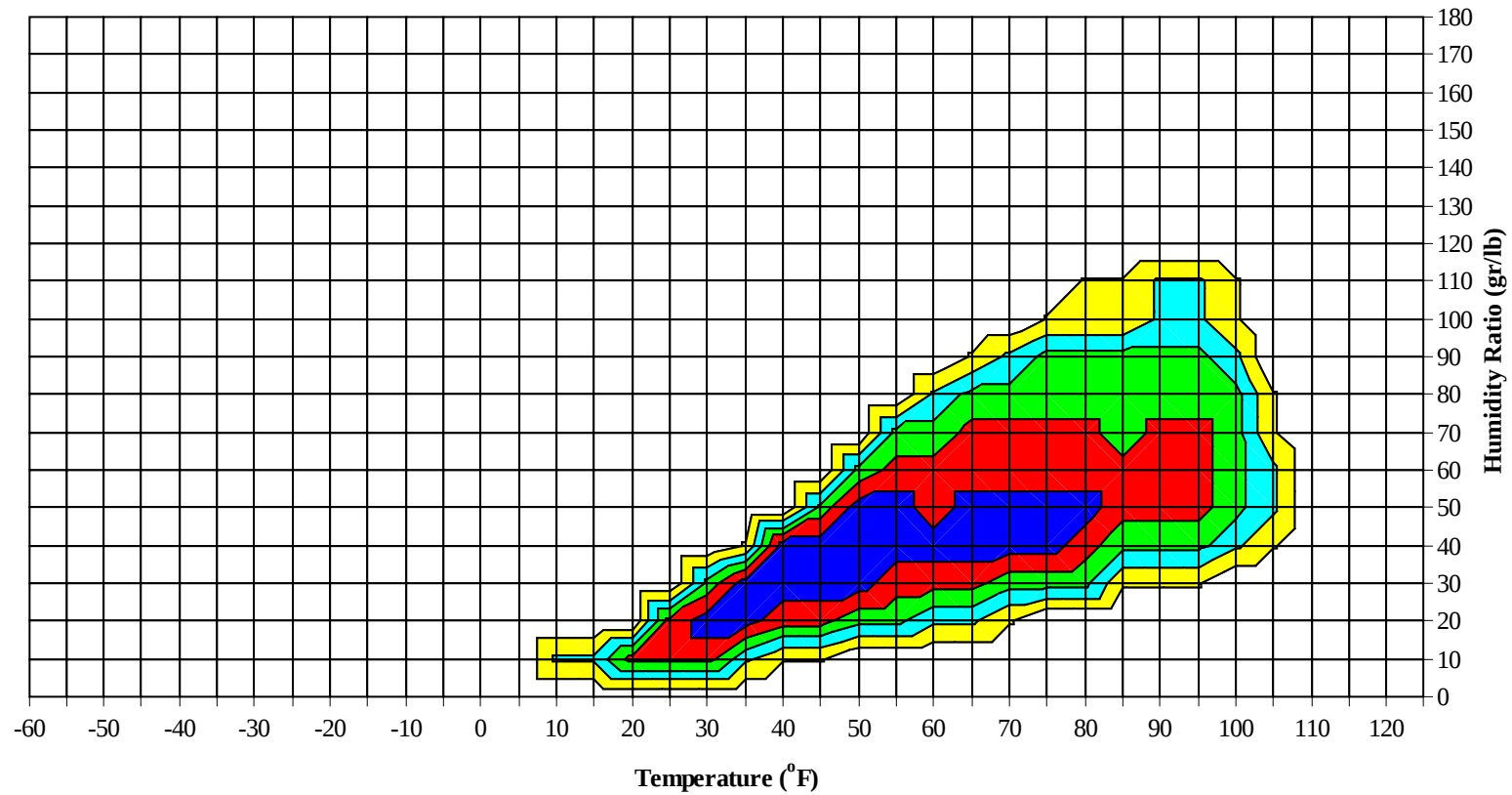
WMO No. 172800



DIYARBAKIR, TURKEY

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Long Term Psychrometric Summary

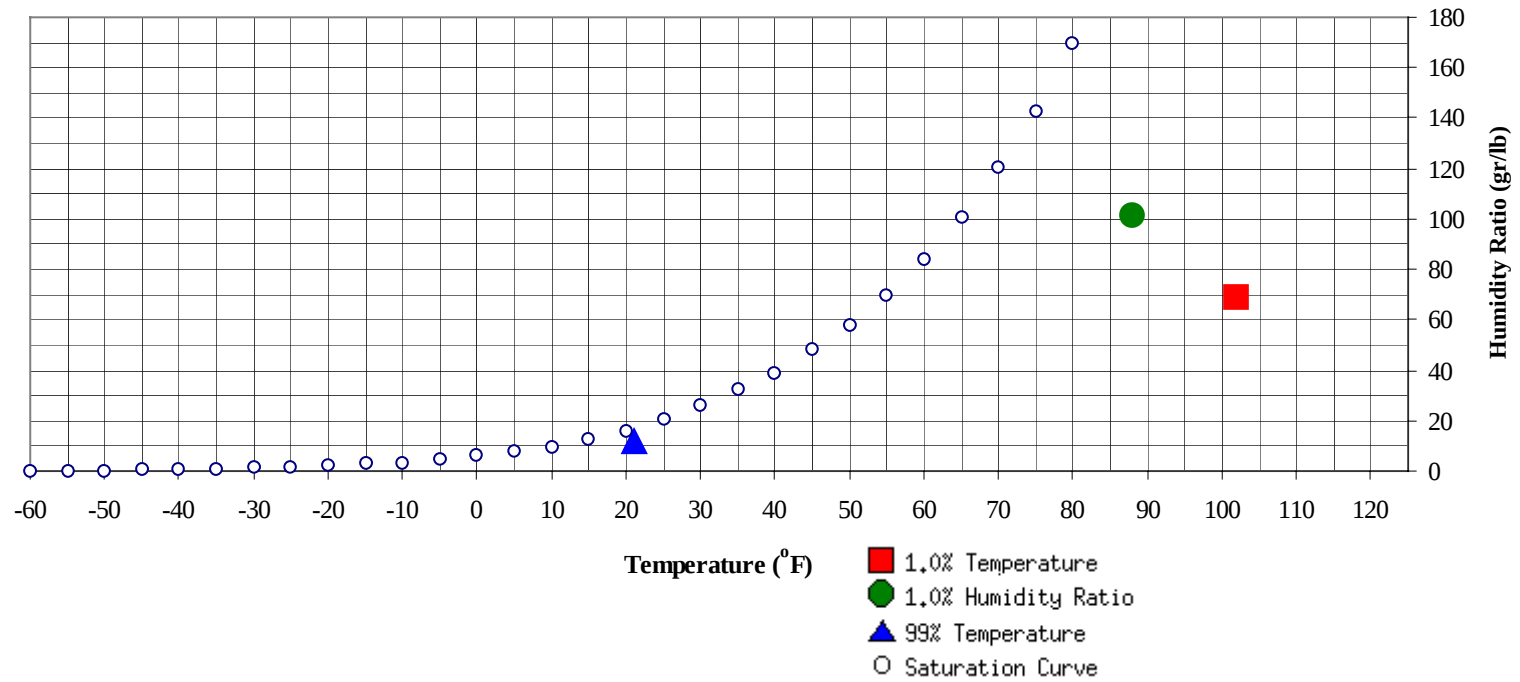


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

DIYARBAKIR, TURKEY

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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	21	11.5	6.8		101.5	88	71.8	65	37.1

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	102	68.8	70.1	35.4

DIYARBAKIR, TURKEY

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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		
110 / 114															
105 / 109															
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0		0	62.4
70 / 74							0		0	58.0		4	1	5	57.7
65 / 69							1	0	1	53.0		11	3	14	54.7
60 / 64							4	1	5	50.7	0	38	11	49	51.8
55 / 59		2	0	2	48.0		17	4	20	48.4	3	57	27	86	48.8
50 / 54	0	17	2	19	45.4	1	41	15	57	44.8	19	62	58	139	46.0
45 / 49	8	49	18	74	41.7	15	57	40	112	42.2	59	43	66	168	42.5
40 / 44	15	50	33	97	38.5	32	38	46	116	38.9	59	17	37	113	38.3
35 / 39	49	70	68	187	34.7	60	34	51	145	34.6	60	10	27	96	34.0
30 / 34	73	43	73	189	29.8	57	21	40	117	29.7	32	4	13	49	29.1
25 / 29	57	11	35	103	24.3	31	7	19	57	24.1	13	1	4	18	23.6
20 / 24	26	3	12	41	20.0	15	2	6	23	19.5	3	0	1	4	18.9
15 / 19	14	2	4	20	15.9	10	1	3	14	15.4	1	0	1	2	14.5
10 / 14	2	1	2	5	10.5	3	0	1	4	10.2	1		0	1	9.1
5 / 9	2	1	1	4	5.8	1		0	1	6.2	0			0	6.0
0 / 4	1	0	1	2	0.4	0			0	3.0					
-5 / -1	1	0	0	1	-4.0										
-10 / -6	0			0	-7.0										

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.

DIYARBAKIR, TURKEY

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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		
110 / 114															
105 / 109												0		0	73.0
100 / 104												7	2	9	69.9
95 / 99							1	0	1	71.2	0	35	12	47	68.7
90 / 94							7	2	9	68.7	1	68	23	92	67.2
85 / 89		1	0	1	65.1	0	18	4	22	66.7	4	48	24	76	65.3
80 / 84		5	1	6	63.1	0	48	15	63	64.9	16	51	40	107	63.3
75 / 79		18	5	22	61.4	4	60	25	89	62.4	34	24	53	110	60.7
70 / 74	0	38	12	50	58.9	15	53	38	106	59.4	57	6	47	110	57.7
65 / 69	2	41	17	60	56.4	22	28	37	86	57.3	51	1	23	75	55.6
60 / 64	10	63	42	115	53.7	51	22	58	131	54.7	52	0	13	65	53.4
55 / 59	37	46	59	142	50.7	74	8	50	132	51.5	22	0	4	26	50.7
50 / 54	76	22	62	160	47.3	60	2	19	81	47.8	3		0	3	47.3
45 / 49	71	5	34	110	43.1	18		2	20	43.5	0			0	41.7
40 / 44	30	1	6	37	38.8	4		0	4	38.8					
35 / 39	13	0	2	15	35.0	1		0	1	34.5					
30 / 34	2		0	2	29.7										
25 / 29	0			0	24.5										
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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WMO No. 172800

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		
110 / 114		1		1	72.0										
105 / 109		13	3	16	70.1		9	1	10	71.7		0		0	79.3
100 / 104		66	21	87	70.0	0	56	12	68	69.7		5	0	5	71.6
95 / 99	0	83	35	118	68.7	0	83	34	116	68.0		31	6	37	68.2
90 / 94	10	58	46	114	66.5	4	66	41	111	66.2	0	66	17	83	65.5
85 / 89	22	18	40	80	64.4	17	22	40	79	63.9	1	53	20	73	63.5
80 / 84	52	7	60	119	62.1	42	10	62	115	61.6	7	48	38	94	61.5
75 / 79	80	2	33	115	59.4	78	1	45	124	59.0	23	25	54	102	58.7
70 / 74	58	0	9	67	56.9	72	0	13	85	56.4	53	9	58	120	56.0
65 / 69	19		1	20	54.5	28	0	1	29	54.1	55	2	28	85	53.5
60 / 64	7		0	7	53.0	7	0	0	7	52.0	67	1	17	84	50.9
55 / 59	1			1	48.8	0	0		0	50.3	28		2	30	47.3
50 / 54						0	0		0	50.0	6		1	7	44.5
45 / 49							0		0	43.5	1		0	1	40.7
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															

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DIYARBAKIR, TURKEY

WMO No. 172800

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		
110 / 114															
105 / 109															
100 / 104															
95 / 99		0		0	67.0										
90 / 94		5	0	5	63.3										
85 / 89		15	1	16	62.2										
80 / 84	0	36	6	42	60.4										
75 / 79	0	52	16	68	58.9		1		1	60.2					
70 / 74	5	48	27	80	56.6	0	10	1	11	56.7					
65 / 69	13	35	33	81	54.5	0	20	1	21	54.9					
60 / 64	37	33	59	128	52.2	1	42	8	51	52.5		1		1	49.9
55 / 59	70	17	60	146	49.8	6	55	25	85	49.6		11	0	11	48.9
50 / 54	73	6	34	114	46.0	33	54	60	147	46.8	2	42	9	53	45.8
45 / 49	38	1	11	49	41.9	59	37	65	161	42.9	23	72	45	140	42.8
40 / 44	9	0	2	11	37.5	48	13	36	97	38.5	40	56	56	152	39.1
35 / 39	4		0	4	34.5	56	5	29	90	34.5	66	39	63	168	35.1
30 / 34						30	2	13	45	29.6	59	16	43	118	29.7
25 / 29						8	0	2	10	24.3	38	6	22	66	24.5
20 / 24						0			0	20.2	13	1	3	17	20.3
15 / 19						0			0	18.0	3	2	3	8	16.3
10 / 14											2	1	1	4	11.5
5 / 9											1	0	1	2	6.6
0 / 4											1	0	1	2	1.2
-5 / -1											0		0	0	-3.5
-10 / -6											0		0	0	-7.1

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Period of Record = 1973 to 1996

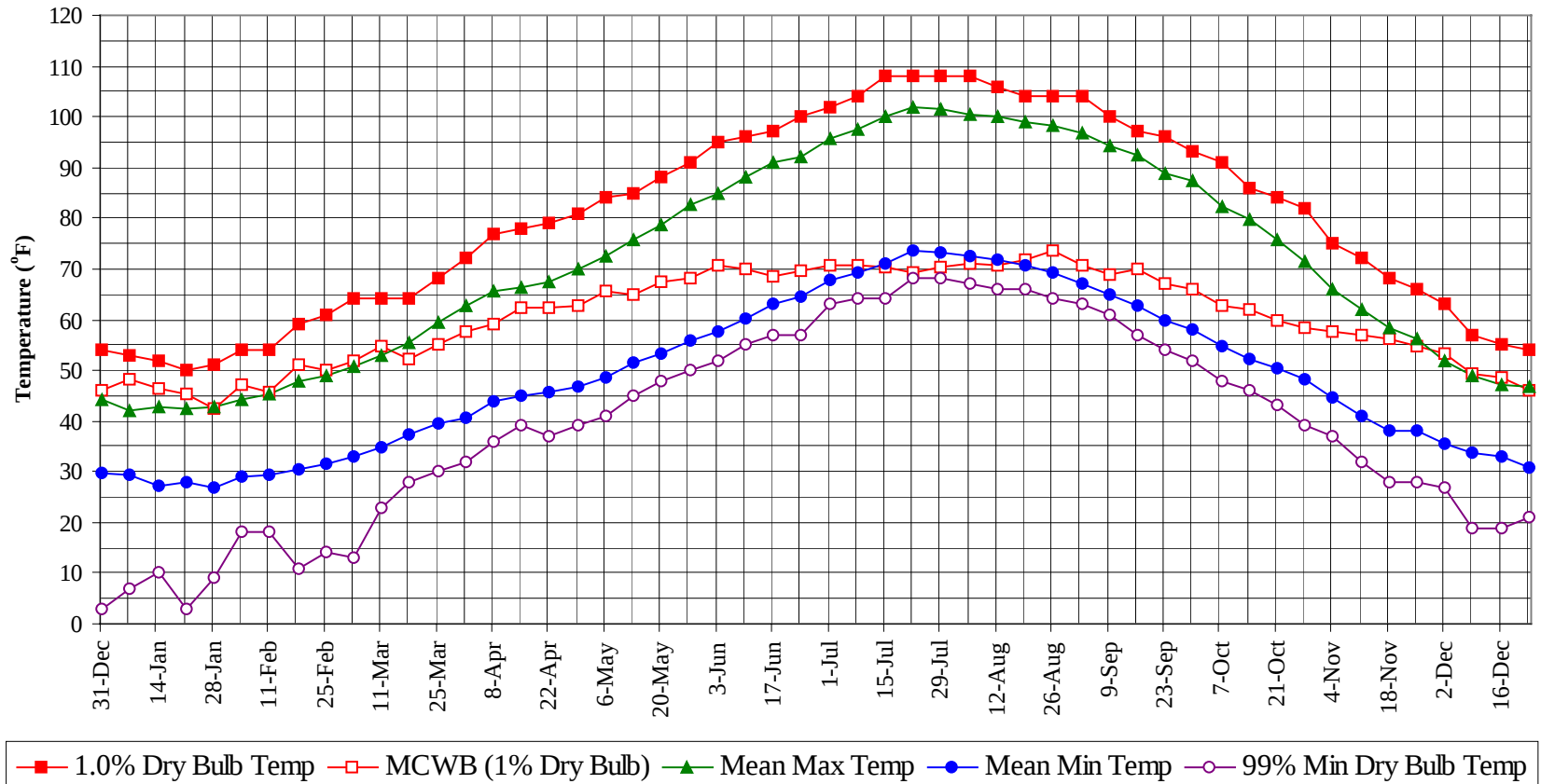
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
110 / 114	1			1	72.0
105 / 109	23			4	27
100 / 104	0	138	36	173	69.9
95 / 99	1	237	87	325	68.4
90 / 94	15	276	128	419	66.4
85 / 89	44	176	130	351	64.4
80 / 84	118	207	222	547	62.3
75 / 79	221	183	231	635	59.9
70 / 74	260	171	206	637	57.3
65 / 69	190	140	146	476	55.3
60 / 64	233	205	210	648	52.9
55 / 59	240	210	230	680	50.1
50 / 54	274	242	259	774	46.5
45 / 49	289	259	277	825	42.6
40 / 44	234	172	213	619	38.7
35 / 39	303	156	236	696	34.7
30 / 34	250	84	183	517	29.7
25 / 29	146	26	80	251	24.3
20 / 24	58	6	22	86	19.9
15 / 19	29	5	10	44	15.8
10 / 14	8	2	5	15	10.5
5 / 9	4	1	2	7	6.1
0 / 4	2	0	2	4	0.8
-5 / -1	1	0	1	2	-3.9
-10 / -6	0		0	0	-7.1

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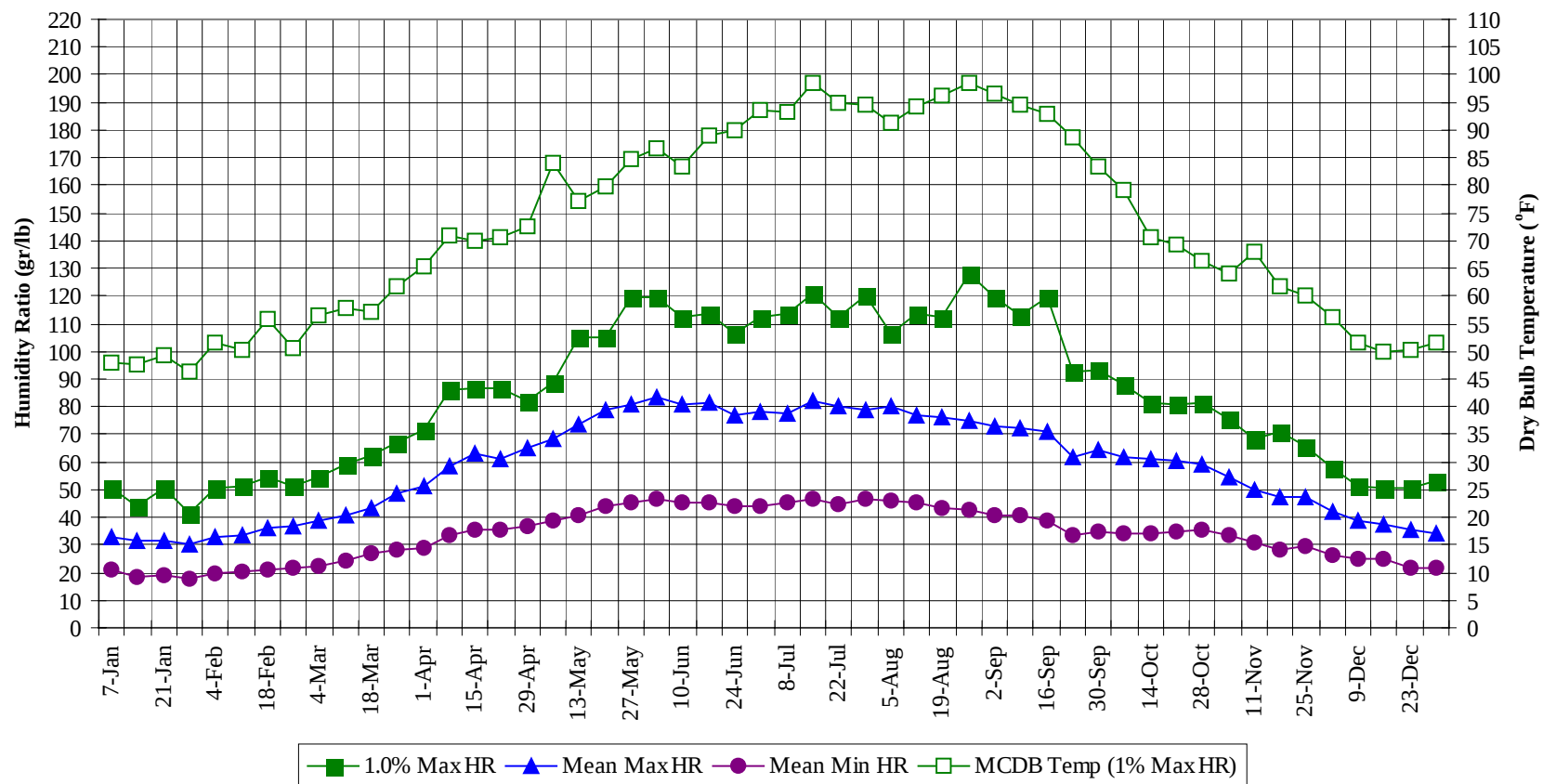
Annual Summary of Temperatures



DIYARBAKIR, TURKEY

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Long Term Humidity and Dry Bulb Temperature Summary

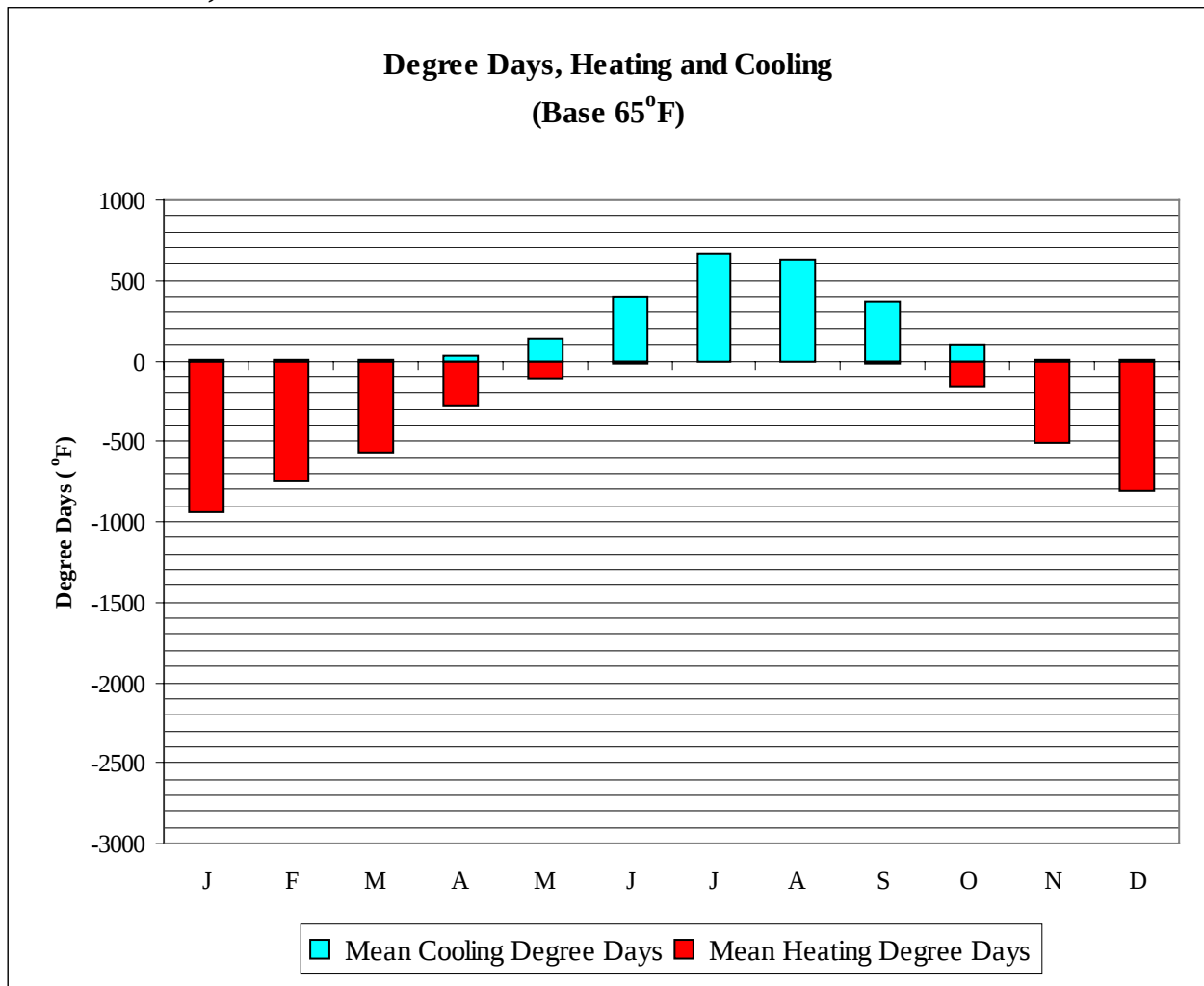


DIYARBAKIR, TURKEY

WMO No. 172800

Long Term Dry Bulb Temperature and Humidity Summary

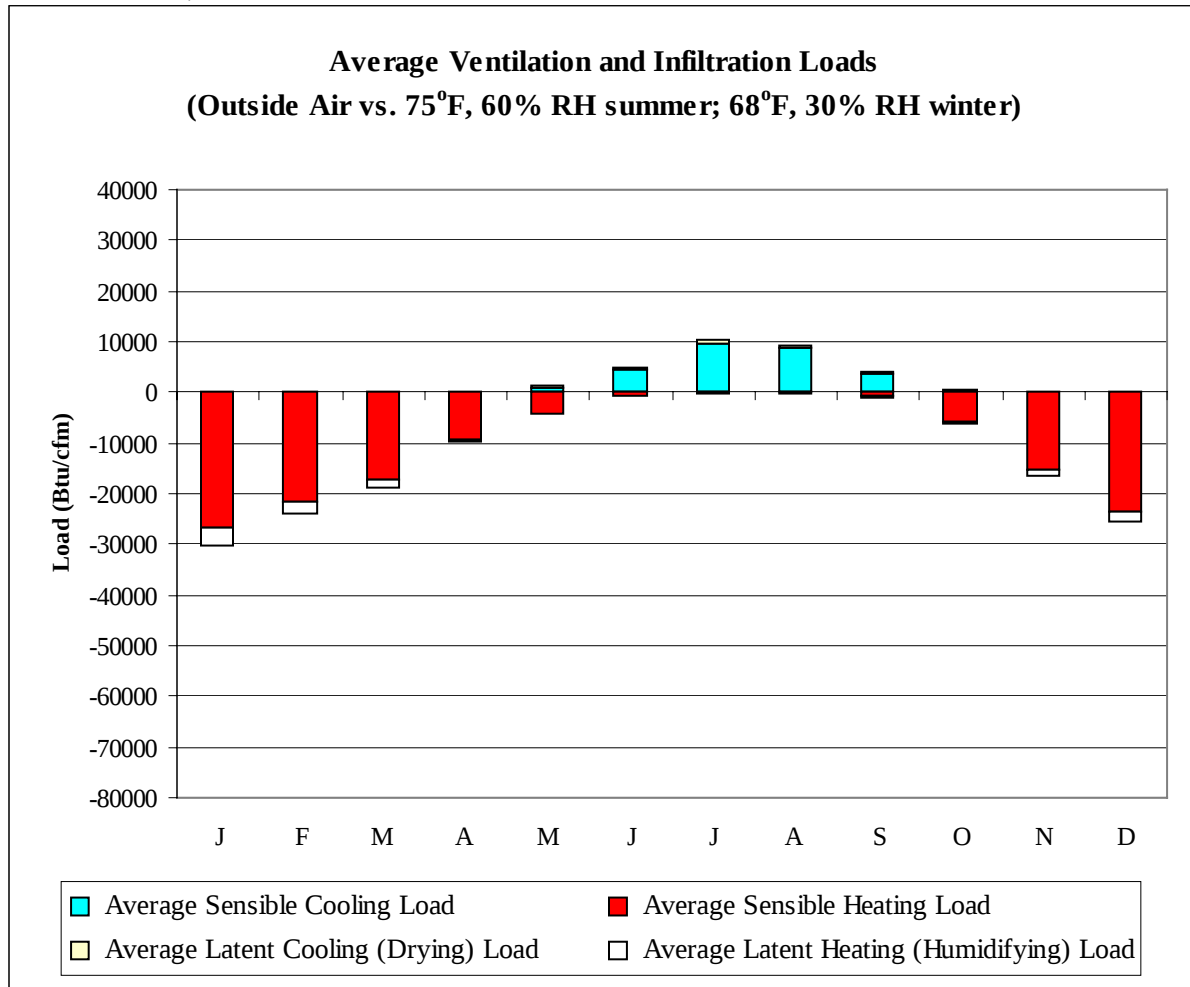
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	53.0	48.3	42.1	29.3	7.0	50.4	48.0	33.0	21.3
14-Jan	52.0	46.2	42.7	27.2	10.0	44.1	47.7	31.3	18.4
21-Jan	50.0	45.3	42.3	28.0	3.0	50.4	49.4	31.3	19.1
28-Jan	51.0	42.3	42.6	26.8	9.0	41.3	46.2	30.2	17.7
4-Feb	54.0	47.3	44.3	28.8	18.0	50.4	51.4	32.9	19.6
11-Feb	54.0	45.7	45.2	29.3	18.0	51.1	50.4	33.3	20.1
18-Feb	59.0	51.1	47.9	30.4	11.0	54.6	55.7	35.9	21.2
25-Feb	61.0	49.9	48.8	31.6	14.0	51.1	50.7	36.8	21.5
4-Mar	64.0	51.8	50.9	32.9	13.0	54.6	56.3	38.6	22.3
11-Mar	64.0	54.8	53.0	34.8	23.0	58.8	57.7	40.7	24.4
18-Mar	64.0	52.3	55.3	37.2	28.0	62.3	57.0	43.7	26.9
25-Mar	68.0	55.2	59.3	39.4	30.0	67.2	61.9	48.7	28.5
1-Apr	72.0	57.8	62.6	40.7	32.0	71.4	65.2	50.9	28.9
8-Apr	77.0	59.2	65.7	43.8	36.0	86.1	70.8	58.4	33.4
15-Apr	78.0	62.5	66.4	45.0	39.0	86.8	70.0	62.8	35.8
22-Apr	79.0	62.3	67.3	45.7	37.0	86.8	70.7	61.4	35.7
29-Apr	81.0	62.9	70.1	46.9	39.0	81.9	72.5	64.9	37.1
6-May	84.0	65.6	72.4	48.6	41.0	88.9	84.0	68.2	38.4
13-May	85.0	65.0	75.9	51.4	45.0	105.0	77.0	73.6	40.9
20-May	88.0	67.5	78.7	53.4	48.0	105.0	79.7	78.6	43.9
27-May	91.0	68.0	82.6	55.7	50.0	119.7	84.6	80.5	45.6
3-Jun	95.0	70.8	84.7	57.8	52.0	119.7	86.6	83.5	46.6
10-Jun	96.0	69.8	88.0	60.3	55.0	112.0	83.5	81.0	45.6
17-Jun	97.0	68.6	91.1	63.2	57.0	113.4	89.1	81.4	45.3
24-Jun	100.0	69.4	92.2	64.7	57.0	106.4	90.1	76.8	44.3
1-Jul	102.0	70.8	95.6	67.8	63.0	112.0	93.6	78.0	44.1
8-Jul	104.0	70.8	97.4	69.1	64.0	113.4	93.3	77.8	45.3
15-Jul	108.0	70.2	100.0	71.1	64.0	121.1	98.4	82.0	46.5
22-Jul	108.0	69.3	101.8	73.5	68.0	112.0	95.0	80.3	44.5
29-Jul	108.0	70.4	101.4	73.1	68.0	120.4	94.5	79.1	46.3
5-Aug	108.0	71.1	100.5	72.3	67.0	106.4	91.2	79.9	46.3
12-Aug	106.0	70.8	100.0	71.6	66.0	113.4	94.4	77.0	45.3
19-Aug	104.0	71.8	98.8	70.7	66.0	112.0	96.3	76.1	43.3
26-Aug	104.0	73.5	98.2	69.1	64.0	128.1	98.5	74.5	42.8
2-Sep	104.0	70.6	96.8	67.1	63.0	119.7	96.7	73.1	40.4
9-Sep	100.0	69.0	94.2	65.0	61.0	112.7	94.5	72.6	40.9
16-Sep	97.0	70.0	92.4	62.6	57.0	119.7	93.0	70.7	38.5
23-Sep	96.0	67.0	88.7	59.9	54.0	92.4	88.7	61.9	33.6
30-Sep	93.0	65.8	87.2	58.0	52.0	93.1	83.5	64.1	34.9
7-Oct	91.0	62.8	82.2	54.9	48.0	88.2	79.0	61.6	34.4
14-Oct	86.0	61.9	79.6	52.3	46.0	81.2	70.6	61.1	33.9
21-Oct	84.0	59.9	75.8	50.4	43.0	80.5	69.1	60.4	34.9
28-Oct	82.0	58.3	71.5	48.2	39.0	81.2	66.4	59.4	35.7
4-Nov	75.0	57.5	66.0	44.8	37.0	75.6	64.0	54.7	33.4
11-Nov	72.0	57.1	61.9	41.1	32.0	68.6	68.0	49.8	30.6
18-Nov	68.0	56.2	58.3	38.0	28.0	70.7	61.7	47.2	28.5
25-Nov	66.0	54.8	56.3	38.1	28.0	65.8	60.1	47.2	29.5
2-Dec	63.0	53.2	51.7	35.4	27.0	58.1	56.1	41.9	26.4
9-Dec	57.0	49.4	49.0	33.6	19.0	51.1	51.5	38.8	24.9
16-Dec	55.0	48.5	47.3	33.0	19.0	50.4	50.0	37.5	24.7
23-Dec	54.0	46.2	46.9	30.9	21.0	50.4	50.1	35.4	21.8
31-Dec	54.0	45.9	44.1	29.6	3.0	53.2	51.4	34.2	21.6



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	938
FEB	0	747
MAR	2	566
APR	28	285
MAY	141	110
JUN	400	13
JUL	669	1
AUG	625	1
SEP	362	17
OCT	96	160
NOV	3	511
DEC	0	812
ANN	2326	4161

DIYARBAKIR, TURKEY

WMO No. 172800



	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	-26719	0	-3703
FEB	0	-21534	0	-2610
MAR	0	-17046	0	-1676
APR	69	-9385	25	-335
MAY	896	-4136	340	-89
JUN	4443	-658	440	-50
JUL	9729	-46	513	-39
AUG	8685	-52	380	-42
SEP	3801	-854	242	-191
OCT	554	-5677	19	-469
NOV	1	-15420	0	-1081
DEC	0	-23373	0	-2282
ANN	28178	-124900	1959	-12567

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

No Solar Radiation
Data Available

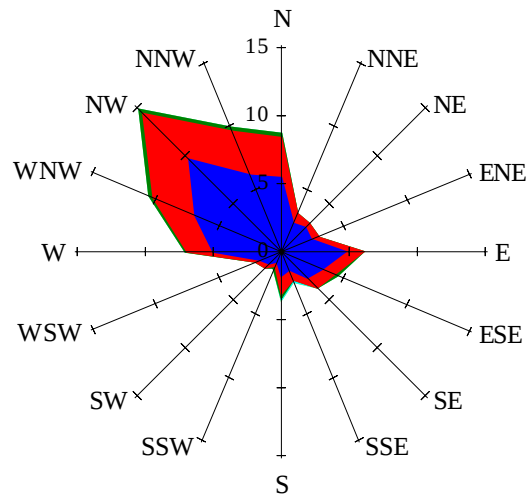


Average Annual Solar Heat and Illumination – Nearest Available Site

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

Wind Summary - December, January, and February

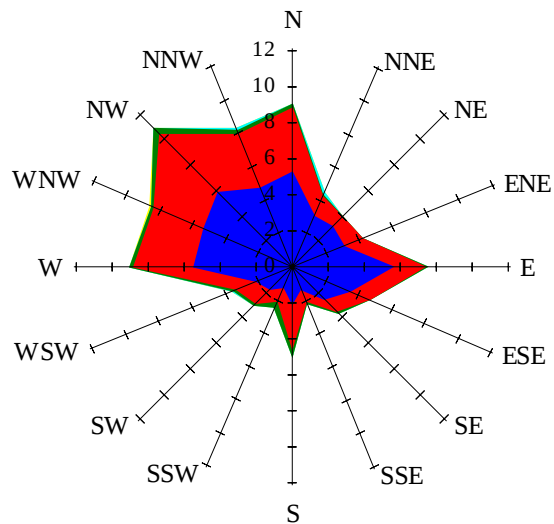
Labels of Percent Frequency on North Axis



Percent Calm = 16.00

Wind Summary - March, April, and May

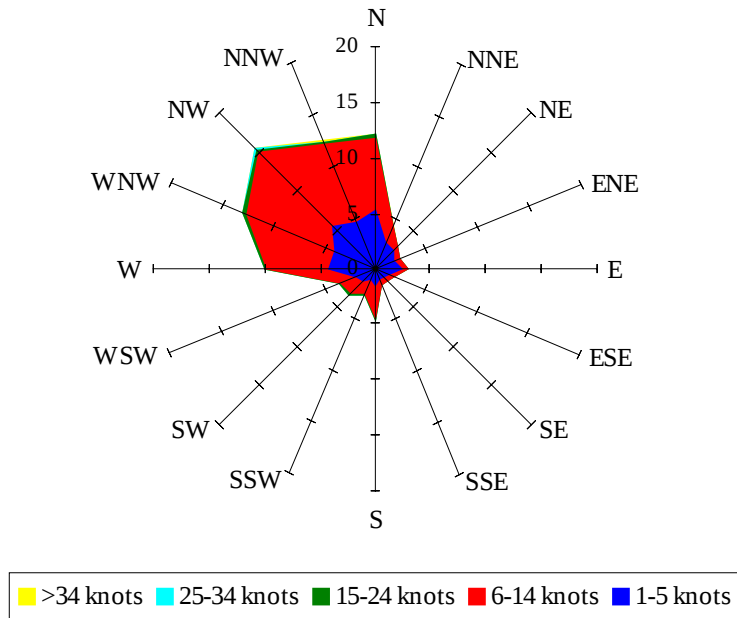
Labels of Percent Frequency on North Axis



Percent Calm = 11.20

Wind Summary - June, July, and August

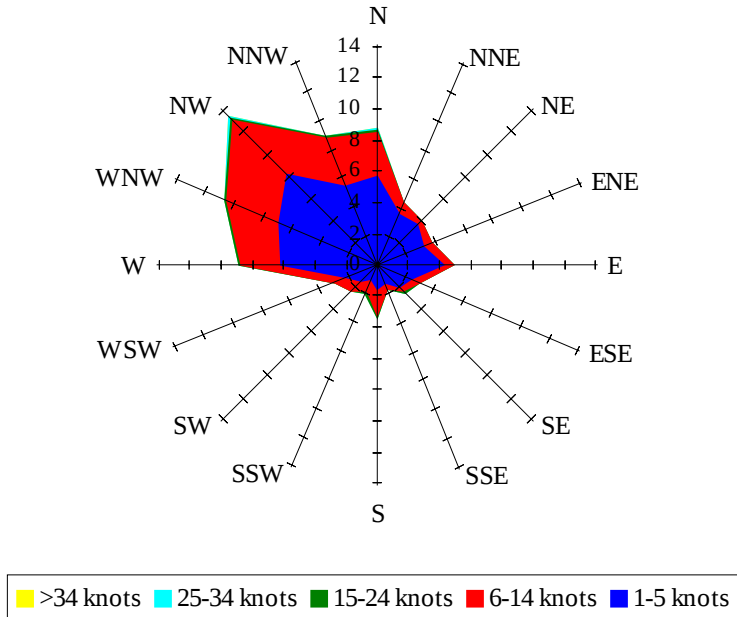
Labels of Percent Frequency on North Axis



Percent Calm = 6.28

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 15.50