

# Wind Resource Summary for Elizabeth Site

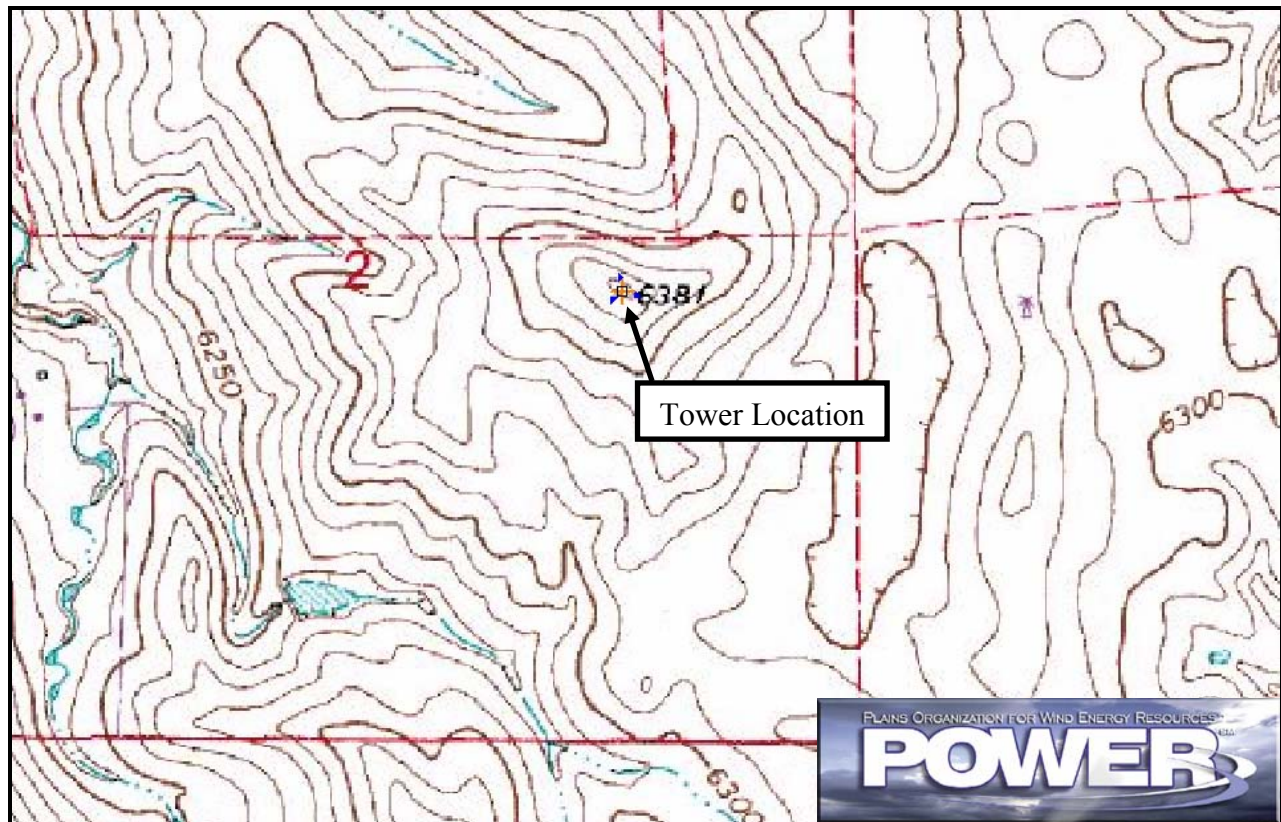
Colorado Anemometer Loan Program

Monitoring Period<sup>a</sup>: 7/3/2006 – 10/28/2006

## Site Description:

Latitude: N 39° 28' 9"	Township: 7 S
Longitude: W 104° 31' 8"	Range: 64 W
Elevation: 6380 feet	Section: 2
Tower Type: Cellular Tower	Tower Height: 100+ feet

The site is 8.6 miles northeast of the town of Elizabeth, Colorado. The tower is located on elevated ground; however, the terrain in the area is fairly flat. The tower is situated in a pasture where the primary vegetation is grass. The site has good exposure to the wind in all directions.



Summary Wind Data	98 ft AGL <sup>b</sup>
Mean Wind Speed	13.4 mph
Maximum, 10-min Mean Wind Speed	46.7 mph – 10/26/2006 11:50 p.m.
Estimated Wind Power Class <sup>c</sup>	Class 2 (191 W/m <sup>2</sup> )

<sup>a</sup> Data recovery rate was 99%.

<sup>b</sup> Above ground level.

<sup>c</sup> Air temperature was not factored into calculation.

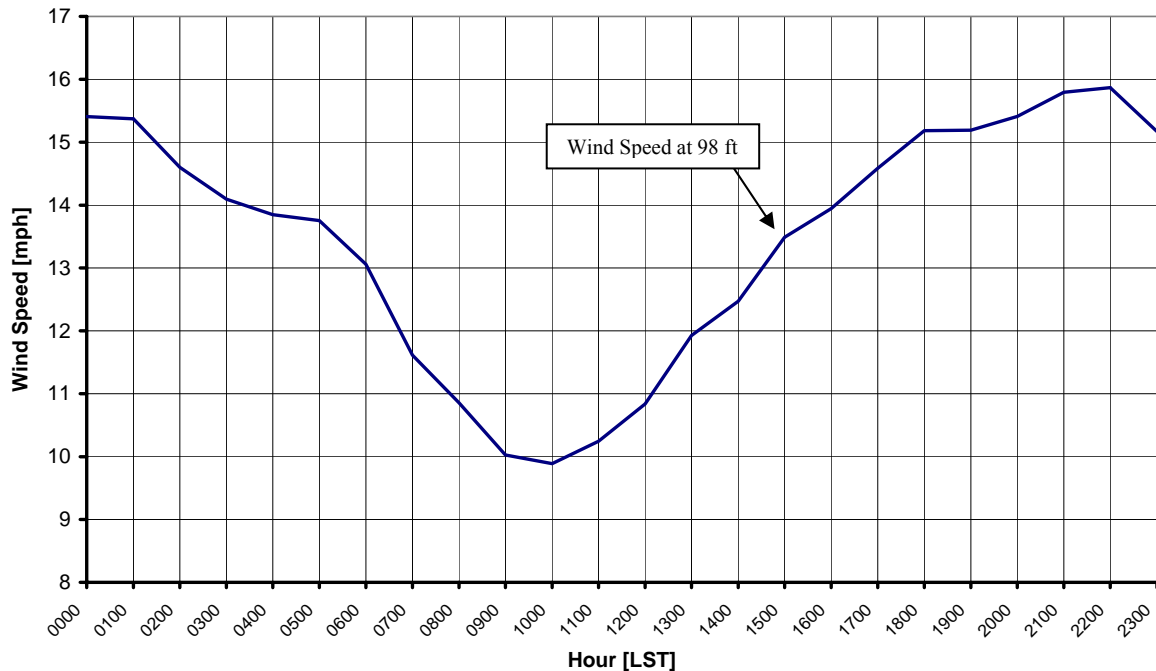
## Average Hourly Wind Speeds\*

98 ft AGL

LST <sup>d</sup>	mph	m/s
0000	15.4	6.89
0100	15.4	6.87
0200	14.6	6.53
0300	14.1	6.30
0400	13.8	6.19
0500	13.8	6.15
0600	13.1	5.84
0700	11.6	5.19
0800	10.9	4.85
0900	10.0	4.48
1000	9.9	4.42
1100	10.2	4.58
1200	10.8	4.84
1300	11.9	5.33
1400	12.5	5.57
1500	13.5	6.03
1600	13.9	6.23
1700	14.6	6.52
1800	15.2	6.79
1900	15.2	6.79
2000	15.4	6.89
2100	15.8	7.06
2200	15.9	7.09
2300	15.2	6.78

\* Results are suspect. Time stamps have not been validated.

Colorado Anemometer Loan Program – Elizabeth Site  
7/3/2006 – 10/28/2006



<sup>d</sup> Local standard time.



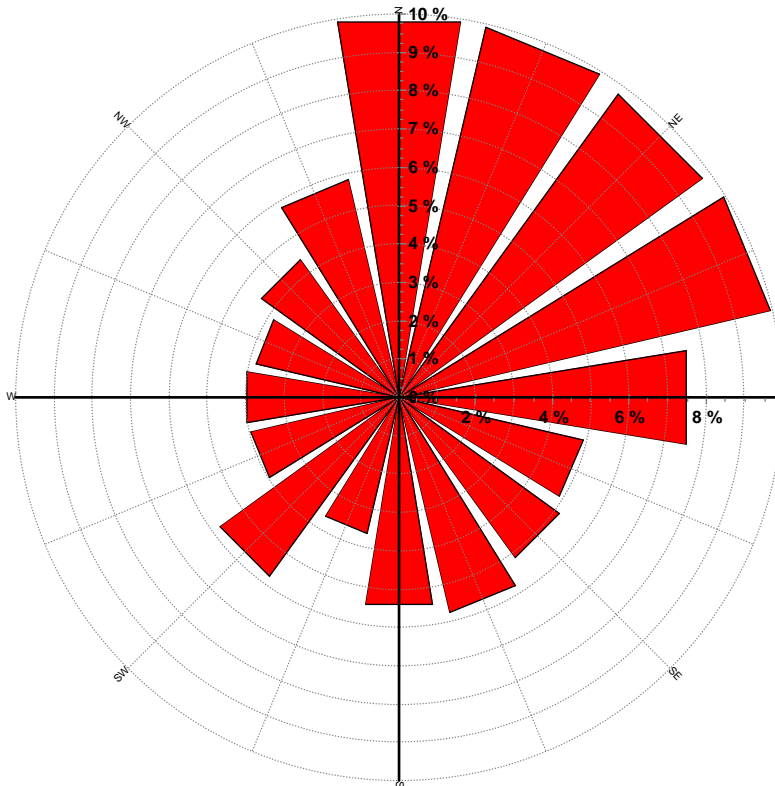
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Creation Date: 12/20/2006

## Wind Directional Frequency

Winds from the...	Frequency (%)
NNW	5.8
NW	4.4
WNW	3.8
W	4.0
WSW	4.0
SW	5.8
SSW	3.7
S	5.5
SSE	5.8
SE	5.2
ESE	4.9
E	7.6
ENE	9.9
NE	9.8
NNE	9.9
N	9.9

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 Wind Rose for 98 ft AGL  
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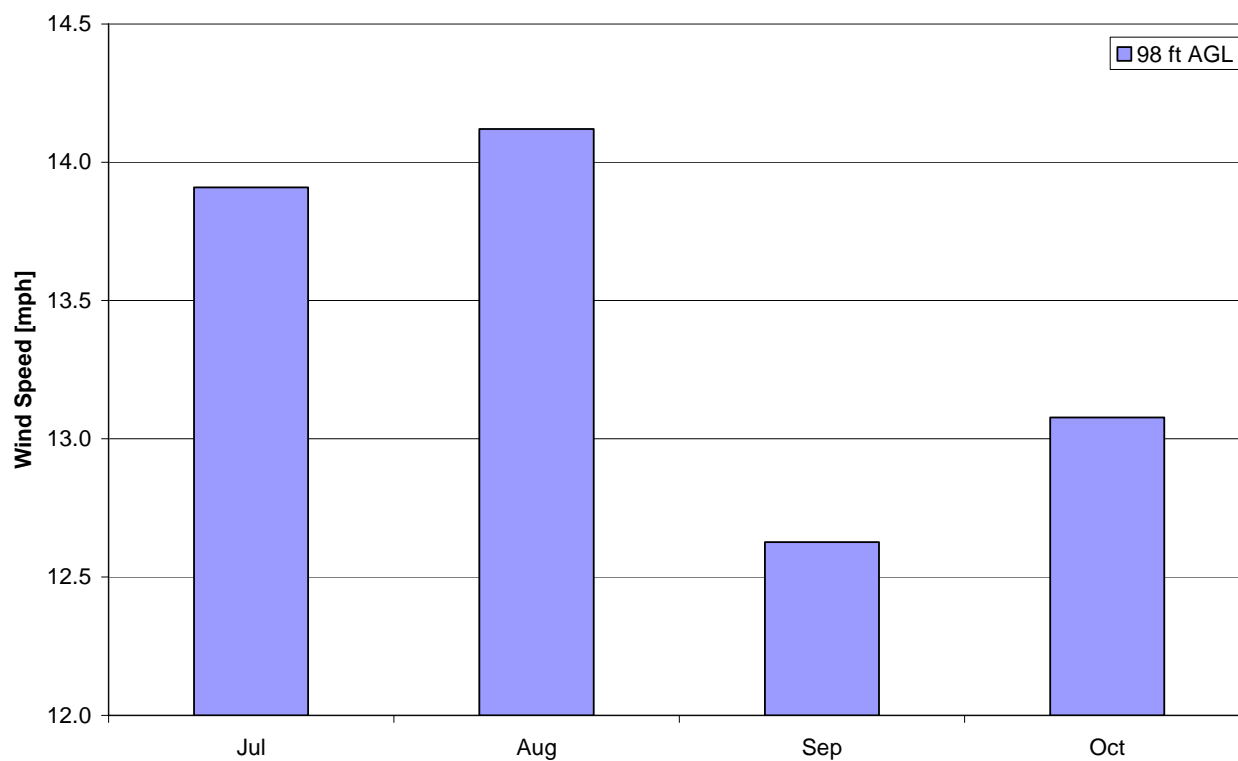
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## Monthly Wind Speed Averages

98 ft AGL

Month	mph	m/s
Jul	13.9	6.22
Aug	14.1	6.31
Sep	12.6	5.64
Oct	13.1	5.85

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