

# Wind Resource Summary for Anamoose Site

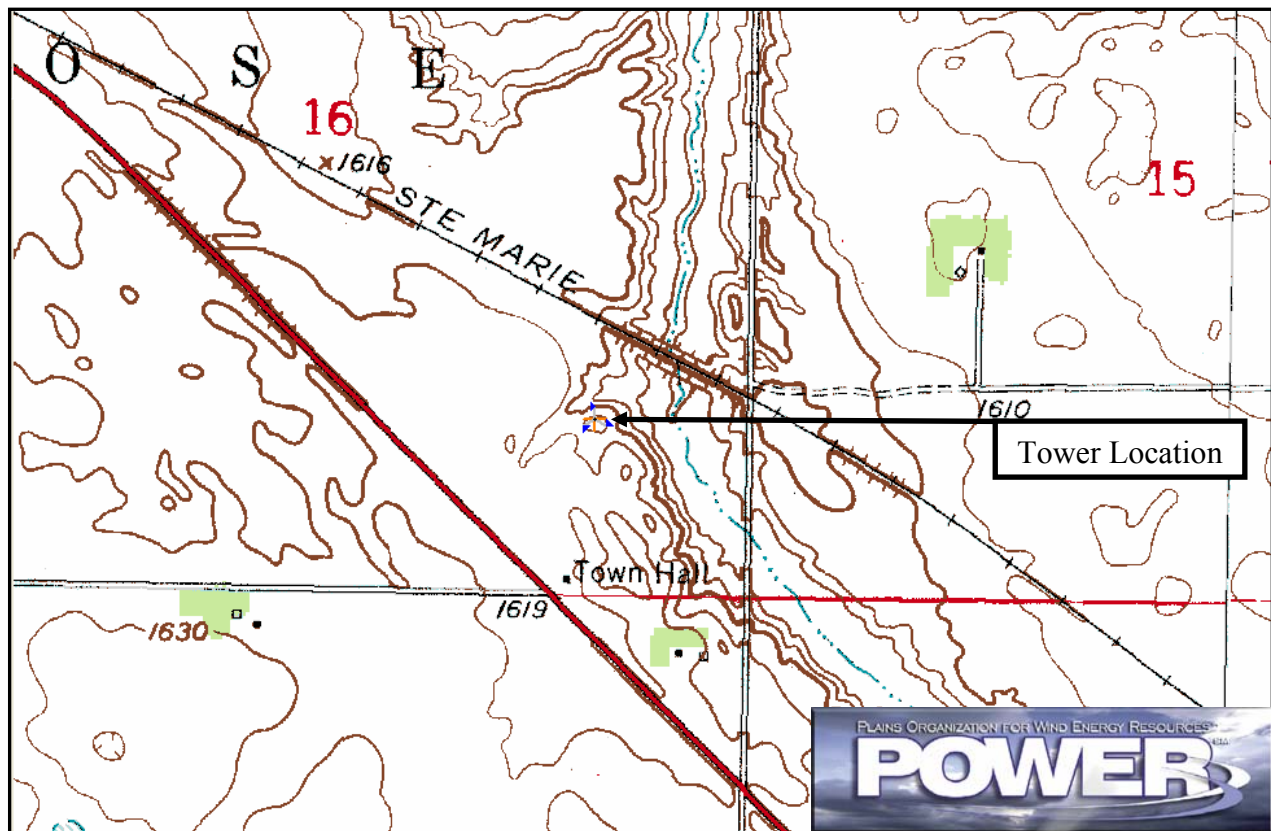
North Dakota Anemometer Loan Program – Site ALP0302

Monitoring Period<sup>a</sup>: 10/15/2003 – 10/24/2005

## Site Description:

Latitude: N 47° 53' 37"	Township: 151 N
Longitude: W 100° 15' 59"	Range: 75 W
Elevation: 1610 feet	Section: 16
Tower Type: NRG Tilt-Up	Tower Height: 66 feet

The monitoring system was awarded to neighboring towns Anamoose and Drake. The tower was erected at the Anamoose landfill, which is 1.3 miles northwest of the town. Several mounds of dirt and garbage exist to the south and southeast of the tower, but are not taller than 15 to 20 feet. A shelterbelt of trees exists south of the site about a quarter of a mile. Additionally, the site is located near a creek bottom. Overall, the site has poor to fair exposure to the wind.



Summary Wind Data	66 ft AGL <sup>b</sup>
Mean Wind Speed	13.1 mph
Maximum, 10-min Mean Wind Speed	53.3 mph – 5/21/2005 10:40 p.m.
Estimated Wind Power Class <sup>c</sup>	Class 3 (226 W/m <sup>2</sup> )

<sup>a</sup> Data recovery rate was 97%.

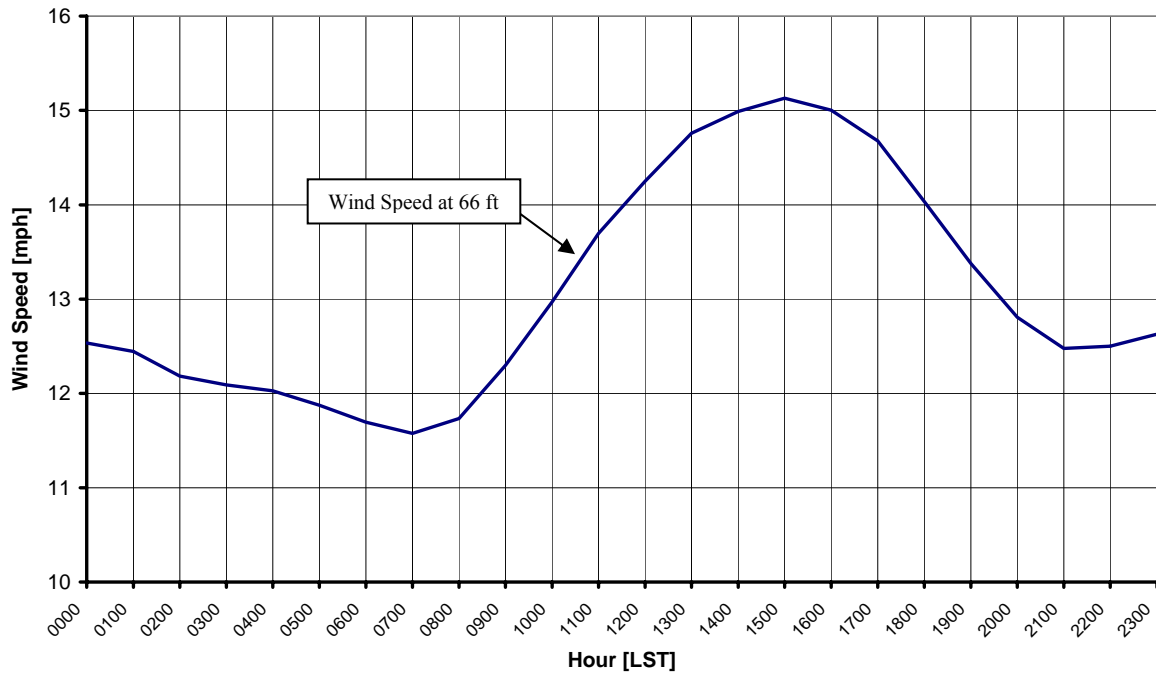
<sup>b</sup> Above ground level.

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

## Average Hourly Wind Speeds

LST <sup>d</sup>	mph	m/s
0000	12.5	5.60
0100	12.4	5.56
0200	12.2	5.45
0300	12.1	5.41
0400	12.0	5.38
0500	11.9	5.31
0600	11.7	5.23
0700	11.6	5.17
0800	11.7	5.25
0900	12.3	5.50
1000	13.0	5.80
1100	13.7	6.12
1200	14.2	6.37
1300	14.8	6.60
1400	15.0	6.70
1500	15.1	6.76
1600	15.0	6.71
1700	14.7	6.56
1800	14.0	6.27
1900	13.4	5.98
2000	12.8	5.73
2100	12.5	5.58
2200	12.5	5.59
2300	12.6	5.64

**North Dakota 2003 ALP Site – Anamoose (ALP0302)**  
10/15/2003 – 10/24/2005



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



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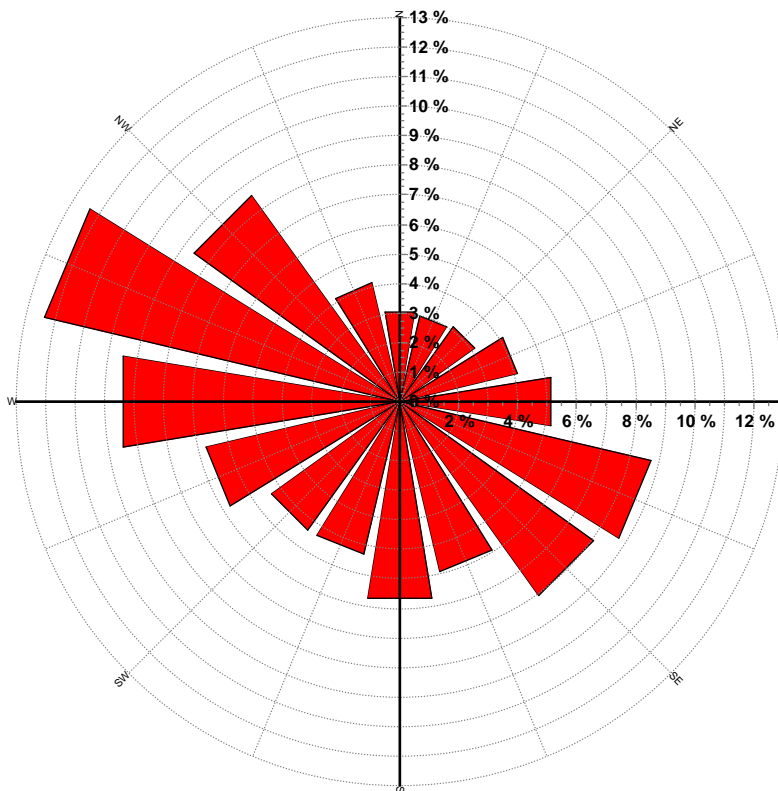
Creation Date: 10/27/2005

## Wind Directional Frequency

**Winds from the... Frequency (%)**

NNW	4.1
NW	8.6
WNW	12.4
W	9.5
WSW	6.8
SW	5.4
SSW	5.3
S	6.8
SSE	5.9
SE	8.1
ESE	8.8
E	5.2
ENE	4.1
NE	3.1
NNE	3.0
N	3.1

North Dakota 2003 ALP Site – Anamoose (ALP0302)  
Wind Rose for 66 ft AGL  
10/15/2003 – 10/24/2005



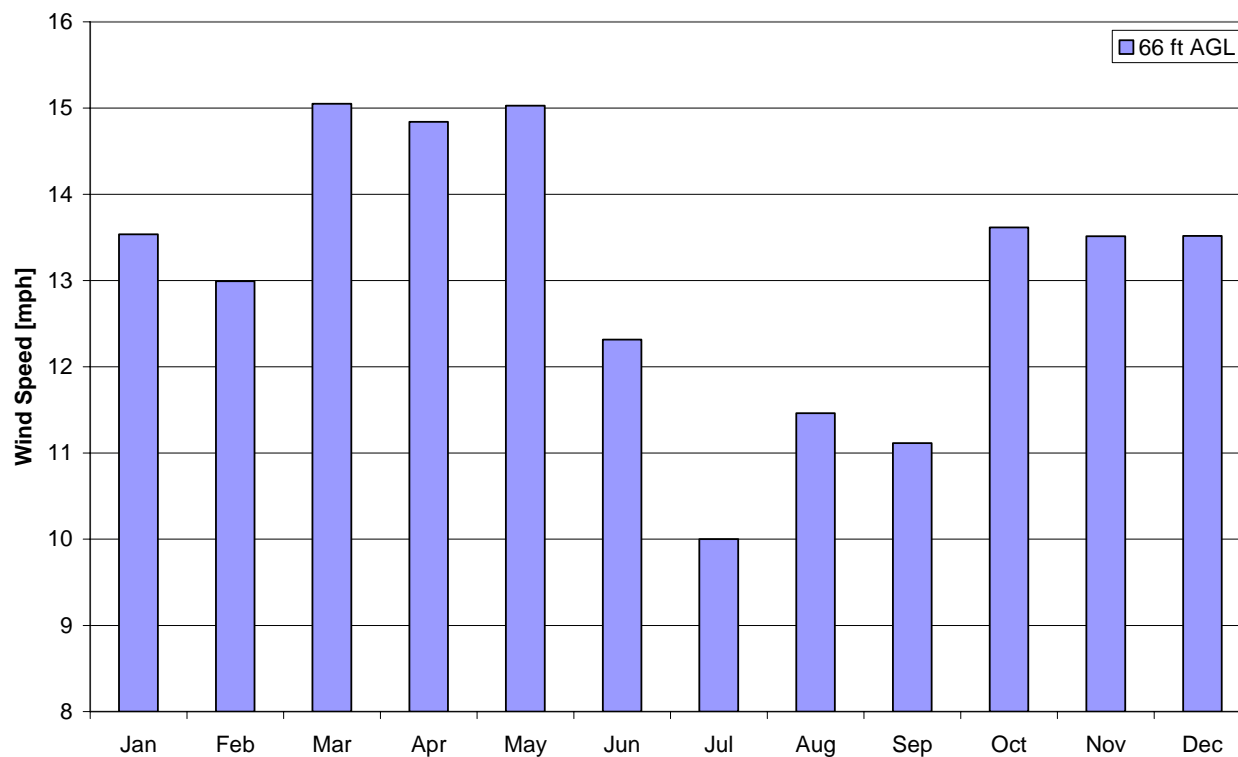
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## Monthly Wind Speed Averages 66 ft AGL

Month	mph	m/s
Jan	13.5	6.05
Feb	13.0	5.81
Mar	15.1	6.73
Apr	14.8	6.63
May	15.0	6.72
Jun	12.3	5.51
Jul	10.0	4.47
Aug	11.5	5.12
Sep	11.1	4.97
Oct	13.6	6.09
Nov	13.5	6.04
Dec	13.5	6.04

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