

# Wind Resource Summary for Dragswolf Site

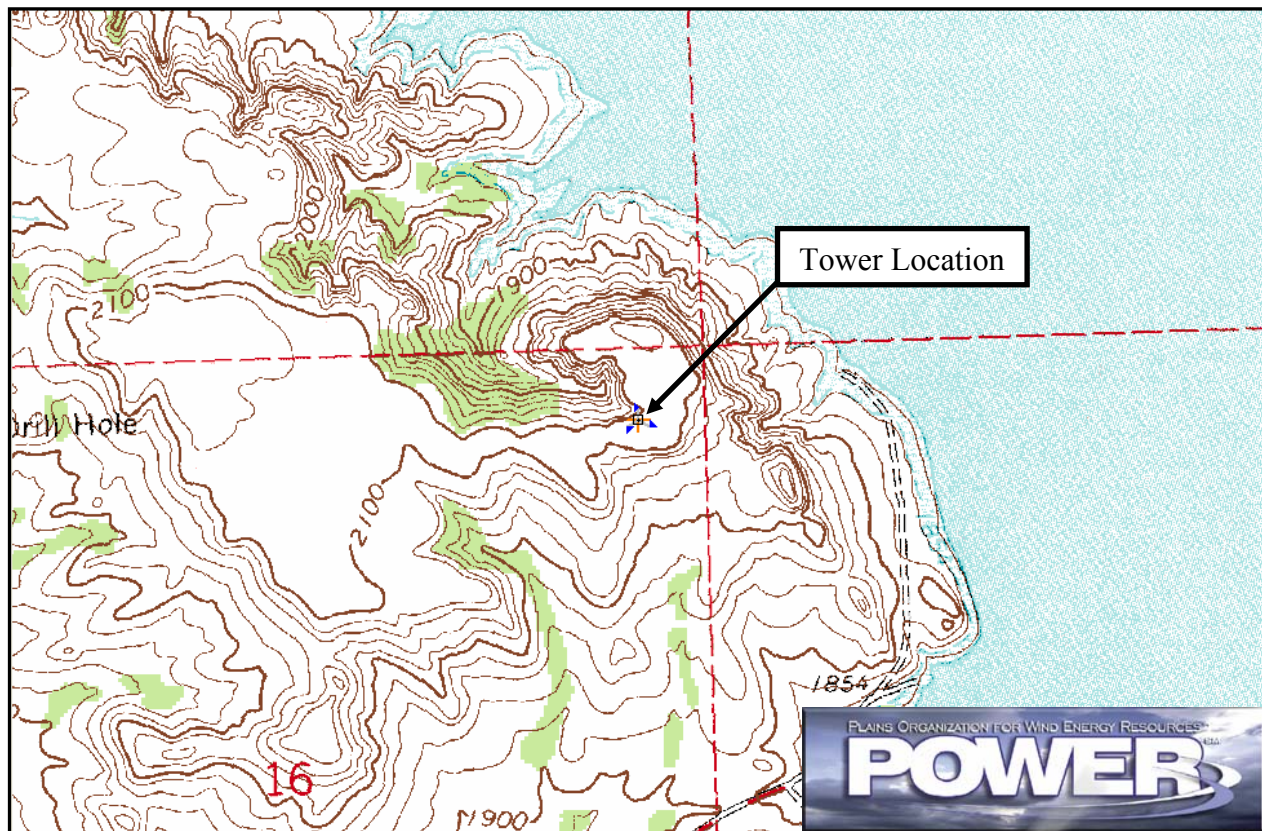
## Three Affiliated Tribes

### Spring<sup>a</sup> 2001

#### Site Description:

Latitude: N 47° 59' 27"	Township: 152 N
Longitude: W 102° 34' 50"	Range: 93 W
Elevation: 2100 feet	Section: 8
Tower Type: NRG Tilt-Up	Tower Height: 131 feet

The monitoring site was installed 4.3 miles west-northwest of New Town, North Dakota. The tower was instrumented at three levels: 33 ft (10 m), 98 ft (30 m), and 131 ft (40 m). The site was situated on a bluff overlooking Lake Sakakawea to the north and west. The vegetation around the site is predominantly grass with trees in the draws.



Summary Wind Data:	33 ft AGL <sup>b</sup>	98 ft AGL	131 ft AGL
Mean Wind Speed	12.7 mph	14.5 mph	16.2 mph
Maximum, 60-min Mean Wind Speed	54.0 mph at 131 ft AGL – 5/7/2001 4:00 p.m.		
Estimated Wind Power Class <sup>c</sup>	Class 5 (465 W/m <sup>2</sup> at 131 ft AGL)		

<sup>a</sup> Spring is defined as the months of March, April and May. Spring 2001 begins with March 2001. Data recovery rates at 33, 98, and 131 feet were 99%, 99%, and 99%, respectively.

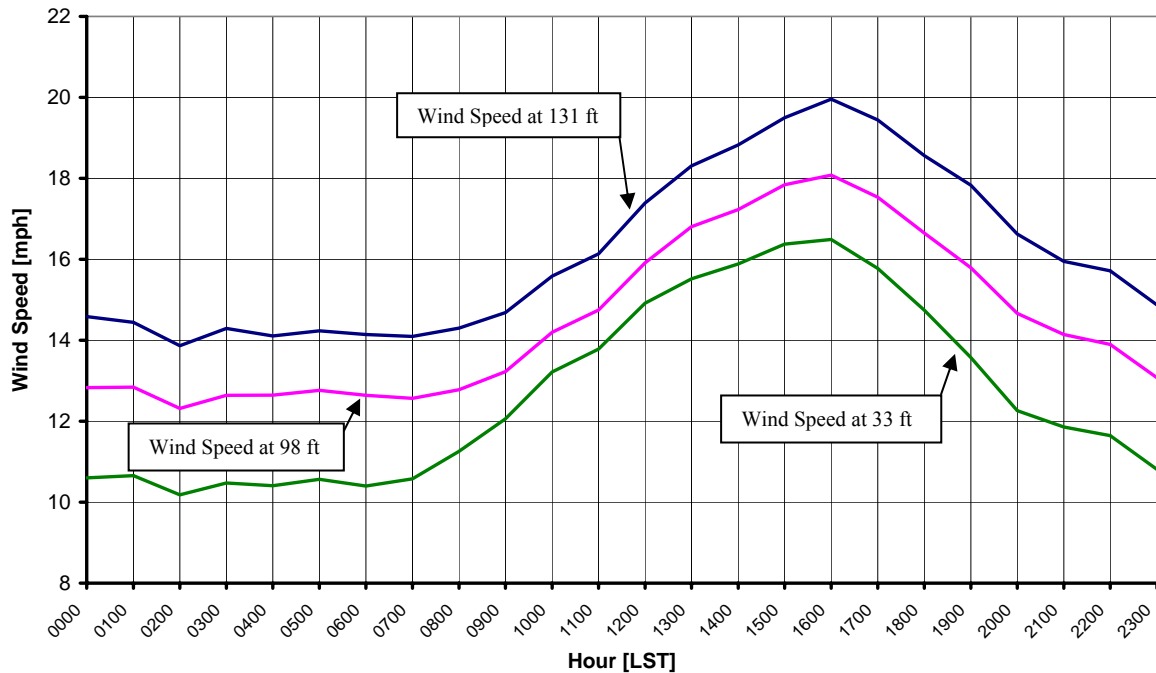
<sup>b</sup> Above ground level.

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

## Average Hourly Wind Speeds

LST <sup>d</sup>	131 ft AGL		98 ft AGL		33 ft AGL	
	mph	m/s	mph	m/s	mph	m/s
0000	14.6	6.52	12.8	5.73	10.6	4.74
0100	14.4	6.46	12.8	5.74	10.7	4.76
0200	13.9	6.20	12.3	5.51	10.2	4.55
0300	14.3	6.39	12.6	5.65	10.5	4.68
0400	14.1	6.31	12.6	5.65	10.4	4.65
0500	14.2	6.36	12.8	5.71	10.6	4.72
0600	14.1	6.32	12.6	5.65	10.4	4.65
0700	14.1	6.30	12.6	5.62	10.6	4.73
0800	14.3	6.39	12.8	5.71	11.3	5.03
0900	14.7	6.56	13.2	5.91	12.1	5.39
1000	15.6	6.97	14.2	6.35	13.2	5.91
1100	16.1	7.21	14.7	6.59	13.8	6.16
1200	17.4	7.77	15.9	7.11	14.9	6.67
1300	18.3	8.18	16.8	7.51	15.5	6.94
1400	18.8	8.41	17.2	7.70	15.9	7.10
1500	19.5	8.72	17.8	7.97	16.4	7.32
1600	20.0	8.92	18.1	8.08	16.5	7.37
1700	19.4	8.69	17.5	7.84	15.8	7.05
1800	18.6	8.30	16.6	7.44	14.7	6.59
1900	17.8	7.97	15.8	7.06	13.6	6.07
2000	16.6	7.43	14.7	6.55	12.3	5.48
2100	15.9	7.13	14.1	6.32	11.9	5.30
2200	15.7	7.03	13.9	6.21	11.6	5.21
2300	14.9	6.65	13.1	5.84	10.8	4.83

**Three Affiliated Tribes – Dragswolf Site  
Spring 2001**



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



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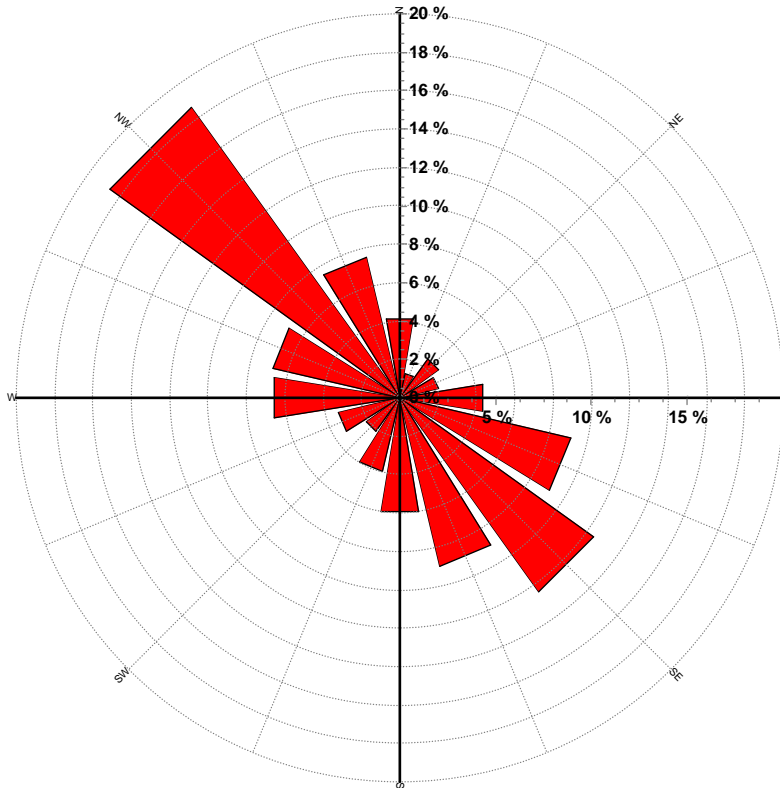
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## Wind Directional Frequency

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

NNW	7.5
NW	18.6
WNW	6.8
W	6.6
WSW	3.3
SW	2.2
SSW	4.0
S	6.0
SSE	9.0
SE	12.4
ESE	9.2
E	4.4
ENE	2.0
NE	2.5
NNE	1.3
N	4.2

**Three Affiliated Tribes – Dragswolf Site  
Wind Rose for 131 ft AGL  
Spring 2001**

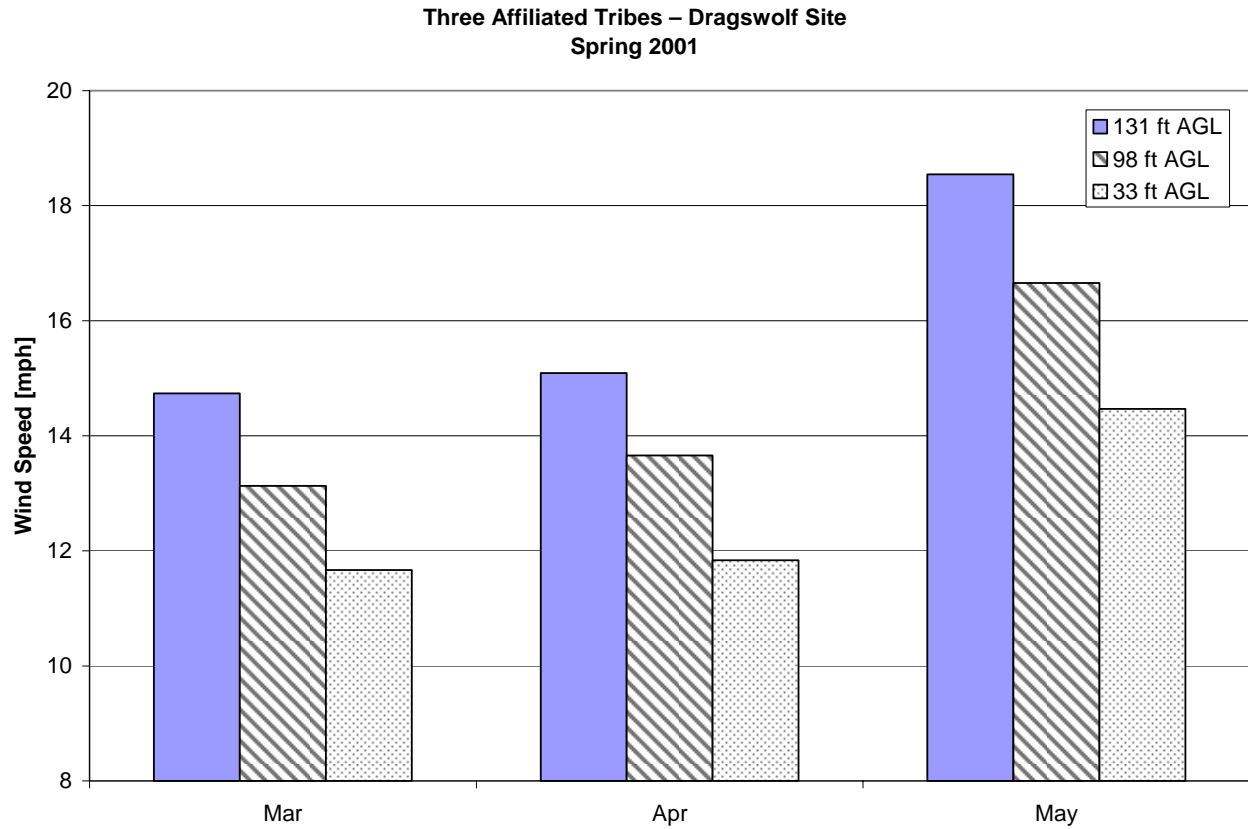


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## Monthly Wind Speed Averages

Month	131 ft AGL		98 ft AGL		33 ft AGL	
	mph	m/s	mph	m/s	mph	m/s
Mar	14.7	6.59	13.1	5.87	11.7	5.21
Apr	15.1	6.75	13.7	6.11	11.8	5.29
May	18.5	8.29	16.7	7.45	14.5	6.47



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