

# South Dakota's Wind Classifications



Credit to NREL for their Wind Classification Data

Credit to Microsoft Office Online for the Wind Turbine Template.

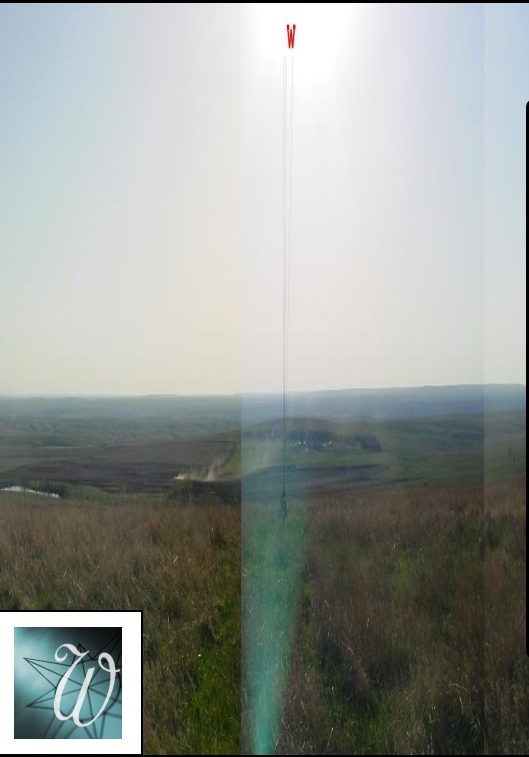
Cartographic Designs by Shanon R. Conley

NORTH

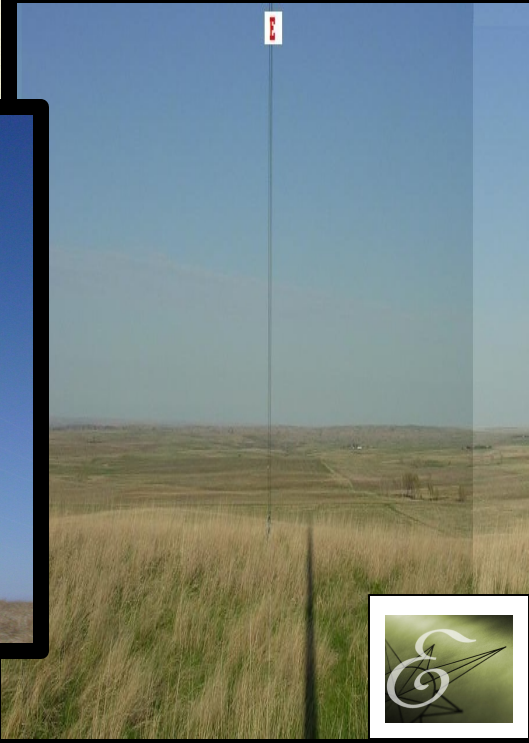
N



W

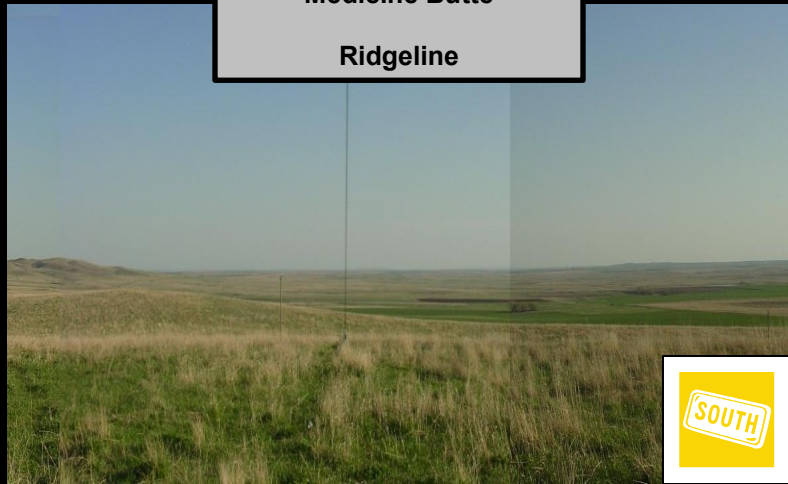


E



**Orientation:**  
Medicine Butte  
Ridgeline

SOUTH



**Site description: 50 meter  
tilt up tower**

Site elevation: 617.83m (2027 ft)

Site latitude: 44° 00.473' N

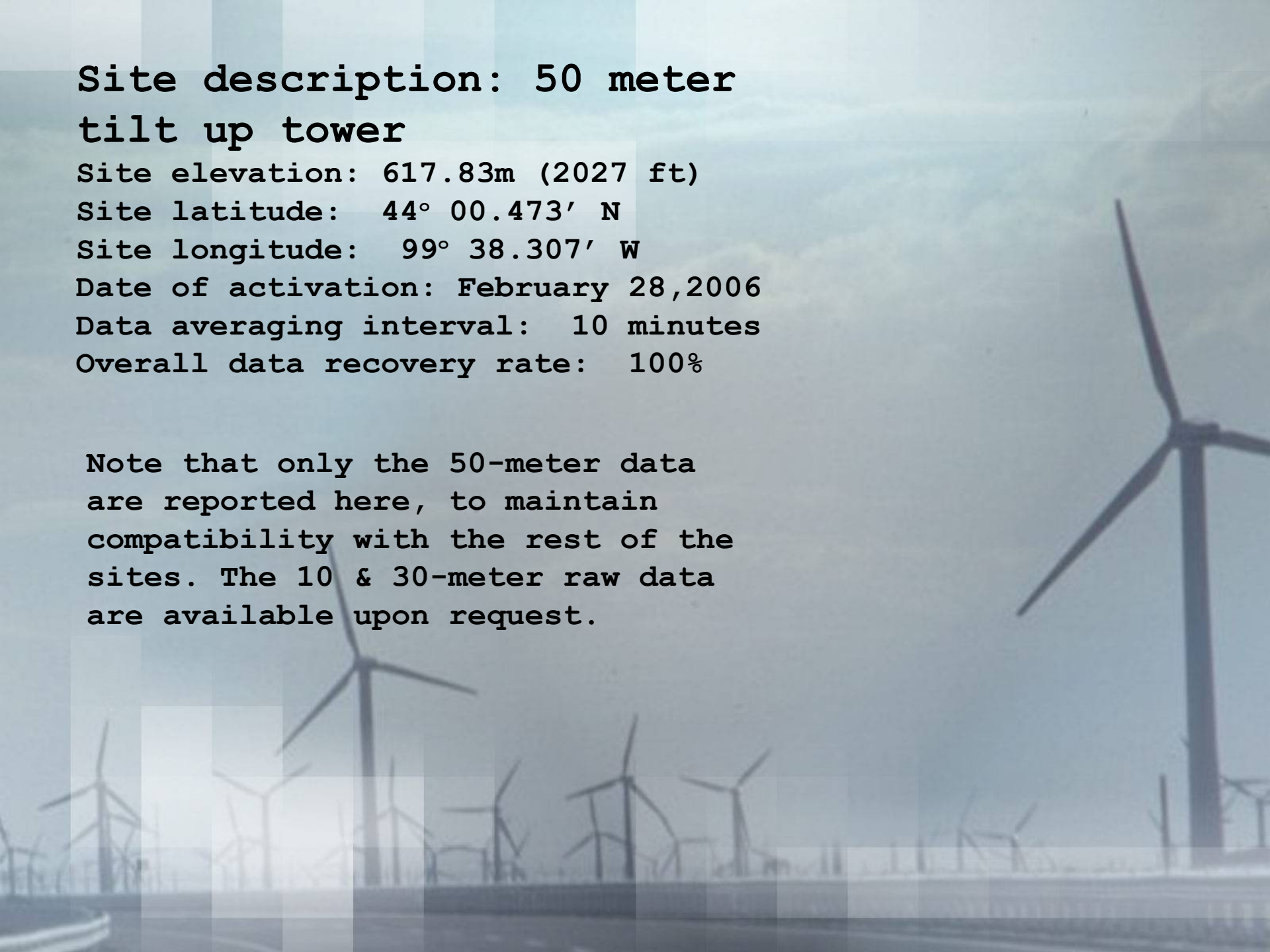
Site longitude: 99° 38.307' W

Date of activation: February 28, 2006

Data averaging interval: 10 minutes

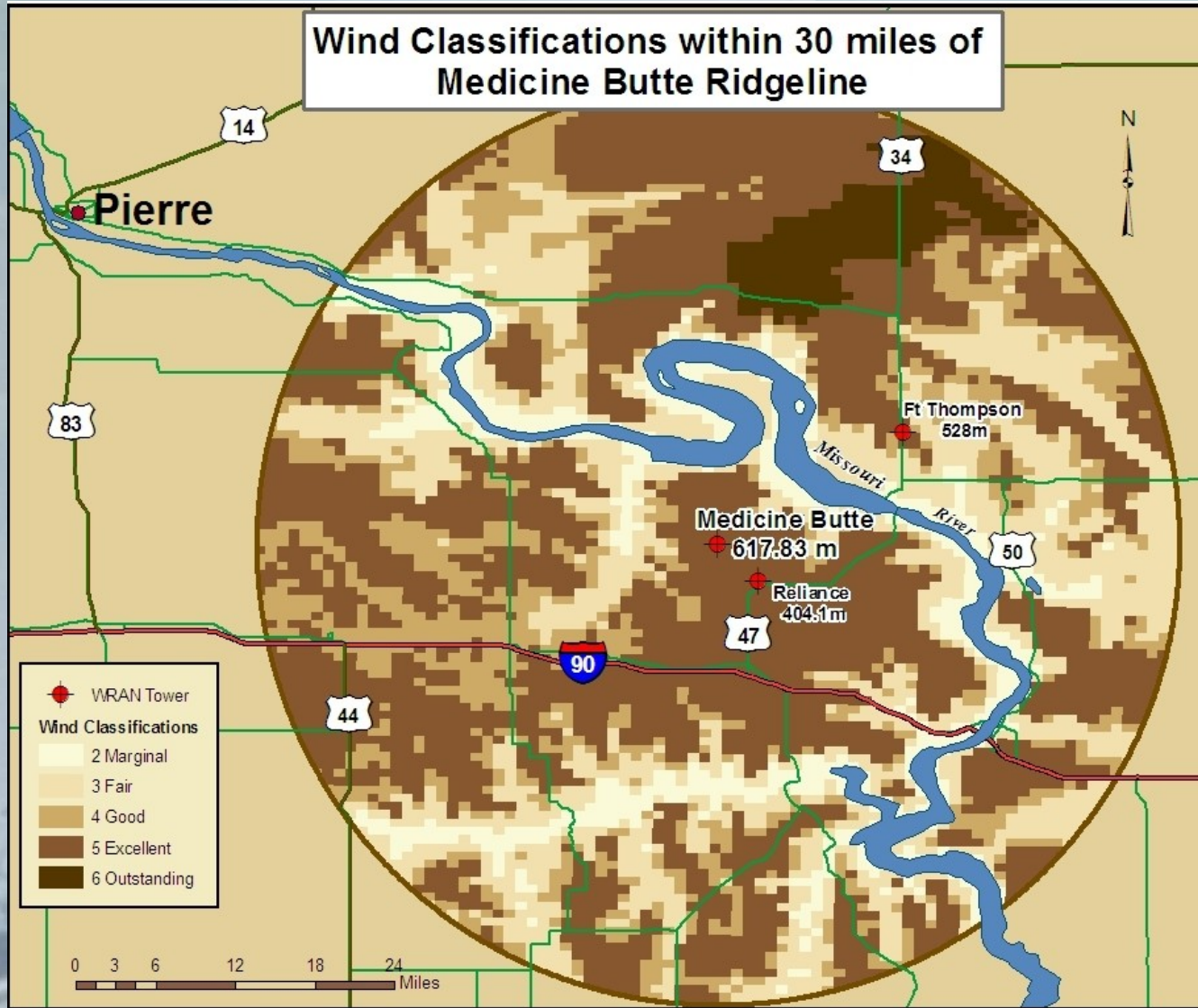
Overall data recovery rate: 100%

Note that only the 50-meter data are reported here, to maintain compatibility with the rest of the sites. The 10 & 30-meter raw data are available upon request.

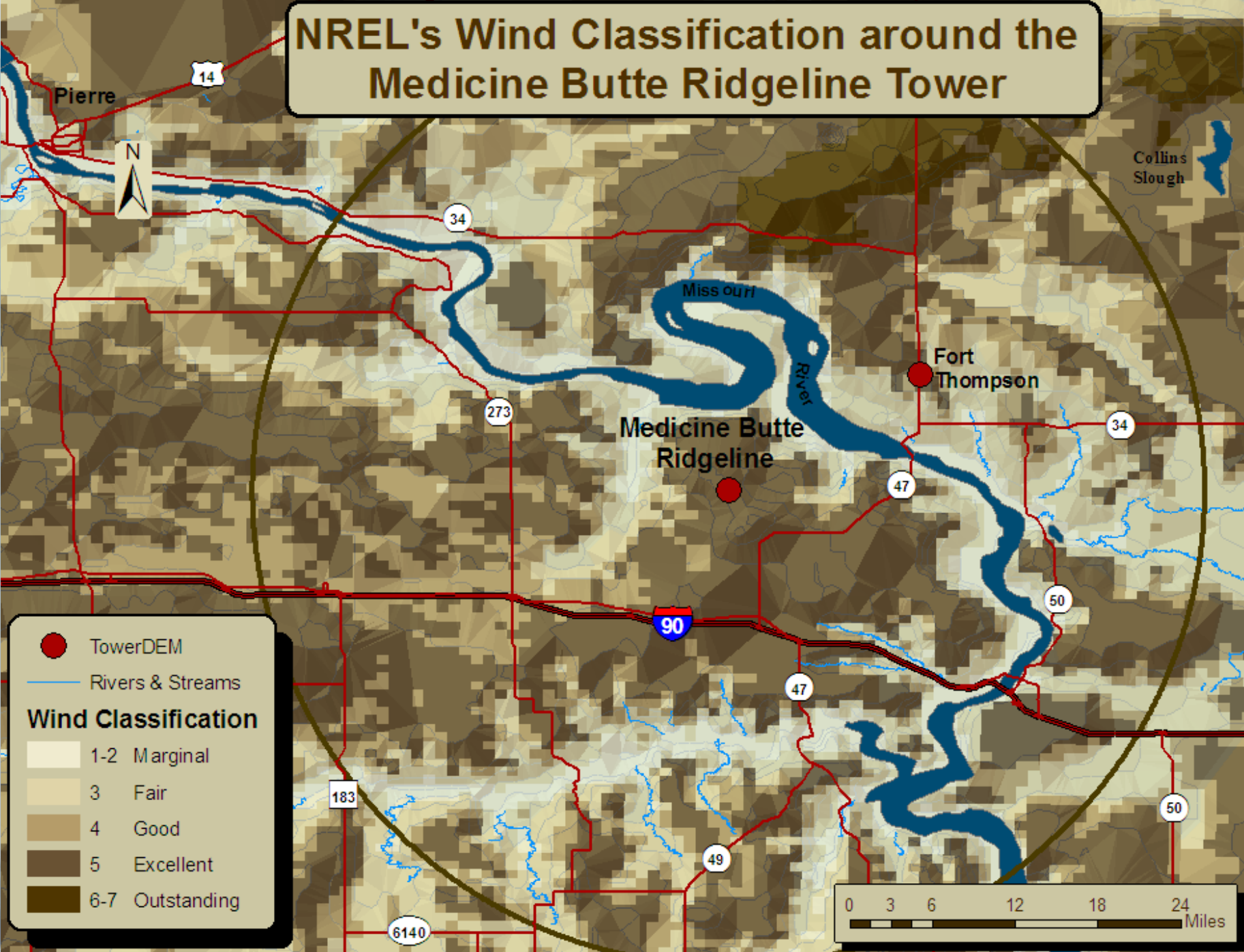


**South Dakota State University  
Electrical Engineering Department  
Wind Resource Assessment Network Project  
Site: Medicine Butte Ridgeline**

**Data collection period:  
February 28, 2006-  
July 31, 2007**



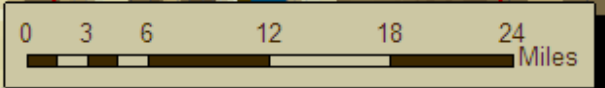
# NREL's Wind Classification around the Medicine Butte Ridgeline Tower

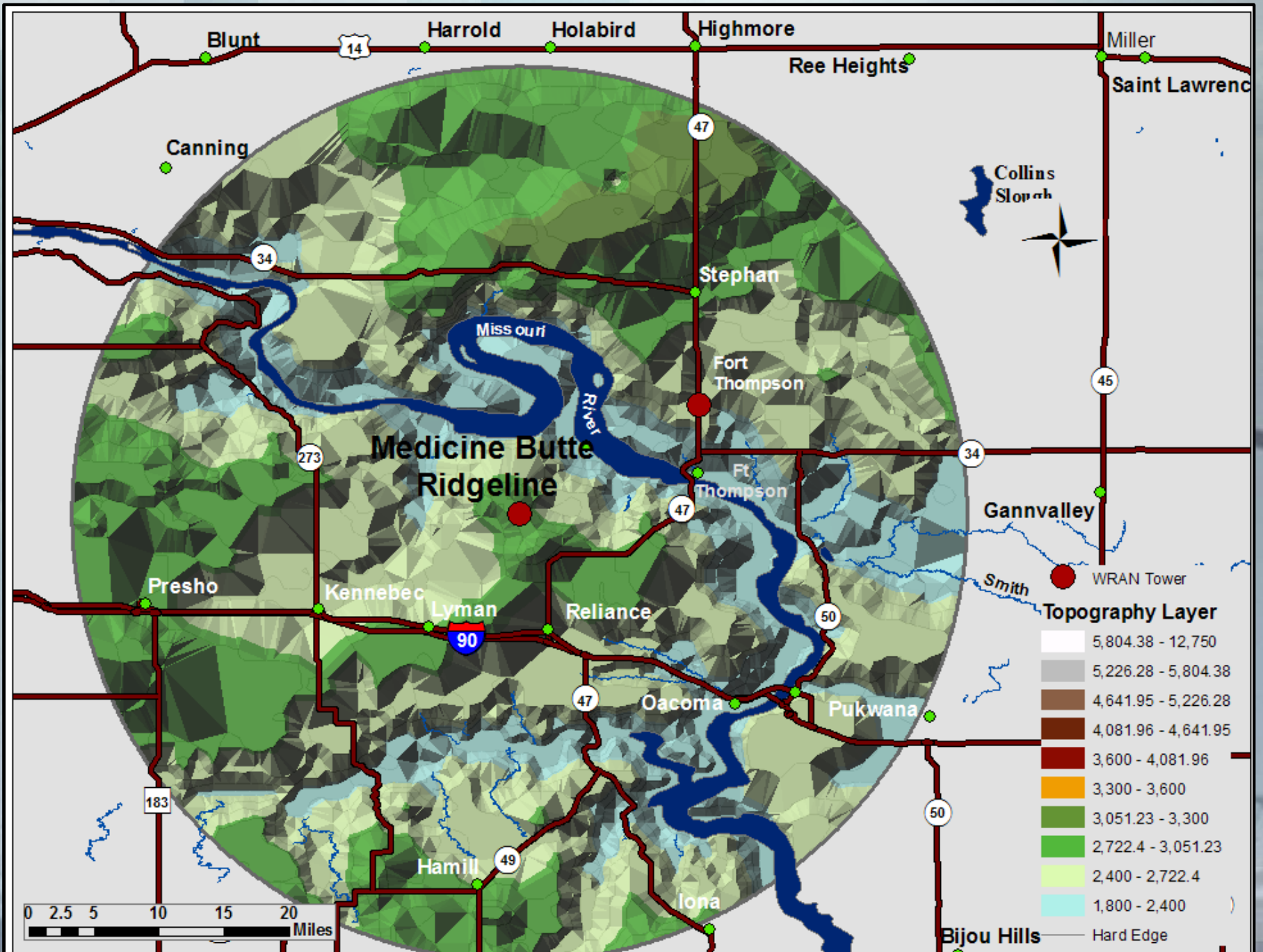


- TowerDEM
- Rivers & Streams

### Wind Classification

Lightest tan	1-2 Marginal
Light tan	3 Fair
Medium tan	4 Good
Dark tan	5 Excellent
Darkest tan	6-7 Outstanding





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Notes for data  
interpretation  
(page 1 of 1)

Month	Notes
January 2007- February 2007	There were a few different icing events throughout January and February. These events affected the anemometers creating erroneous data. These data points have been excluded from the statistics presented.

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This slide shows the monthly average wind speed in meters per second at this site, and also the overall average wind speed (in the inset box), and the capacity factor anticipated from a wind turbine at this site. The data from this chart was taken over the entire period of data collection. Last updated 08/01/2007

