

Renewable Energy Research Laboratory

Department of Mechanical and Industrial Engineering University of Massachusetts 160 Governor's Drive Amherst, MA 01003-9265 Phone: 413-545-4359 Fax: 413-577-1301 www.ceere.org/rerl rerl@ecs.umass.edu



Data Update for Mt. Tom, Holyoke, MA May 2006

Prepared for Massachusetts Technology Collaborative 75 North Drive, Westborough, MA 01581

By Melissa Ray

Monthly Data Summary for May 2006

This update summarizes the monthly data results for the Mt. Tom monitoring site in Holyoke, MA, at 42° 14′ 59.2" N, 72° 38′ 42.2" W (NAD 27). More information on the sensors and site can be found at http://www.ceere.org/rerl/rerl resourcedata.html.

Height	Wind Speed				Prevailing	Power Law
	Mean [m/s]	Max [m/s]	Turbulence Intensity	Data Good [%]	Wind Direction	Shear Exponent
24 m	4.9	14.4	0.28	99.8	22.5°, NNE	0.40
37 m	5.8	16.2	0.22	100.0		

The data reported here are only based on the percentages of good data indicated; missing data may skew these values. The 37 m vane failed in August 2005, so the 37 m prevailing wind direction is not reported. For these data, the 24 m vane data have been used in the 37 m icing test definition.

The data can be found at the Renewable Energy Research Laboratory web site: http://www.ceere.org/rerl/rerl resourcedata.html.

Data Recovery

All raw wind data are subjected to a series of tests and filters to identify data that are faulty or corrupted. The gross percentage of data recovered (ratio of the number of raw data points received to data points expected) and net data recovered (ratio of raw data points which passed all QA control tests to data points expected) are shown below.

Gross Data Recovered [%]	100.00
Net Data Recovered [%]	99.36

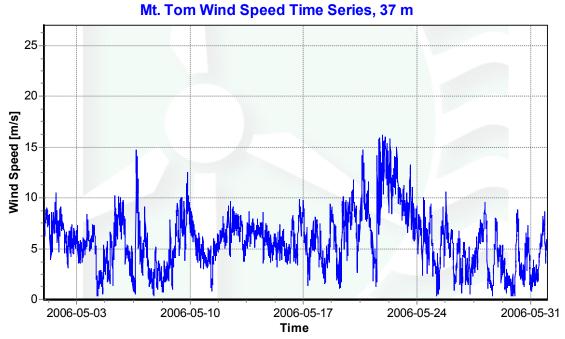
The high gross and net data recovery indicate that the logger and sensors are performing well.

Maintenance Issues and Changes to Site Configuration

No maintenance or equipment problems occurred during May 2006, however the failed vane at the 37 m level is scheduled to be replaced.

Monthly Data Time Series

Seen below is a graph of wind speed at Mt. Tom for the month of May 2006, at the anemometer height of 37 m.



Plot by DQMS3 - dqms@dqms.com