



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 January 2006

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

By Melissa Ray

Monthly Data Summary for December 2005

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 Wind Direction
	Mean [m/s]	Max [m/s]	Turbulence Intensity	Data Good [%]	
24 m	5.7	19.2	0.21	88.0	270°, W
37 m	6.6	22.4	0.16	90.9	--

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 [%]	93.90

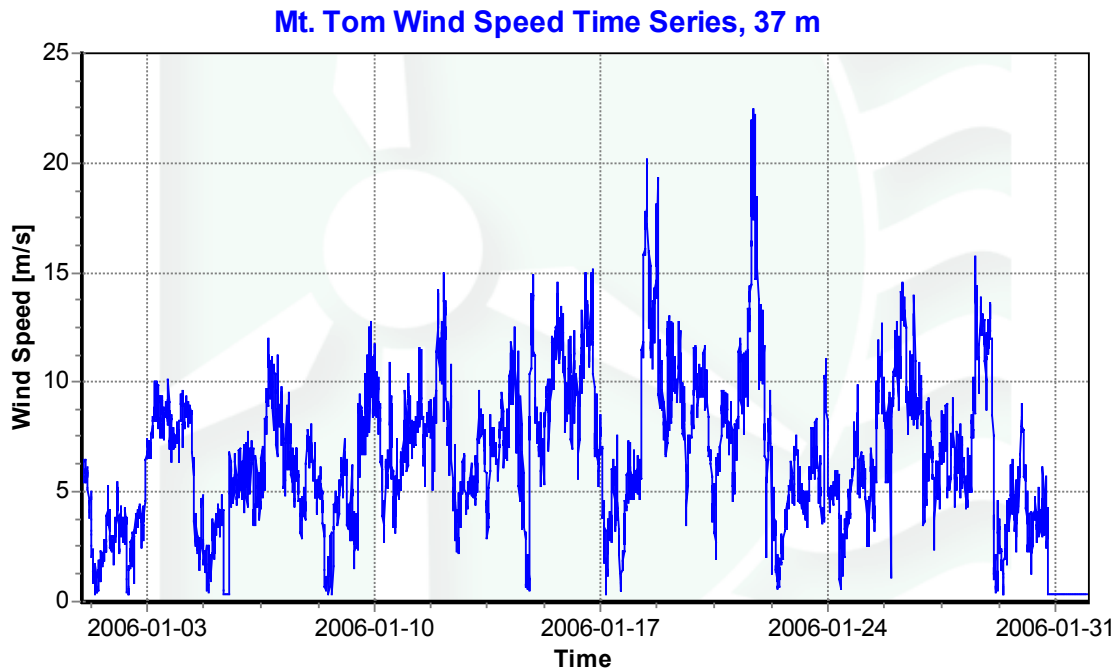
The high gross data recovery indicates that the logger is performing perfectly. The lower net data recovery is the result of winter icing.

Maintenance Issues and Changes to Site Configuration

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

Monthly Data Time Series

Seen below is a graph of wind speed at Mt. Tom for the month of January 2006, at the anemometer height of 37 m. The flat-line wind speed at the end of the month is the result of an icing event.



Plot by DQMS3 - dqms@dqms.com