



# 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 March 2008

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

By Puneet Malhotra

### Monthly Data Summary for March 2008

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 (NOMAD 2). More information on the sensors and site, including the data, can be found at [http://www.ceere.org/rerl/rerl\\_resourcedata.html](http://www.ceere.org/rerl/rerl_resourcedata.html).

Height	Wind Speed			Prevailing Wind Direction	Power Law Shear Exponent
	Mean [m/s]	Max [m/s]	Turbulence Intensity		
24 m	6.02	19.72	0.25	-	0.38
37 m	7.09	24.77	0.19	202.5° SSW	

### 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 [%]	91.304
Net Data Recovered [%]	81.919

The gross data recovered is less than 100% due to a malfunctioning vane sensor at a height of 24m and the net data recovery percentage is less because of few hours of fault and out of range hours in the anemometers and a malfunctioning external temperature sensor.

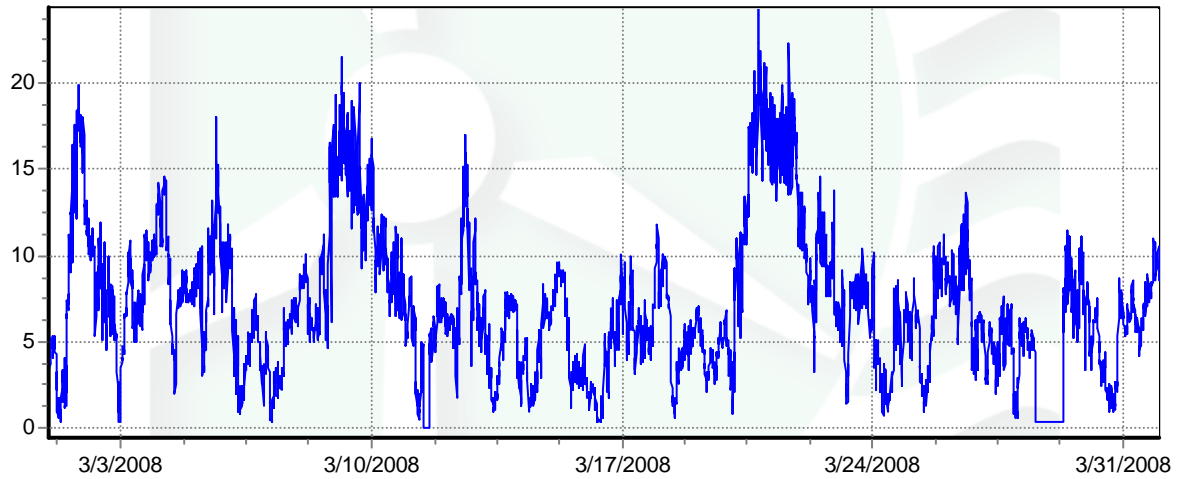
### Maintenance Issues and Changes to Site Configuration

No maintenance issues were reported during the month.

### Monthly Data Time Series

Seen below is a graph of wind speed at Mt. Tom for the month of March 2008, at the anemometer height of 37 m.

**Mt Tom Wind Speed Time Series, 37m**



Plot by DQMS3 - dqms@dqms.com