



# 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 Thompson Island, Boston Harbor, MA March 2009

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

By Fred Letson

### Monthly Data Summary for March 2009

This update summarizes the monthly data results for the Thompson Island monitoring site in Boston Harbor, MA, at 42° 18' 56" N, 71° 0' 40" W (NAD 83). More information on the sensors and site can be found at [http://www.ceere.org/rerl/rerl\\_resourcedata.html](http://www.ceere.org/rerl/rerl_resourcedata.html).

Height	Wind Speed		Turbulence Intensity	Prevailing Wind Direction	Power Law Shear Exponent
	Mean [m/s]	Max [m/s]			
40 m	6.12	15.29	0.13	WNW	-0.10
25 m	6.38	15.14	0.12	NNW	

The data can be found at the Renewable Energy Research Laboratory web site: [www.ceere.org/rerl/rerl\\_resourcedata.html](http://www.ceere.org/rerl/rerl_resourcedata.html). It is important to note that summary data are only reported when the monthly net data recovery (see below) is at least 90%. This requirement ensures that the values reported here are comparable with values from other months.

Additional information about interpreting the data presented in this report can be found in the Fact Sheet, "Interpreting Your Wind Resource Data," produced by RERL and the Massachusetts Technology Collaborative (MTC). This document is found through the RERL website:

[www.ceere.org/rerl/about\\_wind/RERL\\_Fact\\_Sheet\\_6\\_Wind\\_resource\\_interpretation.pdf](http://www.ceere.org/rerl/about_wind/RERL_Fact_Sheet_6_Wind_resource_interpretation.pdf).

### 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
Net Data Recovered [%]	71.09

### Maintenance Issues and Changes to Site Configuration

The following maintenance/equipment problems occurred during March 2009, and the following corrective action was taken:

- The primary anemometer at 39 meters failed on 11/16/2008 40 meter data from this point forward are based on the secondary anemometer at that height.
- Data for the week surrounding March 15<sup>th</sup> are missing due to a logger error.

### Monthly Data Time Series

Seen below is a graph of wind speed at Thompson Island for the month of March 2009, at the highest anemometer height of 39 m.

