



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 November 2007

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

By Fred Letson

Monthly Data Summary for November 2007

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.

Height	Wind Speed		Turbulence Intensity	Prevailing Wind Direction	Power Law Shear Exponent
	Mean [m/s]	Max [m/s]			
40 m	*4.86	*15.96	*0.24	*264.32	*0.03
25 m	*4.8	*15.58	*0.26	*250.78	

*These summary data are reported even though only 82% of anemometer data and 87% of vane data for this month were good, due to the tower being taken down for sensor maintenance, due to and vandalism.

The data can be found at the Renewable Energy Research Laboratory web site: 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.

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 [%]	87.665
Net Data Recovered [%]	63.252

Maintenance Issues and Changes to Site Configuration

The following maintenance/equipment problems occurred during November 2007, and the following corrective action was taken:

- The tower was taken down on September 26th for maintenance, and raised again on November 2nd
- The secondary Anemometer at each height stopped reporting during the tower raising on November 2nd probably due to damage to the sensor cables
- The anemometer data quality suffered beginning on November 27th Due to vandalism.

Monthly Data Time Series

Seen below is a graph of wind speed at Thompson Island for the month of November 2007, at the highest anemometer height of 40 m.

