



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 January 2006

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

By Chris Elkinton

Monthly Data Summary for January 2006

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	6.26	21.22	0.14	225, SW	0.06
25 m	6.48	20.49	0.16	225, SW	

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

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 [%]	100.00
Net Data Recovered [%]	87.14

Maintenance Issues and Changes to Site Configuration

The following maintenance/equipment problems occurred during January 2006, and the following corrective action was taken:

- The primary anemometer at 40 m height, called Anem40a, failed on November 10, 2005. This failure is the primary cause of the lower than normal Net Data Recovery percentage. The secondary anemometer at 40 m, called Anem40b, is now the only sensor contributing to the mean wind speed at 40 m. The failed sensor will be replaced during the spring of 2006.

Monthly Data Time Series

Seen below is a graph of wind speed at Thompson Island for the month of January 2006, at the highest anemometer height of 40 m.

