

## Martha's Vineyard Coastal Observatory: Data Contributed by MVCO Users

Users may contribute auxiliary data sets for public use. These sets are collected as part of funded science projects. Some include core data sets processed using specialized software for a particular science project.

### CBLAST-Low Directional Wave Analyses

These data provide APL-Waves analyses of the RDI-WavesMon directional waves data for the period of 30 July to 31 December 2003. The APL-Waves package partitions directional wave data into appropriate wind-generated and dominant swell components. The data are also compared with surface spectral estimates computed from simultaneously observed laser-altimeter measurements.

Directional Wave Analysis Results:

[Technical Report \(pdf\)](#)

Right Click and "Save Link As" to retrieve documents from the following links:

Data Files (MATLAB 6.5): [\[Partitioning Results\]](#) [\[1D spectral\]](#)

[Plotting Script Processing Script](#)

### Surface Boundary Layer Turbulence in CBLAST

Turbulence in the ocean's surface boundary layer is affected both by processes in common with turbulence near rigid boundaries and by processes caused by the presence of surface gravity waves. During the Coupled Boundary Layers and Air-Sea Transfer project (CBLAST), simultaneous measurements were made of turbulent quantities on both sides of the air-sea interface. These observations allowed examination of the effects of surface gravity waves on the surface boundary layer turbulence. Much of the data used in these studies is in the files linked below. The research is published in these papers:

Gerbi, G.P., J.H. Trowbridge, J.B. Edson, A.J. Plueddemann, E.A. Terray, and J.J. Fredericks, 2008. Direct covariance measurements of momentum and heat transfer across the air-sea interface. *Journal of Physical Oceanography*, v. 38, no. 5, 1053-1072.

Gerbi, G.P., J.H. Trowbridge, E.A. Terray, A.J. Plueddemann, and T. Kukulka. Observations of turbulence in the ocean surface boundary layer: energetics and transport. In press at *Journal of Physical Oceanography*.

For more information, please visit [Greg Gerbi's site](#).

Data in MATLAB and ASCII forms:

[Gerbi\\_etal\\_CBLAST\\_turbulence.mat \(MATLAB\)](#)

[Gerbi\\_etal\\_CBLAST\\_turbulence.dat \(ASCII\)](#)

MATLAB script to plot several figures in the turbulent kinetic energy paper:

[Gerbi\\_etal\\_TKE\\_plots.m](#)

Description of the data:

[Gerbi\\_etal\\_CBLAST\\_turbulence\\_README.txt](#)

The data available here are intended solely for scholarly use by the academic and scientific community, with the express understanding that any such use will properly acknowledge the originating investigator. Anyone wishing to use MVCO data in a presentation, report, thesis or publication should contact the originating investigator. It is expected that all customary courtesies and privileges attached to data use will be strictly honored. Use or reproduction of any material herein for any commercial purpose is prohibited without prior written permission from the MVCO Data Management Office. The complete copyright information is available [here](#).

*Last updated: January 7, 2015*

Copyright ©2007 Woods Hole Oceanographic Institution, All Rights Reserved.

Mail: Woods Hole Oceanographic Institution, 266 Woods Hole Road, Woods Hole, MA 02543, USA.

E-Contact: [info@whoi.edu](mailto:info@whoi.edu); press relations: [media@whoi.edu](mailto:media@whoi.edu), tel. (508) 457-2000

Problems or questions about the site, please contact [webdev@whoi.edu](mailto:webdev@whoi.edu)