Ocean Sci. Discuss., 4, S177–S178, 2007
www.ocean-sci-discuss.net/4/S177/2007/

Ocean Science Discussions

Interactive comment on "Internal tides and energy fluxes over Great Meteor Seamount" *by* T. Gerkema and H. van Haren

Anonymous Referee #2

Received and published: 12 June 2007

This paper describes measurements and their analysis for energy fluxes in the internal tide. I think there are or should be three messages: 1) the actual energy-flux values over Great Meteor Seamount and their relation to the global significance of such fluxes over topography; 2) the limitation to the whole vertical integral for the $<$u'p'$>$ calculation of baroclinic flux, because of the uncertainty in p'; 3) diurnal motions have added inertial contributions at this latitude.

In different parts of the paper (abstract, Introduction and aims of paper, Conclusions) the wording gives different and not always explicit emphasis to these three aspects. My main comment for improvement before publication is to set out more clearly what are the aims of the paper and give appropriate emphasis in the abstract, Introduction and Conclusions.

Full Screen / Esc
Printer-friendly Version
Interactive Discussion
Discussion Paper

EGU

The Introduction gives motivation for studying internal tide fluxes, and some motivation for study at Great Meteor Seamount (near-critical latitude, etc.) but could be more explicit about it as an example seamount/topography. At present the following text about the validity of $<$u'p'$>$ comes as an apparent digression which is then claimed as perhaps the main point of the paper - a bit confusing.

Section 3, paragraph 3 "We present ..". Although the proportions of semi-diurnal and diurnal here are similar to those in Mohn and Beckmann (2002), the magnitudes are less. A comment on this would be appropriate.

Section 4.2, paragraph 1 sentence 4 better "We assume .. .. spatially uniform; .."

How large are these fluxes in a global context?

Interactive comment on Ocean Sci. Discuss., 4, 371, 2007.