**Ocean Science
Discussions**

Interactive comment on "Wind forcing effects on coastal circulation and eddy formation around a cape" *by* P. De Gaetano et al.

Anonymous Referee #2

Received and published: 30 March 2010

The manuscript discusses the oceanic response to wind forcing with different resolutions and different estimates of wind stress coefficient in the area with a cape presented. The topic itself is an interesting, however, the manuscript failed to address the problem properly and adequately.

Eddy formation in lee of a cape could be due to two mechanisms: oceanic flow passes the cape to generate eddies and wind curl induced by the cape. There is no single figure in the manuscript to show eddy formation in lee of the cape and its sensitivity to the wind resolution. There is no wind curl pattern changes presented. Wind field analysis is extremely poor.

The arbitrary change of the wind stress coefficients in Page 216 Line 6-9 further undermines the credibility of the manuscript. The sensitivity of wind stress estimate to

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different choices has recently well studied by Kochanski et al (2006) and others. The authors are not aware of these developments obviously. Such lack of citation of other relevant literature is evident in the manuscript, especially for the study of wakes from cape, headland or islands, and many recent developments are not referred. It demonstrates that the manuscript is only a technical report other than a scientific paper.

The manuscript also carries many typos which need to be corrected.

Therefore I recommend the manuscript not be accepted for publication based on this version.

Interactive comment on Ocean Sci. Discuss., 7, 207, 2010.