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Interactive comment on "Intercomparison of the Charnock and CORE bulk wind stress formulations for coastal ocean modelling" *by* J. M. Brown et al.

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Thank you for reviewing this manuscript. We are please you find the topic both relevant and timely for regional modelling applications. It is also reassuring that you have a similar view as reviewer #1 on the required revisions, which we will consider in a revised manuscript. Our initial response to your comments is below. We will address these in greater detail when revising the manuscript.

We will focus on the limited validity of the conclusions. We agree that the conclusions have limited application to this location and will discuss this. Nevertheless the COARE bulk formulation is currently used globally and this paper shows that its application is

not universal, so it should be used with caution. We are presenting an initial test with a focused conclusion about parameterisation performance. We hope that this will raise awareness and further study by ourselves and others will confirm our conclusion has wider application. We have already thought about how to directly compare the surface stress with observations and will be taking this into consideration when investigating the vertical turbulence profile within the model. We hope to start work on this towards the end of this year and into next. For this manuscript we will discuss the limitations and will aim to publish results using direct comparisons with turbulence next year.

The data in the two tables will be combined for ease of comparison. The correlation between model and observations will also be added. We will make a Taylor diagram and if this is of greater clarity than the tabulated information we will consider including such diagrams to present the model-observation comparison.

The figure axes will all be changed to date format to improve clarity of the times discussed in the text. Also the time-average of the time-varying accuracy parameter presented in the figures will be calculated and included with the tabulated information. The total value will be used in the discussion as a measure of the overall accuracy.

Interactive comment on Ocean Sci. Discuss., 10, 519, 2013.