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Ocean Science
Discussions

Interactive comment on "Usefulness of high resolution coastal models for operational oil spill forecast: the Full City accident" *by* G. Broström et al.

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Overall comments First of all we would like to thank Referee #1 for the careful reading of the manuscript and the many very useful suggestions to improve the manuscript (we included essentially all the comments by the reviewer). We have tried to go through the manuscript for language and hope this new version is improved. A native speaking American has also gone through the manuscript. The reviewer is correct that it is difficult to compare three very different and complex oil drift models run at three different institutes. A complete comparison is a difficult task so we have chosen to make rather qualitative comparisons only. Albeit not perfect and leaves much room for improve-

ment we, nevertheless, argue that it is worth the effort to compare our models and the benefit that an ensemble of different models will have in an oil spill event. It should also be noted that we consider the operational model settings as they were on the time of the accident, and that we have not adjusted the models to compare better with observations (as is frequently done in most studies). We have taken all model results and the way they were presented at the time of the accident. Arguable, this makes the model-observation model-model comparison more difficult and more complicated. However, this is the way it appeared to the end users and the presentation therefore carries an extra value and we argue that this provides a true description of the models capabilities. It should be remembered that this Ocean Science special issue is devoted to operational oceanography and that operational oil was a part of the ECOOP project. Our conclusion is that ensemble forecast using the models at different centres are useful and perhaps the model intercomparison can be elaborated in future studies. But at the moment, the ensemble forecast in North Sea waters will be in the form presented here. Specific comment 1. The introduction has been rewritten and more references (including the ones mentioned by the reviewer) to earlier studies have been included. It is also more clearly stated that this manuscript is devoted to the operational forecasting of oil spills, and not a reanalysis of the oil spill. 2. The discussion on wave driven flow as a possibility for the eastward movement of oil has been deleted. 3. Essentially all comments on the language have been included. However, there has also been some rewriting to improve the language.

Interactive comment on Ocean Sci. Discuss., 8, 1467, 2011.