**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.

Anonymous Referee #1

Received and published: 20 July 2011

This paper is well written and provides some useful insights of the drift modelling methods used for the Full City accident. The figures are very informative and clear. It is my opinion that this work is important, interesting, and appropriate for Ocean Science with minor revision.

The authors should consider addressing the comments below to enhance the clarity of the paper.

General comments

The three drift models use different forcing and methods. Perhaps a table comparing the three models would be a good summary of the differences.

BSH model assumes that oil drift with 2.3 percent of wind velocity (page 1476, line 24) wheras Seatrack Web uses 1 percent of wind velocity (page 1478, line 14), and OD3D uses a different method (Stokes drift). Authors should explain why, although the methods are different, the drifts are quite similar.

How weathering affects the drift? It is not clear, neither in the text, nor on the charts.

Pages 1479-1480, the locations listed in the text (ex. Risør) should also appear on the map (Figure 5).

Page 1483, lines 14-15, what is the name of the atmospheric model of DWD?

Page 1486, lines 15-19, the calculation of the internal Rossby radius should be checked. Figures provided don't give a radius of 3.7 km.

Typographic corrections

Page 1470, line 23: replace "observation stations" by "observation station"

page 1473, line 12: replace "descretisation" by "discretisation"

page 1473, line 19: "Tijm and Lenderink" is not in the references list.

Page 1485, line 5: replace "Meteó France" by "Meteo-France"

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