

Interactive comment on “The Sicily Channel Regional Model forecasting system: initial boundary conditions sensitivity and case study evaluation” by S. Gaberšek et al.

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Specific comments:

- 1) We have rewritten the description of cold-warm start. We are using a one-way nesting process, where the coarse grid influences the fine grid without any feedback (a two-way process characteristic).
- 2) We have included Molcard et al.,2002 and Pierini and Rubino 2001 in the introduction.
- 3) The slave mode technique is rephrased.
- 4) We have inserted a short paragraph on VIFOP.

5) We have moved the computing cost to conclusions.

6) During the span of 48 hours the u-velocity reaches its maximum three times, due to the inertial oscillation (period ~ 22 hours). In the text we talked about one major peak in the frequency spectrum. We have clarified the text.

7) The reduction of ~ 9 hr oscillation is not visible from Fig 5 - it is visible from a similar type of plot as Figs 3 and 4, but is not shown in the paper. We have clarified the text.

8) If one wants to simulate phenomena on the time scale of 5 hours or less, VIFOP at the current configuration is most likely not the best tool, because of its internal low pass filter (frequencies larger than ~ 5 hours remain in the signal throughout the simulation). We have clarified the text.

9) We have changed the word order.

10) We have rewritten the sentence.

11) The "skin" temperature at a depth of 1 cm was extrapolated by using the vertical temperature gradient between the first two model levels. We are aware that it is not the optimal solution, but the values, compared to those from the first model level are closer to the satellite measurements. We have clarified the text.

12) From our experience a comparison of mass/volume fluxes through arbitrary vertical cross sections with complex topography is a complex task, due to discrepancy of the real and model bathymetry, and non-stationarity of the phenomena. We will try to calculate the fluxes in the future, but we do not plan to include the results in the current paper.

Interactive comment on Ocean Sci. Discuss., 3, 221, 2006.

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