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Ocean Science
Discussions

Interactive comment on "An ocean modelling and assimilation guide to using GOCE geoid products" *by* K. Haines et al.

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The manuscript has been modified since it appears that in the 4DVar methods the MDT is not being converted into spectral space but only the residuals. The main advantage of 4DVar is still achieved because a separate cost function term for the model MDT is constrained using its own errors, separate from those of the SLAs. We would still argue that to get the best high resolution information it would be better to move the MSS-MDT information from the model into spectral space and form the residuals there because that if where there are limiting ommission and commission errors (i.e. from the geoid) provide the strongest constraints, as argued in Bingham et al (2008) and in the recent Bingham et al (2010) GRL results using GOCE Most 4DVar methods are still using lower resolution models so perhaps this is not a worthwhile modification yet

Interactive comment on Ocean Sci. Discuss., 7, 1849, 2010.