Ocean Science

Discussions

Open Access

Interactive comment on "Hydrodynamic variability based on the multi-parametric POSEIDON Pylos observatory of the south Ionian Sea" *by* D. Kassis et al.

D. Kassis et al.

dkassis@hcmr.gr

Received and published: 9 August 2013

On behalf of all the co-authors I would like to thank Anonymous Referee #1 for the thorough study of the manuscript and the detailed useful comments the majority of which we are already applying to the final revised work.

Regarding comments and recommendations given:

1) Some technical details will be removed. I think it will be useful though for the reader to have a good overall picture of the observatory for two main reasons: a) behind this work a major effort was given regarding the setup of the observatory, sensors configuration, deploys and maintenance, data management, etc., if it was not for them,

we wouldn't have these results b) as Pylos station is the first integrated observatory in the Ionian Sea I believe it is of interest to synoptically present its architecture.

2) This impression to the reader may appear due to different scopes of these two parts. Paragraphs 2-3 focus on the presentation of the observatory and data handling methods while paragraph 4 is focusing on analyzing the results. I think paragraphs 1 (introduction) and 5 (conclusions) combine these two.

3) I agree this paragraph to be removed and integrate some of its content to one single session regarding the overall system description.

4) This is already changed in the under revision manuscript.

5) Sorry for this incongruity, this is already adjusted in the under revision manuscript.

6) Figures 4-20 will be reprocessed where needed and be more uniform. I think figure 3 is useful in order to present (avoiding many technical details in the manuscript) the basic principles of the applied real-time QC procedures. All other recommendations regarding changes on figure captions, titles, etc, are accepted and will be implemented.

7) This is an issue I took under consideration during the writing of this work. I believe that figures 9&11 are indispensable as they present the whole dataset recorded from the station these 3 years after filtering and evaluation. Figures 10&12 are 3d plots derived after interpolation from these datasets presenting contours of temperature and salinity for the whole water column. The scope of figures 10&12 is to visualize and make clear to the reader how the water masses change through time and depth. Maybe figure 10 (temperature contour plot) could be removed but I think figure 12 (salinity contour plot) is absolutely necessary. Regarding figures 16, 17, 19 and 20, although they present a subset of data already presented in figures 9 and 11, I think that they are helpful for the reader in order to trace trends, stratification, seasonal and inter-annual changes in surface, subsurface and intermediate depths by focusing on each depth zone separately.

Regarding other more specific comments:

Page 884: All changes/recommendations indicated have been applied apart from line 21 (years were changed to yr everywhere in the manuscript by the editor).

Page 885: All changes/recommendations have been applied.

Page 886 line 1: Added (Theocharis et al, 1999a)

Pages 887-890: All changes/recommendations indicated have been applied.

Page 891: Done for figures 5&6. For figures 7 & 8 this is not required as they present the vectors of wind and current field.

Pages 892-914: All changes/recommendations indicated have been applied.