

Interactive comment on “Calculating the water and heat balances of the Eastern Mediterranean basin using ocean modelling and available meteorological, hydrological, and ocean data” by M. Shaltout and A. Omstedt

M. Shaltout and A. Omstedt

mohamed.shaltout@gvc.gu.se

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Dear Prof Anonymous Referee#2 I have showed here response for your nice comments. 1. Process that control heat and water balances are now ranked due to its importance (see discussion section). 2. First paragraph in the introduction section is deleted as Referee suggested. 3. Bad English comments are corrected. 4. MAW is changed to AW. 5. Yes AVISO data are on one day resolution. 6. All explanation needed are added to the manuscript. 7. Fixed depth of surface layer (150 m) even surface layer depth changed from 100 m to 150 m may be accepted due to very small

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cross area of the channel between 100 to 150 m depth in comparing with cross area between surfaces to 100 m depth (Fig. 2a). 8. Surface current is decreased linearly is poor assumption but may be accepted especially to study exchange through Sicily channel in order to describe general features of the Eastern Mediterranean basin. (Any changes ($\pm 15\%$) of calculating Q_{in} have very low effect on thermohaline structure of the Eastern Mediterranean basin). 9. Description of how experimental T-S diagram obtained is added to the manuscript. 10. Elaborated of my conclusion of that meteorological forcing is more important than Sicily channel water exchange is added to the manuscript. 11. Modified my conclusion also of using dynamic height for describing exchange through Sicily channel is added. 12. After OS journal editor accept paper scientifically, we will send it to academic English writing assistant

Interactive comment on Ocean Sci. Discuss., 8, 1301, 2011.