

## Explanation to Referee #2

I think the manuscript can be published with minor corrections.

The introduction is now more concise and gives a good overview over the purpose of the study and previous work on that. Likewise, important information in the methods section has been added and it is now possible to more easily understand the modeling approach and experimental strategy. Drawbacks of the study are clearly indicated and are discussed under the framework of the studies goals and available current knowledge of the Aegean Sea and Izmir Bays oceanography..

The discussion and the results are now better understandable. Improvements and addition of figures likewise facilitate the understanding of the studies and one gets now insight what the findings of this study are valid for.

I have only some minor comments:

Abstract. I recommend to remove the last sentence.

The last sentence is removed from the abstract.

line 52: rephrase this sentence. Maybe:

“Using a three dimensional finite difference model the author demonstrated that the shallowing...”

The sentence is rephrased as “Using a three dimensional finite difference model the author demonstrated that the shallowing which is in the middle bay entrance has effect on the water input and output of outer bay”.

line 70: put 2006 into paranthesis (2006)

2006 is written in parenthesis.

line 73 rephrase like e.g.:

There is a demand by other disciplines such as biologists chemists etc to get detailed information about dominant circulation patterns under characterisyc wind fields.

The sentence is rephrased as suggested above.

line 95 rephrase:

“Since 1996 regular measeurements have been conducted...”

The sentence is rephrased as suggested above.

line 109 in OUR institute

“in the Institute of Marine Science and Technology” is replaced with “in our institute”.

line 112 Sayin and Krauss, 1996 is lacking in the references.

Sayin and Krauss, 1996 is added to the reference list.

line 164 is MORE complicated

“more” is added before “complicated”.

line 194 UNDER westerly conditions

“in” is replaced with “under”.

line 240: How is winter convection produced when meteorological forcing is absent?

This paragraph explains the importance of the Middle Gyre. The cyclonic circulation takes place mainly as a result of southerly wind that is simulated also in the model. On the other hand, the temperature data obtained from monitoring studies shows us how strong the winter convection took place in cold seasons.

line 241 replace “Second” by “The latter”

“Second” is replaced by “The latter”.