

Dear **Anonymous Referee #2**

We thank **Anonymous Referee #2** for their thoughtful and constructive comments which have substantially improved the clarity and accuracy of the manuscript. We have addressed all comments as follows:

- 1) It is suggested that the paper should add a brief description of instruments used for the measurements of the parameters, including the type, manufacturer of the instruments and resolution for measuring each parameter.

Added already some description in table 2.

- 2) For Figure 2, it is suggested to give an overview picture of AWS location and its surrounding environment.

Agreed. But we don't visit our observation station now. We will get new picture in next week.

- 3) "which hosts the busiest shipping lanes in the world" is suggested to be revised as "which hosts one of the busiest shipping lanes in the world".

Agreed.

Text rewritten as: "which hosts one of the busiest shipping lanes in the world".

- 4) "IFS improvements", what "IFS" is referred to?

Agreed.

IFS (Integrated Forecast System) is a system of ERA-Interim.

- 5) "water level every 10 min at a water depth of 20 m", it is not clearly expressed.

According to RC1's comments, the part has been showed in a Table.

- 6) "therefore, there are significant errors in the measurements, especially for MWD.", why the errors are caused by measurements, not by the modeling or reanalysis?

This is an error. It's "there are significant errors in the measurements", but "there are significant errors in the comparison".

In line 165, we can know that the errors should be caused by the modeling or reanalysis, not measurements

- 7) For the term "wind sea", please check whether it is a standard term.

There are a sever ways in public research paper: wind sea, wind wave, waves for "wind sea". We choose the "wind sea". The main reason is that "wind sea" distinguish it from swell.

- 8) English needs further polishing before it is finally published.

We plan to ask professional editors to polish the final manuscript.

Yao Luo