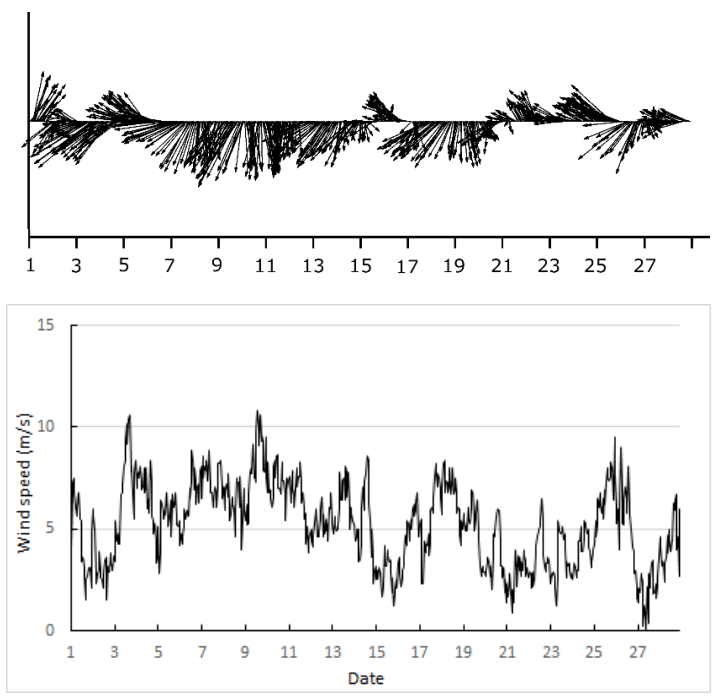


Comments to authors' reply

The following figure is the wind observations (2 minutes average) in February 2014. I think the location is the same as yours, located at Chongming eastern shoal as well. The shape of wind speed curve is similar to yours, but the magnitude is much weaker than yours. I also have observations at other stations along the coast, with similar magnitude even weaker. Even if the observed wind data is only used to illustrate the wind status, they should be true. In addition, why did you delete one day data (wind and water level rise on 1) in figure R3-2? But the date still began from 1. It seems that the data or figure can be changed as you want.



About the modeled wind directions and speeds (figure R3-1), even if they are only shown for referee, the location or area should be off Changjiang estuary instead of Subei coast. I think it is necessary shown in the manuscript in order to show the winds you used in the model. It can be seen from figure R3-1 that the wind directions were

almost all northerly. Some were not only different from station located at Chongming eastern shoal but also different from the station outside the estuary. For example, on 5-6 winds are not strong with directions of southeasterly and easterly at station near the mouth, easterly outside the estuary, but winds are strong with directions of northerly in figure R3-1 (modeled winds). On 10-11, the wind directions are northwesterly at station outside the estuary, but northerly in figure R3-1. The wind directions and speeds observed at station outside the estuary could induce water level setdown, which is consistent with the calculated water level change (I ever did). It can be seen also from plot d of figure 2 that on 5-6 and 10-11 the water level did not rise. This means the modeled wind directions and speeds may be not correct in some periods, which will induce incorrect results.

About the water level rise shown in plot b of figures 4 and 7, authors said it is the mistake, and the "water level rise" in legend should be "mean water level". But the maximum value in legend is 0.5 m, which should not be mean water level.

About error of calculated water level rise in plot d of figure 2, the method used is the oldest method, authors should try other method. Authors' some argument about water level rise is not consistent with the text.

About the mechanism of the extreme event, I think it was still not clear. Authors said that the strong northerly winds lasting 4 days can induce the higher than normal salinity in after 8 days (plot b of figure 9). In plot b the winds were set to 5 m/s beginning 9 February. But the strong northerly winds began from 7 before which the wind directions were southerly or easterly both at station near the mouth

and station outside the estuary. This means that the real strong northerly winds lasted 2 days. This is why I ask the question (About plot b, can two-day strong winds induce the higher than normal salinity in after 8 days?). Authors replied that the two-day strong winds are in plot a, not in plot b. Now I know the reason, the modeled strong northerly winds lasted 4 days before 9.

About the North Branch, even if the impact of winds on saltwater intrusion is weaker than the North Channel, the saltwater intrusion should be also much stronger than normal situation during the "extreme event" period. It can be seen from figure R3-4 the salinity on 13-16 at Chongxi station was similar to the normal situation, but the salinity at other stations dramatically increased.