The manuscript has been improved in some aspects. However, besides of possible further stylistic cosmetics, there is still a couple of important obscurities left, which need to be clarified.

The authors have added some contents in the description of methods. For example, the number of ensemble samples and the control variables. There is a explanation of the SAM in Lellouche et al., 2013. And Lellouche et al(2013) has denoted the details of producing the model anomaly fields. However, to easy following in this manuscript, the authors still need to give a clear description of setup in these OSSEs. For example, the selection of the model anomaly fields from which period (which year to which year)? It is good to know how “The anomaly basis changed at each analysis cycle : they follow the global model climatology.” ? Further, is the SAM2 system the same as that SAM in Lellouche et al., 2013? if not ,what is the difference? If the same, why here it called SAM2? The SAM has different version, however, it will be good to use a consistent name.

The authors chose to not compute a simulation assimilating only Argo. The main object of this study is to “Assessing the impact of multiple altimeter missions and Argo in a global eddy permitting data assimilation system”. So both Argo and altimeter observations have been used in the analysis in Argo1. The authors have compared the this study and OSE study and the difference between Sat3 and Argo1 and denoted the contribute of Argo observations to AR. However, the corresponding experiment is deigned by assimilating Argo alone and altimeter observations alone is easy and clear to understand how the Argo contribute to the improvement in the experiment Argo1.

At line 24-26 in Page 3, “The 1/12° free model is chosen for NR ::: in the ocean compared to a 1/4° resolution simulation.” Is there reference can be used to prove it?

“The explain of less change of the salinity in AR relative to temperature”, Does it is also related to the NEMO model itself? There is also the similar case in other region using the NEMO model, whiling the other model (like HYCOM) has stronger correlation of S with the change of sea surface variables like (Sea-level,SST).

The evolution of impact of AR is still interested for the T,S,U,V in time. Please add corresponding contents in manuscript or in the response to the referee.

in page 4, How to pre-calculate Mean Dynamic Topography? Please explain it.

in Fig15, the RMSE of the Argo1 temperatures are changed from smaller in upper layers to larger in deep layers relative to the FR. And this case doesn't appear at the performance of salinity. What is the reason?

Further, in Fig 16, the RMSE of the 7-day forecast of T in 1941m is obvious smaller in Argo1 compared to that in Sat3. Why is there different performance in the same experiment between Fig15 and Fig 16 in deep layers?

The language improvement needs to be addressed, For example:
At line 16 in page 4 , “All the assimilated experiments start ON the 7th of January 2009 and end ON the 30th of December 2009”