

**Interactive comments on The Effects of Ocean Surface Waves on Global Intraseasonal Prediction: Case Studies with a Coupled CFSv2.0-WW3, Shi et al., GMDD,**  
<https://doi.org/10.5194/gmd-2021-322>

I thank the authors for taking into account in a very careful way the comments of both reviewers. Especially, they significantly improved the coupling between the ocean, wave and atmospheric models by including the effects of the surface currents into the wind (and not only turbulent fluxes) and by changing the parameterization of the drag coefficients. Also, the discussion comparing the present study with previous results is more complete and the diagnostics of the biases with respect to observations and their evolution with different configurations has been much improved. I am convinced that they added significance and visibility to their results by making the present version of the paper more complete and clearer. Still, the language could be improved and the paper deserves a very careful spell checking (the suggestions below are not comprehensive). I only have minor comments as follows.

Title: a noun is missing after CFSv2.0-WW3, I suggest “CFSv2.0-WW3 System” or “CFSv2.0-WW3 configuration”.

l. 50: for Cch → for defining Cch

l. 139: please provide information here about the different coupling configuration tested and the details corresponding to 10\_STEP\_WW3.

l. 145: Charnock parameter related estimation → estimation of the Charnock parameter

l. 146: offered → available

l. 154: Compared → Comparing

l. 164: The → Where

l. 178: supplementary → supplementary material or information

l. 180: varies in proportion to → depends on

l. 182: is the → the

l. 187: is an average value → is the average value of the density

l. 217: To account for the effects of Stokes drift velocity, the Eqn. 14 was applied → To account for the effects of the surface currents and of the Stokes drift, Eqn. 14 was used

l. 219: is also conducted → has been implemented

l. 221: with an angle → different

l. 226: Eqs 11-13 do not show the link between the roughness length and the transfer coefficients, please rephrase.

l. 284: applied → used

l. 288: sentence is not clear, please rephrase.

l. 303: This is different with → this contrasts with

l. 361: I don't understand the second part of the sentence; what is the meaning of perturbation here? In the “results” part, the authors should add a comment about the general increase of the biases (wrt ERA5 or observations) in all experiments, and the fact that it is likely a drift from the initial conditions (because no data are assimilated).