The authors have addressed my main questions quite thoroughly, and made consequent changes to the manuscript, thank you. I have some remaining minor comments relating to clarification and language. My comments are in red.

In the following sentences, remove Fig. 3b, which shows THF. Use Fig. 3a instead. (lines 332-338)

As a consequence, the COARE_S differences in wind stress (Figure 3b)

As regard the equatorial upwelling, the weak increasing of the wind stress in the north equatorial region (e.g. northern equatorial cold front, Figure 3b) compared to NCAR wind stress (Figure 3a),

Reword: Specifically, SST and QT feedback negatively: when the SST gets anomalously cold, then QT increases, and that means that QT increases in response, the SST will tend to increase and the QT to decrease and so on. Possibly to: Specifically, SST and QT feedback negatively: when the SST gets anomalously cold, then QT increases, which will increase SST, and then QT will decrease, and so on.

Move to Code Availability statement: AeroBulk package, which is completely open source and available at https://github.com/brodeau/aerobulk (Brodeau et al., 2017).

Lines 148-155 seems to contain repeats. Can it be shortened? Also, word "extend" is strange in this context.

Reword, use "In contrast": *As opposed*, NCAR experiment computes THFs using bulk SST and

Add mixing? the wind stress discrepancies, due to the computation of CD and to the inclusion of the convective gustiness, may impact on the ocean dynamics by modifying the 3D ocean circulation and mixing and hence the pattern of the SST.

Add: builds up only under sunny and low wind conditions.

Regarding a response to another reviewer, in the WBCs the 1-year simulation is short due to the chaotic behavior in those regions and explains some of the noisiness in difference maps in those regions. It is worth mentioning this, if you have not already done so. It does not detract from the results of the paper.

Note the following differences are quite large, so it seems the CSWL does have a big impact on NCAR minus ECMWFG differences in the warm difference regions. The SST differences between ECMWF_NS and NCAR (Figure 6a) with respect to the SST differences between ECMWF_S and NCAR (Figure 4) present a reduction of the overall warm temperature differences

Not a time series: As it is clearly shown by the annual zonal-mean differences time-series (Fig. 7b)

Including gustiness in the ECMWF calculation produces the scalar wind differences in Figure 9a. Please clarify that differences in wind speed between ECMWF_NS and CdNC_CeEC_NS (Fig. 9a) can only be due to differences in gustiness as U does not depend on any other factors (i.e. does not depend on SST or drag coefficient).In fact it does not depend on using the ocean model so you could remove reference to experiments ECMWF_NS and CdNC_CeEC_NS for Fig. 9a and just state that it is the difference due to gustiness. In other words it is an input to the model, not an output.

Re Fig. 10a. Note that in the warm pool Equatorial regions there is some cancelling effect on wind stress of stronger U (Fig. 9a) but weaker CD (Figs. 9b,c).

Indeed, a stronger acceleration (deceleration) of southeast trades north (south) of the equator in ECMWF_NS may lead to a stronger positive (negative) curl north (south) of the Equator (Chelton et al., 2001). Note also that Chelton et al explain changes in wind stress curl due to vertical mixing in the boundary layer above SST features. So, although WSC and Ekman pumping can affect SST, it can also work in the other direction, SST affecting the WSC.

Reword "result" : which result crucial especially in wind-driven dominantly ocean regions.

in the+/-20° latitude band

(https://doi.org/10.5281/zenodo.6258085,

The reference for Levitus et al. 2013 is a bit strange. Perhaps use "Levitus, S. and coauthors"