

Interactive comment on “OceanSODA-ETHZ: A global gridded data set of the surface ocean carbonate system for seasonal to decadal studies of ocean acidification” by Luke Gregor and Nicolas Gruber

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We thank reviewer 2 for their prompt and positive feedback. R2 provided an in-depth critique of the method and of the data product itself. The major concerns raised include: 1) The use of a gap-filled pCO₂ climatology to perform clustering; 2) the use of climatological nutrients in solving the marine carbonate system; 3) uncertainties of the dataset, particularly over time. We have included the reviewer's comments in italicized blue font, while our answers are given in black. We grouped all comments and answers into these three topics as there is significant overlap in many of the reviewer's com-

C1

ments. We have also refined our definition of error and uncertainties. These changes have also been marked in the tack changes file.

We have attached our comment to the reviewer as a supplement

Please also note the supplement to this comment:

<https://essd.copernicus.org/preprints/essd-2020-300/essd-2020-300-AC2-supplement.pdf>

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2020-300>, 2020.

C2