Biogeosciences Discuss., https://doi.org/10.5194/bg-2020-254-AC4, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



BGD

Interactive comment

## Interactive comment on "Ocean Carbon Uptake Under Aggressive Emission Mitigation" by Sean Ridge and Galen McKinley

## Sean Ridge and Galen McKinley

sridge@ldeo.columbia.edu

Received and published: 18 September 2020

Your comment is greatly appreciated. We agree that it should be made more clear that the IRF model is a simple parameterization of the complex processes that transport anthropogenic carbon into the ocean interior. We have updated the methods, as well as the introduction and conclusion, to emphasize the role of processes such as mode water formation and overturning (ludicone et al., 2016) in the vertical transport of anthropogenic carbon. In our updated manuscript, we highlight the important recent advances in process understanding, and clarify the differences between our model's representation of ocean transport and real world processes.



Discussion paper



Interactive comment on Biogeosciences Discuss., https://doi.org/10.5194/bg-2020-254, 2020.