

## ***Interactive comment on “Marine carbonyl sulfide (OCS) and carbon disulfide (CS<sub>2</sub>): a compilation of measurements in seawater and the marine boundary layer” by Sinikka T. Lennartz et al.***

**Roisin Commane (Referee)**

rcommane@ldeo.columbia.edu

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This dataset is a wonderful resource for the carbonyl sulfide community and I expect it will be used extensively. I agree with most of the comments of the other reviewer so I will not repeat those points here. My additional comments are mentioned below.

For the atmospheric MBL data, how often are there other trace gases available to characterize the air mass type? This is something I think could be a suggestion for future data collection requests (along with CDOM - rather than Chlorophyll a). Newer/Laser-based measurement systems often also measure CO<sub>2</sub> and CO, which could be used to identify MBL data with recent continental influence/pollution vs cleaner air (CO lifetime

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is about a month in the remote MBL). I know most of this information is not available for previously obtained data but it would be great to include in the wishlist and include as a potential category within the data base. This would allow for proper interpretation of data from top-down atmospheric inversion studies (rather than just the marine/oceanic community). Fig 2: Only a few points (potentially in anthropogenic outflow in Europe) mean that it is hard to see more subtle changes in the true MBL observations. Could you replot with the OCS MBL limit as 450-600 ppt (which would still be a reasonable range)?

Table 2: Adding a column to indicate when ancillary data is available would be quite useful here. I would also recommend changing the D = details designation when you do A-O in the grouping column. Another option would be to skip A, D and O in the grouping column since you use it for digitized/original and A: analysis.

Fig 3: Labels are a bit off in the pdf I have here. (b) not there, (d) up high. Check it for the final version. Please add a color bar for the red/green in the middle panel. It will have a better impact than looking through the text for it. What do the plots look like if you separate the tropics from the NH/SH? Is the seasonal cycle of the OCS in NH and SH outside the tropics the same or offset?

Seasonal vs temporal variability: Usually temporal variability is used to describe days to weeks and anything more uses seasonal. I agree with the other reviewer on this point and recommend changing the various instances of that.

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