Interactive comment on “Shipborne MAX-DOAS measurements for validation of TROPOMI NO\textsubscript{2} products” by Ping Wang et al.

Anonymous Referee #1

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The manuscript describes the comparison between TROPOMI, TM5 model and MAX-DOAS NO\textsubscript{2} observations during 5 ship cruises over the Pacific Ocean. The paper is well written and can be published after addressing the following minor comments.

Specific comments

P2 L41 There are a few recent paper on the validation of TROPOMI NO\textsubscript{2} over land (some under discussion). Here some examples:


P3 L74-76 So I understand you did not use the measurements of ship emissions? I was wondering why; could not be useful to get some of these data for the validation? If you are afraid the resolution of TROPOMI will not be able to detect that I think it’s still worth showing...

Figure 2 (and all the others) Day fraction: could you use normal time of the day (not decimals)? It’s a bit confusing...

P9 L267 Could you give these differences also as percentage? (In the abstracts as well)

L282 Could give a brief description of this interpolation method together with the reference? (it remains a bit unclear)

Figures 6, 10, 11: What quantity are the error bars? It should be mentioned in the caption