

## ***Interactive comment on “A Climate-scale Satellite Record for Carbon Monoxide: The MOPITT Version 7 Product” by Merritt N. Deeter et al.***

### **Anonymous Referee #2**

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This paper aims at presenting the features of the MOPITT V7 CO data and validation results. Statistical comparisons are performed using aircraft in-situ measurements as the reference. Improvements are demonstrated for V7 products in comparison with V6 products. The paper is very well written, as the previous MOPITT papers by Deeter et al. In contrast to the previous MOPITT validation papers, the statistics are performed in terms of difference between the retrieved and a priori VMR values (except for the total column). This choice is wise and well detailed in Section 3.1. The subject of the paper is appropriate to AMT. I found the paper clearly presented, well organized and essential for the wide community of the MOPITT data users. I recommend the paper to be published, after the few minor issues I raise below are addressed.

Line 97: “V5 User’s Guide” Add a reference?

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Line 161: it is clearly said that “in-situ measurements are assumed to be exact”. Would you add somewhere how the bias in percentage is calculated? (MOPITT – in situ / in situ?)

Line 278: “The bias in total column is reduced from 0.16” According to Figure 6 and Table 1, it should be 0.15 not 0.16.

It should be nice to have a table online where the different features of all the MOPITT data versions would be summarized.

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