Interactive comment on "Validation of MOPITT carbon monoxide using ground-based Fourier transform infrared spectrometer data from NDACC" *by* Rebecca R. Buchholz et al.

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1   General comments

This paper provides further validation of the MOPPITT CO dataset by comparing it to data from ground-based FTIR instruments. It appears that such a detailed comparison has not been done before. The validation increases the range over which the MOPPITT data may be used and also increases our confidence in that data. The material is therefore worth publishing. The paper is, for the most part, very clearly written and well illustrated; I have only minor corrections.

2   Specific corrections

- Figure 4: It is difficult to interpret figure 4 without also having the averaging kernels of a FTIR for comparison. Having been frustrated by this while reading the text in section 3.4 I discovered the averaging kernels for a FTIR shown later on in figure 12. It seems to me that it should be possible to fit figure 12 into the bottom right corner of figure 4 in place of the (over-large) legend, fitting the legend itself into the lower left panel of figure 4.

- Page 9 line 1: It does not seem to me to be good mathematical typesetting style to use an entire word ($bias$ in this case) for a mathematical variable.

- Page 11 line 6: "Satellite retrievals over colder surfaces at higher latitudes are challenging mainly due to low thermal contrast" This is not true of all satellite retrievals; for example, limb sounding and UV backscatter are not affected by the surface temperature. A more specific term than "Satellite retrievals" should be used.

- Figures 7, 8 and 10: The blue and green used to distinguish land from water appear very similar to my eyes in all but the strongest lighting. It might be worth choosing colours which are more easily distinguished.