Reviewer comments to Vermeulen et al. "Greenhouse gas observations from Cabauw Tall Tower (1992-2010)

The advantage of the MS is that it provides detailed technical description of Cabauw tall tower measurements. It is the valuable document now when some new towers are under construction, especially because of ICOS project. Scientifically, the analysis and the results are not very deep but in my opinion the paper deserves its place in the special issue on the related topics. Two other reviewers have made very careful job of listing several comments and there might be some redundancy in my comments.

General:

1. The order of Tables and Figs. is not optional and their order of appearance does not follow their numbers. I refer to another review (Lowry); follow his suggestions.
2. This is mainly a question, which does not necessarily needs any revision for MS, but I use this opportunity to ask the following. I am a bit confused with the footprint estimates for 20 m level and the interpretation of that data. I have been told several times that to have a representative concentration data set (in tall tower sense), the tower must be so high that most of the time the measurement level is above the surface (constant flux) layer. The thumb rule is that the tower must be over 100 m. If not, then your measurement represents the areas which are nearby your tower, similar to direct flux measurements, only difference that the typical concentration footprints are order of 10 times larger than those for fluxes. This means that concentration footprints are the order of 1 – 10 km. However, now the 20 m level footprints are much larger. Can you explain why and what is possibly wrong in my thinking above?

Minor:

p. 4172, lines 6-7: "..that is and will be used....", there is some problems with the language.

p. 4198, eq. 2.: omit "dots" indicating multiplication between some symbols

Table 3: it would be good to explain shortly Mean method in the table caption.