Interactive comment on “MOVEIM v1.0: Development of a bottom-up motor vehicular emission inventories for the urban area of Manaus in central Amazon rainforest” by Paulo R. Teixeira et al.

Anonymous Referee #2

Received and published: 28 June 2018

1) It is important to emphasize the methodology used to extrapolate the VTK information, obtained at peak times, for the others hours (off-peak period).

2) Why not use fleet age in the categorization and emissions factors? For example, the CO EF used (1.2 g / km) is very high for the fleet age that the author mentions in the introduction ("...average age of 5 years attributed to the timing of rapid urban growth during the economic expansion between 2009 and 2015... "). This can lead to an over-estimation of emissions. The author can use a Top-down approach to age distribution (From a national database like ANFAVEA) or local information from DETRAN.

3) The authors considered evaporative emissions?

4) With regard to fuel, the authors can estimate from consumption (local information) or from the national inventory (This hypothesis - top-down approach - is more subject to overestimation).

5) Please, check the NOx emission factor used to trucks (0.5 g/km). I am thinking there is an underestimation of NOx emission by heavy vehicles.

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2018-81, 2018.