

## ***Interactive comment on “Sources of atmospheric mercury in the tropics: continuous observations at a coastal site in Suriname” by D. Müller et al.***

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Received and published: 20 July 2012

We acknowledge the suggestion of Referee #1 to add a figure showing short-term variations. We would also find it very desirable to have insights in the short-term variability of mercury in the tropics. Monthly variations and differences between NH and SH air are small compared to the variability in the raw data. Only the careful analysis of the data as shown in Fig. 3 of the MS made it possible to draw conclusions on the differences. Here we show a figure that reveals the short-term variability. It shows 24 h-averages of TGM from May to September and, for comparison, the variability in the raw dataset (revealing a large diurnal cycle). The different colours enable distinction between NH and SH air and the GEOS-Chem model, respectively. You can see from the figure that the variability of the observational data (small panel) is higher than the

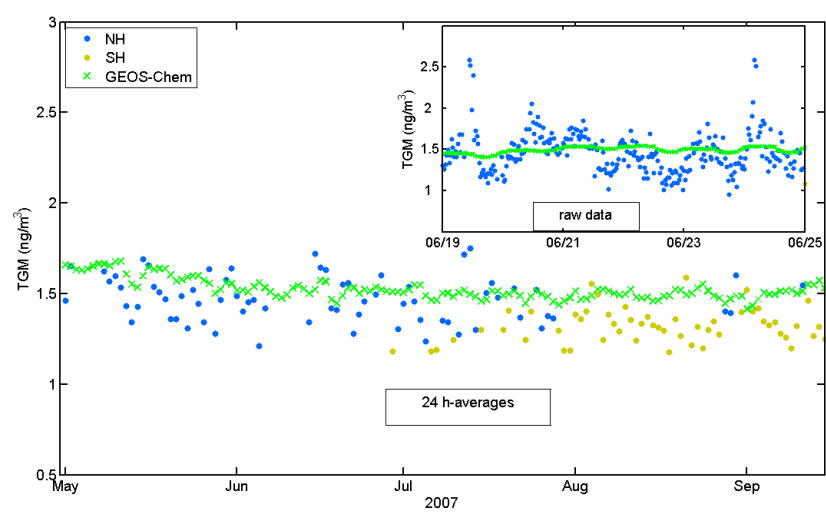
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monthly variation itself (large panel). You can also see that the differences between NH air and SH air are not per se visible. Therefore we do not find this figure very insightful. Also, given the discrepancies between the models and the observations, which we discussed in the MS, we think that a detailed comparison between the models and the observations is not possible. Thus we think that a figure showing short-time variations would not be a valuable addition to our paper.

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Interactive comment on Atmos. Chem. Phys. Discuss., 12, 10223, 2012.

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**Fig. 1.** TGM 24 h-averages (large panel) from May-Sep 2007 and a short-time series showing the raw datasets during a week in June (small panel). Blue: NH data, yellow: SH data, green: GEOS-Chem model data.

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