

Editor Decision: Publish subject to technical corrections (07 May 2014) by William Lahoz  
Comments to the Author:

The authors have addressed the main tenor of my points. I would ask them to address the following two points before uploading the paper to ACP - the second point should definitely be adhered to:

L. 42: I would prefer it if you provided the acronym for ppbv.

Edited: “The US Environmental Protection Agency (EPA) is considering lowering the current National Ambient Air Quality Standard (NAAQS) of 75 ppbv (parts per billion by volume, fourth highest maximum daily 8-hour average per year) to a value in the range of 60-70 ppbv (EPA, 2012).”

L. 384: Because people often just read the abstract and conclusions of the paper, I would ask you to specify here that the configuration is TEMPO-like, thus something along the lines: “...of the TEMPO data, in a configuration designed to represent it according to the best current estimate of its future instrument characteristics, using...”.

We very much appreciate this point and agree on its importance. We have modified the sentence to: “To accomplish this we performed an observation system simulation experiment (OSSE) for assimilation of synthetic TEMPO data designed to best represent future observations based on current estimates of TEMPO instrument characteristics. We used...”