

Original comments by reviewer 1:

Line 51, the year of the Stauffer and Seaman's paper should be 1994.
Line 77, Rogers et al. 2013 should be cited. It evaluated WRF results including nudging and different physics schemes for San Francisco Bay Area aiming for applications for air quality studies. <http://journals.ametsoc.org/doi/abs/10.1175/JAMC-D-12-0280.1>
Line 114, the year in the citation is wrong. It should be "Daum et al. 2003".
Line 188, "...from the NARR analysis by WRF Pre-Processing System (WPS)."
Line 228, "The variables that were nudged were temperature..."
Figure 3, The colors used for obs and 1Hr-OA were too alike. Please put one of them in red or green to make two lines more distinguishable. The same applies to figure 4, 6 and 8.
Line 313, "For PBL heights, ..." what does this sentence mean?? Please re-phrase.
Line 590, what are those citations about small-scale meteorological events and high ozone events?? Adding citations will help reader to understand what kind of impacts you are talking about in the text. It is important to put citations here.

General response:

The comments are all helpful in improving the manuscript. We appreciate that.

Itemized response:

1. Line 51, the year of the Stauffer and Seaman's paper should be 1994.

Response: corrected

2. Line 77, Rogers et al. 2013 should be cited. It evaluated WRF results including nudging and different physics schemes for San Francisco Bay Area aiming for applications for air quality studies. <http://journals.ametsoc.org/doi/abs/10.1175/JAMC-D-12-0280.1>

Response: reference added. The paper is quite relevant, but it is primarily on impact of different physical schemes.

3. Line 114, the year in the citation is wrong. It should be "Daum et al. 2003".

Response: It should be "Daum et al. 2004". Corrected. There are two papers from Daum et al, one in 2003 and one in 2004. The 2004 one is in the reference.

4. Line 188, "...from the NARR analysis by WRF Pre-Processing System (WPS)."

Response: indeed more accurate - modified as suggested

5. Line 228, "The variables that were nudged were temperature..."

Response: Revised as suggested

6. Figure 3, The colors used for obs and 1Hr-OA were too alike. Please put one of them in red or green to make two lines more distinguishable. The same applies to figure 4, 6 and 8.

Response: we redid all the time-series plots, changed the observation to orange-red and 1hr-OA color to green.

7. Line 313, "For PBL heights, ..." what does this sentence mean?? Please re-phrase.

Response: Revised. -> In addition, we plotted out the PBL height time-series for the one site we had observations. - Originally, it meant "For PBL height evaluation".

8. Line 590, what are those citations about small-scale meteorological events and high ozone

events??? Adding citations will help reader to understand what kind of impacts you are talking about in the text. It is important to put citations here.

Response: Some references were listed in the introduction section (4th paragraph): Banta et al. (1998), Cheung and Wang (2001) and Tucker et al. (2010). Still, we revised the sentence as following: Small-scale meteorological events such as wind transitions have been cited (e.g., Banta et al. 2005; Darby 2005) for their contributions to high ozone events.

Selected responses to editor's comments:

0. All the grammatical suggestions are incorporated into the manuscript.

1. The citation order in "They influence the production, transport, and deposition of various chemical species (e.g., Banta et al. 2005; Pour-Biazar et al. 2007 ; Cuchiara et al. 2014). "

Response: Changed to chronical order. The citation was in the order of variables, e.g., cloud fraction, winds, PBL.

2. Add a scale to Fig 1 so one may know the area and domain size

Response: Scale added

3. reference "for what?" -> For example, when correlations are similar, lower model biases would yield higher IOA values. Additionally for this study, the mean and the standard deviation of model values and observations were included as a reference.

Response: Both mean and standard deviation play a role in the calculation of IOA. Also, someone may be interested in the mean values to judge the size of biases, and how much the variables fluctuated around the mean. All part of evaluation.

4. Table 1 and 2, WRF and CMAQ options

Response: The references and year are added to WRF, we think it is somewhat optional as there are many examples people did not list them. Since there are many schemes in WRF. we do see the merit of adding the reference and the year. On the other hand, there are much less choices regarding CMAQ options, and there are few listing references to the options, we choose to leave them as is.