

The manuscript provides an extensive evaluation of the impact of quality assurance of MODIS Dark Target (DT), MISR, and CALIPSO aerosol products on surface-to-column representativeness on the PM_{2.5}/satellite AOD relationship for the Continental United States. Authors demonstrate that, as expected, improving the quality of satellite retrievals results in a better regression statistics with PM 2.5 data. The paper indicates that CALIOP near-surface extinction data may provide better PM_{2.5} estimates. The paper brings up the important topic of the potential use of satellite aerosol data for PM 2.5 monitoring. The paper is well written, the motivations are clear, and it is relevant for publication in ACP. The authors demonstrate good understanding of satellite data and potential retrieval artifacts. The study results are useful for environmental monitoring community.

General comments:

1. I think that the better way to address the issue of data quality is to regress PM 2.5 data against nearly collocated AERONET AOD data to obtain benchmarking regressions for the East and West US coast for both hourly and daily datasets, and then evaluate how well satellite datasets with different quality flags reproduce these regressions. The AOD-PM_{2.5} regressions are not necessarily had to be linear.
2. I agree with the previous reviewer that the recommendation part is missing; however it might be beyond the scope of this study. The take home message seems to be the need of synergistic use of satellite data combined with chemical transport model. The authors need to reinforce this message.

I recommend this paper for the publication.