

Interactive comment on “Size-resolved Composition and Morphology of Particulate Matter During the Southwest Monsoon in Metro Manila, Philippines” by Melliza Templonuevo Cruz et al.

Anonymous Referee #2

Received and published: 14 June 2019

This manuscript describes size-resolved aerosol particle composition information from the urban Manila center of the Philippines during a relatively time-limited observing campaign. The information presented represents a very useful summary of the observations and links to local and regional source production. The broad Southeast Asian archipelago is subject to significant air quality hazards and regional aerosol transport, making the region a hotbed for chemical and particulate aerosol study. The topic and manuscript are thus worthy of consideration by ACP. I found the paper to be relatively strong technically and the figures very clear and legible (my technical notes are attached).

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My recommendation is that the paper be published after minor revisions.

My primary points of concern are:

1) The paper really lacks a hypothesis. As such, it reads more as a technical report, which is ultimately fine. I suspect that the impact of this paper will be found as a strong reference set of measurements to characterize a major urban center on the eastern side of the South China Sea. But, authors would be wise to reconsider motivation and establish some binding question that makes these measurements wholly unique. To that end, and as I'll point out again below, regional transport is something that the Taiwanese groups have been looking at for decades now. Perhaps this isn't technically SE Asia. But, there is a large body of work (start with N. C. Lin) showing transport from the mainland over the ocean, chemical morphology, size information, and vertical/radiative properties.

2) I found the discussion in P18/19 to be really clumsy. This simple premise that precipitation is enough to scavenge significant portions of the regional aerosol mass is very coarse. Sure, aerosol transport correlates most strongly with dry air mass movement. But, in SE Asia, particularly seasonally, the pall is immense and omnipresent. This discussion needs to be reconsidered complete. And, again, some consideration of Taiwanese experiments looking at transport from the mainland is surely relevant context to what is being seen in the Philippines.

3) Redefine your acronyms in the Conclusions, in the event that your reader only reads those summary points and nothing else.

I found the paper to be very well written, otherwise. Good luck.

Please also note the supplement to this comment:

<https://www.atmos-chem-phys-discuss.net/acp-2019-270/acp-2019-270-RC2-supplement.pdf>

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