Interactive comment on “Characterization of ambient aerosols in Mexico City during the MCMA-2003 campaign with Aerosol Mass Spectrometry – Part I: quantification, shape-related collection efficiency, and comparison with collocated instruments” by D. Salcedo et al.

Anonymous Referee #1

Received and published: 26 July 2005

Regarding the comments of the ACP special editor, as a reviewer of Salcedo et al. Parts I and II I would like to respond to the various points raised by the editor.

1.) My decision to reject Part I and recommend substantial revision to Part II was
not connected in any way to the authors’ decision to submit two manuscripts labeled as parts I and II. My perspective on multiple part papers is expanded in (3) below. The decision to reject Part I was based strictly upon the ACP reviewer guidelines and the description of ACP’s focus. Under “Scientific Significance” the reviewer is asked: “Does the manuscript represent a substantial contribution to scientific progress within the scope of Atmospheric Chemistry and Physics (substantial new concepts, ideas, methods, or data)?” In my opinion, Part I clearly did not meet these criteria as it is only a technical report with no substantially new concepts, ideas, methods or data. In addition, I could not see that it would necessarily contribute anything to the Part II paper since the results that were presented in the second Part did not appear to need the information presented in Part I in order to interpret the results.

With respect to ACP’s focus, on the web page it states “Atmospheric Chemistry and Physics (ACP) is an international scientific journal dedicated to the publication and public discussion of high quality studies investigating the Earth’s atmosphere and the underlying chemical and physical processes. 1. Subject: Gases, Aerosols, Clouds and Precipitation, Isotopes, Radiation, Dynamics, Biosphere Interactions, Hydrosphere Interactions. 2. Research Activity: Laboratory Studies, Field Measurements, Remote Sensing, Atmospheric Modelling.”

I note here that there is nothing that specifies instrumentation unconnected with any science. I concur with the editor who says “Technical information: While the scope of ACP is certainly not focused on purely technical papers, it does not exclude them either, but explicitly offers the option to publish technical notes reporting "significant advances and novel aspects of techniques and methods relevant for scientific investigations within the journal scope". Too often in the past, exciting new measurement techniques have been published in engineering journals where their scientific importance may not be recognized until some time afterwards. Had the paper in question been the introduction of the AMS for the first time, it would have clearly met the editor’s criteria.
2) Regarding the editor’s comment “Particularly within special issues, such as the MCMA 2003 special issue to which the papers by Salcedo et al. belong, it can be appropriate to present technical information”. I have looked at the ACP web site to understand better how special issues should differ from any other issue of ACP with respect to their content or quality and can find only that “The interactive scientific journal Atmospheric Chemistry and Physics (ACP) and its discussion forum Atmospheric Chemistry and Physics Discussions (ACP) offer an efficient new way of publishing special issues for measurement campaigns, conferences, etc. The individual papers are published as soon as available, labeled as part of the special issue and linked electronically”.

Given that there are no other guidelines that distinguish special issues from the normal submissions; I interpret the editor’s comments to mean that it is the editor’s prerogative to accept manuscripts that would not normally be within the ACP focus or of the same quality. If this is the case, then perhaps reviewers should be given additional guidance when asked to review articles to be submitted to a special issue. I am somewhat surprised that so few papers have been submitted from what appears to have been a fairly large and heavily funded campaign. I was also expecting to see some type of overview document that provides the list of scientific questions that were going to be addressed and the measurement strategy that would be used to evaluate the success of the scientific investigations. I have now read all four papers that have been submitted to the special issue and none of these four seems to present a clear picture of what the actual focus of the project was. There are some very sweeping, general statements about the objectives of the project, but their lack of specificity with respect to the science that was being addressed left this reviewer none the wiser.

3) In my opinion, there are two reasons to label a series of papers Part I, Part II, etc. In both cases, the papers must be linked by a central idea, i.e., a central scientific core question or questions. When multiple parts are included in the same issue of a journal, it is because the science being addressed has been broken into distinct parts,
e.g., measurements and modeling, and each paper is written by a separate author, although some of the coauthors may be the same. I can’t recall ever seeing multiple part papers in the same issue of a journal with the same first author.

The second reason for multiple parts is in order to maintain the same, scientific thread over an extended period of time. A good example of this is the series of papers by Flossmann et al. on modeling of clouds and chemistry. The central theme was the same, i.e. modeling of aerosol/cloud interactions. A number of years were needed to present different simulations that attacked different aspects of the problems. Each paper built on the previous one, but was distinct by itself. The purpose of labeling them as Parts was to emphasize their linked nature.

Interactive comment on Atmos. Chem. Phys. Discuss., 5, 4143, 2005.