

Interactive comment on “Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES)” by R.A. Zaveri et al.

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Received and published: 22 May 2012

I am extremely grateful to the referees for dedicating their time and effort into reviewing the manuscript and appreciate that their concerns have some validity. However, I feel that the major criticisms and recommendations are more applicable to a general submission to ACP and less to a special issue submission. This is largely the result of referees being provided with no clear guidelines providing specific terms of reference for overview papers for which I must accept responsibility on behalf of ACP.

It is clearly necessary in a special issue of this nature addressing a large-scale field measurement campaign for a paper providing an overview of the experiment. Such a paper should provide a coherent description of the project objectives, a campaign summary and a context for some of the major findings.

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Both referees advise that the paper does not present clear scientific conclusions and recommend resubmission at a later date with more mature findings. To follow such a recommendation would ensure that there was a significant delay in publication and diminish the worth of the paper in three important regards:

i) the paper provides a description of material to which all subsequent papers in the special issue can refer without repetition. This is a necessary function for the special issue.

ii) readers are provided with a rounded summary of the objectives, context and expectations of what may be found in subsequent papers. Without such an introductory summary, it would be necessary to wait for this until after most of the other papers have been published. Throughout the editorial process of these subsequent papers, referees and readers alike would only have a piecemeal appreciation of the science without such an overview.

iii) a single "one-stop-shop" for all the goals and achievements early on in a project can serve as a catalyst for further analyses and seed ideas for novel studies.

To this end, I am inclined to support publication of the manuscript. However, the authors should bear in mind the concerns of the referees in their revision of the manuscript. In particular:

a) The aims of the paper should be clearly spelt out at the head of the introduction and summarised in the abstract such that the expectations of the readership are satisfied by the content of the paper. It should be remembered that "overview" papers are sometimes published at the end of a special issue, summarising the main mature findings of the project. A future reader seeking a final summary of the conclusions of the project should not mistakenly identify this paper as providing them.

b) There are several elements of data analysis and discussion of initial findings throughout the paper. These main initial findings and scientific highlights should be brought

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together and compiled in a new "Summary and Conclusions" section, currently lacking in the manuscript; clearly outlining where the future work and expected directions should take the analyses in the context of the project objectives.

c) some account of the referees' criticisms of the length and scope of the paper should be addressed, perhaps by reducing the lengthy discussion of the philosophy, motivation and background by referring to the available ARM documentation and other material on the web. More brevity in this regard need not diminish the worth of the paper. In addition, it would undoubtedly be appreciated if the authors could further identify ways that the paper could be made to read less like a report without compromising points i) to iii) above.

d) the authors should respond to the specific comments of referee 1.

In summary, for the purposes of the timely publication of a project overview, I do not feel that the lack of completely mature novel scientific findings invalidates the worth of the paper. Indeed, the lack of an early overview would add significant burden to the other papers in the special issue. I recommend publication of the manuscript once the authors have addressed the points above.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 1299, 2012.