

Interactive comment on “Preliminary results from the FARCE 2015 campaign: multidisciplinary study of the forests–gases–aerosols–clouds system on the tropical island of La Réunion” by Valentin Duflot et al.

Anonymous Referee #1

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The authors state that this manuscript "intends to describe the Reunion FARCE campaign set up, and to provide the preliminary results. . .". While not a traditional scientific paper, it is understandable that this kind of papers are written in relation to large research projects. My problem here is that FARCE appears not to be a large research project, but rather an exploratory field campaign somehow related to two other, larger projects that are either ongoing (OCTAVE) or to be started soon (Biomaido). It remains unclear to me whether the preliminary results reported here are relevant only the FARCE campaign, or whether this paper could also serve as a basis for the two

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other projects. In the former case, I am a bit skeptical about the usefulness of this paper. In any case, I think that this paper should be shortened to some extent, as suggested below. An addition to this, I have a few scientific and technical issues that should be taken care of before accepting this paper for publication.

Suggestions for shortening the paper

The introduction of this paper is relatively well written, but it also contains review-type material (e.g. SOA formation pathways) that has very little to do with the current paper. I would recommend removing some of this material from the paper.

Section 3 is well written but rather long. If this section is only for the purpose of this paper, it should be shortened. If it is meant to be a reference for later papers related to the 2 large research projects conducted at this site, then this section is acceptable as it is.

Concerning the preliminary results, I do not see section 4.4 useful at all. Sections 4.3 and 4.5.3 seem overly long to me.

I do not see Figure 10 or 11 useful.

Scientific issues

Page 2, line 28: What is meant by "primary cloud particles"?

Page 15, lines 11-15 and page 16, lines 17-18. Based on Figures 6 and 9, it is not correct to claim that measured and modeled isoprene concentrations are in good (or remarkable) agreement each other. Also, nothing can be said about the correlation between different quantities based on so few measurement points for isoprene.

Technical issues

Pge 18, line 25: For contrast -> In contrast

Several of the figures are either technically poor (e.g. missing axes in figs. 2 and 3)

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or have a figure caption short of information about the contents of the figure (in figure 6, there is even something wrong in the description of the two lowest figure panels).

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2019-341>, 2019.