Atmos. Chem. Phys. Discuss.,
doi:10.5194/acp-2015-1048-AC1, 2016

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Two global climatologies of daily fire emission injection heights since 2003" *by* S. Rémy et al.

S. Rémy et al.

samuel.remy@ecmwf.int

Received and published: 18 October 2016

Dear Editor and Reviewers,

Please find attached our answer to your reviews. A revised manuscript (with many important modifications) is ready to be uploaded.

Kind regards, the authors

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2015-1048, 2016.

Printer-friendly version

Discussion paper

Answer to the reviews of ACP-2015-1048 « Two global datasets of daily fire emission injection heights since 2003»

Dear editor, dear reviewers,

Thank you for your review of the manuscript: the numerous corrections and suggestions have led to an improvement in the quality of the paper. We understand the need to restructure the paper and shorten it so as to make its focus clearer. Please note that the title of the paper has been amended. More detailed answers to your comments are detailed below.

Kind regards,
The authors

General comment by Anonymous Referee #1 :

In the following I will make a detailed suggestion for a revised version and highly encourage the authors to re-submit their important description of the new created input data for the modelling community.
(...)

The manuscript was restructured along the lines suggested. Figures 2 and 4 have been removed and Figure 3 was reduced in size (4 panels instead of 6), as we felt that the comparison of the output of the PRM and IS4FIRES algorithm against boundary layer height was important to better understand how the two algorithms work.

The description of the C-IFS model has been added to the second section named "Methodology: models and data", with a paragraph on the computation of extinction and optical depth. A sketch has been included to explain in a simple way how the output and input of the two algorithms.

Figures 14-16 and the corresponding section have been removed from the manuscript.

Specific comments :

Abstract: Explain IS4FIRES. Please check the wording semi-empirical and analytical FRP??PRM. PRM is a numerical not an analytical model. Change 0.1
◦ resolution into 0.1◦resolution. Give the name of the new data set of satellite-based plume height observations. Add 'instead of zero plume height or IS4FIRES in the last sentence of the abstract.

The abstract has been modified and corrected along these lines. IS4FIRES is not really an acronym; the full name of the model was given.

Fig. 1.

Printer-friendly version

Discussion paper