

Interactive comment on “Airborne verification of CALIPSO products over the Amazon: a case study of daytime observations in a complex atmospheric scene” by F. Marenco et al.

Anonymous Referee #1

Received and published: 2 May 2014

The paper presented by Marenco and collaborators is interesting and bring data about a region which is of a major interest due its features. The text is well structured however it deserves some revision to give the text more fluency. There are some scientific issues which demand more attention and should be brought into a new version of this paper:

a) The dataset presented is limited as the authors claim themselves (Conclusion Line 14) so in this respect more analysis should be carried on from the airborne system and CALIPSO itself - the latter could be used as a "climatological" filter from all the overpasses it made since 2006, to the former could be added more ancillary dataset

C2032

as photometers, radiometers and so on in order to give more ground to the overall and specific conclusions the authors try to reach.

b) Comparing the green channel from CALIPSO and the UV channel is a risk task as some of the aerosol present could be UV absorbing.

Figure 4 a - The mean value does not seem correct specially at 2000-3000 m range.

Throughout the text there are many colloquial language uses which should be avoided:

Page 9208 Line 10, line 21 Page 9211 line 05

In the Conclusion section the authors claim that "Whereas the present dataset is limited and no general conclusions have to be drawn from it, we believe that it is a useful comparison and that it may help identify some critical points and develop further verification experiments." which grades the paper poorly and a compromise should be reached.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 9203, 2014.