

Interactive comment on “On the use of ATSR fire count data to estimate the seasonal and interannual variability of vegetation fire emissions” by M. G. Schultz

Anonymous Referee #3

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General comments:

The paper of M.G. Schultz proposes a method for the derivation of the interannual variability of global biomass burning emissions from active fire detection. The author emphasises the lack of consistent data set to estimate biomass burning emission at a global scale. Consequently, active night time fires detected with the ATSR2 instrument are proposed as a proxy, regardless of all the uncertainties inherent to this proxy. The proposed method relies therefore on many assumptions, not always fully discussed. Despite these limitations, the major merit of the paper is to stress 1) the need for global estimation of biomass burning emission and 2) the lack of consistent global data to derive such information. This is a clear message to the community involved in the

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derivation such product who has failed so far to design algorithm capable of achieving this objective. These two points are extremely relevant and justify the publication of the paper.

Specific comments:

1. Section 3, page 1166, line 18. Where does the standard inventory come from?
2. Section 3, page 1166, line 25. To what extent the 1998 20% increase is significant and could be related to the last "La Nina" event.
3. Section 4 : Discussion. The reasons for the 1998 increase are not discussed.
4. Section 5, page 1169, line 16. The sentence "This would allow for a direct ... climatological inventory" is wrong. Neither burned area map such as GBA2000 nor the MODIS Vegetation Cover Change product provide a direct estimate of emissions.

Interactive comment on Atmos. Chem. Phys. Discuss., 2, 1159, 2002.

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