Atmos. Chem. Phys. Discuss., 7, S2369–S2370, 2007
www.atmos-chem-phys-discuss.net/7/S2369/2007/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Atmospheric effects of volcanic eruptions as seen by famous artists and depicted in their paintings" *by* C. S. Zerefos et al.

Anonymous Referee #2

Received and published: 9 June 2007

General vote

The manuscript is acceptable for publication after minor revision.

Synopsis

Zerofos et al. analyse the red-to-green ratio in paintings of sunsets from four centuries. They show that this ratio is particularly high after major volcanic eruptions. Based on radiative transfer simulations they estimate the aerosol optical depths and compare their results with another volcanic index (DVI).

General remarks

This is an very interesting manuscript with a novel approach to estimate historic aerosol

optical depths, hence giving historic climatological data a wider basis of proxy data. The paper is well written. It should be published after minor revisions.

Minor remarks

a. page 6150, line 26 to page 5151 line 2: The sentence "The numbered peaks in that figure correspond ..." should be moved to the corresponding figure caption.

b. p 5152, l 22 - 23: The sentence "The numbers on the DVI histogram refer to the same major volcanic eruptions outlined in Fig. 2." should be moved to the corresponding figure caption.

c. Figs. 3 and 4: Use dashed lines to connect the data points form the non-volcanic cases.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 5145, 2007.