

Interactive comment on “Could aerosol emissions be used for regional heat wave mitigation?” by D. N. Bernstein et al.

P. Irvine

p.j.irvine@gmail.com

Received and published: 22 October 2012

What is the injected aerosol mass in the region? from a rough calculation it appears to be enormous: $30 \text{ E-9 Kg m-2 s-1} * (\text{assumed regional area: } 1000\text{km} * 1000 \text{ km}) = [1 \text{ E12 m2}] * \text{day} = [86400 \text{ s}] = 2.592 \text{ E9 Kg day-1} = 2.6 \text{ MT/day!}$ some comment on the magnitude of the injected aerosol is needed. This is such a vast quantity of material that it must weigh heavily on the answer to the question that the article asks. X Mt per YEAR is the order of magnitude that has been suggested for offsetting global warming with stratospheric aerosol injection and the feasibility of this scale of aerosol injection is questioned.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 23793, 2012.

C8473