**Atmospheric
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Discussions**

Interactive
Comment

Interactive comment on "On the variability of the Ring effect in the near ultraviolet: understanding the role of aerosols and multiple scattering" *by* A. O. Langford et al.

A. O. Langford et al.

Received and published: 22 December 2006

Dr. Sioris' comments are shown in italics with our response in normal type.

It is my understanding that equation 3 assumes that the second order Raman scattering is occurring at the same altitude as the first order scattering. This is an approximation. Ideally, the Fl2 calculation at layer z should consider the Fl1 integrated over all scattering angles AND LAYERS and should consider the transmission between the multitude of scattered light source locations and the second scattering locations. "The resultant Fl is integrated over all scattering angles for the first event, with the second scattering angle constrained by the first scattering angle and the SZA." This approximation could be noted in the paper.

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Dr. Sioris is correct regarding this approximation implicit in equation (3). This has been noted in the text.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 10153, 2006.

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