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## ***Interactive comment on “Comparison of UV-RSS spectral measurements and TUV model runs for clear skies for the May 2003 ARM aerosol intensive observation period” by J. J. Michalsky and P. W. Kiedron***

**J. J. Michalsky and P. W. Kiedron**

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Referee #2 makes a salient point that the model inputs are not derived from radiation measurements, but are independent of them. He also states that the paper presents a sensitivity analysis regarding aerosol properties in the UV that can be used to determine those properties. The reviewer notes that the comparisons are for both the direct and diffuse, which must each be satisfied.

17403, 29: Changed to include that sensitivity of agreement to aerosol properties was a major emphasis.

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17406, 17: We originally used 0.034 and have included an explanation regarding this in the paper because of comments by Referee #1. It was suggested to us that we change to 0.015 after we were referred to the McKenzie et al. (1996) and Feister and Grewe (1995) papers, which measure about 0.015. We subsequently made broadband measurements covering this region of the spectrum after the growing season when vegetation may have increased its reflectivity somewhat and still only measured about 0.02. Our choice of 0.015 seems reasonable.

17408, 12: We have changed the wording to state that the agreement is within the uncertainty of the measurements. We do not wish to plot these or compare these in percent differences because it artificially exaggerates the differences given the very low values in the shortest UV wavelengths. We think that the average reader will clearly comprehend the differences using the present plots.

17409, 2: However, we can combine Figure 3 with Figure 2.

17409, 25: Added sentence to text explaining that a bias in measurements is also a possibility.

All technical corrections asked for were made.

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Interactive comment on Atmos. Chem. Phys. Discuss., 7, 17401, 2007.

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