

Interactive
Comment

Interactive comment on “Middle atmosphere response to different descriptions of the 11-yr solar cycle in spectral irradiance in a chemistry-climate model” by W. H. Swartz et al.

W. H. Swartz et al.

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We greatly appreciate the constructive comments by Referee #2 (Anonymous). The revised manuscript for ACP submission incorporates the following responses. Quotations from the revised manuscript appear below in *italics*.

Minor Comments:

p. 5, l. 153. This has been clarified as suggested.

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p. 6, l. 175–6. The selection of solar max/min conditions is clarified in the manuscript as follows.

These two particular months were selected because they were close to solar max/min conditions, lie on a linear fit correlating the NRL SSI in the ultraviolet and $F_{10.7}$, and are separated by nearly 100 units of $F_{10.7}$. This allows the results to be interpolated or extrapolated approximately to other solar activity conditions, as the effects scale linearly over this range of magnitudes (not shown).

We used this approach so that we would not be biased by month-to-month “noise.” And since we scale our results to 100 SFU, we figured it was not necessary to select conditions exactly at solar max/min.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 7039, 2012.

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