

Interactive comment on “On the relative roles of dynamics and chemistry governing the abundance and diurnal variation of low latitude thermospheric nitric oxide” by David E. Siskind et al.

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We thank the reviewer for his comments and careful read of the manuscript and apologize for the myriad of typos in the reference list. We have tended to most all of the suggested editorial changes, including the addition of a small section describing the TIME-GCM. In particular, we thank the reviewer for catching our error in plotting the A_p index in Figure 1b (we had K_p , not A_p). We do not label the axes since they are unit-less, but we added a line in the text on page 3 (line 12) stating where we obtained the values. We clarified the solar/geophysical variability by giving reference to a US government web site which displays the variation of F107 and A_p over the last 11

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years (<https://www.swpc.noaa.gov/products/solar-cycle-progression>). We also clarified the differences in the literature concerning $N(2D)$ quenching by O, added the Marsh and Russell GRL (2000) citation, added a sentence to support the approach we used to improve the O-atom agreement with the data, explained how Figure 8 was produced and added an explanation of the zonal wind comparison in Figure 9. We also cleaned up the reference list and added the requested axis labels and color bar to the figures.

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