

Abstract Submitted  
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**Simulating the viscous interaction under a variety of solar wind conditions, with some comparisons to satellite data**<sup>1</sup> ROBERT BRUNTZ, RAMON LOPEZ, MICAH WEBER, UT Arlington, JOHN LYON, Dartmouth College, MICHAEL WILTBERGER, NCAR/HAO — The viscous interaction is a mode of energy transport between the solar wind and Earth's magnetosphere. Its effects are often difficult to isolate from other effects in in-situ measurements. Therefore, it can be useful to simulate the viscous interaction under a variety of solar wind conditions, especially since those conditions are often impossible to find in satellite data. We have used the Lyon-Fedder-Mobarry simulation to look at the viscous potential in Earth's ionosphere for a variety of solar wind velocities, densities, and magnetic field strengths. Where possible, we have compared those results to low and high altitude satellite measurements.

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