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Characterizing Periodic Magnetospheric Behavior Through MHD Modeling[1] JORGE LANDIVAR, ROBERT BRUNTZ, RAMON LOPEZ, UT Arlington — While studying periodic substorms, we found magnetospheric oscillations that share some characteristics with periodic substorms in the Lyon-Fedder-Mobary (LFM) global magnetospheric simulation. These events were found under steady solar wind driving, so the oscillations did not arise directly from period behavior in the solar wind. This study attempts to characterize the oscillations using the solar wind inputs and the inputs to the LFM ionospheric model. We will look at the effects on the oscillations from solar wind particle density, magnetic field, and velocity and the ionospheric conductivity from the perspective of periodic substorms.

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