Abstract

In this talk I will review several aspects of energy transfer from the solar wind to the magnetosphere and the dissipation of energy in the magnetosphere and ionosphere during magnetic storms.  The main source of energy is in the kinetic energy of the solar wind flow and the main regions of dissipation are in the ionosphere and the ring current.  Energy is dissipated in the ionosphere through joule heating.  The energy dissipated in the ring current can be estimated using the Dessler-Parker-Skopke relationship.  Actually, it is in the ionosphere where most of the energy during a magnetic storms is dissipated, which suggests that an energy based ranking of storms would include both dissipation in the ionosphere and the ring current as a measure of storm intensity.