The Solar and Interplanetary Causes of Magnetic Storms, Substorms and Quiet

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We review the solar and interplanetary causes of magnetic storms during solar maximum and solar minimum, continuous substorms during solar maximum and in the declining phase, and a method of predicting geomagnetic quiet throughout the solar cycle. We will discuss solar and interplanetary conditions which lead to the largest storms (superstorms) at Earth. Finally, we will discuss a model of interplanetary shock triggering of substorms and pseudobreakups. The model contains dayside magnetic reconnection to (plasma) load the near-Earth plasma sheet, but does not require nightside reconnection for substream onset.