Title: A Revolutionary Aeronomy Concept to Explore the Coupling of the Solar-Terrestrial System

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Abstract: A revolutionary opportunity to explore the consequences of reconnection in the ionosphere as never before will be presented. It is a revolutionary opportunity to explore key Aeronomy emissions on a global scale with spatial and temporal resolution not possible today. For example, observations of the signature of dayside merging and nightside reconnection that are reflected in the auroral oval evolution during disturbed periods and quiet times, will be described; observations that will open a window of discovery for coupling phenomena within Geospace and with the solar wind. The description of this new concept will be presented, and its impact and contribution to understanding magnetic merging will be discussed.