

ICESTAR: DEPLOYING A VIRTUAL GEOPHYSICAL OBSERVATORY AND DATA PORTAL AT A SMALL LIBERAL ARTS COLLEGE

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Studies of the polar upper atmosphere fundamentally require international collaboration, and the Virtual Observatory (VO) paradigm is ideally suited to enable such coordinated efforts. However, even though VOs and distributed data systems (DDS) are critical in facilitating the sharing and interpretation of global geospace datasets, the design and implementation of a VO/DDS is often expensive and requires technical expertise beyond that of many smaller institutions. Currently, the Interhemispheric Conjugacy Effects in Solar-Terrestrial and Aeronomy Research (ICESTAR) community is assessing various VO/DDS models, and we describe one such ongoing initiative that addresses the obstacles stated above by employing legacy code, open source software, and the ability to incorporate a variety of commonly used software packages (e.g., IDL, Matlab). This VO/DDS has visualization and data translation modules that allow users to examine and download data in a variety of formats. The requirements and protocols necessary to ensure successful data exchange, distribution and visualization between other VOs are further explored.