**Mid-Latitude SuperDARN Radar Infrastructure for the Study of Ionospheric Electrodynamics and Atmospheric Processes on Global Scales**

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**Mid-Latitude Radar Chain**

Field of views from the completed chain of eight HF SuperDARN radars located at mid-latitudes providing coverage from Japan to Western Europe.

**Mid-Latitude Near-Earth Science**

Schematic representation of magnetosphere-ionosphere coupling from the ionosphere/upper-atmosphere perspective which shows some phenomena of interest, including magnetospheric plasma convection mapped into the ionosphere, density structuring of both the ionized and neutral gases, large-scale features such as the ionospheric trough and low-latitude density crests, inter-median-scale plumes and gravity waves, small-scale irregularities, and subauroral flow enhancements (electric fields). (Courtesy of J. Grabowsky)

**Global-Scale Plasma Convection**

Example 2-min plasma convection map from high-latitude SuperDARN HF radars.

**Site Survey at FHSU**

View of the first radar site on Fort Hays State University land, looking south from the nexus.

**A Finished Radar**

Transmitters and electronics at the Wallops Island radar.

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