

Role of the Japanese SuperDARN network in the VarSITI Program

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The Super Dual Auroral Radar Network (SuperDARN) is a network of HF radars operated under the international collaboration of 12 countries. At present, total of 33 radars have been operating in both hemispheres, monitoring important ionospheric parameters such as the global convection pattern and plasma density perturbations with high time (1 to 2 min) resolution. In addition to normal operation modes, SuperDARN frequently operates special observation modes for conjunction studies with spacecraft programs, such as THEMIS, VAP and ERG missions. Japan has been operating total of 4 radars in Antarctica, Alaska and Hokkaido, contributing to the operation of the network. Judging from the characteristics of the network, it is expected to play important roles in several projects of the VarSITI programs, such as: ISEST (International Study of Earth-affecting Solar Transients/MiniMax24), SPeCIMEN (Specification and Prediction of the Coupled Inner-Magnetospheric Environment), and ROSMIC (Role Of the Sun and the Middle atmosphere/ thermosphere/ionosphere In Climate). Details of the SuperDARN network's role in the VarSITI program will be presented.

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