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Current status of Program of the Antarctic Syowa MST/IS radar

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http://pansy.nipr.ac.jp

PANSY is a plan to introduce the first MST (Mesosphere-Stratosphere-Troposphere) /IS (Incoherent Scatter) radar, which is a VHF monostatic pulse Doppler radar, in the Antarctic to Syowa Station (39E, 69S) as an important station observing the earth's environment with the aim to catch the climate change signals that the Antarctic atmosphere shows. This radar consists of about 1000 crossed Yagi antennas having a power of 500kW which allows us to observe the Antarctic atmosphere in the height region of 1-500 km. The interaction of the neutral atmosphere with the ionosphere and magnetosphere as well as the global-scale atmospheric circulation including the low and middle latitude regions are also targets of PANSY. The observation data with high resolution and good accuracy obtained by the PANSY radar are also valuable from the viewpoint of certification of the reality of phenomena simulated by high-resolution numerical models. The current status of this project is reported here.