

Current status of the ground-based multi-point network by the PWING Project and the Optical Mesosphere Thermosphere Imagers (OMTIs)

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The PWING project (study of dynamical variation of Particles and Waves in the INner magnetosphere using Ground-based network observations, 2016-2020) deploy all-sky airglow/aurora imagers, 64-Hz sampled induction magnetometers, 40-kHz VLF receivers, and 64-Hz riometers at 8 stations at magnetic latitudes of ~60 degree around the north-pole to cover longitudinal variation of aurora and electromagnetic disturbances in the inner magnetosphere. The Optical Mesosphere Thermosphere Imagers (OMTIs) consist of 21 all-sky cooled-CCD imagers, 5 Fabry-Perot interferometers, 3 airglow temperature photometers, and 3 meridian-scanning photometers to measure two-dimensional airglow images in the mesopause region and in the thermosphere, wind and temperatures in the lower thermosphere, and airglow rotational temperatures in the mesopause region. These PWING and OMTIs instruments are in automatic operation at various locations from high to equatorial latitudes in Canada, US (Alaska), Russia, Norway, Finland, Iceland, Japan, Thailand, Indonesia, Nigeria, and Australia. In the presentation, we introduce current status and recent major results obtained by these multi-instrument ground networks around the world. Details of the PWING project and OMTIs can be seen at http://www.isee.nagoya-u.ac.jp/dimr/PWING/PWING_web_e.htm and at <http://stdb2.isee.nagoya-u.ac.jp/omti/>, respectively.

Keywords: multi-point ground network, Optical Mesosphere Thermosphere Imagers, PWING Project