

PEM036-06

Room: Function Room A

Time: May 25 12:00-12:15

Ground network observations of the thermosphere and the mesosphere by the Optical Mesosphere Thermosphere Imagers

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The Solar-Terrestrial Environment Laboratory, Nagoya University, has operated the Optical Mesosphere Thermosphere Imagers (OMTIs). The OMTIs consist of 13 all-sky cooled-CCD imagers, four Fabry-Perot interferometers (FPIs), three meridian scanning photometers, and four airglow temperature photometers. They measure two-dimensional pattern, Doppler wind, and temperature through airglow emissions from oxygen (wavelength: 557.7 nm) and OH (near infrared band) in the mesopause region (80-100 km) and from oxygen (630.0 nm) in the thermosphere/ionosphere (200-300 km). The OMTIs are in automatic operation at Norway, Australia, Indonesia, far-eastern Russia, four stations in Japan, and two stations in Canada. In 2010, three Fabry-Perot interferometers will be installed in Thailand, Indonesia, and Australia, to measure thermospheric neutral wind pattern at two pairs of geomagnetic conjugate stations at low latitudes. We contribute the ISWI and CAWSES-II international projects through these ground-network measurements by OMTIs.

Keywords: Upper Atmosphere, airglow, Fabry-Perot interferometer, ground network observation, CAWSES-II, ISWI