Ground network observations and database of the Optical Mesosphere Thermosphere Imagers and induction magnetometers

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The Ionospheric and Magnetospheric Environment Division II of the Solar-Terrestrial Environment Laboratory, Nagoya University, has operated the Optical Mesosphere Thermosphere Imagers (OMTIs) and induction magnetometers at several stations in the world. The OMTIs consist of nine all-sky cooled-CCD imagers, a Fabry-Perot interferometer (FPI), 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). They are in automatic operation at Australia, Indonesia, far-east Russia, four stations in Japan, and two stations in Canada. In 2008, 4 Fabry-Perot interferometers will be newly installed in EISCAT-Tromso site, Thailand, Indonesia, and Australia. The induction magnetometers are in operation at a subauroral station in Canada, far-east Russia, and two stations in Japan. Quick-look plots of all the data from these instruments are opened by web sites at http://stdb2.stelab.nagoya-u.ac.jp/omti/ and at http://stdb2.stelab.nagoya-u.ac.jp/magne/ to stimulate collaborative researches.