超高層大気イメージングシステムによるオーロラ帯付近での熱圏・電離圏の撮像観測

塩川 和夫 [1]; 大塚 雄一 [1]; 大山 伸一郎 [2]; Connors Martin[3]
[1] 名大 STE 研; [2] 名大・太陽研; [3] Centre for Science, Athabasca Univ.

Imaging observation of thermosphere and ionosphere near the auroral zone using the Optical Mesosphere Thermosphere Imagers (OMTIs)

Kazuo Shiokawa[1]; Yuichi Otsuka[1]; Shin-ichiro Oyama[2]; Martin Connors[3]
[1] STEL, Nagoya Univ.; [2] STEL, Nagoya Univ.; [3] Centre for Science, Athabasca Univ.

http://stdb2.stelab.nagoya-u.ac.jp/omti/index.html

The Optical Mesosphere Thermosphere Imagers (OMTIs) consists of 14 airglow imagers, 5 Fabry-Perot interferometers (FPIs), 3 airglow temperature photometers, and 3 meridian-scanning photometers to measure dynamical variations of the mesosphere, thermosphere and ionosphere through airglow emissions. Two imagers and an FPI are located in and near the auroral zone at Athabasca (imager #7), Canada and Tromsoe (imager #12 and FPI #01), Norway. These imagers observe gravity waves in the mesopause region and nighttime medium-scale traveling ionospheric disturbances (MSTIDs) in the thermosphere/ionosphere as well as neutral wind variation in the lower thermosphere. These phenomena show characteristics different from those observed at middle and low latitudes. In this presentation we show the differences of the waves and disturbances in the mesosphere and thermosphere in/near the auroral zone, and discuss their importance in the dynamics of the upper atmosphere and magnetosphere-ionosphere coupling processes.