超高層大気イメージングシステムによる東南アジア・アフリカでの熱圏・電離圏の撮像観測

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Imaging observation of thermosphere and ionosphere in South-East Asia and Africa using the Optical Mesosphere Thermosphere Imagers

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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. In South-East Asia/Oceania and in Africa, three imagers are located at Kototabang (Indonesia), Darwin (Australia), and Abuja (Nigeria), and two FPIs are at Kototabang and Chiang Mai (Thailand). These instruments observe gravity waves in the mesopause region and plasma bubbles and nighttime medium-scale traveling ionospheric disturbances (MSTIDs) in the ionosphere as well as neutral wind variation in the lower thermosphere. In this presentation we show current status of these optical instruments and their contribution to understand the dynamics of the upper atmosphere and to capacity building in developing countries.