

Observations of upper atmospheric temperature by sophisticated lidar system in the equatorial region

Chikao Nagasawa[1]; Makoto Abo[2]; Yasukuni Shibata[3]

[1] Electrical Eng., Tokyo Metro. Univ.; [2] Dep. Electrical Eng., Tokyo Metropolitan Univ; [3] Dept. EEI., Fac. of Eng., Tokyo Metro. Univ.

The multi-purpose lidar system for survey of atmospheric structure over troposphere, stratosphere, mesosphere and low thermosphere over Kototabang (100.3E, 0.2S), Indonesia in the equatorial region has been constructed. In this paper, we report preliminary results of the Rayleigh lidar for stratospheric and mesospheric temperature measurements and the Fe Boltzmann lidar for temperature measurements in the mesopause region. It appeared that the upper atmospheric temperature profiles from 40km to about 75km altitude can be observed by this Rayleigh lidar.