

Observations of stratospheric aerosol and temperature structure by sophisticated lidar system at the equatorial region

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The sophisticated 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. The Rayleigh and Raman lidar are used for stratospheric and mesospheric temperature measurements. We added polarization receiving system for cirrus / stratospheric aerosol observation and receiving system of nitrogen Raman signal for temperature observation of an altitude of 10-40km. We report the upper atmospheric temperature profiles and highly precise observation of cirrus cloud.