

Current status of the NICT boundary layer remote-sensing project

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Importance of atmospheric observations in city and local area has been increasingly stressed recently; e.g., urban air pollution, heat island and associated circulation, and strong down pour in a small area have resulted in severe damages on human, social, and economic activities.

In an urban region such as the land covered by man-made architecture, the behavior of the boundary layer has not yet been understood well enough especially in terms of vertical or 3-D structure of the atmosphere,

because of a lack of continuous and dense measurement techniques. The NICT's new project started 2006, to develop new Doppler lidars and wind profiler radars which are capable and suitable to observe vertical and 3D structures of the boundary layer and lower troposphere. Current status of the instrument development and preliminary results of 2006-2008 campaign observations will be introduced in the talk.