

Characteristics of reflectivity cores observed by Ku-band radar

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In Tokyo Metropolitan Area Convection Study(TOMACS) project, we installed a Ku-band radar in Musashino-shi, Tokyo in 2011 in order to clarify mechanisms of extreme weathers such as local heavy rain in an urban area. In this research, our main target is the motion of upper reflectivity cores, since motions of the reflectivity cores must affect the motion of the cumulonimbus itself.

On Sep. 1, 2012, many small cumulonimbi were generated all over Japan although there wasn't significant disturbance in a surface weather map. These were due to warm and humid air and an upper cold low, however, it is difficult to predict motions of cumulonimbi generated in such a condition. In this presentation, characteristics of heights and motions of reflectivity cores observed in this case will be shown.

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