

## Various common meteorological characteristics obtained by multiple observation results of downburst

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In recent years, it is eminent that the very severe damage caused by not only a synoptic atmospheric phenomenon such as typhoon or linear precipitation zone but also a localized extreme weather such as downburst or tornado. The observation technology of ground surface radar and satellite radar had developed remarkably. The radar which can observe the spatial and temporal structure of a localized extreme weather has appeared. But, the ground surface meteorological observation network which can sufficiently validate the observation result of meteorological radar has not easily appeared.

The high density ground surface meteorological observation network (POTEKA) of the North Kanto plain area observed multiple gust events which included the 3 eminent downbursts of F1 category (Fujita scale) / JEF1 category (Japan enhanced Fujita scale). These observation results revealed the various meteorological characteristics, for example, the ground surface meteorological change characteristic just under a downburst, the cumulonimbus advancing characteristic which caused a downburst, the existence of the divergent wind by a downburst and the horizontal scale of a downburst.

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