

Vertical wind measurement in the equatorial troposphere by the Equatorial Atmosphere Radar: A review

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Measurements of vertical wind are important not only for clarifying transportation processes of energy and momentums but also for quantifying dynamical processes of precipitation and clouds. Because 50-MHz atmospheric radars measure vertical and horizontal wind velocity by using scatterings caused by irregularities of radio refractive index, they can measure vertical wind both in clear and precipitation regions. Using the capability, EAR has resolved the fine-scale vertical wind motions in the equatorial troposphere. In the presentation, the measurement results of vertical wind obtained by the EAR are reviewed. Future plans of vertical wind measurement using the Equatorial MU radar are also proposed.

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