

A Review on Equatorial Atmosphere Radar (EAR) Observations of Lower Atmosphere

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The Equatorial Atmosphere Radar (EAR) is an atmospheric radar located in Kototabang, West Sumatra in Indonesia (0.20S, 100.32E). The EAR has a circular antenna array of approximately 110 m in diameter, consisting of 560 three-element Yagis. It is an active phased array system with each Yagi driven by a solid-state transceiver module. It is operated by collaboration between the Research Institute for Sustainable Humanosphere (RISH), Kyoto University and National Institute of Aeronautics and Space of Indonesia (LAPAN), Indonesia since 2001. RISH has conducted a collaborative research program (EAR collaboration) by using the EAR and its related facilities since 2005. The EAR can observe winds and turbulence in the lower atmosphere and echoes from ionospheric irregularities. In the presentation, observation results of the lower atmosphere with the EAR are reviewed.

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