

Classification of Precipitation Types Detected in Malaysia

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Abstract : The occurrences of precipitation, also commonly referred as rain, in the form of "convective" and "stratiform" have been identified to exist worldwide. In this study, the radar return echoes or known as reflectivity values acquired from radar scans have been exploited in the process of classifying the type of rain endured. The investigation use radar data from Malaysian Meteorology Department (MMD). It is possible to discriminate the types of rain experienced in tropical region by observing the vertical characteristics of the rain structure. .Heavy rain in tropical region profoundly affects radiowave signals, causing transmission interference and signal fading. Required wireless system fade margin depends on the type of rain. Information relating to the two mentioned types of rain is critical for the system engineers and researchers in their endeavour to improve the reliability of communication links. This paper highlights the quantification of percentage occurrences over one year period in 2009.

Keywords : stratiform, convective, tropical region, attenuation radar reflectivity

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