

Characteristics of warm season precipitation in the Australian Region

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Characteristics of warm season precipitation over the Australian region are inferred from five years of GMS satellite data (110-160E, 0-40S). Using the techniques of Carbone et al., (2002), coherent long-lived patterns of propagating events are revealed by Hovmöller diagrams. The propagation characteristics exhibit considerable latitudinal variation. The tropics are dominated by both eastward and westward moving modes and the subtropics by the eastward moving mode. Diurnal forcing is considerable, and strongly linked to land sea differences especially in the tropics. Distinct geographic variations in the forcing are also found in the subtropics and linked to orography.

The characteristics of the warm season precipitation are in many ways similar to those observed over North America and Asia. However differences do exist and these will be discussed using examples. Implications for numerical weather prediction will be discussed.