



The synoptic environment of MCS in an MJO active phase during the Cindy-Dynamo experiment

Jean Philippe Duvel (1) and Rémy Roca (2)

(1) CNRS, Laboratoire de Meteorologie Dynamique, Paris, France (jpduvel@lmd.ens.fr), (2) CNRS, LEGOS, Toulouse, France

We use satellite infrared data and meteorological analyses to study the origin of the organisation of the deep convection during the active phase of intraseasonal perturbations in the Indian Ocean. We first discuss the dynamical patterns of the three intraseasonal events that succeeded one another in time during the intensive observation period of the Cindy-Dynamo experiment (October to December 2011), and we compare them to canonical intraseasonal modes for this season. We then discuss how Mesoscale Convective Systems (MCS) are organized at the synoptic scale inside the active MJO envelope. These synoptic systems are either cyclonic vortex or local convergence areas associated with a transient low-level westerly jet. We discuss differences in the characteristic of these MCS (size, duration, etc.) as a function of their synoptic environment. Possible implications for the intraseasonal variability are also discussed.