



Intraseasonal tropical atmospheric variability forced by MJO sea surface temperature anomalies

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The major tropical convective and circulation features of the intraseasonal or Madden-Julian oscillation (MJO) are simulated as a passive response to observed MJO sea surface temperature (SST) anomalies in an atmospheric general circulation model (AGCM), strengthening the case for ocean-atmosphere interactions being central to MJO dynamics. However, the magnitude of the surface fluxes diagnosed from the MJO cycle in the AGCM, that would feed back onto the ocean in a coupled system, are much weaker than in observations. The phasing of the convective-dynamical model response to the MJO SST anomalies and the associated surface flux anomalies is too fast compared to observations of the (potentially) coupled system, and would act to damp the SST anomalies.