

# NOTES

**Key Behaviors:** --- Are these the things that CMMAP has advantage in studying? Are these the CMMAP foci?

1. Deep (moist) convection – don't forget frontal convection -- AND Shallow (aka Boundary Layer) Convection ---- these are about coupling of convection to larger-scale circulation
2. “Storms” (convective AND baroclinic) --- again coupling

**Key Statistical Relationships:** --- Metrics for Benchmark Runs? --- What kind of Runs?  
---- We don't do this but we **provide explanations** of what affects these relationships?

1. Diurnal Cycle (land-ocean)
2. Land-ocean (latitude) differences in vertical distribution of cloud-precipitation mass
3. Size distribution of convective and baroclinic systems
4. Monsoons & Cyclones
5. MJO & ENSO
6. Distribution of precipitation & radiation perturbation intensity and duration

**Crucial Tests:** --- What's the Goal --- One model to be developed or better understanding of how to represent some processes in global models?

Given the State of the Atmosphere, what should the cloud/precipitation properties be?

Given the Cloud/Precipitation properties, what are the effects on E&W?

So how do you infer something useful about climate feedbacks?

# NOTES

Key (“Innovative”) Tools: ----- OBS & MODEL

1. ISCCP-TRMM-CLOUDSAT-CALIPSO Emulators
2. Regime Analysis Tools including evolution
3. Diagnosis of E&W AND momentum exchange processes

----- Model output directly into Regime Classification with Diagnosis;  
This is a CPU vs Storage trade-off