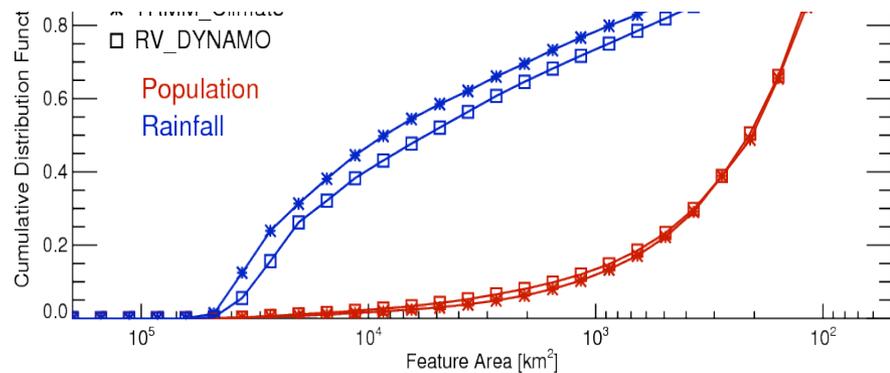


# Morphology of MJO-associated Convective Systems

## A Basis for Comparing to Model Simulations

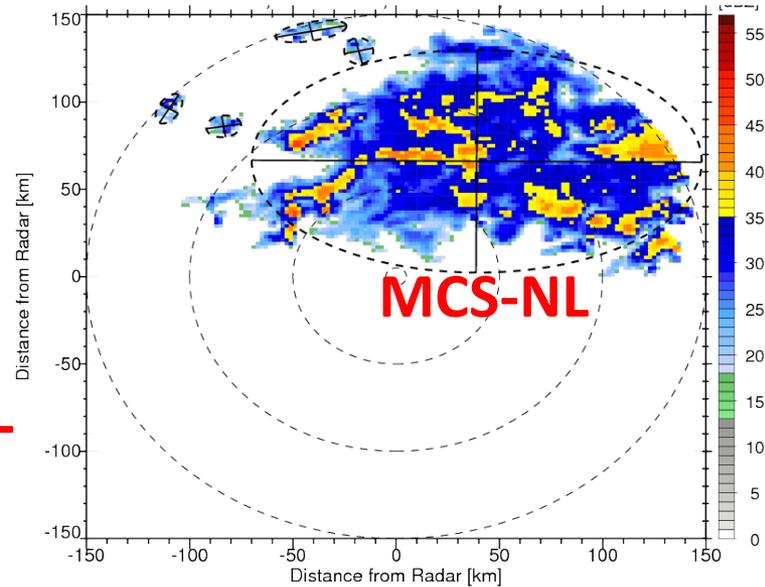
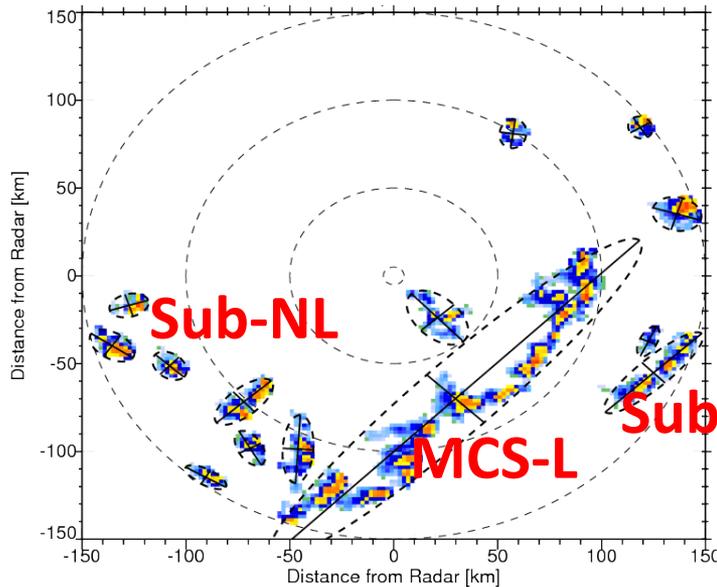
Steven A. Rutledge and Weixin Xu, CSU

*“Precipitation Features (PF) from DYNAMO ship radar (RV) and TRMM climatology over CIO”*

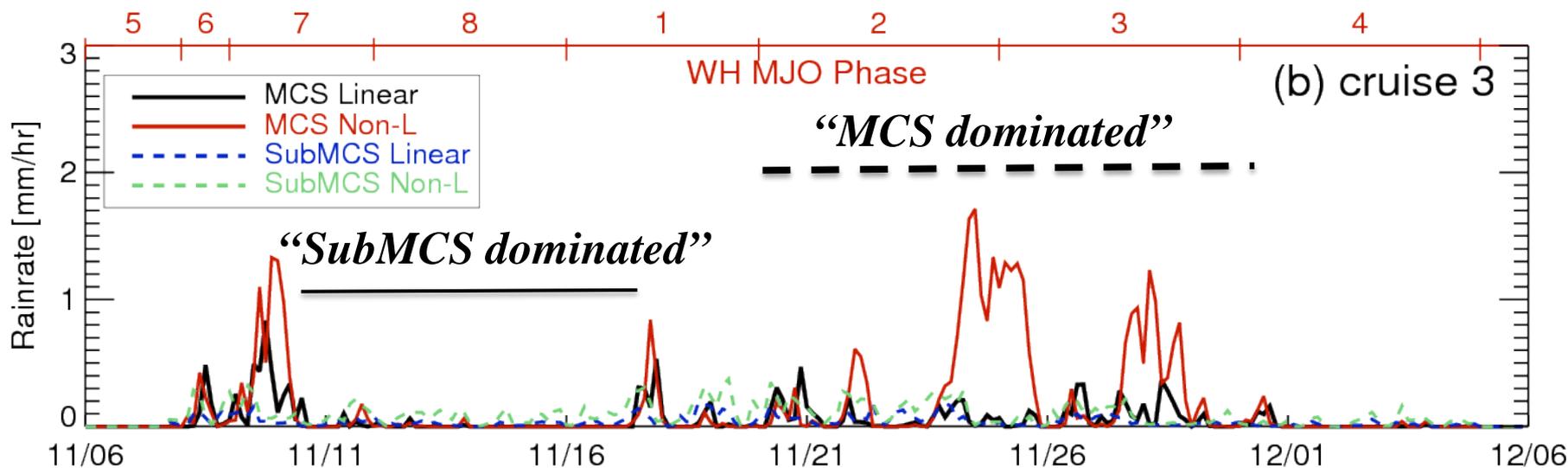
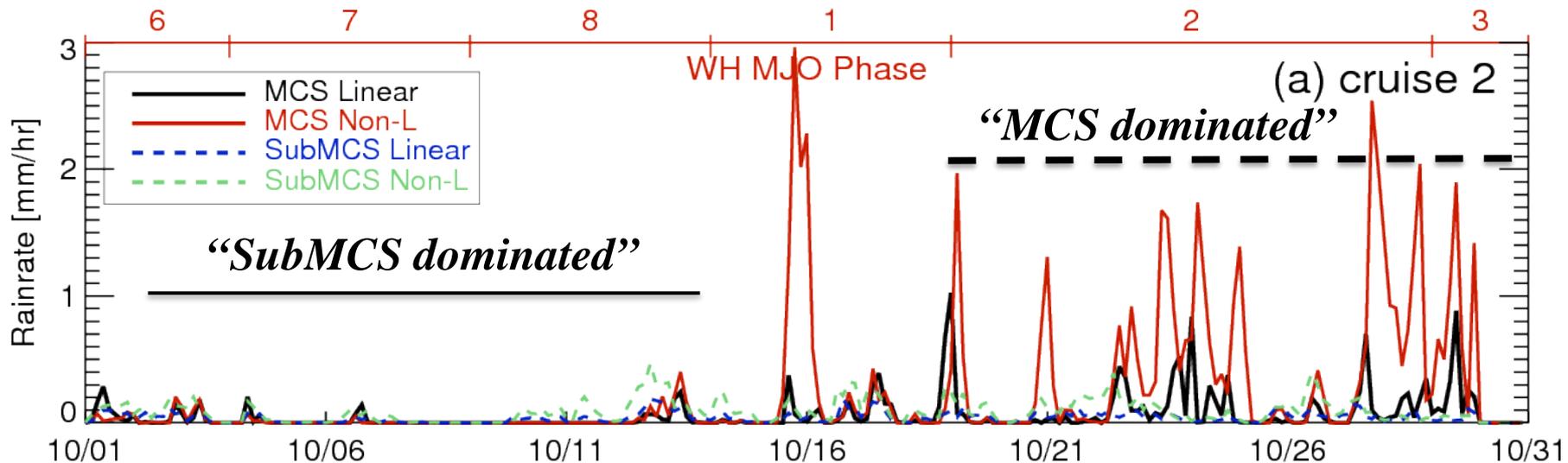


**MCS:**  $PF > 1000 \text{ km}^2$ ; **Sub-MCS:**  $100 \text{ km}^2 < PF < 1000 \text{ km}^2$ ;

**Linear:** short/long axis  $< 2:5$ ; **Non-Linear:** short/long axis  $> 2:5$ .



# Precipitation Morphology from Revelle Radar

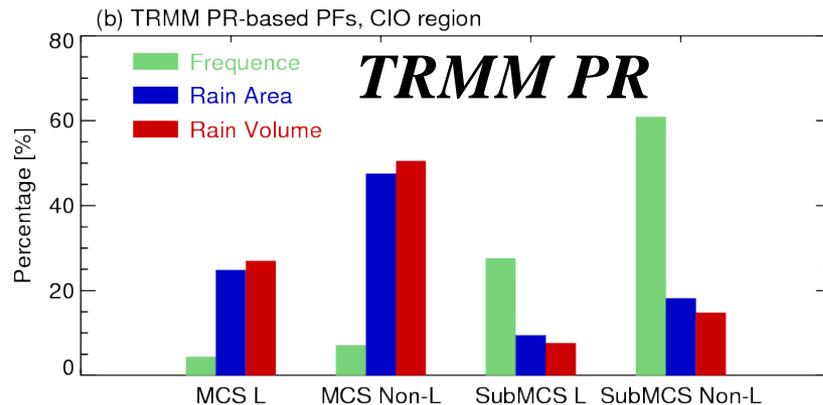
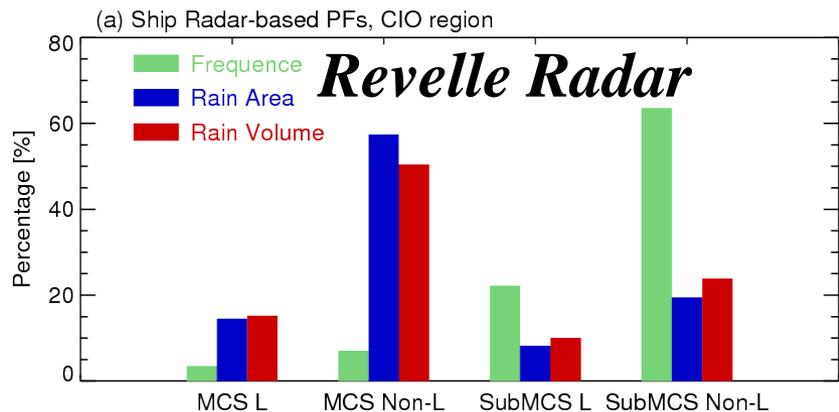


— Suppressed phases

- - - MJO active phases

# Precipitation Morphology Statistics

*“Three months of ship radar data vs. 15-yr of TRMM measurements”*



*Rain contribution As a function of MJO phase (WH)*

*Ship radar and TRMM climatology*

*statistics are generally consistent;*

*Radar-based stat. has larger*

*variations w.r.t MJO phase;*

*Radar observes less s/f rain (30%)*

*than TRMM (48%).*

*Do the MJO CRM's get these same % statistics?*

