

MJO model intercomparison

Participating models:

- Operational models (NCEP, ECMWF, BOM, TCWB, JMA, CPTEC, and UKMO)
- Research models: (NRL COAMPS, CRISP (a cloud resolving model from Japan, coupled with a regional ocean model), NICAM, ECHAM4-UH intermediate ocean model, NCAR CAM/SAM/SCM, WRF, GFDL HiRAM and SCOR2)

Discussion Items:

- Co-authorship
- Data format: netcdf
- Data site: send all data to NOAA EOL.
- Timeline for model data transfer and for intercomparison work
- Method to assess the MJO forecast skill during DYNAMO/CINDY campaign period
 - RMM-based bivariate temporal correlation assessment
 - Pattern correlation assessment at each lead time
 - Point time series of vertical profiles 1000 – 100 hPa at Revelle, Mirai, Addu Atoll, and Diego Garcia sounding locations (in-situ data)
 - Point time series of surface fluxes
 - Time-longitudinal sections (against satellite observations)
 - Zonal-vertical cross sections
 - Horizontal maps

Process studies:

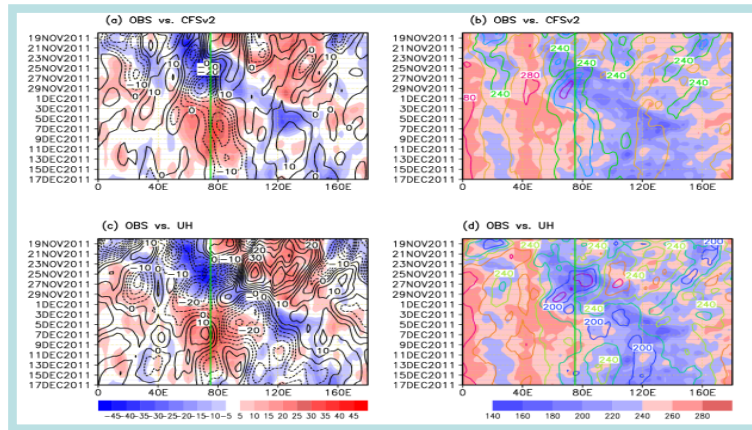
- **At what lead time the models are able to predict each of individual MJO events?**
- **What are key precursor signals for prediction of each of MJO events?**
- **What is the relative role of remote (circumnavigating, extratropical) and local processes in initiating the MJOs?**
- **What is the impact of high-frequency (< 20 days) waves/perturbations on MJO prediction?**
- **How does the air-sea coupling extend the predictability?**
- **How do the model initiation processes compare to the observed counterparts?**

Ties to the Pan-GASS/WGNE MJO Task Force diabatic heating and vertical structure project (what kind of model process-oriented diagnostics that WGNE MJO task force has adopted?)

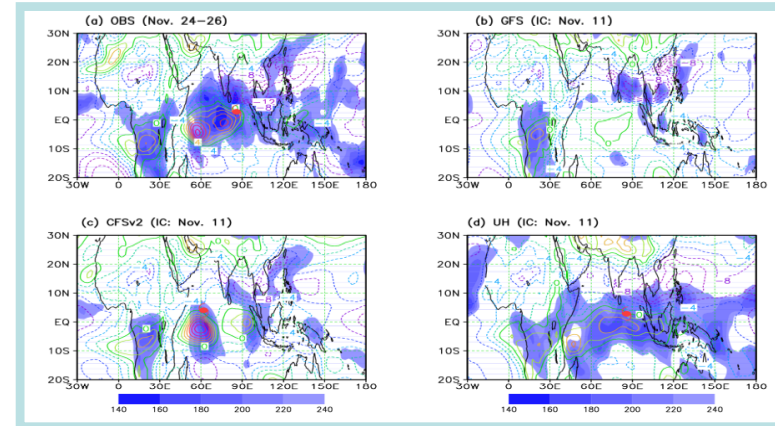
Multi-model MJO Forecasting during DYNAMO/CINDY Period

Joshua Xiouhua Fu et al (IPRC/SOEST/University of Hawaii at Manoa)

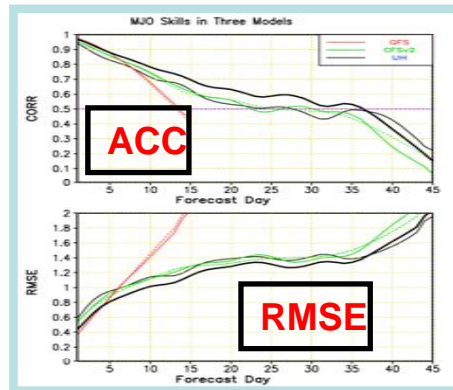
Time-Longitude Sections



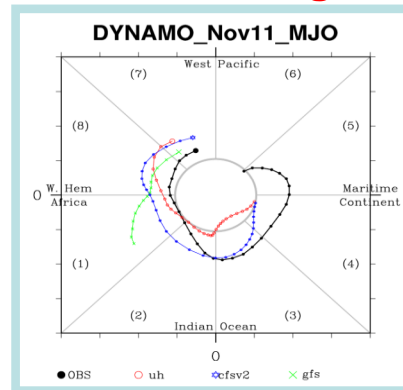
Time Sequence of Horizontal Patterns



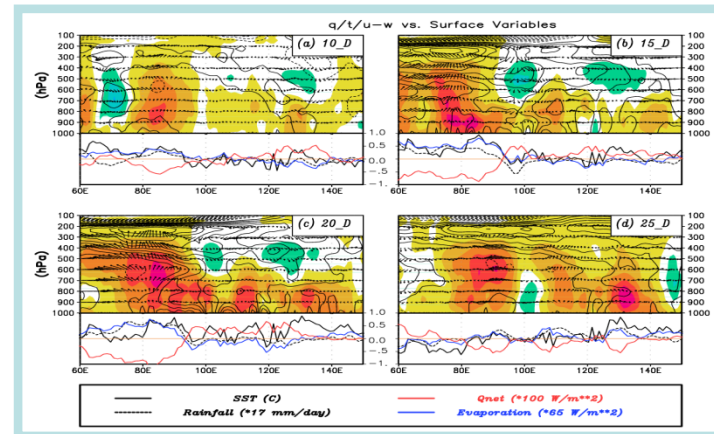
MJO Skills



Wheeler-Hendon Phase Diagram



Zonal-vertical Cross Sections



Submitted to Clim. Dyn.

DYNAMO-CINDY MJO Workshop, Kona, March 4-8,