+++ MJO signal weak +++ Active throughout DYNAMO area +++

• Current Conditions/Previous Day Recap

The broad cyclonic gyre in the western IO has weakened. The eastern gyre is developing a “twin cyclone” circulation with a vortex in the southern Hemisphere eastern IO. There has been some inconsistency in the model guidance as far as when the twin cyclone circulation will be fully in place (models have been too quick to develop the southern one) and how far west they will get.

Convection was again widespread throughout both arrays and in the eastern IO. Overall convective activity is comparable to the active MJO phase. There is a broad coverage of echoes in both the Gan and Revelle radars.
• Day 1 (0Z 22-Dec to 23-Dec)

Active convection in both arrays with the twin cyclone gyre centered over the eastern end of the array.

Gan: Frequent convection and heavy rain throughout the day and night. heavy rain. 10-30 mm accumulation.

• Days 2-3 (0Z 23-Dec to 25-Dec)

The model guidance indicates that the convection in the DYNAMO arrays will be mainly in a narrow band somewhere in the southern array, with the bulk of convection east of the array, near the centers of the twin cyclones. However, this is highly uncertain since the models have recently had trouble predicting the development of the vortices in the eastern IO.
Yesterday
SPOL

~OZ 21-Dec

~12Z 21-Dec

Revelle

Reflectivity in dBZ
Seychelles

Yesterday

Today
Gan

Time series for 43599 from 12/14 to 12/22

Yesterday
CSU Skew-T

43599, VRMG
0.75 75.2E
122 20 Dec. 2011

Note - Quick-look data
wind barbs (knots)

Today
CSU Skew-T

43599, VRMG
0.75 75.2E
122 21 Dec. 2011

Note - Quick-look data
wind barbs (knots)
Begin Forecast Graphics
ECMWF

Day 0

Day 1

Day 2

Day 3

Day 4

Day 5

Day 6
Day 1: 0Z 22-Dec to 23-Dec

Total Precipitation (mm/h) and wind 850hPa

GFS frcst Precip for day 2 for: 20111223 from 00z
Day 2: 0Z 23-Dec to 24-Dec

IMD NEW DELHI WRF (27 Km) RAINFALL (mm) FORECAST (72 hr)
based on 06 UTC of 21-12-2011 valid for 06 UTC of 24-12-2011

(Background does not depict political boundary)

Total Precipitation (mm/h) and wind 850hPa

GFS frst Precip for day 3 for: 20111224 from 00z

Climate Prediction Center UMCPP/ESSIC
Day 3: OZ 24-Dec to 25-Dec

Total Precipitation (mm/h) and wind 850hPa

GFS fcst Precip for day 4 for: 20111225 from 00z
Statistical ECMWF ensemble (1 month forecast)
MJO (5 day means)

Equatorial Rossby (3 day means)

Kelvin (1 day means)

Day -1 to 3

Day 4-8

Day 0 of forecast is 19 Dec 2011

CAMS/Bureau of Meteorology

Day 0 of forecast is 19 Dec 2011

CAMS/Bureau of Meteorology