+++ 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 now forms a “twin cyclone” circulation with a vortex in the southern Hemisphere eastern IO. Overall, convection has increased throughout the Indian Ocean in the last few days, likely associated with the superimposing of active Kelvin and Rossby wave modes. In fact, the overall activity of convection throughout the Indian Ocean may be comparable to the active phase convection.

In the DYNAMO arrays, convection was widespread throughout both arrays. This can also be seen in both the Gan and Revelle radars.

The low-level westerlies are still pronounced near the Equator.
• Day 1 (0Z 21-Dec to 22-Dec)

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

Gan: Frequent convection and heavy rain possible throughout the day and night. Heavy rain. 5-20 mm accumulation.

• Days 2-3 (0Z 22-Dec to 24-Dec)

Twin cyclone circulation weakens and shifts slightly east to over the DYNAMO area. Widespread convection and organized systems likely in both northern and southern DYNAMO arrays, most concentrated in the east end of the arrays. By day 3 and onward, convective activity focuses more in the southern array with the northern array drier, but Gan and the Revelle remain at the northern end of the wet area.
Seychelles

Yesterday

Today
Revelle

Yesterday

CSU Skew-T

99991, KAOU

0.05 80.6E

122 19 Dec. 2011

Note: Quick look data
wind barbs (knots)

Today

CSU Skew-T

99991, KAOU

0.0N 80.6E

122 20 Dec. 2011

Note: Quick look data
wind barbs (knots)
Diego Garcia

Yesterday
CSU Skew-T

61967, BBNG
7.35 72.4E
12/19 Dec. 2011
Note: Quick-look data
wind barbs (knots)

Today
CSU Skew-T

61967, BBNG
7.35 72.4E
12/20 Dec. 2011
Note: Quick-look data
wind barbs (knots)
Begin Forecast Graphics
Day 1: 0Z  21-Dec to 22-Dec

Total Precipitation (mm/h) and wind 850hPa

GFS forecast Precip for day 2 for: 20111222 from 00z
Day 2: 0Z 22-Dec to 23-Dec

IMD NEW DELHI WRF (27 Km) RAINFALL (mm) FORECAST (72 hr) based on 00 UTC of 20-12-2011 valid for 03 UTC of 23-12-2011

Total Precipitation (mm/h) and wind 850hPa

GFS frcst Precip for day 3 for: 20111223 from 00z

Climate Prediction Center UMC/ESSIC
Day 3: 0Z 23-Dec to 24-Dec

Total Precipitation (mm/h) and wind 850hPa

GFS forecast Precip for day 4 for: 20111224 from 00z

- Climate Prediction Center UCMP/ESSIC
Day 4: 0Z  24-Dec to 25-Dec

GFS frst Precip for day 5 for: 20111225 from 00z

- Climate Prediction Center UMCP/ESSIC

Day 5: 0Z  25-Dec to 26-Dec

GFS frst Precip for day 6 for: 20111226 from 00z
Statistical Dynamical

ECMWF ensemble (1 month forecast)

GEFS
MJO (5 day means)

Day -1 to 3

Day 4-8

Equatorial Rossby (3 day means)

Day -1 to 1

Day 2-4

Day 5-7

Kelvin (1 day means)

Day -1 to 1

Day 0

Day 1

Day 0 of forecast is 19 Dec 2011
CAGOS/Bureau of Meteorology