+++ Lull in convection for 1-2 days +++ Increasing convection days 3-5 +++

• Current Conditions/Previous Day Recap

Another active day over the northern array, but overall less active than yesterday. The Revelle radar again saw deep, organized convection over last night which continued throughout the day as well. However, the SPOL site saw only lines of convection, not large MCSs. The low pressure system that was just west of Male moved west away from the northern array. CIMSS TPW loop suggests some rotation east of the Revelle/Columbo, associated with new low pressure system. This feature is captured by the GFS and ECMWF model analyses, though they keep the system weak.

As anticipated, the low pressure in the Southern Hemisphere did not produce much convection. Most convection occurred in 0-10N across the entire Indian Ocean, but it was mostly widely scattered convection. Latitude mean TPW values over the array decreased somewhat, and were highest just east of the array. The most widespread convection has been in the east of the northern array, near Gan and Columbo, associated with the new low pressure system.

Soundings: Slides 7-11. Male, Gan are a bit drier than yesterday. At the RV Revelle, winds at ~800-700 mb shifted from easterly to westerly, related to the low pressure system developing to the NE. As has been the case for the past few days, Gan and the RV Revelle are much more moist than Diego Garcia and the RV Mirai.
• Day 1 (0Z 24 Oct. – 0Z 25 Oct.)

Temporary lull in convection, suppressed relative to the MJO active state. There is still the potential for some convection in the northern array, esp. near the RV Revelle, as the low moves west. GFS and the NICAM model predict convection/rainfall near the Revelle. COAMPS and the IMD WRF model are very dry over the array in this period. Remaining very dry at Diego Garcia and RV Mirai.

• Days 2-3 (0Z 25 Oct. – 0Z 27 Oct.)

Continuation of the lull in activity in day 2, but increasing convection in day 3, especially over the southern array. The low pressure system moves westward into the Arabian Sea. The eastward propagating MJO signal enhances convection over the DYNAMO area in Day 3. Also, the Kelvin wave which is currently moving across the Atlantic Ocean is expected to reach the array around day 3.

If the Arabian Sea system becomes strong (low confidence), convection would be limited over the northern array.

• Days 4-5 (0Z 27 Oct. – 0Z 29 Oct.)

The RMM index continues in Phase 2, but the signal is in a weakening trend. As the RMM signal becomes weaker, the pattern should move towards the climatological mean conditions, with the ITCZ setting up roughly through the center of the southern array, and the northern array having more scattered, disorganized convection. GFS and NICAM both suggest that the focus of convection will shift to the southern array in days 4-5. However, If the RMM signal remains strong, the northern array could also continue to have widespread, organized convection in days 4-5.
Yesterday

DRY ->

DRY
Time series for 43555 from 10/16 to 10/24

Male

Yesterday
CSU Skew-T

43555, VRMM
4.2N 73.5E
122 22 Oct. 2011
Note - Quick-look data
wind barbs (knots)

Today
CSU Skew-T

43555, VRMM
4.2N 73.5E
122 23 Oct. 2011
Note - Quick-look data
wind barbs (knots)
Gan

Yesterday

CSU Skew-T

43599, VRMG
0.7S 75.2E
12Z 22 Oct. 2011

Note - Quick-look data
wind barbs (knots)

Today

CSU Skew-T

43599, VRMG
0.7S 75.2E
12Z 23 Oct. 2011

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

Yesterday

CSU Skew-T

61967, BBG
7.3S 72.4E
12Z 22 Oct. 2011

Note - Quick-look data
wind barbs (knots)

Today

CSU Skew-T

61967, BBG
7.3S 72.4E
12Z 23 Oct. 2011

Note - Quick-look data
wind barbs (knots)
RV Mirai

Yesterday
CSU Skew-T

99990, JNSR
8.0S 80.5E
12Z 22 Oct. 2011

Note - Quick look data
wind bars (knots)

Today
CSU Skew-T

99990, JNSR
7.9S 80.5E
12Z 23 Oct. 2011

Note - Quick look data
wind bars (knots)
Begin Forecast Graphics
Day 1: 00Z 24 Oct. – 00Z 25 Oct.
In 5-day mean, MJO-related convection should increase in DYNAMO area.

Active phase of Kelvin wave well east of the DYNAMO area For Day 1 period.