+++ Drying over most the southern array +++ North part wet and active +++

• Current Conditions/Previous Day Recap

Yesterday: Slide 3. Today: Slide 4. Less convection than yesterday over the array, though large MCSs occurred within radar range of Gan and the RV Revelle overnight. Based on the radar trend, this looks to be the case tonight as well. Convection has even broken out near/over Male, which up to now had been in very dry westerly flow. A Kelvin wave moving east away from the array probably contributed to the less widespread convection over the south/central part of the array, and increased convection in the eastern IO.

Twin cyclones continue in the western IO and have been nearly stationary at ~60E. The mid-level (700-400 mb) dry wedge from yesterday’s discussion was not far enough north to affect the RV Revelle, and the “lull” in convection was over predicted.

Soundings: Slides 7-11. Male is now moist throughout most of the troposphere, and there was convection in the vicinity. 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.

Elsewhere, an upper trough and moisture front moved into the Arabian Sea, with ridging and NE flow over most of India. Inbetween the twin cyclones in the western equatorial IO, an area of relatively dry air is moving east along the Equator, being advected by the westerlies there.
• Day 1 (0Z 22 Oct. – 0Z 23 Oct.)

Slide 12. In terms of areal coverage over the array, conditions remain relatively inactive. The mid level dry patch continues to affect the southern/central part of array, but RV Revelle, Gan, and Male remain moist with plenty of convection nearby, especially at night.

Elsewhere, convection is most active associated with the twin cyclone features between ~50-60E. Equatorial dry tongue extends to ~65E, but narrows.

• Day 3 (0Z 24 Oct. – 0Z 25 Oct.)

Slide 13. Relatively inactive over the array. A developing low pressure system near the north part of the array (somewhere between Sri Lanka and Male) leads to widespread convection at Colombo, the RV Revelle, Male, Gan. The specific location of the convection will depend on where/how strong the low pressure system is—it may well be a weak TC.

• Day 5 (0Z 26 Oct. – 0Z 27 Oct.)

Slides 14-15. Southern Hemisphere system in the west IO dissipates, and the northern system moves towards Somalia. The low pressure which developed near Sri Lanka moves into the Arabian Sea, will have to watch for possible TC development. Convection associated with this system primarily affects Male and Gan. Meanwhile, a Southern Hemisphere ITCZ sets up near RV Revelle and RV Mirai.

The MJO is in Phase 2, but the signal is in a weakening trend. Some progression of the western IO convection eastward is still possible, but in a much less robust form than is currently in the western IO.
Yesterday
~0Z 21 Oct

~12Z 21 Oct
Gan

Yesterday

CSU Skew-T

43599, VRMG
0.7S 73.2E
12Z 20 Oct. 2011

Note - Quick-look data
wind barbs (knots)

Today

CSU Skew-T

43599, VRMG
0.7S 73.2E
12Z 21 Oct. 2011

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

Yesterday

CSU Skew-T

99991, KAOU
0.1N 80.5E
12Z 20 Oct. 2011

Note: Quick-look data
wind barbs (knots)

Today

CSU Skew-T

99991, KAOU
0.1N 80.5E
12Z 21 Oct. 2011

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

Time series for 99990 from 10/14 to 10/22

Yesterday
CSU Skew-T

99990, JNSR
7.9S 80.5E
122 20 Oct. 2011

Note: Quick-look data
wind barbs (knots)

Today
CSU Skew-T

99990, JNSR
7.9S 80.5E
122 21 Oct. 2011

Note: Quick-look data
wind barbs (knots)

GFS forecast Precip for day 6 for: 2011026 from 12z
ECMWF ensemble weakens the MJO faster than GFS ensemble.