Dynamo Intraseasonal State Summary
See commentary on pages 2 and 4.

November 3, 2011
Prepared by Paul E. Roundy
Active convection in the MJO band of the zonal wave-number frequency domain is progressing eastward from the dynamo array. The amplitude of the associated OLR signal is larger than any previous event so far this year, and is for the moment maintaining amplitude as it continues eastward, in spite of interference from other modes that are off setting the net amplitude of the RMM PCs because of their contributions that are opposite those of the MJO mainly over the Pacific basin. For example, signals of active convection and low level westerly anomalies in the Kelvin and equatorial Rossby wave bands have been co-located with the suppressed convective low-level easterly phase of the MJO over the western Pacific. Further, the IOD still suggests suppression of convection over the southeast tropics of the Indian basin, which now also yields a decline in the net RMM amplitude. OLR projections suggest that the zero line of OLR anomalies in the MJO band should cross the array between November 7 and 9. An active convective phase of a Kelvin wave is now exiting the Indian basin, with a suppressed phase now over the array.

After about November 10, slow and fast components of the MJO band OLR signal diverge, resulting in loss of amplitude. Slow progression of MJO active signals are suggested over the Pacific by the end of September, with active signals suggested at low amplitude over the western Indian basin by November 22-23. Occasionally such double MJO active signals occur during amplification of El Niño conditions, which, although suggested by some low frequency OLR anomaly patterns, is inconsistent with the present evolution of Pacific SST. This apparent inconsistency suggests that although confidence is high for the MJO forecast through November 10, it is low thereafter.
Indian Ocean Dipole

OLR anomalies associated with the IOD are of moderate intensity. Active convection in the MJO band is now centered east of the longitudes of the dynamo array.

Suppressed convection in the MJO band is presently over the western equatorial Pacific, but this signal is of lower amplitude than the active phase over the Indian basin. A suppressed signal in the ER band is over Southeast Asia and the Bay of Bengal, and active convection in the same band is now over the western Pacific, counteracting the local suppressed phase of the MJO. The suppressed phase of a convectively coupled Kelvin wave is now over the central Indian basin straddling the dynamo array, with active phases over the western Maritime Continent and the west central Pacific.

MJO active convection now established over the eastern Indian basin.