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

October 22, 2011
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Active convection in the MJO band of the zonal wave-number frequency domain has begun in the dynamo array. In total OLR anomalies, part of the signal is locally being reduced by opposite signed anomalies in the bands of convectively coupled Kelvin and equatorial Rossby waves, but this counteracting signal is not sufficient to reverse the sign of the total OLR anomaly from that of the MJO band. A Kelvin wave has developed over South America in association with extratropical waves forcing a pressure surge equator ward on the east side of the Andes mountains. This signal will arrive over the array within a day or two of November 2. Another active convective phase of a Kelvin wave is apparently already over Africa, and will arrive over the array sooner. There will be some destructive interference between the Kelvin wave signals since although their individual convective anomalies are narrow in longitude, their wind signals are much more broad. The Kelvin wave that originated over South America is only beginning to be represented in the OLR projections, and its trajectory will become better resolved over the next few days.

The zero line in MJO band OLR anomalies is projected to cross the dynamo array around November 6, after which a new local suppressed phase is likely.

The low frequency OLR projections have been indicating a swap in the Pacific basin low frequency convective signal for several weeks. The ocean does show signs of such a change, but much of that signal is in the MJO timescale and might not maintain. Skill in the forecasts of the low frequency signal is the same as persistence (while skill in the MJO band forecasts is much better).
Indian Ocean Dipole

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

Suppressed convection in the MJO band is presently over the Maritime Continent and the western equatorial Pacific, with weaker suppressed convection in the Rossby wave band over the central equatorial Indian basin. A convectively coupled Kelvin wave is now enhancing convection over the equatorial west Pacific basin relative to the MJO suppressed base state there. A active convective phase of a Kelvin wave is also apparent over Africa, with still more active Kelvin wave signal growing over the Atlantic basin in response to forcing by extratropical waves along the eastern slopes of the Andes. The representation of this signal in the OLR projections is likely to increase over the next few days. The suppressed convective phase of a Kelvin wave is in the dynamo array, and is reducing total convection relative to the MJO active state.

Some small negative OLR anomalies in the MJO band remain over the south west-central Pacific, but MJO active convection now establishing over the Indian basin.