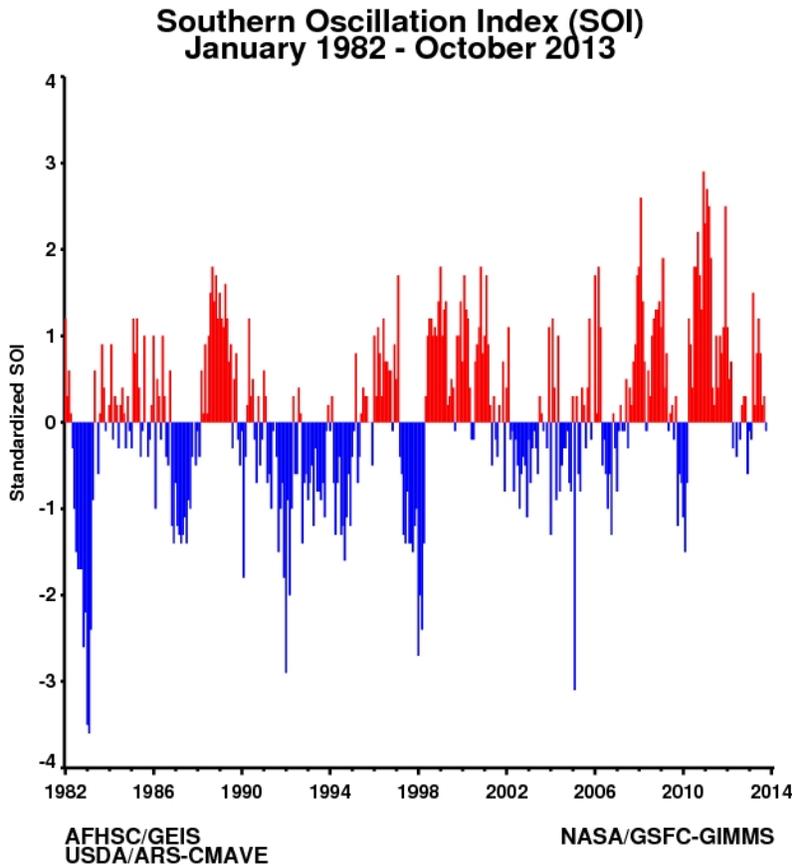


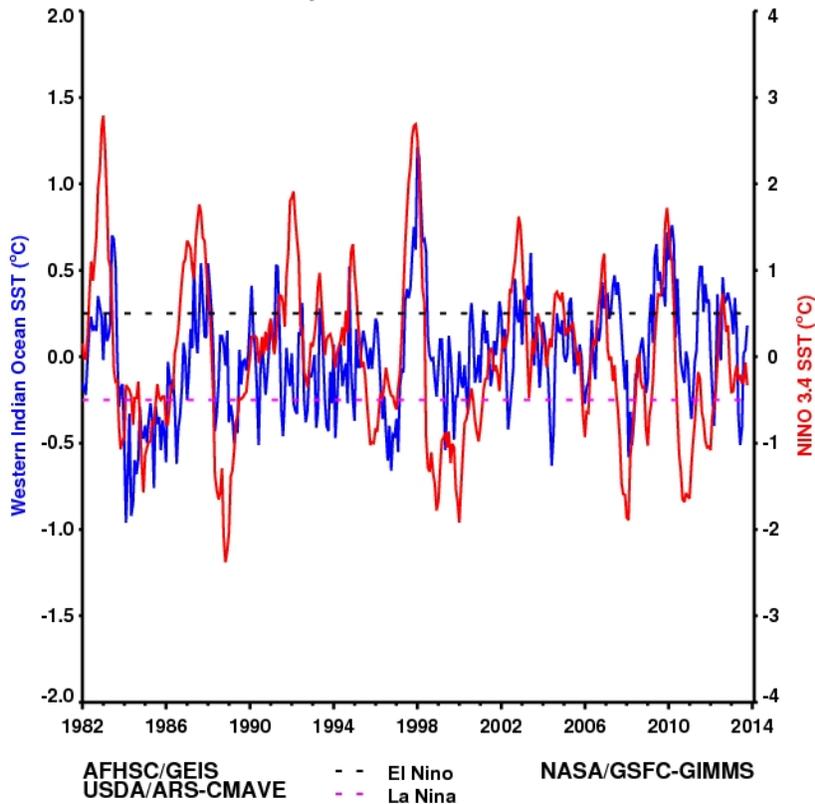
This section of the report will provide a rolling three month update on a monthly basis of the state of the climatic and ecological indicators used in monitoring areas at risk to RVF activity. These indicators include, global SST anomalies patterns, Equatorial Western Indian Ocean (WIO) and Eastern Pacific Ocean (EPO: NINO 3.4) SST anomalies, Southern Oscillation Index (SOI) and Outgoing Longwave Radiation (OLR) anomalies, Rainfall and anomalies, Normalized Difference Vegetation index anomalies and RVF risk map for Africa and the Arabian Peninsula.

## October 2013

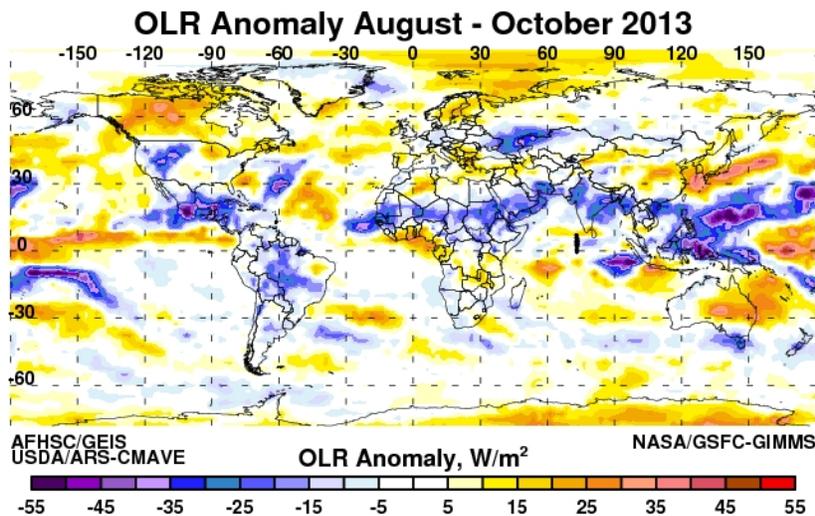
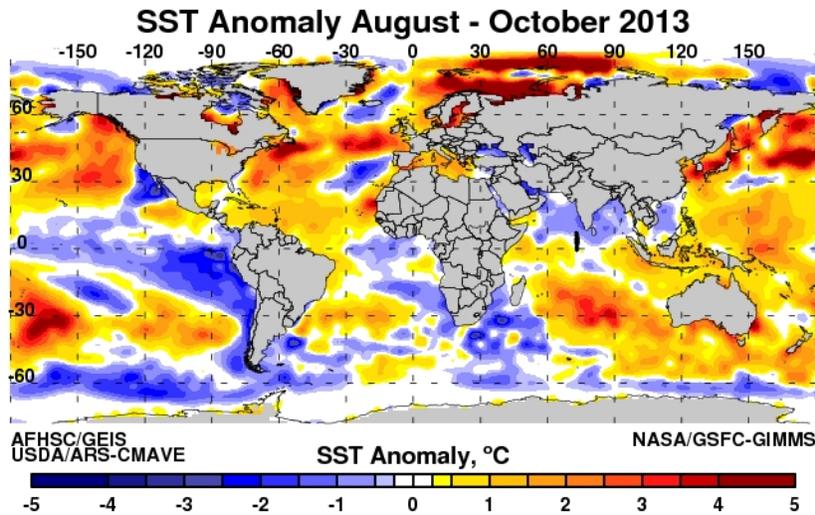
### 1. SOI and SST Indices



## Western Indian Ocean and NINO 3.4 SST Anomalies January 1982 - October 2013

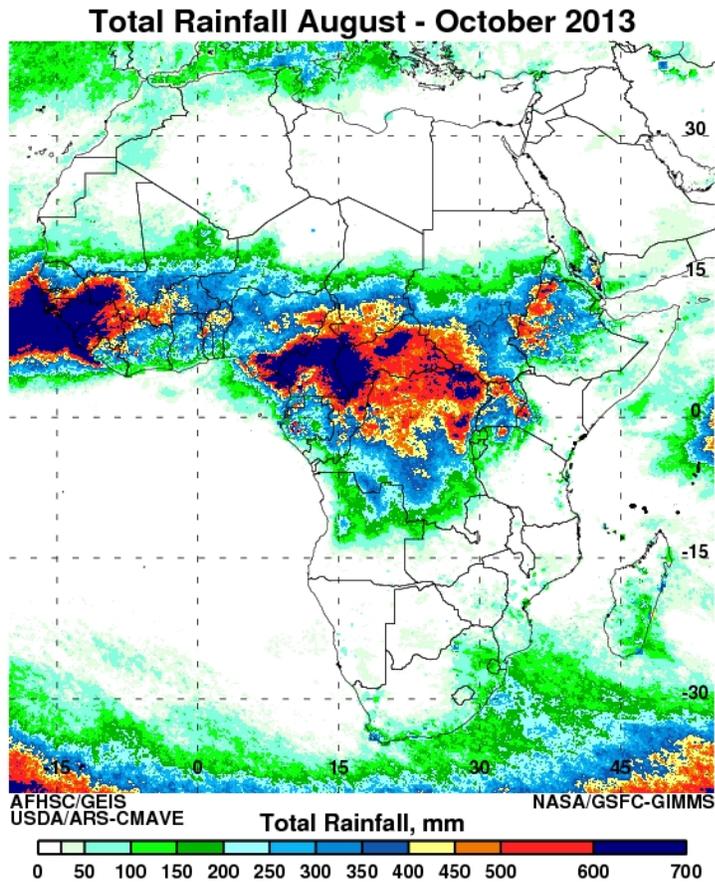


The SOI index value dropped to -0.1 in October from 0.3 in September, this fluctuation is within the normal range of values that characterize neutral ENSO conditions. This is a pattern that continues to be exhibited by the SOI since the beginning of the year. Correspondingly, October monthly SST anomalies in the **NINO3.4 SST** region are also near-normal with a value of -0.33°C and so are the **WIO SST** (-0.35°C) anomalies indicating a moderate cooling over this basin in the last three months. At the moment, all the atmospheric and oceanic indicators are in convergence with persistence of ENSO- neutral conditions. The [latest statistical and coupled model forecasts](#) continue to indicate that ENSO-neutral (Niño-3.4 index between -0.5°C and 0.5°C) will persist into the Northern Hemisphere spring 2014.

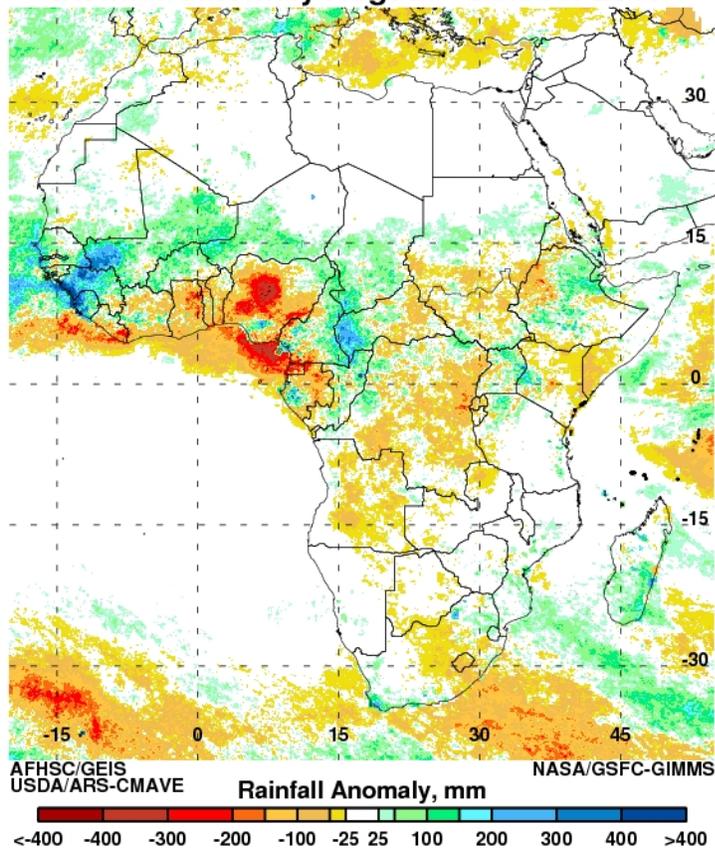


The eastern equatorial Pacific Ocean shows below normal SST in the region from 90°W to 160°W [NINO1.2 region] during the August – October period. The spread of SST shows a pattern that is typical of the early development of ENSO-cold conditions. In contrast the entire western equatorial Pacific shows the persistence of above normal SST (0.5°C to 2.0°C) for the last three months. The northern sector of western equatorial Indian Ocean is now dominated by negative SST anomalies. Other regions of significant anomalies include the north Pacific Ocean, north Atlantic and south Indian Ocean off the southern Africa landmass which show significant positive and negative anomalies on the order of  $\pm 1.0^{\circ}\text{C}$  to  $\pm 2.0^{\circ}\text{C}$ . Outgoing Longwave Radiation (OLR) anomalies are used here as a proxy for tropical deep convection (rainfall). Reduced convection is shown in yellow to light brown and brown shades and increased/intense convection is shown by shades of blue. Some impacts from the SST anomaly patterns can be observed in the pattern of tropical convective activity illustrated by the OLR departure patterns here. During August – October, slightly drier-than-average conditions are observed over the equatorial eastern Pacific Ocean, eastern Australia region with positive OLR anomalies. Convective activity continues to be prevalent over parts of Southeast Asia, propagating westwards to India, Sahelian region of Africa and Central America. These patterns of depressed

and enhanced convective activity coincide well with the pattern of SST departures. Monthly and weekly anomalies can be [found here](#). Rainfall and associated anomalies (below) for Africa show above normal rainfall concentrated over the equatorial belt from the equator northwards to ~18°N with significant positive departures over the Ethiopian Highlands and western Sahel on the order of +150 to +200mm during the August – October period.

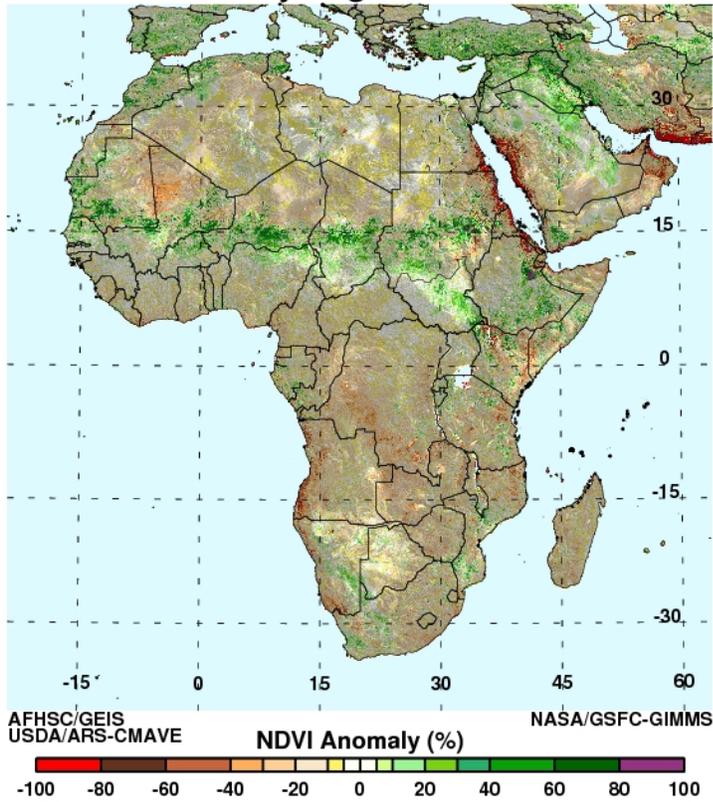


### Rainfall Anomaly August - October 2013



Cumulative NDVI anomalies for Africa for August – October 2013 show band of positive anomalies across the Sahel region in response to the above normal rainfall from over the last 2-3 months. The RVF risk map below was derived from thresholding NDVI anomaly data to detect areas persistent of above normal NDVI. Periods of widespread and prolonged heavy rainfall lead to flooding of *dambos* and anomalous green up in vegetation, creating ideal ecological conditions for the emergence RVF vectors. For the period August – October 2013, the RVF persistence model continues to identify isolated areas in South Sudan, Niger, Mali, southern Mauritania and Chad where ecological conditions would support the emergence of RVF vectors. These should be the regions of focus at this time given the above-normal rainfall and NDVI conditions and, the recently reported RVF activity in Mauritania and Senegal.

### NDVI Anomaly August - October 2013



### RVF Potential October 2013

