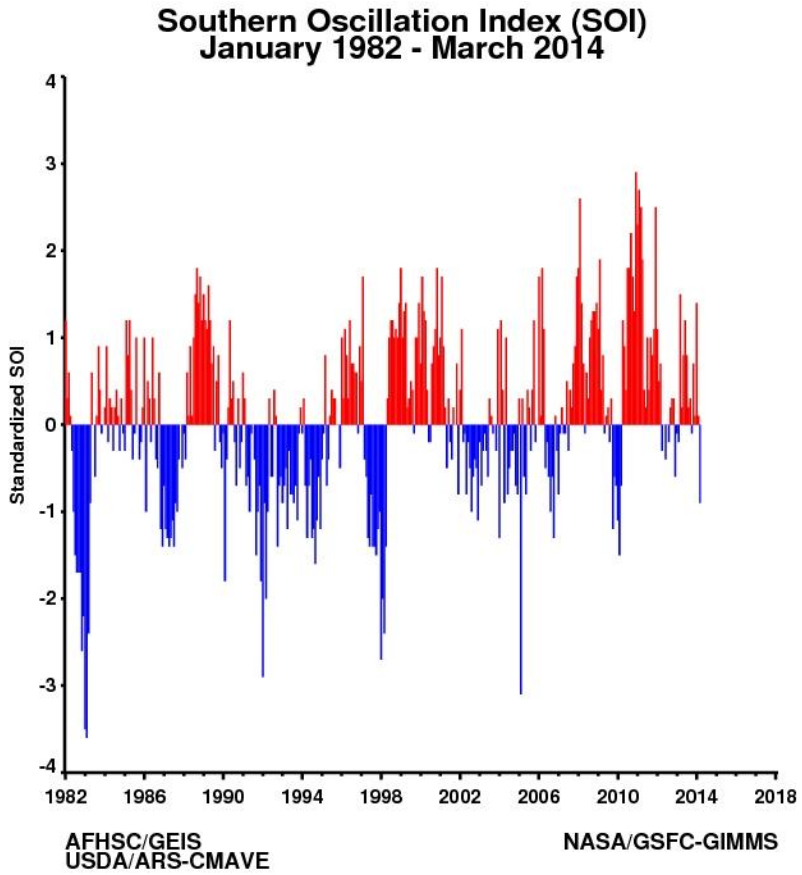
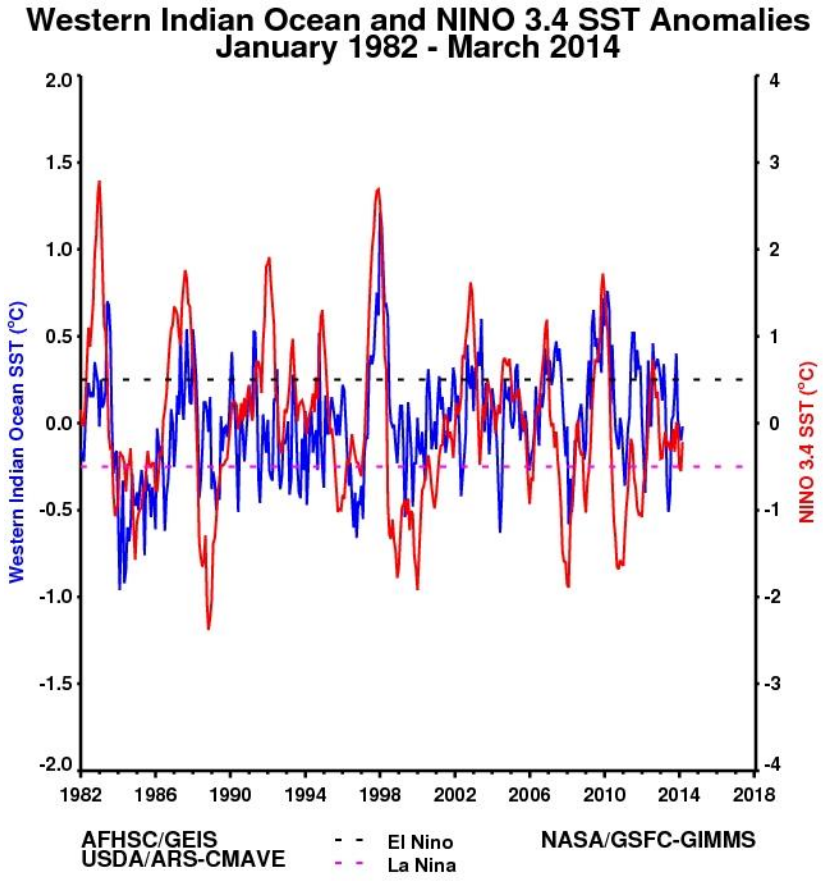
This section of the report will provide a rolling three month update on a monthly basis of the state of the climatic and ecological indicators used in monitoring areas at risk to RVF activity. These indicators include, global SST anomalies patterns, Equatorial Western Indian Ocean (WIO) and Eastern Pacific 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.

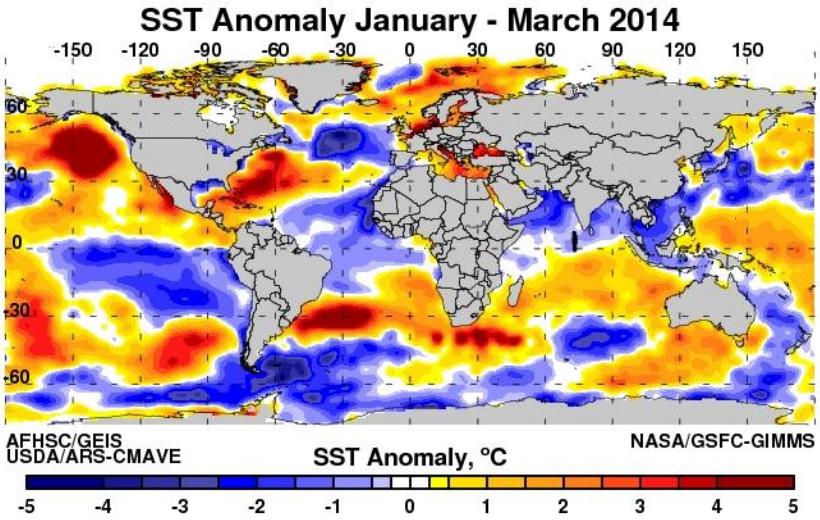
March 2014

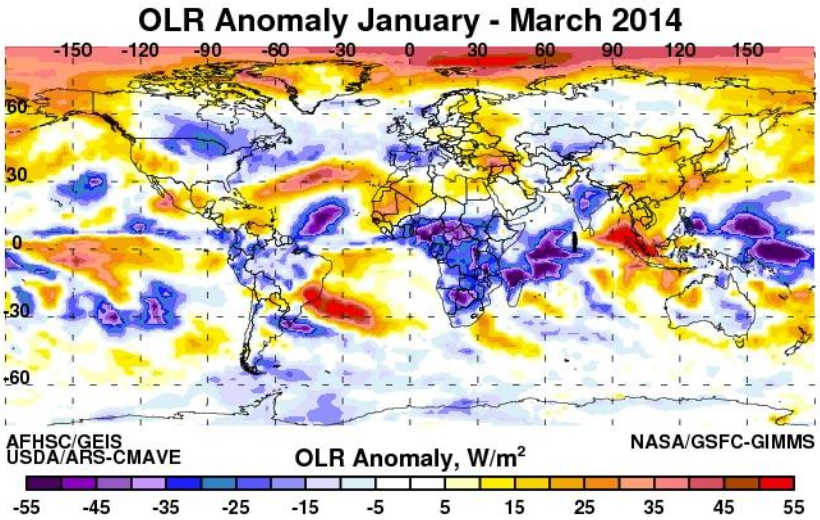
1. SOI and SST Indices





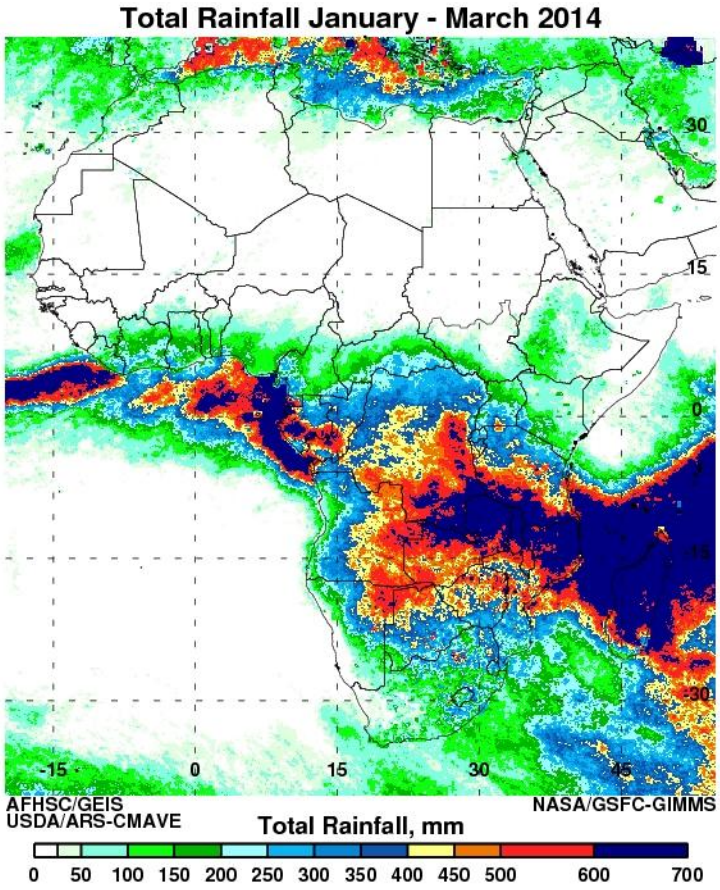
The SOI index remained near-normal values at -0.7 in March from -0.8 February 2014 reflecting the existing ENSO neautral conditions across the eastern Pacific ocean basin. Correspondingly, March monthly SST anomalies in the NINO3.4 SST region are also slightly negative at ~ -0.22°C and so are the WIO SST (-0.01°C) anomalies indicating the prevalance of normal conditions over these ocean basins. Nearly all model forecasts indicate the persistence of ENSO-neutral (Niño-3.4 index between -0.5°C and 0.5°C) through the Northern Hemisphere spring 2014, but afterwards, an increasing number of models suggest a 50% chance of the development El Niño conditions.

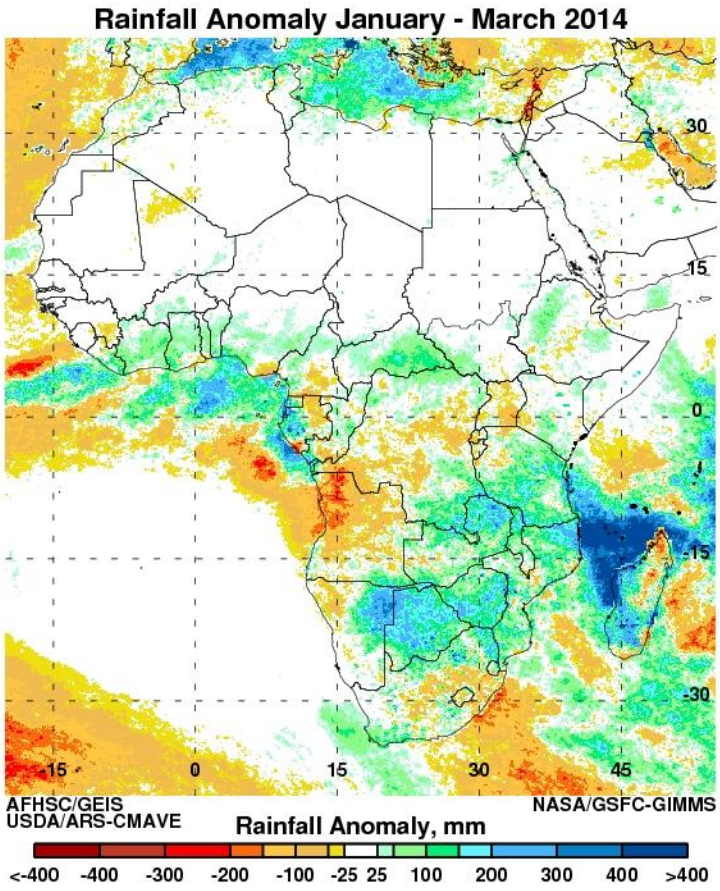




The eastern equatorial Pacific Ocean shows a pattern of below normal to normal SSTs in the region from 90°W to 150°W [NINO1.2 region] during the January 2014 to March 2014 period with SST anomaly values in the range of -0.5°C to -2.0°C. In contrast the entire western equatorial Pacific continues to show the persistence of above normal SST (0.5°C to 2.0°C) for the last three months. However, warmer than SST have developed in the central Pacific between 150°W and 150°E indicating what could the early phase of a warm event. Accordingly, the equatorial Indian Ocean between 30°S and the equator continues to be dominated by positive SST anomaliesn now widespread across the entire extent of the Indian Ocean. Meanwhile the northern Indian ocean basin continues to be colder than normal. Other regions of significant anomalies include the north Pacific Ocean, north Atlantic, the Pacific Ocean off the California coast, and south Indian Ocean off the southern Africa landmass which show significant positive and negative anomalies on the order of -/+1.0°C to -/+2.0°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

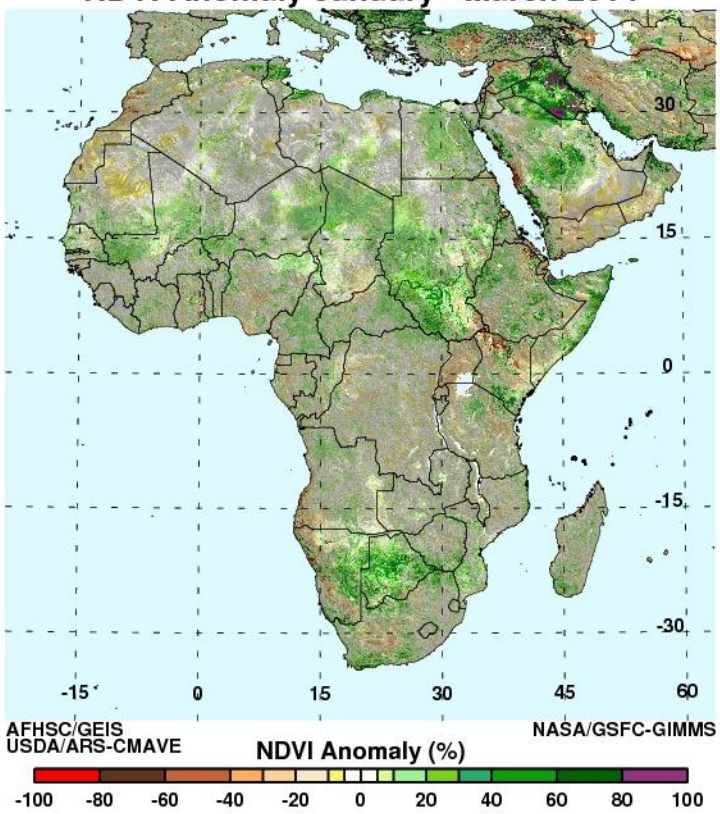
pattern of global convective activity illustrated by the OLR departure patterns here. During the January 2014 to March 2014 period, drier-than-average conditions are observed over the equatorial eastern Pacific Ocean between 180W and 120W, the Indonesian basin region, eastern Brazil, the Middle East (Turkey and Syria) and over western US, which are undergoing a severe drought at present with high positive OLR anomalies (+50W/M2). Convective activity continues to be prevalent over parts of South Asia predominantly over India, equatorial West Africa extending to southern Africa (-50W/M2). 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 from January 2014 to March 2014 show rainfall concentrated from ~5°N southwards. Areas of above normal (+50 to +250mm) rainfall include Tanzania, all the countries of southeastern Africa extending into Botswana, Namibia and parts of South Africa.





Cumulative NDVI anomalies for Africa for January 2014 to March 2014 show positive anomalies concentrated over the Southern Sudan, southern Kenya, Botswana, Namibia and northern South Africa following the above normal rainfall in these areas in the last several 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 January 2014 to March 2014, the RVF persistence model identifies areas in southern Kenya, Botswana, central Namibia and northern South Africa where ecological conditions would support the emergence of RVF vectors. Enhanced surveillance is advised in these areas.

NDVI Anomaly January - March 2014



RVF Potential March 2014