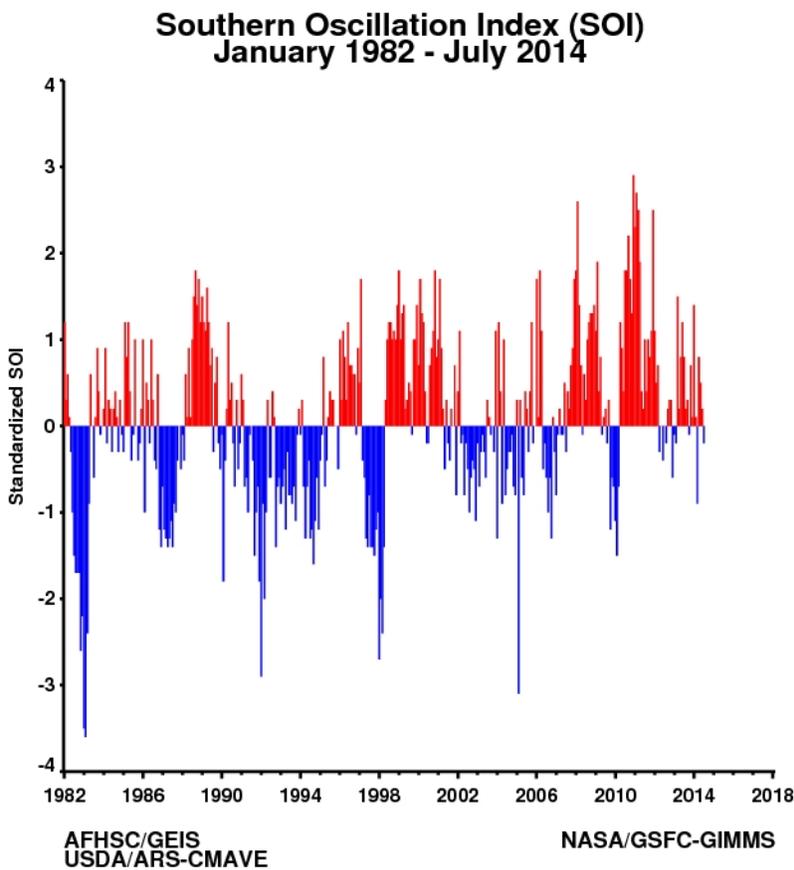


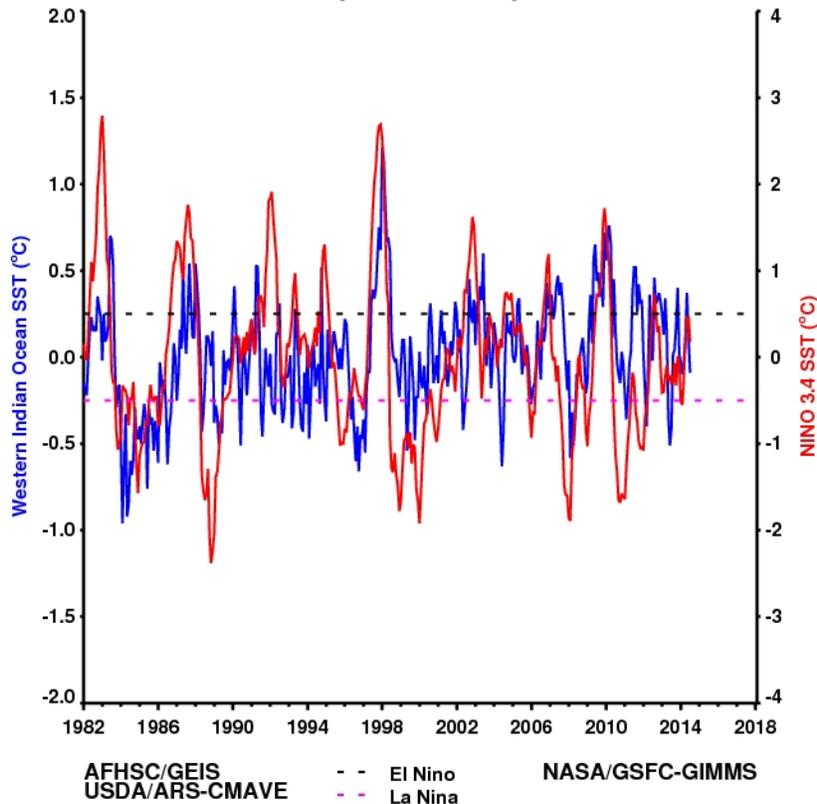
This section of the report will provide a rolling three month update on a monthly basis of the state of the climatic and ecological indicators used in monitoring areas at risk to RVF activity. These indicators include, global SST anomalies patterns, Equatorial Western Indian Ocean (WIO) and Eastern Pacific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

July 2014

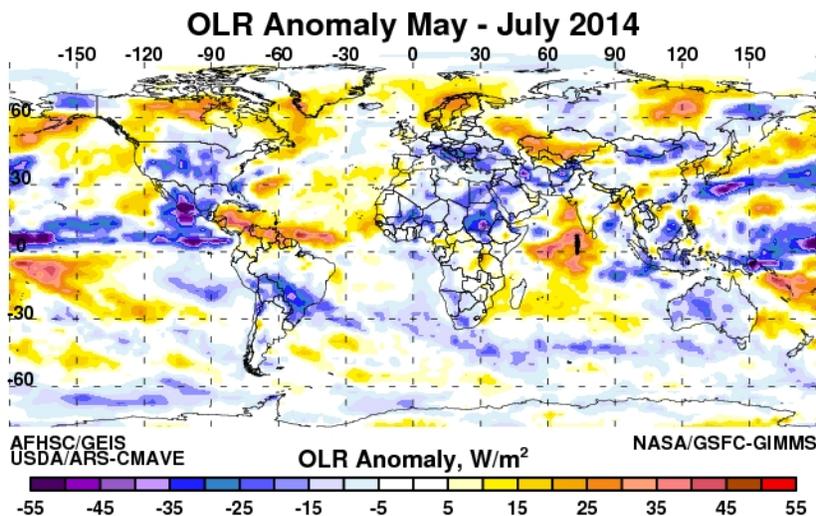
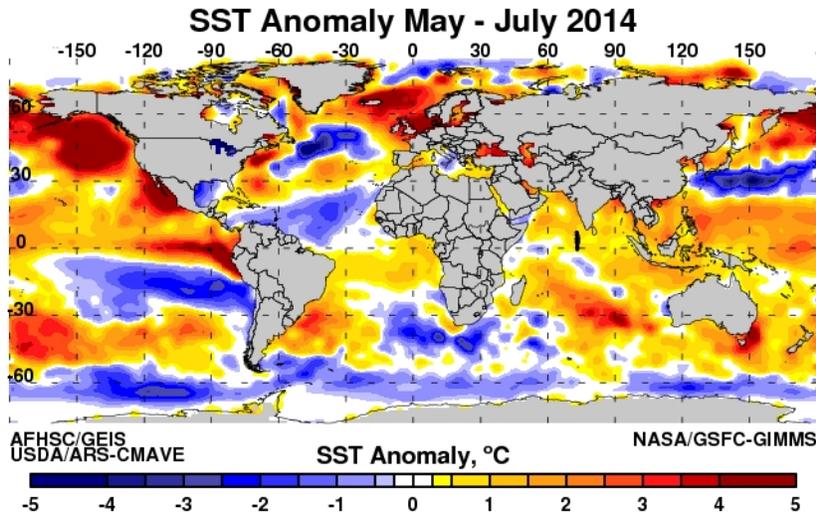
1. SOI and SST Indices



Western Indian Ocean and NINO 3.4 SST Anomalies January 1982 - July 2014

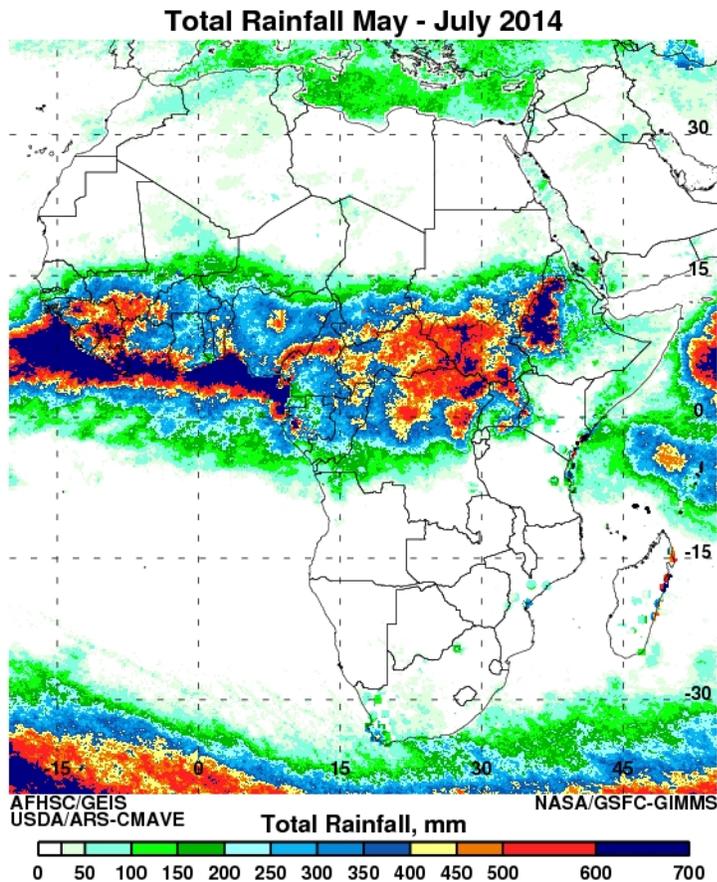


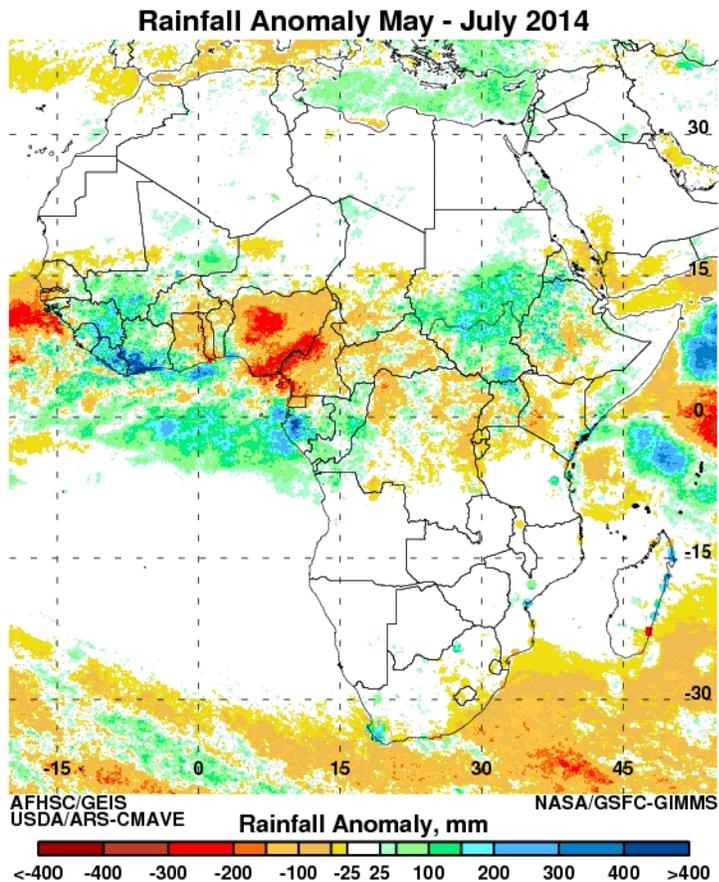
The SOI index was near normal in July though slightly negative with a value of -0.2 in July from a value of 0.2 in June. These conditions generally reflect the prevalence of somewhat ENSO-neutral conditions. July monthly SST anomalies in the NINO3.4 SST have decreased substantially to 0.18°C in July from ~0.45°C in June and so are the WIO SST (0.3°C) anomalies indicating the prevalence of normal conditions over these ocean basins. Even though above-average sea surface temperatures (SST) (below) in the NINO 1& 2 regions of the far eastern equatorial Pacific continued during July 2014, they remained near average in the central and east-central equatorial Pacific and in particular most of the Niño indices decreased in July. The absence of a clear atmospheric response to the positive SSTs indicates ENSO-neutral conditions. As a result, nearly all model forecasts have delayed the onset to the August - September period and decreased the chance of El Niño to about 65% to peak at weak strength during the late fall and early winter (3-month values of the Niño 3.4 index between 0.5°C and 0.9°C).



The entire equatorial Pacific Ocean shows a pattern of above normal SSTs (+0.5°C to +2.0°C) except for the region from 30°S to 1°S with below-normal SSTs during the May 2014 to July 2014. Accordingly, the entire equatorial Indian Ocean between 30° N-S is now dominated by positive SST anomalies except for the region immediately off the East African coast. Other regions of significant anomalies include the north Pacific Ocean, north Atlantic, equatorial Atlantic off the West African coast, 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 current SST anomaly patterns can be observed in the pattern of global convective activity illustrated by the OLR departure patterns here. During the May to July 2014 period, drier-than-average conditions (>+35W/M2) are observed over the equatorial western Pacific Ocean south of the equator between 120°W and 150°E, over the Caribbean region and northern South America and enhanced cooler than average conditions (-40W/M2) to the

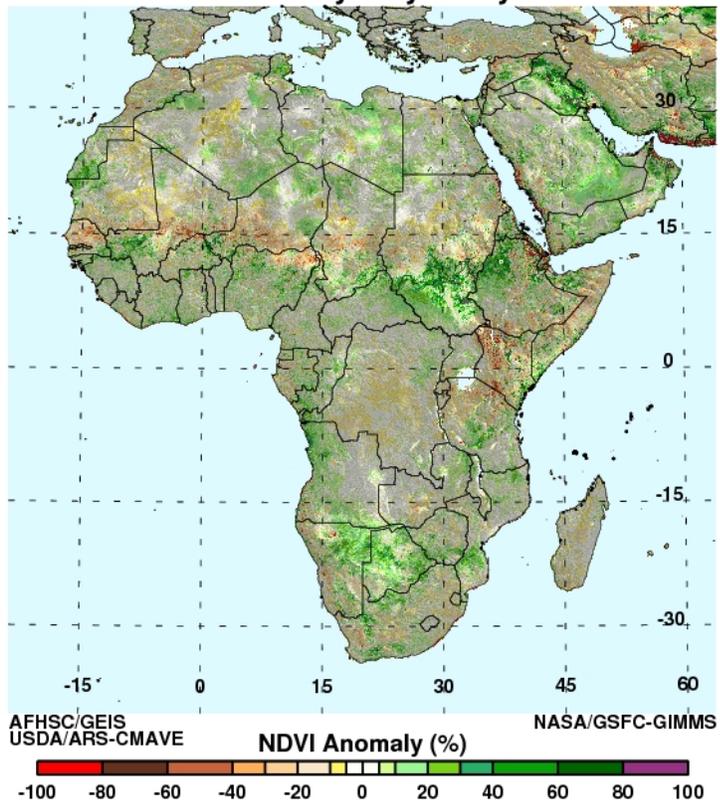
equatorial western Pacific Ocean north of the equator between 120°W and 150°E. Convective activity continues to be prevalent over parts equatorial Africa particularly Sudan and parts of west Africa, central Canada and Northern and Mid-US, Mexico (-55W/M2), western central America and Southern Brazil. These patterns of depressed and enhanced convective activity coincide well with the patterns of SST departures. Monthly and weekly anomalies can be found [here](#). Rainfall and associated anomalies (below) for Africa from May 2014 to July 2014 show rainfall concentrated from ~30°S to 15°N with a maxima along the equator. Areas of above normal rainfall (+50 to 250mm) include Gabon, central Sudan and equatorial West Africa.



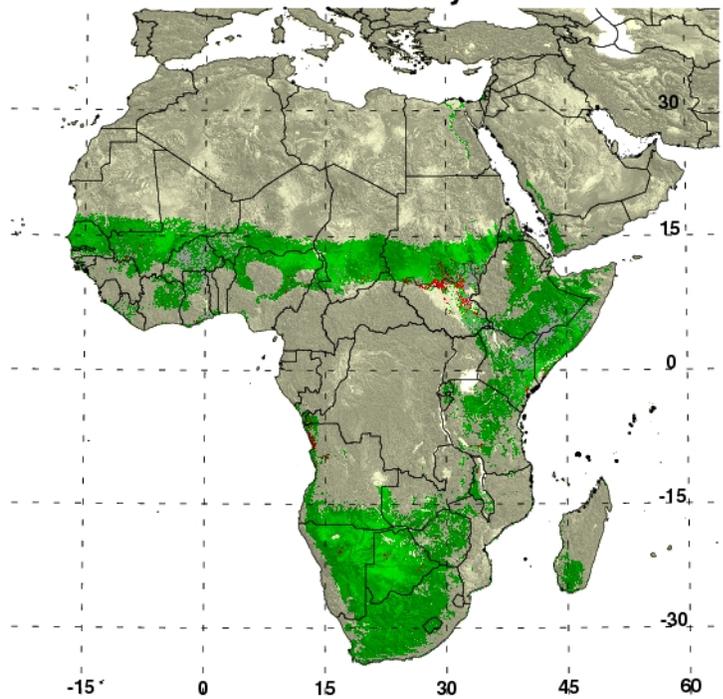


Cumulative NDVI anomalies for Africa for May 2014 to July 2014 show positive anomalies concentrated over the central Sudan, north-western Ethiopia, Botswana and Namibia following the above normal rainfall in these areas in the last several months. The RVF risk map below was derived from thresholding 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 May 2014 to July 2014, the RVF persistence model identifies areas in Sudan and South Sudan where ecological conditions would support the emergence of RVF vectors. Enhanced surveillance is advised in these areas. These locations have reported cases Cholera over the last month due to flooding and poor sanitary conditions.

NDVI Anomaly May - July 2014



RVF Potential July 2014



AFHSC/GEIS
USDA/ARS-CMAVE

RVF risk areas,
humans and livestock present

RVF risk areas,
humans and livestock absent

RVF potential epizootic areas

NASA/GSFC-GIMMS