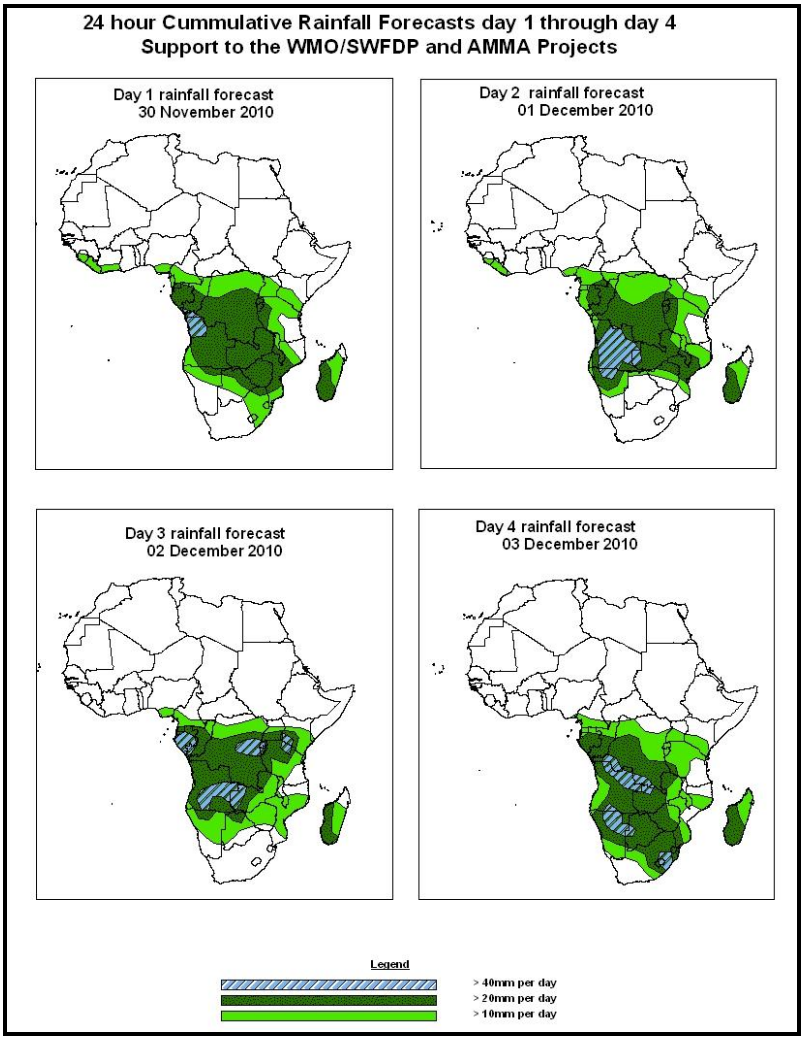
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 30 NOVEMBER – 06Z of 03 NOVEMBER 2010, (Issued at 14:00Z of 29 NOVEMBER 2010)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceeded based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS) and expert assessment.



Summary

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over DRC, Southern Africa and East Africa with chances of locally heavy rainfall over Angola, Congo, DRC, Zambia, Tanzania, Kenya, Namibia, Botswana, Lesotho and South Africa.

1.2. Models Comparison and Discussion-Valid from 00Z of 29 NOVEMBER 2010.

The GFS and UKMET models indicate a cut off low over eastern DRC and western Tanzania in the next 24 to 96 hours. Another Cut off low is expected to develop over Zambia and Botswana in the next 24 hours and extends to northern parts of South Africa, Namibia and Angola in 48 to 72 hours. Also the models are indicating a cut off low system from Chad to Sudan across the Central Africa republic and occasionally extending to parts of Nigeria. However, the cut off low is expected to have minimal effect on the regions except for the southern parts of Central Africa Republic where other factors are in effect.

The seasonal low pressure system (Meridional component of the ITCZ) is not well defined and likely to remain as such during the next 24 to 96 hours.

According to the GFS, ECMWF and UKMET models, the southern hemisphere High pressure system (St. Helena) is expected to retreat to western coast of South Africa in the next 24 hours. The Mascarene high pressure is expected to remain generally weak.

At 850hPa level, The GFS model is indicating a cyclonic convergence over DRC and Lake Victoria that is expected to extend to western Tanzania and Zambia in the next 72 hours. A convergence line extends from Zambia to Namibia in the next 24 to 48 hours and later to Botswana. Another Convergence line along the Mozambique coast is expected to extend to the west cost of Madagascar in the next 48 hours and then become weak in 72hours.

At 700hPa level, a cyclonic convergence over DRC is expected to extend to Lake Victoria in the next 48 hours and then move to Zambia. Another Convergence line over Angola and is expected to extend to Namibia in the next 72 hours. Another Convergence line over Mozambique and parts of Zimbabwe is expected to persist during the next 24 to 48 hours and then disappear. A convergence line over north east Madagascar is expected to move to the south west of the Island in 48 hours.

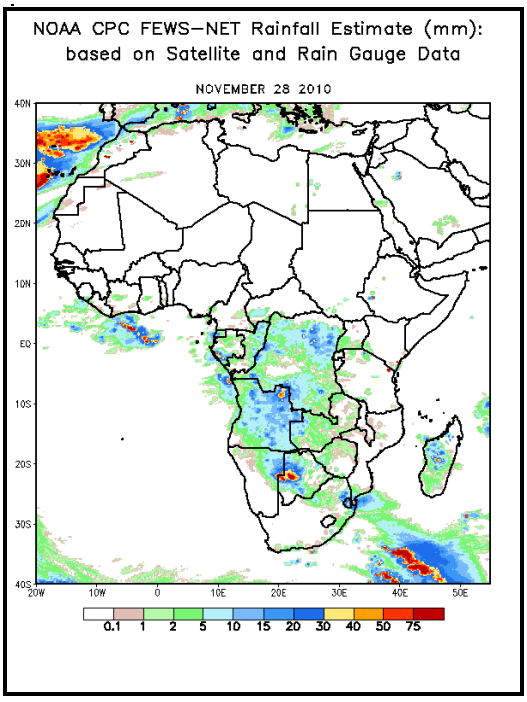
At 200hPa, zone of strong wind (>50Kts) associated with the Sub Tropical westerly Jet in the southern Hemisphere is expected to move to the east across South Africa with the wind speed in the range of 90 to 110 Kts.

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over DRC, Southern Africa and East Africa with chances of locally heavy rainfall over Angola, Congo, DRC, Zambia, Tanzania, Kenya, Namibia, Botswana, Lesotho and South Africa.

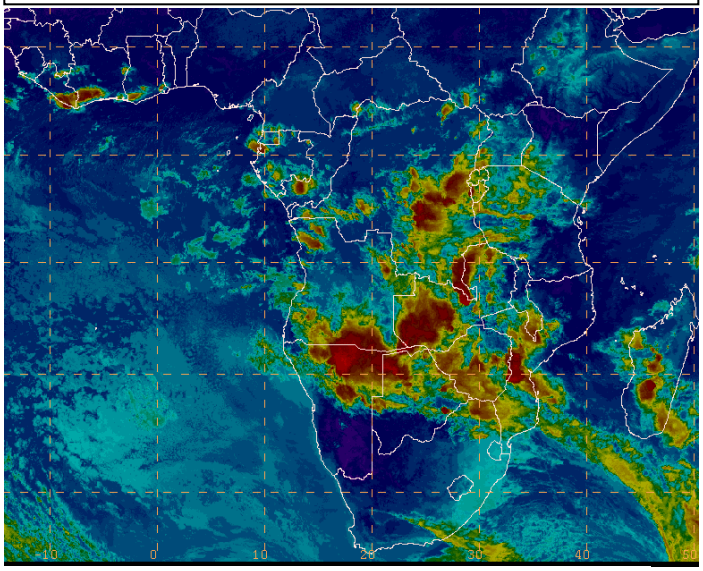
2.0. Previous and Current Day Weather Discussion over Africa (28 November 2010 – 29November 2010)

2.1. Weather assessment for the previous day (28 November 2010):
During the previous day, locally moderate to heavy rainfall was observed over Angola, Botswana and Lesotho.

2.2. Weather assessment for the current day (29 November 2010): Intense clouds are observed over DRC, Zambia, Angola, Namibia, Zimbabwe, Mozambique and Madagascar.



IR Satellite Image, Valid1830, November 29, 2010



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (top) based on IR Satellite image

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