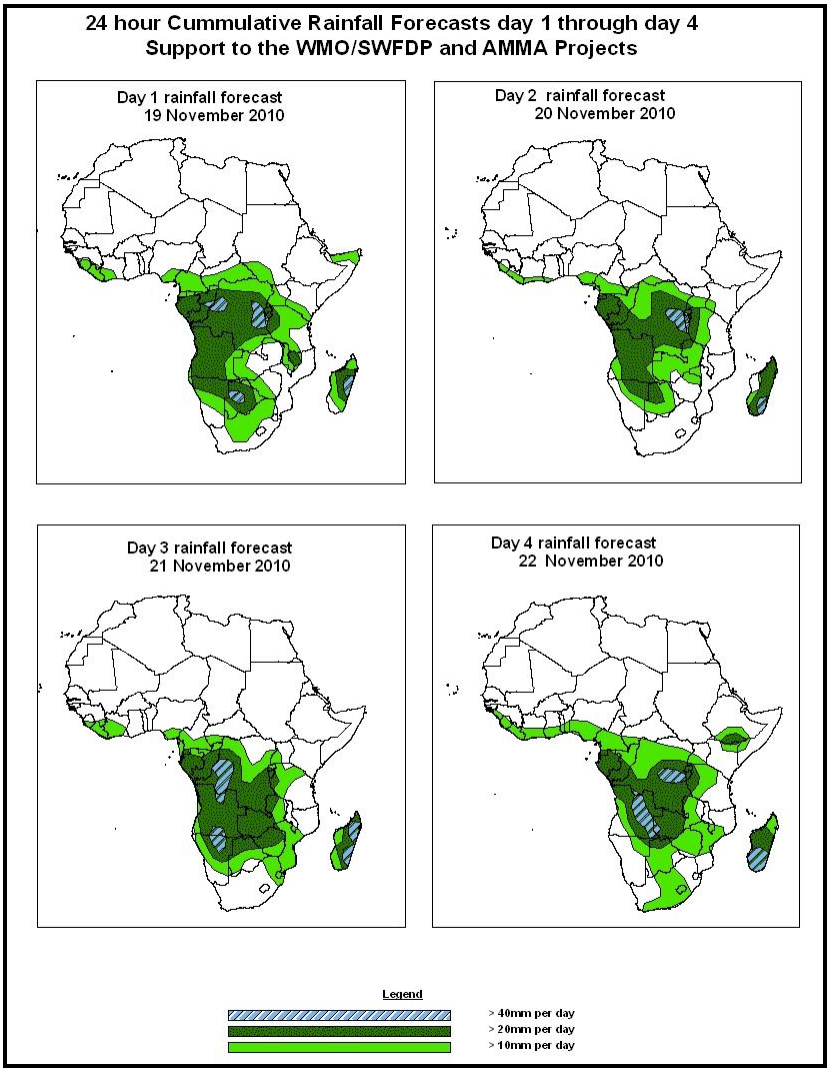
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 19 NOVEMBER – 06Z of 22 NOVEMBER 2010, (Issued at 14:00Z of 18 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 Gabon, Angola, DRC, East Africa and Southern Africa with chances of locally heavy rainfall over Angola, Namibia, Gabon, Congo, DRC, Tanzania, Burundi, Zambia and Madagascar

1.2. Models Comparison and Discussion-Valid from 00Z of 18 NOVEMBER 2010.

A cut off low over Chad and Sudan at central pressure 1006hPa is expected persist during the next 48 hours and then extends to Burkina Faso and Central Africa Republic. A trough over east coast of South Africa is expected to extend to southern Zambia in the next 48 to 72hours. The GFS model is indicating a trough along the border of DRC and Tanzania is extending to southern Namibia and expected to deepen and become a cut off low limited over DRC in the next 72hours. However, the UKMET model is indicating a cut off low pressure system over western Tanzania and the Lake Victoria basin. Also ECMWF model indicates a cut off low over Zambia and Botswana border area in the next 24 to 48 hours and later the cut off low moves to Botswana.

The seasonal low pressure system (Meridional component of the ITCZ) over DRC is expected to be relatively weak.

The southern hemisphere High pressure system (St. Helena) is at central pressure 1024hPa and the models are predicting a likelihood of persistence in the next 24 hours and thereafter intensification of the system to 1028hPa. On the other hand, Mascarene high pressure is expected to remain weak.

At 850hPa level, The GFS model is indicating a convergence line from south Sudan to Central Africa Republic during the next 24 to 48 hours and later extending to the Gulf of Guinea. A cyclonic convergence over Zambia and Botswana extending to Angola is expected to move over eastern DRC and Zambia towards the end of the forecast period. Another convergence line from the Lake Victoria region is expected to weaken and move to western Tanzania during the next 96hours.

At 700hPa level, a strong cyclonic convergence along the coast of Angola is expected to disappear in the next 24 hours. Also another convergence line over the west coast of South Africa is expected to persist during the next 24 to 72hours. A cyclonic convergence over western DRC is expected to move to southern Congo in the next 48hours. Another convergence is expected to develop over north Angola during the next 96 hours.

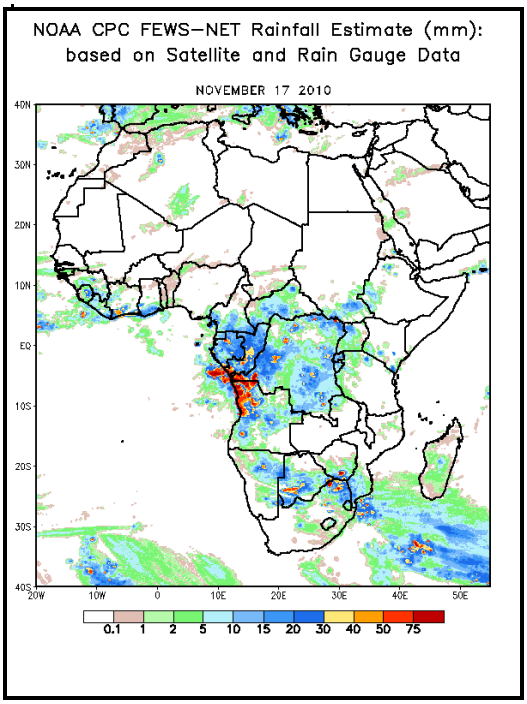
At 200hPa, zone of strong wind (>50Kts) associated with a weak Sub Tropical westerly Jet in the southern Hemisphere is expected to move across the southern tip of South Africa in the next 96 hours. Wind speed is expected to be in the range of 70 to 80 Kts.

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

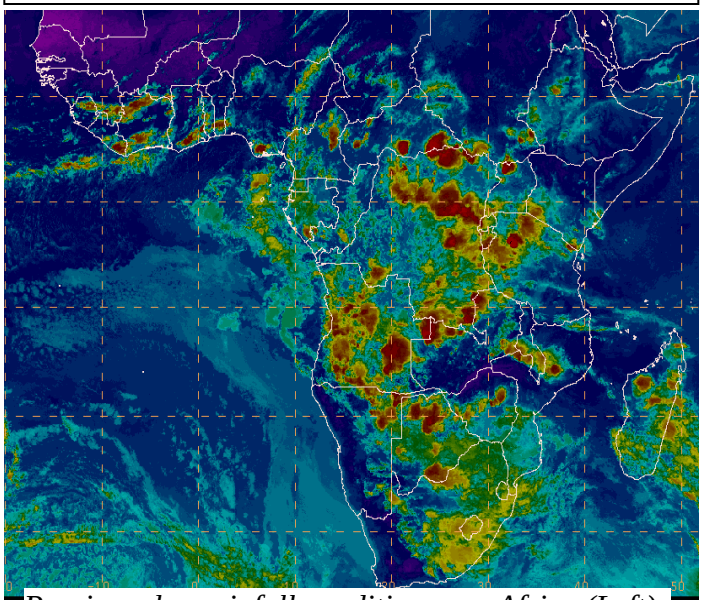
2.0. Previous and Current Day Weather Discussion over Africa (17 November 2010 – 18 November 2010)

2.1. Weather assessment for the previous day (17 November 2010):
During the previous day, locally moderate rainfall was observed over Angola, Congo, DRC, South Africa and Botswana.

2.2. Weather assessment for the current day (18 November 2010): Intense clouds are observed over Tanzania, DRC, Angola, Botswana, Namibia and south of the Central Africa Republic.



IR Satellite Image, Valid 1722Z, November 18, 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

Author(s): *Samwel Mbuya (Tanzania Meteorological Agency) / CPC-African Desk), samwel.mbuya@noaa.gov*

Omar Gouled Allaleh (Djibouti Meteorological Office / CPC-African Desk)), omar.allaleh@noaa.gov

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