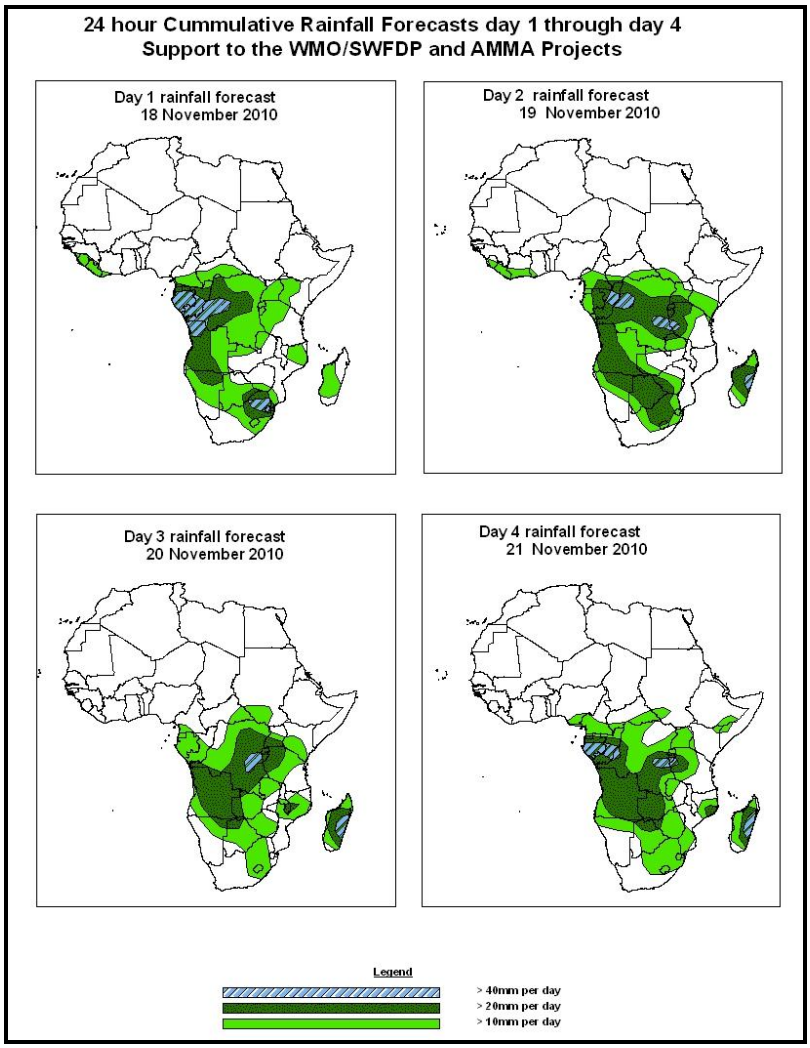
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 18 NOVEMBER – 06Z of 21 NOVEMBER 2010, (Issued at 14:00Z of 17 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 along the west coast of Gabon, Angola, DRC, East Africa and Southern Africa with chances of locally heavy rainfall over Angola, Gabon, Congo, DRC, Burundi, Tanzania, and Madagascar.

1.2. Models Comparison and Discussion-Valid from 00Z of 17 NOVEMBER 2010.

A cut off low over Chad and Sudan at central pressure 1006hPa is expected persist during the next 48 to 72hours and extends to Burkina Faso. A cut off low over Zambia extending to west coast of South Africa and Namibia is expected to move over north Botswana during the next 48 to 72hours. Another trough along the border of DRC and Tanzania is expected to deepen and become a cut off low moving to southwest DRC in the next 72hours.

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 to 72 hours and thereafter a significant intensification of the system to 1032hPa. 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 96 hours. A cyclonic convergence along the coast of Angola is expected to persist in the next 24 to 72hours. A convergence line over western DRC is expected to move to southwest DRC in the next 72 hours. Another convergence line from the Lake Victoria region extends to south of Zambia during the next 72 hours. The convergence is expected to become stronger in the next 48 hours.

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 convergence line from DRC to northern Namibia is expected to merge with another convergence from Lake Victoria in the next 48hours. Beyond 72hours the convergence is expected to weaken slightly.

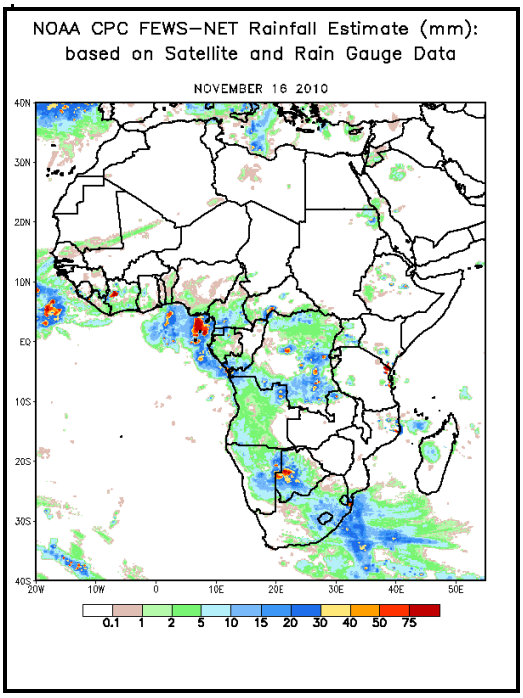
At 200hPa, zone of strong wind (>50Kts) associated with the Sub Tropical westerly Jet in the southern Hemisphere is expected to move across the southern tip of South Africa in the next 24 hours.

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

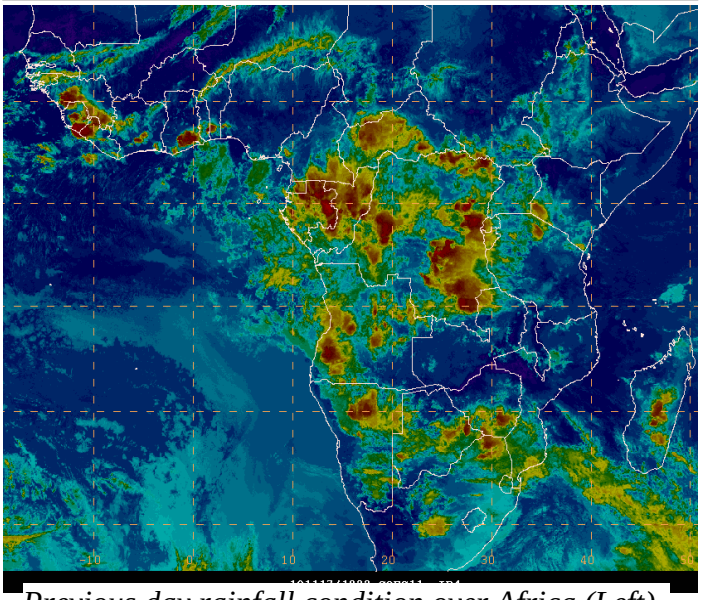
2.0. Previous and Current Day Weather Discussion over Africa (16 November 2010 – 17 November 2010)

2.1. Weather assessment for the previous day (16 November 2010): During the previous day, locally moderate rainfall was observed over DRC, Cote D'Ivoire, Botswana and Tanzania.

2.2. Weather assessment for the current day (17 November 2010): Intense clouds are observed over DRC, Angola, Gabon, and West Coast Gulf of Guinea, Central Africa Republic, Namibia, South Africa and Zimbabwe.



IR Satellite Image, Valid 1722Z, November 16, 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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