

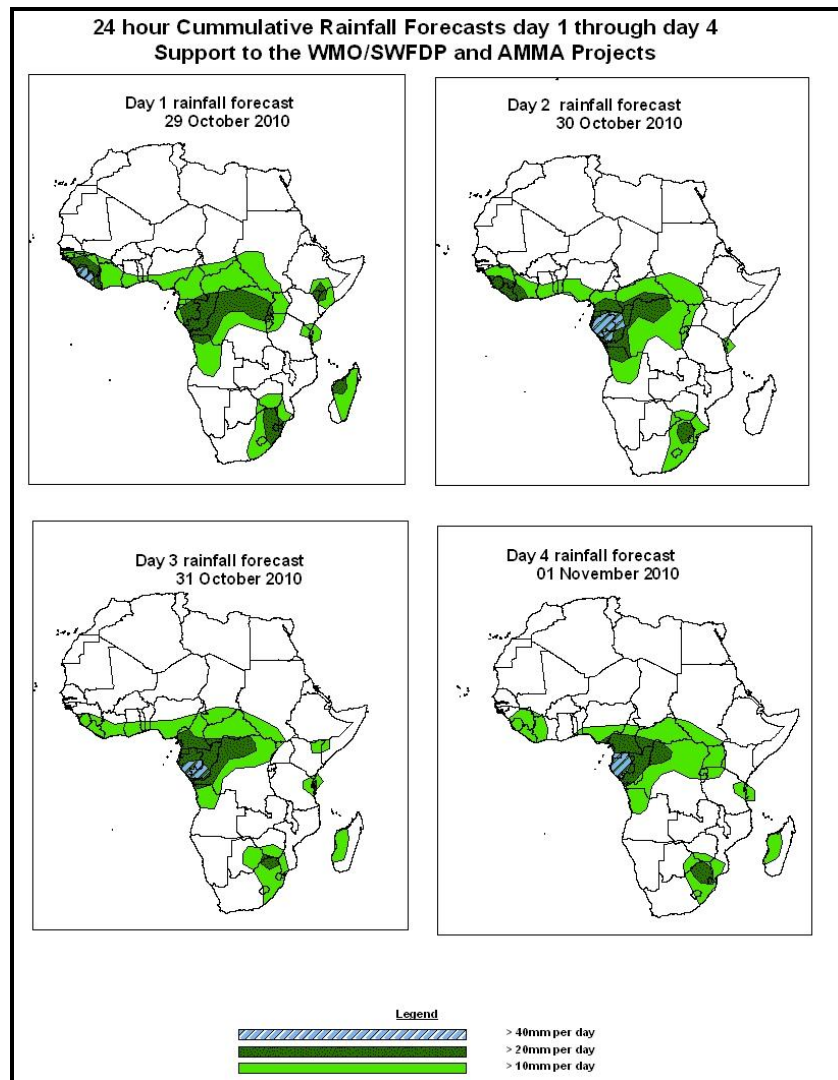


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 29 OCTOBER – 06Z of 01 NOVEMBER 2010, (Issued at 14:00Z of 28 OCTOBER 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 the eastern parts of the Gulf of Guinea countries and DRC with chances of locally heavy rainfall over, Gabon, Eq. Guinea, Congo, Cameroon, Sierra Leone and Liberia. Pockets of moderate rainfall are likely to occur locally along the South Africa / Botswana border area, the northern coastline of Tanzania.

1.2. Models Comparison and Discussion-Valid from 00Z of 28 OCTOBER 2010

The GFS, ECMWF and UKMET models indicate a broad trough from Burkina Faso across Chad to Sudan that will persist during the forecast period. Another trough over Namibia and Angola extends to Botswana and South Africa in the next 48 to 72 hours.

The seasonal low pressure system (Meridional component of the ITCZ) over DRC is expected to weaken occasionally and move over western DRC and Congo during the next 24 to 48 hours according to GFS, UKMET and ECMWF models. Also an extension of a trough to Zambia from this system is expected in the next 24 hours.

The southern hemisphere High pressure system (St. Helena) indicates that the ridge from the St Helena High pressure over east South Africa is expected to weaken and retreat westwards in the next 24 to 48 hours. Beyond 72 hours the models are indicating a likelihood of another ridge from the St. Helena high over the southeast coast of South Africa. The Mascarene high pressure is very weak and remains displaced eastwards. The models are still indicating a ridge along East Africa extending up to Kenya for the next 24 to 96 hours. Also a weak trough from Indian Ocean is in effect over the vicinity of the East Africa coastline for the entire forecast period.

At 850hPa level, a weak convergence line along the border of Chad and Cameroon is expected to persist during the next 24 to 48 hours. Another convergence line is over south east Sudan and is expected to become weak towards the end of the forecast period. Another convergence line from DRC extends to eastern Angola and persists for the next 24 to 96 hours. A cyclonic convergence line over eastern Congo is expected to move further west to Gabon and Eq. guinea in the next 48 to 72 hours.

At 700hPa level, a convergence line over Central Africa Republic and northern DRC is expected to remain active in the next 24 to 72 hours. A convergence line over Botswana is expected to persist during the next 24 hours. Over East Africa, the Near Equatorial Trough (NET) is expected to extend to the coastline of Kenya and Tanzania in the next 24 to 48 hours. A cyclonic convergence over the Great Horn of Africa is expected to weaken in the next 48 hours and disappear.

At 200hPa, zone of strong wind (>50Kts) is inclined further north. The Sub Tropical westerly Jet over the southern Hemisphere is expected to weaken as it moves off the east

coast across southern Madagascar during the next 24 to 48 hours. The wind speed associated with the Jet is expected to be in the order of 70 to 110Kts during that period.

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over the eastern parts of the Gulf of Guinea countries and DRC with chances of locally heavy rainfall over, Gabon, Eq. Guinea, Congo, Cameroon, Sierra Leone and Liberia. Pockets of moderate rainfall are likely to occur locally along the South Africa / Botswana border area, the northern coastline of Tanzania.

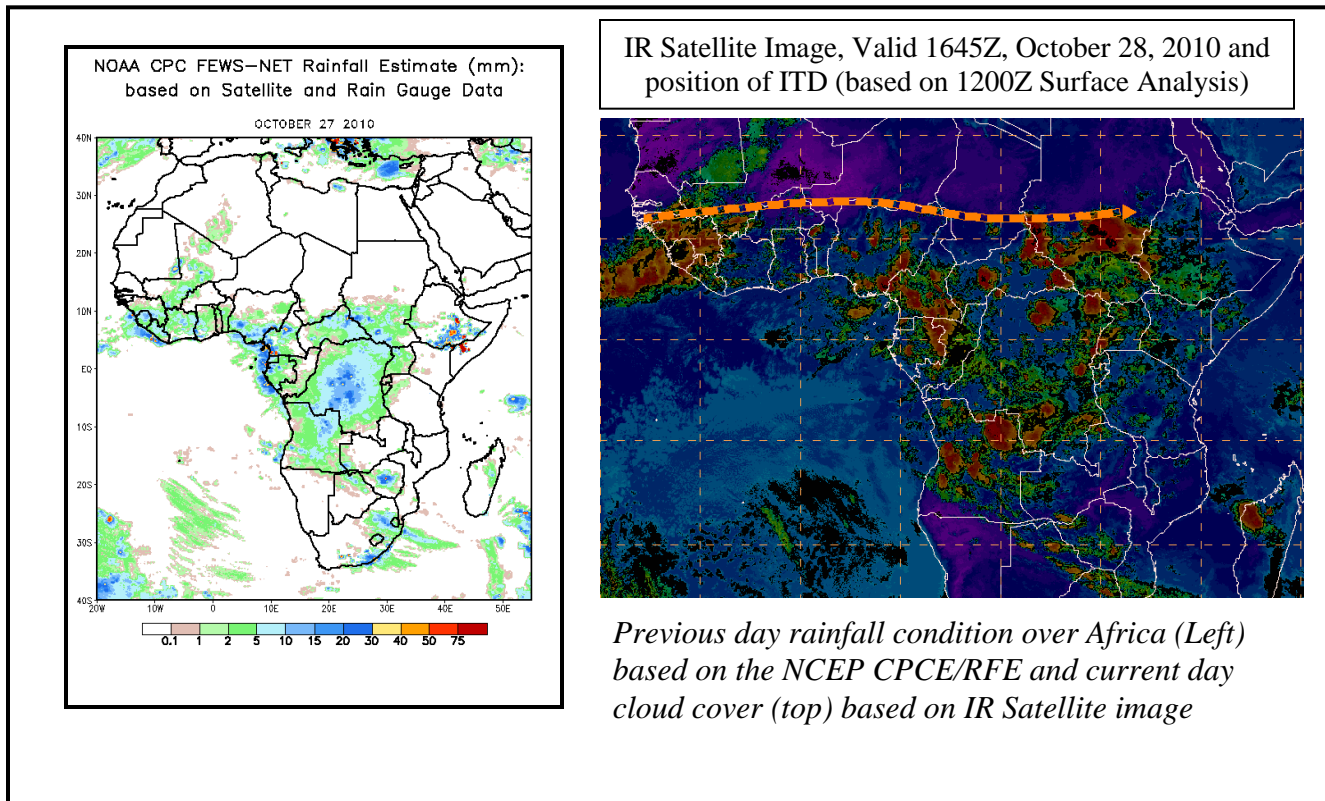
2.0. Previous and Current Day Weather Discussion over Africa (27 – 28 October 2010)

2.1. Weather assessment for the previous day (27 October 2010):

During the previous day, locally heavy rainfall was observed over southern Ethiopia, Somalia and Cameroon coast line. Moderate rainfall was observed over central parts of DRC.

2.2. Weather assessment for the current day (28 October 2010):

Intense clouds are observed over Gabon, Cameroon, Angola, Southern Sudan and western Madagascar.



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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