



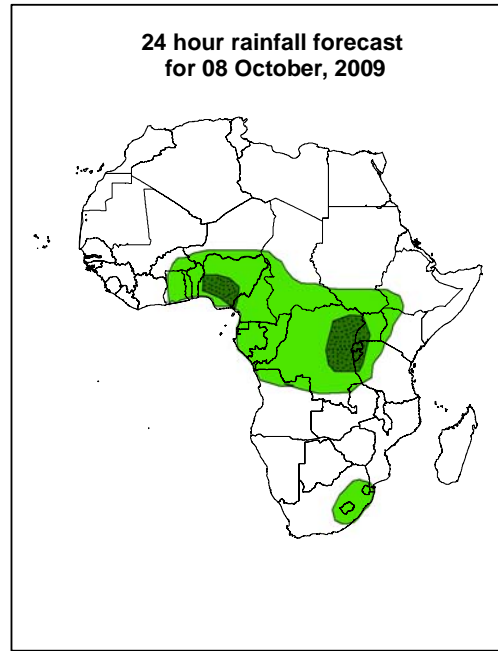
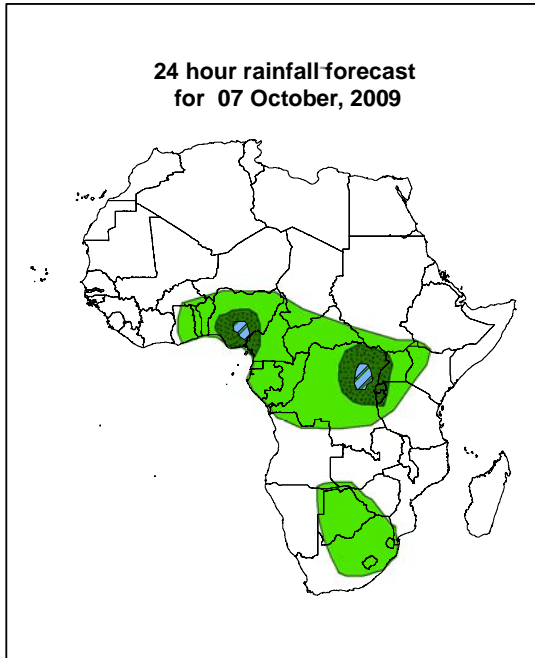
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 06 OCTOBER, 2009




Valid: 00Z 07October – 09 October, 2009

1. Twenty Four Hour Cumulative Rainfall Forecasts

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

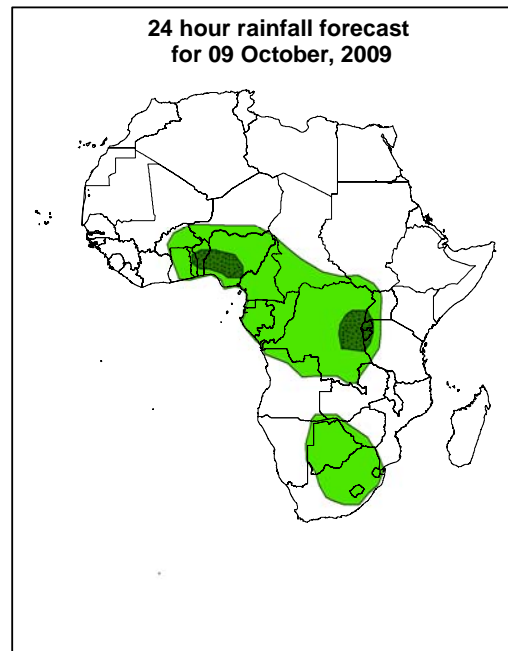


Legend

-  > 40mm, with probability 70%
-  > 20mm, with probability 70%
-  > 10mm, with probability 70%

Summary

The cyclonic circulation near the Gulf of Guinea, the persistent convergence line over Congo air boundary region and the passage of mid latitude frontal system across southern Africa are expected to enhance precipitations in the regions within coming three days.



2. Model discussion

Model comparison (Valid from 00Z; 06, OCTOBER, 2009): all the three models are in general agreement especially with respect to the positioning of large scale features, however, the UK model tends to give lower values than both the GFS and ECMWF models especially in the Equatorial region (10°S and 10°N).

2.1. Weather assessment for the previous day (05 October 2009): During the previous day, moderate to heavy rainfall events were observed over Southwestern Mali, Southern Ghana, South Eastern Nigeria, Central Africa Republic, Congo, DR Congo and Lake Victoria region.

2.2. Weather assessment for the current day (06 October 2009): Intense clouds are observed over southern Sudan, DR Congo, southwestern Ethiopia, Congo, southwestern Nigeria and northern Cote D'Ivoire.

2.3. Flow at 850hPa

T+24h: The convergence lines associated with equatorial trough and Congo air mass extending from Mali to Eritrea and Congo through Angola, Botswana and South Africa, respectively, expected to dominate the flow over the regions. Another convergence also associated with Congo air mass expected over Uganda, Rwanda, Burundi and western Tanzania. The cyclonic flow between the boarder of the Central African Republic and Cameroon is expected to enhance precipitation activities in the area. On the other hand, the mid latitude frontal system is expected to have its northern tip reaching an area close to 32°S longitude and 5°E latitude.

T+48h: The convergence and confluence lines associated with equatorial trough are expected to weaken over West Africa while they are expected to persist over Central and northeastern Africa. On the other hand, the trough associated with southern hemisphere frontal system is drifting eastwards with its axis extending towards southern Africa. The cyclonic circulation over Cameroon is expected to move towards southern Nigeria while weakening. The convergence line over Congo air boundary area is expected to persist while the convergence over southwestern and southern Africa is expected to weaken

T+72h: The localized convergence and confluence lines are expected to persist over Central and Eastern Africa, while they are expected to get enhanced over western Africa. The cyclonic circulation over southern Nigeria is expected to move towards the Gulf of Guinea.

2.3.2 Flow at 700hPa

T+24h: Zonal easterly flow is expected to dominate the flow over the tropical African region with a weak trough axis extending towards southern Cameroon.

T+48h: A trough associated with the weak easterly wave is expected to move westward, while weakening.

T+72h: The zonal easterly flow is expected to persist over tropical African region.

2.3.3 Flow at 500hPa

T+24h: Mid tropospheric easterlies are expected to persist dominating the flow over tropical African countries, with an axis of a weak trough, having its axis across extending to Guinea and Mali.

T+48h: The Mid tropospheric easterly trough is expected to move westward and another weak trough axis is expected to form over Nigeria and Chad.

T+72h: No significant change in the main flow pattern.

2.3.4 Flow at 200hPa

T+24h: A ridge associated with upper tropospheric anticyclone is expected to dominate the flow over north eastern, central and western Africa while zonal easterlies are expected to be dominant in the regions from Ethiopia to Cameroon.

T+48h: The upper tropospheric easterly flow is expected to be limited over Horn of Africa and Gulf of Guinea.

T+72h: No significant change is expected in the upper tropospheric flow.

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Disclaimer: **This bulletin is for training purposes only and should be used as guidance. NOAA does not make forecasts for areas outside of the United State.**