



Forecast Guidance for Africa

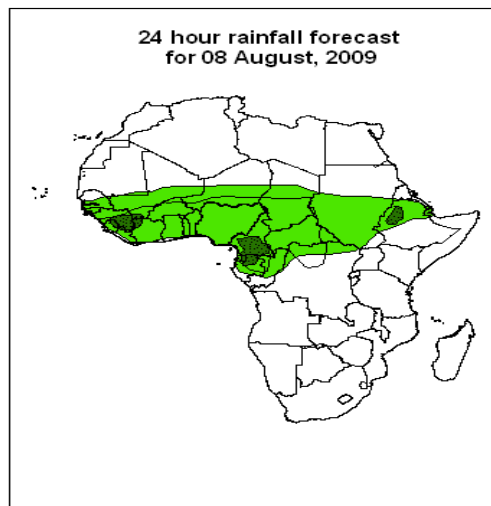
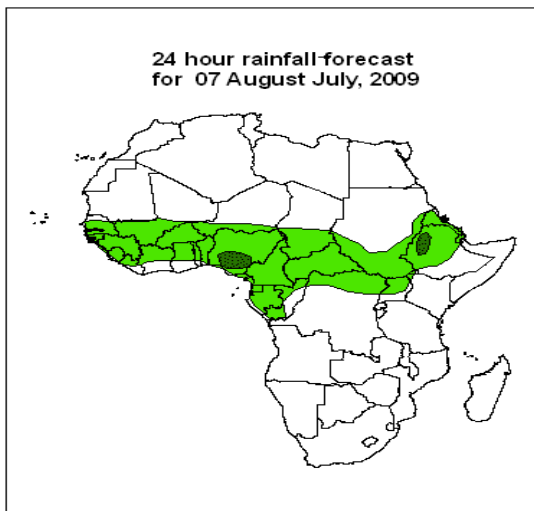
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 06 AUGUST, 2009




Valid: 00Z 07 AUGUST – 09 AUGUST, 2009

1. Twenty Four Hour Cumulative Rainfall Forecasts

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

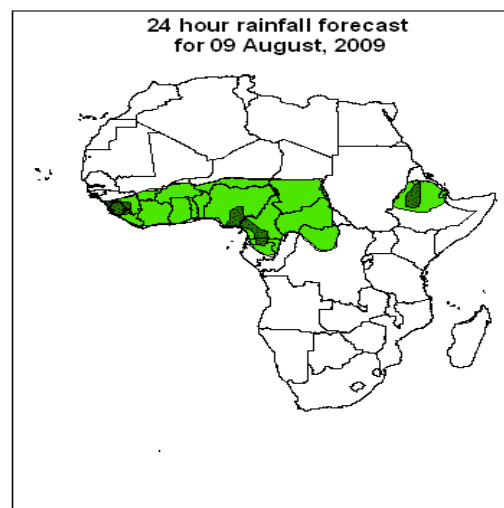


Legend

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

Summary

The sub-tropical ridge is expected to extend between southwest Indian Ocean and southeast Atlantic Ocean across south Africa. As a result, the flow associated with the peripheral wind expected to be more of zonal. In the northern hemisphere, localized convergent and confluent lines are expected over Mali, Congo, Chad, Sudan, northeast Ethiopia and Gulf of Eden.



2. Model discussion

Model comparison (Valid from 00Z; 06 August, 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. Flow at 850hPa

T+24h: The sub-tropical ridge is expected to extend between southwest Indian Ocean and southeast Atlantic Ocean across south Africa. As a result, the flow associated with the peripheral wind expected to be more of zonal. In the northern hemisphere, localized convergent and confluent lines are expected over Mali, Congo, Chad, Sudan, northeast Ethiopia and Gulf of Eden.

T+48h: A trough in the westerly along the western cost of South Africa and Namibian is expected to break the sub-tropical ridge in to two anticyclonic systems. In the northern hemisphere, the confluence lines are expected to maintain their previous day position.

T+72h: The St. Helena anticyclone is expected to weaken as a result of expansion of westerly trough over southeast Atlantic Ocean. A north-south oriented confluence line is expected to extend between Congo and western Sudan.

2.2. Flow at 500hPa

T+24h: Westerly winds are expected to dominate the flow over southern African countries while, equatorial Africa is expected to be dominated by easterly flow. Moreover, a flow associated with monsoon trough is expected to dominate the flow over eastern portions of the Horn of Africa.

T+48h: The westerly flow over southeast Atlantic Ocean and Mozambique Channel is expected to be disturbed as a result of developed feeble troughs.

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

2.3. Flow at 200hPa

T+24h: Upper level easterly flow is expected to persist over eastern and central African countries.

T+48h: The upper level easterly flow is expected to expand towards West African countries.

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

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