



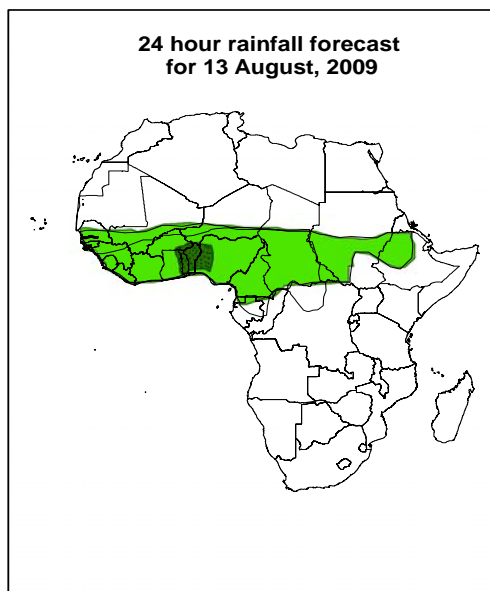
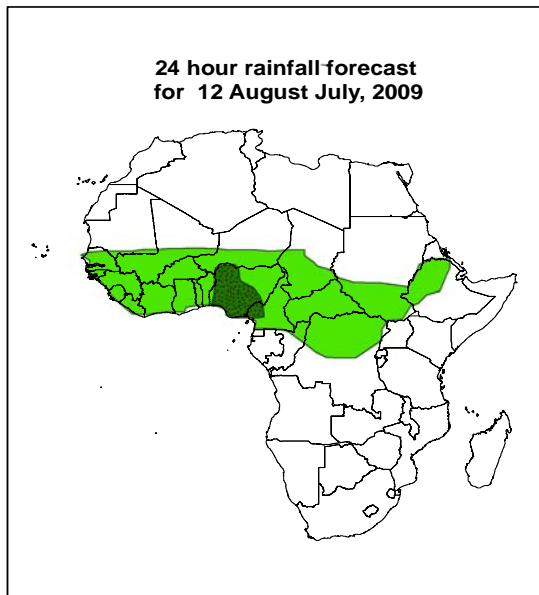
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 11 AUGUST, 2009




Valid: 00Z 12 AUGUST – 14 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.

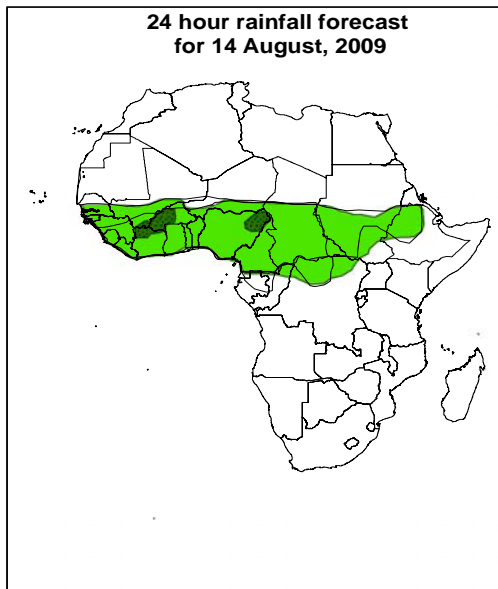


Legend

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

Summary

The ridge associated with the Mascarene anticyclone is expected to extend towards eastern portions of the southern African countries, with its peripheral winds carrying moisture towards areas between Congo and Uganda. On the other hand, the cyclonic circulation associated with tropical depression, off the western coast of Africa is expected to deepen. As a result of this, much of the moist air that emanates from the St. Helena Anticyclone is expected to converge into this system. Moreover, a trough in the westerlies is expected to extend northwards along the southwestern coast of Africa. In the northern hemisphere, the local convergent and confluence lines are expected to extend toward the southern latitudes over eastern Africa, while they are expected to persist over Mali, Niger, Chad, Uganda and Ethiopia.



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 ridge associated with the Mascarene anticyclone is expected to extend towards eastern portions of the southern African countries, with its peripheral winds carrying moisture towards areas between Congo and Uganda. On the other hand, the cyclonic circulation associated with tropical depression, off the western coast of Africa is expected to deepen. As a result of this, much of the moist air that emanates from the St. Helena Anticyclone is expected to converge into this system. Moreover, a trough in the westerlies is expected to extend northwards along the southwestern coast of Africa. In the northern hemisphere, the local convergent and confluence lines are expected to extend toward the southern latitudes over eastern Africa, while they are expected to persist over Mali, Niger, Chad, Uganda and Ethiopia.

T+48h: In the southern hemisphere, the westerly trough is expected to move eastwards across South Africa and the neighboring areas, weakening the Mascarene anticyclone. The cyclonic circulation off the coast of West Africa is expected to deepen further, enhancing the cross equatorial flow from the southeastern Atlantic Ocean. The convergent lines over CAB region, western Africa, central and eastern Africa are expected to maintain their previous day position.

T+72h: In the southern hemisphere, with deepening of the frontal systems the Subtropical anticyclone systems are anticipated to weaken. In associated with this, much of the peripheral flow is expected to be limited in the southern latitudes. The cyclonic circulation off the western coast of West Africa is expected to shift west ward.

2.2. Flow at 500hPa

T+24h: Feeble trough in the westerly is expected to dominate the flow over portions of Zimbabwe, Botswana, South Africa and Namibia.

T+48h: The westerly trough is expected to move eastward while deepening slightly..

T+72h: The westerly trough is expected to move further to the east, leaving the south African countries under the influence of a ridge.

2.3. Flow at 200hPa

T+24h: Upper level easterly flow is expected to dominate the flow over equatorial central and western Africa, while the easterly flow is limited between 10 and 20°N latitudes over eastern Africa.

T+48h: The upper level easterly flow is expected to be persistent over equatorial Africa.

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

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