



Forecast Guidance for Africa

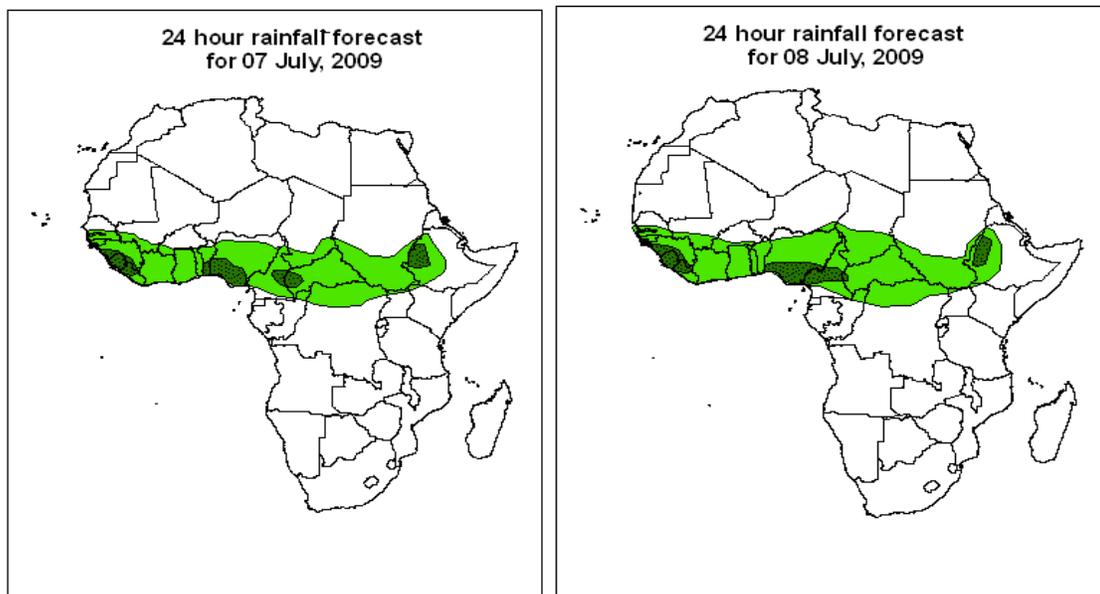
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 06 JULY, 2009

Valid: 00Z 07 JULY – 09 JULY, 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.

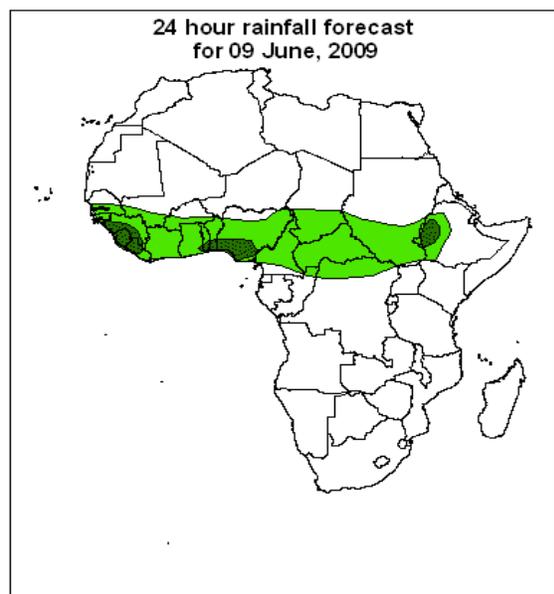


Legend

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

Summary

The Saharan anti-cyclonic system is expected to continue influencing the flow over northwestern Africa, while the persistent monsoon cross equatorial flow is expected to influence precipitation condition over eastern Africa and the horn of Africa region. Localized convergence and confluent lines are expected over the Gulf of Guinea region, northern Nigeria, eastern Mali, Chad, DR Congo, Sudan and Ethiopia.



2. Model discussion

Model comparison (Valid from 00Z; 06 July, 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 Saharan anti-cyclonic system is expected to continue influencing the flow over northwestern Africa, while the persistent monsoon cross equatorial flow is expected to influence precipitation condition over eastern Africa and the horn of Africa region. Localized convergence and confluent lines are expected over the Gulf of Guinea region, northern Nigeria, eastern Mali, Chad, DR Congo, Sudan and Ethiopia. In the southern hemisphere, the ridge associated with the subtropical anticyclones is expected to be weak over southern African countries and the adjoining areas.

T+48h: In the northern hemisphere the localized convergence lines are expected to shift slightly to the south over portions of West Africa with the convergence and confluence lines including Senegal and southwestern Mali. In the southern hemisphere, The Mascarene Anticyclone is expected to intensify over southwestern Indian Ocean.

T+72h: In the northern hemisphere most of the localized convergent lines are expected to maintain their previous position. In the Southern Hemisphere, the subtropical ridge is expected to strengthen across the southern African countries.

2.2. Flow at 500hPa

T+24h: In the northern hemisphere, a trough in the westerly is expected over the Mediterranean Sea. A stretch of monsoon trough is expected between India and the horn of Africa across the Arabian Sea. In the southern hemisphere, a perturbed westerly flow is expected to be dominant over the western coastal of the southern African countries.

T+48h: In the northern hemisphere there is no significant change is expected in the flow pattern. In the southern hemisphere, a trough in the westerly is expected to extend northwards up to the equatorial regions across the western portions of the south African countries.

T+72h: In the northern hemisphere the trough over the Mediterranean Sea is expected to weaken. In the southern hemisphere no significant change is expected in the main flow pattern.

2.3. Flow at 200hPa

T+24h: The equatorial eastern and central African areas are expected to be dominated by upper level easterly flow.

T+48h: The upper level easterly flow is expected to be persistent over eastern and central African countries.

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

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