



Forecast Guidance for Africa

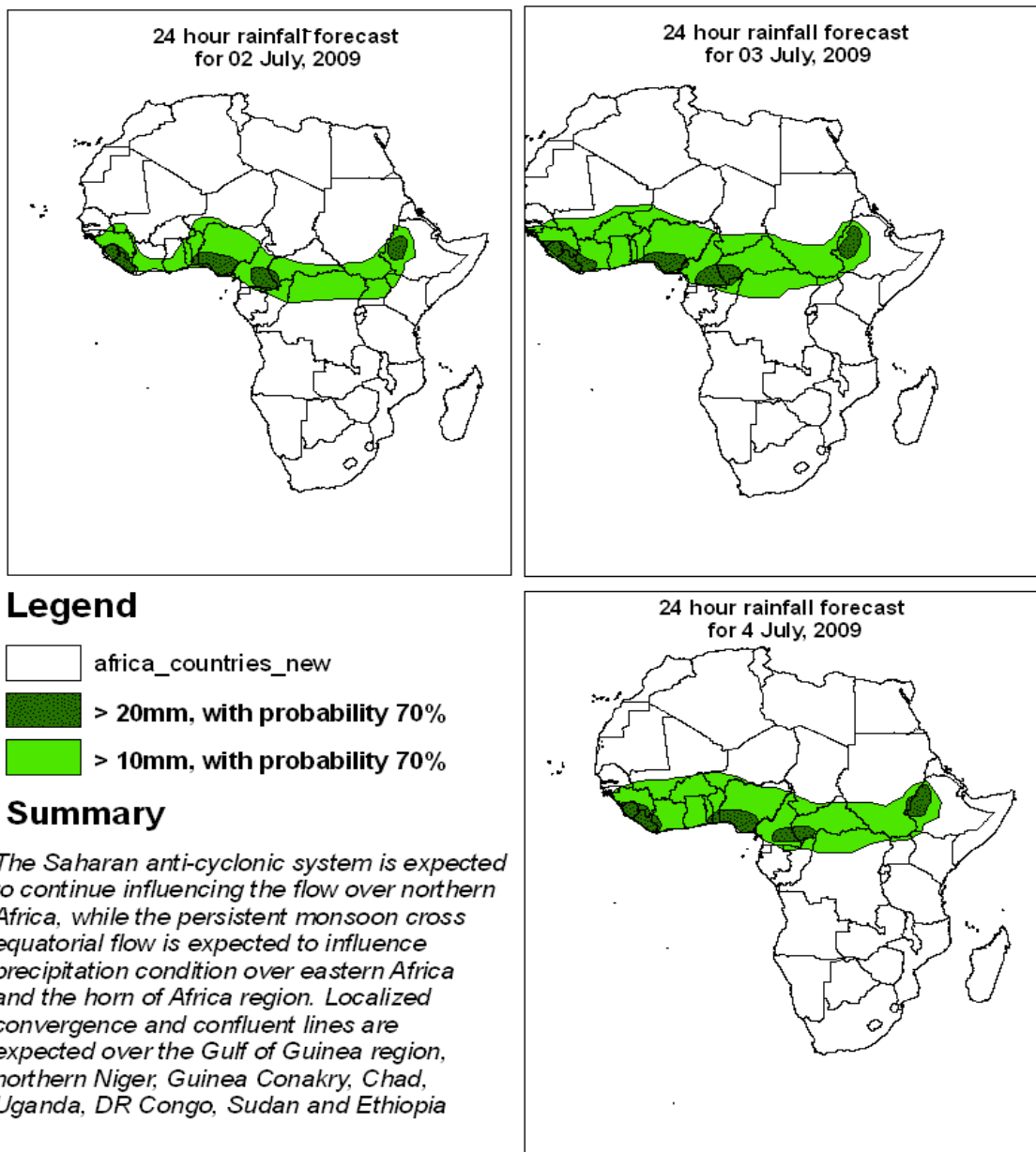
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 01 JULY, 2009

Valid: 00Z 02 JULY – 04 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.



2. Model discussion

Model comparison (Valid from 00Z; 01 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 northern Africa, while the persistent monsoon cross equatorial flow is expected to influence precipitation condition over eastern Africa and the horn of Africa region. Heat lows are expected to develop over southeastern portions of the Arabian Peninsula. Localized convergence and confluent lines are expected over the Gulf of Guinea region, northern Nigeria, Mali, Senegal, Chad, Uganda, DR Congo, Sudan and Ethiopia. , In the southern hemisphere the center of the subtropical anticyclone is expected to be over the southwestern Indian Ocean, with its peripheral southerly winds transporting moisture towards eastern African areas.

T+48h: No significant change is expected in both hemispheres.

T+72h: In the northern hemisphere the localized convergent lines are expected to maintain their previous position. In the Southern Hemisphere, the subtropical anticyclone is expected to weaken and the peripheral winds are expected to be more of southeasterlies.

2.2. Flow at 500hPa

T+24h: In the northern hemisphere a feeble trough in the westerlies is expected over the Mediterranean Sea and northern Libya. A stretch of monsoon trough is expected between India and the horn of Africa across the Arabian Sea.

T+48h: In the northern hemisphere the monsoon trough is expected to continue influencing the flow over Arabian Sea and neighboring areas of the Horn of Africa.

T+72h: The trough over the Mediterranean Sea and northern Libya is expected to extend further to the south.

2.3. Flow at 200hPa

T+24h: Most of the equatorial regions are expected to be dominated by an upper level easterly flow.

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

T+72h: The upper level easterly flow is expected to be limited over equatorial east African region.

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