

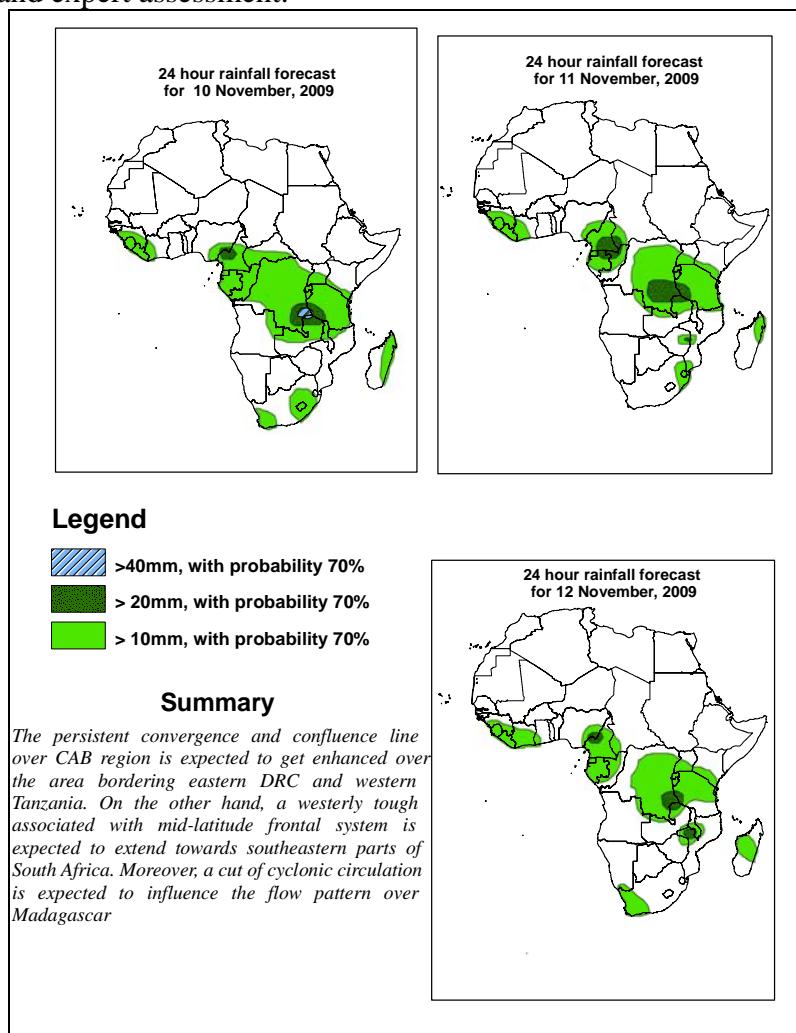


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Forecast Discussion: Valid, 06Z of 10 November – 06Z of 12 November 2009, (Issued at 14:00EST of 09 November 2009)

1.1. 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.



1.2. Model discussion

Model comparison (Valid from 00Z; 10, NOVEMBER, 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 ($10^{\circ}S$ and $10^{\circ}N$).

1.3. Flow at 850hPa

T+24h: The persistent convergence and confluence line over CAB region is expected to get enhanced over the area bordering eastern DRC and western Tanzania. On the other hand, a westerly trough associated with mid-latitude frontal system is expected to extend towards southeastern parts of South Africa. Moreover, a cut of cyclonic circulation is expected to influence the flow pattern over Madagascar.

T+48h: The convergence and confluence line over the area bordering eastern DRC and western Tanzania is expected to persist. Moreover, other convergence lines are expected to develop over southern Cameroon, southern Angola and Namibia. On the other hand, the westerly trough over southeastern parts of South Africa is expected to expand towards the adjacent areas.

T+72h: The seasonal convergence over the CAB region and the localized convergences over Cameroon and southern African countries are expected to continue influencing the rainfall pattern.

1.4. Flow at 500hPa

T+24h: A feeble trough in westerlies is expected along the western coast of south African countries, while a deep cyclonic circulation and its associated winds are expected to dominate the flow over Madagascar.

T+48h: The westerly trough over the coastal areas of southwest Africa is expected to extend further to the northern latitudes while the cyclonic system near Madagascar is expected to weaken

T+72h: The westerly trough over southwestern parts of Africa is expected to weaken.

1.5. Flow at 200hPa

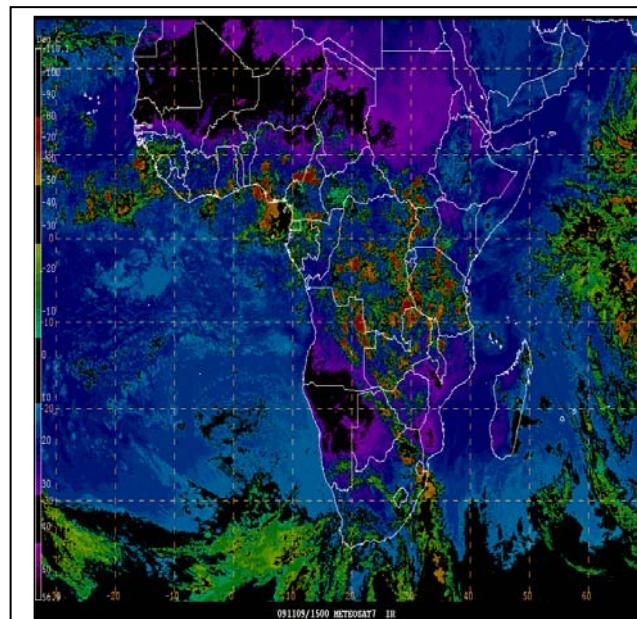
T+24h: A trough in the westerlies is expected to extend southwestward over the northern parts of the Horn of Africa. The westerly flow in the southern hemisphere is expected to have a wave pattern with trough axes influencing the flow over South Africa and Madagascar.

T+48h: The westerly trough over the horn of Africa is expected to shift slightly to the east, while the westerly wave flow in the southern hemisphere is expected to weaken.

T+72h: The trough over the horn of Africa is expected to move further to the east while the westerly wave pattern in the southern hemisphere is expected to weaken further.

2. Current Day Weather Discussion over Africa (09 November 2009)

2.1. Weather assessment for the current day (09 November 2009): Intense clouds are observed over parts of south Nigeria, Cameroon, Central Africa Rep., Gabon, Congo, southwestern Sudan, DR Congo, Uganda, Kenya, southern Somalia, Angola, Zambia, Botswana and South Africa.



*current day cloud cover (up) based on IR
Satellite image*

Authors: Anthony Twahirwa (Rwanda Meteorological Services)
Chali Debele (National Meteorological Agency of Ethiopia and African desk)

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 States.*