

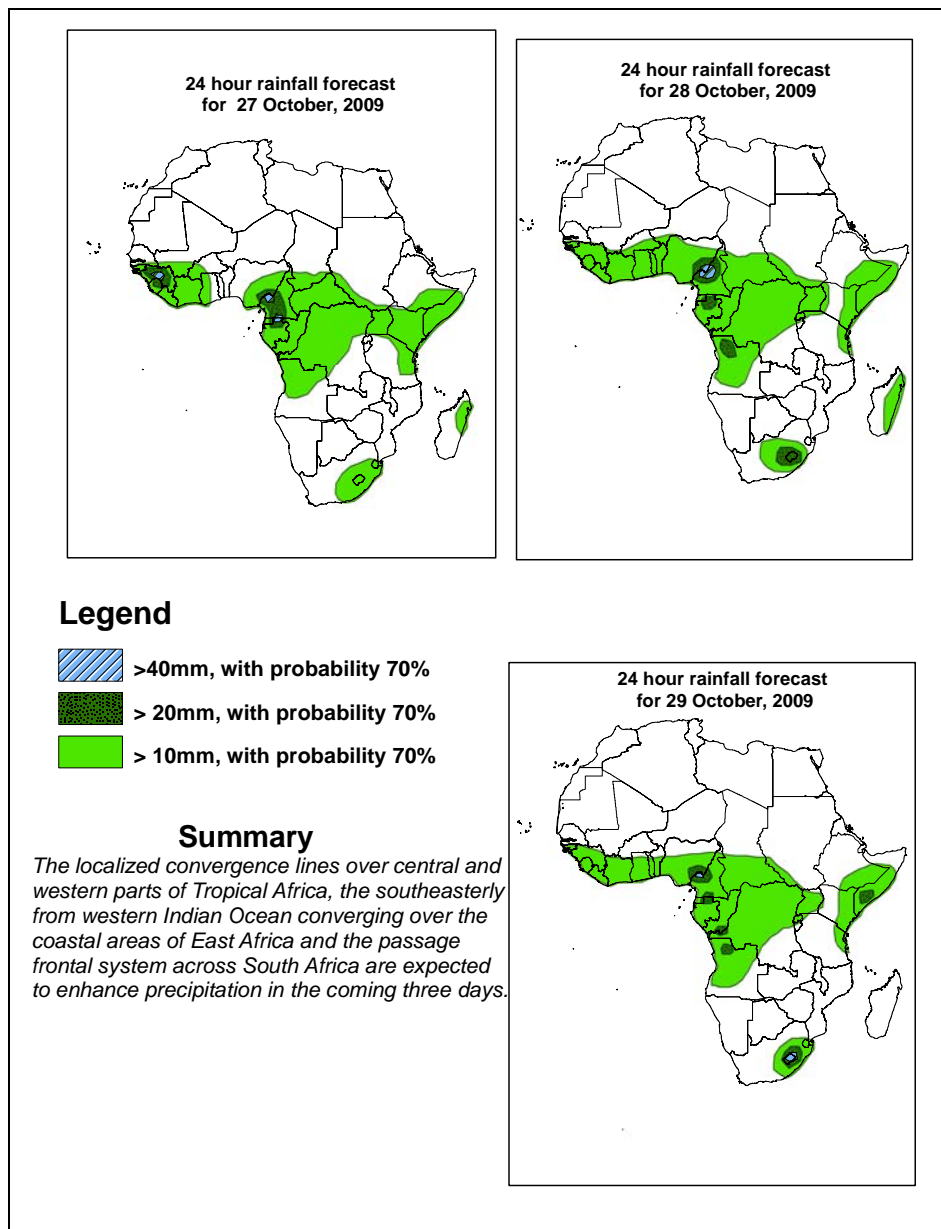


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Forecast Discussion: Valid, 06Z of 27 October – 06Z of 29 October 2009, (Issued at 14:00EST of 26 October 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; 26, OCTOBER, 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).

1.3. Flow at 850hPa

T+24h: An east-west oriented cyclonic circulation is expected in the region between Gabon and eastern portions of DRC. The localized convergence lines are expected to persist over southern Chad, Niger, Ethiopia, eastern DR Congo and Angola. A cut off cyclonic circulation is also expected to dominate the flow over western parts of South Africa.

T+48h: The east-west oriented cyclonic circulation over eastern parts of the Gulf of Guinea and the cut off circulation over western parts of southern Africa are expected to weaken, while the localized convergence lines over southern Chad, northern Nigeria and Niger, Ethiopia, eastern DR Congo and Angola are expected to persist. On the other hand, a trough associated with mid-latitude frontal system is expected reach the southern tip of South Africa.

T+72h: The localized convergence lines over the Gulf of Guinea, CAB region, Congo, Angola, Namibia, South Africa and Ethiopia are expected to persist. The trough associated with mid-latitude frontal system is expected to move towards Mozambique Channel

1.4. Flow at 500hPa

T+24h: Zonal easterlies are expected to dominate the flow over much of tropical Africa, while a weak mid-tropospheric perturbation in the easterlies is expected over the Gulf of Guinea region. On the other hand, a trough associated with mid-latitude frontal system is expected to dominate the flow over the western coastal areas of South Africa.

T+48h: The easterly perturbation over eastern parts of Gulf of Guinea region is expected to persist. On the other hand, a trough associated with mid-latitude frontal system is expected to move towards Mozambique Channel while deepening.

T+72h: The trough associated with mid-latitude frontal system is expected to expand over southern Africa countries dominating the flow in the region.

1.5. Flow at 200hPa

T+24h: The trough associated with upper tropospheric system is expected to dominate the flow over the coastal areas of East Africa.

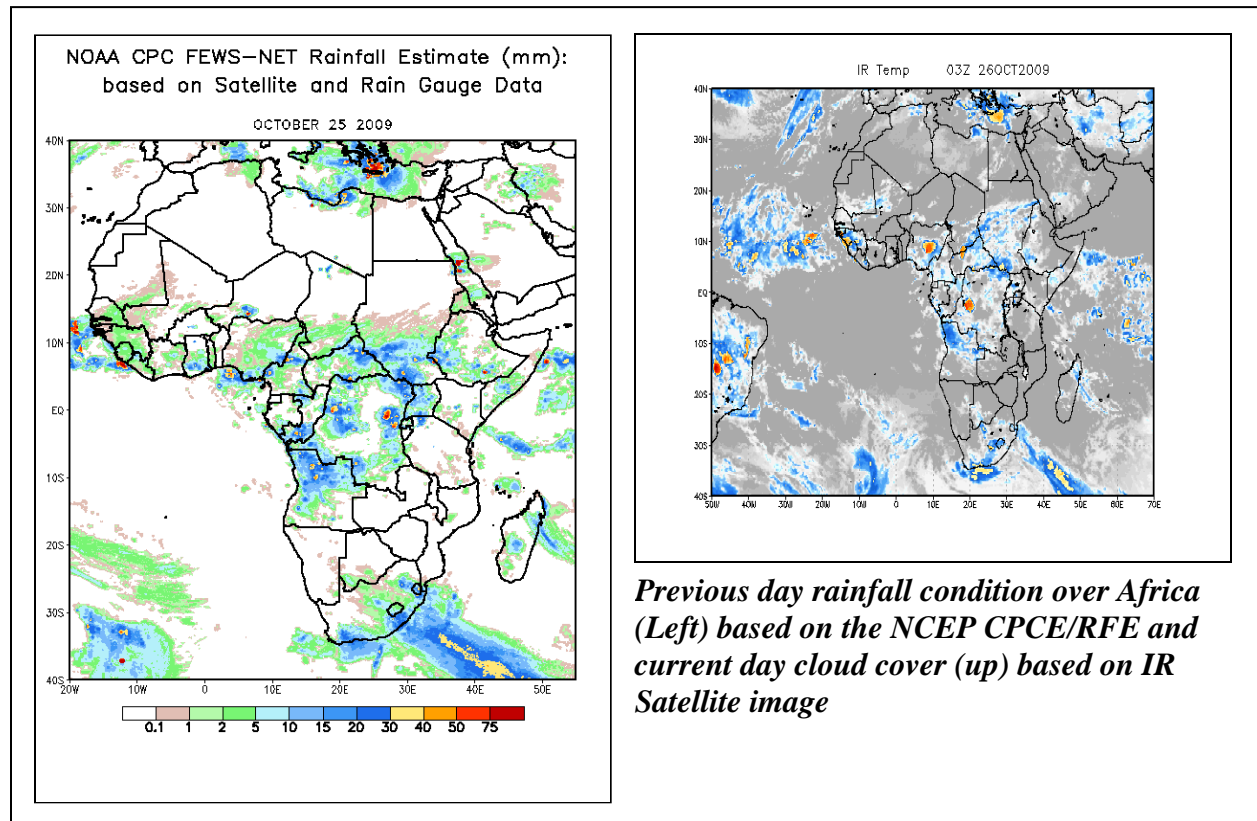
T+48h: There The upper trpsospheric trough is expected to continue influencing the flow over coastal areas of East Africa..

T+72h: The upper tropospheric trough is expected to fill up..

2. Previous and Current Day Weather Discussion over Africa (25-26 October 2009)

2.1. Weather assessment for the previous day (25 October 2009): During the previous day, moderate to heavy rainfall events were observed over parts of Sierra Leone, Liberia, western Cameroon, southern Central Africa Rep., southern Congo, eastern and southern DR Congo, northern Angola, southern Ethiopia, central Kenya and South Africa.

2.2. Weather assessment for the current day (26 October 2009): Intense clouds are observed over parts of Guinea, Nigeria, southern Chad, western DR Congo, northern Angola, Southern Sudan and South Africa.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (up) based on IR Satellite image

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