

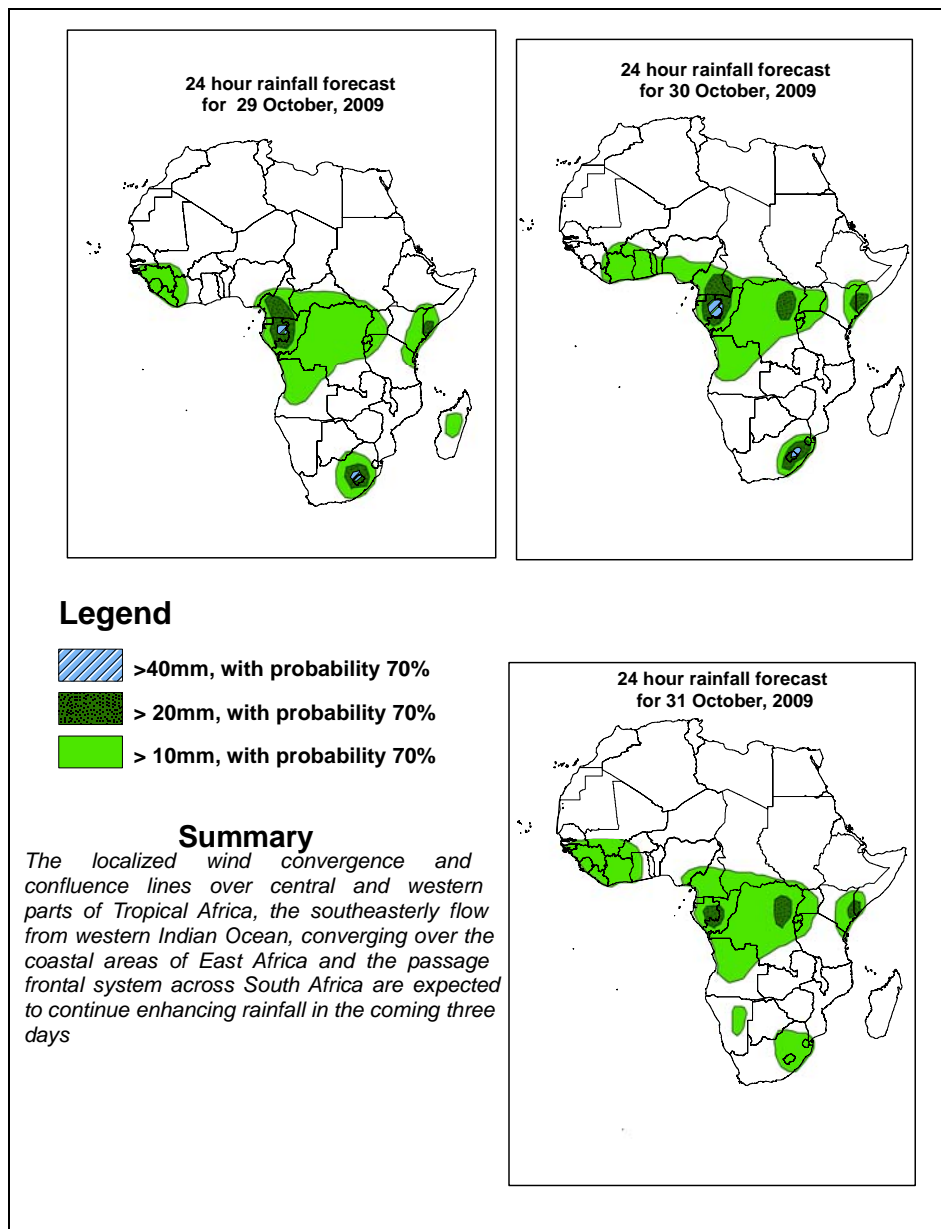


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Forecast Discussion: Valid, 06Z of 29 October – 06Z of 31 October 2009, (Issued at 14:00EST of 28 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; 28, 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: The localized wind convergence and confluence lines are expected to continue influencing the rainfall activity over Cameroon, Gabon Congo, southern Ethiopia, Angola, Botswana and South Africa. Moreover, the convergence associated with the CAB is expected to get enhanced in the area extending between Uganda and southwest DRC.

T+48h: The localized convergence and confluence lines are expected to persist over Cameroon, Gabon Congo, southern Ethiopia, Angola and South Africa.

T+72h: The localized convergence and confluence lines are expected to persist over western parts of the equatorial Africa and over portions of southern Africa countries.

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 to prevail over Cameroon and Gabon. On the other hand, a trough associated with mid-latitude frontal system is expected to extend towards Mozambique across Madagascar.

T+48h: The easterly perturbation over Cameroon and Gabon is expected to move slightly to the west. On the other hand, a trough associated with mid-latitude frontal system is expected to persist dominating the flow over Mozambique Channel and adjacent areas.

T+72h: The trough associated with mid-latitude frontal system is expected to persist dominating the flow over Mozambique Channel and adjacent areas.

1.5. Flow at 200hPa

T+24h: Much of the tropical parts of Africa is expected to be dominated by a flow associated with upper tropospheric ridge, while mid-latitude westerlies are expected to dominate the flow over northwestern and southwestern parts of Africa.

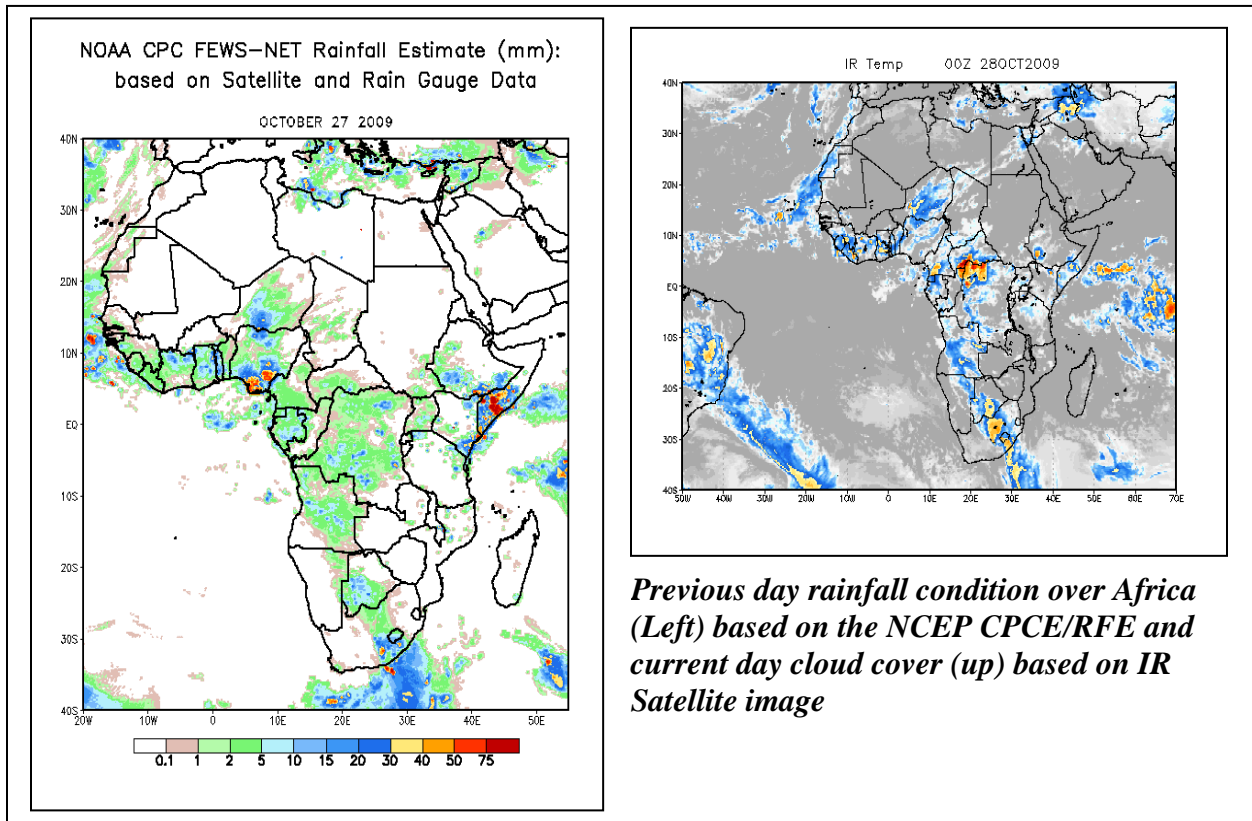
T+48h: The upper tropospheric anticyclonic flow over the tropical part of Africa is expected to expand while intensifying.

T+72h: No significant change is expected.

2. Previous and Current Day Weather Discussion over Africa (27-28 October 2009)

2.1. Weather assessment for the previous day (27 October 2009): During the previous day, moderate to heavy rainfall events were observed over parts of Gulf of Guinea, southern Nigeria, southern Niger, Cameroon, Central Africa Rep., northern DR Congo, Lake Victoria region, eastern Kenya, southern Ethiopia, southern Somalia, central Angola, southwestern Botswana, northern and South Africa.

2.2. Weather assessment for the current day (28 October 2009): Intense clouds are observed over parts of Sierra Leone, Liberia, Niger, southern Central Africa Rep., northern DR Congo, southwestern Ethiopia, southern Somalia, Angola, southern Botswana 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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