



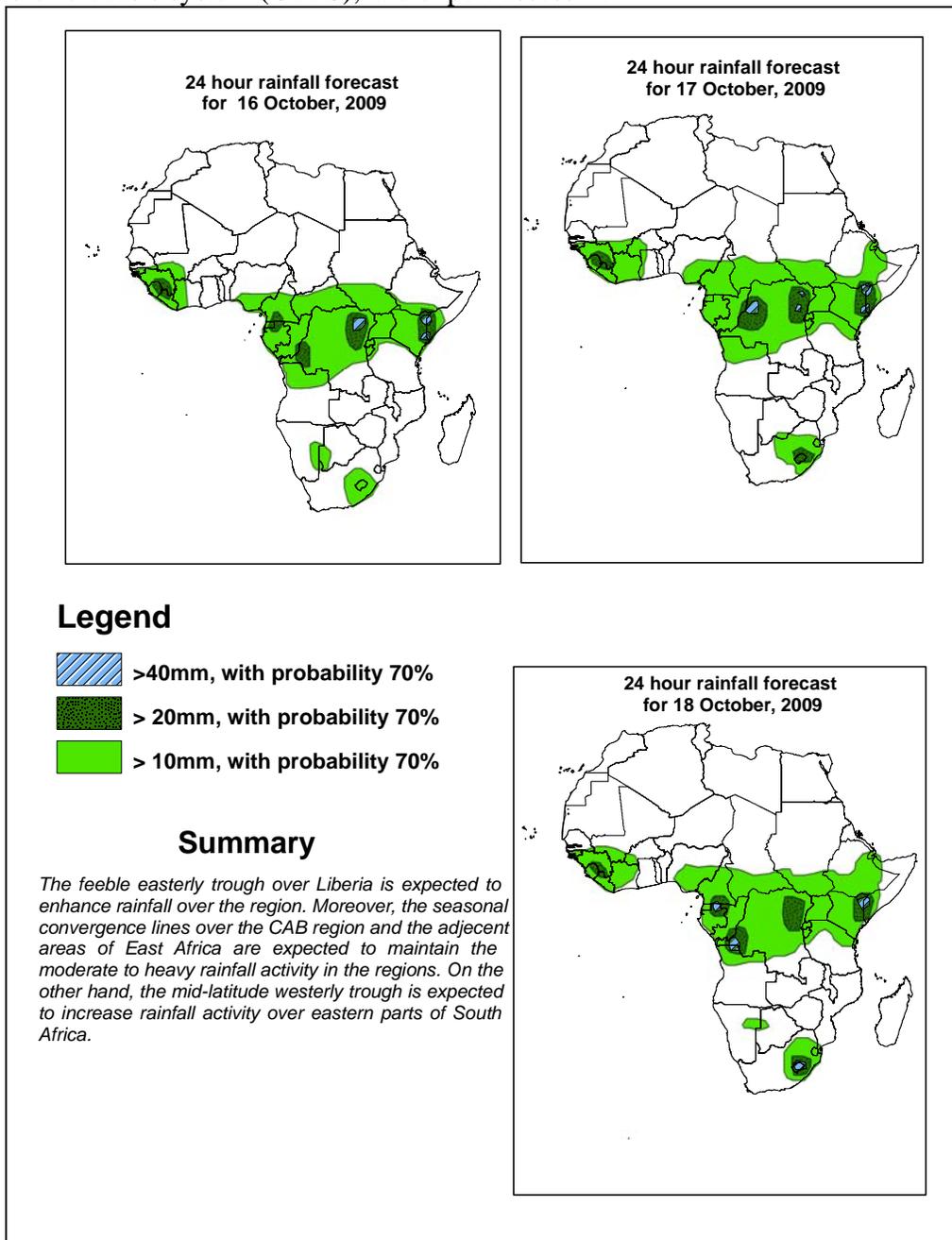
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative.

FORECAST DISCUSSION 14H00 EST, 09 OCTOBER, 2009

Valid: 00Z 10 October – 15 October, 2009

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.



2. Model discussion

Model comparison (Valid from 00Z; 14, 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).

2.1. Weather assessment for the previous day (14 October 2009): During the previous day, moderate to heavy rainfall events were observed over parts of Cote d'Ivoire, Ghana, Togo, Benin, western and southern Nigeria, southern Cameroon, Gabon, Congo, DR Congo, lake Victoria region, southern Ethiopia, southern Somalia, eastern Kenya, Botswana and northern parts of South Africa.

2.2. Weather assessment for the current day (15 October 2009): Intense clouds are observed over Gambia and southern Senegal, Cote d'Ivoire, northern Gabon, central and northern DR Congo, parts of northern Tanzania, western Uganda, Rwanda, Burundi, southern Namibia, southern Botswana and South Africa.

2.3. Flow at 850hPa

T+24h: Feeble trough in the easterlies is expected to have its axis over Liberia. Localized cyclonic circulation is expected over Gabon. The convergence associated with Congo Air mass is expected persist over CAB region. Moreover the localized convergence lines over southern Ethiopia, eastern Kenya and over southern African countries are expected to continue influencing the rainfall pattern in the regions. On there other hand the trough associated with mid-latitude frontal system is expected to have its axis extending towards South Africa.

T+48h: The easterly over Liberia is expected to move towards Sierra Leone. The cyclonic circulation over Gabon is expected to persist. Similarly the convergence over east Africa and Congo air boundary region is expected to remain active, enhancing the rainfall over the regions. The mid-latitude trough is expected to move eastwards with its axis extending towards eastern parts of South Africa

T+72h: The cyclonic flow over Gabon is expected to expand towards southern Cameroon. The convergence over east Africa and Congo air boundary region is expected to persist, enhancing precipitation over the regions. The mid-latitude trough is expected to remain over its previous day position, enhancing rainfall over southeastern parts of South Africa.

2.4. Flow at 500hPa

T+24h: A mid-tropospheric trough is expected to extend westward over the costal regions of East Africa. On the other hand westerly trough associated with the mid-latitude frontal system is expected to dominate the flow over southwestern parts of South Africa.

T+48h: The mid-tropospheric trough over East Africa is expected to drift towards the Gulf of Eden. On there other hand the mid-latitude westerly trough is expected to deepen along the western cost of South African Countries.

T+72h: The trough associated with mid latitude frontal system is expected to move to the east, while weakening.

2.5. Flow at 200hPa

T+24h: Much of the tropical Africa is expected to be dominated by a flow associated with upper tropospheric ridge. However upper tropospheric cyclonic circulation is expected to develop over the Horn of Africa.

T+48h: The upper tropospheric cyclonic circulation over the Horn of Africa is expected to expand towards Sudan across northern Ethiopia.

T+72h: The upper tropospheric cyclonic circulation over the Horn of Africa is expected to weaken.

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 State.