

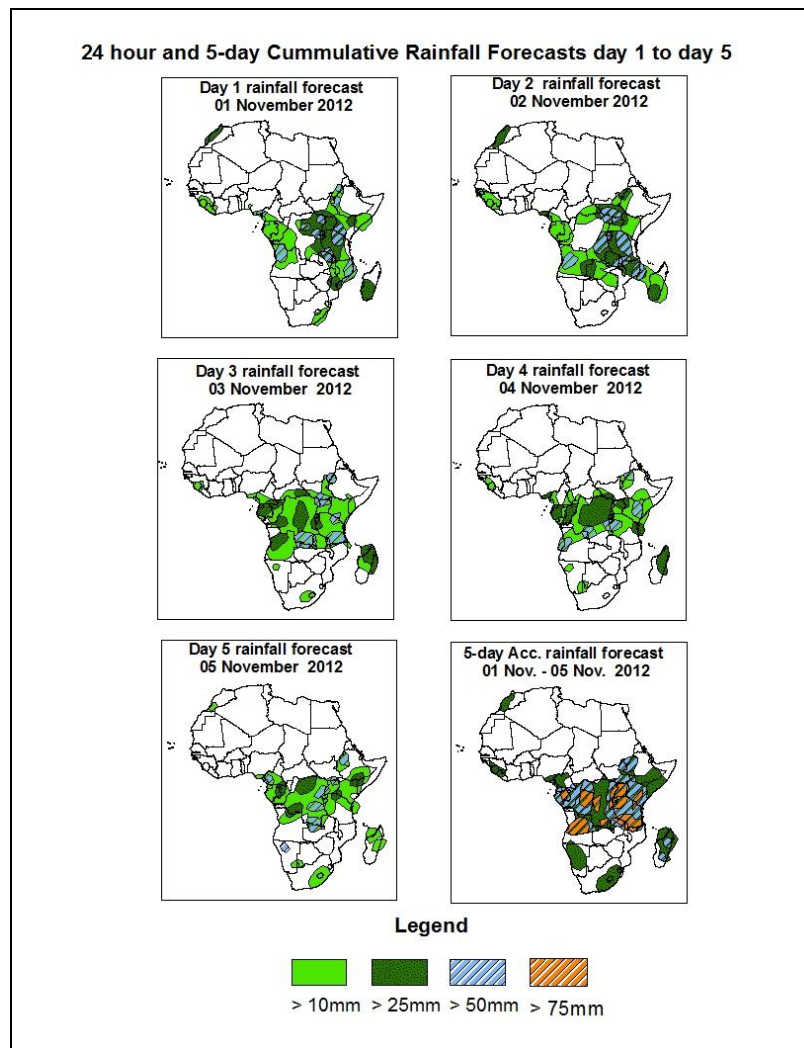


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 01 November – 06Z of 05 November 2012. (Issued at 13:00Z of 31 October 2012)

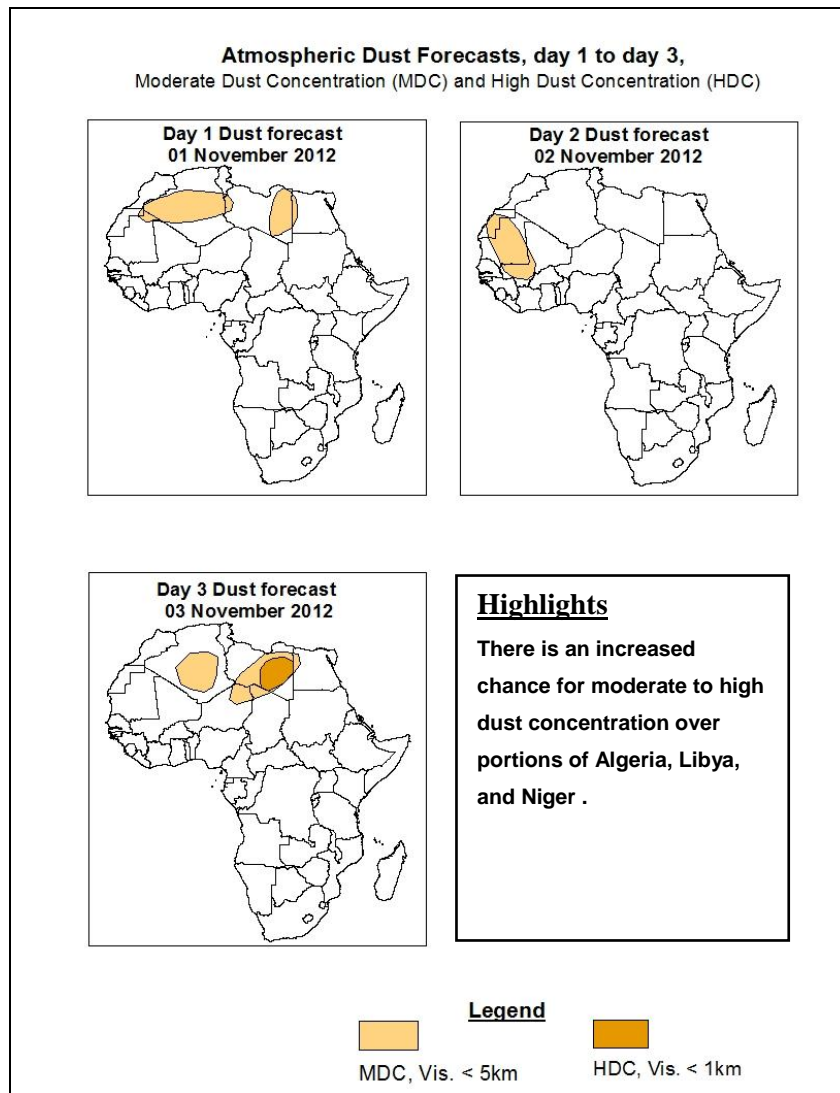
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of 75% probability of precipitation (POP) exceeded, based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS) and expert assessment.



Summary

In the next five days, very active seasonal low level wind convergences near the Lake Victoria region, localized wind convergences over Angola, and interaction between mid-latitude and tropical systems across Southeast Africa are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for heavy rainfall over portions of Angola and DRC, Uganda, many parts of Kenya and Tanzania, portions of Ethiopia, northern Zambia, Malawi and local areas in Madagascar.



1.2. Model Discussion: Valid from 00Z of 31 October 2012

Model comparison (Valid from 00Z; 31 October 2012) shows all the three models are in general agreement in terms of depicting relatively weaker sub-tropical high pressure systems of the southern hemisphere (St. Helena and Mascarene). However, the models show differences in terms of central pressure values.

The St. Helena High pressure system over southeast Atlantic Ocean is expected to remain weak with its central pressure value decreasing from about 1018hpa to 1016hpa through 48 to 120 hours according to the ECMWF model, it tends to maintain central pressure value of 1019hpa through 48 to 72 hours according to the UKMET and GFS models.

The Mascarene high pressure system over southwestern Indian Ocean is expected to weaken gradually with its central pressure value decreasing from 1035hpa to 1022hpa

through 24 to 120 hours according to the ECMWF model, decreasing from 1035hpa to 1025hpa according to the UKMET model and decreasing from 1030hpa to 1028hpa according to the GFS model.

The seasonal lows across the southern African countries are expected to weaken with their central pressure value increasing from about 1008hpa to 1010hpa according to the ECMWF model, from 1005hpa to 1010hpa according to the UKMET model, and from 1006hpa to 1009hpa according to the GFS model during the forecast period.

At the 850hpa level, the seasonal lower level wind convergence is expected to remain very active in the region between Southwest Ethiopia and northern Malawi, across Uganda, western Kenya, Tanzania and portions of Zambia through 24 to 48 hours. The convergence tends to weaken gradually, while shifting westward during the rest of the forecast period. Localized wind convergences are also expected to dominate the flow over Angola and Namibia during the forecast period. Eastward propagating frontal system is expected to interact with tropical systems across Southeast Africa, including the Mozambique Channel and Madagascar.

At 500hpa, a trough in the mid-latitude westerlies is expected between Red Sea and the Persian Gulf through 24 to 72 hours, while another mid-latitude trough is expected to deepen gradually across Northeast Africa through 72 to 120hours. A trough associated with mid-latitude frontal system is also expected to propagate across Southeast Africa the Mozambique Channel and Madagascar through the forecast period.

At 200hpa, the northern and southern hemisphere sub-tropical westerly jets are expected to remain weak within the extent of the African domain during the forecast period.

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2.0. Previous and Current Day Weather Discussion over Africa

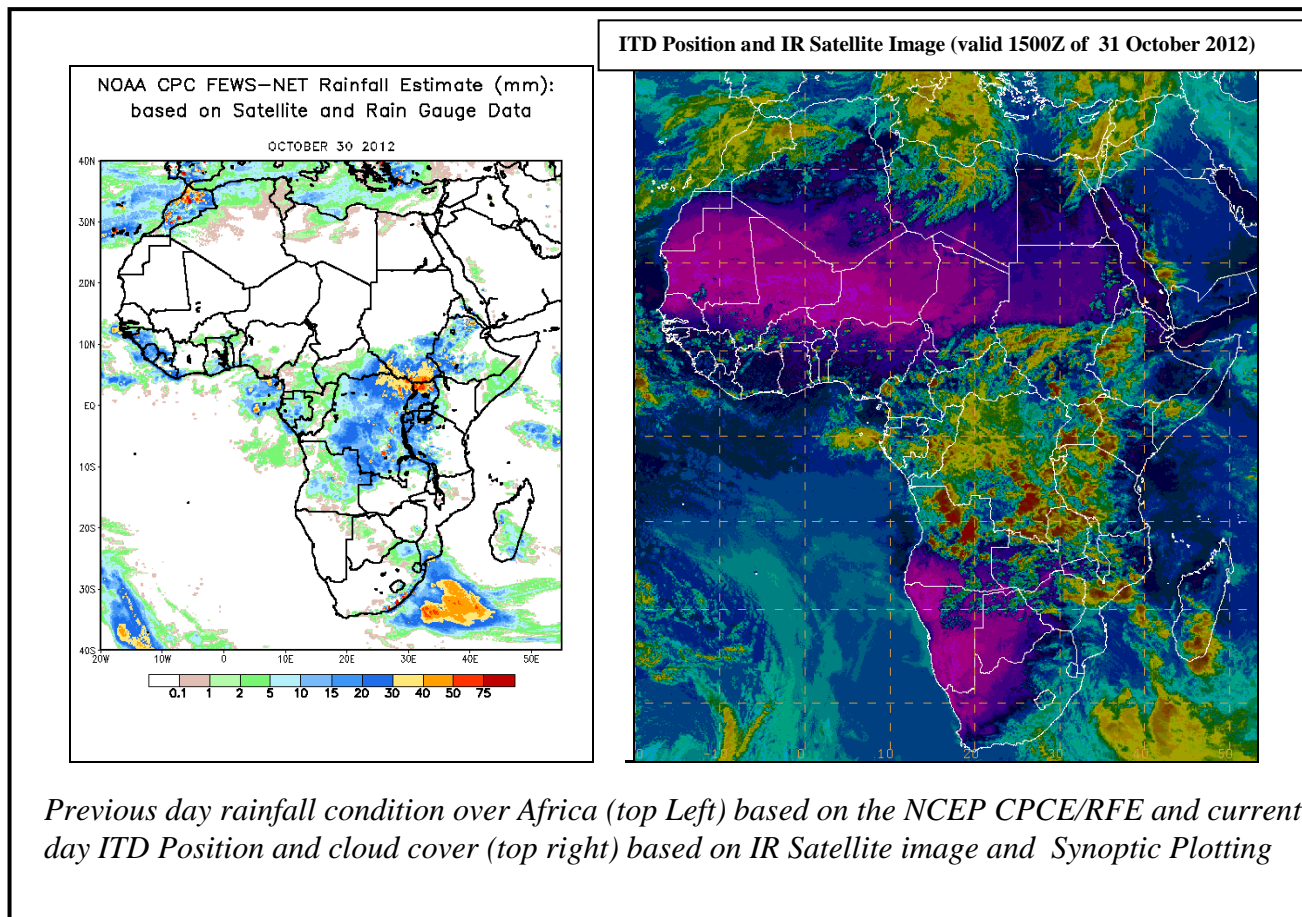
(30 October 2012 – 31 October 2012)

2.1. Weather assessment for the previous day (30 October 2012)

During the previous day, light rains were observed over parts of Mauritania; Mali; Morocco; Algeria; Chad; Egypt and South Africa with moderate to heavy rainfall over parts of Togo; Sierra Leone; Nigeria; Gabon; Cameroon; Congo Brazzaville; Democratic Republic of Congo; Central African Republic; South Sudan Republic; Ethiopia; Ghana and Angola.

2.2. Weather assessment for the current day (31 October 2012)

Convective clouds are observed across parts of Algeria; Libya; Mauritania; Nigeria; Chad; Democratic Republic of Congo; Cameroon; Sudan; Congo Brazzaville; South Sudan Republic; Ethiopia; Uganda; Somalia; Malawi; Zimbabwe; Algeria; Libya; Egypt; Sudan; Guinea-Conakry; Sierra Leone; Gambia; Togo; Kenya; Gabon; Angola; South Africa and Central African Republic.



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