

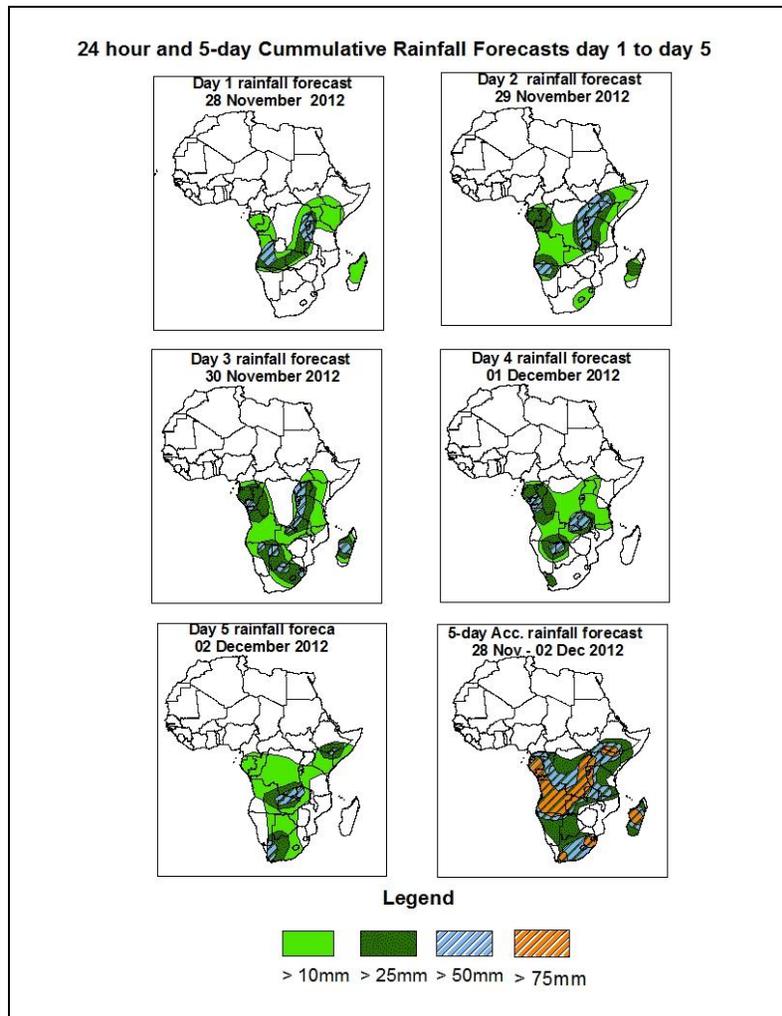


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 28 November – 06Z of 02 December 2012. (Issued at 16:00Z of 27 November 2012)

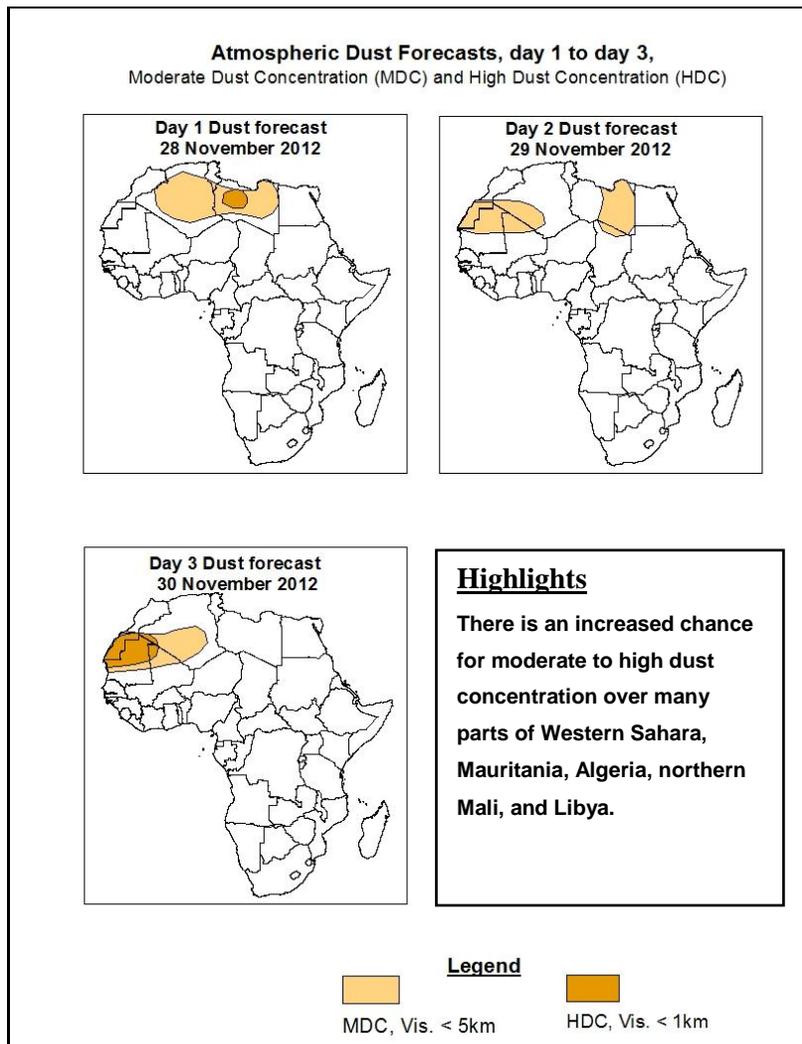
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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, active wind convergences near the Lake Victoria region and neighboring areas, a lower level wind convergence near Gabon, lower-level wind convergences over parts of South African countries, and eastward propagating trough across Madagascar are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for heavy rainfall over Gabon, parts of Congo, Angola, northern Namibia, northern Botswana, local areas in Zambia, DRC, Uganda, parts of Tanzania and Kenya, local areas in Ethiopia, eastern South Africa and Madagascar.



1.2. Model Discussion: Valid from 00Z of 27 November 2012

Model comparison (Valid from 00Z; 27 November 2012) shows all the three models are in general agreement in terms of depicting eastward shift of the southern hemisphere high pressure systems (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 strengthen slightly through 24 to 72 hours, and it tends to weaken gradually towards end of the forecast period, with its central pressure value increasing from 1027hpa to 1030hpa and decreasing to 1027hpa, according to the ECMWF, increasing from 1027hpa to 1031hpa, and decreasing to 1027hpa, according to the GFS model, and from 1027hpa to 1032hpa and decreasing to 1029hpa, according to the UKMET model.

The Mascarene high pressure system over southwestern Indian Ocean is expected to maintain its central pressure value of about 1026hpa according to the ECMWF model, about 1025hpa according to the GFS and UKMET models, with the center of the high shifting eastwards gradually.

The seasonal lows across the southern African countries are expected to deepen towards end of the forecast period, with their central pressure value becoming as low as 1005hpa according to the ECMWF model, 1003hpa, according to the GFS model and 1005hpa, according to the UKMET model.

At the 850hpa level, the seasonal lower level wind convergence is expected to remain active over near the Lake Victoria region through 24 to 72 hours, and it tends to shift to the west towards end of the forecast period. A lower level wind convergence is expected to prevail over Angola, while gradually expanding towards Zambia, Botswana and Namibia. Wind convergences are also expected to remain active near Gabon and the neighboring areas through 48 to 120 hours. A lower-level trough in westerlies expected to dominate the flow over eastern South Africa and Madagascar. In contrast, lower level anticyclonic flow is expected to dominate near Zimbabwe, northeastern South Africa and Mozambique.

At 500hpa, a trough in the mid-latitude westerlies is expected to propagate between Egypt and Persian Gulf through 24 to 96 hours. A trough associated with mid-latitude frontal system is also expected to propagate across Mozambique Channel and Madagascar through 24 to 72 hours.

At 200hpa, the northern hemisphere sub-tropical westerly jet is expected to remain strong across Northeast Africa, with the core wind speed exceeding 130kts.

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northern Namibia, northern Botswana, local areas in Zambia, DRC, Uganda, parts of Tanzania and Kenya, local areas in Ethiopia, eastern South Africa and Madagascar.

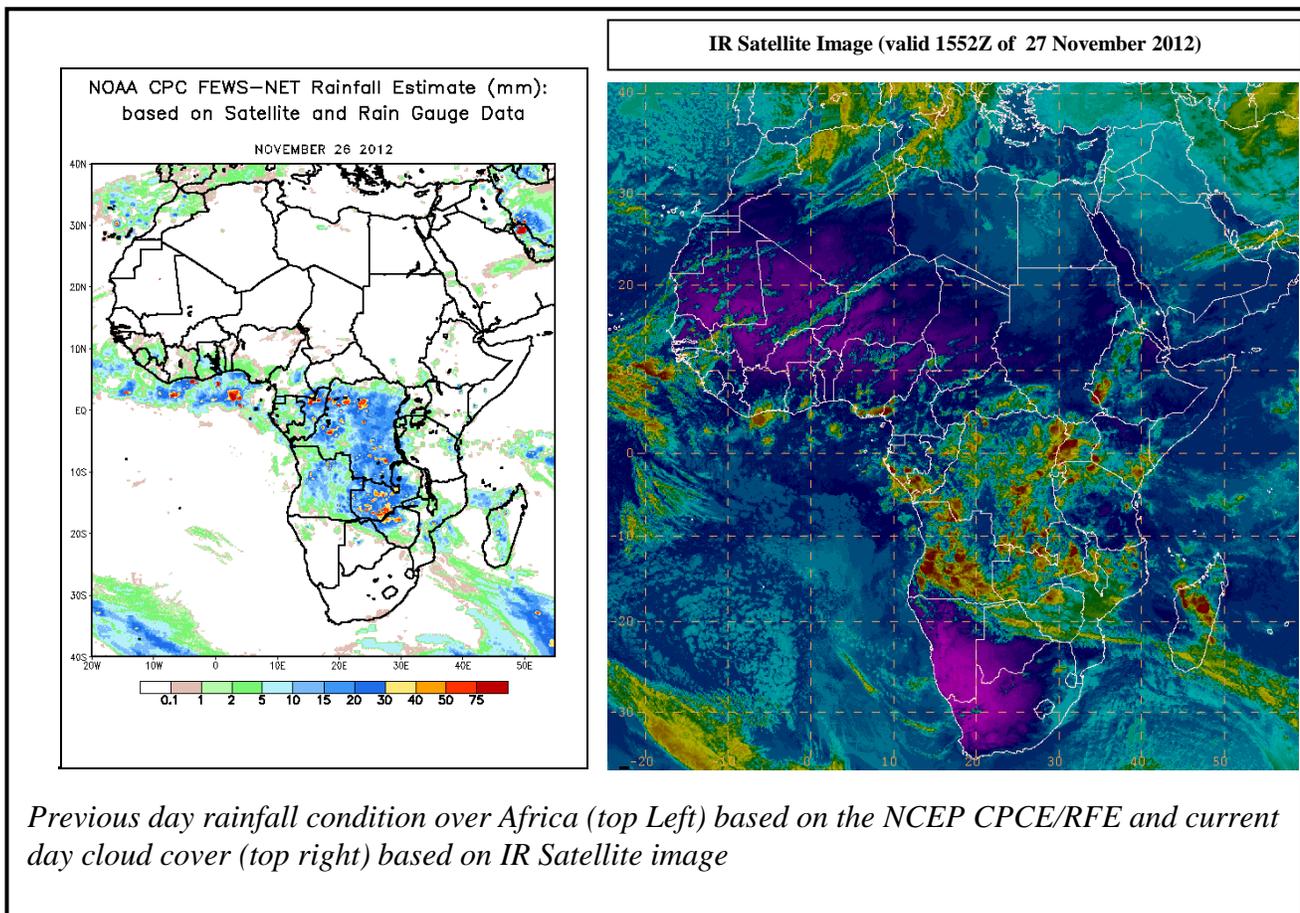
2.0. Previous and Current Day Weather Discussion over Africa (26 November 2012 – 27 November 2012)

2.1. Weather assessment for the previous day (26 November 2012)

During the previous day, moderate to locally heavy rainfall was observed over parts of Congo, DRC, Zambia and northern Zimbabwe.

2.2. Weather assessment for the current day (27 November 2012)

Intense clouds are observed across many parts of Central African region, portions of the Horn of Africa, and portions of Southern Africa countries, including Madagascar.



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