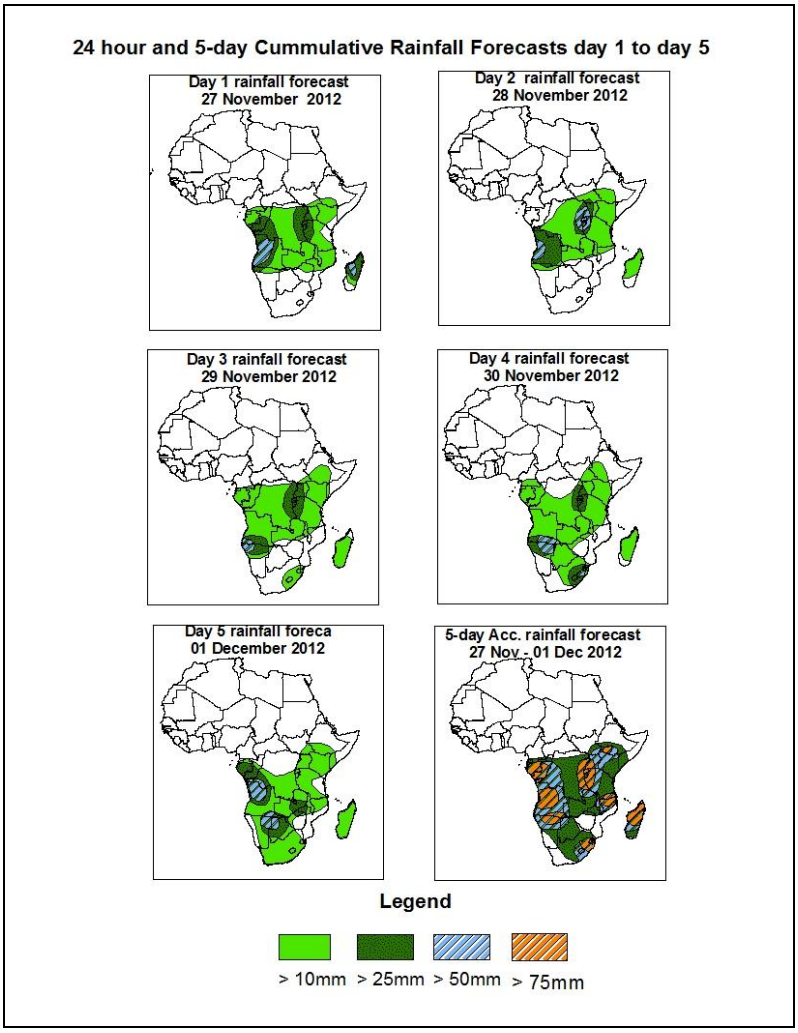
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 27 November – 06Z of 01 December 2012. (Issued at 18:30Z of 26 November 2012)

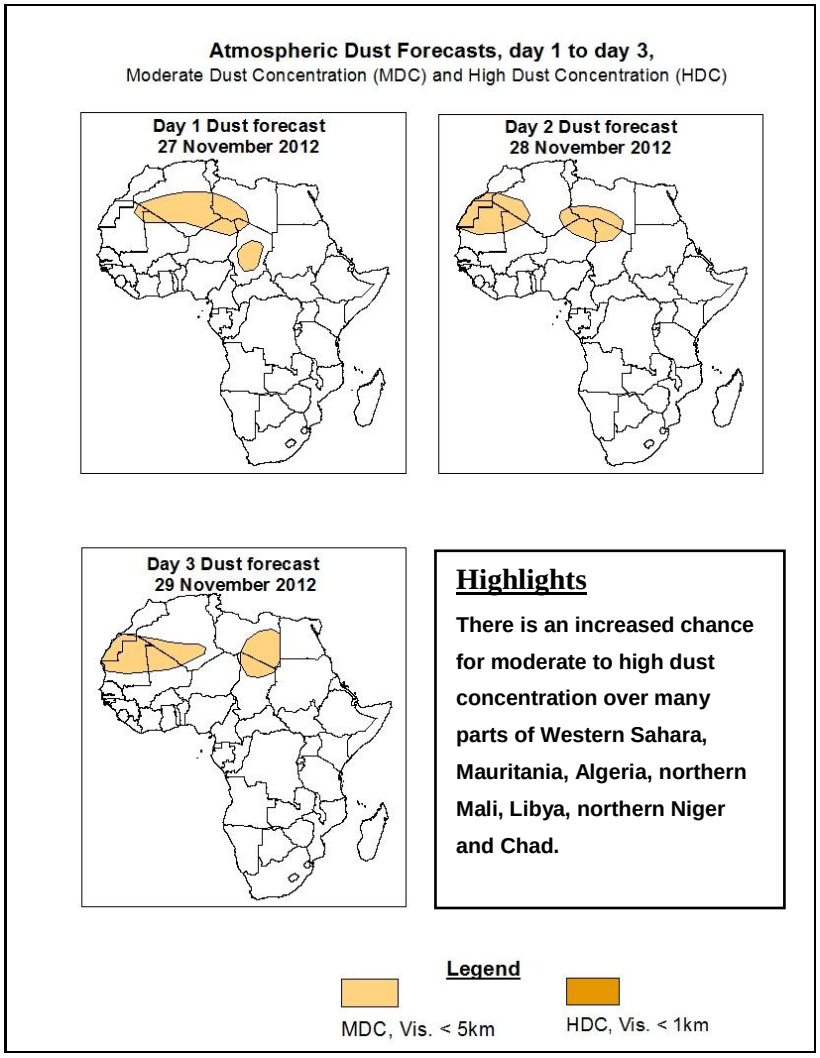
1.1. Twenty Four Hour Cumulative Rainfall Forecasts

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, 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, eastern South Africa and Madagascar.



1.2. Model Discussion: Valid from 00Z of 26 November 2012

Model comparison (Valid from 00Z; 26 November 2012) shows all the three models are in general agreement in terms of depicting strong St. Helena high pressure system, and relatively weaker Mascarene high pressure system. 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 96 hours, with its central pressure value increasing from 1028hpa to 1031 according to the ECMWF, from 1028hpa to 1030hpa, according to the GFS model, and from 1028hpa to 1032hpa according to the UKMET model.

The Mascarene high pressure system over southwestern Indian Ocean is expected to strengthen slightly through 48 to 120 hours, with its central pressure value increasing

from about 1024hpa to 1025hpa according to the ECMWF model, from 1025hpa to 1026hpa according to the GFS model, and from 1026hpa to 1027hpa, according to the UKMET model.

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 1006hap according to the ECMWF model, 1004hpa, according to the GFS model and 1007hpa, 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 shifting towards western 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.

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

At 200hpa, the northern hemisphere sub-tropical westerly jet is expected to remain strong across Northeast Africa, with the core wind speed exceeding 120kts.

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2.0. Previous and Current Day Weather Discussion over Africa

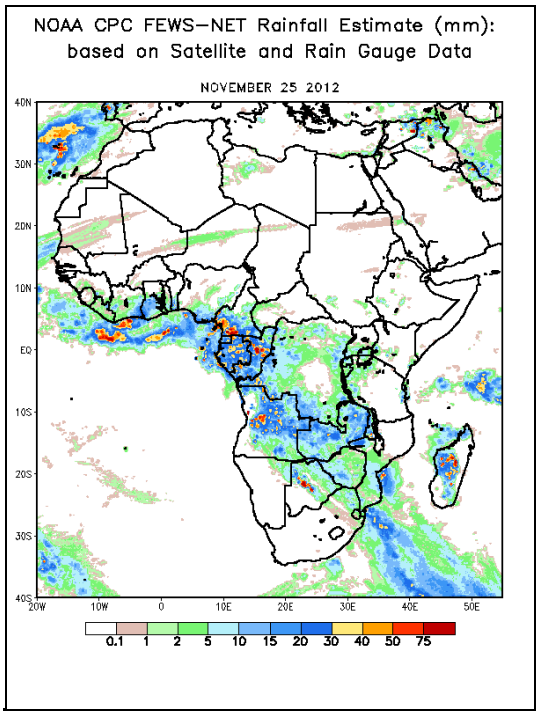
(25 November 2012 – 26 November 2012)

2.1. Weather assessment for the previous day (25 November 2012)

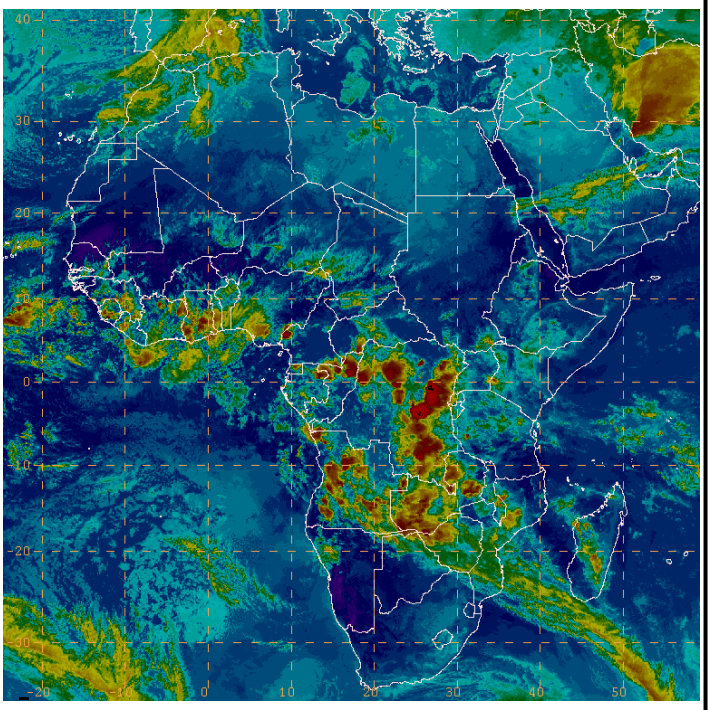
During the previous day, moderate to locally heavy rainfall was observed over parts of Cameroon, Gabon, Congo, Angola, Zambia, Botswana and Madagascar.

2.2. Weather assessment for the current day (26 November 2012)

Intense clouds are observed across the Gulf of Guinea countries, many parts of Central African region, and portions of Southern Africa countries.



IR Satellite Image (valid 1800Z of 26 November 2012)



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

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