

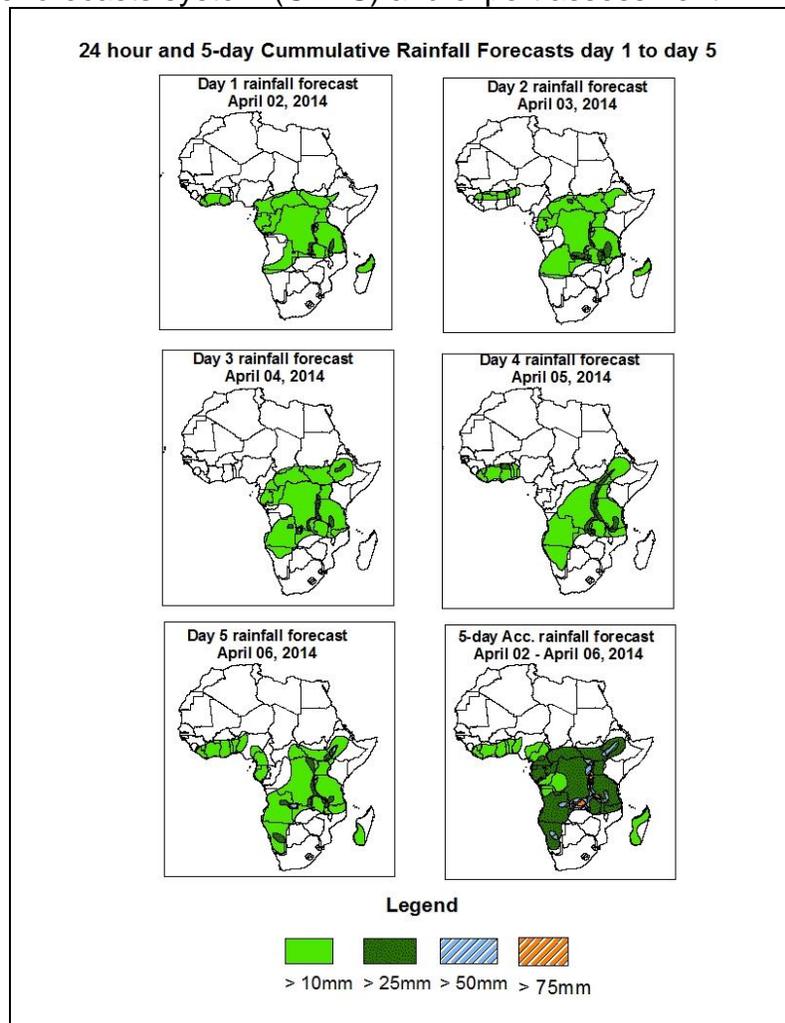


# NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

## 1.0. Rainfall Forecast: Valid 06Z of April 03 – 06Z of April 07, 2014. (Issued at 1600Z of April 02, 2014)

### 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/GFS and UK Met Office NWP outputs, and the NCEP global ensemble forecasts system (GEFS) and expert assessment.

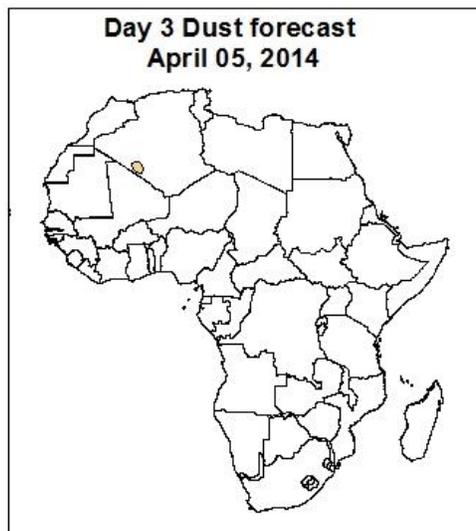
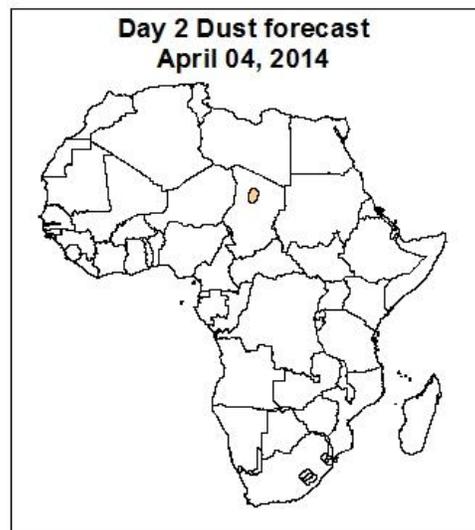
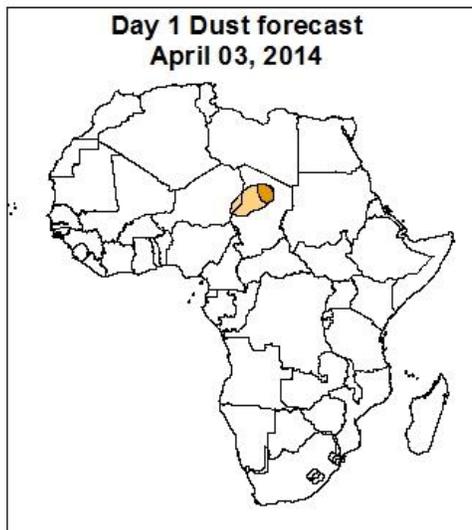


### Summary

In the coming five days, lower-tropospheric wind convergences across the gulf of guinea, East, Central and Southern Africa countries are expected to persist and hence continued moderate rains over Angola, Gabon, Equatorial Guinea, Tanzania, DRC, Namibia, Central African Republic, Ethiopia, south Sudan, Uganda parts of Zambia, Tanzania, Cameroon, Congo Brazzaville, Bissau Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria and Madagascar. Dry conditions are expected to persist over Zimbabwe, Mozambique, Botswana and South Africa.

## 1.2. Atmospheric Dust Forecasts: Valid April 03 – April 05 2014

**Atmospheric Dust Forecasts, day 1 to day 3,**  
Moderate Dust Concentration (MDC) and High Dust Concentration (HDC)



**Highlights**  
There is an increased  
chance for moderate to  
high dust concentration  
over Chad, Niger and  
Algeria.



### **1.3. Model Discussion: Valid from 00Z of April 03, 2014**

*Model comparison (GFS and UKMET Valid from 00Z: April 03, 2014) shows general agreement in terms of depicting positions of the northern and southern hemisphere sub-tropical highs, while they showed slight differences in depicting their intensity.*

In the coming 24 hours, the St. Helena High Pressure System is expected around 1027Hpa. This is will result in increased rain over Angola. However dry condition is expected over in South Africa and most part of Angola and Namibia.

After 24 hours of forecast period, the St. Helena High Pressure System is expected to move East taking over the Mascarene High Pressure. This is will result in decrease rainfall over Namibia. However expected an increase rainfall over Ethiopia and Tanzania most part of forecast period.

At 850Hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Democratic Republic of Congo (DRC), Angola, Tanzania Cameroon and parts of Sudan, Center African Republic, Zambia, Nigeria, Uganda, Namibia and Ethiopia.

At 500Hpa level, troughs associated with mid-latitude frontal system persist and are expected to result in some tropical, extra-tropical interactions bringing rains over Bissau Guinea, Liberia, Burkina Faso, Ivory Coast, Ghana, Togo, Benin, over South Sudan, Nigeria and Ethiopia for most part of the forecast period.

At 200hpa level, the sub-tropical Westerly Jet mainly (with wind speed >70 knots and <110 knots), extending between Mauritania, Algeria, Libya and Egypt, and across, Mali, Niger, Chad, Western Sahara, persist during the forecast period. In the south, the sub-tropical westerly Jet (with speed >70 knots and <90 knots) is expected over South Africa, Indian and Atlantic Ocean.

In the coming five days, lower-tropospheric wind convergences across the Gulf of Guinea, East, Central and Southern Africa countries are expected to persist and hence continued moderate rains over Angola, Gabon, Equatorial Guinea, Tanzania, DRC, Namibia, Central African Republic, Ethiopia, South Sudan, Uganda, parts of Zambia, Tanzania, Cameroon, Congo Brazzaville, Bissau Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria and Madagascar. Dry conditions are expected to persist over Zimbabwe, Mozambique, Botswana and South Africa.

## **2.0. Previous and Current Day Weather Discussion over Africa**

**(April 01, 2014 – April 02, 2014)**

### **2.1. Weather assessment for the previous day (April 01, 2014)**

During the previous day, moderate rainfall was observed over Liberia, Gabon and parts of Angola, DRC, Tanzania, Zambia, Uganda, Ethiopia, and Central African Republic.

### **2.2. Weather assessment for the current day (April 02, 2014)**

Intense clouds are observed over parts of Gulf of Guinea, East, Central and Southern Africa countries as well as Madagascar.

