

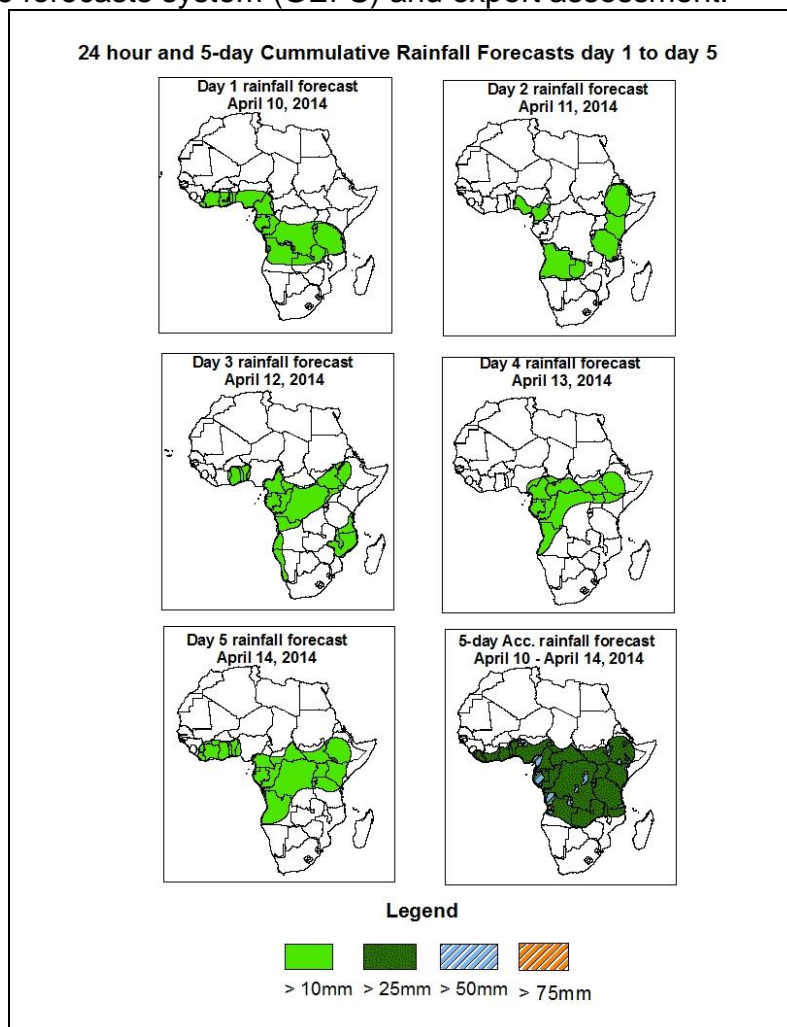


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of April 10 – 06Z of April 14, 2014. (Issued at 1600Z of April 09, 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.

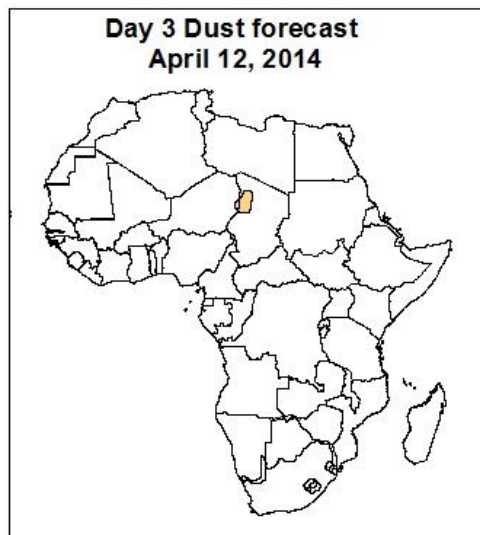
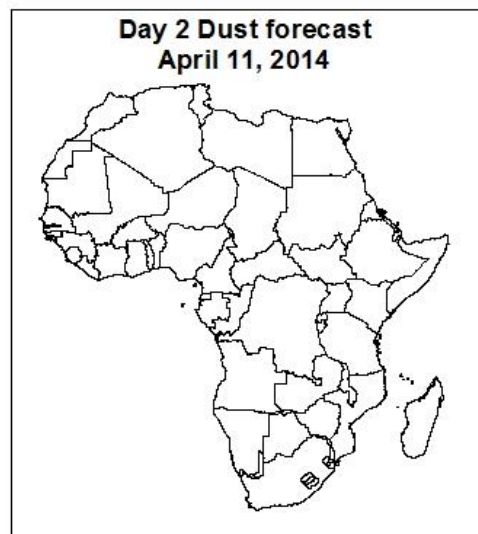
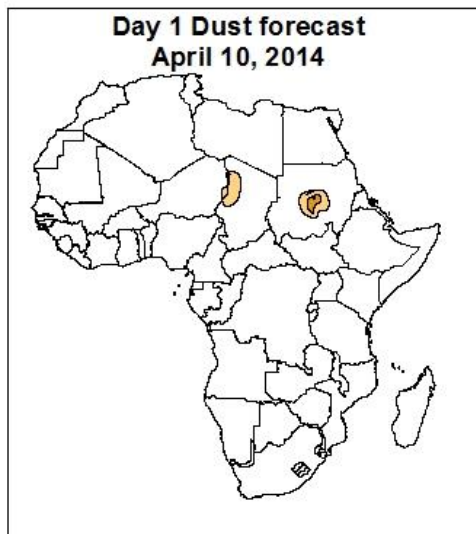


Summary

In the coming five days, lower-tropospheric wind convergences across the Gulf of Guinea, East and Central Africa countries are expected to persist and hence continued moderate rains over Northern Nigeria, Cameroun, Congo Brazzaville and Angola, Gabon, Tanzania, DRC, Central African Republic, Ethiopia, Kenya, Ivory Coast, Ghana, Togo, Benin, and Burkina Faso. Dry conditions are expected to persist over Zimbabwe, South Mozambique, Botswana, South Africa and Madagascar.

1.2. Atmospheric Dust Forecasts: Valid April 10 – April 12 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 Western Chad and central Sudan.



1.3. Model Discussion: Valid from 00Z of April 09, 2014

Model comparison (GFS and UKMET Valid from 00Z: April 09, 2014) shows general agreement in terms of depicting positions of the northern and southern hemisphere subtropical highs, while they showed slight differences in depicting their intensity.

The St. Helena High Pressure System, in southern Atlantic Ocean is expected to weaken while shifting eastwards through 24 to 120 hours. It weakens completely by 48 hours and builds up again from 96 to 120 hours. Its central pressure value is expected to decrease from about 1031hpa to 1023hpa according to the GFS model, and from about 1034hpa to 1023hpa according to the UKMET model.

The Mascarene high pressure system in southwestern Indian Ocean is expected to weaken while shifting eastwards through 24 to 120 hours. The East African ridge is expected to weaken gradually as a result of zonal orientation of the Mascarene high pressure system. Its central pressure value is expected to decrease from about 1033hpa to 1027hpa according to the GFS and 1029 to 1028hpa according to the UKMET models.

The Azores high pressure system in Northeastern Atlantic Ocean is expected to weaken while shifting eastwards through 24 to 120 hours. Its central pressure value is expected to decrease from about 1029hpa to 1027hpa according to the GFS and 1029 to 1028 according to the UKMET models.

At 925Hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Northern Guinea, Mali, Niger, Chad , Nigeria, Democratic Republic of Congo (DRC), Burkina Faso, Sudan, Ethiopia and parts of Central African Republic,

At 850Hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Democratic Republic of Congo (DRC), Cameroon, Congo Brazzaville, Central African Republic, Nigeria, Northern Ethiopia, Burkina Faso, Niger, Southern Chad and Ethiopia and Guinea

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 Angola, Mali, Niger, Chad, Southern Africa, Mauritania, Ethiopia, Sudan, Angola, Zambia, Zimbabwe and Congo Brazzaville for most part of the forecast period.

At 200hpa level, the sub-tropical Westerly Jet mainly (with wind speed >70 knots and <150 knots), extending between Northern Mauritania, Niger, Chad, Sudan, Western Sahara, Morocco 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 Mozambique extending to Zimbabwe, Indian and Atlantic Ocean.

In the coming five days, lower-tropospheric wind convergences across the Gulf of Guinea, East and Central Africa countries are expected to persist and hence continued moderate rains over Northern Nigeria, Cameroun, Congo Brazzaville and Angola, Gabon, Tanzania, DRC, Central African Republic, Ethiopia, Kenya, Ivory Coast, Ghana, Togo, Benin, and Burkina Faso. Dry conditions are expected to persist over Zimbabwe, South Mozambique, Botswana, South Africa and Madagascar.

2.0. Previous and Current Day Weather Discussion over Africa

(April 08, 2014 – April 09, 2014)

2.1. Weather assessment for the previous day (April 08, 2014)

During the previous day, moderate to heavy rainfall was observed over Southern Burkina Faso, Northern Ghana, Northern Cote d'Ivoire, Gabon, Nigeria, Democratic Republic of Congo, Northern Angola, South Sudan and Tanzania

2.2. Weather assessment for the current day (April 09, 2014)

Intense clouds are observed over local areas in the Gulf of Guinea and Southern Africa countries.

