

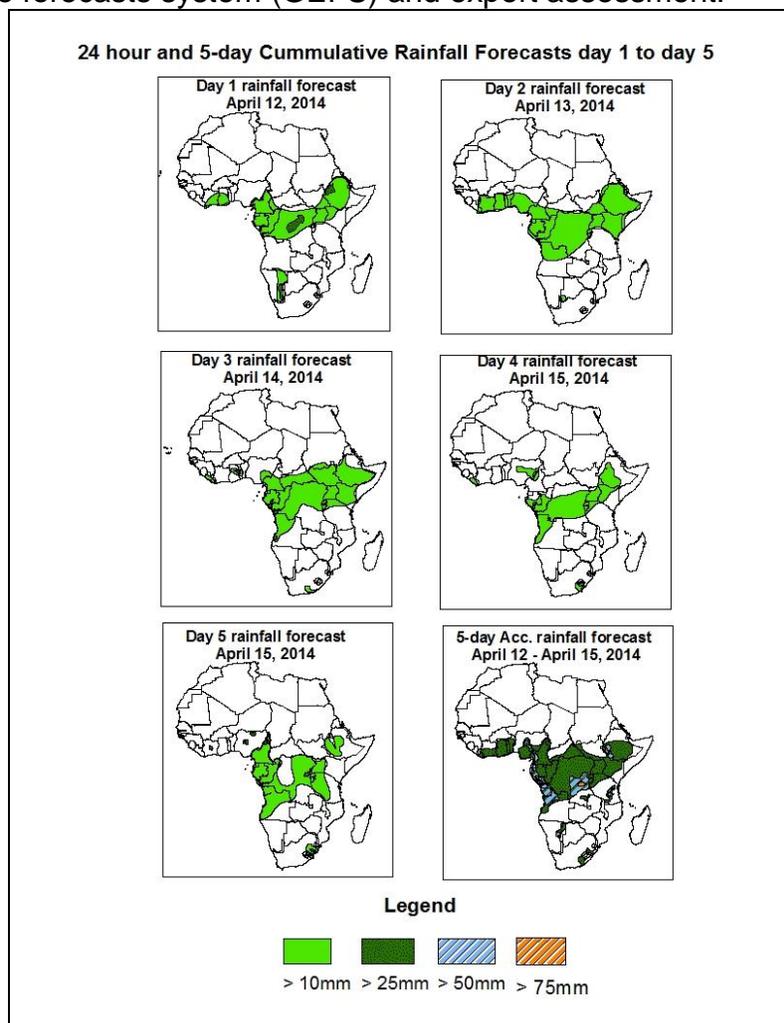


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of April 12 – 06Z of April 16, 2014. (Issued at 1600Z of April 11, 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.

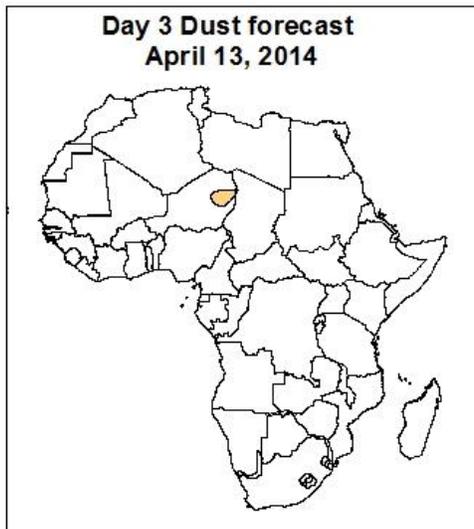
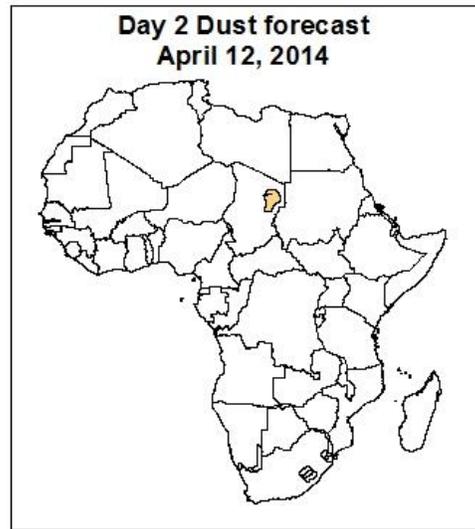
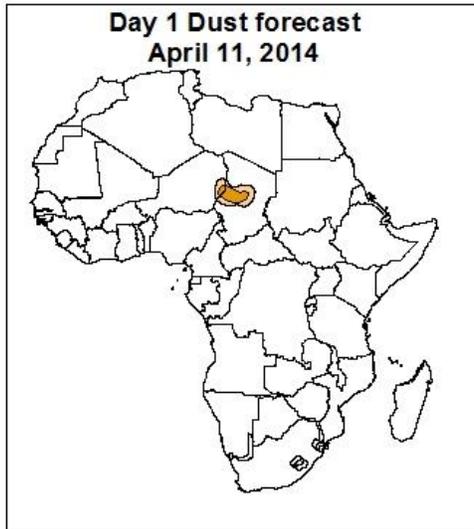


Summary

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 Burkina Faso, Ivory Coast, Ghana, Togo, Benin Southern Nigeria, Cameroun, Congo Brazzaville, Angola, Gabon, Parts of Tanzania, DRC, Central African Republic, parts of Namibia, Ethiopia, Kenya and South eastern part of South Africa. Dry conditions are expected to persist over Zimbabwe, South Mozambique, Botswana, South Africa and Madagascar.

1.2. Atmospheric Dust Forecasts: Valid April 12 – April 13 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 Niger and Chad



1.3. Model Discussion: Valid from 00Z of April 11, 2014

Model comparison (GFS and UKMET Valid from 00Z: April 11, 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.

The St. Helena High Pressure System, in southern Atlantic Ocean is expected to intensify while shifting eastwards through 24 to 120 hours. Its central pressure value is expected to increase from about 1026hpa to 1030hpa according to the GFS model, and from about 1027hpa to 1030hpa according to the UKMET model.

The Mascarene high pressure system in southwestern Indian Ocean is expected to intensify 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 increase from about 1027hpa to 1030hpa according to the GFS while 1027 to 1031hpa according to the UKMET models.

The Azores high pressure system in Northeastern Atlantic Ocean is expected to intensify while shifting eastwards through 24 to 120 hours. Its central pressure value is expected to increase from about 1030hpa to 1034hpa according to the GFS and 1028 to 1033 according to the UKMET models.

At 925Hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Guinea, Mali, Niger, Chad , North Eastern Nigeria, Democratic Republic of Congo (DRC) 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), Guinea, Mali, Niger, Cameroun, Nigeria, Niger, Chad, Benin, Congo, Burkina Faso and Angola

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

Mauritania, Guinea, Niger, Nigeria, Chad, Benin, Angola , , Mozambique and Angola 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 Western Sahara, Algeria, Morocco, Egypt and Libya, persist during the forecast period. In the south, the sub-tropical westerly Jet (with speed >70 knots and <90 knots) is expected over Madagascar, Angola, Botswana, Zambia extending to 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 Burkina Faso, Ivory Coast, Ghana, Togo, Benin Southern Nigeria, Cameroun, Congo Brazzaville, Angola, Gabon, Parts of Tanzania, DRC, Central African Republic, parts of Namibia, Ethiopia, Kenya and South eastern part of South Africa. 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 10, 2014 – April 11, 2014)

2.1. Weather assessment for the previous day (April 10, 2014)

During the previous day, moderate to heavy rainfall was observed over parts of Cote d'Ivoire, Ethiopia Democratic Republic of Congo, and Central African Republic.

2.2. Weather assessment for the current day (April 11, 2014)

Intense clouds are observed over local areas in the Southern Ghana, DRC, Chad and eastern Tanzania.

