

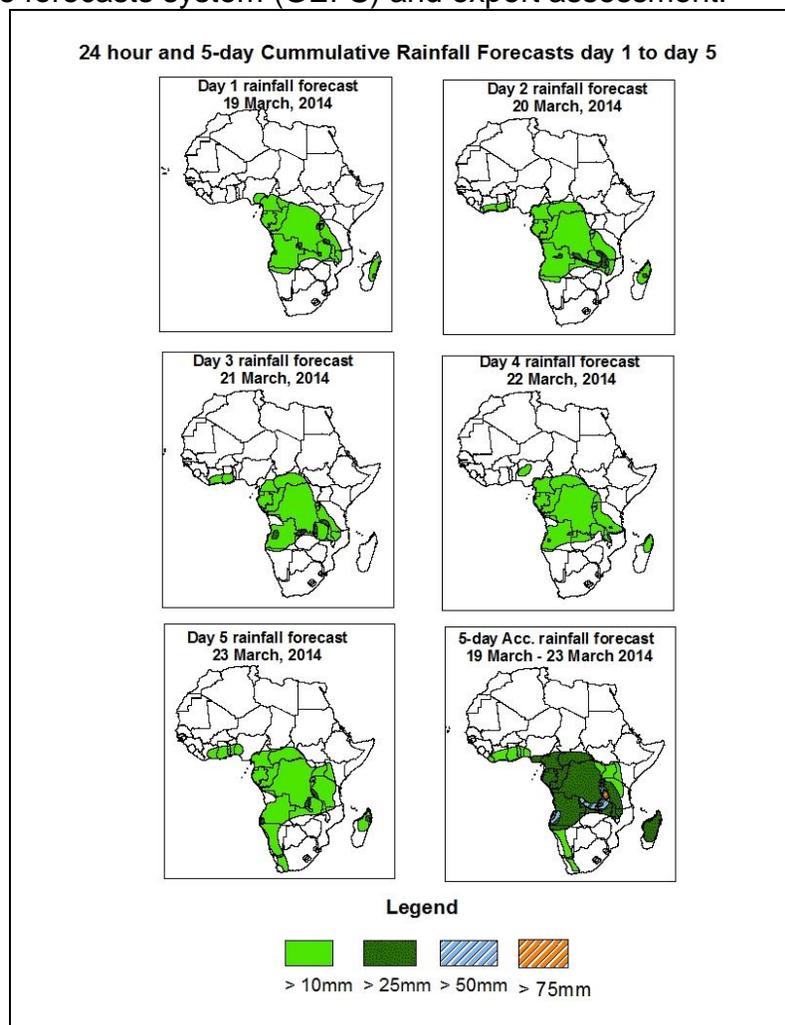


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 19 March – 06Z of 23 March, 2014. (Issued at 1600Z of 19 March 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 Angola, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, DRC, Uganda parts over Ghana, Togo, Benin, Liberia and Nigeria,. Marked reductions of rains are expected over southern Zambia, Tanzania and Kenya.

1.2. Atmospheric Dust Forecasts: Valid 19 March – 21 March 2014

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

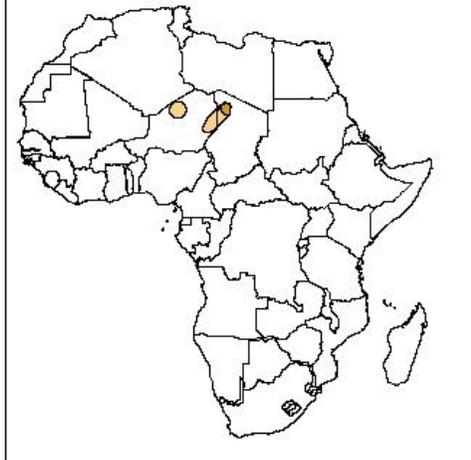
Day 1 Dust forecast
19 March, 2014



Day 2 Dust forecast
20 March, 2014



Day 3 Dust forecast
21 March, 2014



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.3. Model Discussion: Valid from 00Z of 19 March 2014

Model comparison (GFS and UKMET Valid from 00Z: 19 March 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 is expected to intensify from 1022 Hpa to about 1035 Hpa, resulting in further push of the rain to the north leaving South Africa, Botswana and Namibia dry much of the forecast .

According to both the GFS and UKMET model, the Mascarene high pressure is also expected to intensifying pushing the rains north and leaving Zimbabwe and Mozambique dry.

At 850hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Gabon, Congo Brazzaville, Democratic Republic of Congo (DRC), Central Africa Republic, Angola, Uganda, Cameroon, Nigeria, Zambia, and parts of Tanzania.

At 500hpa level, troughs associated with mid-latitude frontal system over Algeria and propagating eastward are expected to result in some tropical, extra-tropical interactions with light rains expected over Liberia, Ivory Coast, Ghana, Togo, Benin and Nigeria in most part of the forecast period. However the system over Egypt is expected to move further east resulting in reduced rains over Kenya and Ethiopia.

At 200hpa level, the sub-tropical Westerly Jet mainly (with wind speed >70 knots and <130 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, and Central Africa countries are expected to persist and hence continued moderate rains over Angola, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, DRC, Uganda parts over Ghana, Togo, Benin, Liberia and Nigeria,. Marked reductions of rains are expected over southern Zambia, Tanzania and Kenya.

2.0. Previous and Current Day Weather Discussion over Africa (17 March 2014 – 18 March 2014)

2.1. Weather assessment for the previous day (17 March 2014)

During the previous day, moderate rainfall was observed over local areas in Angola, DRC, Botswana, South Sudan, Ethiopian, Uganda, Togo, Ghana, Zimbabwe, Namibia, Cameroon, Congo Brazzaville, Gabon and Madagascar.

2.2. Weather assessment for the current day (18 March 2014)

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

