

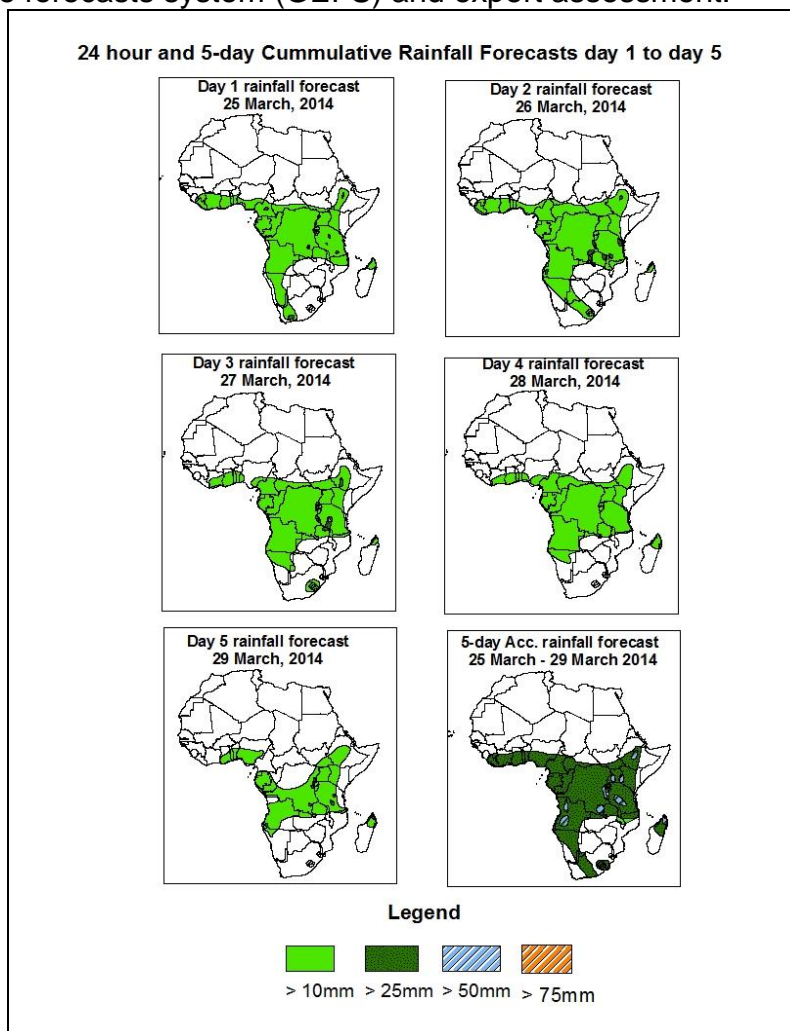


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 25 March – 06Z of 29 March, 2014. (Issued at 1600Z of 24 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, Central and South Africa countries are expected to persist and hence continued moderate rains over Angola, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, DRC, Central African Republic, Uganda, parts of Bissau Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, and Nigeria. However an increase of rains is expected over Namibia, Kenya, Ethiopia and Tanzania in the first half. Rains are expected to decrease over Namibia and South Africa in the second half of the forecast period. Continued dry conditions are expected over Zimbabwe, parts of Mozambique, Botswana, and most parts of South Africa.

1.2. Atmospheric Dust Forecasts: Valid 25 March – 27 March 2014

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

Day 1 Dust forecast
25 March, 2014



Day 2 Dust forecast
26 March, 2014



Day 3 Dust forecast
27 March, 2014



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.3. Model Discussion: Valid from 00Z of 25 March 2014

Model comparison (GFS and UKMET Valid from 00Z: 25 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 relax in the first half with its central pressure value changing from 1029Hpa to 1023Hpa. This will result in increased rains over Angola, Namibia and parts of South Africa. But in second half it will intensify resulting to decrease in rain over Namibia and South Africa.

According to both the GFS and UKMET model, the Mascarene High Pressure System is expected to intensify from 1021 Hpa to 1026 Hpa, pushing the rains north leaving Zimbabwe, Botswana, Mozambique and parts over Zambia and South Africa dry for the forecast period.

At 850hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Democratic Republic of Congo (DRC), Central Africa Republic, Angola, Uganda, Cameroon, Namibia, and parts of Ethiopia, South Sudan, South Chad, Kenya, Ethiopia and 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 Bissau Guinea, Liberia, Burkina Faso, Ivory Coast, Ghana, Togo, Benin and Nigeria in most part of the forecast period. The system over Egypt is expected to build up resulting to increase of rains over South Sudan, South Chad, Kenya and Ethiopia.

At 200hpa level, the sub-tropical Westerly Jet mainly (with wind speed >70 knots and <150 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 South Africa countries are expected to persist and hence continued moderate rains over Angola, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, DRC, Central African Republic, Uganda, parts of Bissau Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, and Nigeria. However an increase of rains is expected over Namibia, Kenya, Ethiopia and Tanzania in the first half. Rains are expected to decrease over Namibia and South Africa in the second half of the forecast period. Continued dry conditions are expected over Zimbabwe, parts of Mozambique, Botswana, and most parts of South Africa.

2.0. Previous and Current Day Weather Discussion over Africa

(23 March 2014 – 24 March 2014)

2.1. Weather assessment for the previous day (23 March 2014)

During the previous day, moderate rainfall was observed over local areas in Angola, DRC, Uganda, Ivory Coast, Ghana, Togo, Benin, Nigeria, Liberia, Cameroon, Gabon, Congo Brazzaville, Tanzania, Madagascar and parts of Central African Republic, Namibia, Ethiopia and South Africa.

2.2. Weather assessment for the current day (24 March 2014)

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

