

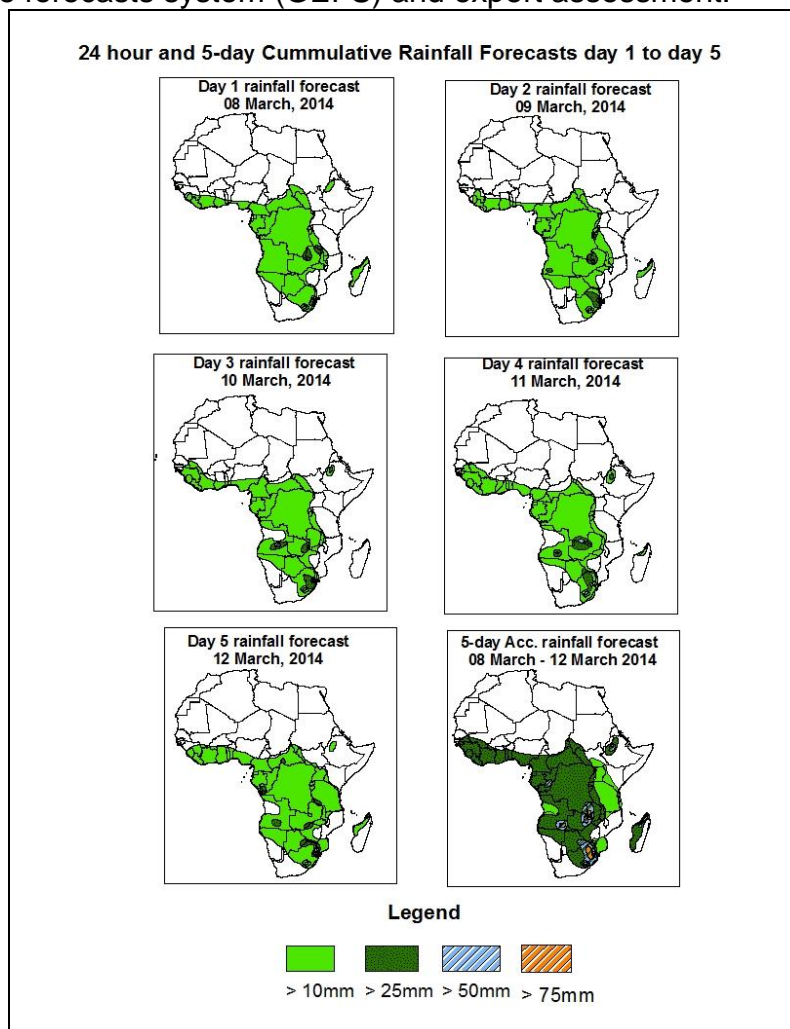


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid 06Z of 08 March – 06Z of 12 March, 2014. (Issued at 1600Z of 07 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, Central and southern Africa countries are expected to persist and hence continued moderate rains over Angola, Cameroon, Ghana, Togo, Benin, Gabon, Equatorial Guinea, parts of Central Africa Republic, Botswana, Congo Brazzaville, Namibia, Zambia, DRC, Madagascar, Nigeria, Ivory Coast, Bissau Guinea, South Mali, Parts of South Africa, South Sudan, Uganda, Mozambique and Tanzania.

1.2. Atmospheric Dust Forecasts: Valid 08 March – 10 March 2014

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

Day 1 Dust forecast
08 March, 2014



Day 2 Dust forecast
09 March, 2014



Day 3 Dust forecast
10 March, 2014



Highlights

There is an increased chance for moderate to high dust concentration over Mauritania, Algeria, Mali, Niger, Libya, and Chad.

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.3. Model Discussion: Valid from 00Z of 07 March 2014

Model comparison (GFS and UKMET Valid from 00Z: 07 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 vary slightly with its central pressure value between 1033Hpa and 1028Hpa. This will result in continued dry conditions over, parts of Eastern South Africa and Namibia for most part of the forecast period. However increased rains are expected over Angola with some occasional rains expected parts over Namibia and South Africa.

According to both the GFS and UKMET model, the Mascarene high pressure is expected to slightly relax with its central pressure values between 1028Hpa and 1022Hpa and propagate southwards resulting increased rainfall over Zimbabwe and Botswana. The low pressure will also result in reduced rains over Tanzania and Kenya.

At 850hpa level, Moderate to strong convergence is expected to persist throughout the forecast period over Democratic Republic of Congo (DRC), Cameroon, Central Africa Republic (CAR), Namibia, Uganda, Congo Brazzaville, Gabon, Angola and parts of Bissau guinea, Nigeria, south Sudan, Ethiopia, Zambia, Botswana, Senegal, ivory Coast, Mali, Tanzania, Mozambique and South Africa.

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, Senegal, ivory Coast, South Mali, Ghana, Togo, Benin, Nigeria, South Sudan 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 90 knots wind speed) is expected over South Africa, Indian and Atlantic Ocean.

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

2.0. Previous and Current Day Weather Discussion over Africa (06 March 2014 – 07 March 2014)

2.1. Weather assessment for the previous day (06 March 2014)

During the previous day, moderate rainfall was observed over local areas in Gabon, Angola, DRC, Botswana, Zimbabwe, South Africa, Tanzania, South Sudan, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Ethiopian, Mozambique Channel, and Madagascar.

2.2. Weather assessment for the current day (07 March 2014)

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

