

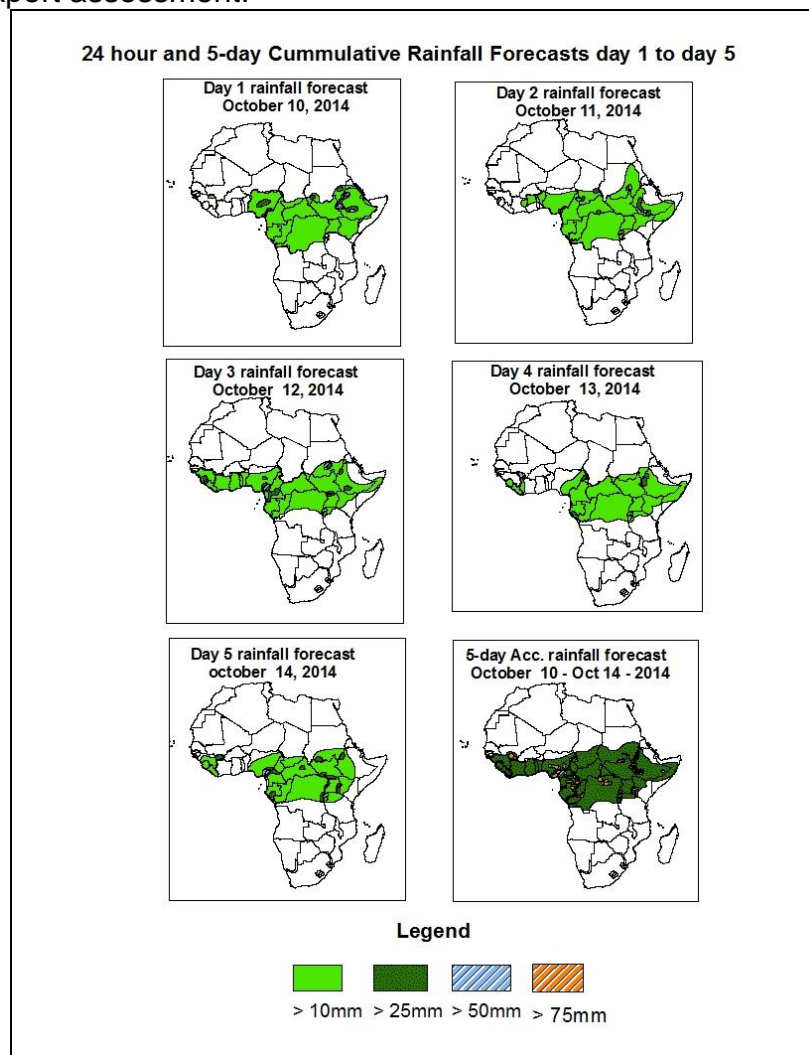


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of October 10 – 06Z of October 14, 2014. (Issued at 1800Z of October 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 the NCEP global ensemble forecasts system (GEFS) and expert assessment.

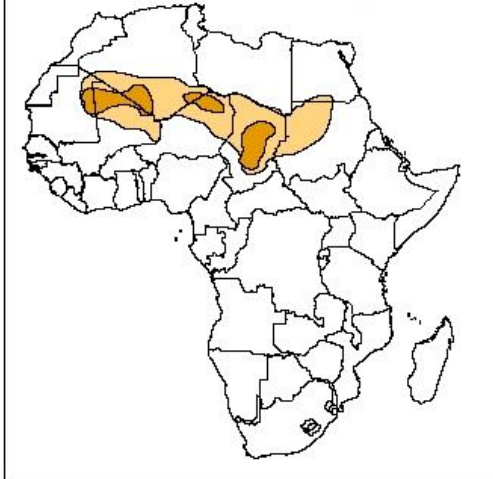


Summary

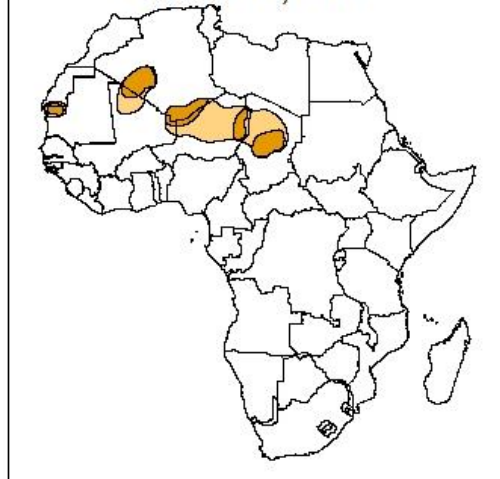
In the next five days, seasonal wind convergences in the Gulf of Guinea region, active meridional wind convergence near the Lake Victoria region, strong lower-level convergence across eastern Ethiopia and northern Somalia are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Liberia, Sierra Leone, Cameroon, CAR, Congo Brazzaville and Gabon, portions of Ethiopia, Sudan, Nigeria, Ivory Coast, DRC, Uganda, Guinea-Conakry, Benin, Ghana and Togo, southern Chad and western Kenya.

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

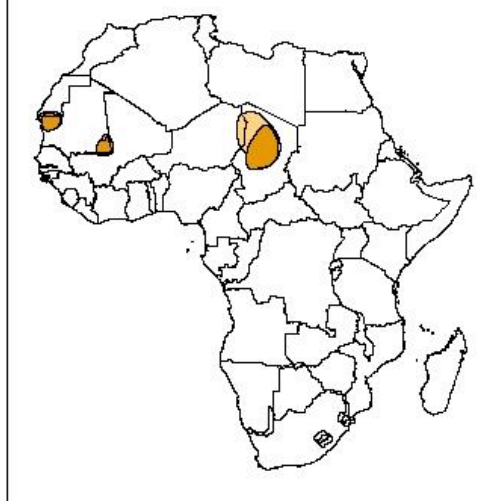
Day 1 Dust forecast
October 10, 2014



Day 2 Dust forecast
October 11, 2014



Day 3 Dust forecast
October 12, 2014



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of October 09, 2014

The Azores high pressure system over the Northeast Atlantic Ocean is expected to maintain from 24 to 48 hours, with its central pressure value of about 1026hpa, and then it is expected to weaken from 48 to 120hours, with its central pressure value decreasing from about 1026hpa in 48 hours to 1021hpa in 120hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to weaken from 24 to 96hours, with its central pressure value decreasing from about 1035hpa in 24 hours to 1028hpa in 96hours, and then it is expected to maintain from 96 to 120 hours, with its central pressure value of about 1028hpa, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected to weaken from 24 to 48hours, with its central pressure value decreasing from about 1030hpa in 24 hours to 1029hpa in 48hours, and it intensifies from 48 to 96hours, with its central pressure value increasing from about 1029hpa in 48 hours to 1031hpa in 96hours, and then it is expected to weaken from 96 to 120hours, with its central pressure value decreasing from about 1031hpa in 96 hours to 1026hpa in 120hours, according to the GFS model.

The central pressure value associated with the heat low in the region between western and central Sahel is expected to vary in the range between 1007hpa and 1009hpa during the forecast period. The heat low over Sudan is expected to vary also in the range between 1007hpa and 1008hpa from 24 to 120 hours. The heat low across DRC is expected to vary in the range between 1008hpa and 1009hpa during the forecast period, according to the GFS model.

At 925Hpa level, a zonal wind convergence is expected to prevail in the region between Mauritania and Sudan through 24 to 120 hours. Dry northeasterly winds are expected to prevail over parts of Algeria, Mauritania, Mali, Niger and Chad. Local wind convergences are also expected over DRC, Tanzania, Uganda, Burundi, Rwanda and Ethiopia during the forecast period.

At 850Hpa level, seasonal wind convergences are expected to remain active over Nigeria, DRC, Uganda, Tanzania, Rwanda, Burundi and Ethiopia during the forecast period.

At 700hpa level, a feeble trough in the easterly flow is expected to propagate westwards between southern Sudan and western Cameroon through 24 to 120 hours.

In the next five days, seasonal wind convergences in the Gulf of Guinea region, active meridional wind convergence near the Lake Victoria region, strong lower-level convergence across eastern Ethiopia and northern Somalia are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Liberia, Sierra Leone, Cameroon, CAR, Congo Brazzaville and Gabon, portions of Ethiopia, Sudan, Nigeria, Ivory Coast, DRC, Uganda, Guinea-Conakry, Benin, Ghana and Togo, southern Chad and western Kenya.

2.0. Previous and Current Day Weather Discussion over Africa

(October 08, 2014 – October 09, 2014)

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

During the previous day, very heavy rainfall was observed over southeastern Ethiopia and northern Somalia. Moderate to heavy rainfall was also observed over Guinea-Conakry, Liberia, Senegal, Sierra Leone, Gabon, Ghana, Togo, Congo Brazzaville, CAR, DRC, Uganda, Rwanda, Ethiopia and Eritrea, portions of Ivory Coast, Cameroon and Sudan, local areas in Benin, Nigeria, Mauritania and Tanzania, western Kenya, southern Burkina Faso, Mali and Chad.

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

Intense clouds are observed over portions of Chad, DRC and Rwanda, local areas in Uganda, Sudan, Gabon, Cameroon, CAR, Congo Brazzaville, Nigeria, Guinea-Conakry, Eritrea and Ethiopia, northern Tanzania and western Kenya.

