

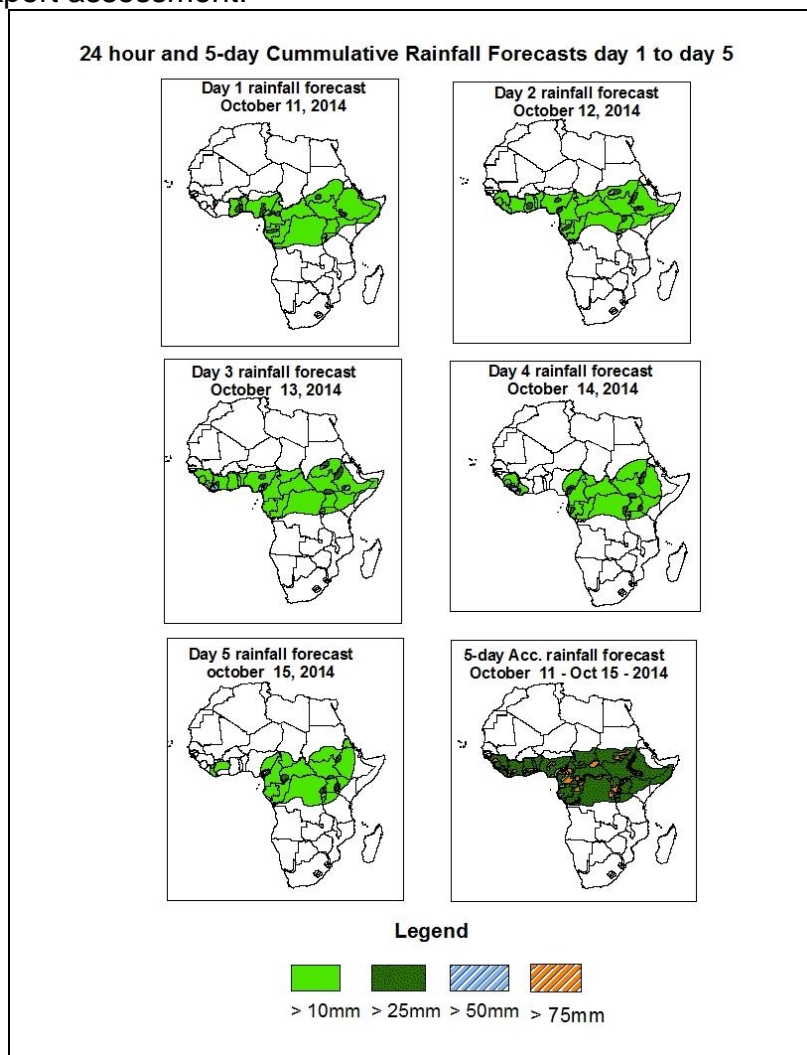


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of October 11 – 06Z of October 15, 2014. (Issued at 1800Z of October 10, 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.

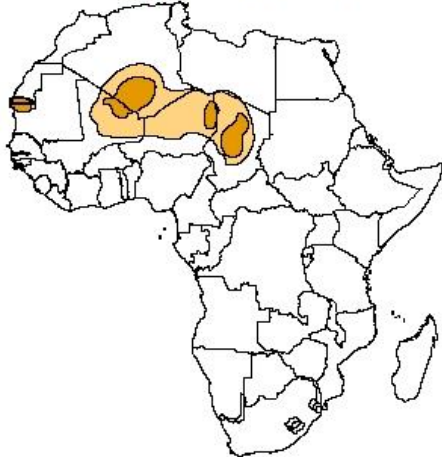


Summary

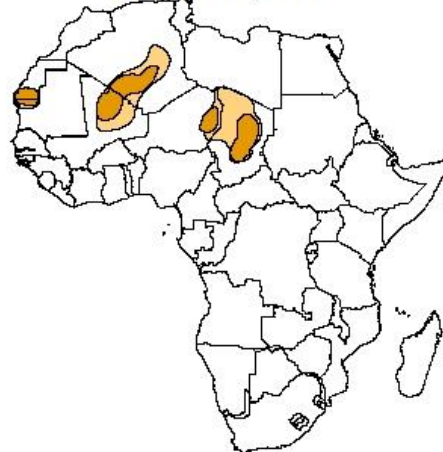
In the next five days, seasonal wind convergences in the Gulf of Guinea region, active meridional wind convergence near the Lake Victoria region, are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Liberia, Sierra Leone,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

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

Day 1 Dust forecast
October 11, 2014



Day 2 Dust forecast
October 12, 2014



Day 3 Dust forecast
October 13, 2014



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of October 10, 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 1025hpa, and it intensifies from 48 to 96hours, with its central pressure value increasing from about 1025hpa in 48 hours to 1028hpa in 96hours, and then it is expected to weaken from 96 to 120hours, with its central pressure value decreasing from about 1028hpa in 96 hours to 1027hpa 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 72hours, with its central pressure value decreasing from about 1033hpa in 24 hours to 1027hpa in 72hours, and then it is expected to intensify from 72 to 120hours, with its central pressure value increasing from about 1027hpa in 72 hours to 1029hpa in 120hours, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected to maintain from 24 to 72 hours, with its central pressure value of about 1030hpa, and then it is expected to weaken from 72 to 120hours, with its central pressure value decreasing from about 1030hpa in 72 hours to 1024hpa 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 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 Western Sahara, 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 southern 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, are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Liberia, Sierra Leone, Ivory Coast, Togo, Cameroon, CAR, Congo Brazzaville and Gabon, portions of Ethiopia, Sudan, Nigeria, DRC, Uganda, Guinea-Conakry, Benin and Ghana, western Kenya and southern Chad.

2.0. Previous and Current Day Weather Discussion over Africa

(October 09, 2014 – October 10, 2014)

2.1. Weather assessment for the previous day (October 09, 2014)

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

2.2. Weather assessment for the current day (October 10, 2014)

Intense clouds are observed over portions of Congo Brazzaville and Nigeria, local areas in Uganda, Sudan, DRC, Ethiopia, Eritrea and Rwanda, Eastern Gabon and southern Chad.

