

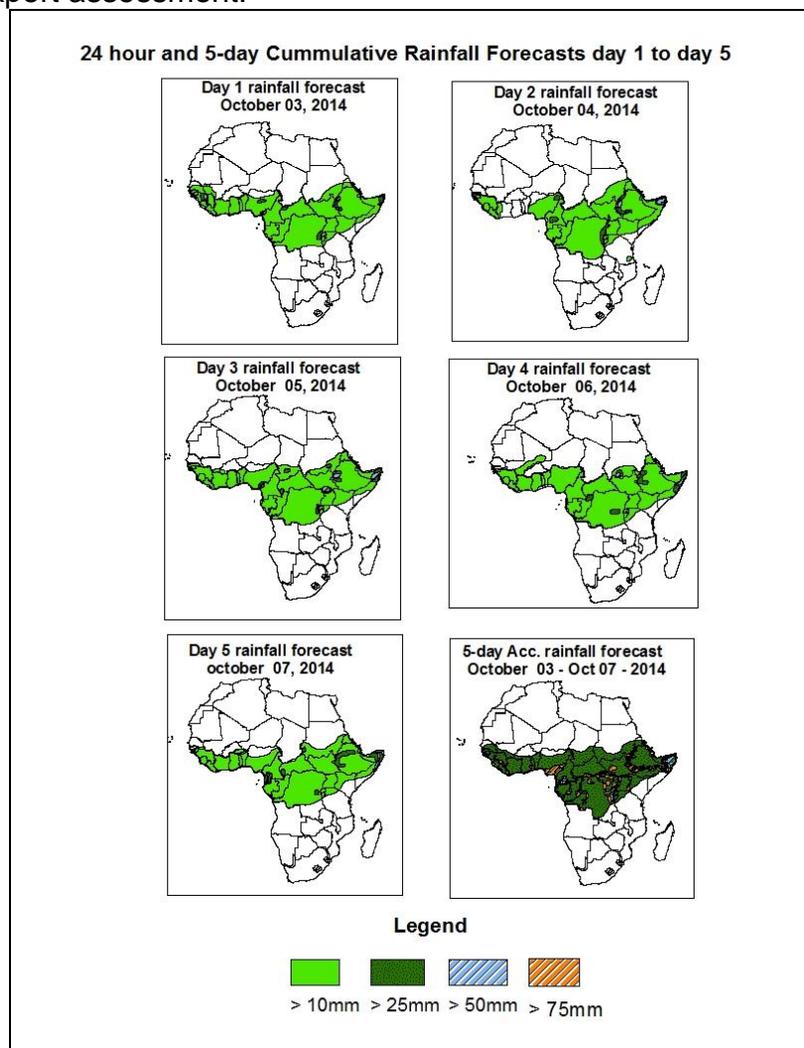


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of October 03 – 06Z of October 07, 2014. (Issued at 1800Z of October 02, 2014)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

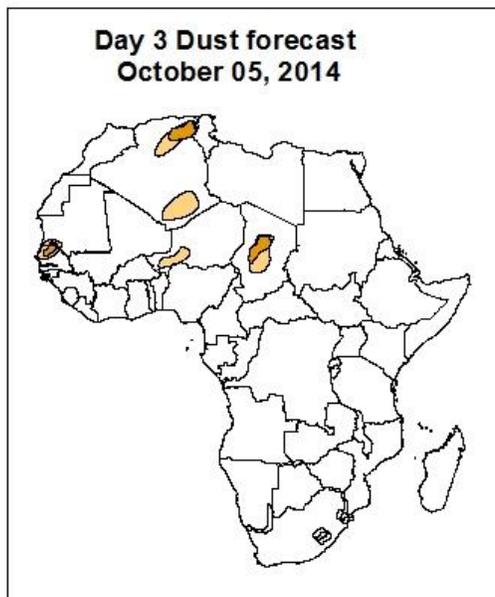
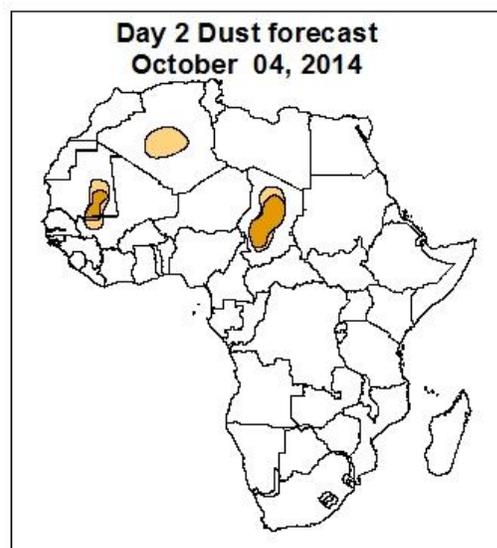
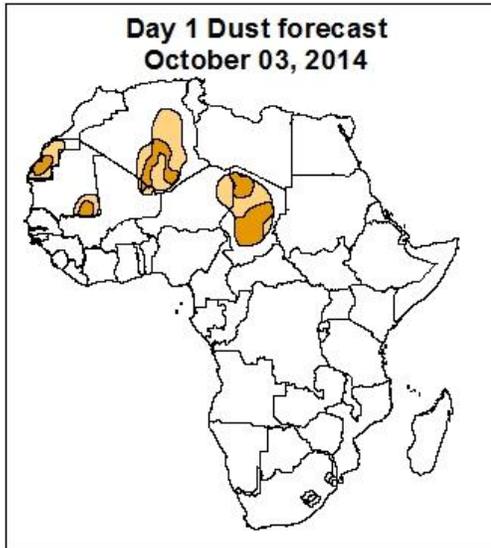
The forecasts are expressed in terms of 75% probability of precipitation (POP) exceeded, based on the NCEP/GFS and the NCEP global ensemble forecasts system (GEFS) and expert assessment.



Summary

In the next five days, the monsoon flow from the Atlantic Ocean with its associated convergence across the southern Sahel, localized wind convergences over Ethiopia, DRC and Uganda and the neighboring areas, and eastward propagating trough across the Gulf of Guinea region are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Guinea-Conakry, Liberia, Benin, Ghana, Ivory Coast, Togo, Sierra Leone, Cameroon, CAR, Congo Brazzaville, Gabon, Burundi, Rwanda, Ethiopia and Uganda, portions of Sudan, Nigeria and DRC, western Kenya, northern Tanzania and southern Senegal, Mali, Chad, Eritrea and Burkina Faso.

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



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of October 02, 2014

The Azores high pressure system over the Northeast Atlantic Ocean is expected to intensify slightly from 24 to 48 hours, with its central pressure value increasing from about 1027hpa in 24 hours to 1028hpa in 48hours, and it Maintains from 48 to 72hours, with its central pressure value of about 1028hpa, and then it is expected to weaken from 72 to 120hours, with its central pressure value decreasing from about 1028hpa in 72 hours to 1023hpa in 120hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to intensify from 24 to 48 hours, with its central pressure value increasing from about 1038hpa in 24 hours to 1041hpa in 48hours, and then it is expected to weaken from 48 to 120hours, with its central pressure value decreasing from about 1041hpa in 48 hours to 1037hpa in 120hours, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected to weaken from 24 to 72hours, with its central pressure value decreasing from about 1031hpa in 24 hours to 1025hpa in 72hours, and it intensifies from 72 to 96 hours, with its central pressure value increasing from about 1025hpa in 72 hours to 1027hpa in 96hours, and then it is expected to weaken from 96 to 120hours, with its central pressure value decreasing from about 1027hpa 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 1008hpa and 1009hpa during the forecast period. The heat low over Sudan is expected to vary in the range between 1008hpa and 1009hpa from 24 to 120 hours. The heat low across DRC is expected to vary in the range between 1009hpa and 1010hpa 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 and Chad. Local wind convergences are also expected over DRC, Tanzania, Uganda, Burundi, Rwanda and Ethiopia during the forecast period.

At 850Hpa level, a cyclonic circulation with its associated trough is expected to propagate westwards between Ghana and southern Senegal through 24 to 120 hours. Local wind convergences are expected to remain active over DRC, Uganda, Tanzania, Rwanda, Burundi, Eritrea and Ethiopia during the forecast period.

At 700hpa level, a trough in the easterly flow is expected to propagate westwards between front Togo-Ghana and southern Senegal through 24 to 120 hours.

In the next five days, the monsoon flow from the Atlantic Ocean with its associated convergence across the southern Sahel, localized wind convergences over Ethiopia, DRC and Uganda and the neighboring areas, and eastward propagating trough across the Gulf of Guinea region are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Guinea-Conakry, Liberia, Benin, Ghana, Ivory Coast, Togo, Sierra Leone, Cameroon, CAR, Congo Brazzaville, Gabon, Burundi, Rwanda, Ethiopia and Uganda, portions of Sudan, Nigeria and DRC, western Kenya, northern Tanzania and southern Senegal, Mali, Chad, Eritrea and Burkina Faso.

2.0. Previous and Current Day Weather Discussion over Africa

(October 01, 2014 – October 02, 2014)

2.1. Weather assessment for the previous day (October 01, 2014)

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

2.2. Weather assessment for the current day (October 02, 2014)

Intense clouds are observed over Rwanda, portions of Eritrea, local areas in Mali, Burkina Faso, Guinea-Conakry, Benin, Nigeria, Togo, DRC, Cameroon, CAR, Sudan, Ethiopia, Uganda, Burundi, eastern Ghana, southern Chad and Sierra Leone, western Gabon and Tanzania, northeastern Congo Brazzaville.

