

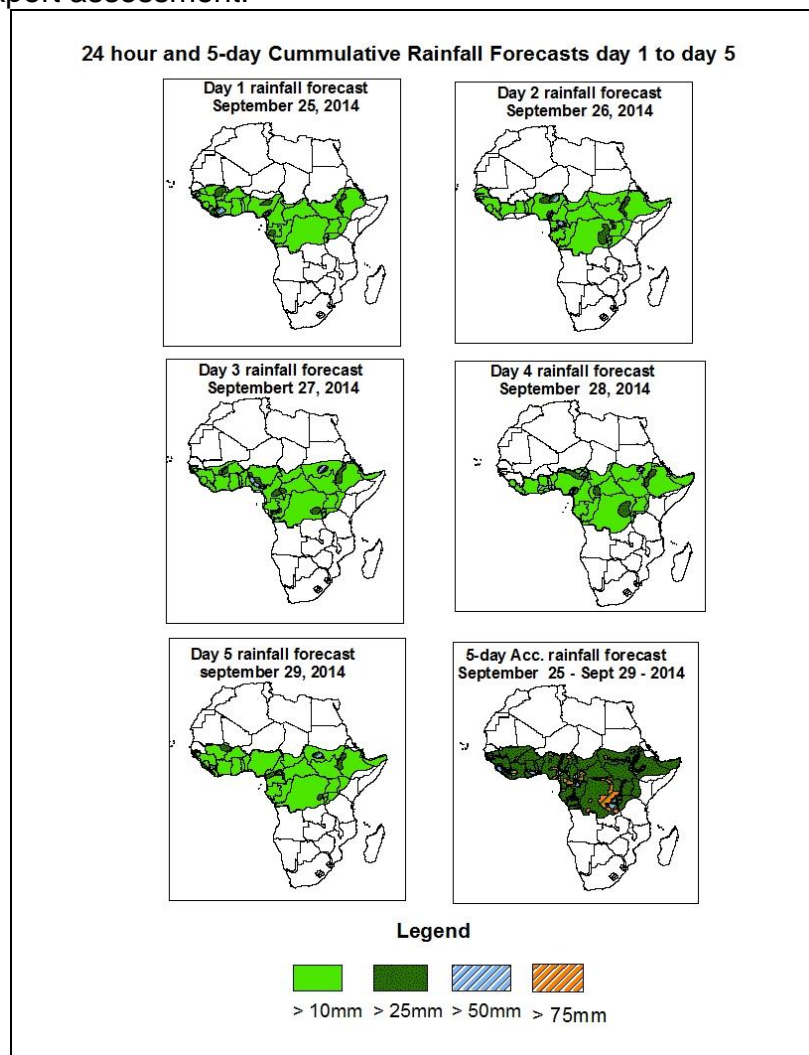


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of September 25 – 06Z of September 29, 2014. (Issued at 1800Z of September 24, 2014)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

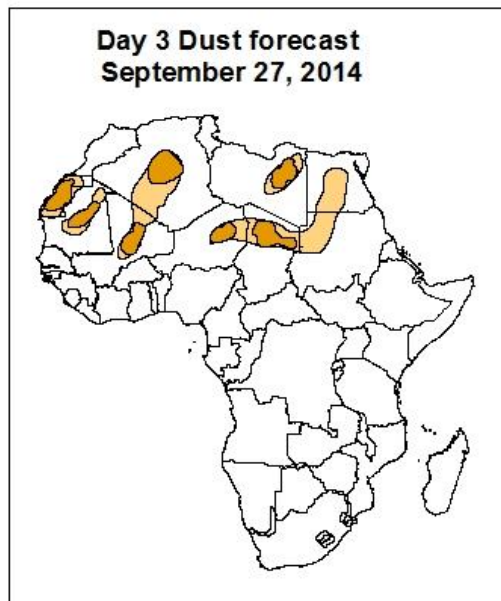
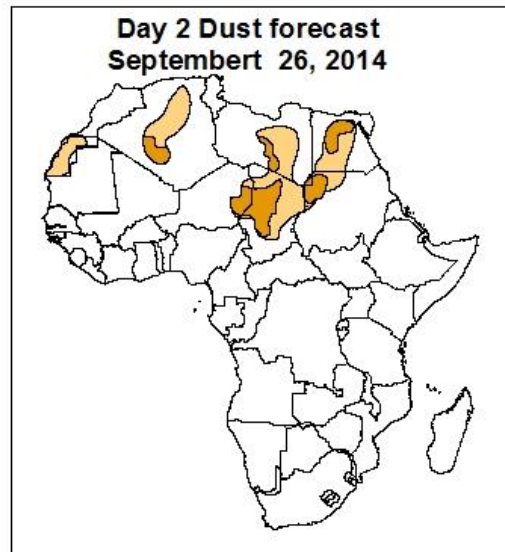
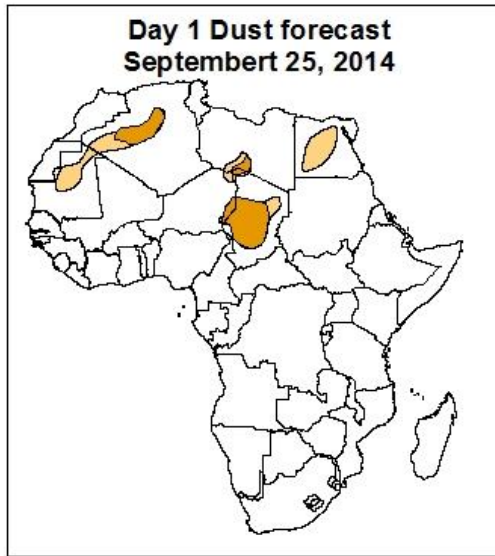
The forecasts are expressed in terms of 75% probability of precipitation (POP) exceeded, based on the NCEP/GFS and the NCEP global ensemble forecasts system (GEFS) and expert assessment.



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, Togo, Ghana, Ivory Coast, Sierra Leone, Cameroon, Nigeria, CAR, Congo Brazzaville, Burundi and Rwanda, portions of Sudan, DRC, Mali, Gabon, Burkina Faso and Ethiopia, local areas in Uganda, southern Chad, Eritrea and western Kenya.

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, Libya, Mali, Sudan, Egypt, Mauritania, Niger and Chad.

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of September 24, 2014

The Azores high pressure system over the Northeast Atlantic Ocean is expected to maintain from 24 to 48 hours, its central pressure value of about 1029hpa, and it weakens from 48 to 96hours, with its central pressure value decreasing from about 1029hpa in 48 hours to 1022hpa in 96hours, and then it is expected to intensify slightly from 96 to 120hours, with its central pressure value increasing from about 1022hpa in 96 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 1033hpa in 24 hours to 1036hpa in 48hours, and it maintains from 48 to 72 hours, its central pressure value of about 1036hpa, and then it is expected to weaken from 72 to 120hours, with its central pressure value decreasing from about 1036hpa in 72 hours to 1033hpa in 120hours, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected to intensify from 24 to 48 hours, with its central pressure value increasing from about 1037hpa in 24 hours to 1039hpa in 48hours, and it weakens from 48 to 96hours, with its central pressure value decreasing from about 1039hpa in 48 hours to 1033hpa in 96hours, and then it is expected to intensify from 96 to 120hours with its central pressure value increasing from about 1033hpa in 96 hours to 1038hpa 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 1006hpa and 1009hpa during the forecast period. The heat low over Sudan is expected to vary in the range between 1006hpa and 1008hpa from 24 to 120 hours. The heat low across DRC is expected to vary in the range between 1009hpa and 1011hpa 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, Libya, Mauritania, Sudan, Mali Egypt, Niger 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 Nigeria and southern Sierra Leone through 24 to 120 hours. Local wind convergences are expected to remain active over DRC, Uganda, Tanzania, Burundi, Eritrea and Ethiopia during the forecast period.

At 700hpa level, a trough in the easterly flow is expected to propagate westwards between Nigeria and southern Sierra Leone 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, Togo, Ghana, Ivory Coast, Sierra Leone, Cameroon, Nigeria, CAR, Congo Brazzaville, Burundi and Rwanda, portions of Sudan, DRC, Mali, Gabon, Burkina Faso and Ethiopia, local areas in Uganda, southern Chad, Eritrea and western Kenya.

2.0. Previous and Current Day Weather Discussion over Africa

(September 23, 2014 – September 24, 2014)

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

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

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

Intense clouds are observed over portions of Guinea-Conakry, Sierra Leone and Congo Brazzaville, local areas in Nigeria, DRC, Cameroon, CAR, Ethiopia and Uganda, southern Mali, Benin, Togo, Chad, and Sudan, western Kenya.

