

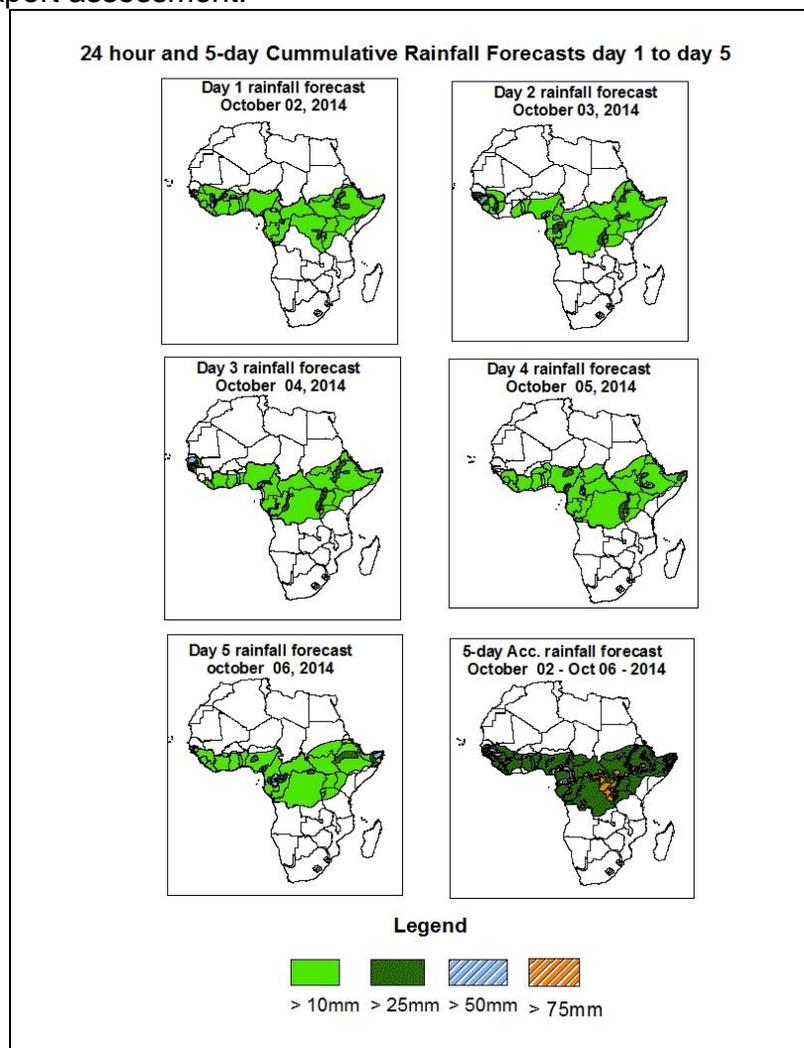


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of September 02 – 06Z of October 06, 2014. (Issued at 1800Z of September 01, 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.

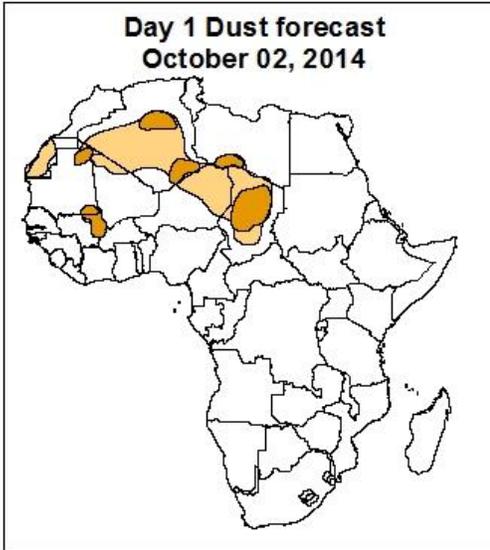


Summary

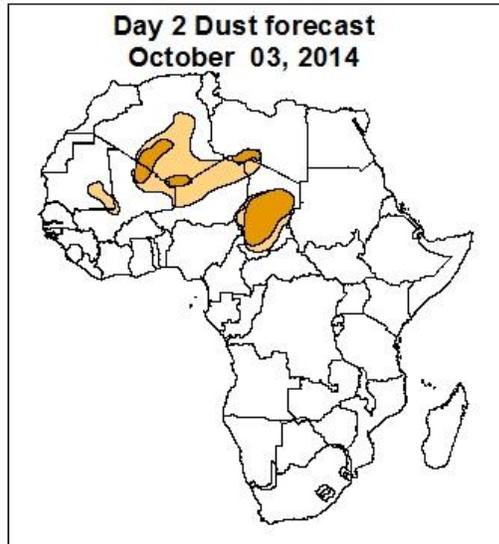
In the next five days, the monsoon flow from the Atlantic Ocean with its associated convergence across the southern Sahel, localized wind convergences over Ethiopia, DRC and Uganda and the neighboring areas, and eastward propagating trough across the Gulf of Guinea region are expected to enhance rainfall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

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

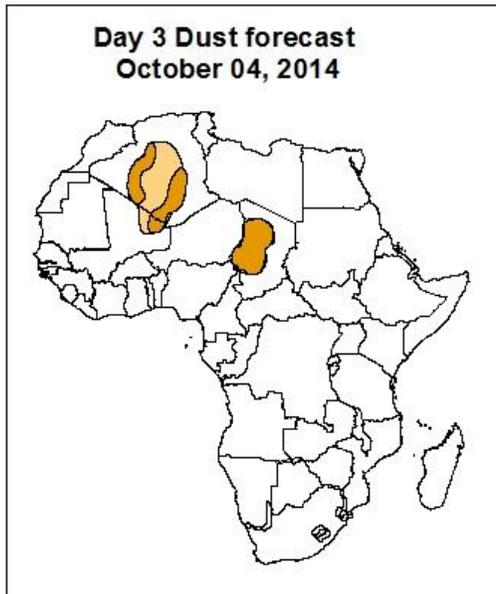
Day 1 Dust forecast
October 02, 2014



Day 2 Dust forecast
October 03, 2014



Day 3 Dust forecast
October 04, 2014



Highlights

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

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of September 01, 2014

The Azores high pressure system over the Northeast Atlantic Ocean is expected to weaken from 24 to 48hours, with its central pressure value decreasing from about 1030hpa in 24 hours to 1027hpa in 48hours, and then it is expected to Maintain from 48 to 120hours, with its central pressure value of about 1027hpa, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to intensify from 24 to 72 hours, with its central pressure value increasing from about 1030hpa in 24 hours to 1041hpa in 72hours, and then it is expected to weaken from 72 to 120hours, with its central pressure value decreasing from about 1041hpa in 72 hours to 1037hpa in 120hours, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected Maintain from 24 to 48hours, with its central pressure value of about 1030hpa, and it weakens from 48 to 96hours, with its central pressure value decreasing from about 1030hpa in 48 hours to 1026hpa in 96hours, and then it is expected to intensify from 96 to 120 hours, with its central pressure value increasing from about 1026hpa in 96 hours to 1029hpa 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 1010hpa 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 1008hpa 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, Libya, 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, a cyclonic circulation with its associated trough is expected to propagate westwards between Nigeria and southwestern Senegal 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 Benin and southern Senegal through 24 to 120 hours.

At 500hpa level, a zone of moderate wind (>30kt) associated with African easterly jet is expected to propagate across Mali, Mauritania and Senegal propagating farther into the Atlantic ocean from 48 to 96hours, during the forecast period.

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

2.0. Previous and Current Day Weather Discussion over Africa

(September 30, 2014 – October 01, 2014)

2.1. Weather assessment for the previous day (September 30, 2014)

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

2.2. Weather assessment for the current day (October 01, 2014)

Intense clouds are observed over Rwanda, portions of Mali, Niger, CAR, Uganda and Sudan, local areas in Nigeria, Ethiopia, DRC, Cameroon, Chad and Eritrea, western Burkina Faso, northern Tanzania and southern Liberia.

