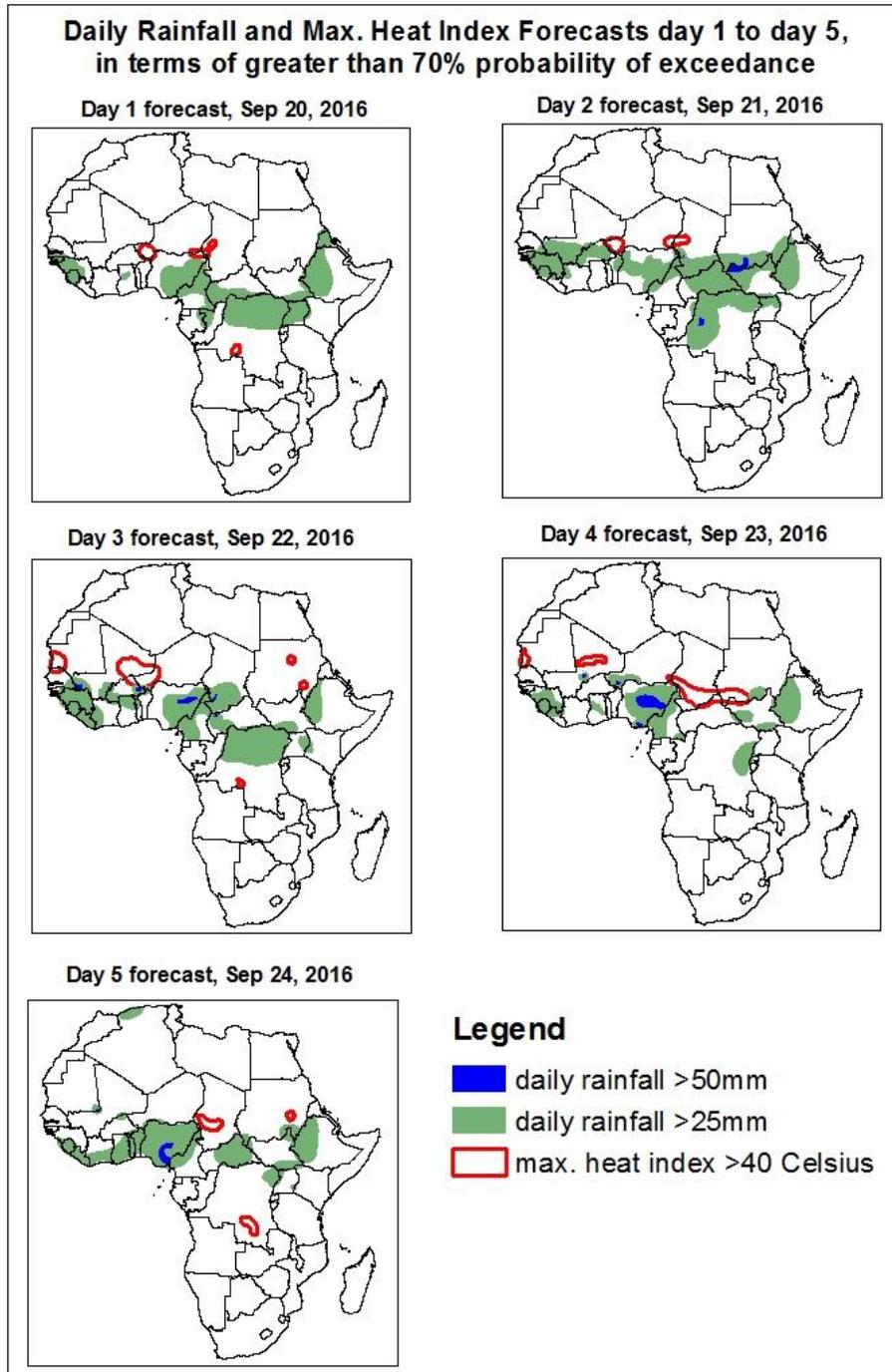


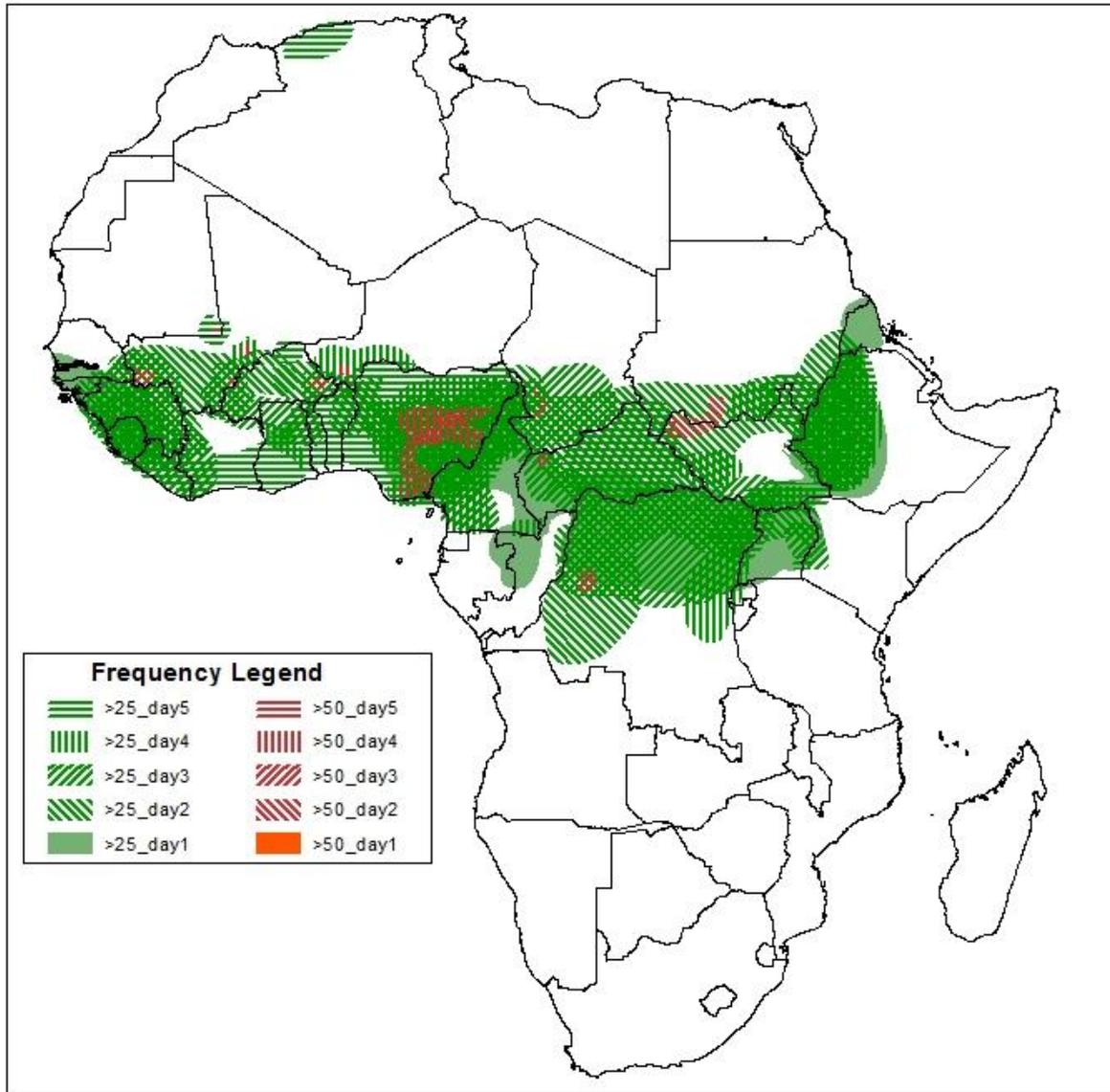
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Sep 19, 2016)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Sep 20– Sep 24 2016)**

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary Sep 20 - Sep 24, 2016

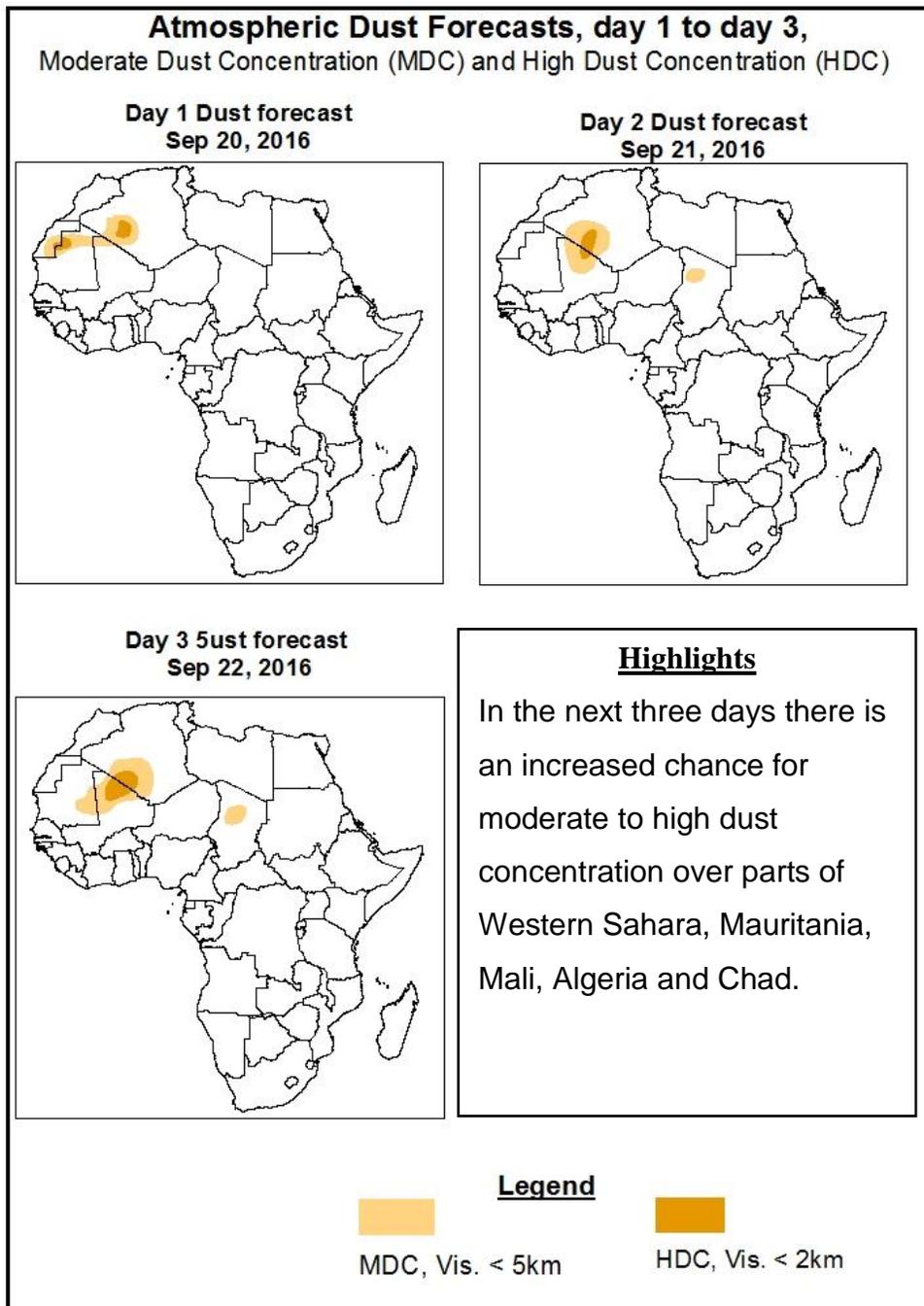


### **Highlights**

In the next five days, a strong monsoon flow from the Atlantic Ocean across West Africa, westward propagating convective systems across parts of the Sahel region and lower level wind convergences across Central and the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portion of Senegal, much of Guinea Bissau, Guinea, Sierra Leone and Liberia, portions of Mali, Burkina Faso, Cote d'Ivoire, Ghana, Togo, and Benin, local areas in Niger, portions of Nigeria and Cameroon, Chad, CAR, Sudan, Ethiopia, Uganda and DRC.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Sep 20– Sep 22 2016)

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



### **1.3. Model Discussion, Valid: Sep 20 – Sep 24, 2016**

The Azores high pressure system over the North Atlantic is expected to weaken, with its value of the central pressure decreasing from 1026 hPa to 1020 hPa from 24 hours to 48 hours and tends to intensify, with its value of central pressure increasing from 1020 hPa to 1025 hPa between 48 hours to 120 hours.

The high pressure system St. Helena on the southeast of the Atlantic Ocean is expected to intensify, with its value of central pressure increasing from 1023 hPa to 1033 hPa during the forecast period.

The Mascarene High pressure system over the Southeast Atlantic Ocean is expected to intensify, with its value of central pressure increasing from 1032 hPa to 1035 hPa during the forecast period.

The 1016mb isobar, associated with the East African ridge is expected to remain near the latitudes of northern Ethiopia during the forecast period.

At 925hPa, strong dry to northerly easterly winds may lead to moderate to high dust concentration over parts of Western Sahara, Mauritania, Mali, Algeria and Chad. On the other hand, strong monsoon flow from the Atlantic Ocean with its associated convergence is expected to enhance rainfall across many places in West Africa.

At 850hPa level, lower-level cyclonic systems are expected to propagate westwards across Western and Central Africa during the forecast period, while lower level wind convergences are expected to prevail in central and the Greater Horn of Africa regions.

At 500 hPa, a zone of strong wind (>35kts), associated with AEJ is expected appear on Niger from 72 hours to 96 hours, and it tends to remain weak during the rest of the forecast period.

In the next five days, a strong monsoon flow from the Atlantic Ocean across West Africa, westward propagating convective systems across parts of the Sahel region and lower level wind convergences across Central and the Greater Horn of Africa are expected to enhance

rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portion of Senegal, much of Guinea Bissau, Guinea, Sierra Leone and Liberia, portions of Mali, Burkina Faso, Cote d'Ivoire, Ghana, Togo, and Benin, local areas in Niger, portions of Nigeria and Cameroon, Chad, CAR, Sudan, Ethiopia, Uganda and DRC.

There is an increased chance for maximum heat index to exceed 40°C over portions of Mauritania, Senegal, Mali, Burkina Faso, Niger, Chad and Sudan, local areas in Northern Nigeria, CAR and DRC.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (Sep 18, 2016)

Moderate to locally heavy rainfall was observed over local areas in Mauritania, Senegal, Guinea, Sierra Leone, Cote D'Ivoire, portion of Mali, local areas in Cameroon, Ethiopia, DRC and Congo.

### 2.2. Weather assessment for the current day (Sep 19, 2016)

Intense convective clouds are observed over portions of Nigeria, Central Africa and Greater Horn of Africa.

