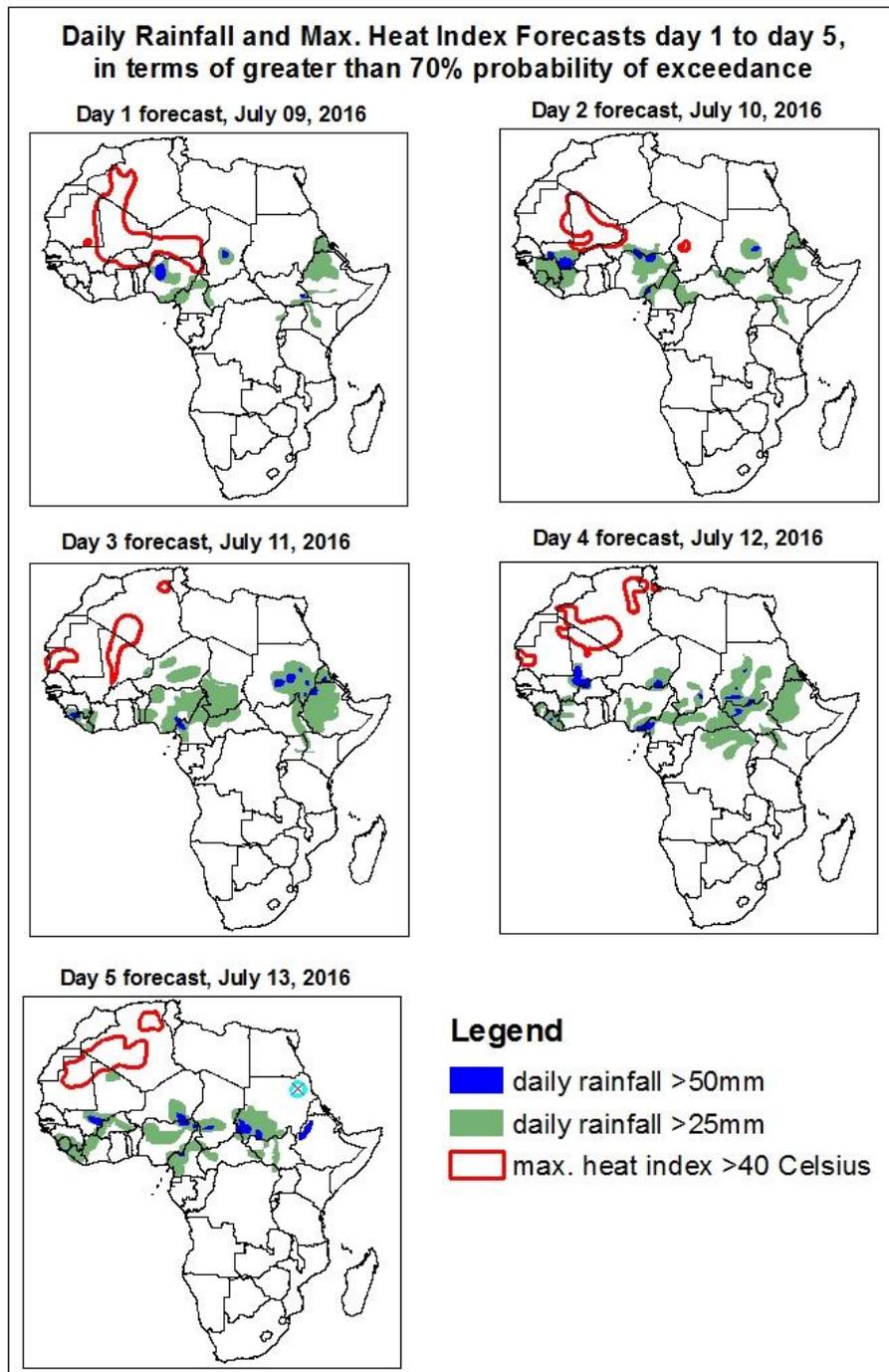


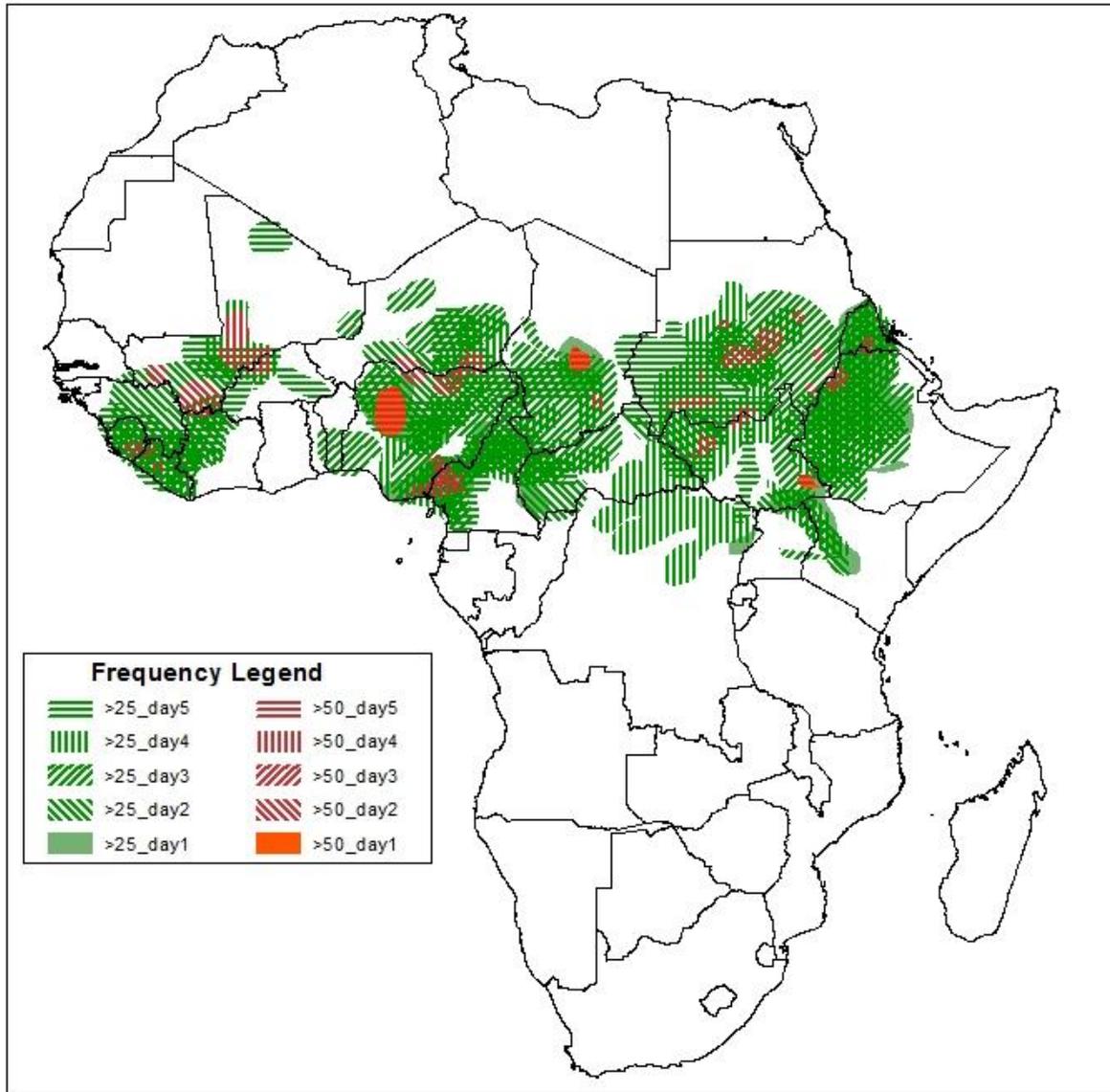
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on July 08, 2016)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: July 09– July 13 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 July 09- July 13 2016

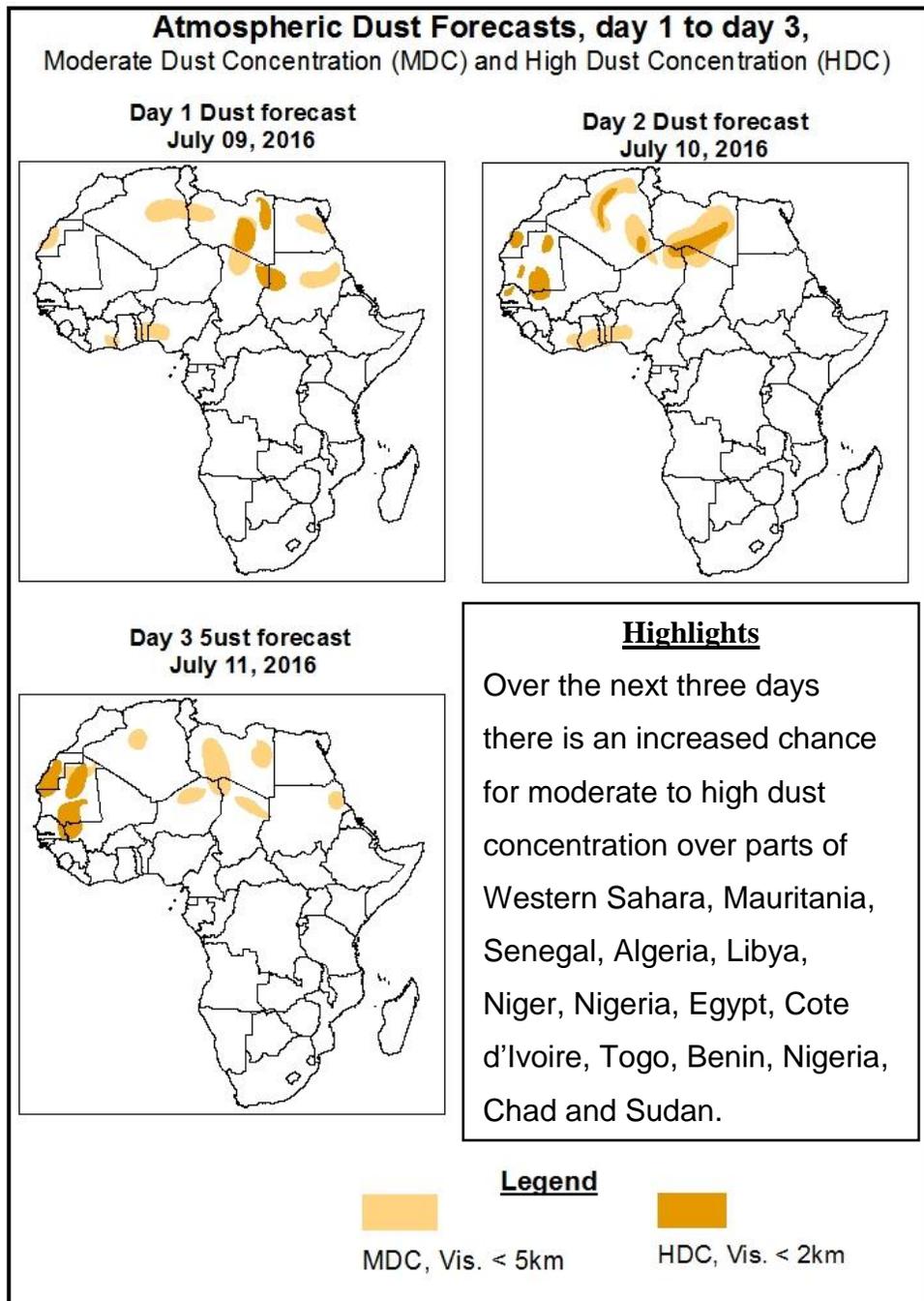


### **Highlights**

Over the next five days, onshore winds with their associated lower-level convergence are expected to enhance rainfall across the southwestern portion of West Africa. Lower-level wind convergences are also expected to enhance rainfall across the Central and eastern Sahel countries, and portions of the Greater Horn of Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Guinea, Cote d'Ivoire and Mali, Sierra Leone, Liberia, local areas of northern Burkina Faso, portions of Niger, Nigeria, Cameroon, Chad, CAR, Sudan and South Sudan, local areas of Uganda and Kenya, Eritrea and Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: July 09– July 13, 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: July 09–July 13, 2016**

The Azores high pressure system over the Northeast Atlantic is expected to maintain average central pressure value of 1024-hPa during the forecast period.

The St. Helena High pressure system over the Southeast Atlantic Ocean is expected to weaken, with its central pressure value decreasing from 1035-hPa to 1019-hPa through 48 to 120 hours.

The Mascarene high pressure system over the Southwest Indian Ocean is to weaken, with its central pressure value decreasing from 1032-hPa to 1027h-Pa through 24 to 96 hours.

The 1016mb isobar, associated with the East African ridge is expected to remain near the latitudes of Kenya 24 to 120hours. The anticyclonic ridge associated with the St. Helena high pressure system is expected to extend northwards across the Atlantic Ocean, with the 1016hPa isobar remaining near the Gulf of Guinea coast during the forecast period. This may help to maintain enhanced rainfall across portions of West Africa.

The central pressure values associated with the heat low in western Sahel is expected remain in the range between 1004-hPa and 1007-hPa during the forecast period, while the heat low over the central Sahel is expected to remain in the range between 1005-hPa and 1008-hPa though 48 to 120 hours .The central pressure value associated with the heat low across Sudan is expected remain in the range between 1005-hPa and 1006-hPa during the forecast period.

At 925HPa level an anticyclonic circulation and its associated ridge is expected to prevail across Libya and the neighboring areas during the forecast period. Strong wind may lead to moderate to high dust concentration across portions of Western Sahara, Mauritania, Senegal, Algeria, Libya, Niger, Nigeria, Egypt, Cote d'Ivoire, Togo, Benin, Nigeria, Chad and Sudan.

At 850hPa level, a strong zonal wind convergence is expected to prevail in the region between Mali and Sudan, while a dry northerly flow is expected to prevail across the western end of West Africa at 24to 120 hours.

At 700hPa level, a trough in the easterlies, associated with the African easterly wave, is expected to propagate westwards in the region between western Nigeria and Guinea.

Over the next five days, onshore winds with their associated lower-level convergence are expected to enhance rainfall across the southwestern portion of West Africa. Lower-level wind convergences are also expected to enhance rainfall across the Central and eastern Sahel countries, and portions of the Greater Horn of Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Guinea, Cote d'Ivoire and Mali, Sierra Leone, Liberia, local areas of northern Burkina Faso, portions of Niger, Nigeria, Cameroon, Chad, CAR, Sudan and South Sudan, local areas of Uganda and Kenya, Eritrea and Ethiopia.

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

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (July 07, 2016)

Moderate to locally heavy rainfall was observed over portions of Guinea and Mali, Serra Leone, local areas of northern Liberia, southern Ghana, Northern Benin, Nigeria and DRC, portions of Cameroon, Chad, Sudan, South Sudan, Uganda and Ethiopia, and local areas of western Kenya.

### 2.2. Weather assessment for the current day (July 08, 2016)

Intense convective clouds are observed over local areas of southern Mauritania, western Mali southern Niger and eastern Chad, portions of Nigeria, Sudan, South Sudan and Ethiopia.

