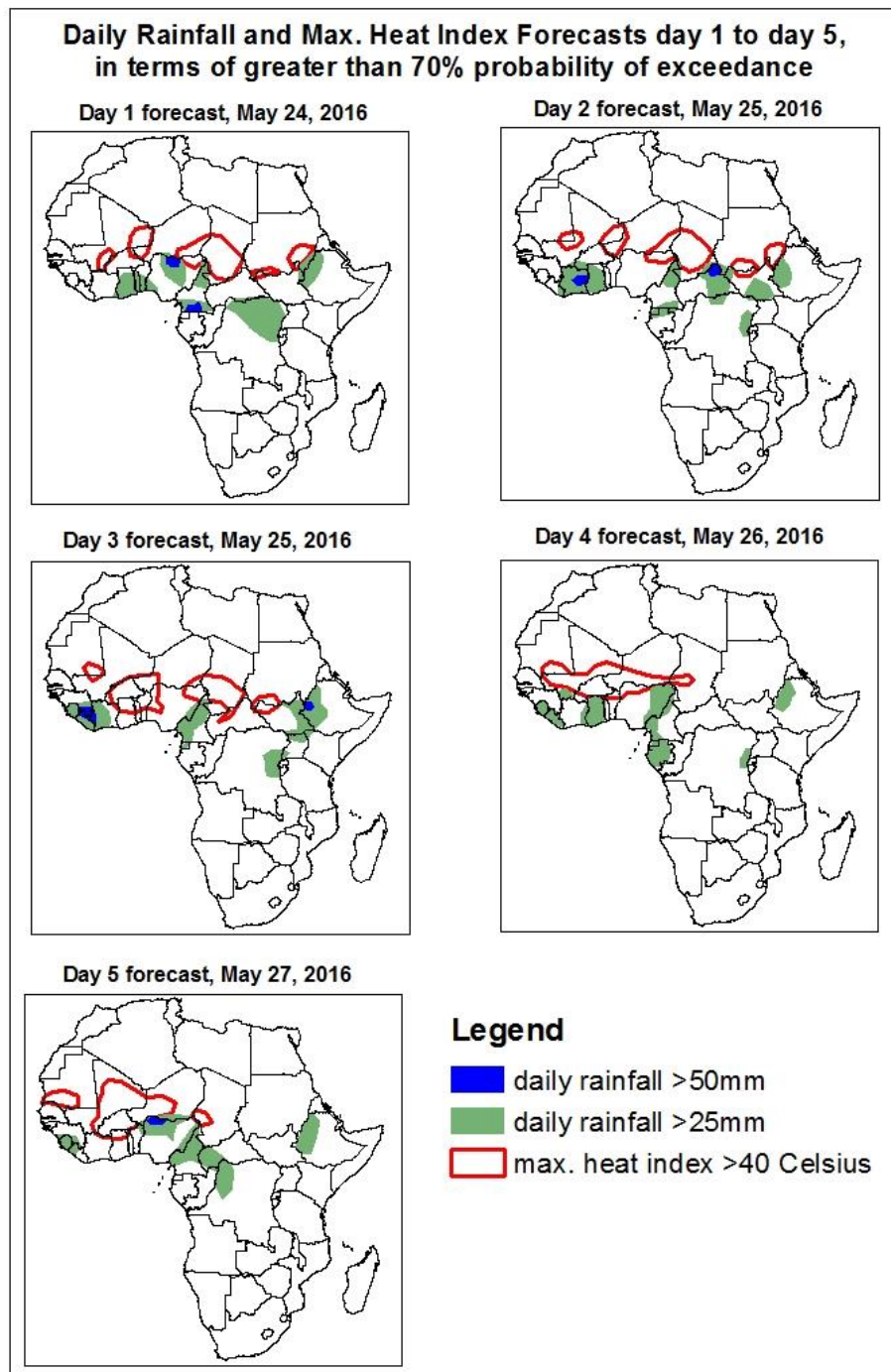


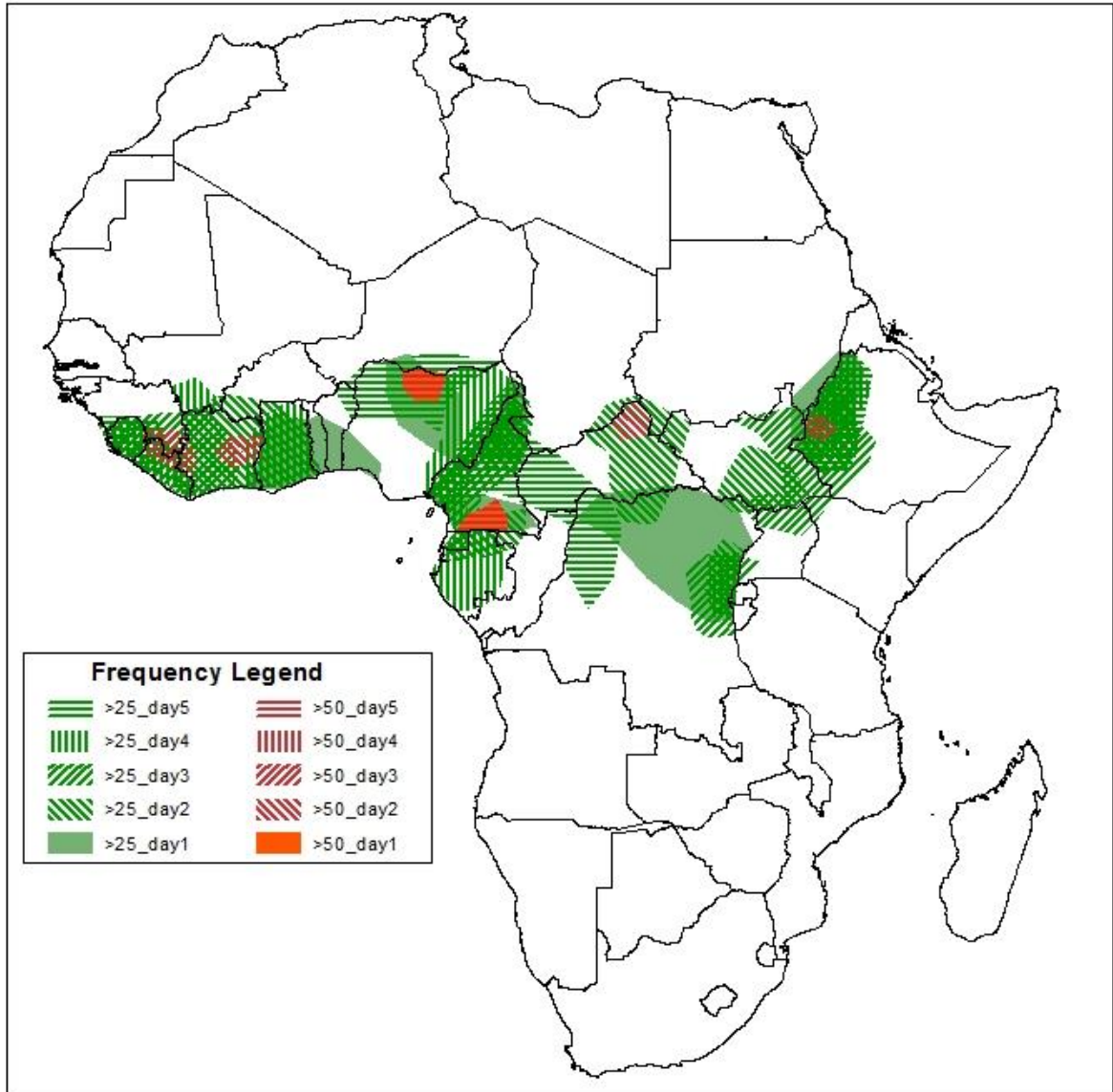
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on May 23, 2016)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: May 24– May 28, 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 May 24 - May 28, 2016

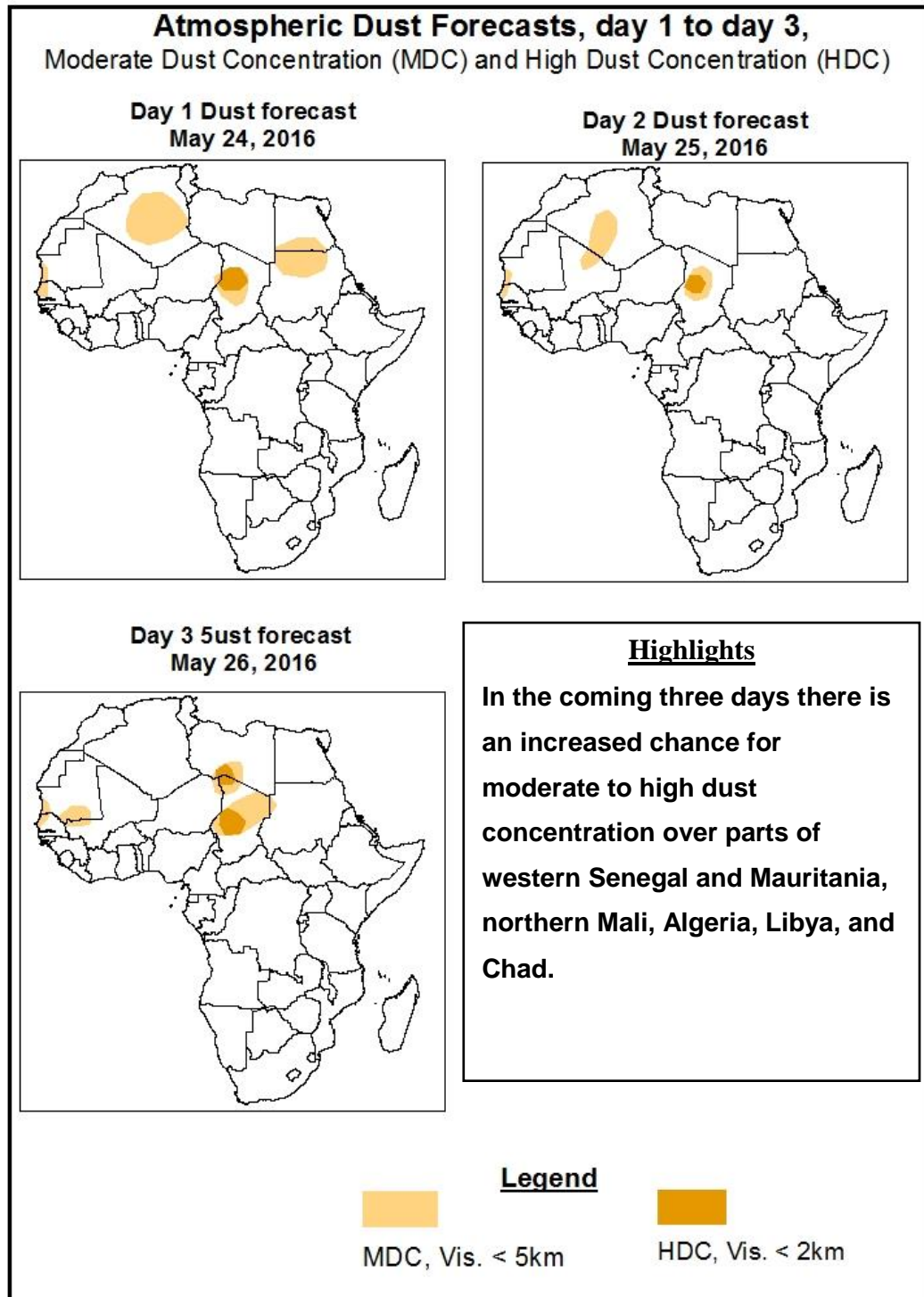


### **Highlights**

In the coming five days, monsoon flow from the Atlantic Ocean with its associated lower level convergence and westward propagating trough across the Gulf of Guinea region expected to enhance rainfall across portions of West Africa and Central Sahel. Local wind convergences across western Ethiopia, and active meridional wind convergences near the Lake Victoria region are expected to enhance rainfall in their respective areas. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over parts of eastern Guinea, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, portions of Nigeria, Cameroon, Equatorial Guinea, parts of Gabon, CAR, portions of DRC, and western Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: May 24 – May 26, 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: May 24 – May 28, 2016**

The Azores high pressure system over the Northeast Atlantic Ocean is expected to weaken gradually with its central pressure value decreasing from about 1030hPa to 1022hPa during the forecast period.

The St. Helena High pressure system over the Southeast Atlantic Ocean is expected to weaken while shifting eastwards; with its central pressure value is expected to decrease from 1030hPa to 1027hPa through 24 to 96 hours.

The Mascarene high pressure system over the Southwest Indian Ocean is expected to weaken, with its central pressure value decreasing from about 1034hPa to 1026hPa during the forecast period.

Central pressure values associated with heat lows across the Sahel and Sudan are expected to remain in the range between 1008hpa to 1010hpa during the forecast period.

At 925HPa level, strong dry northeasterly to easterly flow (>20kts) is expected to prevail across parts of Senegal, Mauritania, Mali, Algeria, Libya, Chad, Egypt and northern Sudan. On the other hand, moist southwesterly monsoon flow is expected to prevail across the Gulf Guinea countries during the forecast period.

At 850hPa level, a cyclonic circulation is expected to propagate southwestwards between northern Mali and Guinea, leaving the West Africa coast by 72 hours. A zonal wind convergence is expected to prevail in the region between Burkina Faso and Sudan across the Sahel region, with an embedded cyclonic circulation propagating between Chad and northern Nigeria during the forecast period. A broad area of southeasterly flow is expected to prevail across eastern and central Africa. Meridional wind convergence near the Lake Victoria region is also expected to maintain seasonal rainfall in the region.

At 700hPa level, a trough in the easterlies is expected to propagate westwards between Ghana and Sierra Leone, leaving the West Africa coast by 72 hours.

In the coming five days, monsoon flow from the Atlantic Ocean with its associated lower level convergence and westward propagating trough across the Gulf of Guinea region expected to enhance rainfall across portions of West Africa and Central Sahel. Local wind convergences across western Ethiopia, and active meridional wind convergences near the Lake Victoria region are expected to enhance rainfall in their respective areas. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over parts of eastern Guinea, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, portions of Nigeria, Cameroon, Equatorial Guinea, parts of Gabon, CAR, portions of DRC, and western Ethiopia.

There is also an increased chance for maximum heat index values to exceed 40°C over portions of Mali, Burkina Faso, northern Ghana, Togo, Nigeria, Niger, Chad, portions of eastern and southern Sudan, and northern South Sudan Republic.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (May 22, 2016)

Moderate to locally heavy rainfall was observed over many places in the Gulf of Guinea region, CAR, northern DRC, South Sudan, western Ethiopia and Lake Victoria region.

### 2.2. Weather assessment for the current day (May 23, 2016)

Intense convective clouds are observed across northern Ghana, Benin, northeastern Burkina Faso, southern and western Niger, southern Chad, northern DRC, South Sudan and Western Ethiopia.

