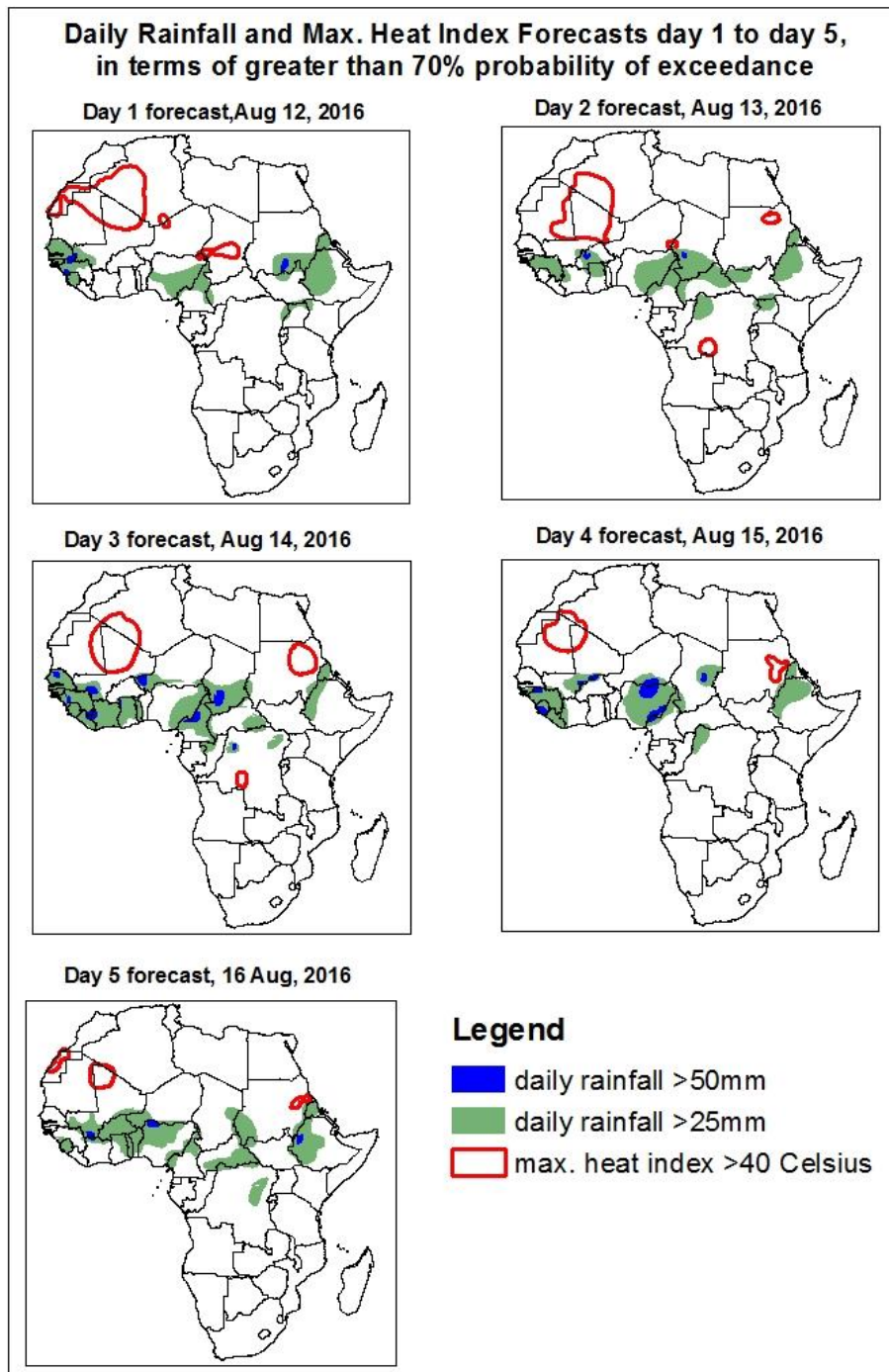


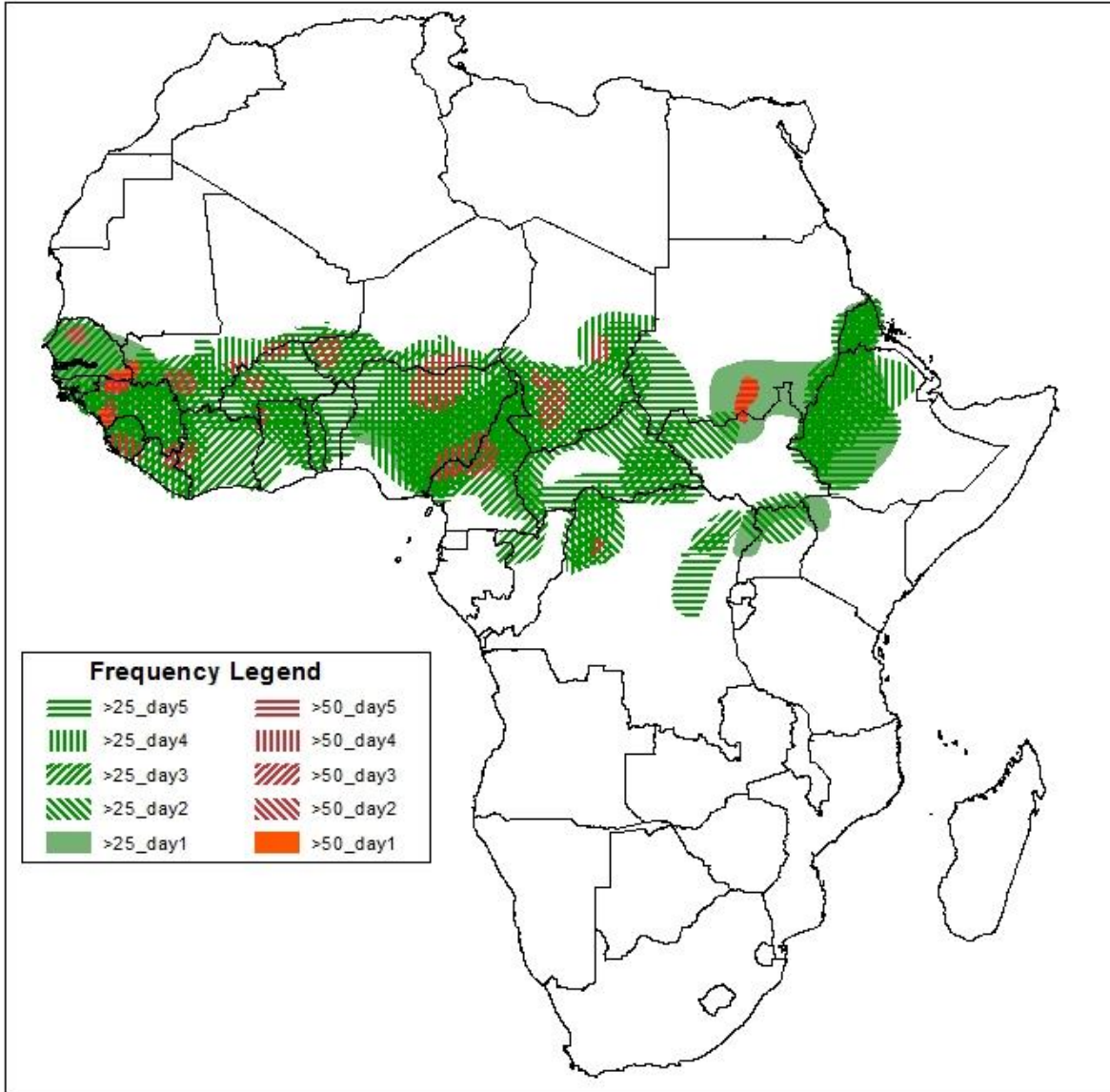
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Aug 11, 2016)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Aug 12– Aug 16 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 Aug 12 - Aug 16, 2016

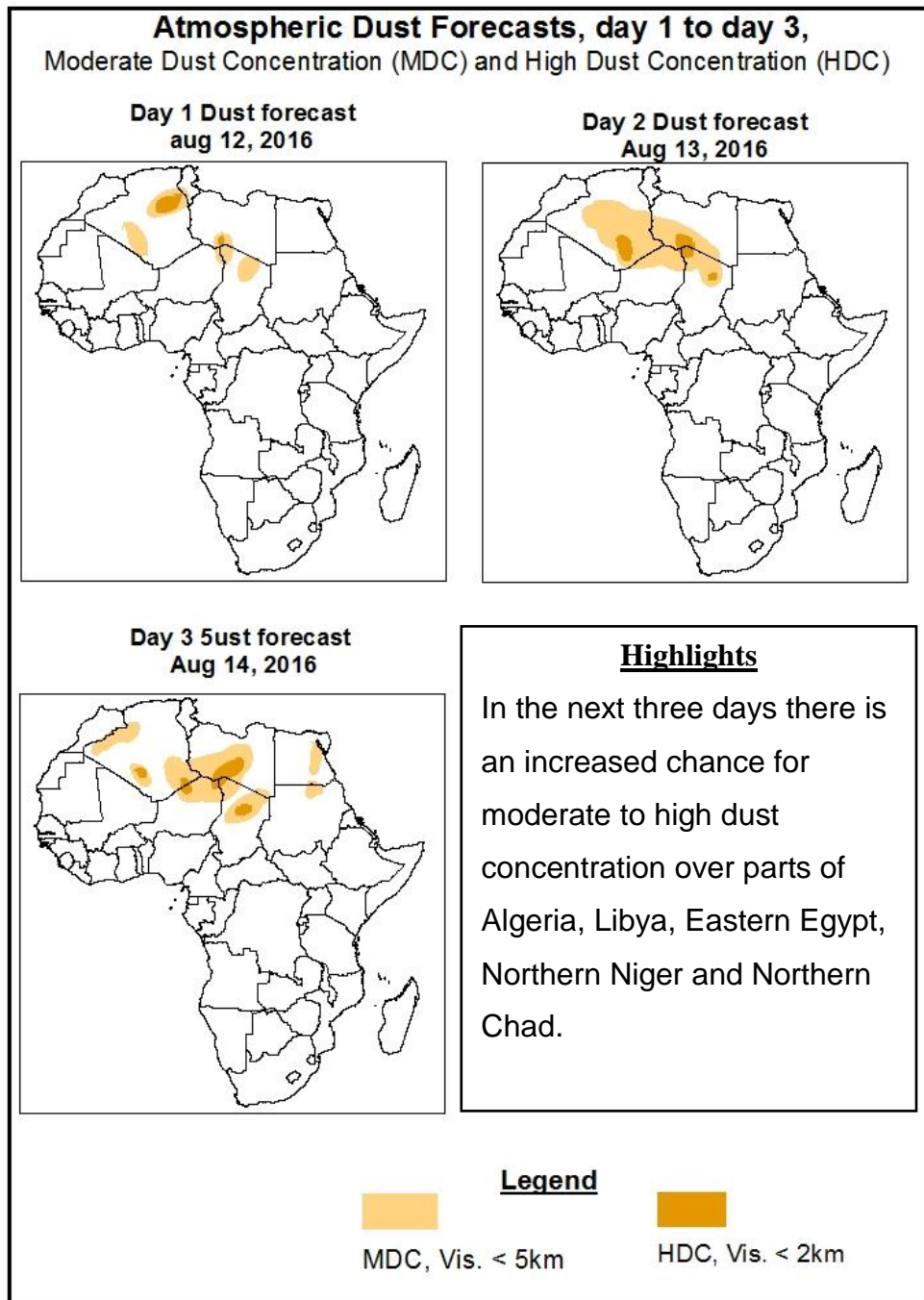


### **Highlights**

In the next five days, westward propagating lower-level cyclonic systems across West Africa and central Sahel and lower level wind convergences across 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 much of Senegal, Guinea Bissau, Guinea, Sierra Leone and Liberia, portions of Mali, Cote d'Ivoire, portions of Burkina Faso, Chad, Cameroon, local areas of Sudan, portions of Ethiopia, Eritrea and CAR, local areas of DRC and Uganda.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Aug 12– Aug 16 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: Aug 12 –Aug 16, 2016**

The Azores high pressure system over the Northeast Atlantic is expected to intensify, with its central pressure value increasing from 1026 hPa to 1027 hPa from 24 hours to 48 hours, and tends to weaken, with its value of central pressure decreasing from 1026 hPa to 1021 hPa between 72 hours to 120 hours.

The St. Helena high-pressure system over the Southeast Atlantic Ocean is expected to intensify, with its central pressure value increasing from 1025 hPa to 1029 hPa during the forecast period.

The Mascarene High pressure system over the Southeast Atlantic Ocean is expected to intensify, with its value of the central pressure value increasing from 1031 hPa to 1035 hPa from 24 hours to 72 hours and tends to weaken, with its value of central pressure decreasing from 1034 hPa to 1033 hPa between 96 hours to 120 hours.

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

The heat low over Western Sahel is expected to deepen, with its central pressure value decreasing from 1009 hPa to 1003 hPa between 24 and 72 hours, and tends to fill up, with its central pressure value increasing from 1005 hPa to 1010 hPa between 96 hours to 120 hours. The heat low over Central Sahel is expected to deepen, with its central pressure value decreasing from 1009 hPa to 1007 hPa between 24 and 48 hours, and tends to fill up, with its central pressure value increasing from 1009 hPa to 1010 hPa between 72 hours to 120 hours. The heat low over Sudan is expected to maintain an average central pressure value of 1008hPa during the forecast period.

At 925hPa, an anticyclonic circulation and its associated ridge is expected to prevail across Libya and the neighboring areas. Strong dry northeasterly to easterly winds may lead to moderate to high dust concentration in parts of Algeria, Libya, Eastern Egypt, Northern Niger and Northern Chad.

At 850hPa level, a cyclonic circulation is expected to propagate westwards in the region between Chad and Senegal during the forecast period, while the lower level wind convergence is expected to prevail in the Greater Horn of Africa.

At 700 hPa, easterly flow, with occasional strong winds and feeble trough in the easterlies is expected to prevail across West Africa during the forecast period.

At 500 hPa, a zone of strong wind (>35kts), associated with AEJ is expected to propagate westwards across West Africa in the region between Western Niger to Senegal.

At 150 hPa a strong wind (>70kts), associated with the TEJ is expected to prevail across the Greater Horn of Africa through 24 hours, and the jet tends to weaken towards end of the forecast period.

In the next five days, westward propagating lower-level cyclonic systems across West Africa and central Sahel and lower level wind convergences across 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 much of Senegal, Guinea Bissau, Guinea, Sierra Leone and Liberia, portions of Mali, Cote d'Ivoire, portions of Burkina Faso, Chad, Cameroon, local areas of Sudan, portions of Ethiopia, Eritrea and CAR, local areas of DRC and Uganda.

There is an increased chance for maximum heat index to exceed 40°C over portions of Western Sahara, Mauritania and Mali, local areas in Niger, Chad and DRC, portion of Sudan.



## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (Aug 10, 2016)

Moderate to locally heavy rainfall was observed over portions of Mali, Senegal, Mauritania, , Guinea Bissau and Guinea, local areas in Burkina Faso, Niger, Nigeria, Cameroon, southern Chad and northern CAR.

### 2.2. Weather assessment for the current day (Aug 11, 2016)

Intense convective clouds are observed over western end of West Africa, Nigeria, portion of CAR, DRC, local areas of Sudan, Ethiopia, Eritrea and Uganda.

