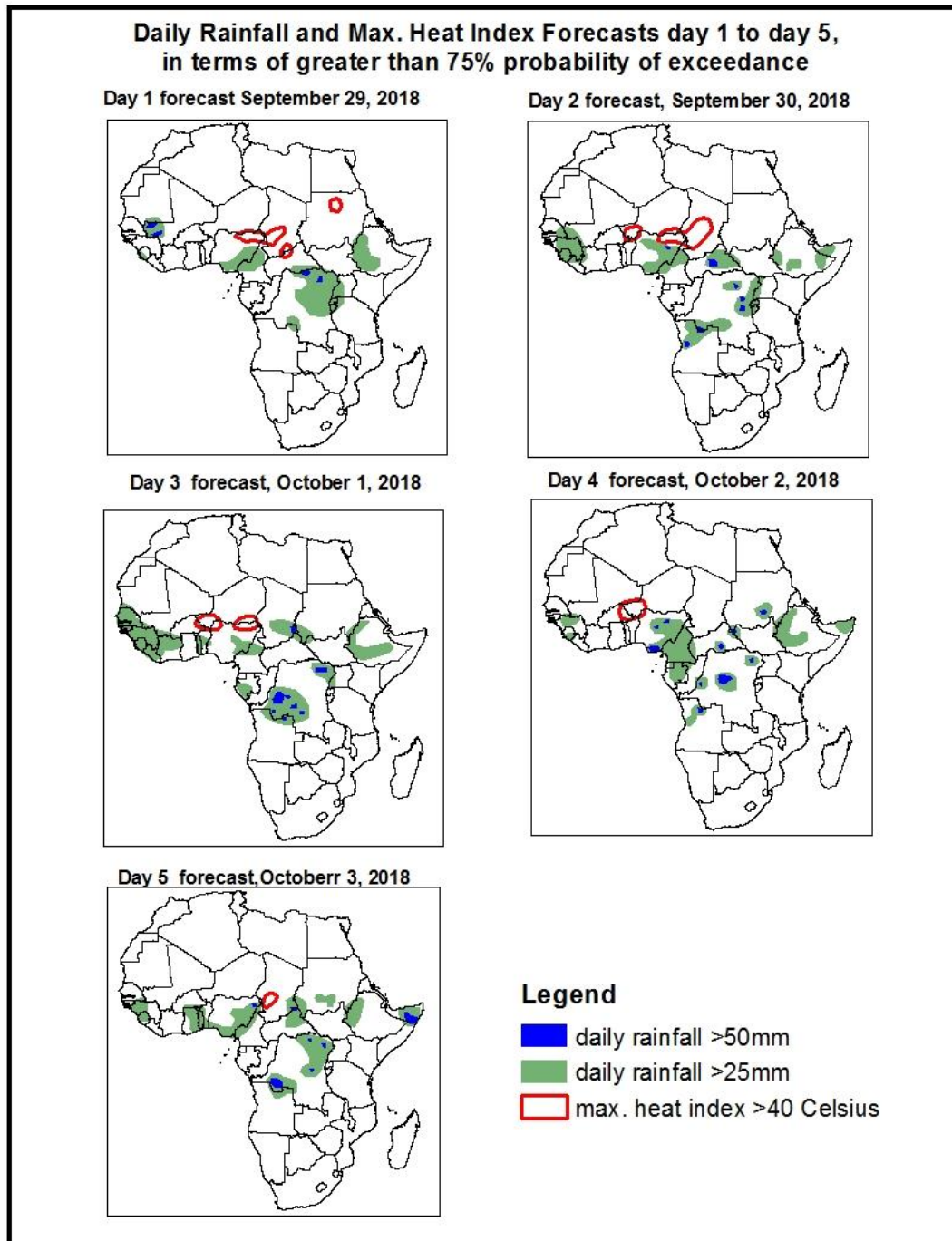


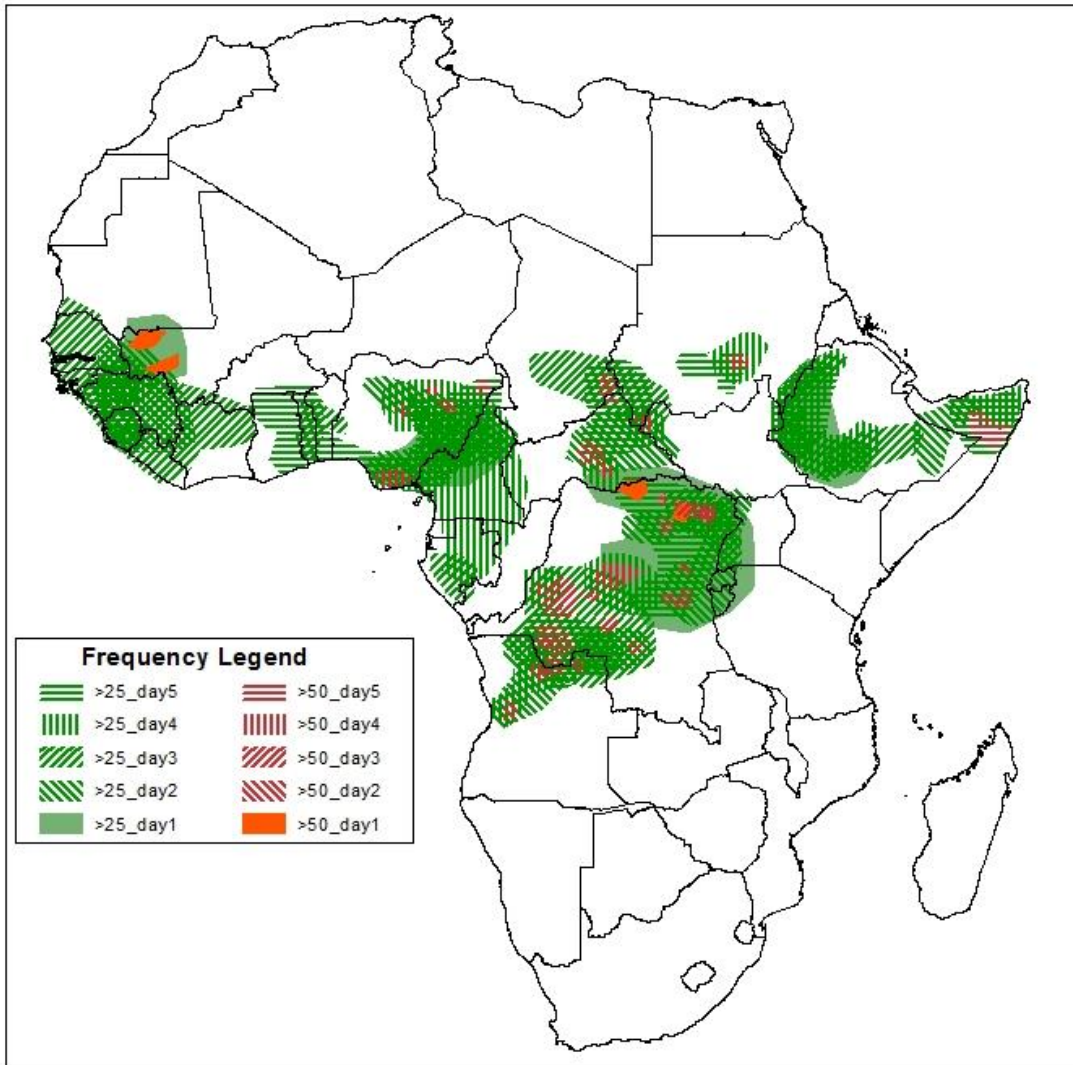
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on September 28, 2018)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Sep 29, –Oct 3, 2018)**

The forecasts are expressed in terms of high probability of precipitation (POP), valid 06Z to 06Z, and exceedance probability of maximum heat index (>40°C), based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary 29 September - 3 October, 2018.

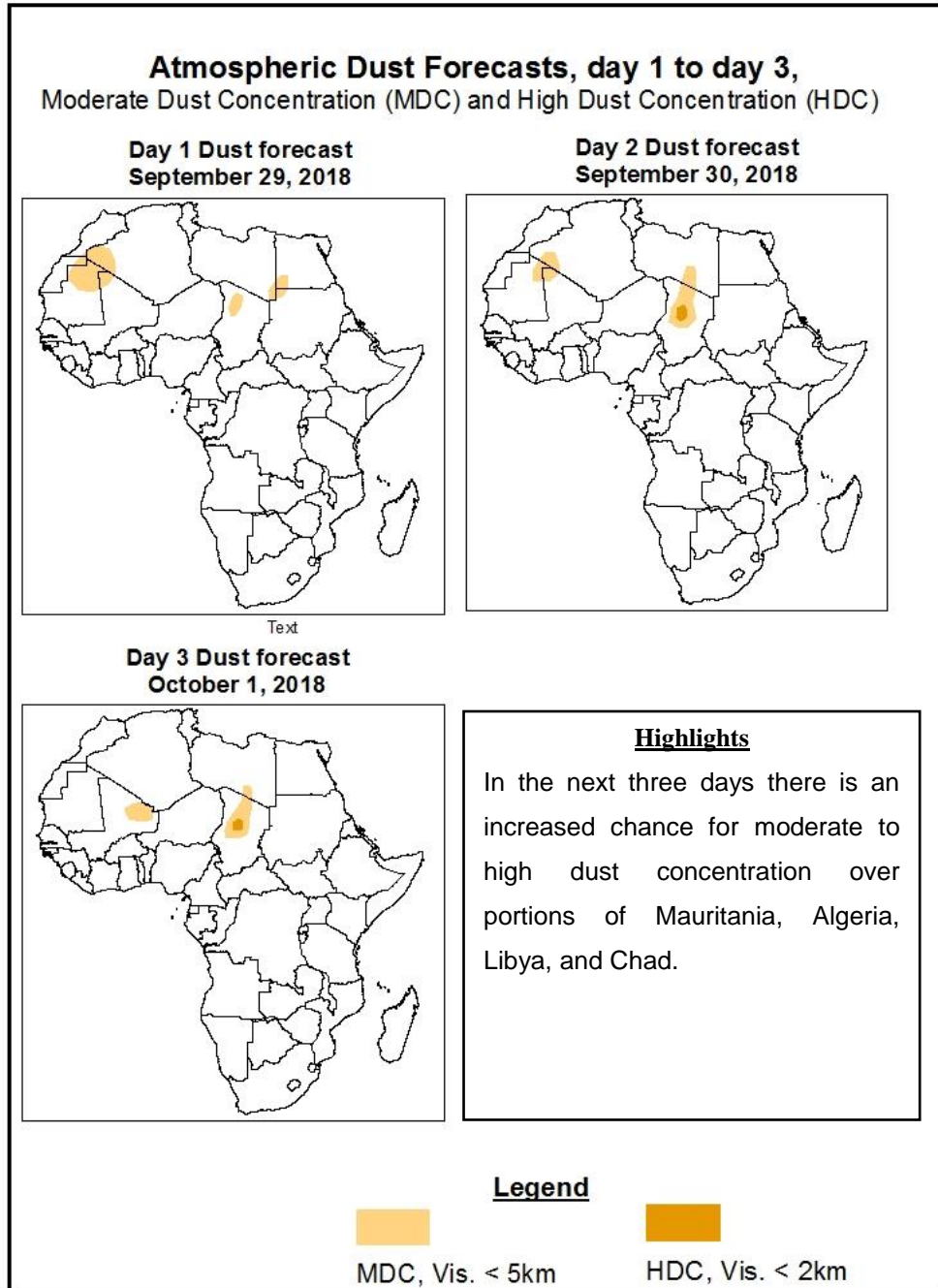


### **Highlights**

- In the next five days, lower-level cyclonic systems across the Gulf of Guinea region and localized lower-level wind convergences over parts of the Sahel region, active lower-level wind convergences in the Congo Basin, Sudan, Ethiopia and Somalia are expected to enhance rainfall.
- There is an increased chance for 2 or more days of moderate to heavy rainfall over eastern Senegal, Guinea-Conakry, Sierra Leone, southwestern Mali, Togo, parts of Nigeria, and Cameroon, CAR, parts of Sudan, northern Angola, many parts of DRC, western Ethiopia and northern Somalia.
- There is an increased chance for temperature heat index values to exceed 40°C over local areas in Burkina Faso, Niger, Nigeria, Chad and Sudan.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: September 29 – October 1, 2018)

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: September 29 –October 3, 2018**

The Azores High Pressure system over the North Atlantic Ocean is expected to intensify. Its central pressure value is expected to decrease from 1031hPa to 1035hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to intensify gradually. Its central pressure value is expected to increase from 1033hPa to 1040hPa through 120 hours.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify gradually. Its central pressure value is expected to increase from 1031hPa to 1034hPa.

Thermal low across Angola and DRC is expected to maintain an average central pressure value of 1011hPa during the forecast period.

At 925hPa, dry strong northeasterly to easterly flow is expected to prevail over Western Sahara, Mauritania, northern Mali, parts of Algeria, Chad, Libya, northern Niger, and portions of Egypt and Sudan. In contrast, moist southwesterly to westerly monsoon flow from the Atlantic Ocean is expected to remain active across the Gulf of Guinea countries. Active East African monsoon flow from the Indian Ocean, with its associated lower-level convergence across equatorial eastern Africa is expected to prevail during the forecast period.

At 850hPa, a cyclonic trough is expected to prevail along the Gulf of Guinea coast during the forecast period. Localized lower-level wind Convergence across portions of the Sahel region, Sudan and Ethiopia and seasonal wind convergence in the Congo Basin are expected to remain active during the forecast period.

In the next five days, lower-level cyclonic systems across the Gulf of Guinea region and localized lower-level wind convergences over parts of the Sahel region, active lower-level wind convergences in the Congo Basin, Sudan, Ethiopia and Somalia are expected to enhance rainfall.

There is an increased chance for 2 or more days of moderate to heavy rainfall over eastern Senegal, Guinea-Conakry, Sierra Leone, southwestern Mali, Togo, parts of Nigeria, and Cameroon, CAR, parts of Sudan, northern Angola, many parts of DRC, western Ethiopia and northern Somalia. There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas in Burkina Faso, Niger, Nigeria, Chad and Sudan.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (September 27, 2018)

Daily rainfall totals exceeded 25mm over local areas in in Ghana and CAR, many parts of DRC and northern Uganda

### 2.2. Weather assessment for the current day (September 28, 2018)

Intense convective clouds are observed over southern Mauritania, southern Nigeria, local areas in Cameroon and CAR, many parts of DRC, and parts of Angola, South Sudan and Ethiopia.

