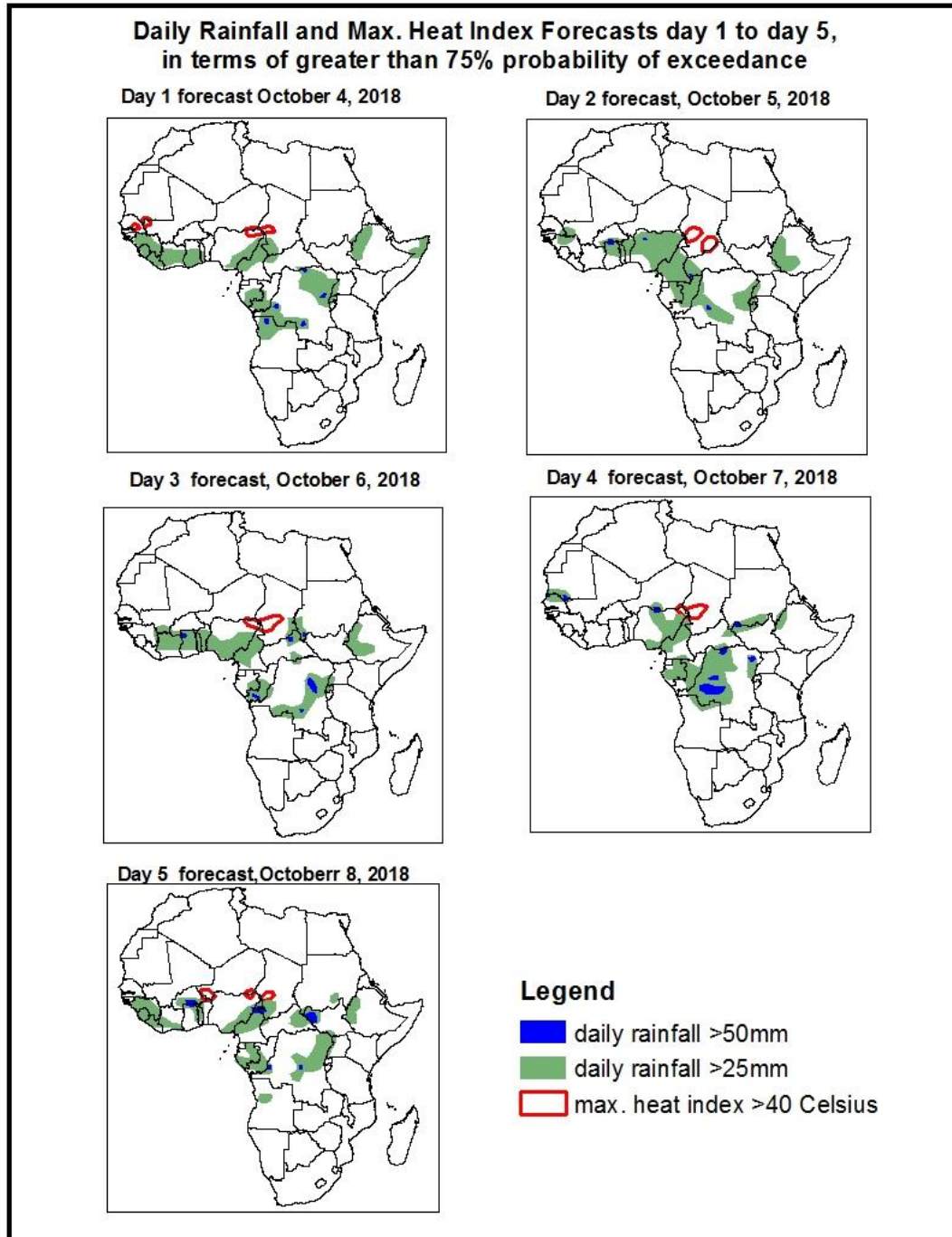


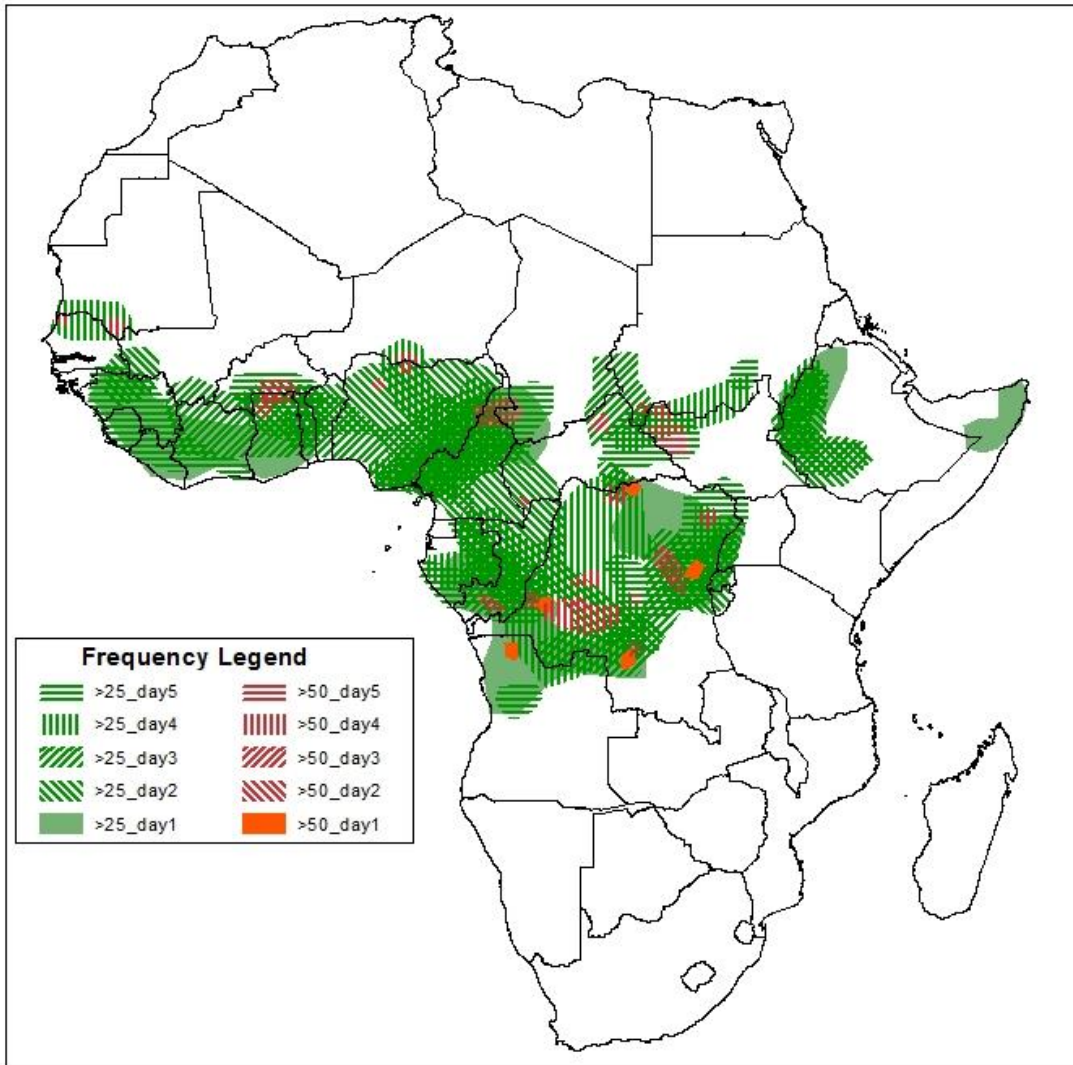
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on October 3, 2018)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Oct 4, –Oct 8, 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 4 - 8 Octoberr, 2018.

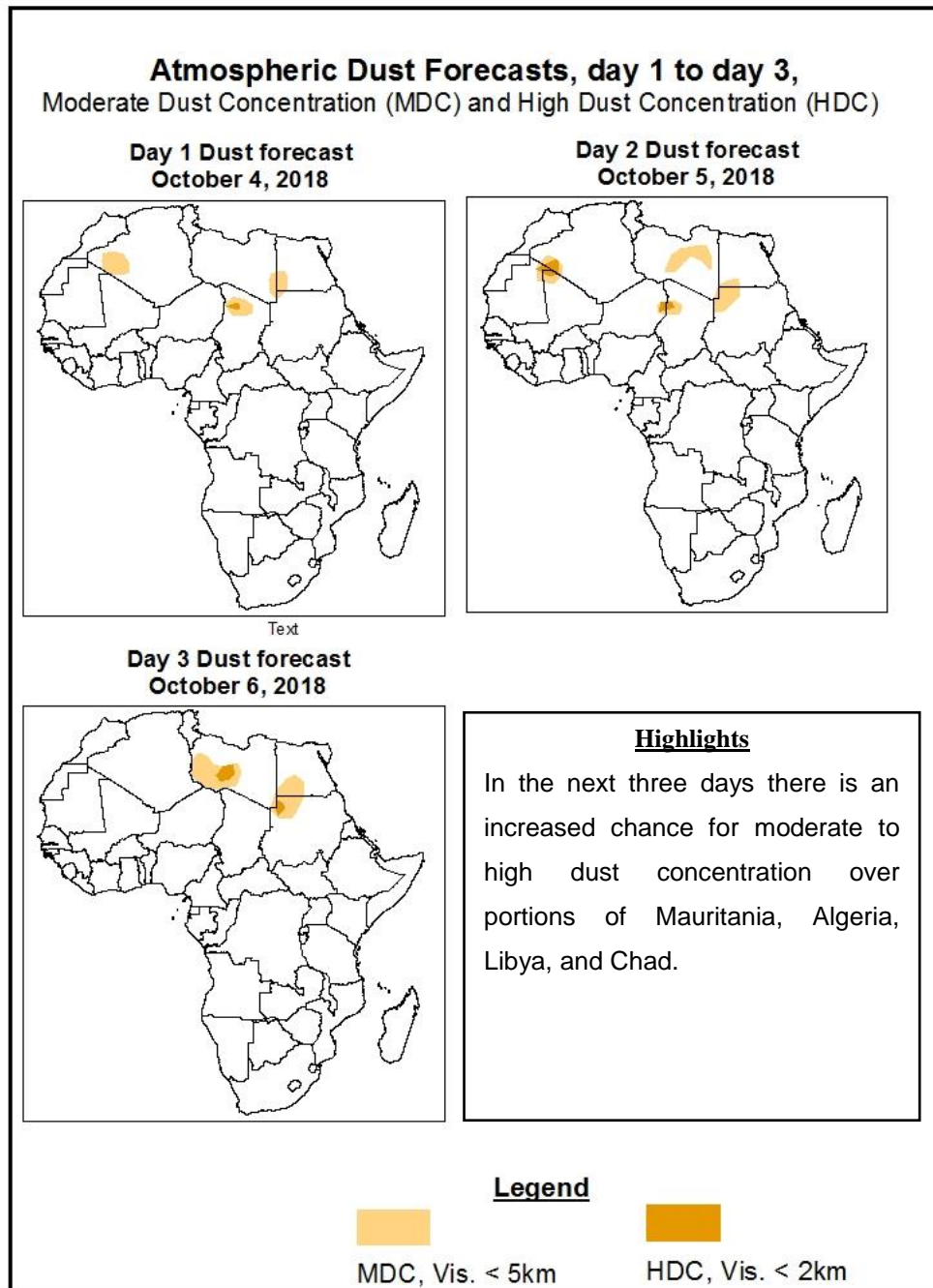


### Highlights

- In the next five days, lower-level wind convergences over parts of the Gulf of Guinea countries, active lower-level wind convergences in the Congo Basin, Sudan and Ethiopia are expected to enhance rainfall. There is an increased chance for 2 or more days of moderate to heavy rainfall over many places in the Gulf of Guinea countries and Central Africa, parts of Sudan and western Ethiopia.
- There is an increased chance for temperature heat index values to exceed 40°C over local areas in Senegal, Niger, Nigeria, and Chad.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Oct 4 – October 6, 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: October 4 – October 8, 2018**

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken. Its central pressure value is expected to decrease from 1034hPa to 1023hPa during the forecast period..

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to weaken while shifting to the southwest Indian Ocean. Its central pressure value is expected to decrease from 1035hPa to 1028hPa through 120 hours.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken gradually, while shifting to the east. Its central pressure value is expected to decrease from 1028hPa to 1024hPa.

Thermal low across Angola and DRC is expected to maintain an average central pressure value of 1012hPa during the forecast the first half of the forecast period.

At 925hPa, dry strong northeasterly to easterly flow is expected to prevail over portions of northern Africa and the neighboring areas of the Sahel region. In contrast, moist southwesterly to westerly monsoon flow from the Atlantic Ocean is expected to remain active along the Gulf of Guinea coast. Active East African monsoon flow from the Indian Ocean, with its associated lower-level convergence across eastern and southern Africa is expected to prevail during the forecast period.

At 850hPa, localized lower-level wind Convergence across portions of the Gulf of Guinea region, and seasonal wind convergence in the Congo Basin are expected to remain active during the forecast period.

In the next five days, lower-level wind convergences over parts of the Gulf of Guinea countries, active lower-level wind convergences in the Congo Basin, Sudan and Ethiopia are expected to enhance rainfall. There is an increased chance for 2 or more days of moderate to heavy rainfall over many places in the Gulf of Guinea countries and Central Africa, parts of Sudan and western

Ethiopia. There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas in Senegal, Niger, Nigeria, and Chad.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (October 2, 2018)

Daily rainfall totals exceeded 25mm over western Guinea-Conakry, Sierra Leone, local areas in Benin, and western Gabon.

### 2.2. Weather assessment for the current day (October 3, 2018)

Intense convective clouds are observed over local areas in the Gulf of Guinea countries, parts of CAR and Chad and DRC.

