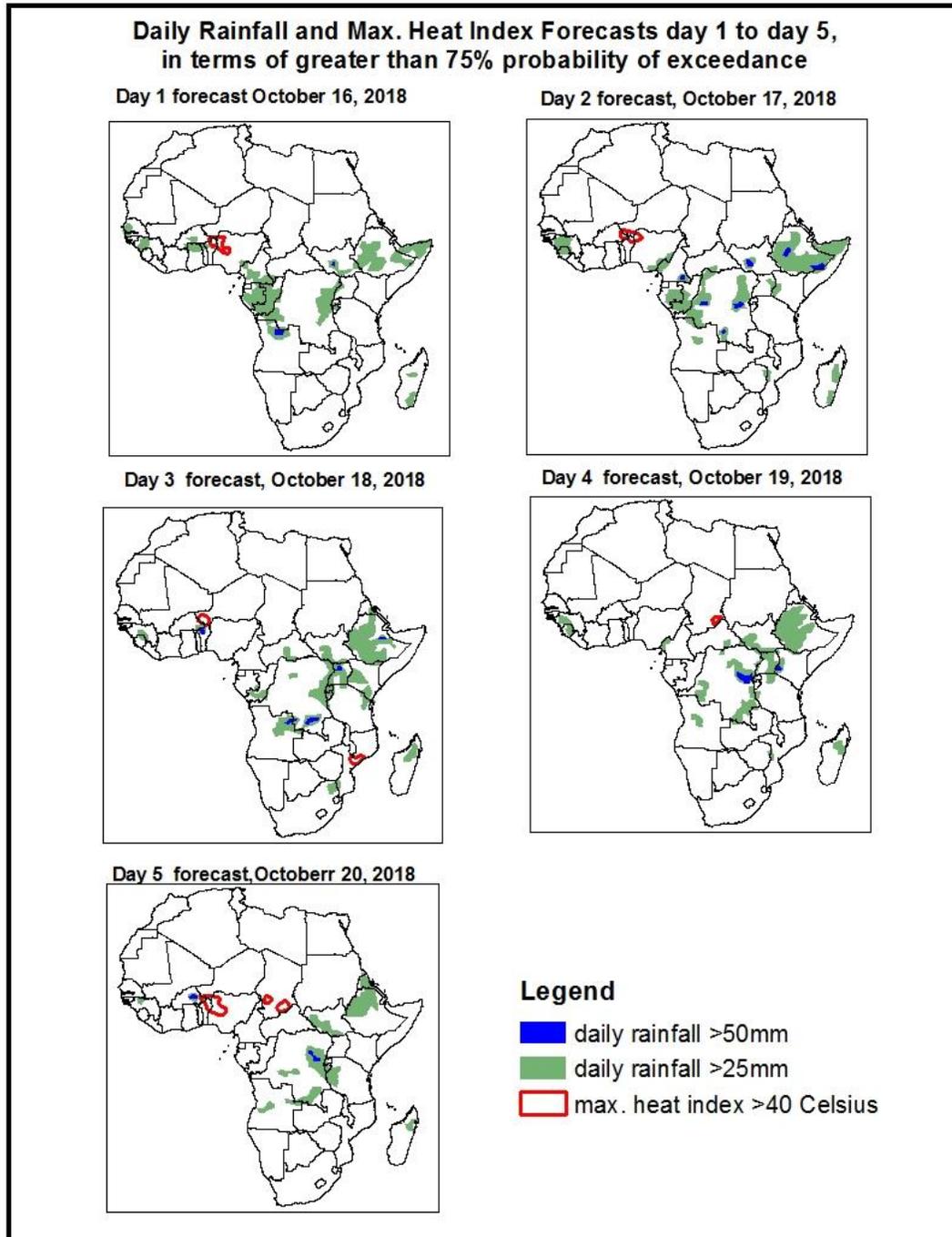


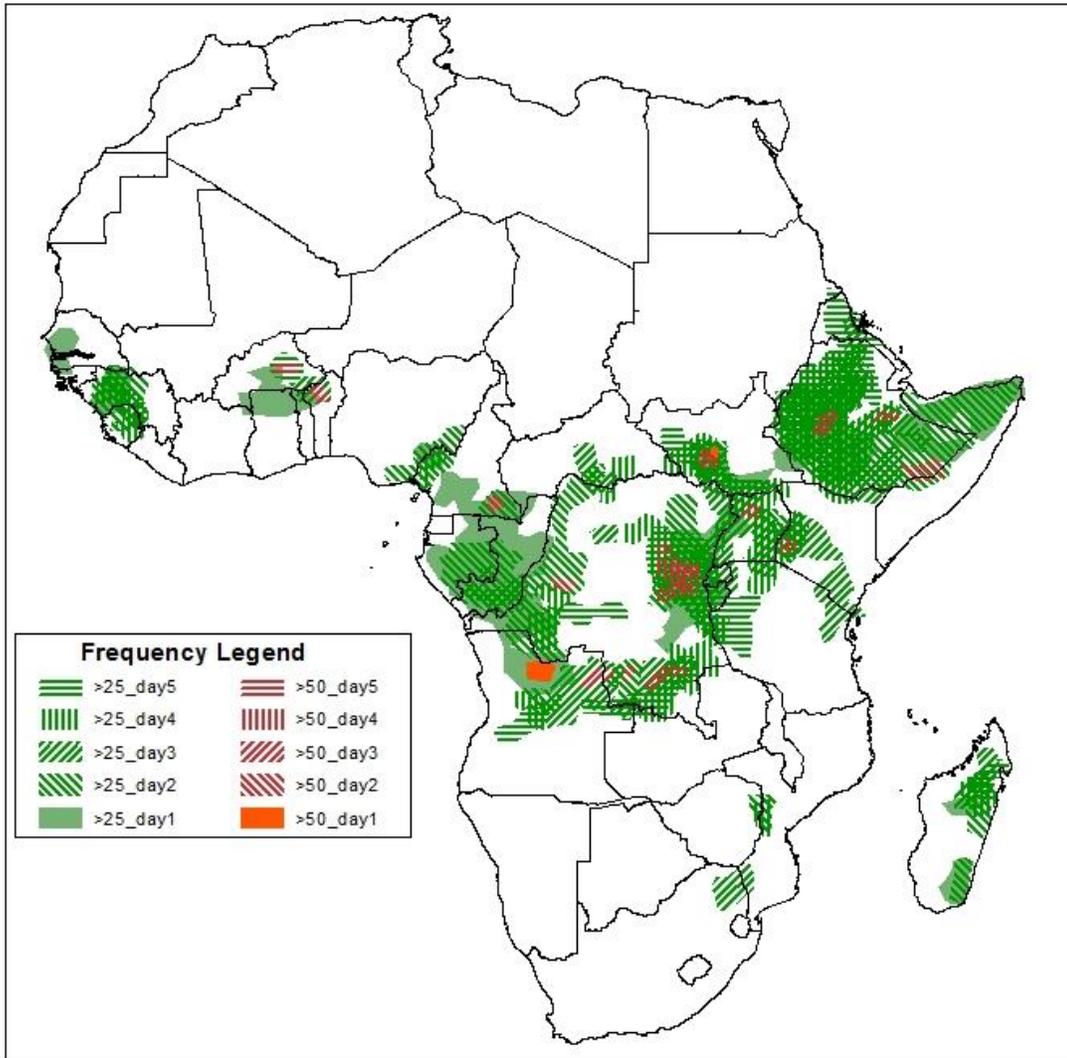
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on *October 15, 2018*)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (*valid: Oct 16, –Oct 20, 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 16 - 20 October, 2018.

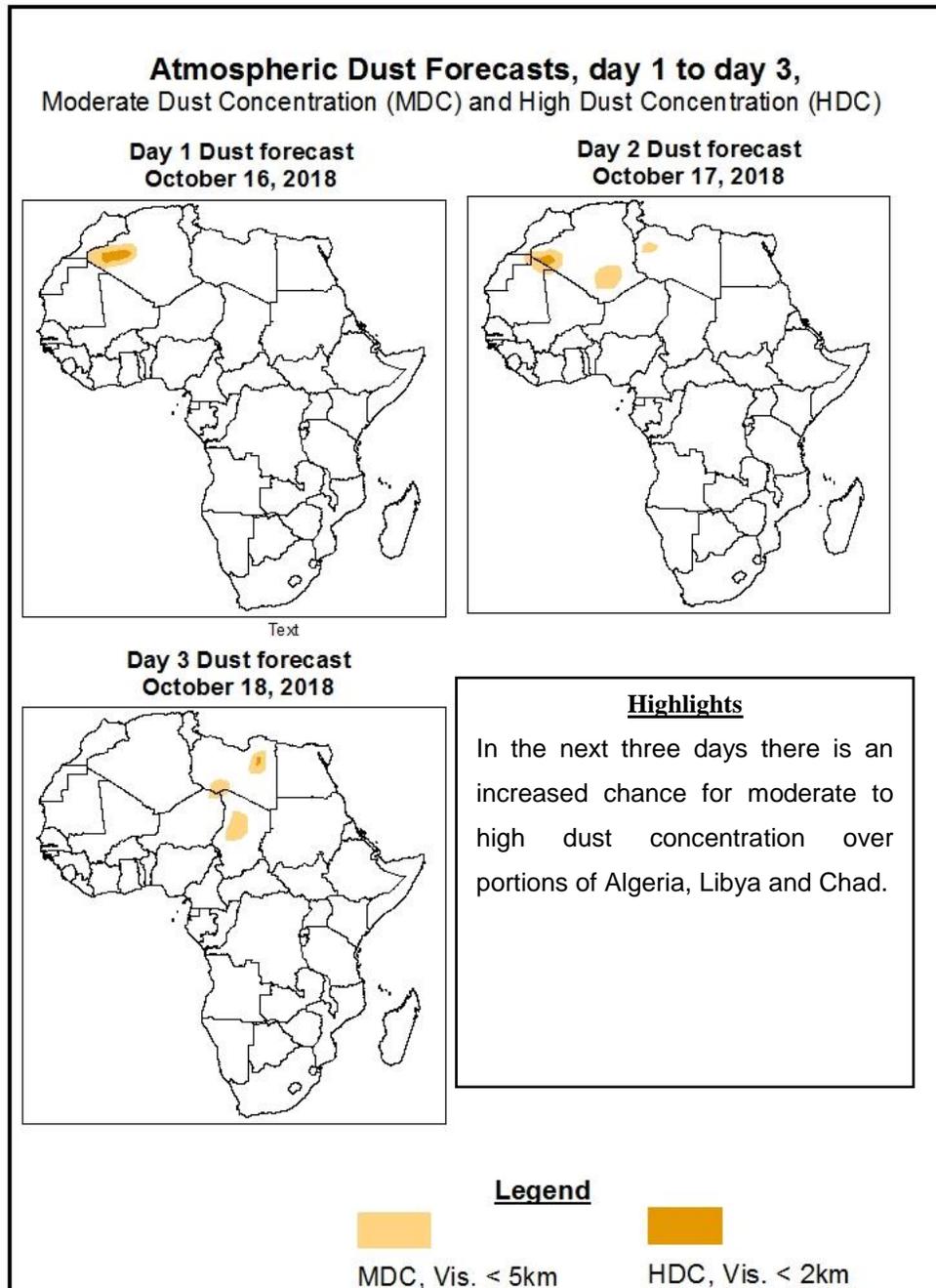


### Highlights

- In the next five days, localized lower-level wind convergences over parts of the Gulf of Guinea countries, active Congo air boundary, cross equatorial flow associated converges Greater Horn of Africa expected to enhance rainfall. There is an increased chance for 2 or more days of moderate to heavy rainfall over parts of South Sudan, Ethiopia, Somalia, Congo DR, Burkina Faso Nigeria and Angola.
- There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas over Niger, Burkina Faso, Benin Nigeria Chad and Mozambique.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Oct 16 – October 20, 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 16 – October 20, 2018**

The Azores High Pressure system over the North Atlantic Ocean is expected to strengthen through 72hrs and weaken in the next 96 to 120hrs. its central pressure value is expected to decrease from 1031hPa to 1029hPa.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is moving towards the southern sub-continent. Its central pressure value is expected to increase from 1023hPa to 1034hPa throughout the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken gradually, while progressing eastwards. Its central pressure value is expected to increase from 1028hPa to 1030hPa through the 72hrs and decrease towards the end of the forecast period.

A low system is expected to develop over the southern Africa moving centered around Zimbabwe during 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. Moist southwesterly to westerly monsoon flow from the Atlantic Ocean is expected to gradually weaken causing a reduction in rainfall activities along the Gulf of Guinea region. A broad area of cross equatorial flow from the Indian Ocean is expected to prevail across the Greater Horn of Africa. Moist and unstable northeasterly is expected to prevail over some parts of southeast and southern Africa.

At 850hPa, localized lower-level wind Convergence across portions of the Gulf of Guinea region. Lower-level wind convergence associated with the Congo air boundary (CAB) and lower level wind convergence associated with the southern costal low is expected to remain active during the forecast period.

In the next five days, localized lower-level wind convergences over parts of the Gulf of Guinea countries, active Congo air boundary, cross equatorial flow associated converges Greater Horn of Africa expected to enhance rainfall. There is an increased chance for 2 or

more days of moderate to heavy rainfall over parts of South Sudan, Ethiopia, Somalia, Congo DR, Burkina Faso Nigeria and Angola. There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas over Niger, Burkina Faso, Benin Nigeria Chad and Mozambique.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (October 14, 2018)

Light to Moderate rainfall was observed over portions of Gulf of Guinea, Central African and parts of southern African countries.

### 2.2. Weather assessment for the current day (October 15, 2018)

Intense convective clouds are observed over most parts of Central and parts of Southern African Countries.

