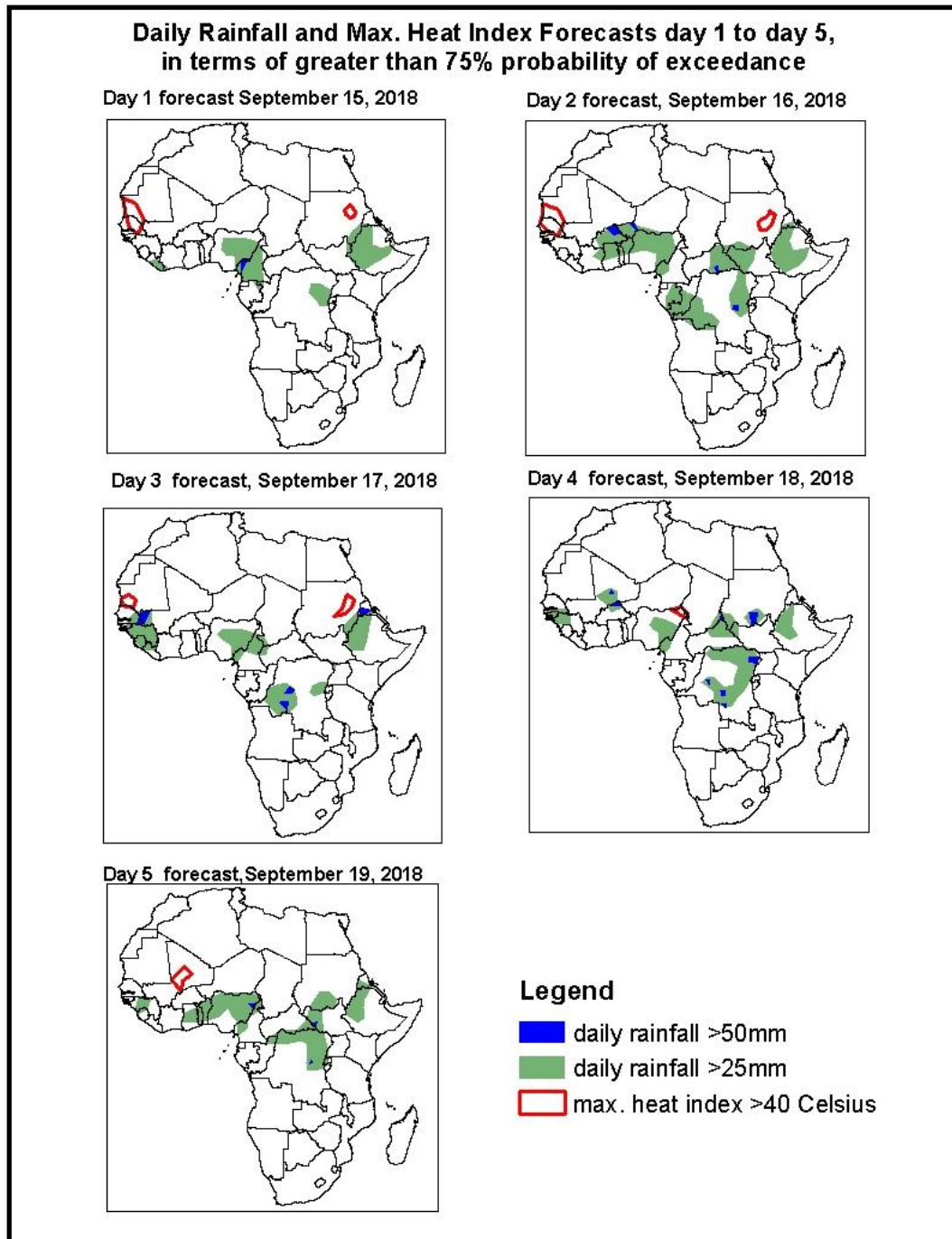


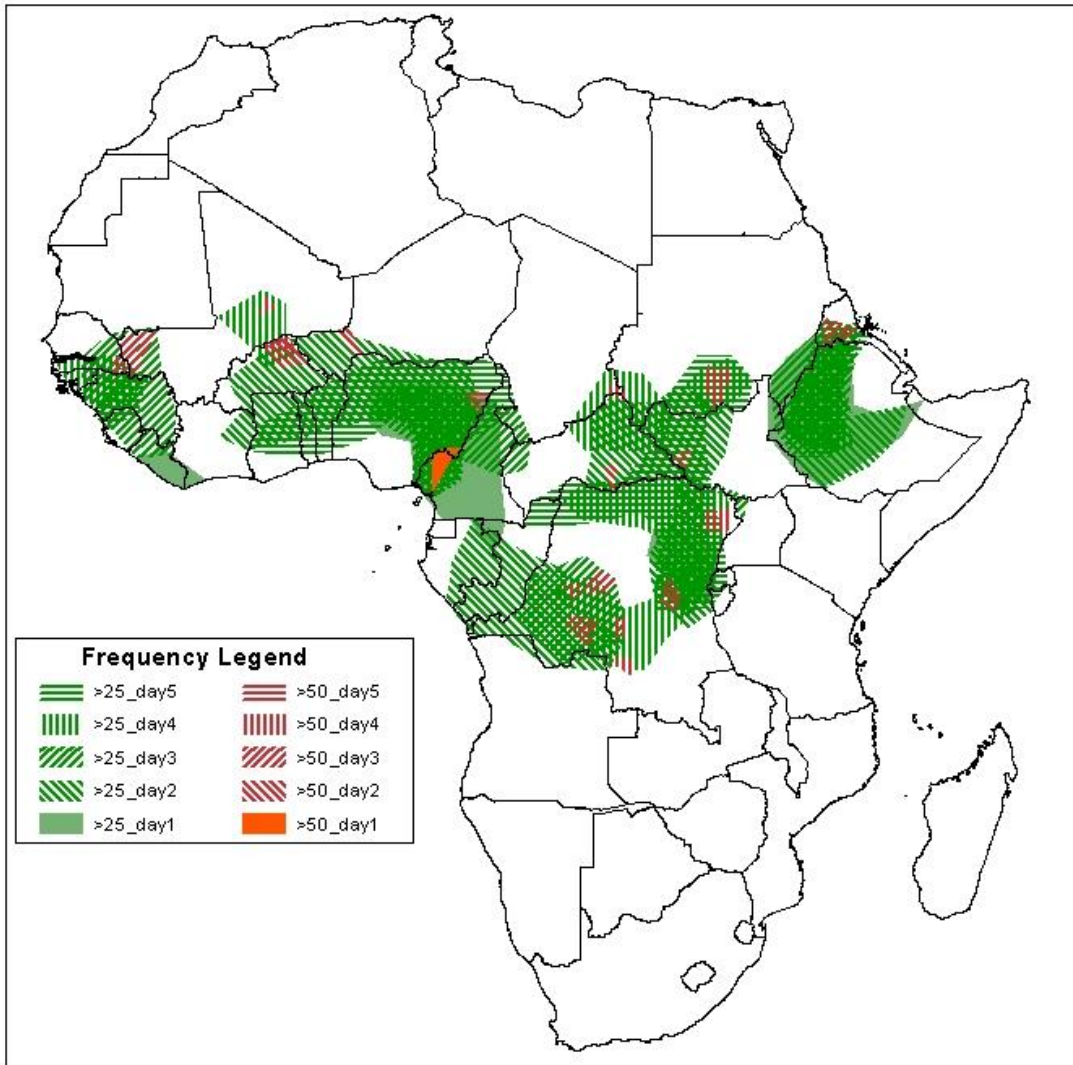
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on September 14, 2018)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Sep 15, – Sept 19, 2018)**

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary 15 - 19 September, 2018.

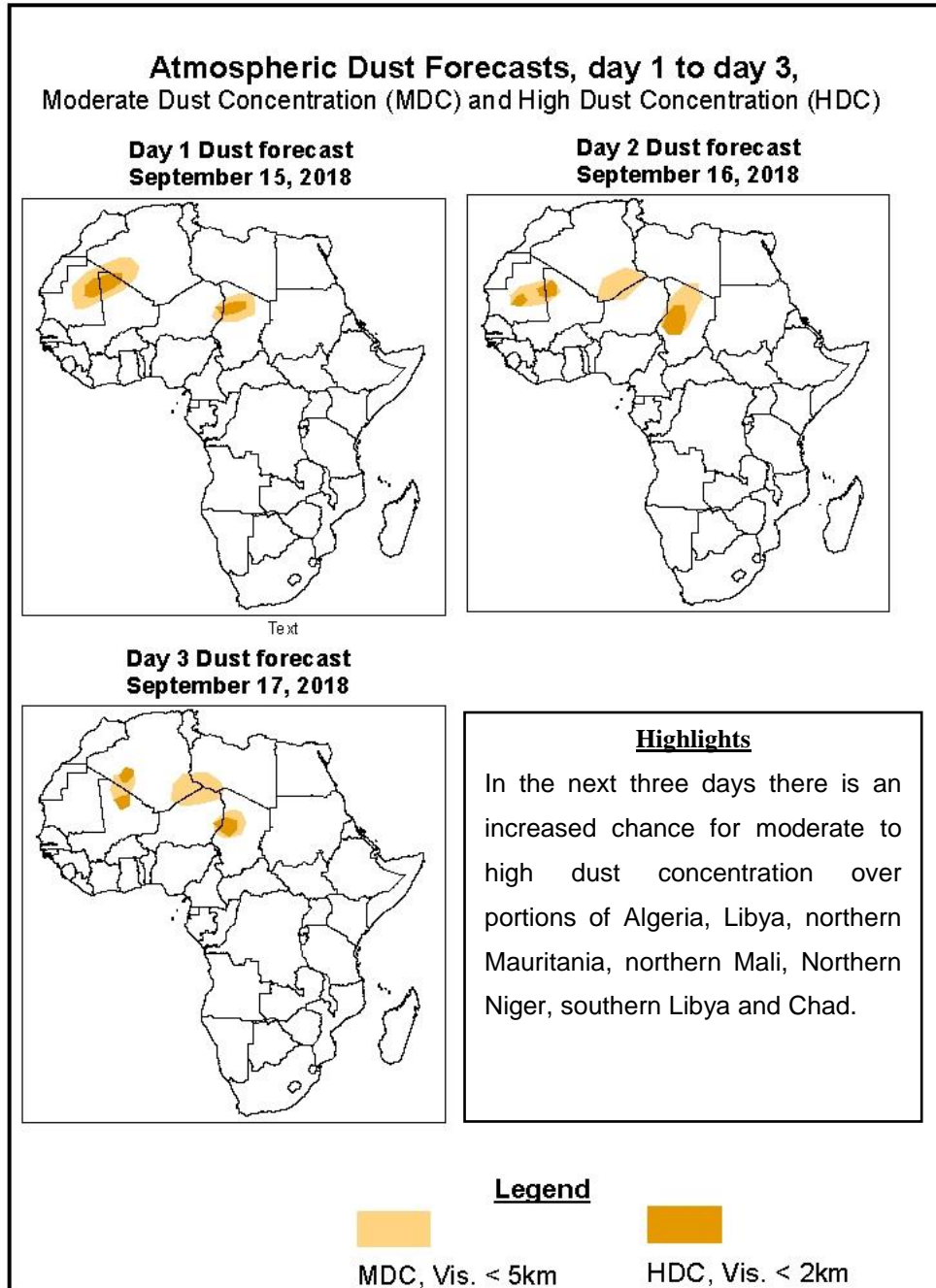


### Highlights

- In the next five days, lower-level cyclonic systems across West Africa, and active lower-level wind convergences over parts of the Sahel region, strong lower-level wind convergences in the Congo Basin and Ethiopia are expected to enhance rainfall.
- There is an increased chance for 2 or more days of moderate to heavy rainfall over portions of West and Central Africa, DRC, parts of Sudan, South Sudan, and Ethiopia.
- There is an increased chance for temperature heat index values to exceed 41<sup>0</sup>C over local areas in Mauritania, Mali, Nigeria, and Sudan.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: September 14 – September 16, 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 15 – September 19, 2018**

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken, with its central pressure value decreasing from about 1028hPa to 1022hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to intensify during the forecast period. The central pressure value is expected to increase from 1032hPa to 1039hPa through 120 hours.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify gradually. Its central value is expected to increase from 1033hPa to 1036hPa during the forecast period.

Thermal low over northwestern Mali is expected to shift over to southern Mauritania while it is filling up. Its central pressure value is expected to decrease from 1006hPa to 1009hPa during the forecast period. A thermal low across Chad is expected to deepen slightly with its central pressure value decreasing from 1009hPa to 1008hPa during the forecast period.

At 925hPa, dry strong northeasterly to easterly flow is expected to prevail over Western Sahara, Mauritania, 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 much of the Gulf of Guinea countries and the neighboring areas of the Sahel region.

At 850hPa, a cyclonic trough is expected to prevail across the Gulf of Guinea countries through 96 hours. Lower-level wind convergence in Chad, Sudan and Ethiopia and meridional wind convergence in the Congo Basin are expected to remain active during the forecast period.

At 700-hPa, An area of strong easterly flow across the far western West Africa is expected to leave the West Africa coast through 72 hours. Another area of strong easterly wind is expected to propagate between Chad and Cote d'Ivoire during the forecast period.

In the next five days, lower-level cyclonic systems across West Africa, and active lower-level wind convergences over parts of the Sahel region, strong lower-level wind convergences in the Congo Basin and Ethiopia are expected to enhance rainfall. There is an increased chance for 2 or more days of moderate to heavy rainfall over portions of West and Central Africa, DRC, parts of Sudan, South Sudan, and Ethiopia. There is an increased chance for temperature heat index values to exceed 41<sup>0</sup>C over local areas in Mauritania, Mali, Nigeria, and Sudan.

## 2.0. Previous and Current Day Weather over Africa

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

Moderate to locally heavy rainfall was observed over parts of Algeria, Mauritania, Guinea, Sierra Leone, Cote d'Ivoire, Burkina Faso, Ghana, Niger, Nigeria, Cameroon, Chad, CAR, Equatorial Guinea, DRC and Ethiopia..

### 2.2. Weather assessment for the current day (September 14, 2018)

Intense convective clouds are observed over parts of Senegal, Guinea, Liberia, Cote d'Ivoire, Ghana, Niger, Nigeria, Cameroon, Chad, CAR, DRC, Uganda, South Sudan, Sudan, Ethiopia and Angola.

