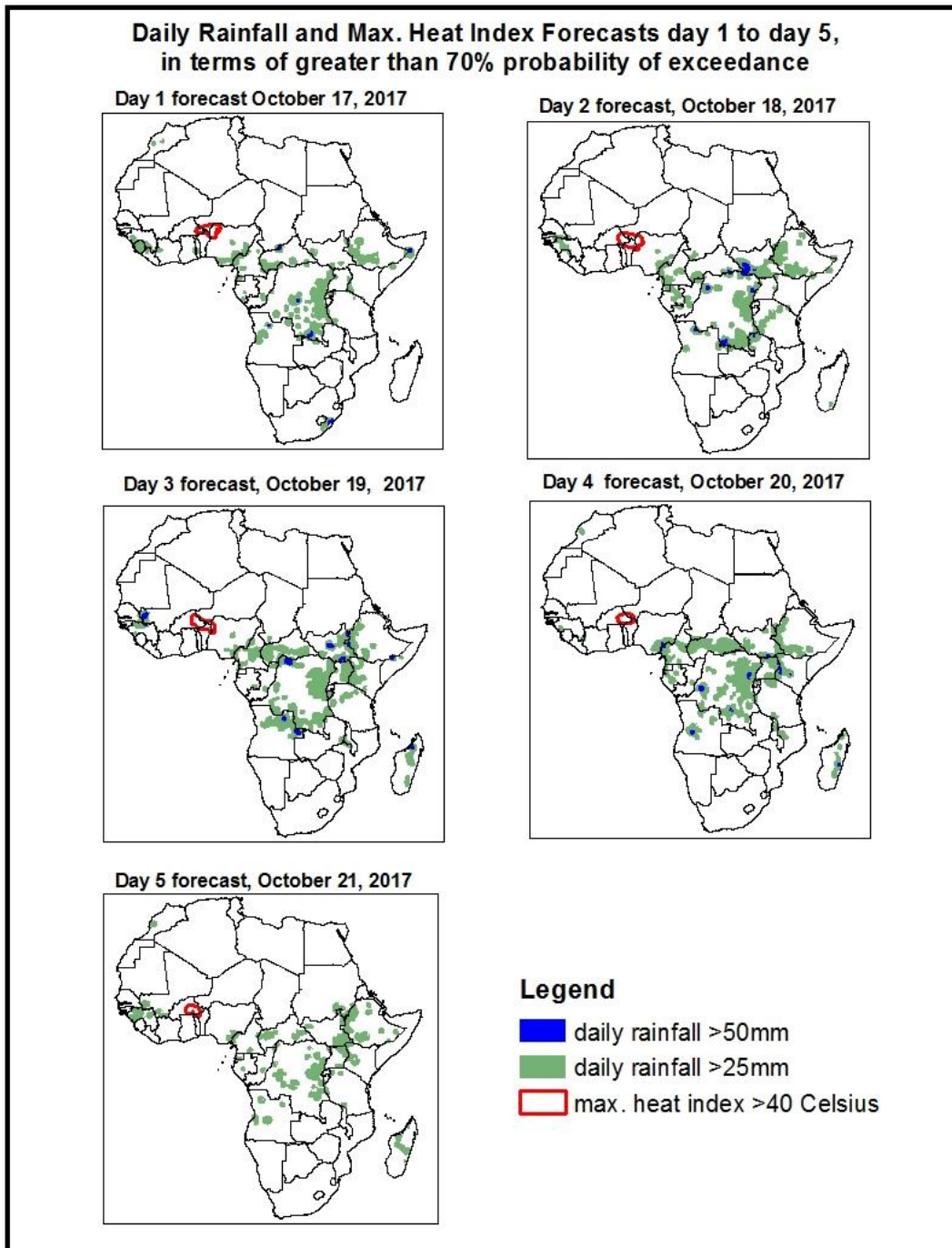


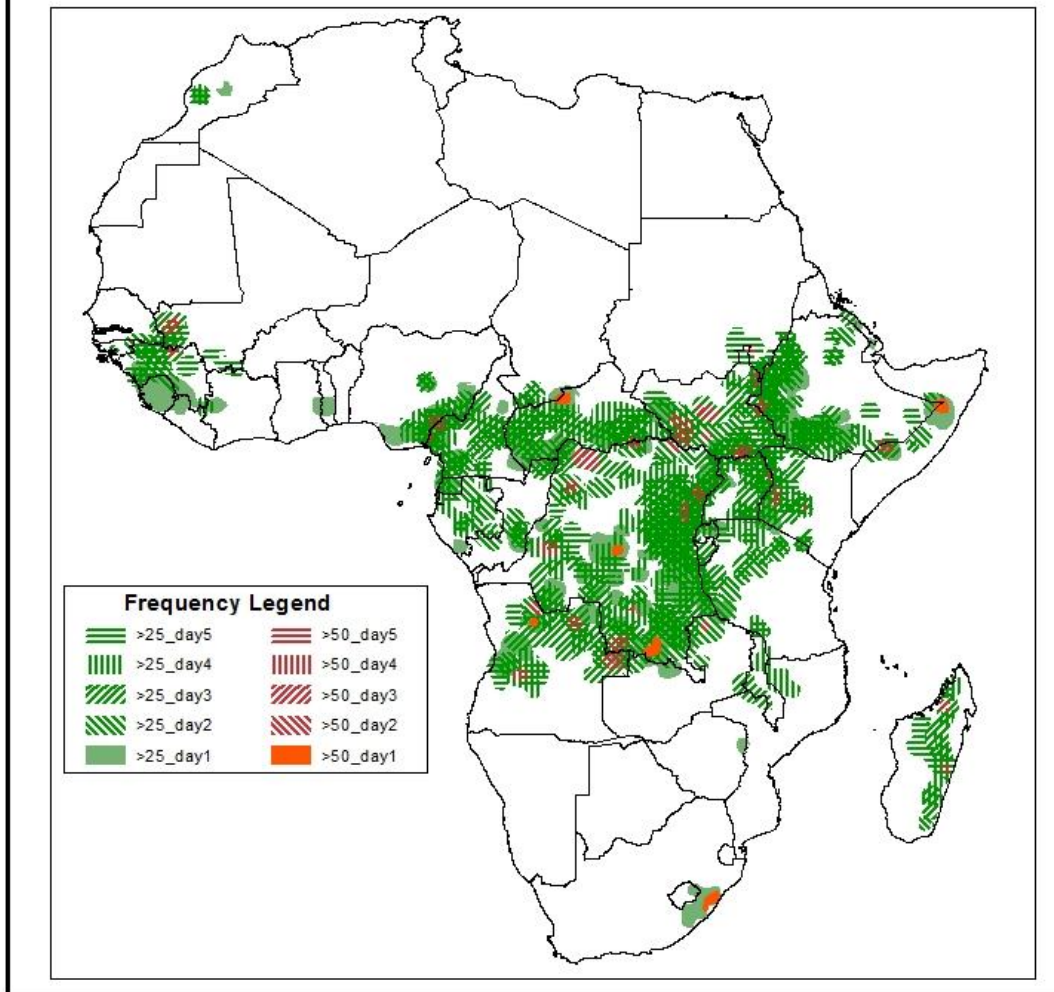
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Oct 16, 2017)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Oct 17, –Oct 21, 2017)**

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 October 17 - October 21 2017.

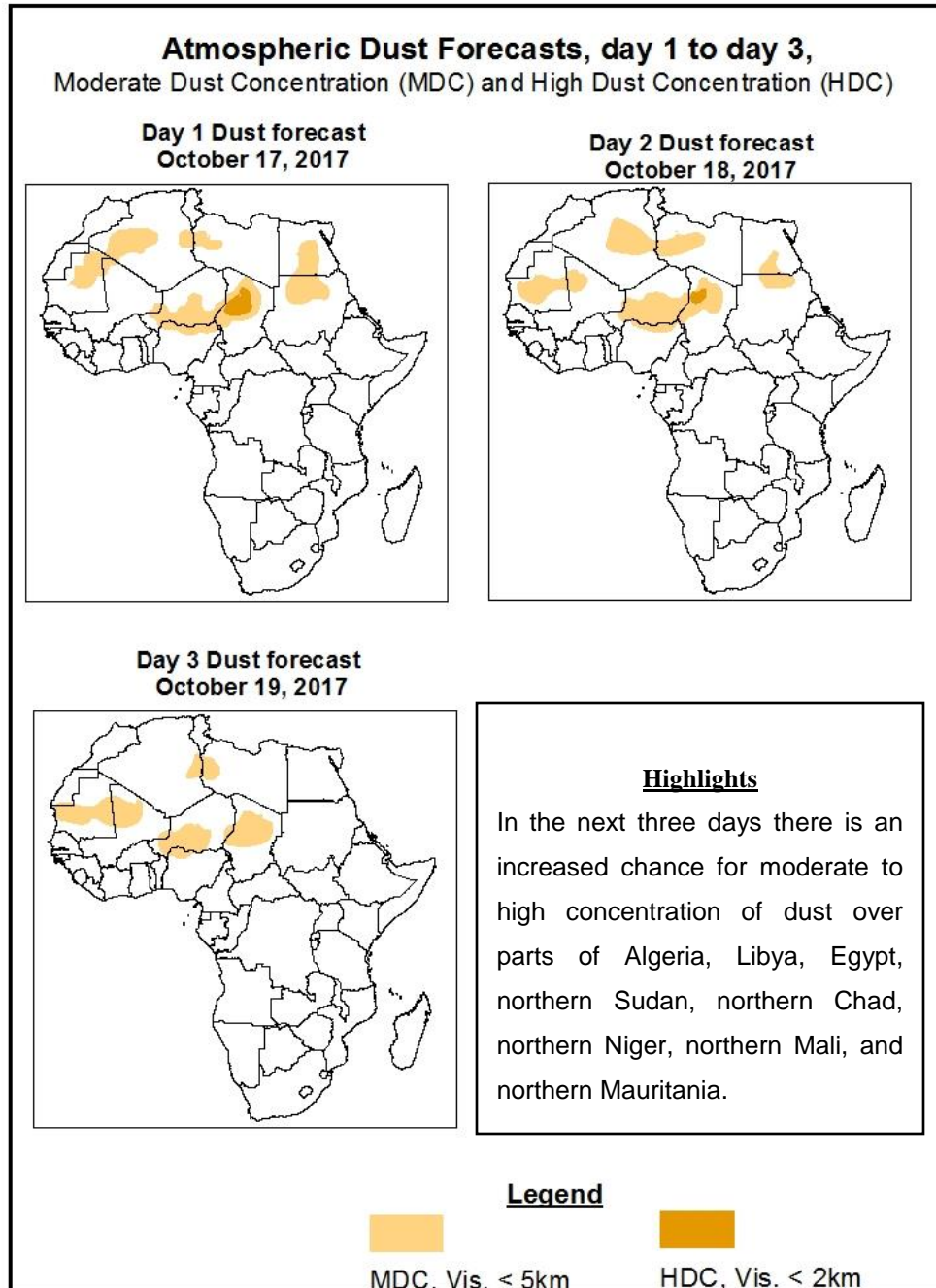


### **Highlights**

In the next five days, active lower-level meridional convergence associated with the Congo air boundary (CAB) between the South Sudan to the southeast DRC and low level wind convergences in the far western Africa, the equatorial Africa and parts of Angola, Ethiopia and Madagascar are expected to enhance rainfall in the respective regions. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Guinea, southwestern Mali, southeastern Nigeria, Cameroon, CAR, Equatorial Guinea, Gabon, central Congo, DRC, South Sudan, western Ethiopia, western Kenya, Uganda, western Tanzania, Burundi, Rwanda, northern Angola, Malawi, central Somalia and Madagascar.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Oct 17, – Oct 19, 2017)

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: Oct 17 – Oct 21, 2017**

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken from its central pressure value of 1030hpa to 1025hpa in the next 72 hours and then thereafter intensify to 1030hpa towards the end of the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to intensify from its central pressure value of 1031hpa to 1033hpa in the next 72 hours thereafter is expected to weaken to 1027hpa towards the end of the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to gradually weaken from its central pressure value of 1027hpa to 1024hpa and then thereafter intensify to 1027hpa towards the end of the forecast period.

The heat low over western Sahel is expected to gradually deepen from its value of 1011hpa to 1010hpa and then fill up back to its value of 1011hpa to the end of the forecast period.

Over the central Sahel, the heat low is expected to maintain its value of 1011hpa in next 72hours and then fill up to 1012hpa towards the end of the forecast period.

Over the Sudan area, the heat low is expected to slightly fill up from its value of 1009hpa to 1010hpa in the next 48hours and then maintain this value towards the end of the forecast period.

At 925hPa, there is a convergence over West Africa and the Sudan area with some vortices developing over the west Sahel and the Sudan area which are dominated by the continental winds and are moving westward towards the end of the forecast period.

Another strong convergence is established over Angola to Namibia which traverse through DRC and extends to western Tanzania, Burundi, Rwanda and then to Uganda and moves slightly to east direction towards the end of the forecast period.

The dry north easterlies to easterly winds propagating from the subtropical high pressure system over North Africa sustained the spreading and transportation of the Saharan dust

over Algeria, Libya, Egypt, northern Sudan, northern Chad, northern Niger, northern Mali and northern Mauritania.

At 850hPa, there is a convergence flow over West Africa with a low pressure system developing over the Central Sahel which is dominated by the continental winds and is propagating westward to the end of the forecast period.

There is another strong convergence over the southeastern DRC which traverse and extends to western Tanzania, Burundi, Rwanda and then to Uganda and is quasi-stationary towards the end of the forecast period.

In the next five days, active lower-level meridional convergence associated with the Congo air boundary (CAB) between the South Sudan to the southeast DRC and low level wind convergences in the far western Africa, the equatorial Africa and parts of Angola, Ethiopia and Madagascar are expected to enhance rainfall in the respective regions. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Guinea, southwestern Mali, southeastern Nigeria, Cameroon, CAR, Equatorial Guinea, Gabon, central Congo, DRC, South Sudan, western Ethiopia, western Kenya, Uganda, western Tanzania, Burundi, Rwanda, northern Angola, Malawi, central Somalia and Madagascar.



## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (October 15, 2017)

Moderate to locally heavy rainfall was observed over southern Ivory Coast, Ghana, northern Togo, northern Benin, southern Nigeria, southern Cameroon, Equatorial Guinea, Gabon, northern Congo, CAR, South Sudan, western Ethiopia, Rwanda, Burundi, Uganda, western Kenya, northwestern Tanzania, and central Madagascar.

### 2.2. Weather assessment for the current day (October 16, 2017)

Intense convective clouds are observed over portions of West, Central and East Africa.

