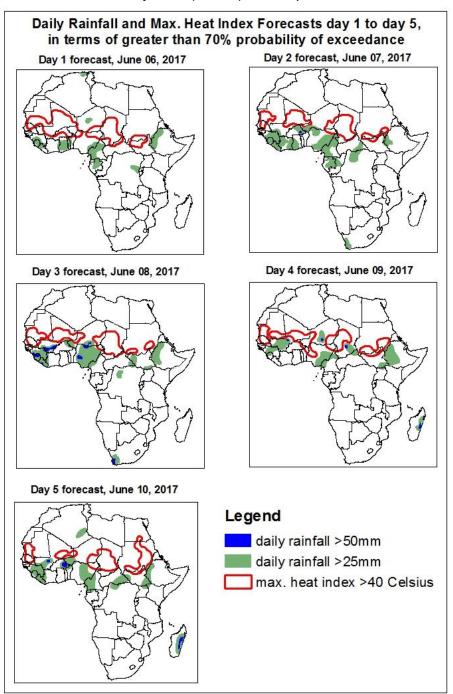
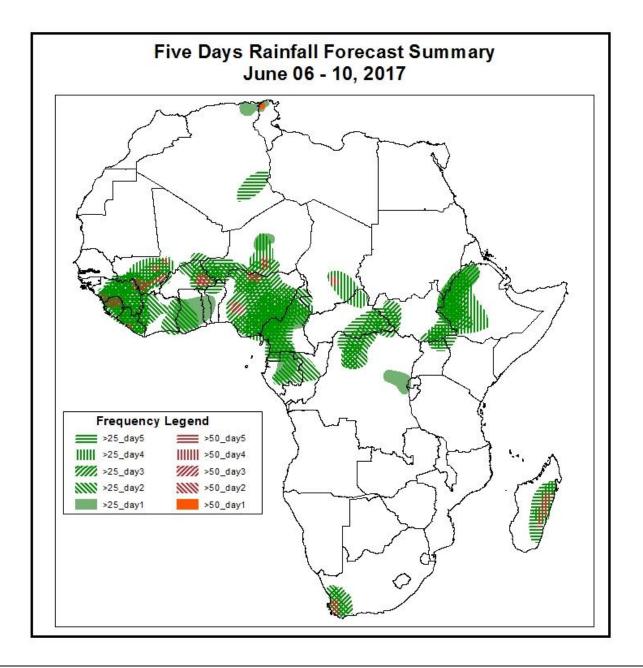
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

### 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on June 05, 2017)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: June 06 – 10, 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.

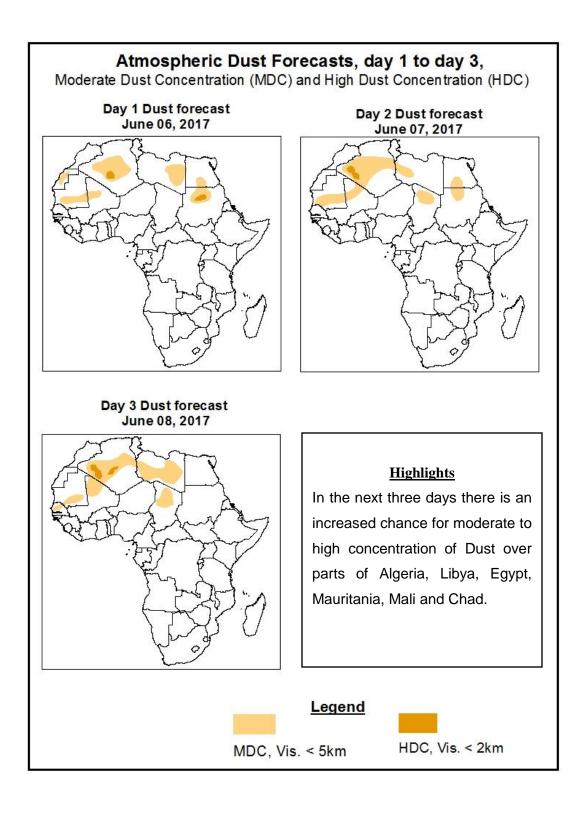




# <u>Highlights</u>

In the next five days, lower level wind convergences across West, Central Africa countries and portions of the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Frontal systems are expected to enhance rainfall across parts of North and South Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Guinea, Sierra Leone, Liberia, Nigeria, Cameroon, Equatorial Guinea and local areas of Tunisia, Mali, Niger, Chad, Cote d'Ivoire, Ghana, Benin, Gabon, Congo, CAR, DRC, South Sudan, Ethiopia, Uganda, South Africa and Madagascar.

**1.2.** Atmospheric Dust Concentration Forecasts (valid: June 06–08, 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: June 06 – 10, 2017

The Azores High Pressure system over the North Atlantic Ocean is expected to intensify with its value of the central pressure increasing from 1024hPa to 1025hPa during the forecast period.

The St. Helena High Pressure system over the Southeast of the Atlantic Ocean is expected to weaken with its value of the central pressure decreasing from 1027hPa to 1025hPa during the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify with its value of the central pressure increasing from 1027hPa to 1039hPa during the forecast period.

At 925hPa, strong dry southeasterly to westerly winds may lead from light to moderate dust concentration over parts of Algeria, Libya, Egypt, Western Sahara, Mauritania, Mali, Chad and Sudan.

At 850hPa level, lower level wind convergences are expected to prevail over Mali, Burkina Faso, Niger, Chad, Sudan, Ghana, Nigeria, Cameroon, CAR, DRC, South Sudan, Ethiopia, Uganda, South Africa and Madagascar.

In the next five days, lower level wind convergences across West, Central Africa countries and portions of the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Frontal systems are expected to enhance rainfall across parts of North and South Africa. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Guinea, Sierra Leone, Liberia, Nigeria, Cameroon, Equatorial Guinea and local areas of Tunisia, Mali, Niger, Chad, Cote d'Ivoire, Ghana, Benin, Gabon, Congo, CAR, DRC, South Sudan, Ethiopia, Uganda, South Africa and Madagascar.

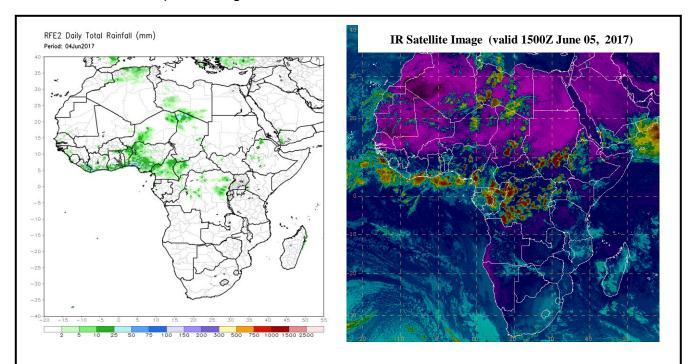
# 2.0. Previous and Current Day Weather over Africa

## 2.1. Weather assessment for the previous day (June 04, 2017)

Light to moderate rainfall was observed over portions of Niger, Chad, Liberia, Cote d'Ivoire, Ghana, Benin, Nigeria and Madagascar.

## 2.2. Weather assessment for the current day (June 05, 2017)

Intense convective clouds are observed over portions of Tunisia, Libya, Niger, Chad, Guinea, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon, Gabon, Congo, CAR, DRC, South Sudan, Ethiopia and Uganda.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image.

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