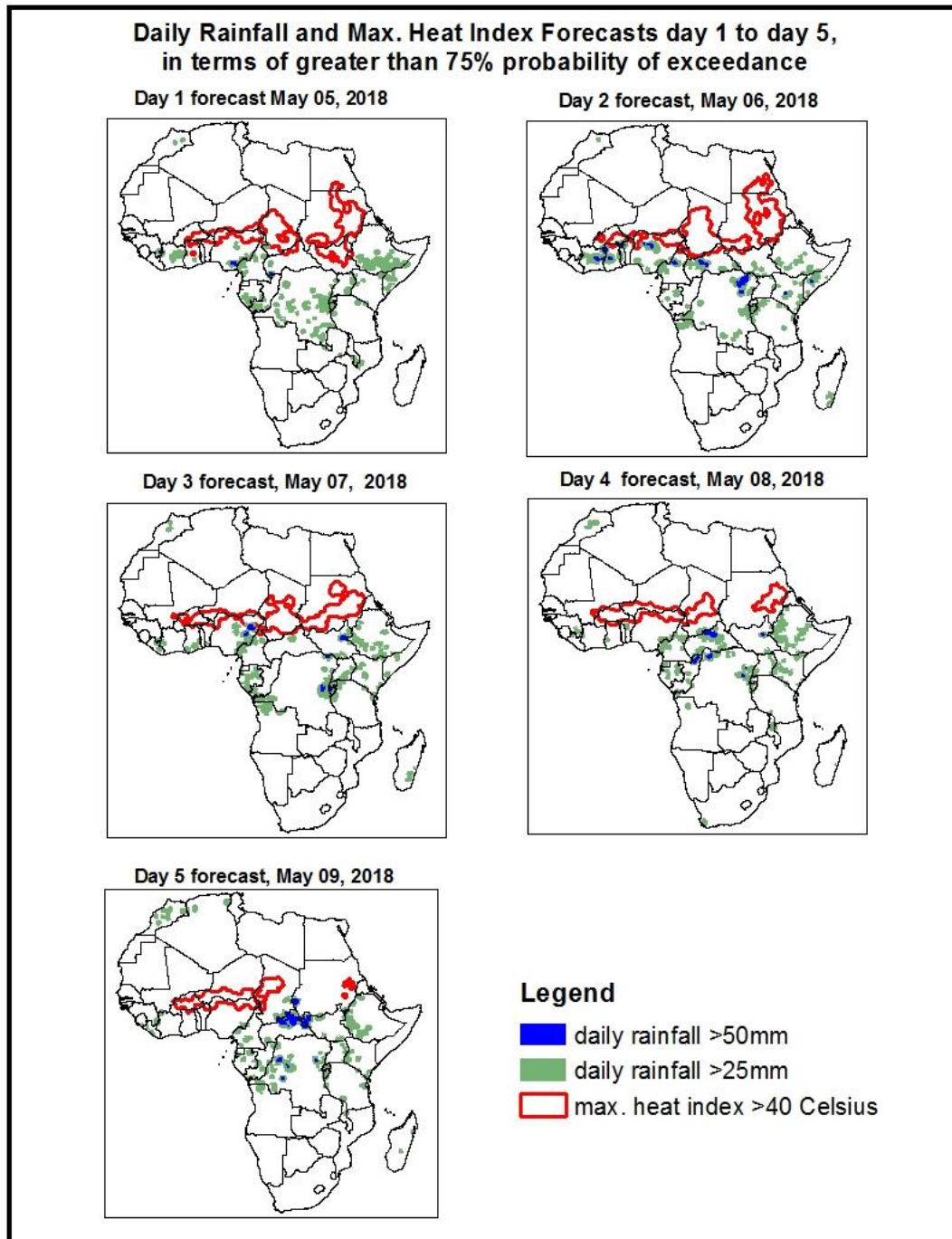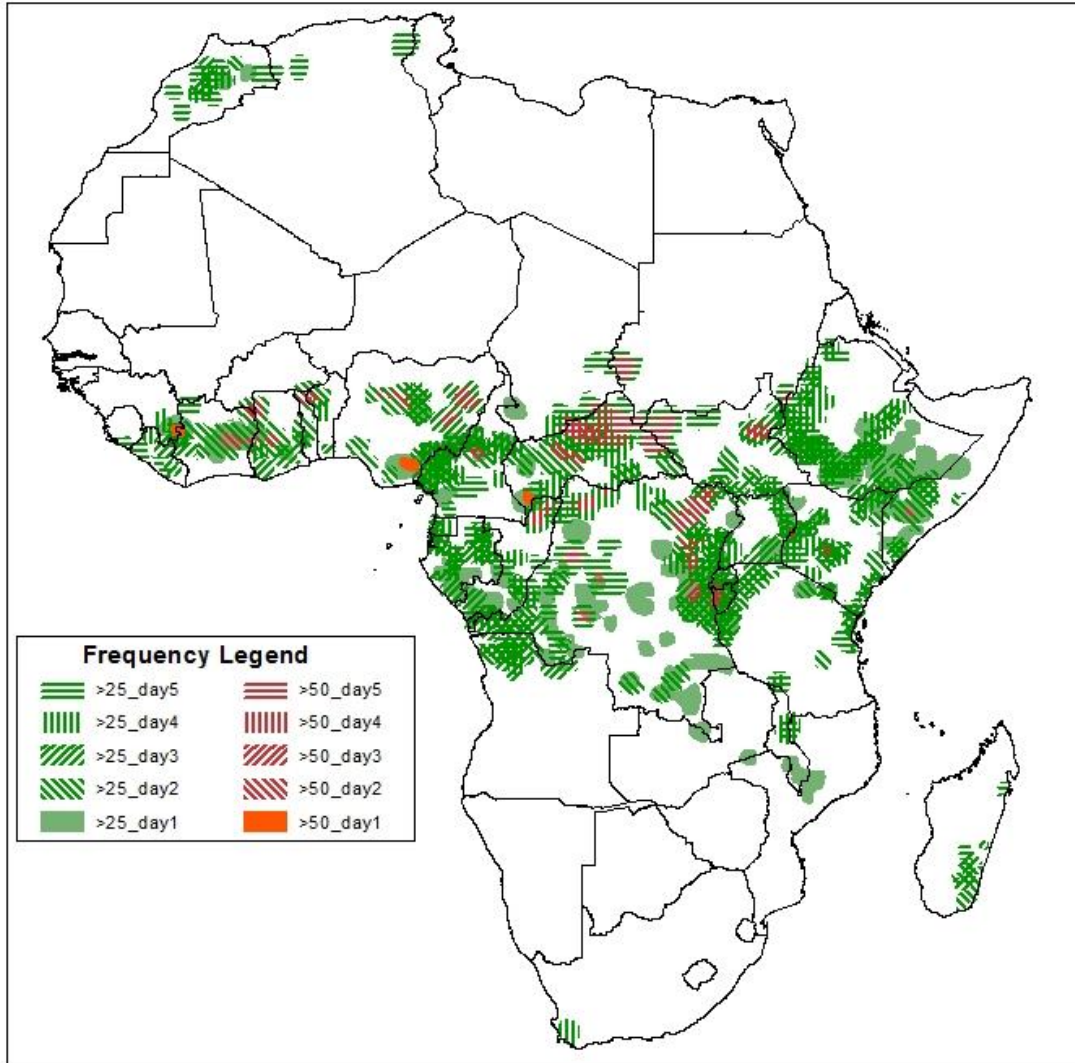## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on May 04, 2018)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: May 05, – May 09, 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.

Daily Rainfall and Max. Heat Index Forecasts day 1 to day 5, in terms of greater than 75% probability of exceedance

Day 1 forecast May 05, 2018
Day 2 forecast, May 06, 2018
Day 3 forecast, May 07, 2018
Day 4 forecast, May 08, 2018
Day 5 forecast, May 09, 2018

Legend
daily rainfall >50mm
daily rainfall >25mm
max. heat index >40 Celsius

Five Days Rainfall Forecast Summary
05 May - 09 May, 2018.

Frequency Legend

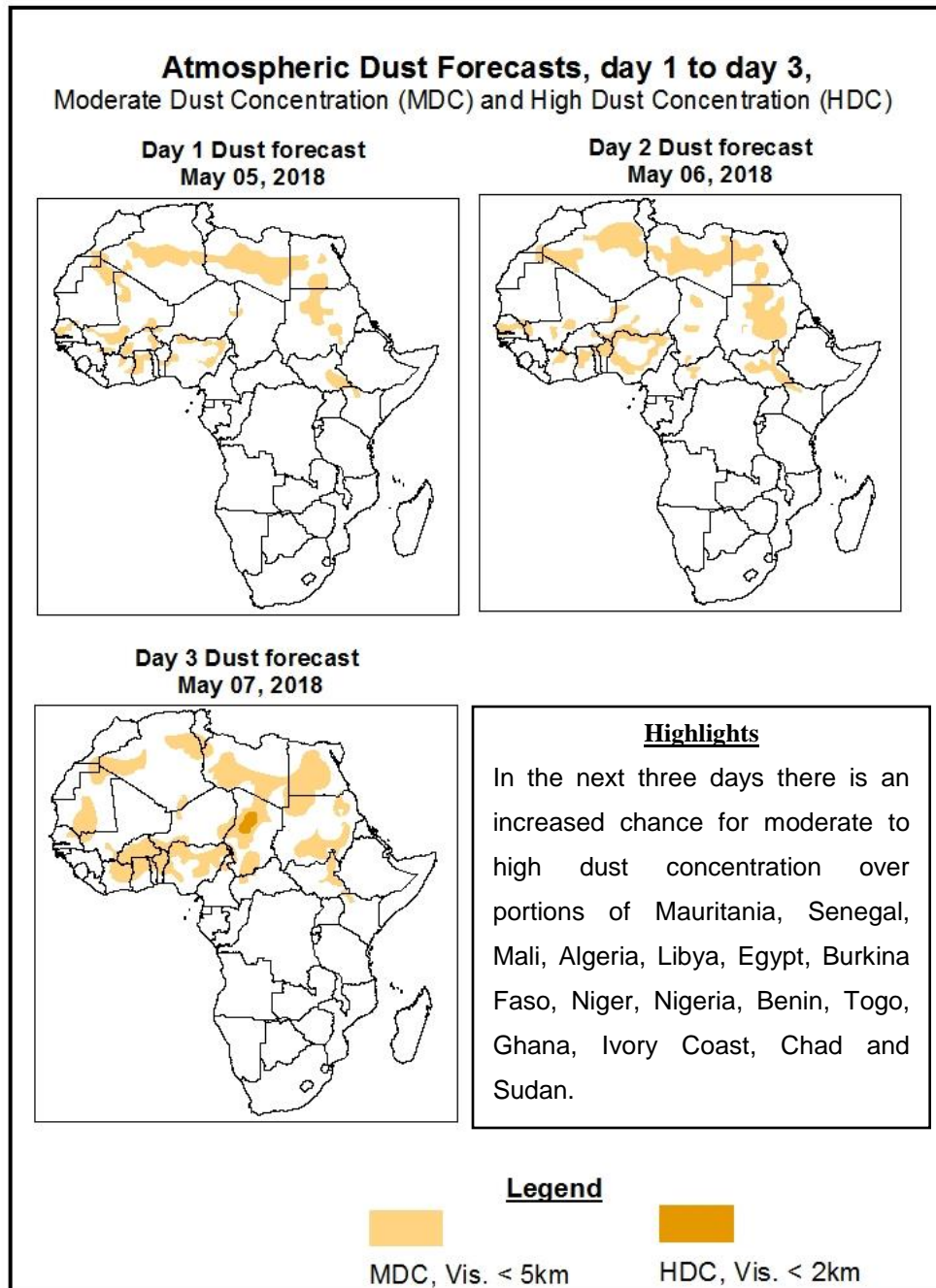|			
≡	>25_day5	≡	>50_day5
‖‖‖	>25_day4	‖‖‖	>50_day4
⧄	>25_day3	⧄	>50_day3
⧅	>25_day2	⧅	>50_day2
▬	>25_day1	▬	>50_day1

Highlights

In the next five days, lower-level convergence across Uganda and South Sudan, lower-level wind divergence near Madagascar, and a low monsoon entrance in West Africa are expected to enhance rainfall in the in eastern part of Africa then a reduction of rainfall in the southern and western part. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Morocco, Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Gabon, Congo, Angola, DRC, CAR, Malawi, Burundi, Rwanda, Tanzania, Uganda, Kenya, South Sudan, Ethiopia, Somalia and Madagascar.

1.2. Atmospheric Dust Concentration Forecasts (valid: May 05 – May 07, 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.

Atmospheric Dust Forecasts, day 1 to day 3,
Moderate Dust Concentration (MDC) and High Dust Concentration (HDC)

Day 1 Dust forecast
May 05, 2018

Day 2 Dust forecast
May 06, 2018

Day 3 Dust forecast
May 07, 2018

Highlights

In the next three days there is an increased chance for moderate to high dust concentration over portions of Mauritania, Senegal, Mali, Algeria, Libya, Egypt, Burkina Faso, Niger, Nigeria, Benin, Togo, Ghana, Ivory Coast, Chad and Sudan.

Legend

MDC, Vis. < 5km   HDC, Vis. < 2km

1.3. Model Discussion, *Valid: May 05 – May 09, 2018*

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken during the forecast period. The central pressure values ranges from about 1027 hPa to 1026 hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to intensify in the first two days and then weaken in the last three days of the forecast period. The central pressure values increases from about 1029 hPa to 1030 hPa and decreases to 1028 hPa during the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken during the forecast period. The central pressure values ranges from about 1024 hPa to 1022 hPa during the forecast period.

At 925hPa, dry strong northeasterly to easterly wind is expected to prevail across northern Africa and portions of the Sahel region.

At 850hPa, in West Africa, it is expected the oscillation of the Inter Tropical Convergence Zone in the extreme northern part of the Gulf of Guinea countries and a low monsoon entrance while the area of wind convergence remain active in South Sudan during the forecast period. A southeastern flow with its associated lower-level divergence is expected to prevail across the northern portions of the Mozambique Channel and northern Madagascar.

In the next five days, lower-level convergence across Uganda and South Sudan, lower-level wind divergence near Madagascar, and a low monsoon entrance in West Africa are expected to enhance rainfall in the in eastern part of Africa then a reduction of rainfall in the southern and western part. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Morocco, Guinea, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Gabon, Congo, Angola, DRC, CAR, Malawi, Burundi, Rwanda, Tanzania, Uganda, Kenya, South Sudan, Ethiopia, Somalia and Madagascar.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (May 03, 2018)

Moderate to locally heavy rainfall was observed over parts of Morocco, Liberia, Ghana, Togo, Benin, Nigeria, Cameroon, Congo, CAR, DRC, Uganda, South Sudan, Kenya, Ethiopia, Somalia and South Africa.

2.2. Weather assessment for the current day (May 04, 2018)

Intense convective clouds are observed over across most parts of central Africa.

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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