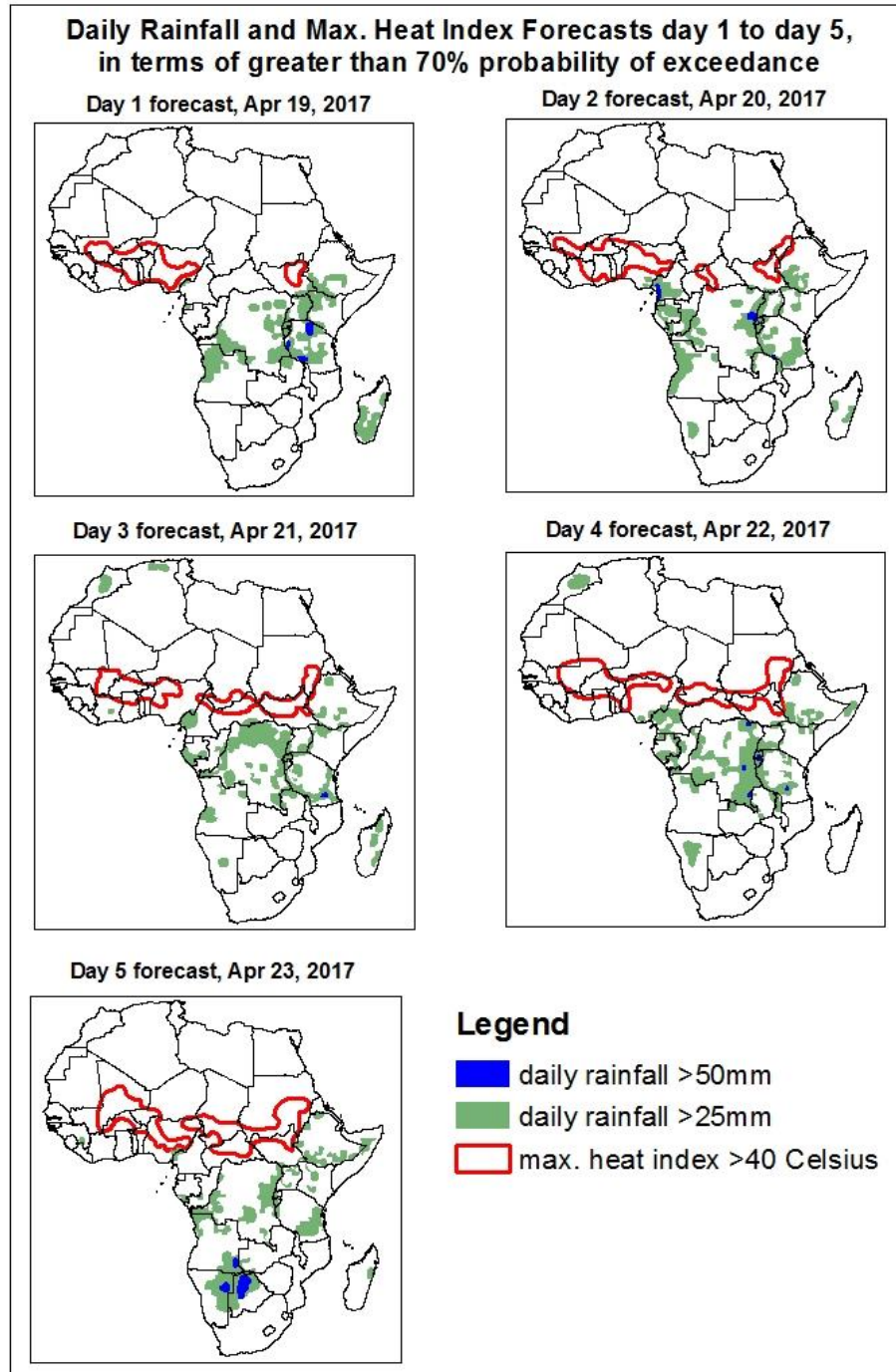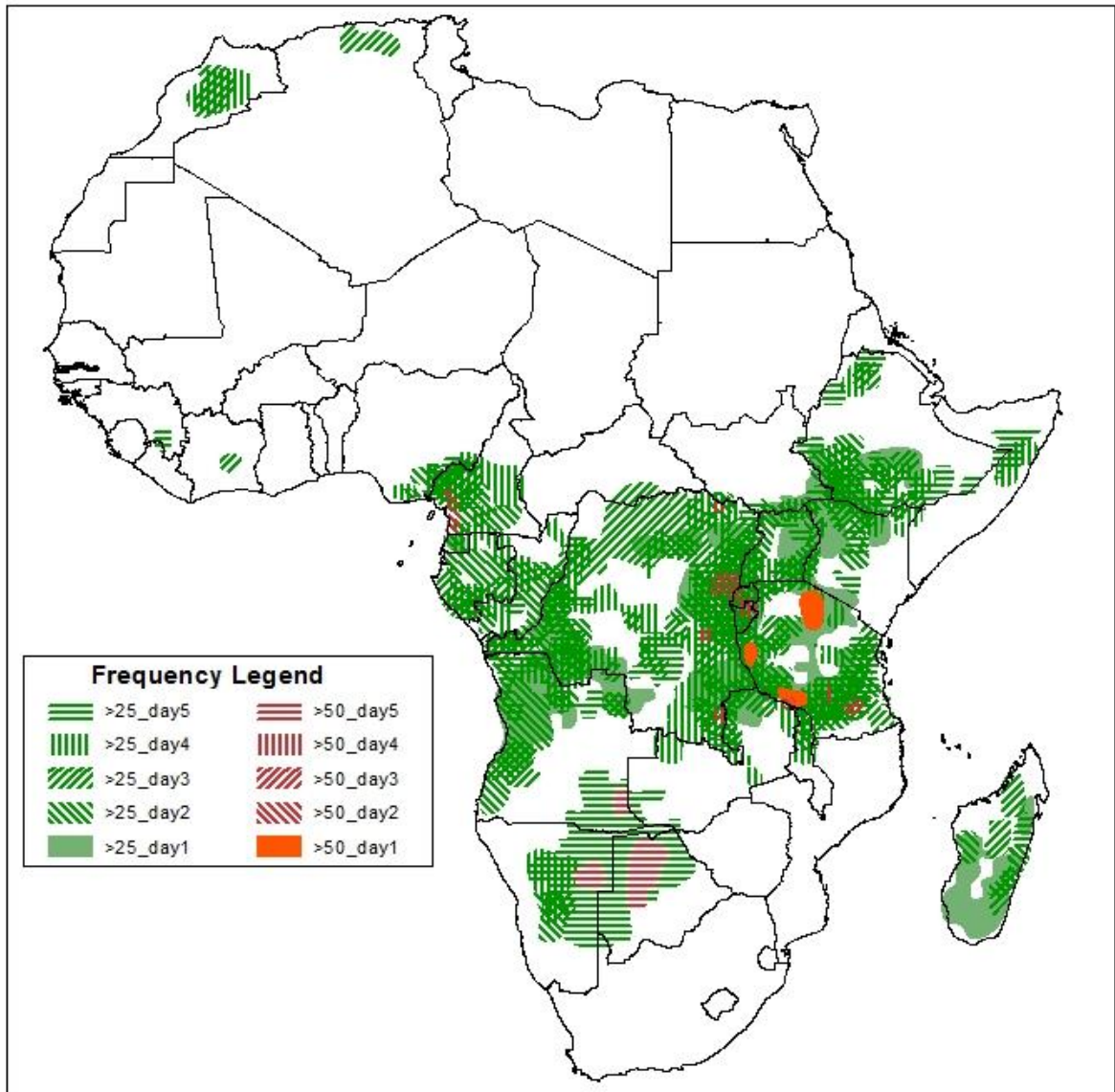## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Apr 18, 2017)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Apr 19 – 23, 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.

Daily Rainfall and Max. Heat Index Forecasts day 1 to day 5, in terms of greater than 70% probability of exceedance

Five Days Rainfall Forecast Summary
Apr 19 - 23, 2017

Frequency Legend

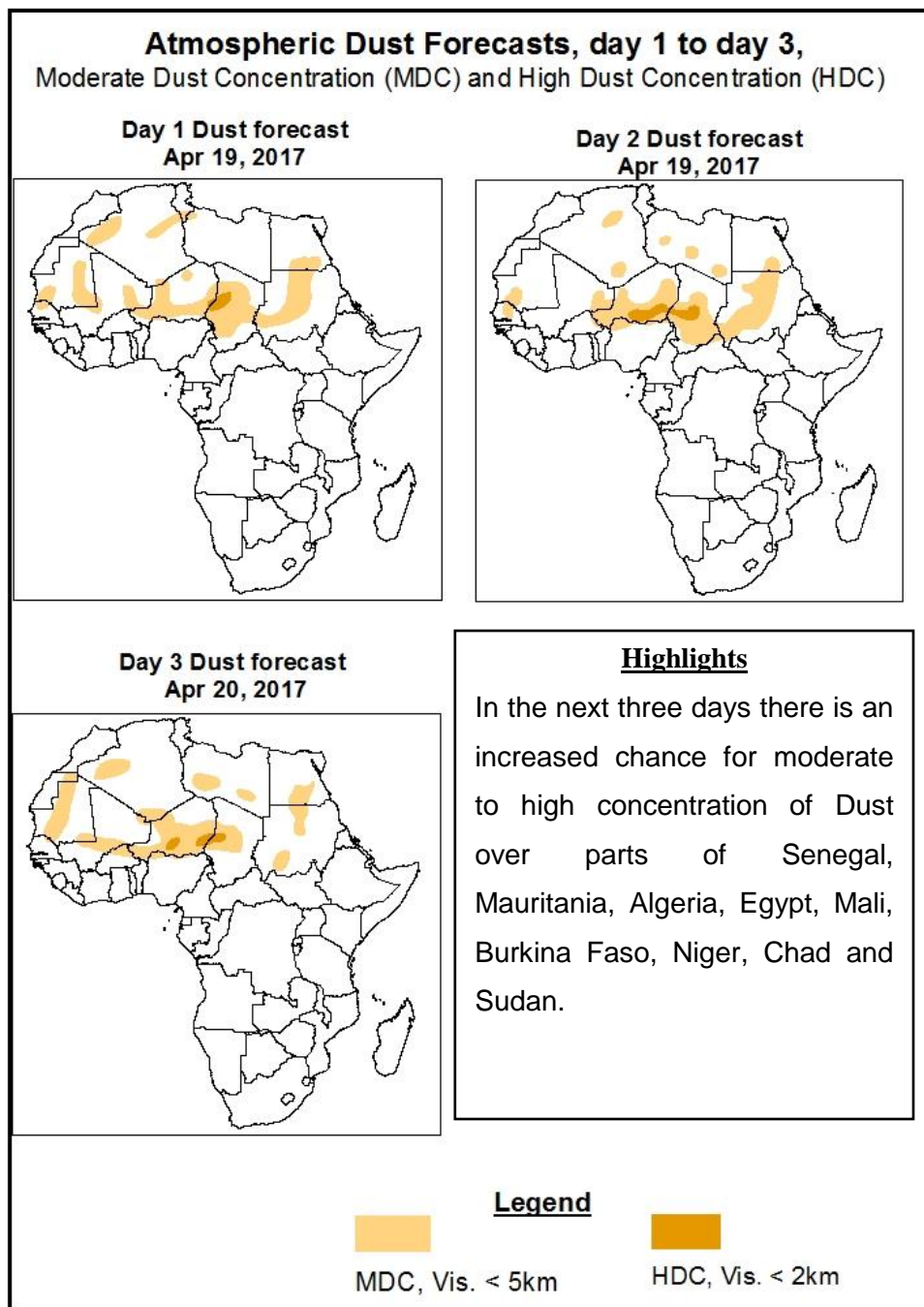|			
≡	>25_day5	≡	>50_day5
‖‖‖	>25_day4	‖‖‖	>50_day4
///	>25_day3	///	>50_day3
\\\	>25_day2	\\\	>50_day2
▨	>25_day1	■	>50_day1

Highlights

In the next five days, lower level wind convergences across the Central and South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Cameroon, Gabon, Congo, Equatorial Guinea, DRC, Ethiopia, Uganda, Kenya, Burundi, Rwanda, Tanzania, Angola, Malawi, Namibia, Botswana and Madagascar, local areas Cote d'Ivoire, Nigeria, South Sudan and Zambia.

1.2. Atmospheric Dust Concentration Forecasts *(valid: Apr 19 – 21, 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.

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

Day 1 Dust forecast
Apr 19, 2017

Day 2 Dust forecast
Apr 19, 2017

Day 3 Dust forecast
Apr 20, 2017

Highlights

In the next three days there is an increased chance for moderate to high concentration of Dust over parts of Senegal, Mauritania, Algeria, Egypt, Mali, Burkina Faso, Niger, Chad and Sudan.

Legend

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

1.3. Model Discussion, *Valid: Apr 19 – Apr 23, 2017*

The Azores High Pressure system over the North Atlantic Ocean is expected to intensify with its value of the central pressure increasing from 1032hPa to 1038hPa during the next 48 hours and weaken to 1028hPa during the remaining 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 1028hPa to 1021hPa during the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken with its value of the central pressure decreasing from 1028hPa to 1024hPa during the next 72 hours and intensify to 1028hPa during the remaining forecast period.

At 925hPa, strong dry Northeasterly to Easterly winds may lead from light to moderate dust concentration over parts of Senegal, Mauritania, Western Sahara, Algeria, Libya, Egypt, Mali, Burkina Faso, Niger, Chad and Sudan.

At 850hPa level, lower level wind convergences are expected to prevail over Cameroon, Gabon, Congo, CAR, DRC, South Sudan, Uganda, Kenya, Tanzania, Angola, Malawi, Zimbabwe, Mozambique, Namibia, Botswana, South Africa and Madagascar.

In the next five days, lower level wind convergences across the Central and South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of moderate to heavy rainfall over portions of Cameroon, Gabon, Congo, Equatorial Guinea, DRC, Ethiopia, Uganda, Kenya, Burundi, Rwanda, Tanzania, Angola, Malawi, Namibia, Botswana and Madagascar, local areas Cote d'Ivoire, Nigeria, South Sudan and Zambia.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (Apr 17, 2017)

Light to moderate rainfall was observed over portions of Mali, Nigeria, Cameroon, Equatorial Guinea, Gabon, Congo, CAR, DRC, Ethiopia, Somalia, Uganda, Kenya, Tanzania, Angola, Zambia, Malawi, Namibia, Botswana, Zimbabwe and Mozambique.

2.2. Weather assessment for the current day (Apr 18, 2017)

Intense convective clouds are observed over portions of Mali, Sierra Leone, Guinea, Liberia, Cote d'Ivoire, Ghana, Togo, Nigeria, Cameroon, Equatorial Guinea, Gabon, Congo, CAR, DRC, South Chad, South Sudan, Ethiopia, Somalia, Kenya, Uganda, Burundi, Rwanda, Tanzania, Angola, Zambia, Malawi, Namibia, Zimbabwe, Botswana, Mozambique and Madagascar.

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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