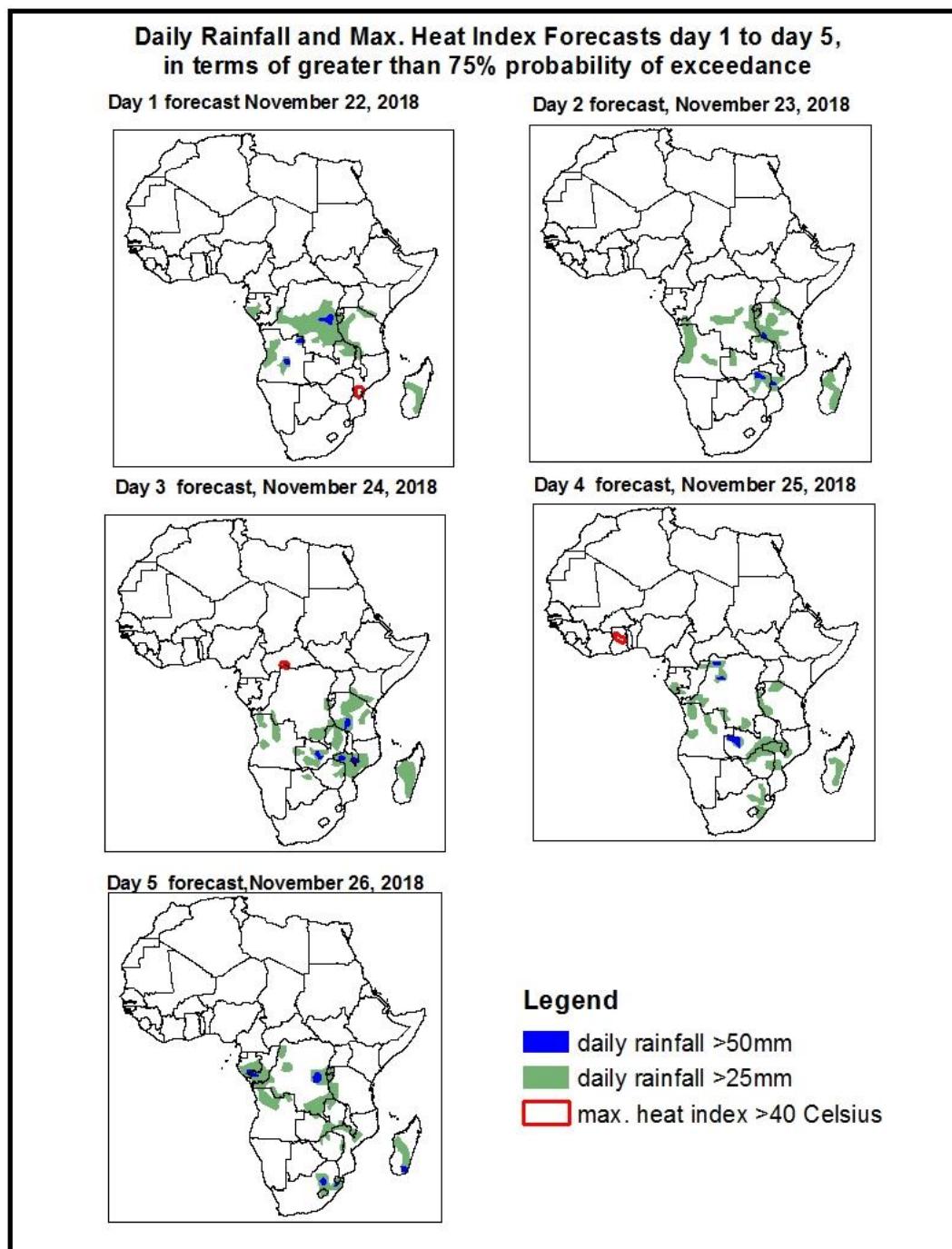


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

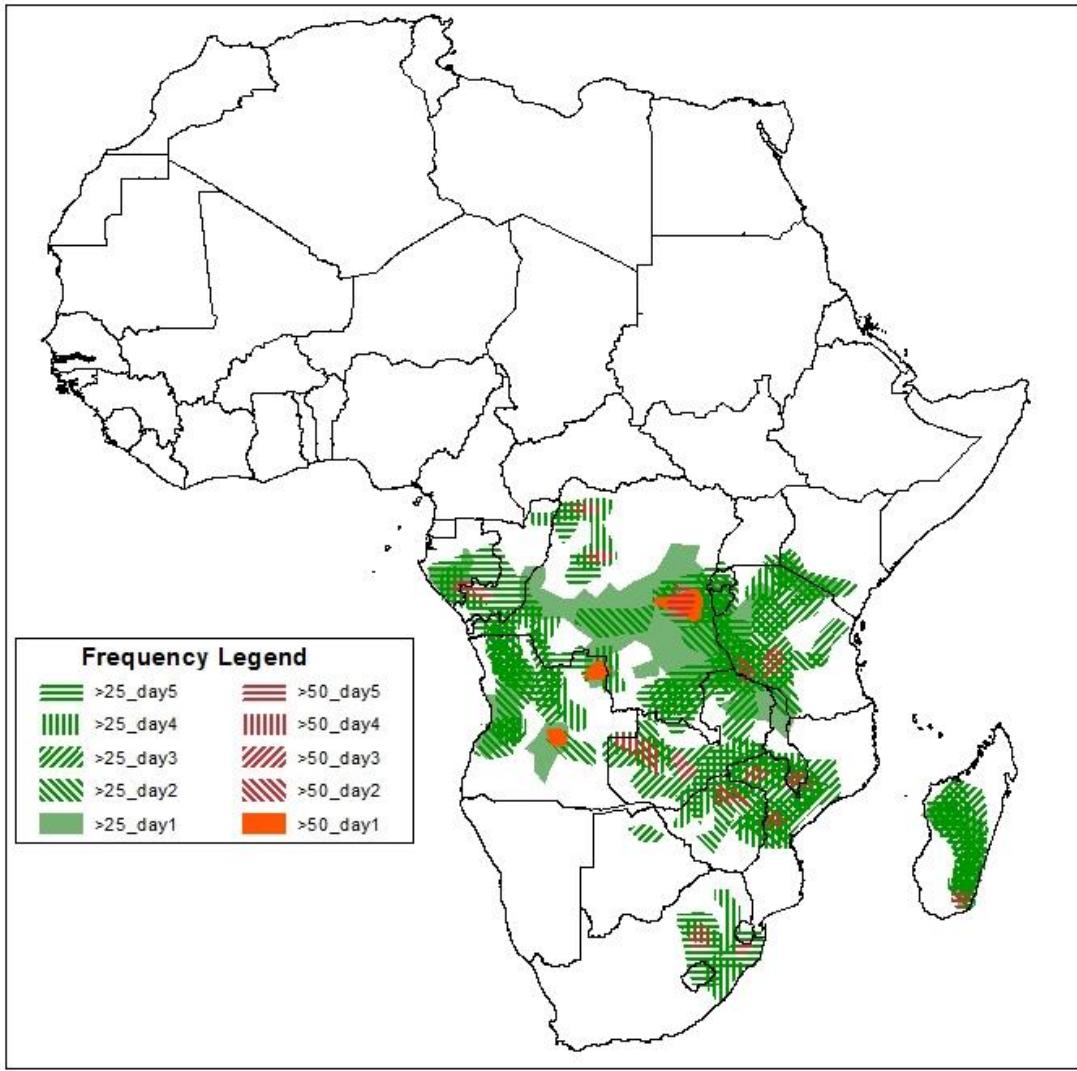
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on November 21, 2018)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (*valid: Nov 22 - 26, 2018*)

The forecasts are expressed in terms of high probability of precipitation (POP), valid 06Z to 06Z, and exceedance probability of maximum heat index (>40°C), based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



Five Days Rainfall Forecast Summary 22 - 26 November , 2018.

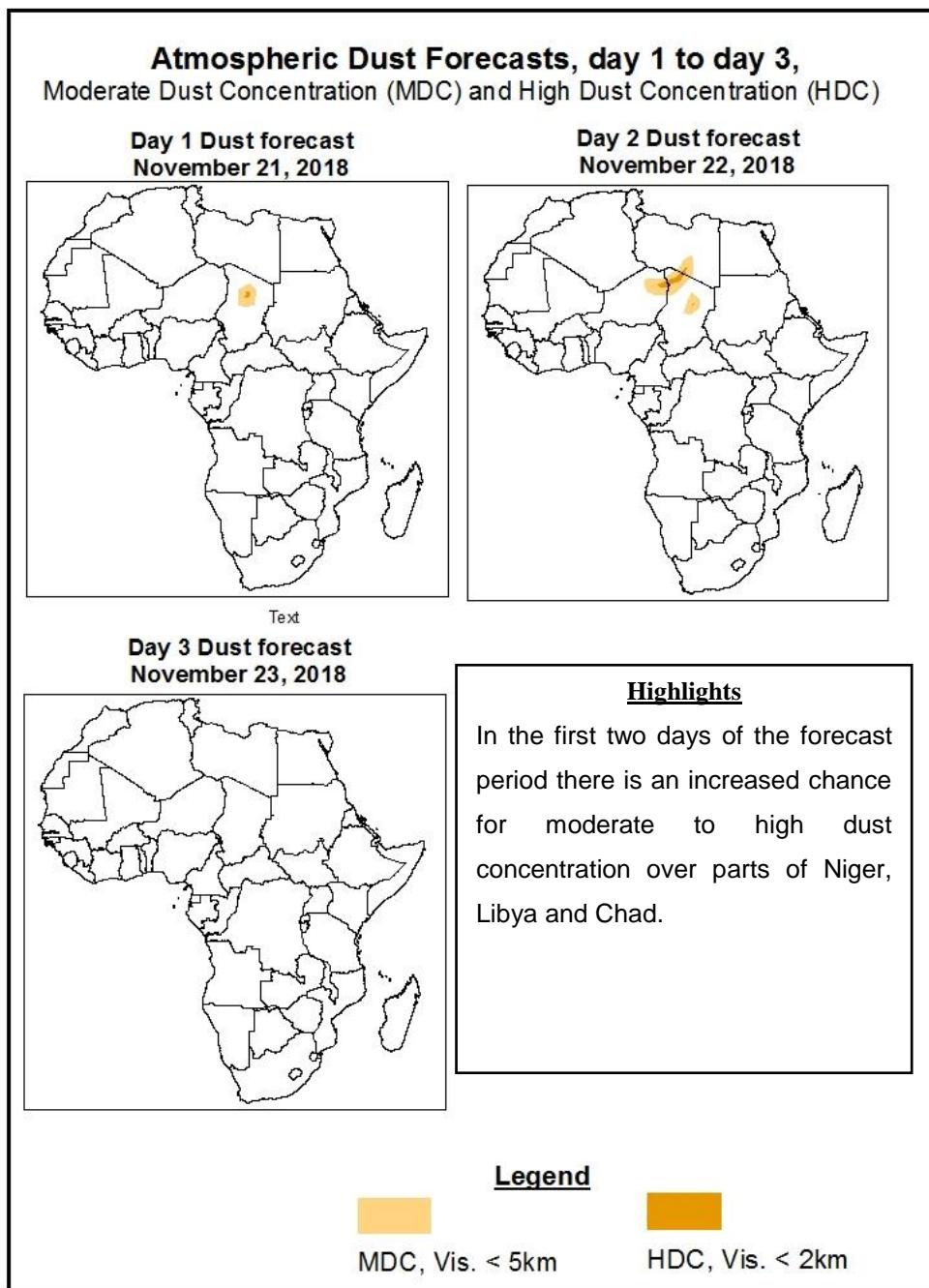


Highlights

- In the next five days the Congo Air Boundary (CAB) is expected to remain active over Central Africa and the northern parts of Southern African countries. The Southern Costal low over South Africa is expected to enhance active weather over Southern countries. In the next five days, there is a chance for moderate to heavy rainfall over localized areas of Central and Southern African countries.
- There is an increased chance for temperature heat index values to exceed 40°C over local areas of Ghana, Republic of Central Africa and Mozambique.

1.2. Atmospheric Dust Concentration Forecasts (valid: November 22 – 26, 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: November 22 – 26, 2018

The Azores High Pressure system over the North Atlantic Ocean is expected to relax its strength. Its central pressure value is expected to decrease from 1026hPa and 1022hPa through the forecast period.

The St. Helena High Pressure system over Southwest Atlantic Ocean is expected to relax its strength. Its central pressure value is expected to decrease from 1028hPa to 1024hPa through the 72hours of the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to intensify its strength as it progresses eastward with its central pressure value increasing from 1021hPa to 1032hPa through the forecast period.

A low Pressure system over southern Africa is expected to continue maintaining its position through the forecast period.

At 925hPa, strong northeasterly to easterly flow is expected to prevail over most parts of Northern Africa and the Sahel region. Moist and unstable Southwesterly to westerly winds are expected to continue weakening over parts of Gulf of Guinea but remain active over Central African countries. Also, Northeasterly flow over Southern and the Southeast of Africa.

At 850hPa, Lower-level wind convergence associated with the Congo air boundary (CAB) over parts of Central Africa. Lower-level wind convergence associated with the Costal low over parts of Southern Africa.

In the next five days the Congo Air Boundary (CAB) is expected to remain active over Central Africa and the northern parts of Southern African countries. The Southern Costal low over South Africa is expected to enhance active weather over Southern countries. In the next five days, there is a chance for moderate to heavy rainfall over localized areas of Central and Southern African countries.

There is an increased chance for temperature heat index values to exceed 40⁰C over local areas of Ghana, Republic of Central Africa and Mozambique.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (November 20, 2018)

Above 25mm daily rainfall was observed over localized areas of Congo Brazzaville, Tanzania, Madagascar and South Africa.

2.2. Weather assessment for the current day (November 21, 2018)

Intense convective clouds are observed over some areas of Central African and southern African countries.

