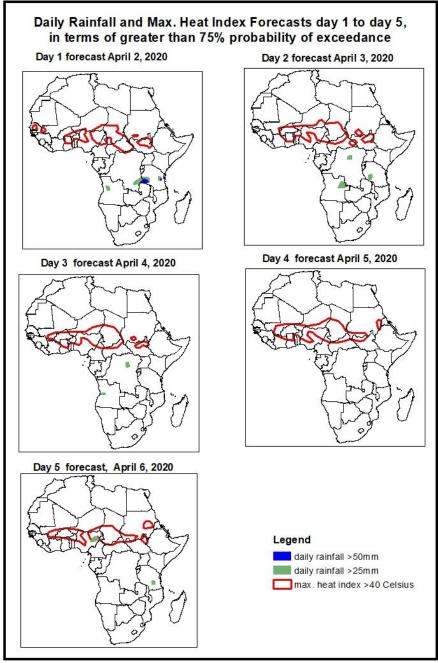
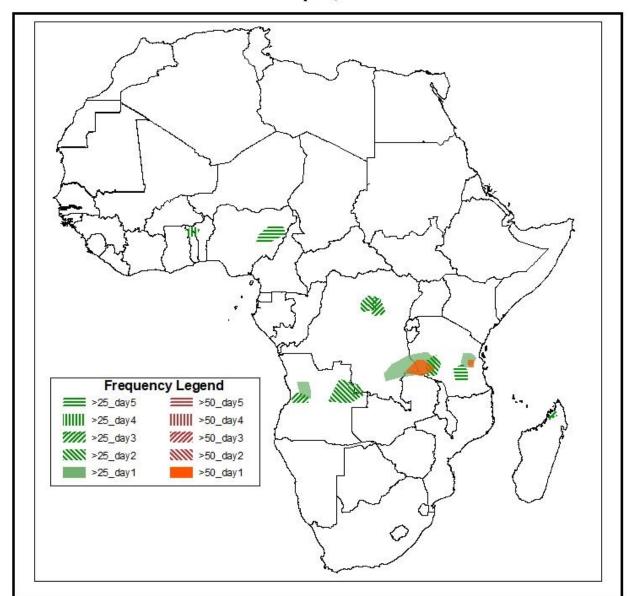
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on April 1, 2020)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 2 – 6 April, 2020)

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.



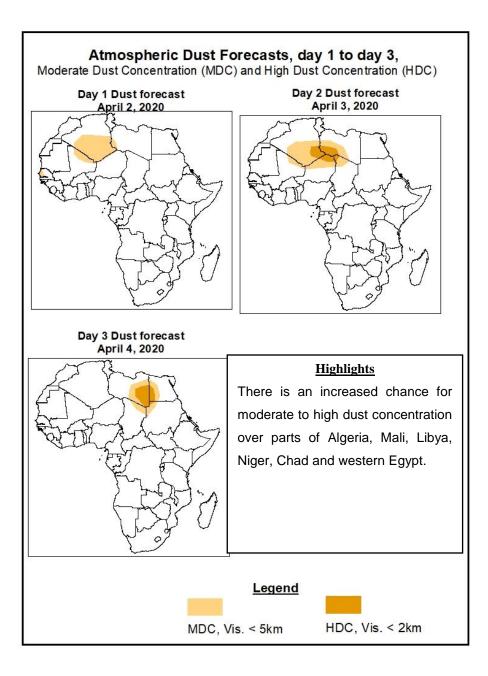


Five Days Rainfall Forecast Summary 2 - 6 April, 2020

Highlights

- Localized lower-level wind convergences are expected to enhance rainfall over the northern portions of Southern Africa.
- At least 25mm for two or more days is likely over parts of Angola, DRC and Tanzania.
- There is an increased chance for daily rainfall amount to exceed 50mm over local areas in DRC and Tanzania.
- There is an increased chance for daily maximum heat index to exceed 40°C across many places in the Sahel region, and local areas in South Sudan and southwestern Ethiopia.

1.2. Atmospheric Dust Concentration Forecasts (valid: 2 – 4 April, 2020) 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: 2 – 6 April 2020

The Azores High Pressure system over Northeast Atlantic and neighboring areas is expected to intensify with its central pressure value increasing from 1052hPa to 1056hPa during the forecast period.

The St. Helena High Pressure system over the South Atlantic Ocean is expected to intensify slightly with its central pressure value increasing from 1024hPa to 1026hPa during the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken slightly with its central pressure value decreasing from 1025hPa to 1023-hPa during the forecast period.

At 925-hPa level, an area of strong dry northerly to northeasterly flow is expected to enhance atmospheric dust concentration over portions of the Sahel region and North Africa. Zonal wind convergences are expected to remain active near 10°N in West and Central Africa.

At 850-hPa level, a deep cyclonic circulation over Northeast Africa is expected to shift eastwards into the Middle East region while weakening. Zonal wind convergences are expected to remain active near 5°N. Local wind convergences are also expected to remain active in parts of East and Southeast Africa.

At 700-hPa level, a broad anticyclonc ridge is expected to prevail acrss West Africa and the neighboring areas of the Sahel region during the forecast period. A trough associated with a mid-latitude frontal system is expected to deepen while shifting eastwards across the Mediterranean Sea and the neighboring areas of North Africa.

Localized lower-level wind convergences are expected to enhance rainfall over the northern portions of Southern Africa. At least 25mm for two or more days is likely over parts of Angola, DRC and Tanzania. There is an increased chance for daily rainfall amount to exceed 50mm over local areas in DRC and Tanzania. There is an increased chance for daily rainfall amount to exceed 50mm to exceed 50mm over local areas in South Africa. There is an increased chance for daily rainfall amount to exceed for daily rainfall amount to exceed 50mm over local areas in South Africa.

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2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (March 31, 2020)

Daily rainfall amount exceeded 25 mm over local areas in Ghana, Nigeria, Cameroon, DRC, Angola, Namibia and South Africa.

2.2. Weather assessment for the current day (April 1, 2020)

Deep convective clouds are observed over portions of southern Ghana, southern Nigeria, Gabon, southern Congo, Angola, and local areas in DRC, Tanzania and Kenya.

