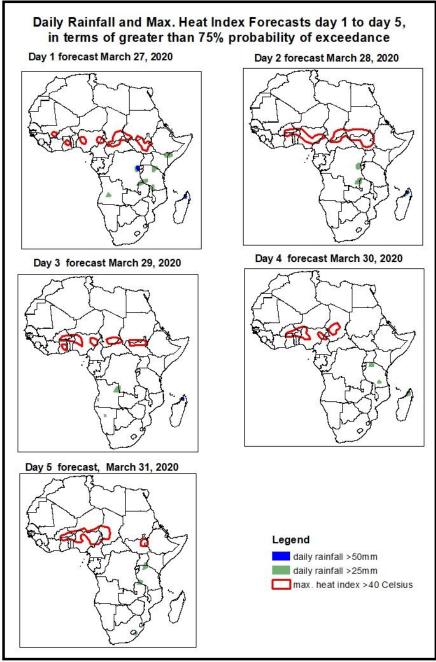
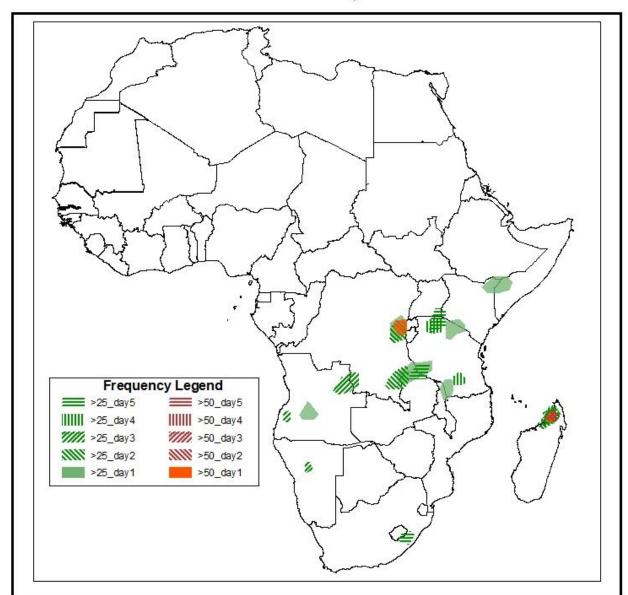
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on March 26, 2020)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 27 – 31 March, 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.



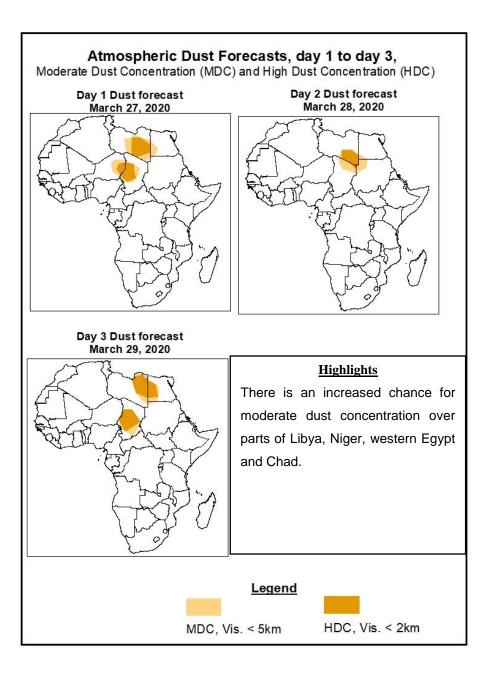


Five Days Rainfall Forecast Summary 27 - 31 March, 2020

Highlights

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

1.2. Atmospheric Dust Concentration Forecasts (valid: 27 – 29 March, 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: 27 – 31 March 2020

The Azores High Pressure system over Northeast Atlantic and neighboring areas is expected to weaken with its central pressure value increasing from 1050hPa to 1042hPa during the forecast period.

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

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to weaken with his central pressure value decreasing from 1032hPa to 1028hPa 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, zonal wind convergences are expected to remain active near 7°N. Local wind convergences are also expected to remain active in parts of East and Southeast Africa.

At 700-hPa level, a broad area of anti-cyclonic ridge is expected to prevail across much of West Africa. In contrast, a trough associated with a mid-latitude frontal system is expected to deepen while shifting eastwards the Mediterranean Sea and the neighboring areas of North Africa.

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

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (March 25, 2020)

Daily rainfall amount exceeded 25 mm over parts of eastern Cote d'Ivoire and Ghana, and local areas in Angola, Namibia, Tanzania and Somalia.

2.2. Weather assessment for the current day (March 26, 2020)

Convective clouds are observed over portions of the Greater Horn of Africa, and Central and the northern portions of Southern Africa.

