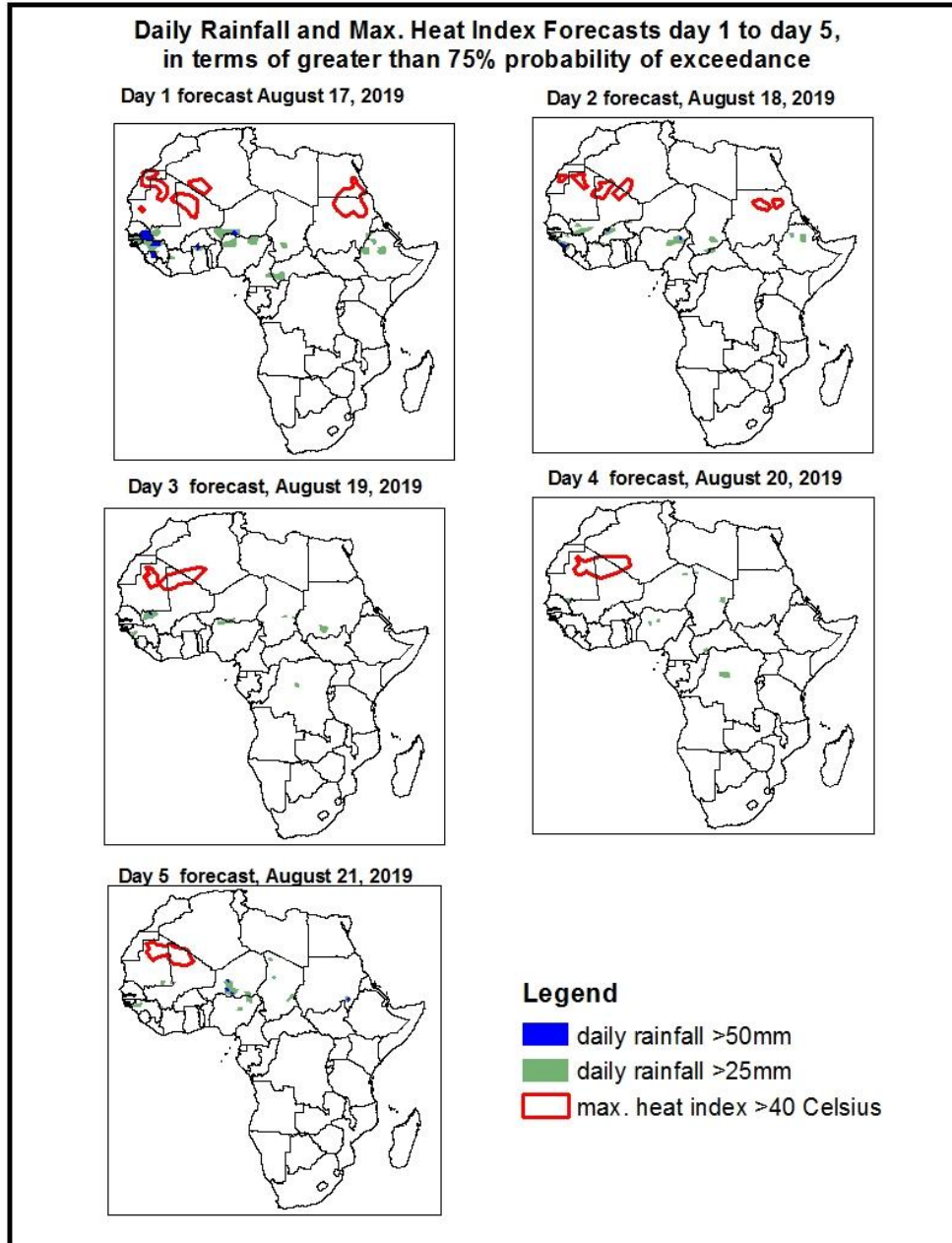


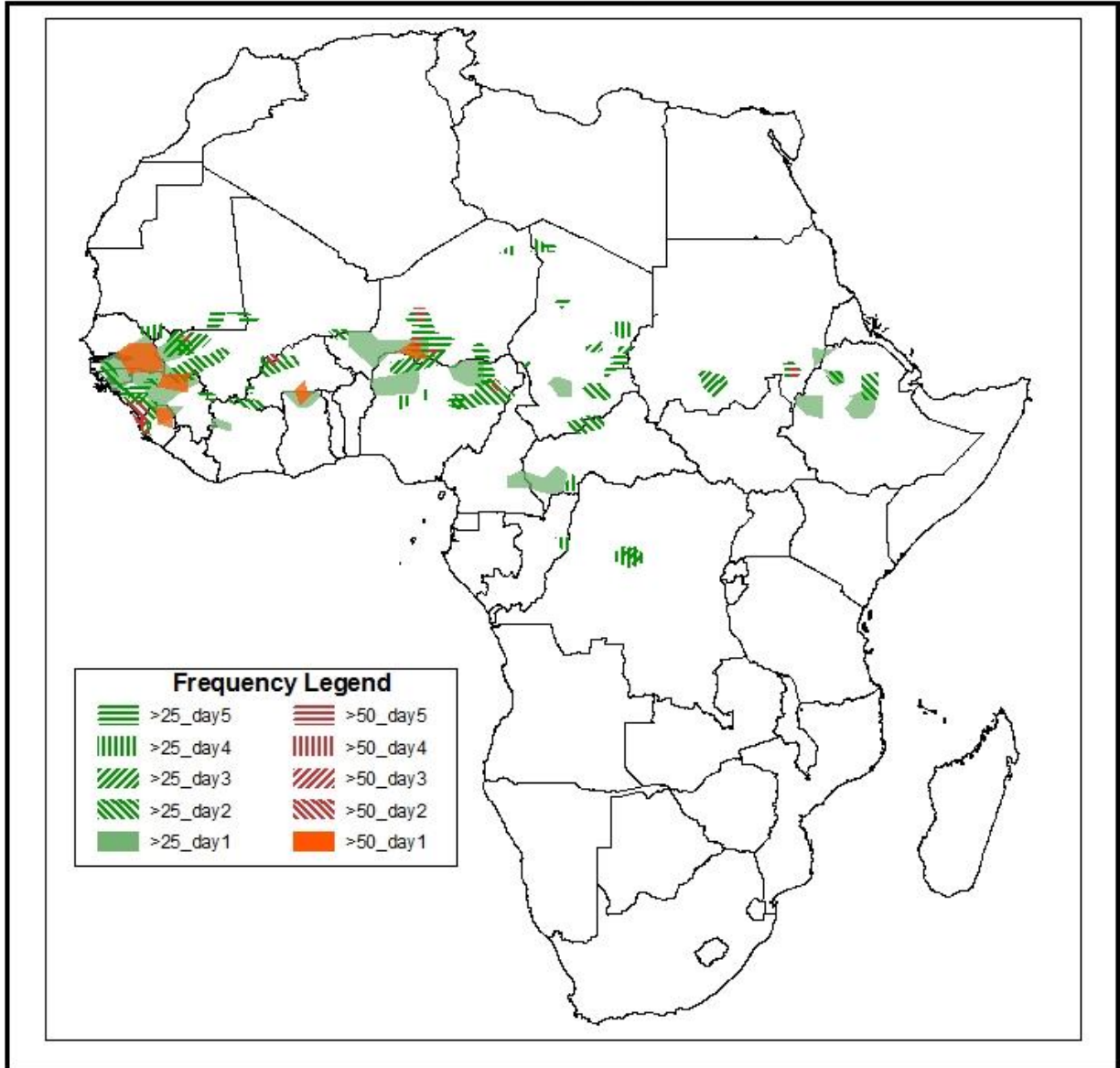
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on August 16, 2019)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 17 – 21 August, 2019)

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 17 - 21 August, 2019

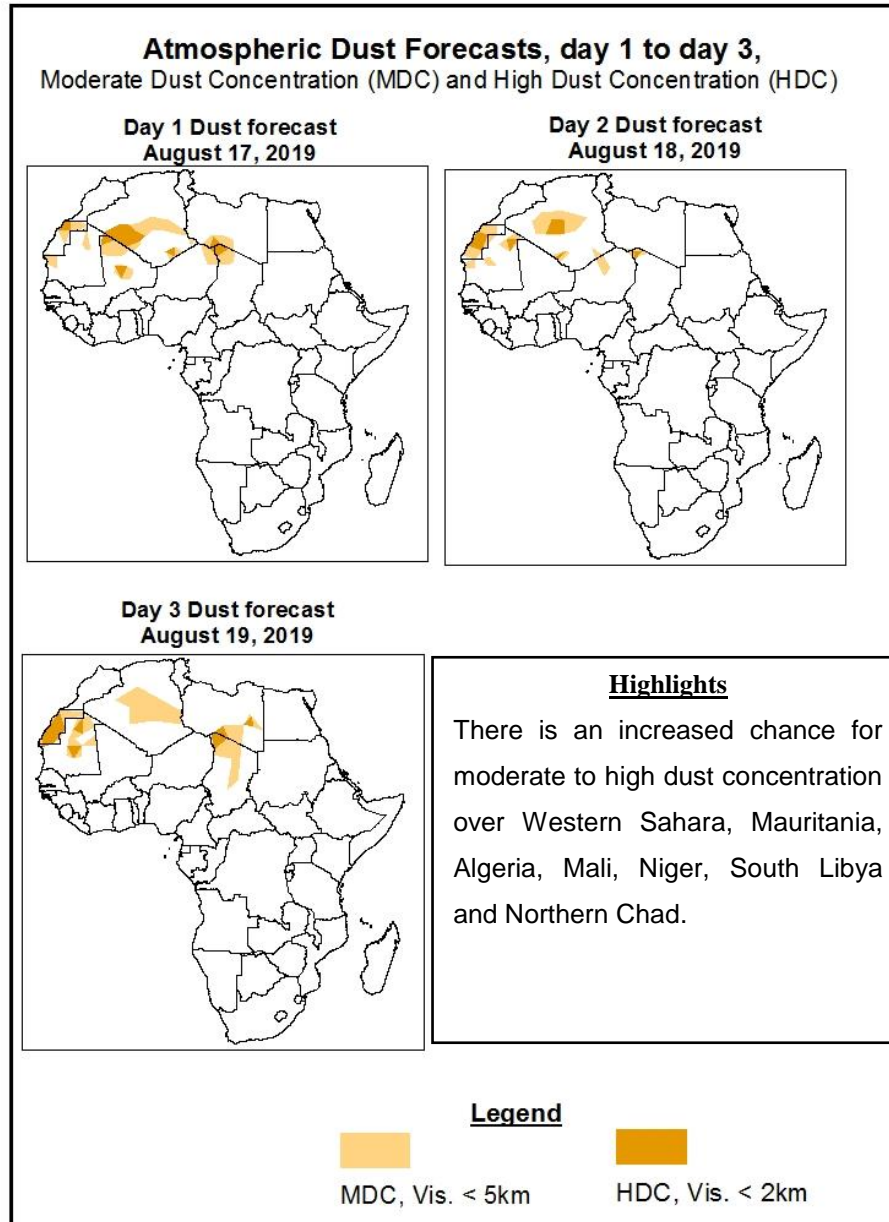


Highlights

- The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating meso-scale convective systems are expected to enhance rainfall over Western Africa, portions of the Sahel and Central Africa countries.
- Lower-level wind convergences are expected to enhance rainfall across portions of the Greater Horn of Africa.
- At least 25mm for two or more days is likely over portions of the Sahel region and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over portions of Guinea, Sierra Leone, Southeast Senegal, Northwestern Ghana, South of Niger, and Southeast of Sudan.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of Northwest Africa, Sudan and Egypt.

1.2. Atmospheric Dust Concentration Forecasts (valid: 17 – 19 August 2019)

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: 17 – 21 August 2019

The Azores High Pressure system over the Northeast Atlantic is expected to weaken with its central pressure value decreasing from 1024hPa to 1019hPa during the forecast period.

The St. Helena High Pressure system over Southeast Atlantic Ocean is expected to weaken with its central pressure value decreasing from 1029hPa to 1022hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to strengthen with its central pressure value increasing from 1031hPa to 1035hPa, shifting eastward during the forecast period.

Thermal low across the Sahel region is expected to maintain average central pressure value of 1005hPa. The thermal low over Chad is expected to deepen with its central pressure value decreasing from 1010hPa to 1005hPa during the forecast period.

At 925-hPa level, strong dry northerly to northeasterly flow is expected to prevail across Northwest Africa and an area of anticyclonic flow is expected over North Africa during the forecast period. In contrast, moist southwesterly flow from the Atlantic Ocean is expected to prevail across the Gulf of Guinea and the Sahel regions, and the neighboring areas of Central Africa.

At 850-hPa, lower-level wind convergences are expected to remain active over portions of the Sahel and Lake Victoria regions. A cyclonic circulation in front of Senegal is expected to shift to the west during the forecast period.

At 700-hPa, a broad area of anticyclonic flow is expected to prevail across much of Northwest and West Africa during the forecast period.

At 500-hPa, wind speed associated with easterly flow is expected to exceed 30kts over local areas in the Sahel region and Greater Horn of Africa during the forecast period.

At 150-hPa, a strong wind (>70kts) associated with tropical easterly jet (TEJ) is expected to weaken gradually during the forecast period.

The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating meso-scale convective systems are expected to enhance rainfall over Western Africa, portions of the Sahel and Central Africa countries. Lower-level wind convergences are expected to enhance rainfall across portions of the Greater Horn of Africa. At least 25mm for two or more days is likely over portions of the Sahel region and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over portions of Guinea, Sierra Leone, Southeast Senegal, Northwestern Ghana, South of Niger, and Southeast of Sudan. There is an increased chance for daily maximum heat index to exceed 40oC over portions of Northwest Africa, Sudan and Egypt.

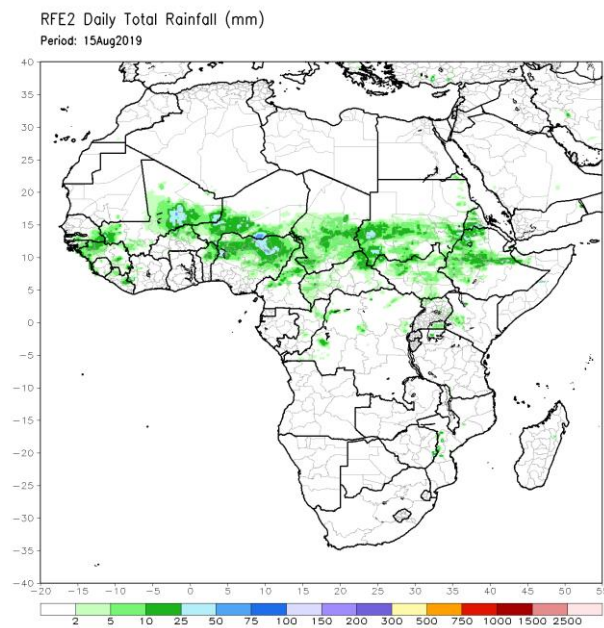
2.0. Previous and Current Day Weather over Africa

2.1. *Weather assessment for the previous day* (August 15, 2019)

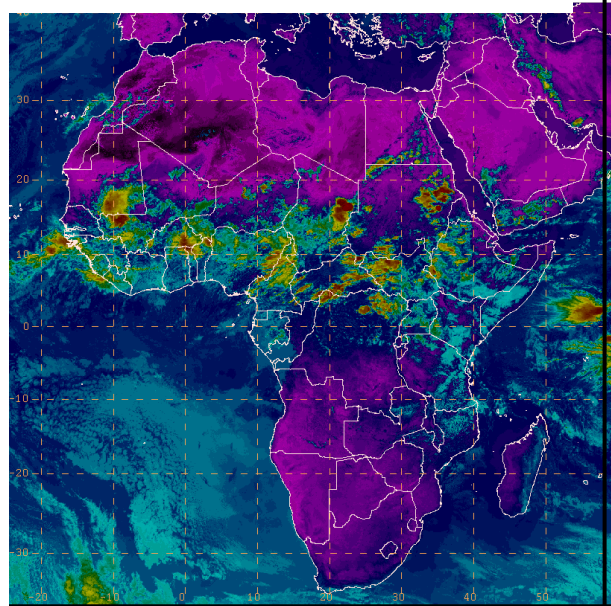
Daily rainfall amount exceeded 25mm over portions of Center of Mali, Northwest of Niger, North of Nigeria, parts of Sudan, and exceeded 50mm over South of Niger.

2.2. *Weather assessment for the current day* (August 16, 2019)

Deep convective clouds are observed over portions of the Sahel, Central Africa and the Greater Horn of Africa regions.



IR Satellite Image (valid 1452 August 16, 2019)



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