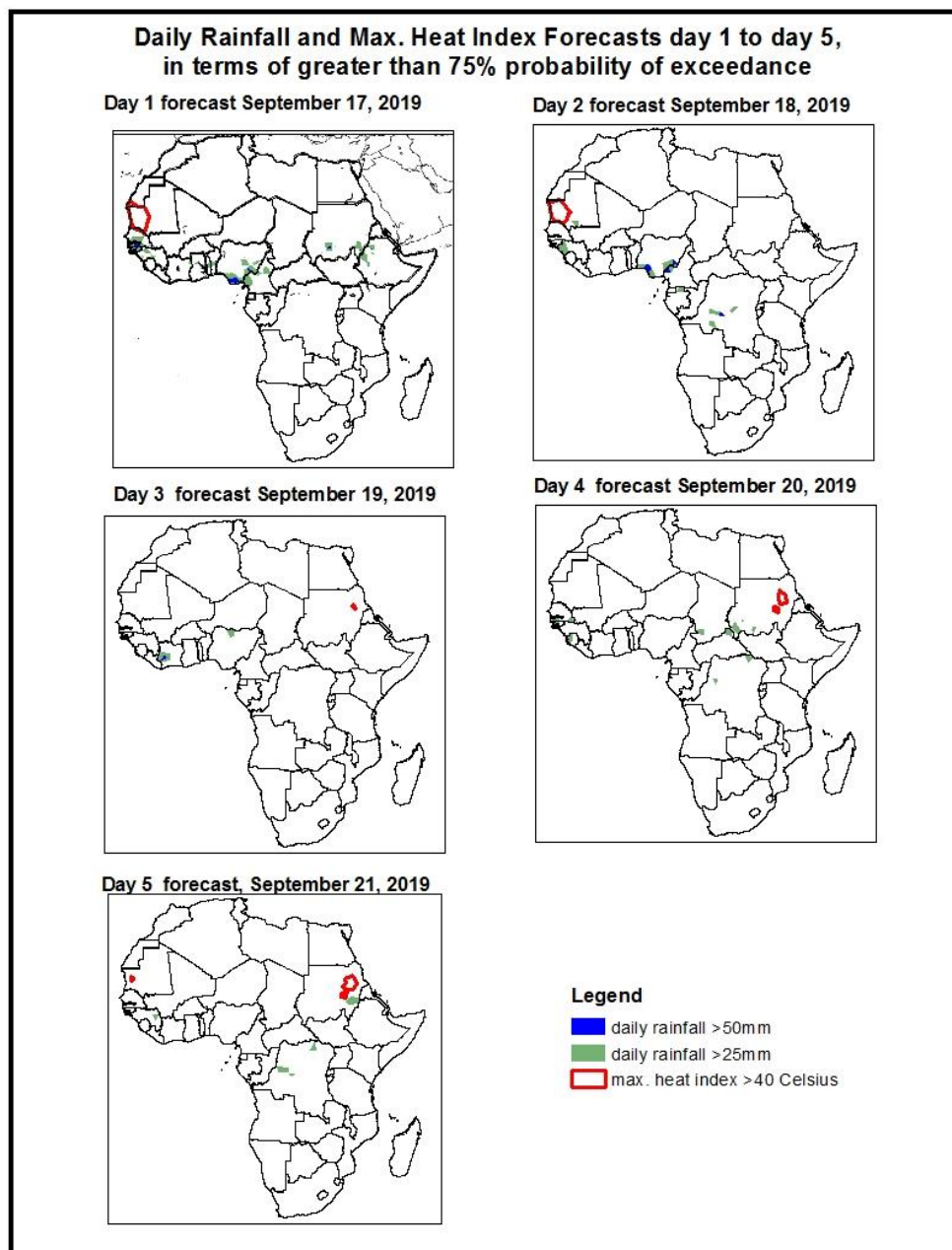


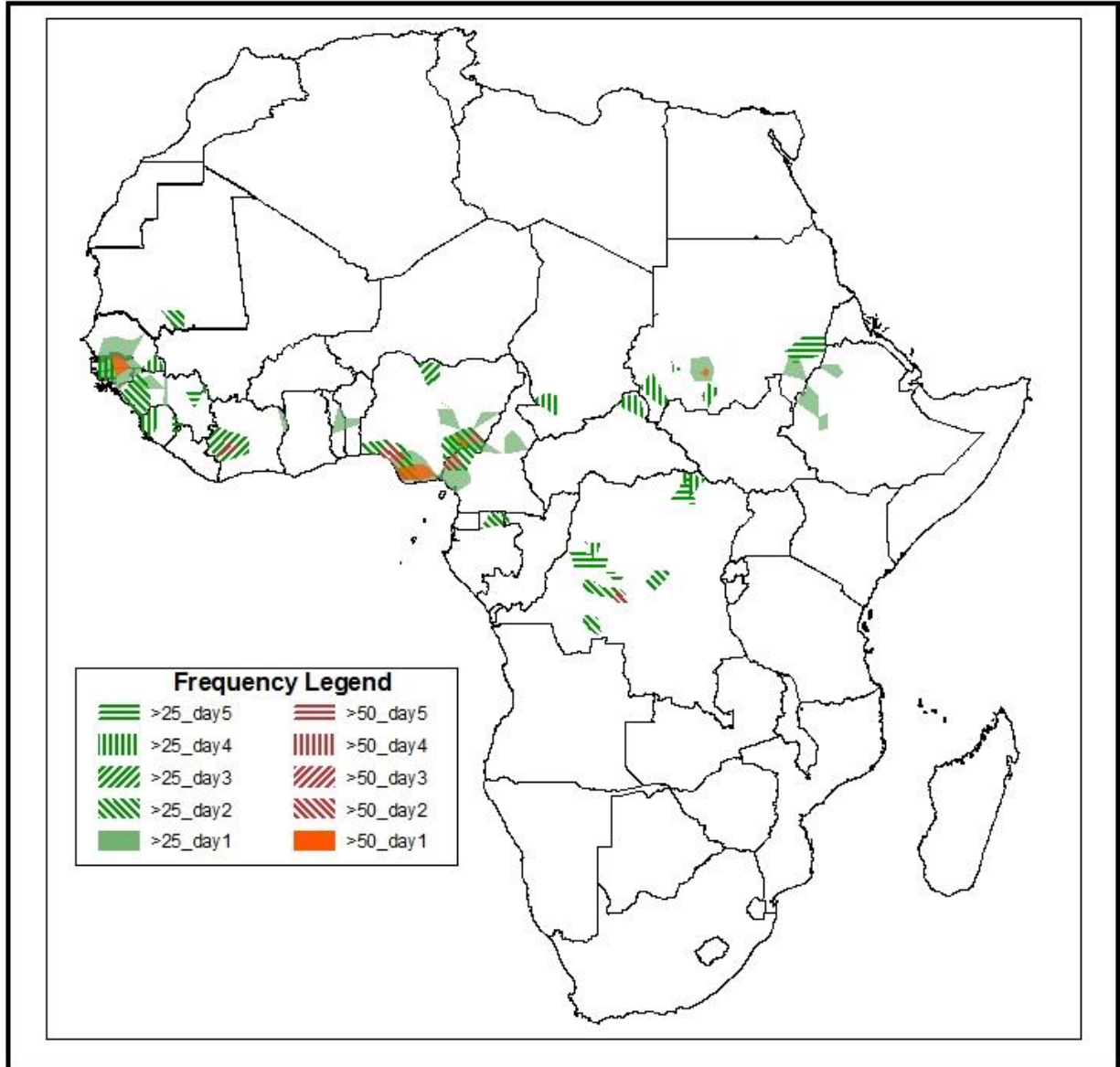
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on September 16, 2019)

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

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



Five Days Rainfall Forecast Summary September 17 - September 18, 2019

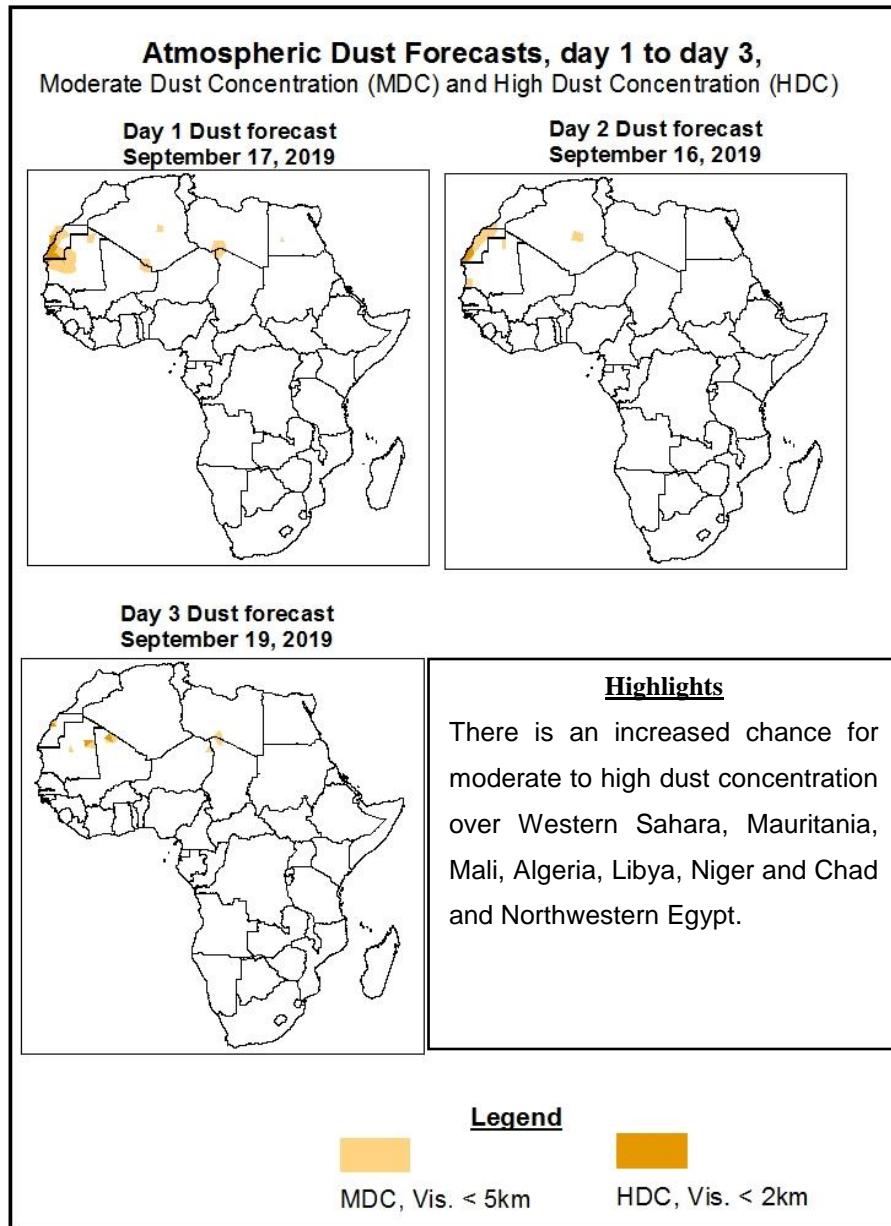


Highlights

- 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 portions of Western Africa and Central Africa countries.
- At least 25mm for two or more days is likely over portions of Southeast Senegal, Southern Mali, Gambia, Guinea Bissau, Guinea, Northwestern Sierra Leone, Central Togo, Central Ghana, and Nigeria, Some portions of Cameroon, Southern Sudan, and Eastern Ethiopia. There is an increased chance for daily rainfall to exceed 50mm over Western Guinea Bissau, Southern Nigeria, and Southern Sudan.
- There is an increased chance for daily maximum heat index to exceed 40°C over, Eastern Mauritania, and Eastern Sudan.

1.2. Atmospheric Dust Concentration Forecasts (valid: 17 Sept – 19 Sept 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 September – 21 September 2019

The Azores High Pressure system over the Northeast Atlantic is expected to strengthen and moving eastward, with its central pressure value increasing from 1028hPa to 1031hPa 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 1033hPa to 1030hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to strengthen with its central pressure value increasing from 1028hPa to 1029hPa during the forecast period.

Thermal low across the Sahel region is expected to deepen with its central pressure value decreasing from 1008hPa to 1007hPa.

At 925-hPa level, Northeasterly winds is expected to strengthen across Northwest Africa, and Monsoon southwesterly winds are expect to maintain their influence in the area of Gulf of Guinea and covering much of West Africa and the Sahel regions, the neighboring areas of Central Africa characterized by isolated moderate to enhanced precipitation.

At 850-hPa, Monsoon winds are expected to continue converging along the Gulf of Guinea as well as over parts of West Africa, Central Africa, and neighboring countries, influencing isolated to scattered precipitation over these areas. Converging winds are likely to be maintained over Vitoria Lakes and the Eastern Africa.

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 across the Northern Africa, some portions of Sahel and Central Africa 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 portions of Western Africa and Central Africa countries. At least 25mm for two or more days is likely over portions of Southeast Senegal, Southern Mali, Gambia, Guinea Bissau, Guinea, Northwestern Sierra Leone, Central Togo, Central Ghana, and Nigeria, Some portions of Cameroon, Southern Sudan, and Eastern Ethiopia. There is an increased chance for daily rainfall to exceed 50mm over Western Guinea Bissau, Southern Nigeria, and Southern Sudan. There is an increased chance for daily maximum heat index to exceed 40oC over, Eastern Mauritania, and Eastern Sudan.

2.0. Previous and Current Day Weather over Africa

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

Daily rainfall amount exceeded 25mm over Northern Algeria, Mali, Cote d'Ivoire, Southern Niger, Northern and Southern Nigeria, Cameroon, Western CAR and exceeded 50mm over Northern and Southern Nigeria, Cameroon, Western CAR.

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

Deep convective clouds are observed over Central Africa countries and local areas in the Greater Horn of Africa.

