



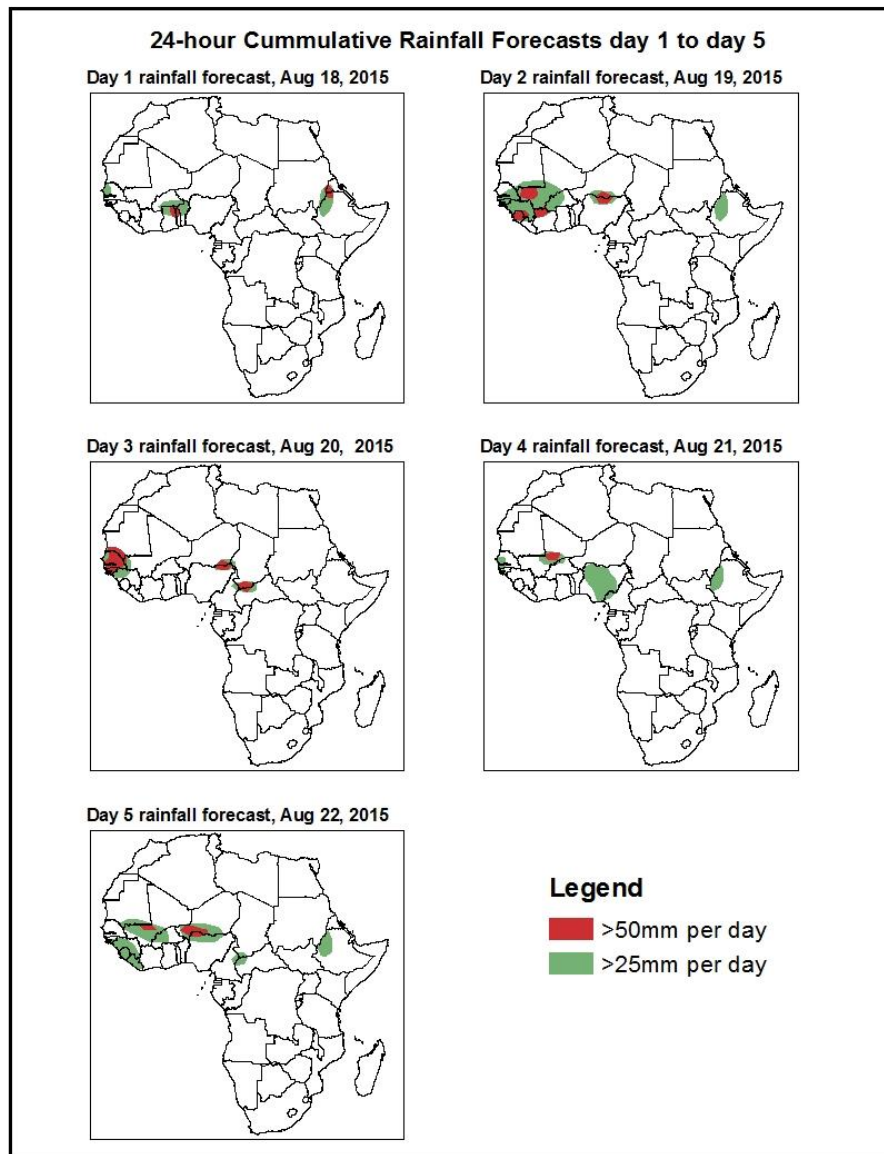
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall and Dust Concentration Forecasts

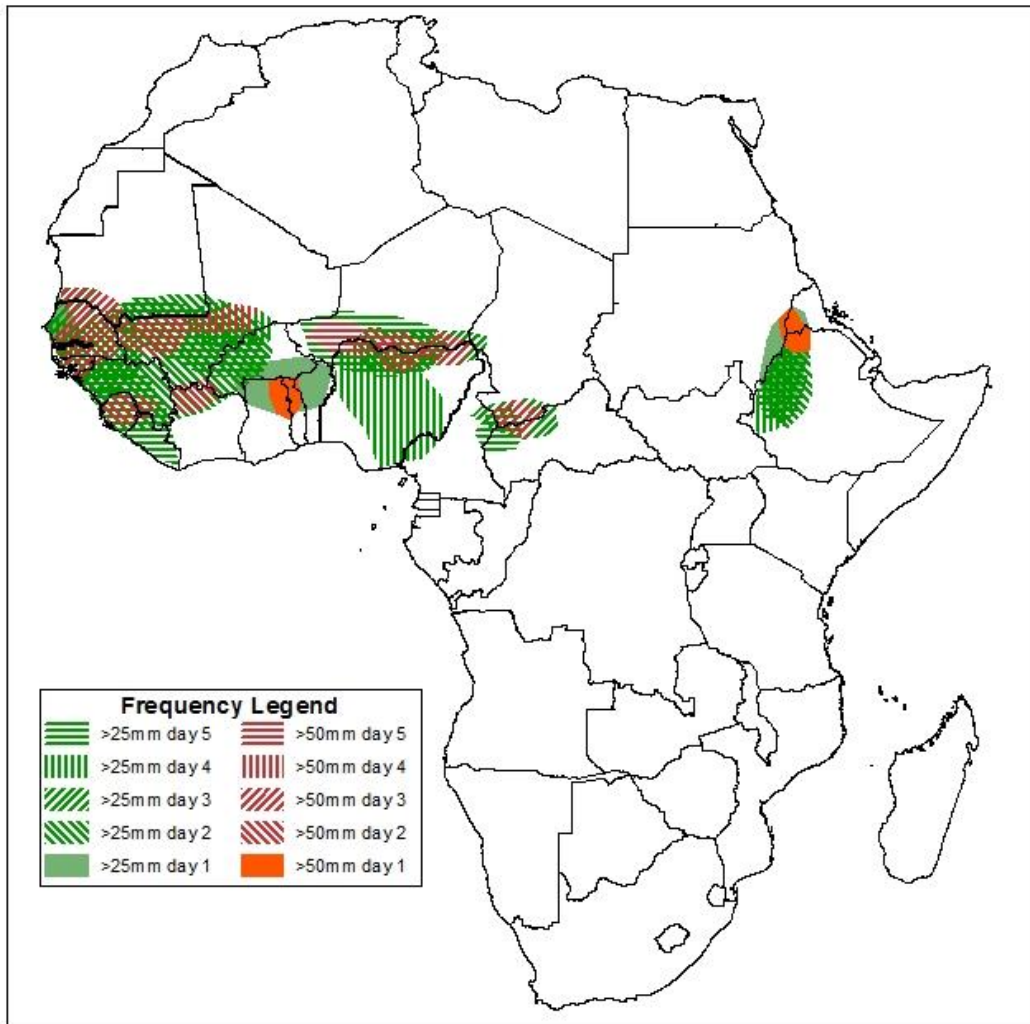
Valid: 06Z of Aug 18 – 06Z of Aug 22 2015. (Issued on August 17, 2015)

1.1. 24-hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of high probability of precipitation (POP), based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



Five Days Forecast Summary Aug 18 - Aug 22, 2015



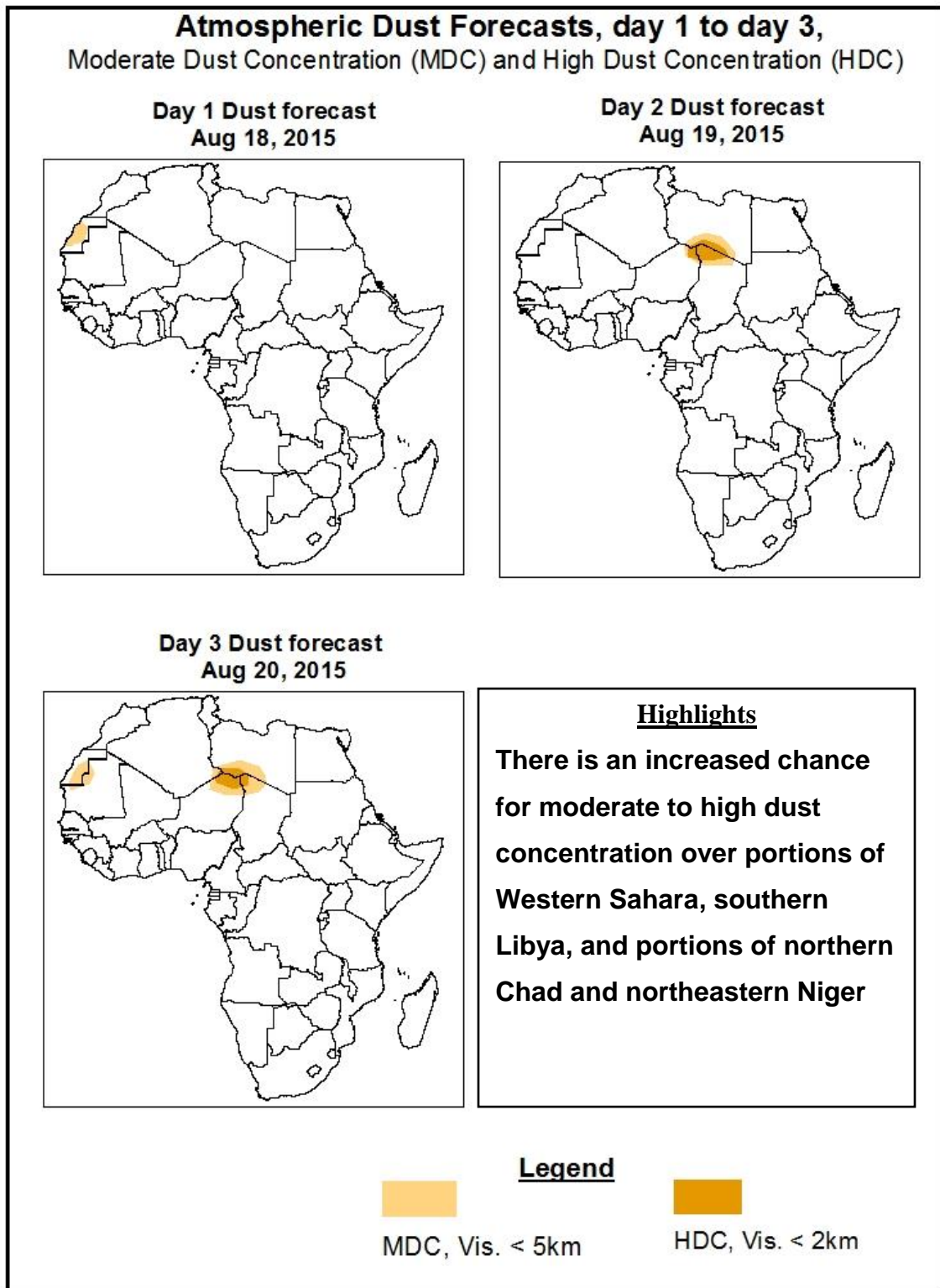
Summary

- *In the next five days, the West Africa monsoon flow with its associated convergence across the Sahel region, and westward propagating low-level trough across the Gulf of Guinea countries and seasonal wind convergence across western Ethiopia and Eritrea are expected to enhance rainfall in their respective regions.*
- *There is an increased chance for two or more days of moderate to heavy rainfall across portions of West Africa, and western Ethiopia and Eritrea.*

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Aug 18– 12Z of Aug 20, 2015

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: Aug 18 – Aug 22, 2015

The Azores high pressure system over Northeast Atlantic Ocean is expected to relax, with its central pressure value decreasing from about 1028hpa to 1023hpa through 24 to 72 hours, and it is expected to re-intensify towards end of the forecast period, with its central pressure value increasing to 1032hpa by 120 hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to relax, with its central pressure value is decreasing from about 1034hpa to 1025hpa through 24 to 96hours, according to the GFS model.

The Mascarene high pressure system over Southwest Indian Ocean is expected to intensify, with its central pressure value increasing from 1026hpa to 1035 during the forecast period, according to the GFS model.

Thermal low over northern Mali is expected to maintain an average central pressure value of 1006hpa during the forecast period. The low over Chad is expected to deepen slightly, with its central pressure value decreasing from about 1007hpa to 1005hpa during the forecast period. Thermal low over Sudan is expected to deepen slightly with central pressure value decreasing from about 1005hpa to 1003hpa, while the low over the Red is expected to remain quasi-stationary, with an average central pressure value of 1004hpa, during the forecast period.

At 925Hpa, zonal wind convergence is expected to prevail near the 15^oN latitude, in the region between Mauritania and Sudan, with embedded feeble cyclonic circulations near the Mauritania/Mali border and Chad during the forecast period. Meridional wind convergence is expected to remain active across South Sudan and eastern DRC during the forecast period.

At 850Hpa level, a cyclonic circulation near the Cote d'Ivoire/Burkina Faso border is expected to shift westward, leaving the West Africa coast through 24 to 96hours. Seasonal lower-level wind convergences are expected to remain active across the Sahel region, Sudan, portions of Ethiopia, South Sudan and northeastern DRC.

At 700hpa level, a weak trough in the easterlies is expected to propagate westwards across Cote d'Ivoire and Guinea, during the forecast period.

In the next five days, the West Africa monsoon flow with its associated convergence across the Sahel region, and westward propagating low-level trough across the Gulf of Guinea countries and seasonal wind convergence across western Ethiopia and Eritrea are expected to enhance rainfall in their respective regions. There is an increased chance for frequent moderate to locally heavy rainfall across portions of West Africa, and western Ethiopia and Eritrea.

2.0. Previous and Current Day Weather over Africa

(Valid: 16 – 17 August, 2015)

2.1. Weather assessment for the previous day (August 16, 2015)

Moderate to heavy rainfall was observed over much of Senegal, northern Guinea, Guinea-Bissau, Gambia, southwestern Mali, Benin, Nigeria, local areas in Niger, Cameroon, portions of CAR and DRC, eastern Chad, western Sudan, eastern Sudan, Eritrea and many parts of Ethiopia.

2.2. Weather assessment for the current day (August 17, 2015)

Intense clouds were observed over northern Senegal, Burkina Faso, southwestern Niger, southern Sudan, South Sudan Republic, and local areas in Ethiopia.

