



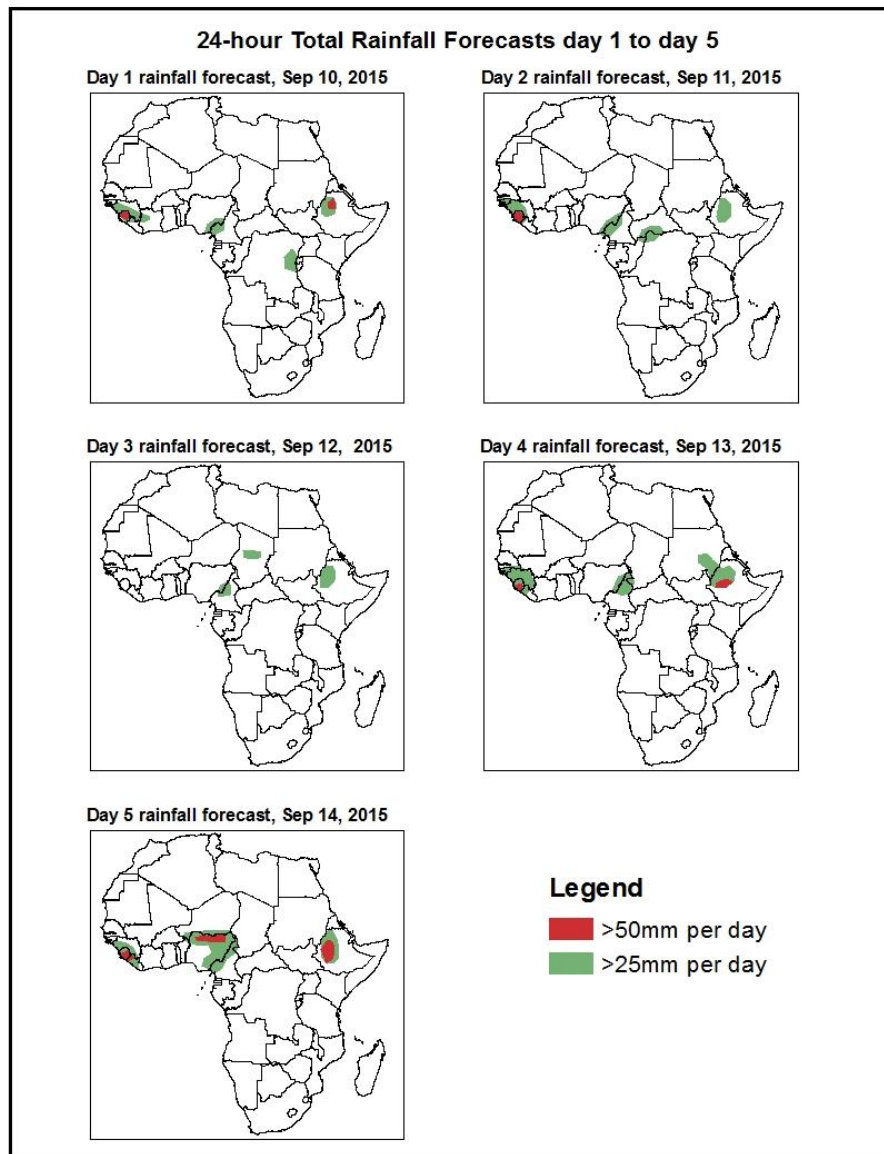
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall and Dust Concentration Forecasts

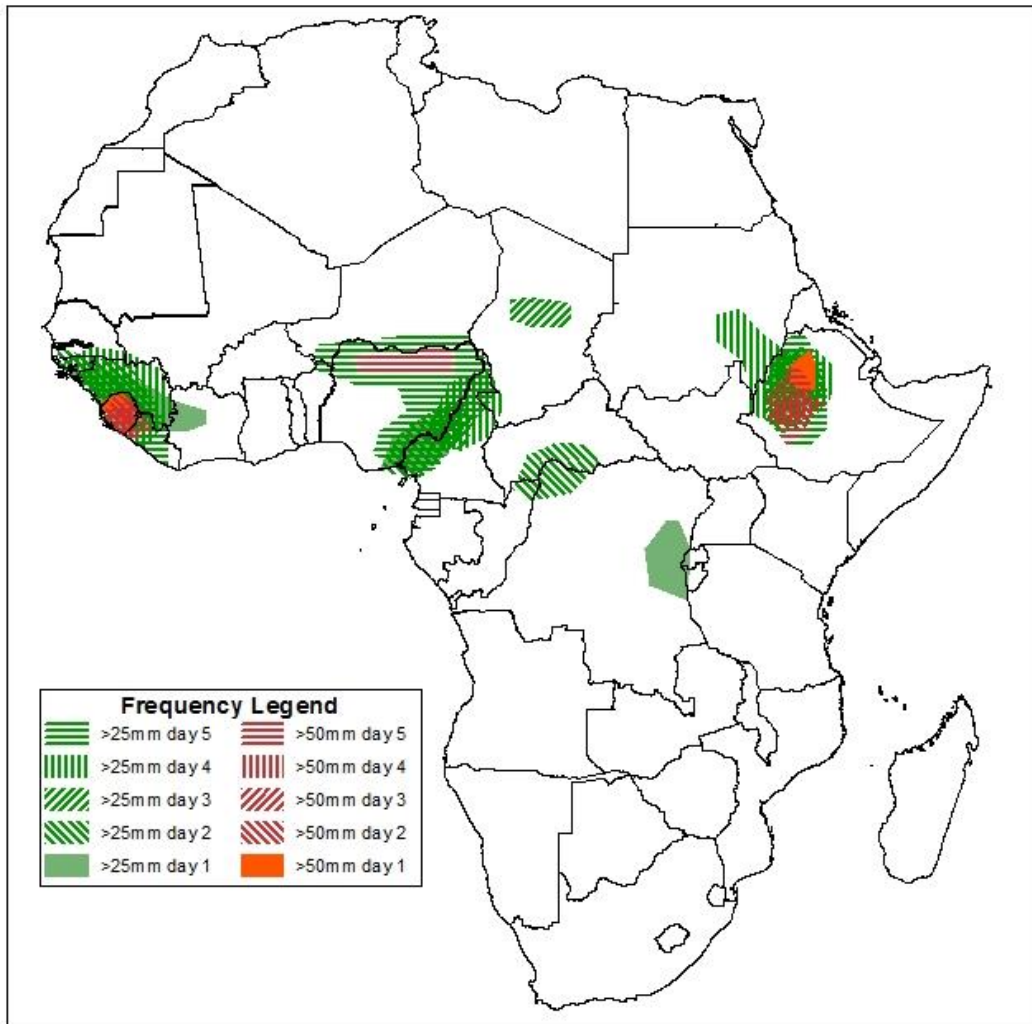
Valid: 06Z of Sep 10 – 06Z of Sep 14 2015. (Issued on September 9, 2015)

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 Rainfall Forecast Summary 10 - 14 September, 2015



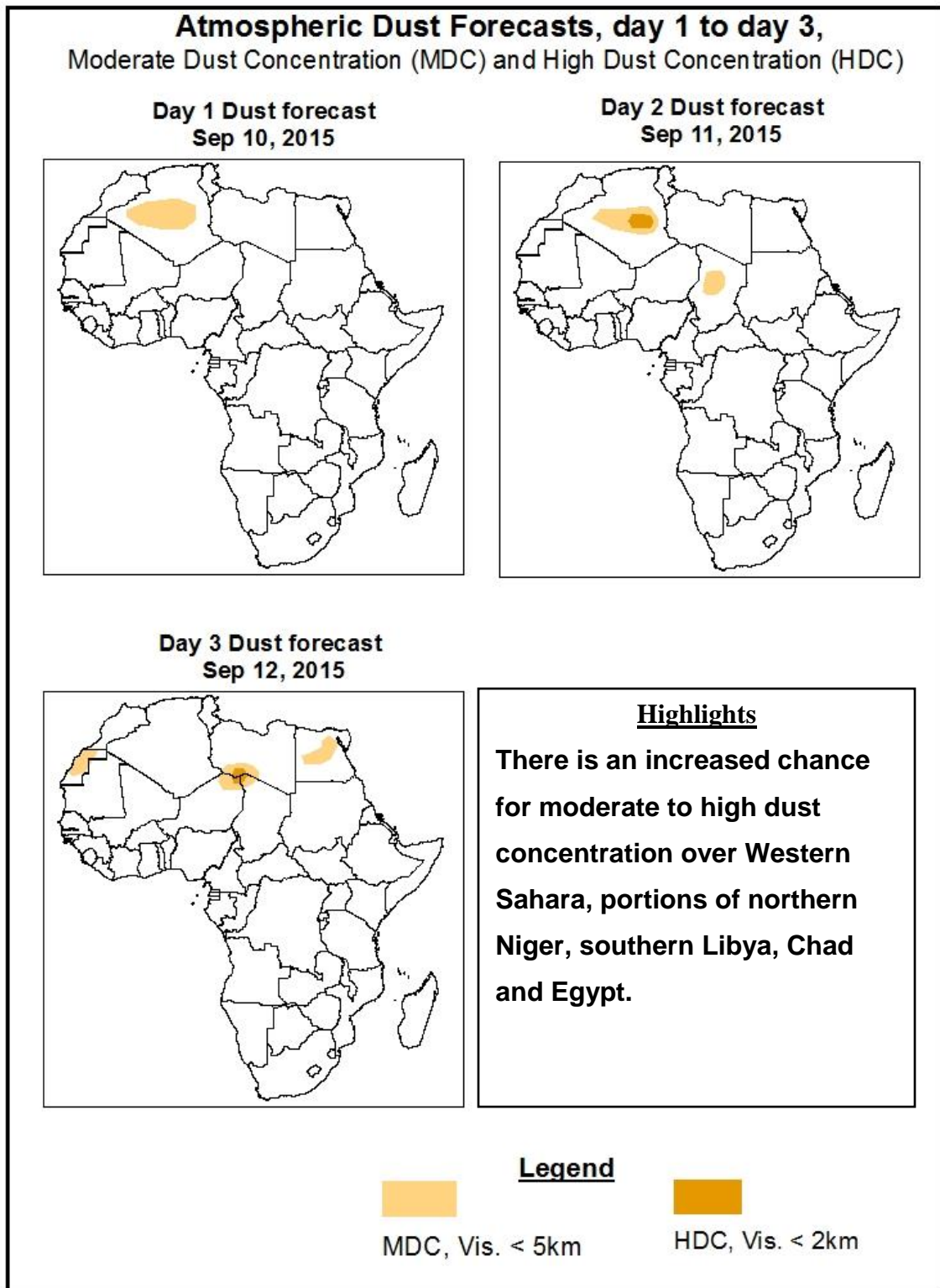
Summary

In the coming five days, monsoon flow from the Atlantic Ocean with its associated convergence across West and Central Africa will continue enhancing rainfall over Guinea, Sierra Leone, Liberia, northern and eastern Nigeria, Cameroon, and local areas in Chad and CAR. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia and eastern Sudan..

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Sep 10– 12Z of Sep 14, 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: 10 – 14 September, 2015

The Azores high pressure system over Northeast Atlantic Ocean is expected to intensify, with its central pressure value increasing from about 1021hpa to 1025hpa during the forecast period, 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 decreasing from about 1041hpa to 1032hpa, during the forecast period.

The Mascarene high pressure system over Southwest Indian Ocean is expected to shift to Southeast Indian Ocean while intensifying slightly. A newly built Mascarene high pressure system over Southwest Indian Ocean is expected to attain central pressure value of 1032hpa towards end of the forecast period.

A low over Mauritania is expected to leave the West Africa coast in 24 hours, while a thermal low over Chad is expected to propagate towards Mali across Niger through 24 to 120 hours. Another thermal low over Niger is expected to shift towards northern Mali, while deepening. Its central pressure value is expected to decrease from 1008hpa in 24 hours to 1006hpa in 120 hours.

At 925Hpa, a cyclonic circulation over Mauritania is expected to leave the West Africa coast in 24hours. A cyclonic circulation over Chad is expected to propagate towards northern Mali across Niger through 24 to 120 hours. Zonal wind convergence is expected to prevail in the region between central Chad and Sudan during the forecast period. Meridional wind convergence is expected to remain active in the region between southern Sudan and the Lake Victoria region during the forecast period.

At 850Hpa level, a cyclonic circulation across Guinea and the neighboring areas is expected to leave the West Africa coast in 24 hours, whereas a cyclonic circulation over Chad is expected to propagate towards Mali during the forecast period.

At 700hpa level, a trough in the easterlies is expected to propagate across the Gulf of Guinea countries, in the region between Benin and Guinea through 24 to 72 hours.

In the coming five days, monsoon flow from the Atlantic Ocean with its associated convergence across West and Central Africa will continue enhancing rainfall over Guinea, Sierra Leone, Liberia, northern and eastern Nigeria, Cameroon, and local areas in Chad and CAR. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia and eastern Sudan.

2.0. Previous and Current Day Weather over Africa

(Valid: 8 – 9 September, 2015)

2.1. Weather assessment for the previous day (September 7, 2015)

Moderate to locally heavy rainfall was observed near the border between Mali and Burkina Faso, northeastern Nigeria, southwestern Chad, and local areas in South Sudan and Ethiopia.

2.2. Weather assessment for the current day (September 8, 2015)

Intense clouds are observed over southern Mali, many places in the portions of the central Africa countries, northern Ethiopia and Eritrea.

