



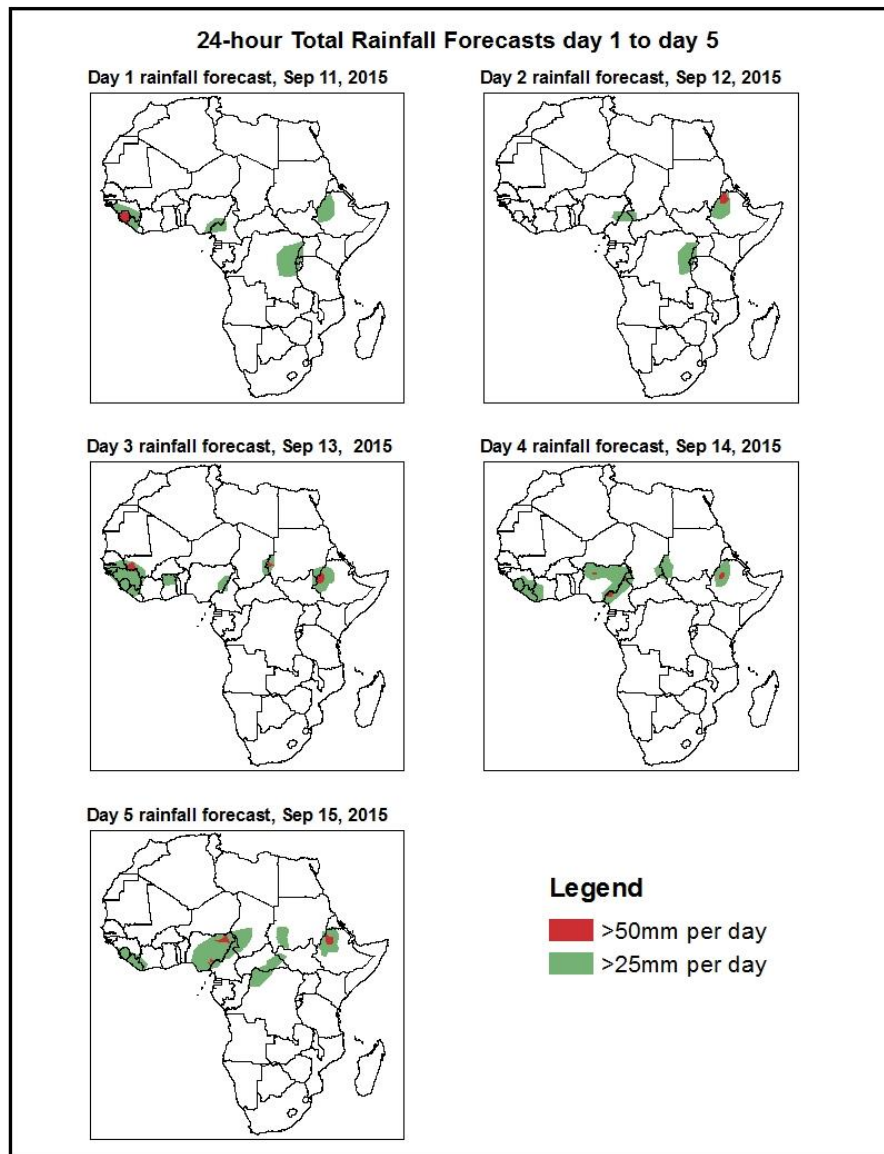
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall and Dust Concentration Forecasts

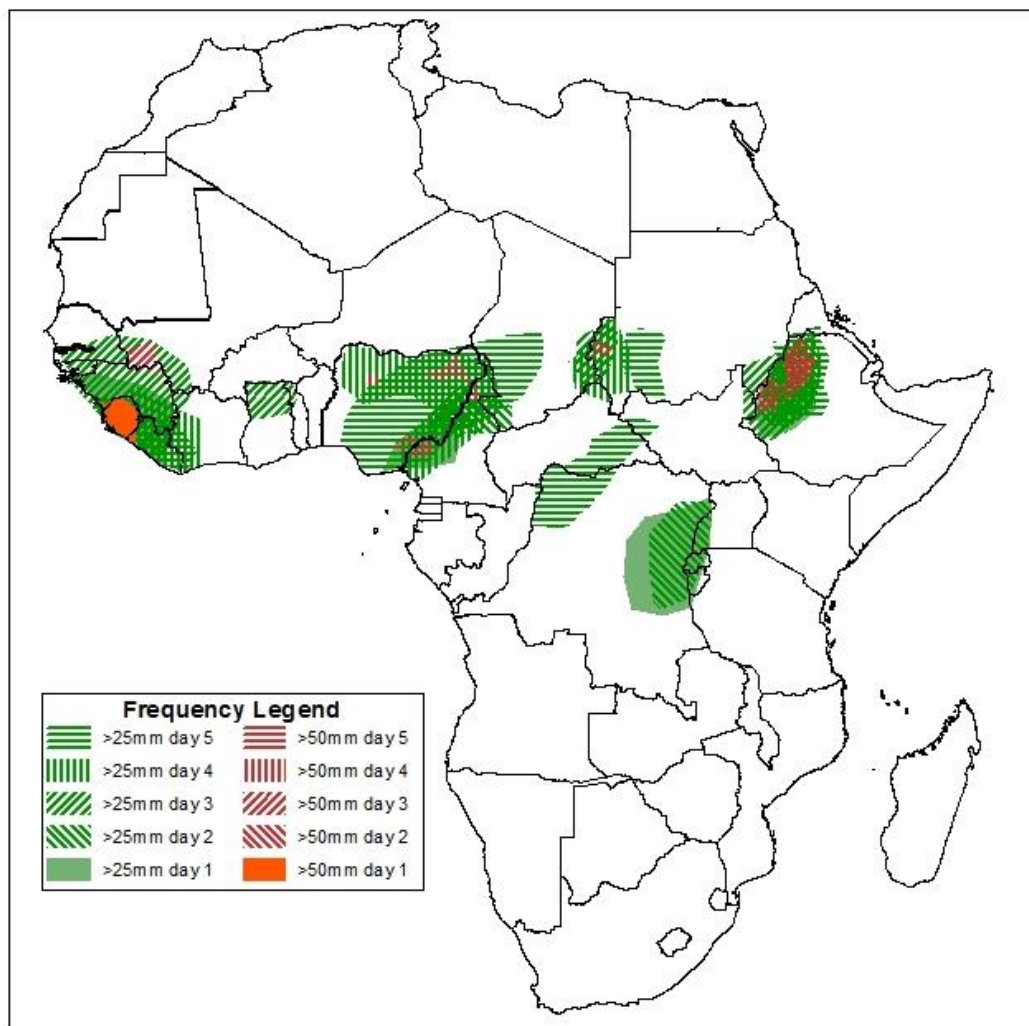
Valid: 06Z of Sep 11 – 06Z of Sep 15 2015. (Issued on September 10, 2015)

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 11 - 15 September, 2015



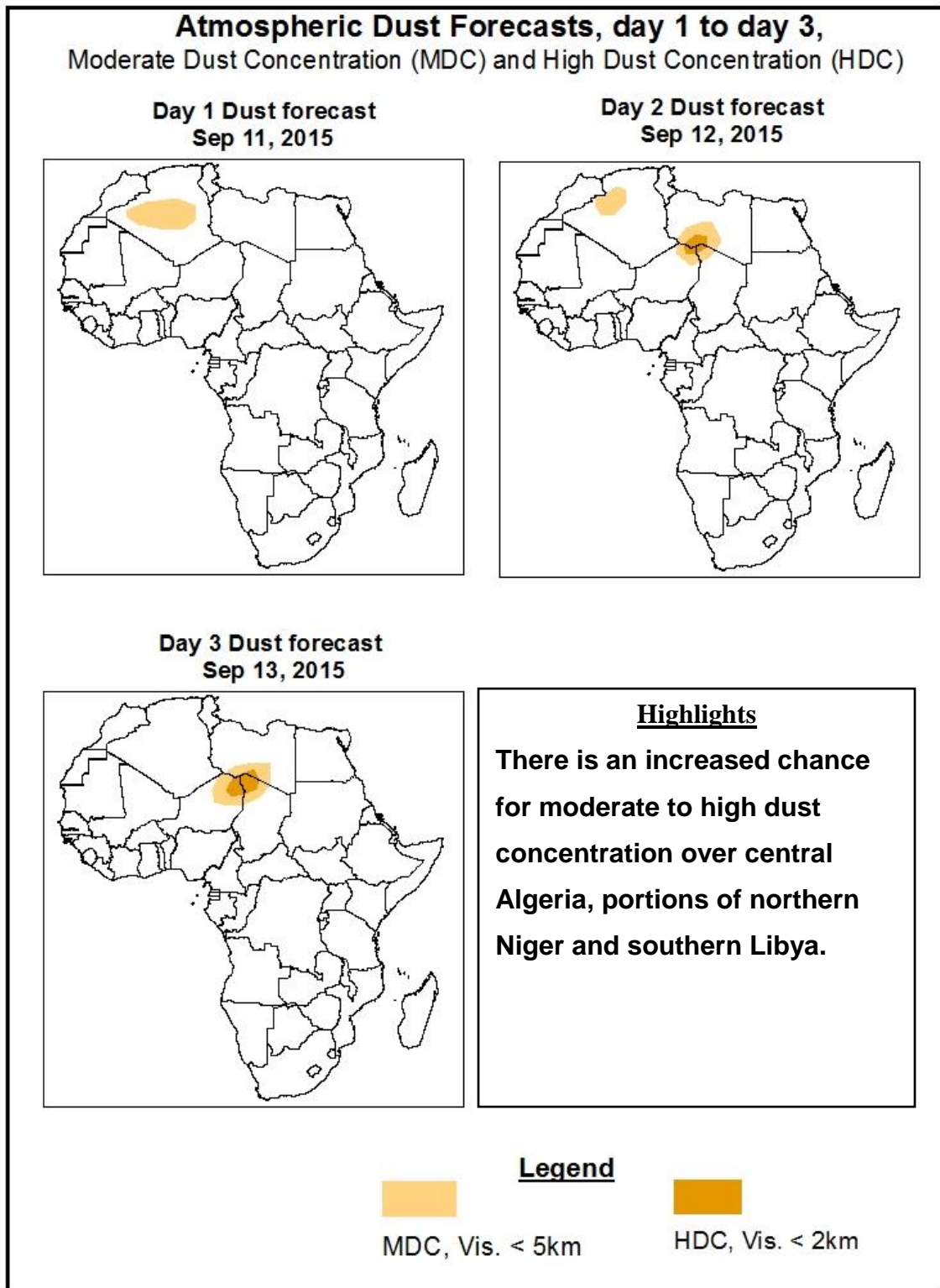
Summary

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, southern Senegal, southwestern Mali, Liberia, western Cote d'Ivoire, northern Ghana, much of Nigeria, Cameroon, portions of Chad, western Sudan, eastern CAR, and northwestern DRC. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia, eastern DRC, and parts of the Lake Victoria region.

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Sep 11– 12Z of Sep 13, 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: 11 – 15 September, 2015

The Azores high pressure system over Northeast Atlantic Ocean is expected to slightly intensify, with its central pressure value increasing from about 1024hpa to 1026hpa during the forecast period, according to the GFS model.

The ridge associated with the St Helena high pressure system over the Southeast Atlantic Ocean is expected to extend into southwestern Indian Ocean, while breaking into two high pressure systems in 72 hours. The first pressure cell associated with St Helena high pressure system is expected to relax, with its central pressure value decreasing from about 1042hpa to 1034hpa, during the forecast period.

The second high pressure cell takes position the Mascarene high pressure system while relaxing gradually. Its central pressure value is expected to decrease from 1038hpa to 1027hpa during the forecast period.

A low over Guinea is expected to leave the West Africa coast in 24 hours. A thermal low over Chad is expected to propagate towards Mauritania across Niger and Mali through 24 to 120 hours, while slightly deepening. Its central pressure value is expected to decrease from 1008hpa in 24 hours to 1007hpa in 120 hours.

At 925Hpa, a cyclonic circulation over Guinea is expected to leave the West Africa coast in 24hours. A cyclonic circulation over Chad is expected to propagate towards northern Mauritania across Niger and Mali 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 first half of the forecast period, and expected to shift westward into central DRC towards end of 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 Mauritania during the forecast period.

At 700hpa level, a zone strong easterly wind (>30kts) is expected to propagate westward in the region between Nigeria and Guinea across the Gulf of Guinea countries during the forecast period.

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, southern Senegal, southwestern Mali, Liberia, western Cote d'Ivoire, northern Ghana, much of Nigeria, Cameroon, portions of Chad, western Sudan, eastern CAR, and northwestern DRC. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia, eastern DRC, and parts of the Lake Victoria region.

2.0. Previous and Current Day Weather over Africa

(Valid: 9 – 10 September, 2015)

2.1. Weather assessment for the previous day (September 9, 2015)

Moderate to locally heavy rainfall was observed over southern Mali, northern Congo-Brazzaville, the Lake Chad region, eastern Sudan, northern Ethiopia and Eritrea.

2.2. Weather assessment for the current day (September 10, 2015)

Intense clouds are observed over many places of the central Africa countries and portions of the Greater Horn of Africa.

