



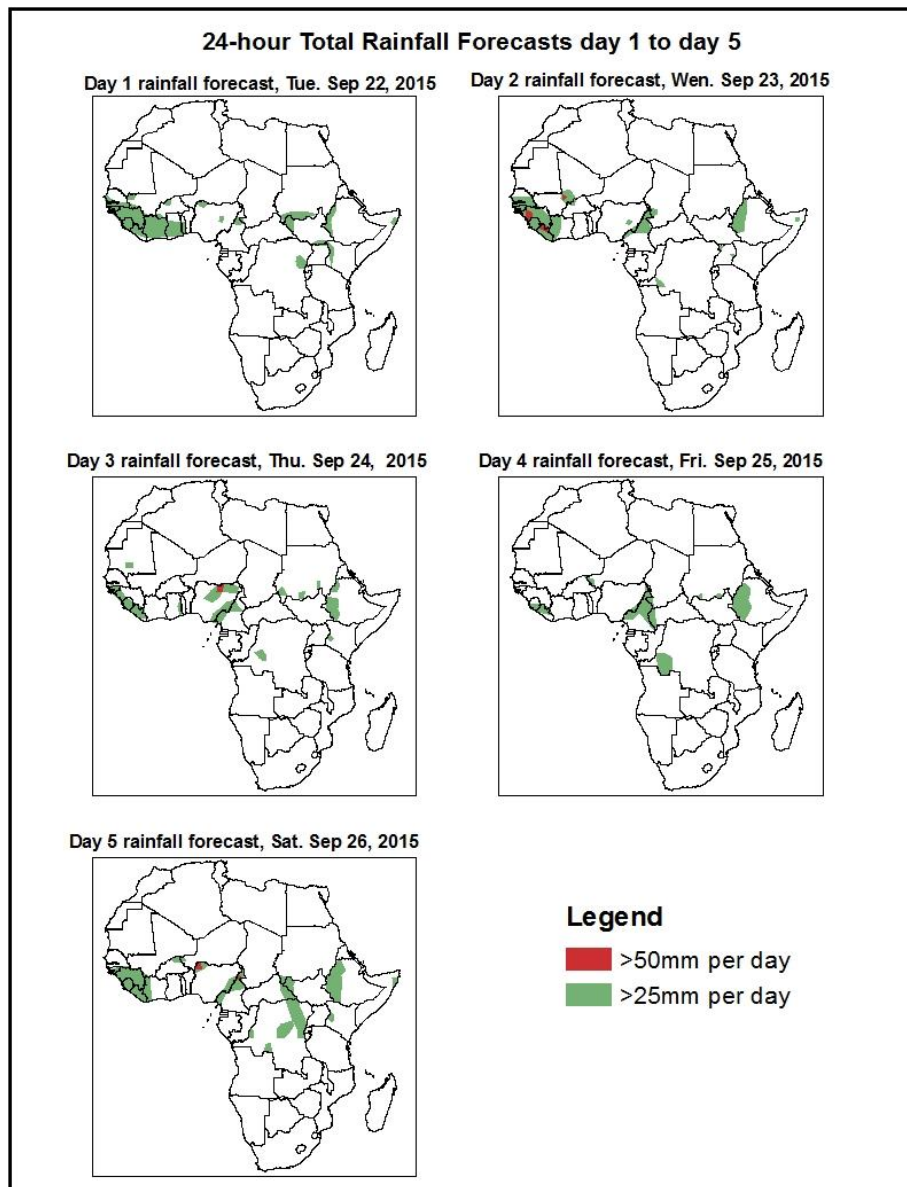
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall and Dust Concentration Forecasts

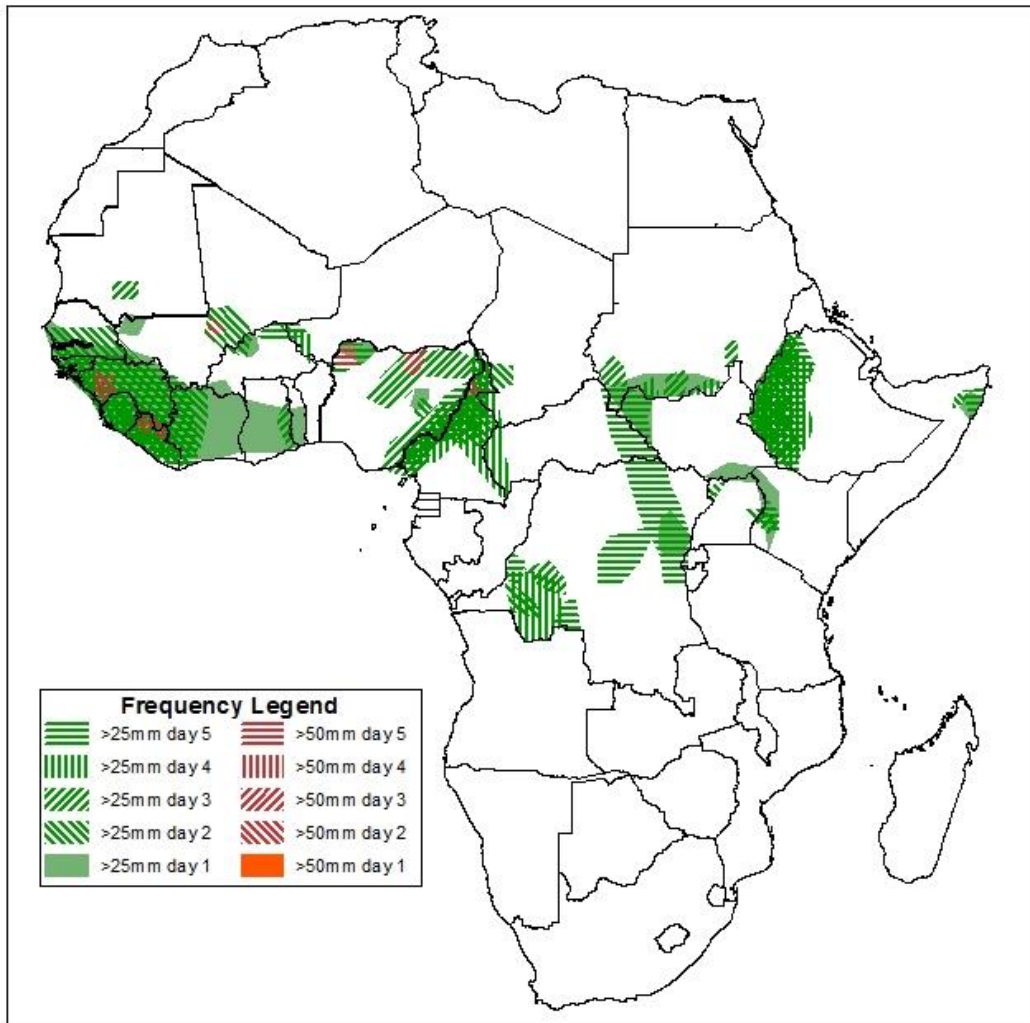
Valid: 06Z of Sep 22 – 06Z of Sep 26 2015. (Issued on September 21, 2015)

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 22- 26 September, 2015



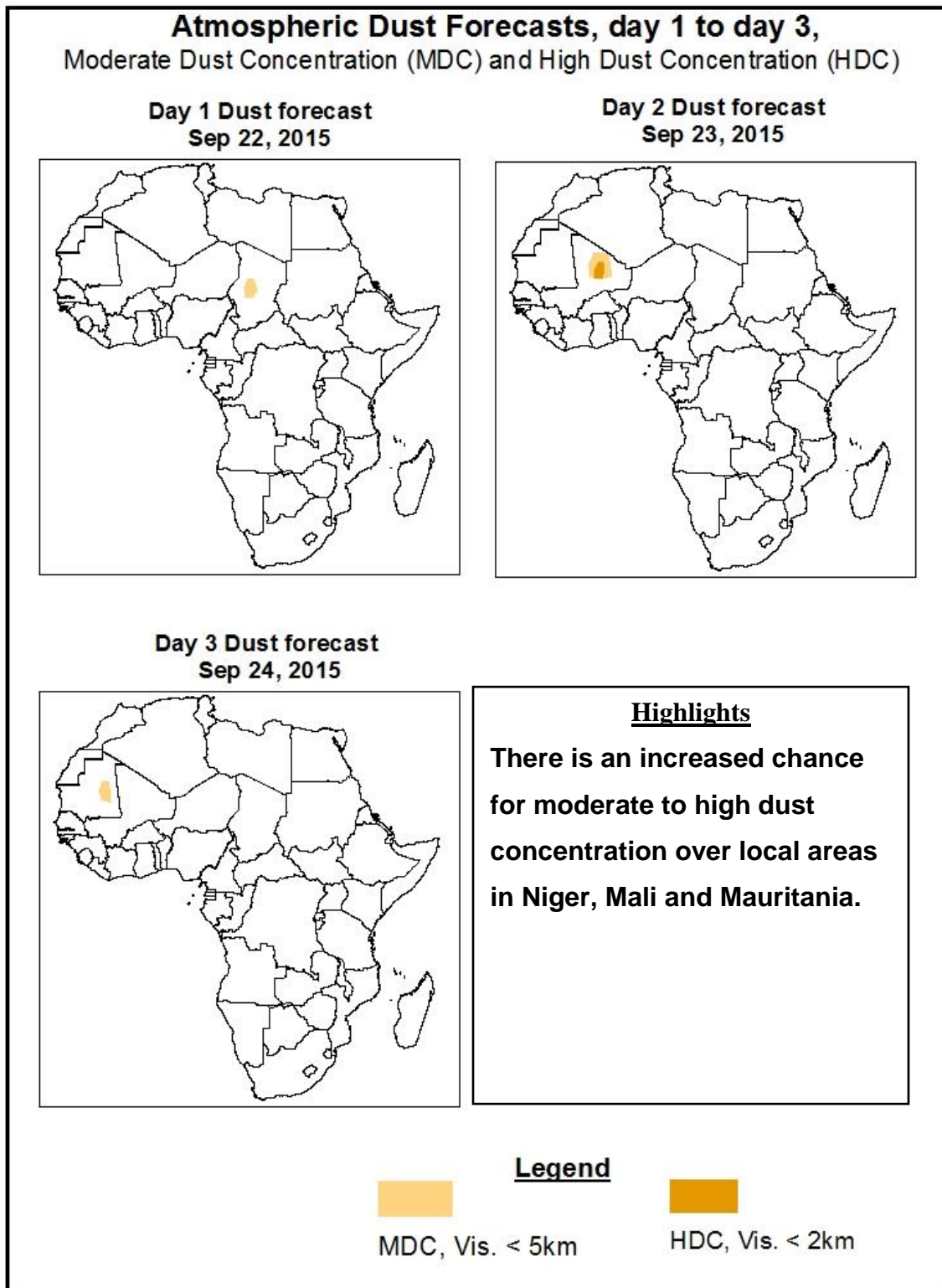
Summary

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 southern Senegal, Guinea-Bissau, Guinea-Conakry, Sierra Leone, Liberia, southwestern Mali, western Cote d'Ivoire, central Ghana, northern part of Nigeria, western and northern Cameroon, portions of south Chad and south western Sudan. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia and North eastern DRC.

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Sep 22– 12Z of Sep 24, 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: 22 – 26 September, 2015

The Azores high pressure system over Northeast Atlantic Ocean is expected to weaken gradually in 48 hours from 1020 mb to 1016 mb moving eastward then returning to its climatological position with its central pressure value increasing up to 1020 mb 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 decrease from 1022 mb up to 1019mb in 48 hours. It will continue to extend its influence to southwestern Indian Ocean weather patterns in 48 hours before the subtropical high pressure systems resume their climatological position towards the end of the forecast time period with a central pressure value of 1027 mb.

The Mascarene high pressure system decreases gradually within 48 hours with central pressure value from 1032 mb up to 1028 mb then a slight increase will be observed at the end of the forecast period with a central pressure value of 1030 mb.

A thermal low over Mauritania and Sudan are expected to propagate westward through 24 to 120 hours while slightly deepening. Its central pressure value is expected to decrease from 1010 mb in 24 hours to 1007 mb through 24 to 72 hours, the Low pressure system over Sudan will remain stationary with its central pressure value of 1008 mb and it will tend to deepen towards the end of the forecast period with a central pressure value of 1007 mb.

At 925 mb, a cyclonic circulation over Niger is expected to propagate towards coastal area of Senegal across Mali through 24 to 120 hours. Zonal wind convergence is expected to prevail across Niger and Mali and in the region between Chad and Sudan during the forecast period. Meridional wind convergence is expected to remain active in the region between Sudan and Northeast DRC towards western coast of Ethiopian region during the forecast period.

At 850 mb level, a cyclonic circulation over Niger is expected to propagate towards coastal Senegal during the forecast period.

At 700 mb level, a core of strong easterly flow is expected to propagate westwards in the region between Nigeria and the West Africa coast 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 southern Senegal, Guinea-Bissau, Guinea-Conakry, Sierra Leone, Liberia, southwestern Mali, western Cote d'Ivoire, central Ghana, northern part of Nigeria, western and northern Cameroon, portions of south Chad and south western Sudan. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia and North eastern DRC.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (September 20, 2015)

Moderate to locally heavy rainfall was observed over southern western Burkina Faso, northern Cote d'Ivoire and central Ghana, northern et southern Cameroon, western CAR, South Sudan, local areas of Sudan and Ethiopia.

2.2. Weather assessment for the current day (September 21, 2015)

Intense clouds are observed portions of West Africa, in south Sudan and central Sudan, west part of Ethiopia, many places of Central Africa countries: East of DRC, Burundi and Rwanda.

