



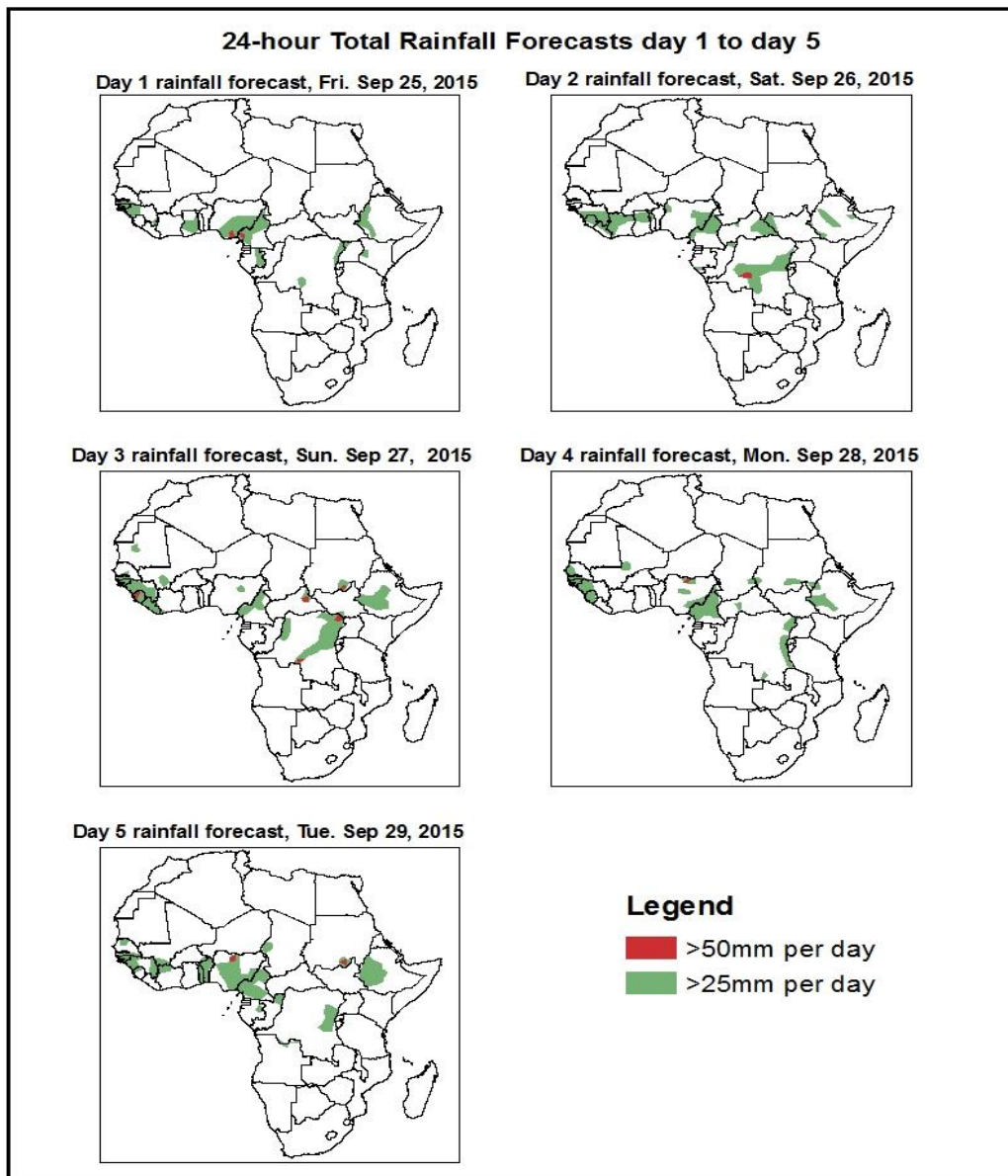
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall and Dust Concentration Forecasts

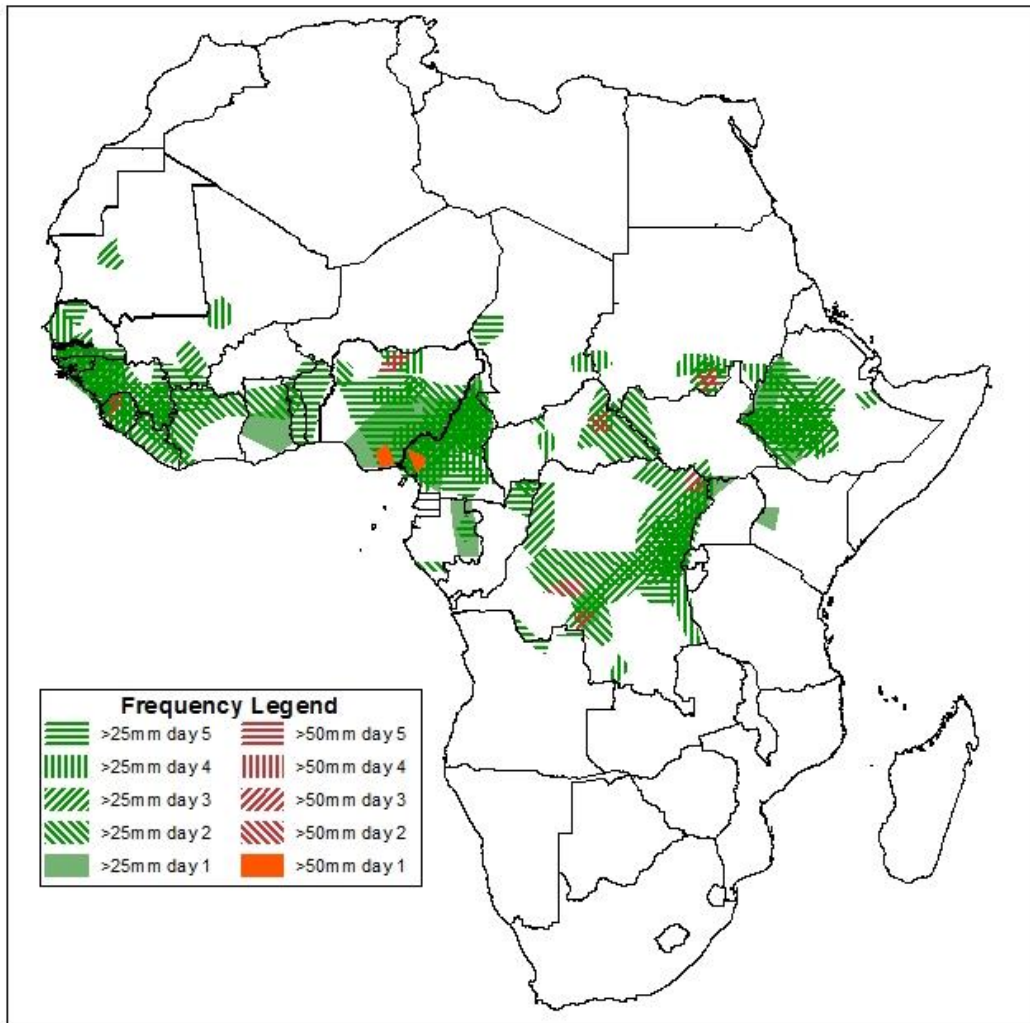
Valid: 06Z of Sep 25 – 06Z of Sep 29 2015. (Issued on September 24, 2015)

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 25 - 29 September, 2015



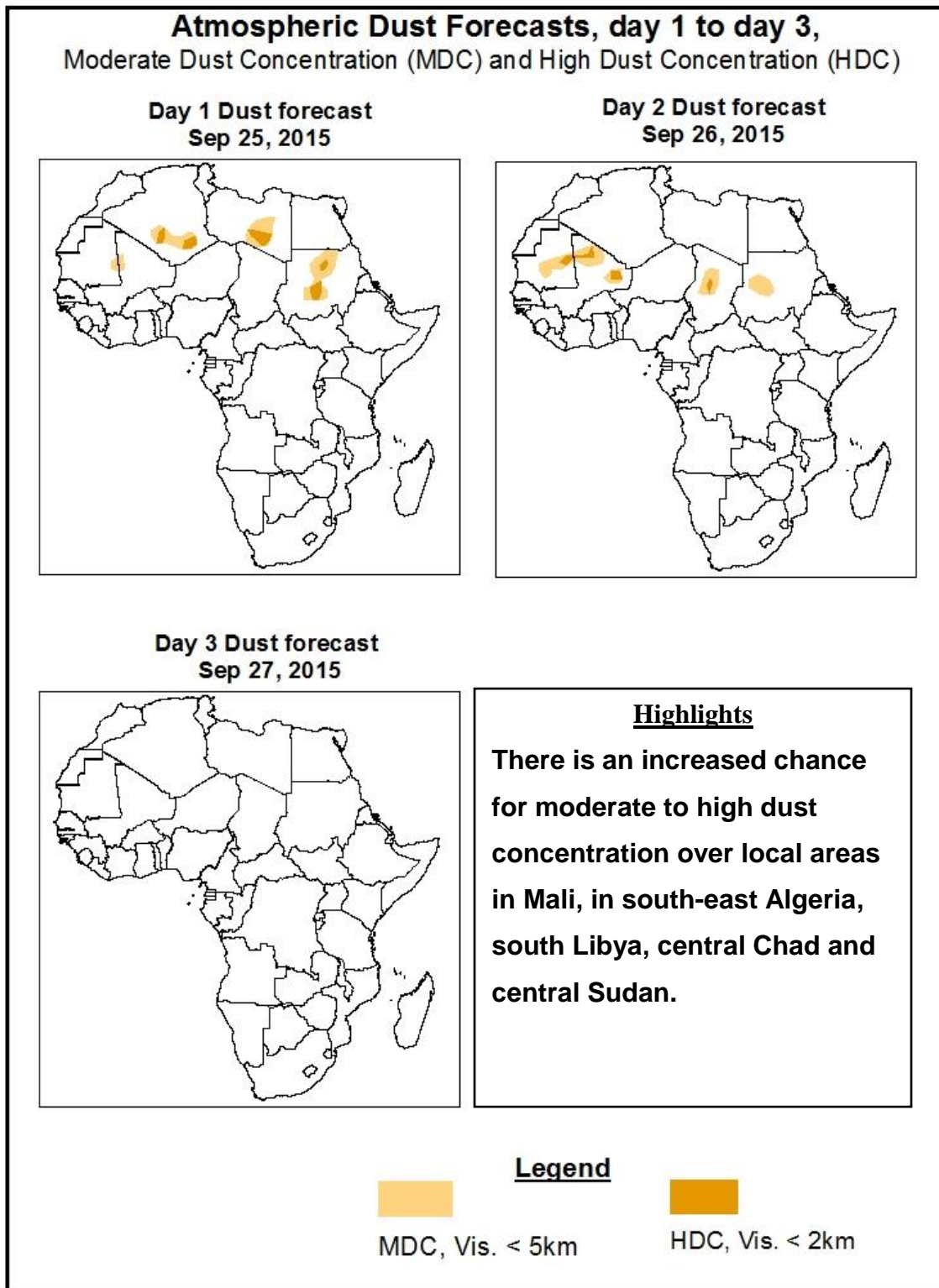
Summary

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, central Mali, western Ivory Coast, north and east of Ghana, northern and eastern part of Nigeria, western and northern Cameroon, portions of south Chad and south western Sudan and some parts of South Sudan. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia, western and North eastern DRC and western parts of Rwanda and Burundi.

1.2. Atmospheric Dust Concentration Forecasts

Valid: 12Z of Sep 25– 12Z of Sep 29, 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: 25 – 29 September, 2015

The Azores high pressure system over Northeast Atlantic Ocean with its central pressure value of 1023 mb is expected to weaken slightly while moving northwestward Atlantic Ocean reaching 1019 mb in 48 hours. Then starting increasing gradually from the northern position moving westward by returning to its climatological position with a central pressure value increasing up to 1028 mb at the end of 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 vary between 1021 mb and 1025 mb in 48 hours. It will continue to extend its influence to southwestern Indian Ocean weather pattern by changing its position before the subtropical high pressure systems resume their climatological position towards the end of the forecast time period with a central pressure value reaching 1028 mb.

The Mascarene high pressure system will increase slightly within 48 hours with central pressure value varying from 1030 mb up to 1031 mb then will decrease while moving toward western Indian Ocean with expected central pressure value of 1028 mb at the end of the forecast period.

A thermal low over Mali, Nige, Chad and Sudan are expected to propagate westward through 24 to 120 hours while slightly deepening. Its central pressure value is expected to decrease from 1008 mb in 24 hours to 1006 mb through 24 to 72 hours, the Low pressure system over Mali, Chad and Sudan are expected to deepen slightly up to central pressure value of 1005 mb towards the end of the forecast period while moving westward.

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 Sudan and Mali 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 by passing through Mali during the forecast period.

At 700 mb level, an easterly flow is expected to propagate westwards in the region between central Sudan toward the gulf of Guinea 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, central Mali, western Cote d'Ivoire, north and east of Ghana, northern and eastern part of Nigeria, western and northern Cameroon, portions of south Chad and south western Sudan and some parts of South Sudan. Seasonally moderate to heavy rainfall is also expected to continue across western Ethiopia, western and North eastern DRC and western parts of Rwanda and Burundi.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (September 23, 2015)

Moderate to locally heavy rainfall was observed over southwest Mali, southern Cameroon, northern Congo, South Chad and eastern parts of Ethiopia and Kenya.

2.2. Weather assessment for the current day (September 24, 2015)

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

