

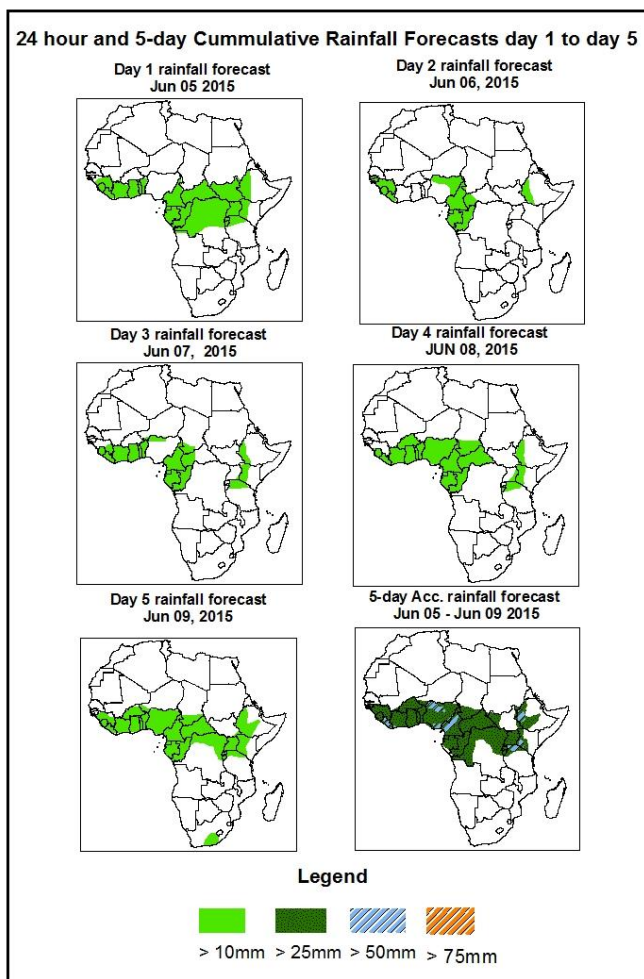


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of Jun 05 – 06Z of Jun 09, 2015. (Issued at 1600Z of Jun 04, 2015)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of high probability of precipitation (POP), based on the NCEP/GFS and the NCEP global ensemble forecasts system (GEFS) and expert assessment.

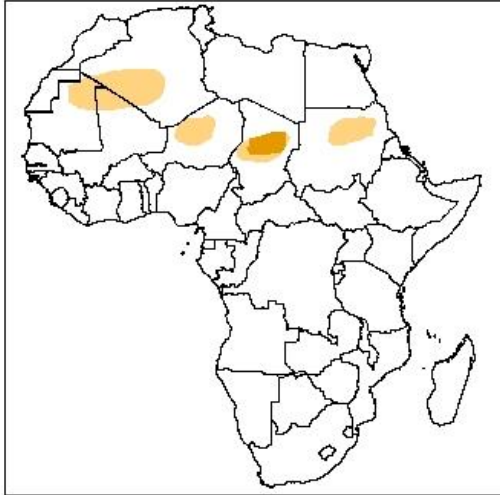


Summary

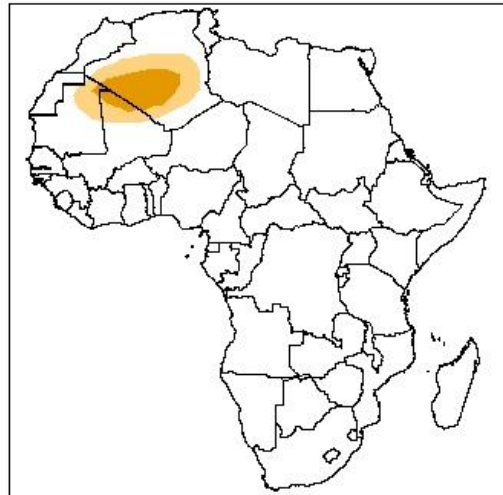
In the next five days, the monsoon flow from the Atlantic Ocean and its associated convergence across West and Central Africa, combined with westward propagating convective systems across the central Africa, southern Sahel, and Gulf of Guinea countries, and active CAB near the Lake Victoria region and lower level wind convergences across the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Thus, There is an increased a chance for heavy rainfall over Liberia,, Nigeria, Cameroon, Rwanda, Burundi, Ivory Coast, Uganda, and Ethiopia

Atmospheric Dust Forecasts, day 1 to day 3,
Moderate Dust Concentration (MDC) and High Dust Concentration (HDC)

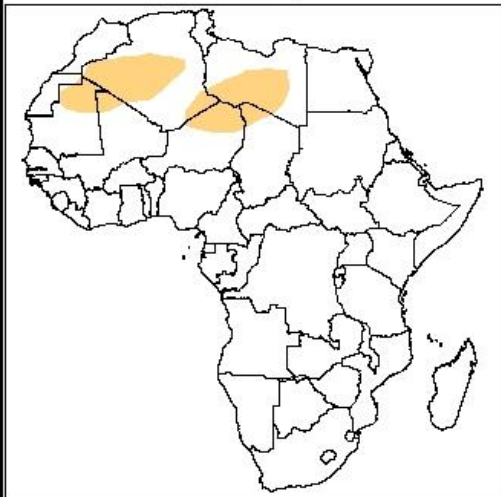
Day 1 Dust forecast
Jun 05, 2015



Day 2 Dust forecast
Jun 06, 2015



Day 3 Dust forecast
Jun 06, 2015



Highlights

There is an increased chance for moderate to high dust concentration over some parts of the Sahel and North African countries with highest dust concentrations over some parts of Algeria, Mauritania, Mali.

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion, Valid: June 5 – June 9, 2015

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to shift eastwards to become Mascarene high pressure system through 24 to 48 hours. A new St Helena high pressure system is expected to emerge in the southeast Atlantic Ocean with its central pressure value increasing from about 1025hpa to 1032 hpa through 48 to 96hours.

The newly formed Mascarene high pressure system in the Southwest Indian Ocean is expected to maintain average central pressure value of about 1029hpa through 48 to 120 hours, while gradually shifting eastwards.

The heat lows in the region between Mali and Sudan across the Sahel region are expected to maintain average central pressure values ranging between 1005hpa to 1008hpa during the forecast period.

The northern limit of the 1016hpa isobar associated with the East African ridge is expected to remain across northern Kenya during the forecast period.

At 925Hpa level, the monsoon flow from the Atlantic Ocean is expected to remain active across the central and eastern parts of the Gulf of Guinea countries, and the neighboring areas of the Southern Sahel and Central African countries. On the other hand, dry northeasterly wind (>20kts) is expected to prevail across northern Mauritania, Algeria, Egypt, and northern Sudan. A feeble cyclonic circulation is expected to propagate westwards between southern Chad and southern Mauritania during the forecast period.

At 850Hpa level, east-west oriented wind convergence is expected to remain active across Guinea, Burkina Faso, northern Nigeria, northern Cameroon, CAR and Sudan. Wind convergence associated with Congo Air Boundary (CAB) is also expected to remain active across eastern DRC, Uganda and the parts of South Sudan Republic. Localized wind convergences are expected to prevail across portions of Ethiopia during the forecast period. On the other hand, strong lower level wind associated with the

Somali Jet is expected to remain active across eastern Kenya, Somalia, southeastern Ethiopia, and the neighboring areas of northwestern Indian Ocean and the Arabian Sea.

At 700hpa level, northeasterly to easterly flow is expected to prevail across the Gulf of Guinea and Central Africa countries, a isolated areas zones of strong easterly wind (>30kts) is propagating westwards across the region during the forecast period.

At 500Hpa level, isolated areas of strong easterly wind (>50kts) is expected to prevail over the Gulf of Guinea region and parts of the Central Africa countries.

In the next five days, the monsoon flow from the Atlantic Ocean and its associated convergence across West and Central Africa, combined with westward propagating convective systems across the central Africa, southern Sahel, and Gulf of Guinea countries, and active CAB near the Lake Victoria region and lower level wind convergences across the Greater Horn of Africa are expected to enhance rainfall in their respective regions. Thus, There is an increased a chance for heavy rainfall over Liberia,, Nigeria, Cameroon, Rwanda, Burundi, Ivory Coast, Uganda, and Ethiopia.

2.0. Previous and Current Day Weather Discussion over Africa

(3 – 4 Jun 2015)

2.1. Weather assessment for the previous day (June 3, 2015)

Moderate to heavy rainfall were observed across Liberia, Guinea, Mali, Burkina Faso, Benin, Ivory Coast, Nigeria, South Africa, Cameroon, CAR, DRC, Sudan, and Ethiopia.

2.2. Weather assessment for the current day (Jun 4, 2015)

Intense convective deep clouds are observed over Ivory Coast, Nigeria, Cameroon, CAR, DRC, Cong Brazzaville, Uganda, Kenya, South Sudan, and Ethiopia.

