

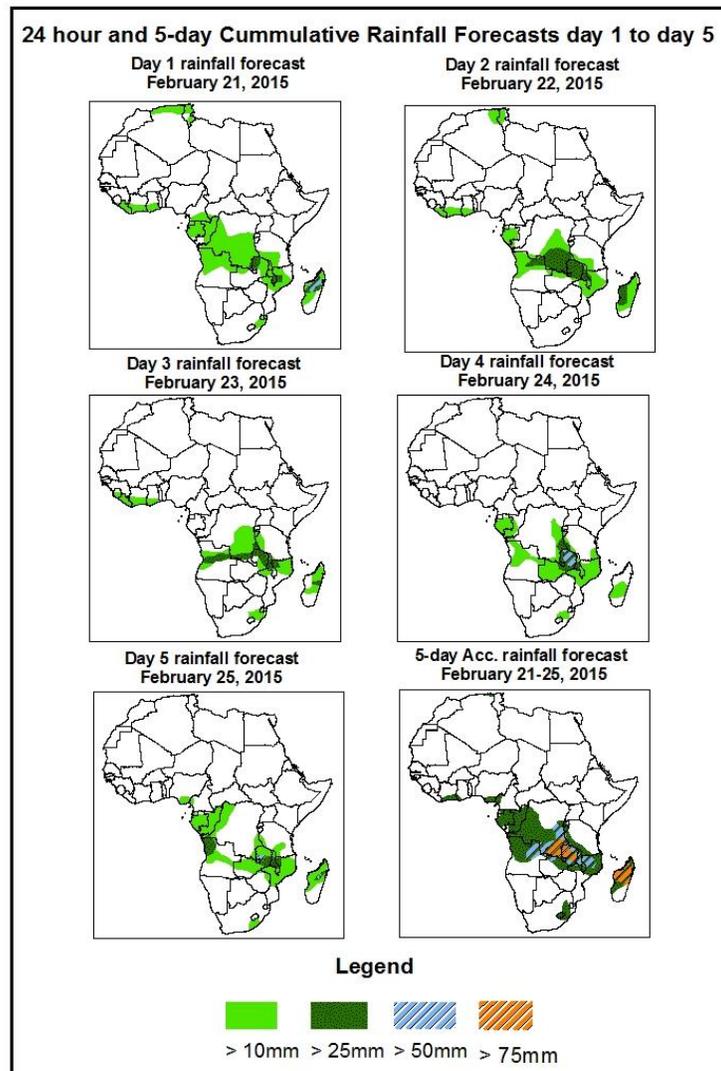


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of February 21 – 06Z of February 25, 2015. (Issued at 1630Z of February 20, 2015)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of 75% probability of precipitation (POP) exceeded, based on the NCEP/GFS and the NCEP global ensemble forecasts system (GEFS) and expert assessment.

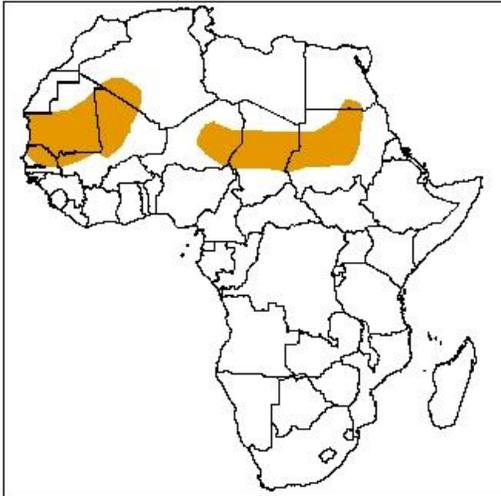


Summary

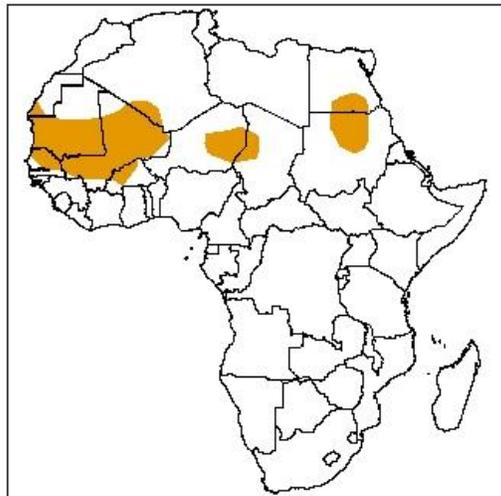
In the next five days, lower-level wind convergence in the region between Angola and Mozambique is expected to enhance rainfall in these regions. There is an increased chance for heavy rainfall over Congo Brazzaville, DRC, Southern Tanzania, Zambia, Burundi, Rwanda, Kenya, Uganda, Gabon, Equatorial Guinea, Cameroon, Ivory Coast, Ghana, Nigeria, Mozambique, Angola and Madagascar.

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

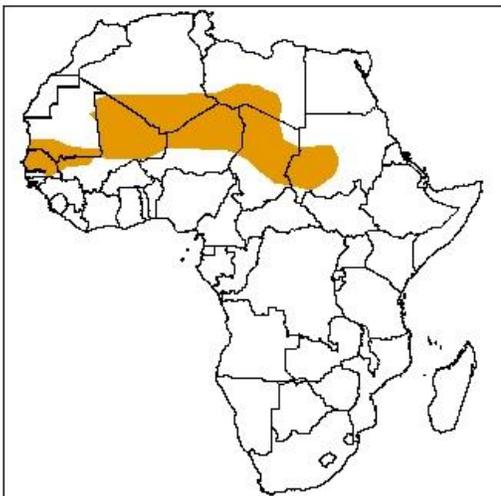
Day 1 Dust forecast
February 21, 2015



Day 2 Dust forecast
February 22, 2015



Day 3 Dust forecast
February 23, 2014



Highlights

There is an increased chance for moderate to high dust concentration over some parts of the Sahel, and North Africa countries, with highest dust concentration expected over some parts of Senegal, Chad, Mauritania, Egypt, the Sudan, Western Sahara, Mali, Senegal, Burkina Faso and Niger.

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of February 21, 2015

The Azores high pressure system over the Northeast Atlantic Ocean is expected to intensify from a central pressure value of 1034hpa in 24 hours to a central pressure value of 1040hpa during the forecast period, according to the GFS model.

The Arabian High Pressure system is expected to weaken from a central pressure value of 1023hpa in 24 hours to 1019hpa during the forecast period, according to the GFS model.

The central pressure value of the Mascarene high pressure system over the southwestern Indian Ocean is expected to intensify from 1027hpa in 24 hours to 1028hpa in 96 hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to weaken from a central pressure value of 1029hpa in 24 hours to a central pressure value of 1024hpa in 120 hours, according to the GFS model.

At 925Hpa level, dry northeasterly to easterly wind (>20kts) is expected to prevail across much of the Sahel countries through 24 to 72 hours, and the intensity of the wind tends to weaken across the Northcentral and Northeastern regions of Africa, while remaining moderately strong across Northwestern Africa towards end of the forecast period.

At 850Hpa level, northeasterly wind is expected to prevail across Central and East African countries during the forecast period. Wind convergences are expected to remain active in Zambia, Malawi, Mozambique, Madagascar, CAR, Uganda, Tanzania, Burundi, Rwanda and Angola during the forecast period. Zonally oriented wind convergence is expected to prevail in the region.

At 700hpa level, a trough associated with mid-latitude frontal system is expected to prevail across North west Africa extending into the Sahel regions of west Africa. A trough is expected also between North West Angola and Mozambique. Divergence over

Southern Africa, north easterly wind flow over east and central Africa is expected to prevail during the forecast period, according to the GFS model.

At 500Hpa, a trough associated with a mid-latitude frontal system is expected to prevail across eastern Mediterranean Sea. Divergence over West Africa, Greater Horn of Africa and Southern African countries. Easterlies over east and central Africa will prevail in the region during the forecast period, according to the GFS model.

In the next five days, lower-level wind convergence in the region between Angola and Mozambique is expected to enhance rainfall in these regions. There is an increased chance for heavy rainfall over Congo Brazzaville, DRC, Southern Tanzania, Zambia, Burundi, Rwanda, Kenya, Uganda, Gabon, Equatorial Guinea, Cameroon, Ivory Coast, Ghana Nigeria, Mozambique, Angola and Madagascar.

2.0. Previous and Current Day Weather Discussion over Africa

(February 19, 2015 – February 20, 2015)

2.1. Weather assessment for the previous day (February 19, 2015)

Intense convective deep clouds were observed across Nigeria, Cameroon, C.A.R. Gabon, DRC, Angola, Zambia, Malawi, Zambia, Mozambique, Kenya and Madagascar.

2.2. Weather assessment for the current day (February 20, 2015)

Intense convective deep clouds are observed over Congo Brazzaville, C.A.R., DRC, Angola, Zambia, Malawi, Mozambique, some parts of Ghana, Uganda, Rwanda, Burundi, Ivory Coast, Ghana Zimbabwe, Tanzania, Kenya and some parts of Madagascar.

