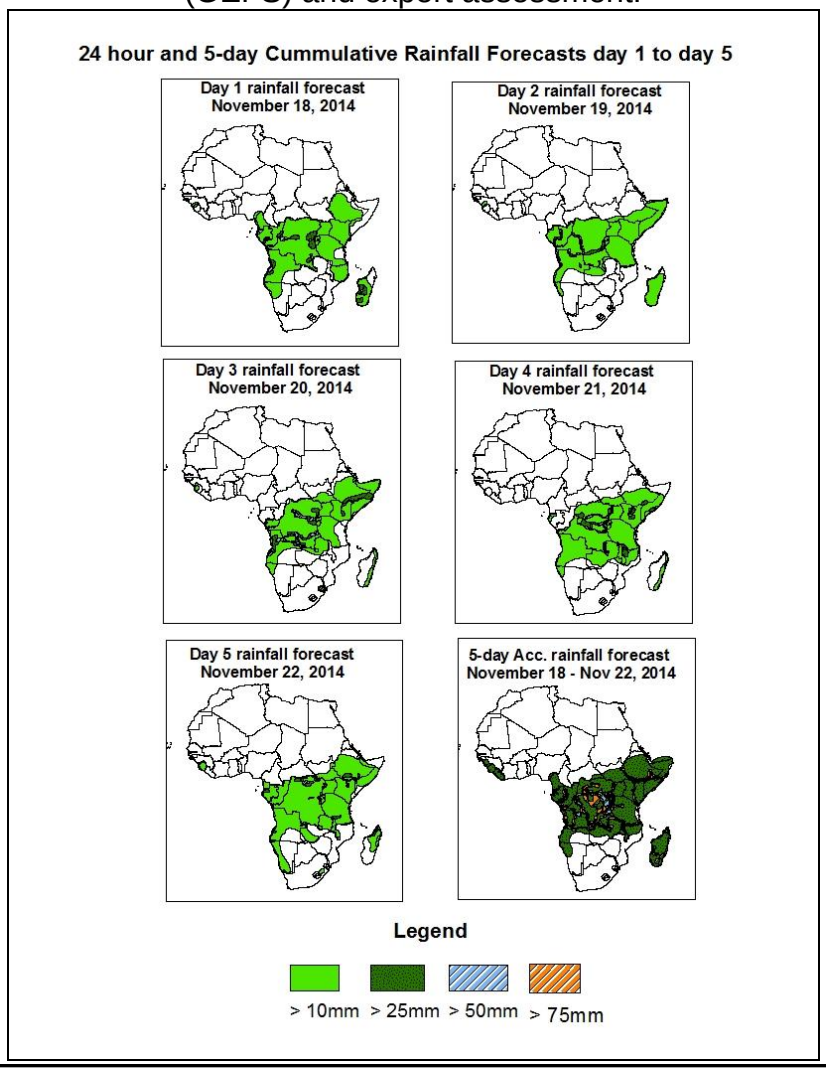
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of November 18 – 06Z of November 22, 2014. (Issued at 1800Z of November 17, 2014)

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 over Gabon, Congo-Brazzaville and the neighboring areas, seasonal wind convergences over the Lake Victoria region, southern Ethiopia and Angola are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Gabon, Congo-Brazzaville, Equatorial Guinea, Angola, DRC, Zimbabwe, the Lake Victoria region, and local areas in southern Ethiopia, southern Somalia and central Kenya.

Atmospheric Dust Forecasts, day 1 to day 3,

Moderate Dust Concentration (MDC) and High Dust Concentration (HDC)

Day 1 Dust forecast
November 18, 2014

Day 2 Dust forecast
November 19, 2014

Day 3 Dust forecast
November 20, 2014

Highlights

There is an increased chance for moderate to high dust concentration over southern Ageria, eastern Sudan, northern Mali, Niger and Chad.

Legend

MDC, Vis. < 5km

HDC, Vis. < 1km

1.2. Model Discussion: Valid from 00Z of November 17, 2014

The Azores high pressure system over the Northeast Atlantic Ocean is expected to weaken with its central pressure value decreasing from 1032hpa to 1027hpa, through 24 to 96 hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to weaken gradually with its central pressure value decreasing from 1034hpa to 1020hpa, through 24 to 120 hours, according to the GFS model.

The Mascarene high pressure system over the southwestern Indian Ocean is expected to weaken with its central pressure value decreasing from 1027hpa to 1022hpa, through 24 to 72 hours, according to the GFS model.

At 925Hpa level, dry northeasterly to easterly wind (>25kts) is expected to prevail across portions of Mauritania, Morocco, Western Sahara, Mali, Chad, Niger and parts of Sudan during the forecast period.

At 850Hpa level, seasonal wind convergences are expected to remain active across Lake Victoria region, southern Ethiopia, Gabon, Congo, DRC, Angola and portions of Zambia, Botswana and northern Namibia.

At 500hpa level, a trough associated with mid-latitude frontal system is expected to propagate across southern Africa through 24 to 96 hours, whereas a trough associated with mid-latitude frontal system is expected to prevail over Northeast Africa.

In the next five days, lower-level wind convergence over Gabon, Congo-Brazzaville and the neighboring areas, seasonal wind convergences over the Lake Victoria region, southern Ethiopia and Angola are expected to enhance rainfall in their respective regions. Thus, there is an increased chance for moderate to heavy rainfall over Gabon, Congo-Brazzaville, Equatorial Guinea, Angola, DRC, Zimbabwe, the Lake Victoria region, and local areas in southern Ethiopia, southern Somalia and central Kenya.

2.0. Previous and Current Day Weather Discussion over Africa

(November 16, 2014 – November 17, 2014)

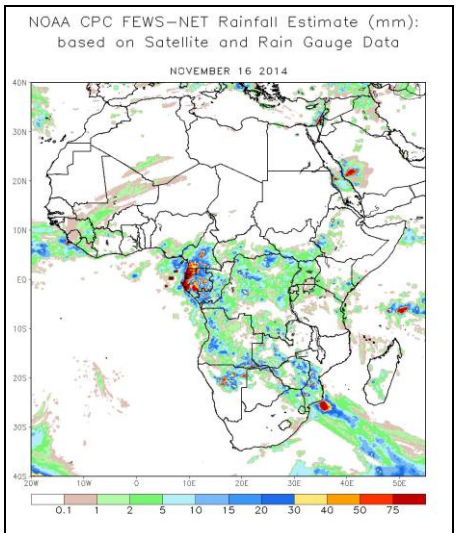
2.1. Weather assessment for the previous day (November 16, 2014)

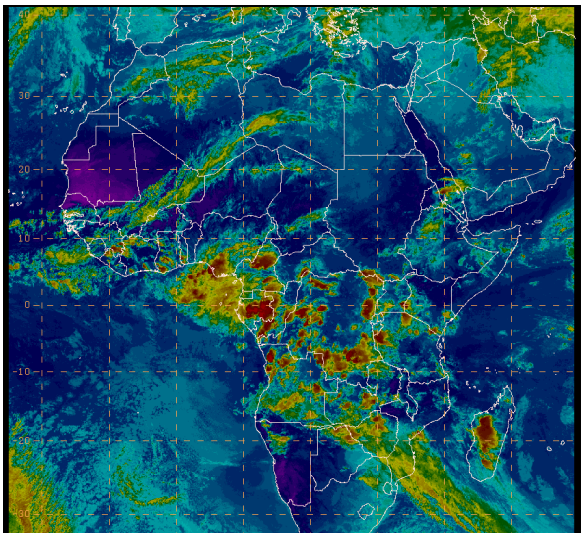
During the previous day, moderate to heavy rainfall was observed over Gabon, Angola, DRC, Liberia, Sierra Leone, Congo-Brazzaville, Uganda, Burundi and Rwanda, portions of Botswana, Cameroon, Zimbabwe, CAR, Mozambique, Guinea-Conakry, Nigeria, South Sudan, local areas in Ivory Coast, Ghana, Zambia, Tanzania, Ethiopia, Kenya, South Africa and Madagascar, northern Namibia.

2.2. Weather assessment for the current day (November 17, 2014)

Intense clouds are observed over portions of Gabon and Madagascar, local areas in DRC, Cameroon, Ivory Coast, Ghana, Togo, Congo-Brazzaville, Uganda, Angola, Zambia, Tanzania and Zimbabwe, southern Guinea-Conakry, Nigeria and Burundi, northern Botswana.

IR Satellite Image (valid 1722 Z of November 17, 2014)





Previous day rainfall condition over Africa (top Left) based on the NCEP CPCE/RFE and current day cloud cover (top right) based on IR Satellite image

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