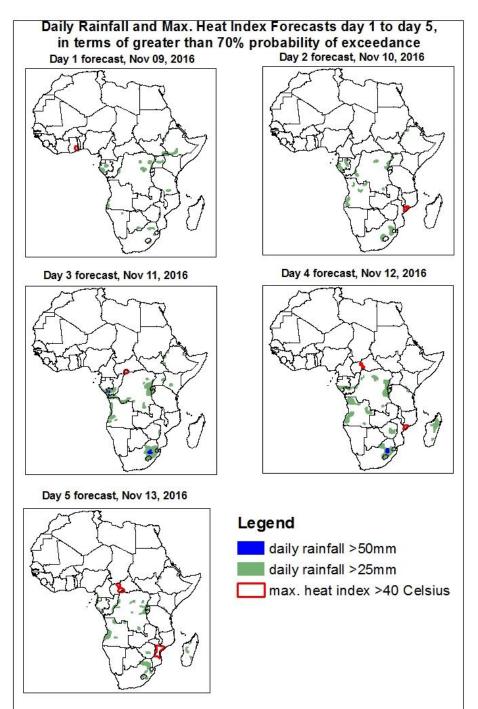
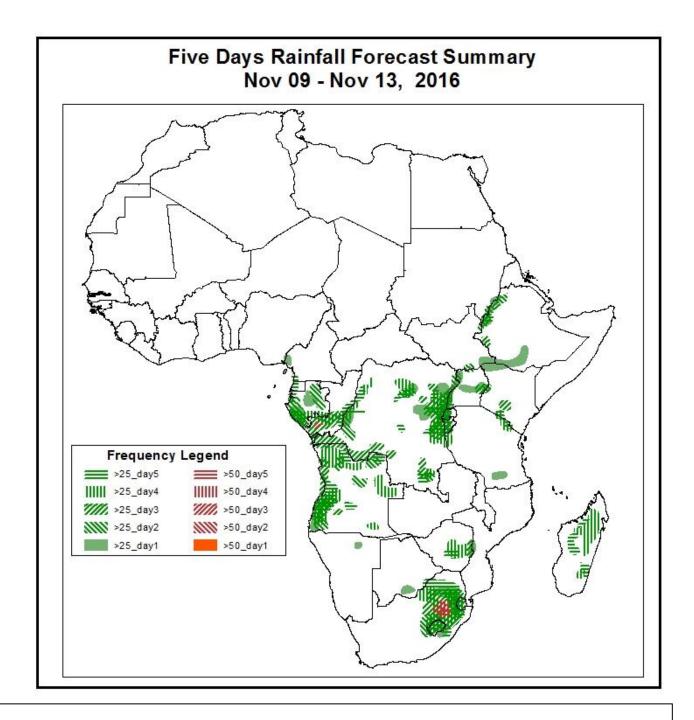
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

- 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Nov 08, 2016)
- 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Nov 09-Nov 13, 2016)

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.

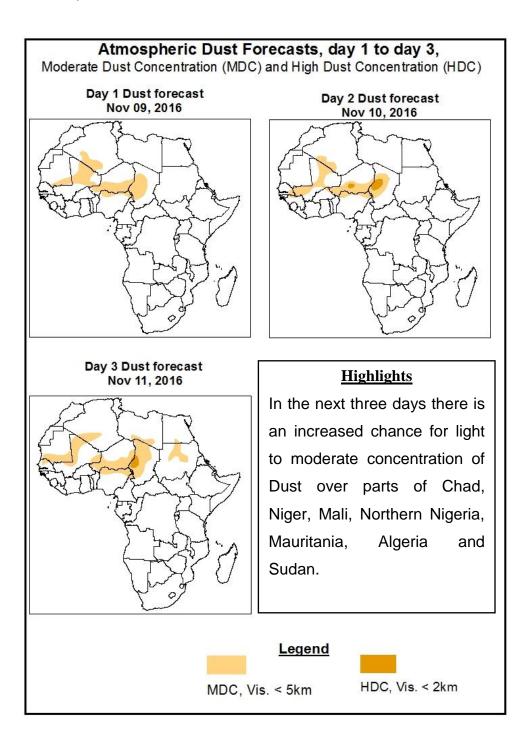




<u>Highlights</u>

In the next five days, lower level wind convergences across Gabon, Congo-Brazzaville, Angola, eastern DRC, and eastward propagating frontal system across South Africa are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portion of Swaziland and Lesotho, local area of Gabon, Congo, Angola, DRC, Zimbabwe, South Africa, Madagascar, and local areas in Ethiopia and Kenya.

1.2. Atmospheric Dust Concentration Forecasts (valid: Nov 09– Nov 13, 2016) 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: Nov 09–Nov 13, 2016

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken, with its value of the central pressure decreasing from 1031hPa to 1030hPa in the next 96 hours, the system is expected to intensify to 1031hPa during the remaining forecast period.

The St. Helena High Pressure system on the Southeast of the Atlantic Ocean is expected to intensify, with its value of the central pressure increasing from 1030hPa to 1033hPa during the forecast period.

The Mascarene High Pressure system over the Southeast Atlantic Ocean is expected to weaken, with its value of the central pressure decreasing from 1024hPa to 1022hPa in the next 72 hours, the system is expected to intensify to 1029hPa during the remaining forecast period.

At 925hPa, strong dry Northerly to Easterly winds may lead to light to moderate dust concentration over parts of Chad, Niger, Mali, Northern Nigeria, Algeria, Mauritania and Sudan.

At 850hPa level, lower level wind convergences are expected to prevail in Central African Countries, DRC, Angola, Zambia, Botswana, South Africa and South Sudan.

In the next five days, lower level wind convergences across Gabon, Congo-Brazzaville, Angola, eastern DRC, and eastward propagating frontal system across South Africa are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portion of Swaziland and Lesotho, local area of Gabon, Congo, Angola, DRC, Zimbabwe, South Africa, Madagascar, and local areas in Ethiopia and Kenya.

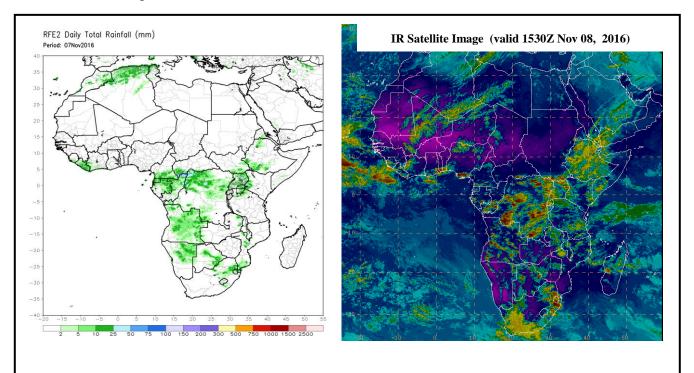
2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (Nov 07, 2016)

Moderate to locally heavy rainfall was observed over portion of Congo, DRC and Uganda.

2.2. Weather assessment for the current day (Nov 08, 2016)

Intense convective clouds are observed over portions of Ghana, Togo, Nigeria, Congo, DRC, South Sudan, Uganda, Burundi, Swaziland and South Africa.



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

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